TENDER DOCUMENT GOODS AND SERVICES	CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT	

TENDER NO: 202S/2021/22

SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT UNTIL 30 JUNE 2024 (THREE FINANCIAL YEARS)

VOLUME 1: TENDERING PROCEDURES

CLOSING DATE: **22 February 2022**

CLOSING TIME: **10:00 a.m.**

TENDER BOX NUMBER: **126**

TENDER FEE: **R 200.00**   Non-refundable tender fee payable to City of Cape Town (CCT) for a hard copy of the tender document. This fee is not applicable to website downloads of the tender document.

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

TENDER SERIAL NO.:	
SIGNATURES OF CITY OFFICIALS AT TENDER OPENING	
1	
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VOLUME 1: THE TENDER
(1) GENERAL TENDER INFORMATION

TENDER ADVERTISED	:	**21 January 2022**
SITE VISIT/CLARIFICATION MEETING	:	**Non Compulsory but strongly recommended**
		Clarification Meeting will be held
		07 February 2022 at 10h00 – 12h00
VENUE FOR SITE VISIT/CLARIFICATION MEETING	:	**https://meet.capetown.gov.za/kobus.jansevanrensburg/TH3L3WMY**

Skype Online Meeting through the link above:

If Skype or Skype for Business application is already installed on your device, connect to the conference through the link provided above by insert the full link information into the address field of your internet web browser.

If the Skype application is not already installed, you can either download the Skype web app application beforehand or follow prompts that appear when accessing the link provided. Once installed open a new tab or window in / on your internet browser and use the link above to join the meeting. Please identify yourselves and your organization when joining the Skype meeting.

TENDER BOX & ADDRESS	:	**Tender Box as per front cover** at the **Tender &Quotation Boxes Office**, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.
	:	The Tender Document (which includes the Form of Offer and Acceptance) completed in all respects, plus any additional supporting documents required, must be submitted in a sealed envelope with the name and address of the tenderer, the endorsement "**TENDER NO. 202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS**", the tender box No. and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time.

If the tender offer is too large to fit into the abovementioned box or the box is full, please enquire at the public counter (Tender Distribution Office) for alternative instructions. It remains the tenderer's responsibility to ensure that the tender is placed in either the original box or as alternatively instructed.

CCT TENDER REPRESENTATIVE

[Name: Shaun Terhart

Email: Shaun.Terhart@capetown.gov.za

TENDERS ARE REQUESTED TO ALWAYS REFERENCE THE TENDER NUMBER IN ALL COMMUNICATIONS FOR THIS TENDER

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS 'OR EQUIVALENT"

(2) CONDITIONS OF TENDER

2.1   General

2.1.1   Actions

2.1.1.1 The City of Cape Town (CCT) and each tenderer submitting a tender offer shall comply with these Conditions of Tender. In their dealings with each other, they shall discharge their duties and obligations as set out in these Conditions of Tender, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations.

The parties agree that this tender, its evaluation and acceptance and any resulting contract shall also be subject to the Employer's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised, save that if the Employer adopts a new SCM Policy which contemplates that any clause therein would apply to the contract emanating from this tender, such clause shall also be applicable to that contract. Please refer to this document contained on the Employer's website.

Abuse of the supply chain management system is not permitted and may result in the tender being rejected, cancellation of the contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

2.1.1.2 The CCT, the tenderer and their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the CCT shall declare any conflict of interest to the CCT at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

2.1.1.3 The CCT shall not seek, and a tenderer shall not submit a tender, without having a firm intention and capacity to proceed with the contract.

2.1.2   Interpretation

2.1.2.1 The additional requirements contained in the returnable documents are part of these Conditions of Tender.

2.1.2.2 These Conditions of Tender and returnable schedules which are required for tender evaluation purposes, shall form part of the contract arising from the invitation to tender.

2.1.3   Communication during tender process

Verbal or any other form of communication, from the CCT, its employees, agents or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the CCT, <u>unless communicated by the CCT in writing to suppliers by its Director: Supply Chain Management or his nominee</u>.

2.1.4   The CCT's right to accept or reject any tender offer

2.1.4.1 The CCT may accept or reject any tender offer and may cancel the tender process or reject all tender offers at any time before the formation of a contract. The CCT may, prior to the award of the tender, cancel a tender if:

    (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or

    (b) funds are no longer available to cover the total envisaged expenditure; or

    (c) no acceptable tenders are received;

    (d) there is a material irregularity in the tender process; or

    (e) the parties are unable to negotiate market related pricing.

The CCT shall not accept or incur any liability to a tenderer for such cancellation or rejection, but will give written reasons for such action upon receiving a written request to do so.

2.1.5   Procurement procedures

2.1.5.1 General

Unless otherwise stated in the tender conditions, a contract will be concluded with the tenderer who scores the highest number of tender adjudication points.

The City wishes to award the full tender to a single preferred provider. Tenders must choose from one of two options which meets the City's technical specifications and functional requirements. Option 1 requires the support and maintenance services for the existing Facilities Management Enterprise System (FMES). Option 2 requires the supply, installation, configuration and integration of a new FMES as well as ongoing support and maintenance services for the new FMES. In section (5) Pricing Schedule the response to Option 1 must be made through completing Schedule A and Schedule C and the response to Option 2 must be made through completing Schedule B and Schedule C. Note Schedule C applies to both options and likewise throughout the tender are clear indications in terms of responses required which apply to either Option 1 or 2 and Tenders are reminded to ensure all required responses for the selected Option are completed in the final tender response. Failure to complete Option 1, both Schedule A and Schedule C or Option 2, both Schedule B and Schedule C, will render the bid non-responsive.

Tenderers are requested to indicate in the checkbox provided in the (5) Price Schedule which Option they are responding to in their tender response. Tenderers should choose only option 1 or option 2.

The contract period shall be for a period of three financial years, from the commencement date of the contract. The City's financial year begins on the 1st July of the calendar year and ends on 30th June of the following calendar year. This means that the first year of the award ("Year 1") may be less than 12 calendar months. "Year 1" therefore means the period of time from the date of award until the end of the next month of June.; "Year 2" means the next twelve-month period coinciding with the next full financial year; and so on. "Year 3" will end on 30 June of the third financial year of the contract term.

2.1.5.2 Proposal procedure using the two stage-system

A two-stage system will not be followed.

2.1.5.3 Nomination of Alternative Bidder

Alternative Bidder means a bidder, identified at the time of awarding a bid, that will be considered for award should the contract be terminated for any reason whatsoever. In the event that a contract is terminated during the execution thereof, the CCT may consider the award of the contract, or non-award, to the alternative bidder in terms of the procedures included its SCM Policy.

2.1.6   Objections, complaints, queries and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

2.1.6.1 Disputes, objections, complaints and queries
In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

a)   Persons aggrieved by decisions or actions taken by the City of Cape Town in the implementation of its supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

2.1.6.2 Appeals

a)   In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the City, may appeal against that decision by giving written notice of the appeal and reasons to the City Manager within 21 days of the date of the notification of the decision.

b)   An appeal must contain the following:
  i.   Must be in writing
  ii.   It must set out the reasons for the appeal
  iii.   It must state in which way the Appellant's rights were affected by the decision;
  iv.   It must state the remedy sought; and
  v.   It must be accompanied with a copy of the notification advising the person of the decision

c)   The relevant City appeal authority must consider the consider the appeal and **may confirm, vary or revoke** the decision that has been appealed, but no such revocation of a decision may detract from any rights that may have accrued as a result of the decision.

2.1.6.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act (PAJA) and Promotion of Access to Information Act (PAIA).

2.1.6.4 All requests referring to sub clauses 2.1.6.1 and 2.1.6.2 must be submitted in writing to:

The City Manager - C/o the Manager: Legal Compliance Unit, Legal Services Department, Corporate

Services Directorate

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via fax at: 021 400 5963 or 021 400 5830

Via email at: MSA. Appeals@capetown.gov.za

2.1.6.5 All requests referring to clause 2.1.6.3 ns must be submitted in writing to:

The City Manager - C/o the Manager: Access to Information Unit, Corporate Services Directorate

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via fax at: 086 202 9982

Via email at: Access2info.Act@capetown.gov.za

2.1.7 City of Cape Town Supplier Database Registration

Tenderers are required to be registered on the CCT Supplier Database as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the City of Cape Town's Supplier Database may collect registration forms from the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5). Registration forms and related information are also available on the City of Cape Town's website www.capetown.gov.za (follow the Supply Chain Management link to Supplier registration).

It is each tenderer's responsibility to keep all the information on the CCT Supplier Database updated.

2.1.8 National Treasury Web Based Central Supplier Database (CSD) Registration
Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address **https://secure.csd.gov.za**.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

2.2 Tenderer's obligations

2.2.1 Eligibility Criteria

2.2.1.1 Tenderers are obligated to submit a tender offer that complies in all aspects to the conditions as detailed in this tender document. Only those tenders that comply in all aspects with the tender conditions, specifications, pricing instructions and contract conditions will be declared to be responsive.

2.2.1.1.1 Submit a tender offer
Only those tender submissions from which it can be established that a clear, irrevocable and unambiguous offer has been made to CCT, by whom the offer has been made and what the offer constitutes, will be declared responsive.

2.2.1.1.2 Compliance with requirements of CCT SCM Policy and procedures
Only those tenders that are compliant with the requirements below will be declared responsive:
  a) A completed **Details of Tenderer** to be provided (applicable schedule to be completed);
  b) A completed **Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums** to be provided authorising the tender to be made and the signatory to sign the tender on the partnership /joint venture/consortium's (applicable schedule to be completed);
  c) A copy of the partnership / joint venture / consortium agreement to be provided.
  d) A completed **Declaration of Interest – State Employees** to be provided and which does not indicate any non-compliance with the legal requirements relating to state employees (applicable schedule to be completed);
  e) A completed **Declaration – Conflict of Interest and Declaration of Bidders' past Supply Chain Management Practices** to be provided and which does not indicate any conflict or past practises that renders the tender non-responsive based on the conditions contained thereon (applicable schedules to be completed);
  f) A completed **Certificate of Independent Bid Determination** to be provided and which does not indicate any non-compliance with the requirements of the schedule (applicable schedule to be completed);
  g) The tenderer (including any of its directors or members), has not been restricted in terms of abuse of the Supply Chain Management Policy,
  h) The tenderer's tax matters with SARS are in order, or the tenderer is a foreign supplier that is not required to be registered for tax compliance with SARS;
  i) The tenderer is not an advisor or consultant contracted with the CCT whose prior or current obligations creates any conflict of interest or unfair advantage,
  j) The tenderer is not a person, advisor, corporate entity or a director of such corporate entity, involved with the bid specification committee;
  k) A completed **Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town** to be provided and which does not indicate any details that renders the tender non-responsive based on the conditions contained thereon (applicable schedules to be completed);
  l) The tenderer (including any of its directors or members), has not been found guilty of contravening the Competition Act 89 of 1998, as amended from time to time;
  m) The tenderer (including any of its directors or members), has not been found guilty on any other basis listed in the Supply Chain Management Policy.

2.2.1.1.3 Non Compulsory clarification meeting

Tenderers are recommended to attend a non-compulsory clarification skype meeting at which they may familiarise themselves with aspects of the proposed work, services or supply and pose questions.

Details of the meeting(s) are stated in section (1) **GENERAL TENDER INFORMATION**.

2.2.1.1.4 Mandatory requirements

Tenderers must provide proof of the relationship with the specified Independent Software Vendor (ISV) or Original Equipment Manufacturer OEM Product supplier and that the Tenderer is authorised or certified to deliver and support for the identified OEM Product. Evidence of the relationship and/or authority to provide OEM Product as well as software license and support services from the specified ISV or OEM Product supplier must be submitted together with the tender response in Schedule 15: Information to be Provided with The Tender as indicated in the relevant sub-schedule of Schedule 15

2.2.1.1.5   Minimum score for functionality

Only those tenders submitted by tenderers who achieve the minimum score for functionality as stated below will be declared responsive.

The description of the functionality criteria and the maximum possible score for each is shown in the table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

2.2.1.1.5.1   Minimum Score for Functionality (OPTION 1 & 2)

Only those tenders submitted by tenderers who achieve the minimum score for functionality as stated below will be declared responsive.

The description of the functionality criteria appears in **Error! Reference source not found.** and the maximum possible score for each functional requirement is shown in the table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

An Enterprise client is defined as a formal business using a PSIM or FMES system and where the PSIM/FMES system has a minimum of 5 000 connected devices.

SCORING TABLE FOR OPTION 1 & 2 FUNCTIONAL REQUIREMENTS – TO BE COMPLETED BY TENDERERS SELECTING TO RESPOND TO OPTION 1 or OPTION 2			
Item	**Evaluation Criteria**	**Applicable values/points**	**Maximum Points**
2.2.1.1.5.1.1	**Technical Support** **Q. Please state the operating hours of your call centre/helpdesk (e.g. business hours only, or a 24/7/365) centre/helpdesk** Please describe the call centre and/or helpdesk facilities in detail. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• No response – 0 points • Business Hours Weekday, No Weekend - 2 points • Business Hours weekday, limited business-hours weekend – 4 points • Business Hours, 7 days – 6 points • 12hours/7 days – 8 points • 24-hour/ 7days/365 – 10 points	10 points
2.2.1.1.5.1.2	**Staff: Management** The City will take the following into consideration: **Management Staff**: The years of experience in general management in the PSIM or FMES environment **Q. Please state the number of Senior Managers with at-least 5 years of experience in the PSIM or FMES environment. Provide names, experience and qualifications**	• No Senior Managers with at least 5 years of experience in PSIM or FMES environment – 0 points • 1 Senior Manager with at least 5 years of experience in PSIM or FMES environment – 2 points • 2 Senior Managers with at least 5 years of experience in PSIM or FMES	10 points

	SCORING TABLE FOR OPTION 1 & 2 FUNCTIONAL REQUIREMENTS –		
	TO BE COMPLETED BY TENDERERS SELECTING TO RESPOND TO OPTION 1 or OPTION 2		
Item	**Evaluation Criteria**	**Applicable values/points**	**Maximum Points**
	Please provide a high-level summary of relevant skills, and the names and details of particular key individuals. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	environment – 4 points • 3 Senior Managers with at least 5 years of experience in PSIM or FMES environment – 6 points • 4 Senior Managers with at least 5 years of experience in PSIM or FMES environment – 8 points • 5 or more Senior Managers with at least 5 years of experience in PSIM or FMES environment – 10 points	
2.2.1.1.5.1.3	**Staff: Engineering/Technical and Support** The City will take the following into consideration: **Technical Staff**: Qualification in Engineering/Technical discipline at NQF level 6 or higher for Engineering/Technical staff and more than 3 years of experience in engineering / technical management in the PSIM or FMES environment **Q. Please state the number of Engineering / Technical staff in Engineering/Technical discipline at NQF level 6 or higher that have more than 3 years of experience in the PSIM or FMES environment** Please provide a high-level summary of relevant skills, and the names and details of particular key individuals. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• No Engineer/Technical staff each with experience of more than 3 years and appropriate qualification in the PSIM or FMES environment – 0 points • 1 Engineers/ Technical staff each with experience of more than 3 years and appropriate qualification in the PSIM or FMES environment – 2 points • 2 Engineers/ Technical staff each with experience of more than 3 years and appropriate qualification in the PSIM or FMES environment – 4 points • 3 Engineers/ Technical staff each with experience of more than 3 years and appropriate qualification in the PSIM or FMES environment – 6 points	10 points

Item	Evaluation Criteria	Applicable values/points	Maximum Points
	SCORING TABLE FOR OPTION 1 & 2 FUNCTIONAL REQUIREMENTS – **TO BE COMPLETED BY TENDERERS SELECTING TO RESPOND TO OPTION 1 or OPTION 2**		
		• 4 Engineers/ Technical staff each with an average experience of more than 3 years and appropriate qualification in the PSIM or FMES environment – 8 points • 5 or more Engineers/ Technical staff each have more than 3 years' experience and appropriate qualification in PSIM or FMES environment – 10 points	
2.2.1.1.5.1.4	**Track record - PSIM or FMES Experience with Enterprise clients.** These functionality criteria refer to Enterprise clients. An Enterprise client is defined as a formal business using a PSIM or FMES system and where the PSIM/FMES system has a minimum of 5 000 connected devices **Q. Has your company installed, supported and managed PSIM or FMES for Enterprise clients?** Provide details of all similar projects conducted for enterprise clients in the last three years. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• 0 Enterprise Clients – 0 points • 1 Enterprise Client - 3 points • 2 Enterprise Clients – 6 points • 3 Enterprise Clients – 9 points • 4 Enterprise Clients – 12 points • > 4 Enterprise Clients – 15 points	15 Points
2.2.1.1.5.1.5	**Track record - PSIM or FMES Experience to driver interfaces for subsystems.** **Q. Has your company developed and installed PSIM or FMES driver interfaces for subsystems (e.g. CCTV or alarm systems)?** Provide details of all projects conducted for enterprise clients in the	• 0 Enterprise Clients – 0 points • 1 Enterprise Client - 2 points • 2 Enterprise Clients – 4 points • 3 Enterprise Clients – 6 points	10 Points

	SCORING TABLE FOR OPTION 1 & 2 FUNCTIONAL REQUIREMENTS –		
	TO BE COMPLETED BY TENDERERS SELECTING TO RESPOND TO OPTION 1 or OPTION 2		
Item	**Evaluation Criteria**	**Applicable values/points**	**Maximum Points**
	last three years, where PSIM/FMES driver development and installation occurred. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• 4 Enterprise Clients – 8 points • > 4 Enterprise Clients – 10 points	
2.2.1.1.5.1.6	**PSIM or FMES Systems Interface Experience** **Q. Has your company developed and installed PSIM or FMES driver interfaces for SAP, SharePoint or Active Directory or equivalent?** Provide details of all similar projects conducted for enterprise clients in the last three years. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• 0 Enterprise Clients – 0 points • 1 Enterprise Client - 2 points • 2 Enterprise Clients – 4 points • 3 Enterprise Clients – 6 points • 4 Enterprise Clients – 8 points • > 4 Enterprise Clients – 10 points	10 Points
2.2.1.1.5.1.7	**Network Architecture Experience** **Q. Has your company developed centralised data architectures, managed and implemented data migration and data system consolidation projects for enterprise clients?** Provide details of all similar projects conducted for enterprise clients in the last three years. Please ensure that all additional information and documentation is attached with the Tender Response as indicated in the relevant sub-schedule of Schedule 15.	• 0 Enterprise Clients – 0 points • 1 Enterprise Client - 3 points • 2 Enterprise Clients – 6 points • 3 Enterprise Clients – 9 points • 4 Enterprise Clients – 12points • > 4 Enterprise Clients – 15points	15 Points
2.2.1.1.5.1.8	**Experience in managing PSIM and FMES data environments** **Q. Has your company supported and maintained a full PSIM or FMES data management system, including security for the applications and the networks,**	• 0 Enterprise Clients – 0 points • 1 Enterprise Client - 4 points • 2 Enterprise Clients – 8 points	20 Points

Item	Evaluation Criteria	Applicable values/points	Maximum Points
	database management, data analytics, data visualisation and dashboards? Provide details of all similar projects conducted for enterprise clients in the last three years. Please ensure that all additional information and documentation is attached with the Tender Response in schedule 15 and is accurately referenced.	• 3 Enterprise Clients – 12 points • 4 Enterprise Clients – 16points • > 4 Enterprise Clients – 20 points	
	Total Achievable Points for Functional Questions		**100 points**

The minimum qualifying score for functionality is a total of **60 points** out of a maximum of **100 achievable points**.

No tender will be regarded as responsive if it fails to achieve the minimum qualifying score for functionality.

Where the entity tendering is a Joint Venture the tender must be accompanied by a statement describing exactly what aspects of the work will be undertaken by each party to the joint venture.

Tenderers shall ensure that all relevant information has been submitted with the tender offer in the prescribed format to ensure optimal scoring of functionality points for each Evaluation Criteria. Failure to provide all information **IN THIS TENDER SUBMISSION** could result in the tenderer not being able to achieve the specified minimum scoring.

2.2.1.1.5 Local production and content

NOT APPLICABLE TO THIS TENDER

2.2.1.1.6 Pre-qualification criteria for preferential procurement

NOT APPLICABLE TO THIS TENDER

2.2.1.1.7 Provision of samples

NOT APPLICABLE TO THIS TENDER

2.2.2 Cost of tendering

The CCT will not be liable for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

2.2.3 Check documents

The documents issued by the CCT for the purpose of a tender offer are listed in the index of this tender document.

Before submission of any tender, the tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing is indistinct, or if the Price Schedule contains any obvious errors, the tenderer must apply to the CCT at once to have the same rectified.

2.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the CCT only for the purpose of preparing and submitting a tender offer in response to the invitation.

2.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, Conditions of Contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

2.2.6 Acknowledge and comply with notices

Acknowledge receipt of notices to the tender documents, which the CCT may issue, fully comply with all instructions issued in the notices, and if necessary, apply for an extension of the closing time stated on the front page of the tender document, in order to take the notices into account. Notwithstanding any requests for confirmation of receipt of notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile or registered post.

2.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and pose questions. Details of the meeting(s) are stated in the General Tender Information.

Tenderers should be represented at the site visit/clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

2.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the CCT at least one week before the closing time stated in the General Tender Information, where possible.

2.2.9 Pricing the tender offer

2.2.9.1 Comply with all pricing instructions as stated on the Price Schedule.

2.2.10 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the CCT in writing, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

2.2.11 Alternative tender offers

2.2.11.1 Unless otherwise stated in the tender conditions submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted.

If a tenderer wishes to submit an alternative tender offer, he shall do so as a separate offer on a complete set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

Only the alternative of the highest ranked acceptable main tender offer (that is, submitted by the same tenderer) will be considered, and if appropriate, recommended for award.

Alternative tender offers of any but the highest ranked main tender offer will not be considered.

An alternative of the highest ranked acceptable main tender offer that is priced higher than the main tender offer may be recommended for award, provided that the ranking of the alternative tender offer is higher than the ranking of the next ranked acceptable main tender offer.

The CCT will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the tenderer warrants that the alternative offer complies in all respects with the CCT's standards and requirements.

2.2.11.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender conditions or criteria otherwise acceptable to the CCT.

2.2.12 Submitting a tender offer

2.2.12.1 Submit one tender offer only on the original tender documents as issued by the CCT, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract conditions and described in the specifications. Only those tenders submitted on the tender documents as issued by the CCT together with all Returnable Schedules as contained in Volume 2 of the tender document, duly completed and signed will be declared responsive.

2.2.12.2 Return the entire tender document, volumes 1,2 and 3 and all parts 1 to 14 within these volumes, to the CCT after completing it in its entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

2.2.12.3 Submit all parts of the tender offer communicated on paper as an original with an English translation for any part of the tender submission not made in English.

1 (One) copy(ies) of the following elements of the bid submission must be submitted separately bound from the full tender document to be returned in the same envelope where possible:

Part	Heading
5	Pricing Schedule
6	Supporting Schedules
	All other attachments submitted by bidder

2.2.12.4 Sign the original tender offer where required in terms of the tender conditions. The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture or any other document signed by all parties, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner.

2.2.12.5 Where a two-envelope system is required in terms of the tender conditions, place and seal the returnable documents listed in the tender conditions in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the CCT's address and identification details stated in the General Tender Information, as well as the tenderer's name and contact address.

2.2.12.6 Seal the original tender offer and copy packages together in an outer package that states on the outside only the CCT's address and identification details as stated in the General Tender Information. . If it is not possible to submit the original tender and the required copies (see 2.2.12.3) in a single envelope, then the tenderer must seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY" in addition to the aforementioned tender submission details.

2.2.12.7 Accept that the CCT shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

2.2.12.8 Accept that tender offers submitted by facsimile or e-mail will be rejected by the CCT, unless stated otherwise in the tender conditions.

2.2.12.9 By signing the offer part of the Form of Offer in section **(4) Form of Offer and Acceptance**   the tenderer warrants that all information provided in the tender submission is true and correct.

2.2.12.10 Tenders must be properly received and deposited in the designated tender box (as detailed on the front page of this tender document) on or before the closing date and before the closing time, in the relevant tender box at the Tender & Quotation Boxes Office situated on the 2nd floor, Concourse Level, Civic Centre, 12 Hertzog Boulevard, Cape Town. If the tender submission is too large to fit in the allocated box, please enquire at the public counter for assistance.

2.2.12.12 The tenderer must record and reference all information submitted contained in other documents for example cover letters, brochures, catalogues, etc. in the returnable schedule **13** titled **List of Other Documents Attached by Tenderer**.

2.2.13   Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the CCT as non-responsive.

2.2.14   Closing time

2.2.14.1 Ensure that the CCT receives the tender offer at the address specified in the General Tender Information prior to the closing time stated on the front page of the tender document.

2.2.14.2 Accept that, if the CCT extends the closing time stated on the front page of the tender document for any reason, the requirements of these Conditions of Tender apply equally to the extended deadline.

2.2.14.3 Accept that, the CCT shall not consider tenders that are received after the closing date and time for such a tender (late tenders).

2.2.15   Tender offer validity and withdrawal of tenders

2.2.15.1 Warrants that the tender offer(s) remains valid, irrevocable and open for acceptance by the CCT at any time for a period of 120 days after the closing date stated on the front page of the tender document.

2.2.15.2 Notwithstanding the period stated above, bids shall remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the City is notified in writing of anything to the contrary by the bidder. The validity of bids may be further extended by a period of not more than six months subject to mutual agreement and administrative processes and upon approval by the City Manager.

2.2.15.3 A tenderer may request in writing, after the closing date, that the tender offer be withdrawn. Such withdrawal will be permitted or refused at the sole discretion of the CCT after consideration of the reasons for the withdrawal, which shall be fully set out by the tenderer in such written request for withdrawal. Should the tender offer be withdrawn in contravention hereof, the tenderer agrees that:

a)   it shall be liable to the CCT for any additional expense incurred or losses suffered by the CCT in having either to accept another tender or, if new tenders have to be invited, the additional expenses incurred or losses suffered by the invitation of new tenders and the subsequent acceptance of any other tender;

b)   the CCT shall also have the right to recover such additional expenses or losses by set-off against monies which may be due or become due to the tenderer under this or any other tender or contract or against any guarantee or deposit that may have been furnished by the tenderer or on its behalf for the due fulfilment of this or any other tender or contract. Pending the ascertainment of the amount of such additional expenses or losses, the CCT shall be entitled to retain such monies, guarantee or deposit as security for any such expenses or loss.

2.2.16   Clarification of tender offer, or additional information, after submission

Provide clarification of a tender offer, or additional information, in response to a written request to do so from the CCT during the evaluation of tender offers within the time period stated in such request. No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: This clause does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the CCT elect to do so.

Failure, or refusal, to provide such clarification or additional information within the time for submission stated in the CCT's written request may render the tender non-responsive.

2.2.17   Provide other material

2.2.17.1 Provide, on request by the CCT, any other material that has a bearing on the tender offer, the tenderer's commercial position (including joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the CCT for the purpose of the evaluation of the tender. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the CCT's request, the CCT may regard the tender offer as non-responsive.

2.2.17.2 Provide, on written request by the CCT, where the transaction value inclusive of VAT **exceeds R 10 million**:
a)   audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing;
b)   a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
c)   particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
d)   a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

2.2.17.3 Tenderers undertake to fully cooperate with the CCT's external service provider appointed to perform a due diligence review and risk assessment upon receipt of such written instruction from the CCT.

2.2.18 Samples, Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender conditions or specifications.

If the **Specification** requires the tenderer to provide samples, these shall be provided strictly in accordance with the instructions set out in the Specification.

If such samples are not submitted as required in the bid documents or within any further time stipulated by the CCT in writing, then the bid concerned may be declared non-responsive.

The samples provided by all successful bidders will be retained by the CCT for the duration of any subsequent contract. Bidders are to note that samples are requested for testing purposes therefore samples submitted to the CCT may not in all instances be returned in the same state of supply and in other instances may not be returned at all. Unsuccessful bidders will be advised by the Project Manager or dedicated CCT Official to collect their samples, save in the aforementioned instances where the samples would not be returned.

2.2.19 Certificates

The tenderer must provide the CCT with all certificates as stated below:

2.2.19.1 Broad-Based Black Economic Empowerment Status Level Documentation

In order to qualify for preference points, it is the responsibility of the tenderer to submit original or certified documentary proof, either as certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry, to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5) or included with the tender submission.

Consortiums/Joint Ventures will qualify for preference points, provided that the **entity** submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

Tenderers are further referred to the content of the **Preference Schedule** for the full terms and conditions applicable to the awarding of preference points.

The applicable code for this tender is the **Information and Communication Technology (ICT) Charter of 07 November 2016 unless** in possession of a valid sector certificate.

The tenderer shall indicate in Section 4 of the **Preference Schedule** the Level of Contribution in respect of the enterprise status or structure of the tendering entity (the supplier).

2.2.19.2 Evidence of tax compliance

Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant subject to the requirements of clause 2.2.1.1.2.h. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the **Details of Tenderer** pages of the tender submission.

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate.

Before making an award the City must verify the bidder's tax compliance status. Where the recommended bidder is not tax compliant, the bidder should be notified of the non-compliant status and be requested to submit to the City, within 7 working days, written proof from SARS that they have made arrangement to meet their outstanding tax obligations. The proof of tax compliance submitted by the bidder must be verified by the City via CSD or e-Filing. The City should reject a bid submitted by the bidder if such bidder fails to provide proof of tax compliance within the timeframe stated herein.

Only foreign suppliers who have answered "NO" to all the questions contained in the Questionnaire to Bidding Foreign Suppliers section on the **Details of Tenderer** pages of the tender submission, are not required to register for a tax compliance status with SARS.

2.2.20 Compliance with Occupational Health and Safety Act, 85 of 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit **upon written request to do so by the CCT**, a Health and Safety Plan in sufficient detail to demonstrate the necessary competencies and resources to deliver the goods or services all in accordance with the Act, Regulations and Health and Safety Specification.

2.2.21 Claims arising from submission of tender

The tenderer warrants that it has:
a)   inspected the Specifications and read and fully understood the Conditions of Contract.
b)   read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted himself with the nature of the goods or services proposed and generally of all matters which may influence the Contract.
c)   visited the site(s) where delivery of the proposed goods will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.
d)   requested the CCT to clarify the actual requirements of anything in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.
e)   received any notices to the tender documents which have been issued in accordance with the CCT's Supply Chain Management Policy.

The CCT will therefore not be liable for the payment of any extra costs or claims arising from the submission of the tender.

2.3   The CCT's undertakings

2.3.1   Respond to requests from the tenderer

2.3.1.1 Unless otherwise stated in the Tender Conditions, respond to a request for clarification received up to one week (where possible) before the tender closing time stated on the front page of the tender document.

2.3.1.2 The CCT's representative for the purpose of this tender is stated on the General Tender Information page.

2.3.2   Issue Notices

If necessary, issue addenda in writing that may amend or amplify the tender documents to each tenderer during the period from the date the tender documents are available until one week before the tender closing time stated in the Tender Data. The Employer reserves its rights to issue addenda less than one week before the tender closing time in exceptional circumstances If, as a result a tenderer applies for an extension to the closing time stated on the front page of the tender document, the CCT may grant such extension and, shall then notify all tenderers who drew documents.

Notwithstanding any requests for confirmation of receipt of notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile or registered post.

2.3.3 Opening of tender submissions

2.3.3.1 Unless the two-envelope system is to be followed, open tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender conditions.

Tenders will be opened immediately after the closing time for receipt of tenders as stated on the front page of the tender document, or as stated in any Notice extending the closing date and at the closing venue as stated in the General Tender Information.

2.3.3.2 Announce at the meeting held immediately after the opening of tender submissions, at the closing venue as stated in the General Tender Information, the name of each tenderer whose tender offer is opened and, where possible, the prices and the preferences indicated.

2.3.3.3 Make available a record of the details announced at the tender opening meeting on the CCT's website (http://www.capetown.gov.za/en/SupplyChainManagement/Pages/default.aspx.)

2.3.4 Two-envelope system

2.3.4.1 Where stated in the tender conditions that a two-envelope system is to be followed, open only the technical proposal of tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender conditions and announce the name of each tenderer whose technical proposal is opened.

2.3.4.2 Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who have submitted responsive technical proposals of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who have submitted responsive technical proposals in accordance with the requirements as stated in the tender conditions, and announce the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals were non responsive.

2.3.5 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

2.3.6 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

2.3.7 Test for responsiveness

2.3.7.1 Appoint a Bid Evaluation Committee and determine after opening whether each tender offer properly received:

a)   complies with the requirements of these Conditions of Tender,
b)   has been properly and fully completed and signed, and
c)   is responsive to the other requirements of the tender documents.

2.3.7.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the CCT's opinion, would:
a)   detrimentally affect the scope, quality, or performance of the goods, services or supply identified in the Specifications,
b)   significantly change the CCT's or the tenderer's risks and responsibilities under the contract, or
c)   affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of any material deviation or qualification.

The CCT reserves the right to accept a tender offer which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.

2.3.8   Arithmetical errors, omissions and discrepancies

2.3.8.1 Check the responsive tenders for:

a)   the gross misplacement of the decimal point in any unit rate;
b)   omissions made in completing the Price Schedule; or
c)   arithmetic errors in:
    i)   line item totals resulting from the product of a unit rate and a quantity in the Price Schedule; or
    ii)   the summation of the prices; or
    iii) calculation of individual rates.

2.3.8.2 The CCT must correct the arithmetical errors in the following manner:

a)   Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
b)   If pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as tendered shall govern, and the unit rate shall be corrected.
c)   Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if Price Schedules apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

2.3.8.3 In the event of tendered rates or lump sums being declared by the CCT to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the CCT is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the CCT, but this shall be done without altering the tender offer in accordance with this clause.

Should the tenderer fail to amend his tender in a manner acceptable to and within the time stated by the CCT, the CCT may declare the tender as non-responsive.

2.3.9 Clarification of a tender offer

The CCT may, after the closing date, request additional information or clarification from tenderers, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer, which written request and related response shall not change or affect their competitive position or the substance of their offer. Such request may only be made in writing by the Director: Supply Chain Management using any means as appropriate.

2.3.10 Evaluation of tender offers

2.3.10.1 General

2.3.10.1.1 Reduce each responsive tender offer to a comparative price and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender conditions.

2.3.10.1.2 For evaluation purposes only, the effects of the relevant contract price adjustment methods will be considered in the determination of comparative prices as follows:

a. If the selected method is based on bidders supplying rates or percentages for outer years, comparative prices would be determined over the entire contract period based on such rates or percentages.
b. If the selected method is based on a formula, indices, coefficients, etc. that is the same for all bidders during the contract period, comparative prices would be the prices as tendered for year one.
c. If the selected method is based on a formula, indices, coefficients, etc. that varies between bidders, comparative prices would be determined over the entire contract period based on published indices relevant during the 12 months prior to the closing date of tenders.
d. If the selected method includes an imported content requiring rate of exchange variation, comparative prices would be determined based on the exchange rates tendered for the prices as tendered for year one. The rand equivalent of the applicable currency 14 days prior to the closing date of tender will be used (the CCT will check all quoted rates against those supplied by its own bank).
e. If the selected method is based on suppliers' price lists, comparative prices would be the prices as tendered for year one.
f. If the selected method is based on suppliers' price lists and / or rate of exchange, comparative prices would be determined as tendered for year one whilst taking into account the tendered percentage subject to rate of exchange (see sub clause (d) for details on the calculation of the rate of exchange).

2.3.10.1.3 Where the scoring of functionality forms part of a bid process, each member of the Bid Evaluation Committee must individually score functionality. The individual scores must then be interrogated and calibrated if required where there are significant discrepancies. The individual scores must then be added together and averaged to determine the final score.

2.3.10.2 Decimal places

Score financial offers, preferences and functionality, as relevant, to two decimal places.

2.3.10.3   Scoring of tenders (price and preference)

2.3.10.3.1 Points for price will be allocated in accordance with the formula set out in this clause based on the price per item / rates as set out in the **Price Schedule (Part 5)**:

- based on the sum of the prices/rates in relation to a typical project with estimated quantities.

2.3.10.3.2 Points for preference will be allocated in accordance with the provisions of **Preference Schedule** and the table in this clause.

2.3.10.3.3 The terms and conditions of **Preference Schedule** as it relates to preference shall apply in all respects to the tender evaluation process and any subsequent contract.

2.3.10.3.4 Applicable formula:

The 90/10 price/preference points system will be applied to the evaluation of responsive tenders over a Rand value of R50'000'000 (all applicable taxes included), whereby the order(s) will be placed with the tenderer(s) scoring the highest total number of adjudication points.

Price shall be scored as follows:

$$Ps = 90 \times \left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

Where: Ps is the number of points scored for price;
                      Pt is the price of the tender under consideration;
                      Pmin is the price of the lowest responsive tender.

Preference points shall be scored as follows:

> Points will be awarded to tenderers who are eligible for preferences in respect of the B-BBEE level of contributor attained in terms of **Preference Schedule**.

> A maximum of 10 tender adjudication points will be awarded for preference to tenderers with responsive tenders who are eligible for such preference, in accordance with the criteria listed below.

Up to **10** adjudication points (N_P) will be awarded for the level of B-BBEE contribution, in accordance with the tables below:

B-BBEE Status Level of Contributor	Number of Points for Preference
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

*A non-compliant contributor is one who does not meet the minimum score for a level 8 contributor.

or, in respect of Exempted Micro Enterprises (EMEs):

Black Ownership of EME	Deemed B-BBEE Status Level of Contributor	Number of Points for Preference
less than 51%	4	5
at least 51% but less than 100%	2	9
100%	1	10

or, in respect of Qualifying Small Enterprises (QSEs):

Black Ownership of QSE	Deemed B-BBEE Status Level of Contributor	Number of Points for Preference
at least 51% but less than 100%	2	9
100%	1	10

The total number of adjudication points (N_T) shall be calculated as follows:

$N_T = Ps + N_P$

Where: Ps is the number of points scored for price;
           Np is the number of points scored for preference.

The terms and conditions of the **Preference Schedule** shall apply in all respects to the tender evaluation process and any subsequent contract.

2.3.10.5   Risk Analysis

Notwithstanding compliance with regard to any requirements of the tender, the CCT will perform a risk analysis in respect of the following:

a)   reasonableness of the financial offer
b)   reasonableness of unit rates and prices
c)   the tenderer's ability to fulfil its obligations in terms of the tender document, that is, that the tenderer can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, capacity, experience, reputation, personnel to perform the contract, etc.; the CCT reserves the right to consider a tenderer's existing contracts with the CCT in this regard
d)   any other matter relating to the submitted bid, the tendering entity, matters of compliance, verification of submitted information and documents, etc.

The conclusions drawn from this risk analysis will be used by the CCT in determining the acceptability of the tender offer.

No tenderer will be recommended for an award unless the tenderer has demonstrated to the satisfaction of the CCT that he/she has the resources and skills required.

2.3.11 Negotiations with preferred tenderers

The CCT may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

a)   does not allow any preferred tenderer a second or unfair opportunity;
b)   is not to the detriment of any other tenderer; and
c)   does not lead to a higher price than the tender as submitted.

If negotiations fail to result in acceptable contract terms, the City Manager (or his delegated authority) may terminate the negotiations and cancel the tender, or invite the next ranked tenderer for negotiations. The original preferred tenderer should be informed of the reasons for termination of the negotiations. If the decision is to invite the next highest ranked tenderer for negotiations, the failed earlier negotiations may not be reopened by the CCT.

Minutes of any such negotiations shall be kept for record purposes.

The provisions of this clause will be equally applicable to any invitation to negotiate with any other tenderers.

In terms of the PPPFA Regulations, 2017, tenders must be cancelled in the event that negotiations fail to achieve a market related price with any of the three highest scoring tenderers.

2.3.12   Acceptance of tender offer

Notwithstanding any other provisions contained in the tender document, the CCT reserves the right to:

2.3.12.1 Accept a tender offer(s) which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender document.

2.3.12.2 Accept the whole tender or part of a tender or any item or part of any item or items from multiple manufacturers, or to accept more than one tender (in the event of a number of items being offered), and the CCT is not obliged to accept the lowest or any tender.

2.3.12.3 Accept the tender offer(s), if in the opinion of the CCT, it does not present any material risk and only if the tenderer(s)::

a)   is not under restrictions, has any principals who are under restrictions, or is not currently a supplier to whom notice has been served for abuse of the supply chain management system, preventing participation in the employer's procurement,

b)   can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract)   has the legal capacity to enter into the contract,

d)   is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing, complies with the legal requirements, if any, stated in the tender data, and

e)   is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

If an award cannot be made in terms of anything contained herein, the Employer reserves the right to consider the next ranked tenderer(s).

2.3.12.4 Not to make an award, or revoke an award already made, where the implementation of the contract may result in reputational risk or harm to the City as a result of (inter alia):

a)   reports of poor governance and/or unethical behaviour;
b)   association with known family of notorious individuals;
c)   poor performance issues, known to the City;
d)   negative social media reports; and
e)   adverse assurance (e.g. due diligence) report outcomes.

2.3.12.5 The CCT reserves the right to nominate an alternative bidder at the time when an award is made and in the event that a contract is terminated during the execution thereof, the CCT may consider the award of the contract, or non-award, to the alternative bidder in terms of the procedures included its SCM Policy.

2.3.13   Prepare contract documents

2.3.13.1 If necessary, revise documents that shall form part of the contract and that were issued by the CCT as part of the tender documents to take account of:

a)   notices issued during the tender period,
b)   inclusion of some of the returnable documents, and
c)   other revisions agreed between the CCT and the successful tenderer.

2.3.13.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

2.3.14   Notice to successful and unsuccessful tenderers

2.3.14.1 Before accepting the tender of the successful tenderer the CCT shall notify the successful tenderer in writing of the decision of the CCT's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice

2.3.14.2 The CCT shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.

2.3.15   Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these Conditions of Tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

TENDER DOCUMENT GOODS AND SERVICES		CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
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TENDER NO: 202S/2021/22

SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT UNTIL 30 JUNE 2024 (THREE FINANCIAL YEARS)

VOLUME 2: RETURNABLE DOCUMENTS

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

VOLUME 2: RETURNABLE DOCUMENTS
(3) DETAILS OF TENDERER

1.1 Type of Entity   (Please tick one box)

☐ Individual / Sole Proprietor   ☐ Close Corporation   ☐ Company

☐ Partnership or Joint Venture or Consortium   ☐ Trust   ☐ Other: ……….........……..………….

1.2 Required Details (Please provide applicable details in full):

Name of Company / Close Corporation or Partnership / Joint Venture / Consortium or Individual /Sole Proprietor	
Trading as (if different from above)	
Company / Close Corporation registration number (if applicable)	
Postal address	Postal Code _____
Physical address **(Chosen domicilium citandi et executandi)**	Postal Code _____
Contact details of the person duly authorised to represent the tenderer	Name: Mr/Ms _____ (Name & Surname) Telephone:(_____) _____ Fax:(_____) _____ Cellular Telephone:_____ E-mail address:_____
Income tax number	
VAT registration number	
SARS Tax Compliance Status PIN	
City of Cape Town Supplier Database Registration Number (See Conditions of Tender)	
National Treasury Central Supplier Database registration number (See Conditions of Tender)	

Is tenderer the accredited representative in South Africa for the Goods / Services / Works offered?	☐Yes ☐No If yes, enclose proof
Is tenderer a foreign based supplier for the Goods / Services / Works offered?	☐Yes ☐No If yes, answer the Questionnaire to Bidding Foreign Suppliers (below)
Questionnaire to Bidding Foreign Suppliers	a) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa? ☐Yes ☐No
	b) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa? ☐Yes ☐No
	c) Does the tenderer have a permanent establishment in the Republic of South Africa? ☐Yes ☐No
	d) Does the tenderer have any source of income in the Republic of South Africa? ☐Yes ☐No
	e) Is the tenderer liable in the Republic of South Africa for any form of taxation? ☐Yes ☐No

(4) FORM OF OFFER AND ACCEPTANCE

TENDER NO: 202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS

OFFER: (TO BE FILLED IN BY TENDERER):

Required Details (Please provide applicable details in full):

Name of Tendering Entity* **("the tenderer")**	
Trading as (if different from above)	

AND WHO IS represented herein by: (full names of signatory)

_____

duly authorised to act on behalf of the tenderer in his capacity as: (title/ designation)

_____

HEREBY AGREES THAT by signing the *Form of Offer and Acceptance,* the tenderer:
1. confirms that it has examined the documents listed in the Index (including Schedules and Annexures) and has accepted all the Conditions of Tender;

2. confirms that it has received and incorporated any and all notices issued to tenderers issued by the CCT;

1.
3. confirms that it has satisfied itself as to the correctness and validity of the tender offer; that the price(s) and rate(s) offered cover all the goods and/or services specified in the tender documents; that the price(s) and rate(s) cover all its obligations and accepts that any mistakes regarding price(s), rate(s) and calculations will be at its own risk;

4. offers to supply all or any of the goods and/or render all or any of the services described in the tender document to the CCT in accordance with the:
   4.1 terms and conditions stipulated in this tender document;
   4.2 specifications stipulated in this tender document; and
   4.3 at the prices as set out in the **Price Schedule**.

5. accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on it in terms of the Contract.

_____
Signature(s)

_____
Print name(s):
On behalf of the tenderer (duly authorised)

_____
Date

INITIALS OF CITY OFFICIALS		
1	**2**	**3**

FORM OF OFFER AND ACCEPTANCE (continued)

TENDER NO : 202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS

ACCEPTANCE (TO BE FILLED IN BY THE CITY OF CAPE TOWN)

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the supplier the amount due in accordance with the conditions of contract. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

(7) & (8):	Special and General Conditions of Tender
(5):	Price schedule
(13):	Specifications

and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documents to be provided in terms of the conditions of contract identified in the special contract conditions. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the parties have signed the table below and confirms receipt from the employer of one fully completed original copy of this agreement, including the schedule of deviations (if any). The tenderer (now supplier**)** shall within five working days of the agreement coming into effect notify the employer in writing of any reason why he cannot accept the contents of this agreement as a complete and accurate memorandum thereof, failing which the agreement presented to the contractor shall constitute the binding contract between the parties.

The Parties	Employer	Supplier
Business Name		
Business Registration		
Tax number (VAT)		
Physical Address		
Accepted contract sum including tax		
Accepted contract duration		

The Parties	Employer	Supplier
Signed – who by signature hereto warrants authority		
Name of signatory		
Signed: Date		
Signed: Location		
Signed: Witness		
Name of Witness		

FORM OF OFFER AND ACCEPTANCE (continued)
(TO BE FILLED IN BY THE CITY OF CAPE TOWN)

Schedule of Deviations

Notes:
1. The extent of deviations from the tender documents issued by the CCT before the tender closing date is limited to those permitted in terms of the conditions of tender.
2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1 Subject . . . .

Details . . . .

. . . .

. . . .

. . . .

2 Subject . . . .

Details . . . .

. . . .

. . . .

. . . .

3 Subject . . . .

Details . . . .

. . . .

. . . .

. . . .

4 Subject . . . .

Details . . . .

. . . .

. . . .

. . . .

By the duly authorised representatives signing this agreement, the CCT and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to this tender document and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the CCT during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

(5) PRICE SCHEDULE

Bid specifications may not make any reference to any particular trade mark, name, patent, design, type, specific origin or producer, unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the words "or equivalent".

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS 'OR EQUIVALENT"

Pricing Instructions:

5.1   State the rates and prices in Rand unless instructed otherwise in the tender conditions.

5.2   Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the General Tender Information.

5.3   All prices tendered must include all expenses, disbursements and costs (e.g. transport, accommodation etc.) that may be required for the execution of the tenderer's obligations in terms of the Contract, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract as well as overhead charges and profit (in the event that the tender is successful). All prices tendered will be final and binding.

5.4   All prices shall be tendered in accordance with the units specified in this schedule.

5.5   Where a value is given in the Quantity column, a Rate and Price (the product of the Quantity and Rate) is required to be inserted in the relevant columns.

5.6   The successful tenderer is required to perform all tasks listed against each item. The tenderer must therefore tender prices/rates on all items as per the section in the Price Schedule. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

5.7   Provide fixed rates and prices for the duration of the contract that are not subject to adjustment except as otherwise provided for in clause 17 of the Conditions of Contract and as amplified in the Special Conditions of Contract.

5.8   The unit rates entered in the Price Schedule shall include the cost of all smaller items necessary for a fully functional complete installation of the unit

5.9   The Schedules in this Section (5) Price Schedule include pricing items for maintaining current environments, expanding and / or upgrading existing infrastructure or solutions and replace End of Life (EoL) equipment, on the basis of "like for like" replacement.

5.10   The City wishes to award the full tender to a single preferred provider. Tenderers must choose from one of two options which meets the City's technical specifications and functional requirements. Option 1 requires the tenderer to supply, support and maintain the existing Facilities Management Enterprise

System (FMES). Option 2 requires the supply, installation, configuration and integration of a new FMES as well as ongoing support and maintenance services for the new FMES. In this Pricing Schedule the response to **Option 1** must be made through completing **Schedule A and Schedule C** and the response to **Option 2** must be made through completing **Schedule B and Schedule C**.

5.11 The City will evaluate Option 1 and Option 2 on a comparable basis, no preference will be given for either option.

5.12 Note **Schedule C** applies to both options and likewise throughout the tender are clear indications in terms of responses required which apply to either Option 1 or 2 and Tenders are reminded to ensure all required responses for the selected Option are completed in the final tender response. Failure to complete both Schedule A and Schedule C for Option 1 or both Schedule B and Schedule C for Option 2, will render the bid non-responsive.

Tenderers are requested to indicate in the following checkbox which Option they are responding to in their tender response. Tenderers should note that they are required to put their best offer forward and that they can respond to either Option 1 or Option 2, but not to both

Response To

	Mark with X if Option 1 is chosen		Mark with X if Option 2 is chosen
Option 1		**Option 2**	

5.13 **Pricing using Mark-up Method:**

OEM Price – The amount which the Tenderer pays a supplier or manufacturer for goods or services or the cost the Tenderer incurs to produce or provide the goods or services.
Mark-up – The amount added to the OEM Price including Tenderer margins and overheads.
Mark-up percentage is equal to - (Mark-up amount / OEM Price) x 100 = Mark-up %.
Final Price – Is the invoice price to the City of Cape Town or = OEM Price x (1 + Mark-up %) or OEM Price + Mark-up amount.

5.14 Supply full and comprehensive OEM price list as a hardcopy and electronic softcopy with tender response in Error! Reference source not found.**.** Updated Price list must be provided when OEM pricing changes and the City reserve the right to reject it if not fair and reasonable and related to CPI and rate of exchange.

5.15 All equivalent products tendered must be able to integrate into the existing environment seamlessly, with no disruption to the working environment and no additional integration costs for the City of Cape Town apart from the integration costs provided for in the price schedule. All ambiguity must be explained as part of the equivalent product information that must be provided with your tender submission. Fully explain equivalent solutions. State all assumptions upfront and note that any unconfirmed assumptions that are deemed by the City as being not fit for purpose or infringing the City of Cape Town's interests may render the equivalent solution as non-responsive.

5.16 Tenderers must note that only unconditional discount will be accepted for the duration of the contract period, and therefore cannot be subject to any conditions. The Tenderer is under no obligation to offer any percentage discount and if the percentage discount column is left blank for an item, then it is understood that no discount is being offered for this item. The formula for how discount and mark-up will be calculated are as follows:

Prices offered in pricing tables (ex VAT) minus (-) the discount offered plus (+) the mark-up equals (=) the final price for evaluation and award.

5.17   For the purposes of price evaluations, all pricing must assume an exchange rate of R17/$, R18/Euro and R20/BP.

INITIALS OF CITY OFFICIALS		
1	**2**	**3**

SCHEDULE A. SUPPLY, SUPPORT AND MAINTENANCE FOR THE EXISTING FMES (Option 1)

In this Schedule tenderers must respond with pricing information to take over the management of the existing Facilities Management Enterprise System (FMES) environment, including the current CNL IP Security Centre (CNL IPSC) installations, and support and maintain the CNL IPSC installations as well as the FMES environment for a period of three years. As per the pricing instruction **5.1** all the tables and all items in the tables in this schedule must be completed. Please note this schedule must only be responded on if Option 1 has been selected; please therefore indicate here accordingly (Refer to Pricing Instruction **5.10**.)

Table A.1. Supply of CNL IP-Security Centre PSIM Software and Related OEM Products   This table is for the supply of CNL IP-Security Centre PSIM Application Software and related software modules including drivers, add-ons, plug-ins, and enhancement packages. This table also includes necessary software license maintenance and support services such as software updates and upgrades. The award for this schedule will be for the identified **Independent Software Vendor (ISV)** and the discount offered (%) and mark-up percentage (%) applied to the list prices of that ISV.   Please refer to **Schedule 15A,** where evidence or proof in terms of technical data sheets, product specifications, technical drawings, proof of certificates and other information is requested to confirm the Tenderer's response in these sections.

Please indicate here the ISV / OEM Product proposed for the Space Management System:	
Indicate the ISV / OEM and Product proposed for the Space Management System: (The current implemented Space Management System the City uses is Korasoft.)	
Please indicate here the relationship status for the identified application software provider:	
Indicate the ISV / OEM Product Relationship status for the CNL IPSC Software Suite: (Partner Status / Authorised Reseller / Distributor etc.)	
Indicate the ISV / OEM Product Relationship status for the Space Management System: (Partner Status / Authorised Reseller / Distributor etc.)	

Item	Description	Discount Offered (%)	Mark-Up (%)
A.1.1.	CNL IPSC application and related products	%	%
A.1.2.	Space Management System with SAP-CAD interface.	%	%
A.1.3.	License for the interface with a proprietary sub-system (when needed)	%	%

Table A.2. Supply and Support of CNL IP-Security Centre Software Licenses and Related OEM Products.
THE FOLLOWING TABLE WILL BE USED FOR EVALUATION PURPOSES ONLY.

This table is for the supply, support and maintenance of CNL IP-Security Centre, software licenses and related OEM Products.

Supply of CNL IP Security Centre

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
A.2.1.	Supply of a redundant instance of CNL IP Security Centre	Once off fee	R

CNL IP-Security Server License
The prices for these items must include the annual fee for OEM Product support and maintenance. The price(s) must also include all required drivers and interfaces. The license fee must be a flat fee regardless of the number of sub-systems. The price(s) are for the annual licence for a single redundant instance of CNL IPSC. Device licensing is priced separately.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit
A.2.2.	**CNL IPSC Server License** Annual license fee, including OEM costs for a single instance with redundancy (i.e. on primary and failover server).	Annual license cost	R

CNL IP-Security Node License
The prices for these items must include the annual fee for OEM Product support and maintenance. The price(s) must also include all required drivers and interfaces. The license fee must be a flat fee regardless of the number of sub-systems. The price(s) are for the annual licence for a single site server instance of CNL IPSC. Device licensing is priced separately.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit
A.2.3.	**CNL IPSC Node License** Annual license fee, including OEM costs for a single instance.	Annual license cost	R

Device Licenses

The price(s) for the items in this table is for the device licenses for the devices interfacing with the existing systems and subsystems as well as with the CNL IPSC system. The pricing is for all devices linked to CNL IPSC system regardless of location. The pricing must indicate the fixed device license cost, per device, per month, expressed as a monthly fee for the 3-year period of this tender. This license cost is for devices connected to CNL IPSC.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit for Year 1
A.2.4.	Device License - For devices from 1, up to **10 000** devices	**per device per month**	R
A.2.5.	Device License – Per device from device 1, for more than **10 000** devices up to **20 000** devices	**per device per month**	R
A.2.6.	Device License – Per device from device 1, for more than **20 000** devices up to **50 000** devices	**per device per month**	R
A.2.7.	Device License – Per device from device 1, for more than **50 000** devices	**per device per month**	R

Space Management Licenses

The price(s) for the items in this table is for Space Management System licensing, including OEM Product license support and maintenance. The City currently uses *Korasoft* as its Space Management solution.

The price(s) for the items in this table must also include the SAP-CAD interface, annual license fees, OEM Product license support and maintenance as well as all available drivers and interfaces.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit
A.2.8.	License for Space Management System	Annual license cost	R

Table A.3. Development services for the CNL IP-Security Solution and Related OEM Products.

This table is for development services required for the CNL IPSC solution and include development of software modules, infrastructure, architecture, planning and design, technical services, together with overall business management of the FMES environment. These are supplier (tenderer) prices, for award.

Development of new drivers for the CNL IPSC solution

The pricing here is for the development and installation of driver interfaces for new sub-systems as and when needed. The prices indicated must be for the fee per developed driver interface which is a once off fixed fee for the development and installation of drivers, dependent on the year in which it is required. Prices must include all updates and upgrades needed for drivers developed.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.1.	Development and installation of CNL IPSC driver interfaces.	Once off Fixed fee per driver	R	R	R

Development of new interfaces for the CNL IPSC solution

The pricing here is for the development and installation of CNL IPSC interfaces to SAP, SharePoint, Active Directory and other corporate systems as and when needed. The prices indicated must be for the fee per developed interface which is which is a once off fixed fee for the development and installation of interfaces. Prices must include all updates and upgrades needed for drivers developed.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.2.	Development and installation of new CNL IPSC interfaces.	Once off fixed fee per interface.	R	R	R

Expansion of the CNL IPSC system to a new building / site

The pricing here is for the evaluation, design, project plan and costing an expansion to a new building or site as and when needed. The prices indicated must be a once-off fixed fee per additional building / site valid per year over the contract term.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)

			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.3.	**Planning**, design and project management for expanding the CNL IPSC solution to a new building / site.	Once off fixed fee per new building or site.	R	R	R

Additional node for the CNL IPSC system
The pricing here is for the installation, set-up, testing, commissioning and provisioning of a new node for the CNL IPSC system when expansion to a new building or site is requested. The prices indicated must be a once-off fixed fee per new node for an additional building / site and valid per year over the contract term.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.4.	**Install,** setup, test, commission, and provision of CNL IPSC Node functionality for new site. Fixed fee per node	Once off fixed fee per new Node.	R	R	R

Additional subsystem interface for the CNL IPSC system

The pricing here is for the installation, set-up, testing, commissioning and provisioning of new subsystem interface functionality for existing or new building(s) or site(s). The once-off price for this service must include the linking of subsystems in the site or node to the existing central application. The prices indicated must be a once-off fixed fee per subsystem over the contract term.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
A.3.5.	Install, setup, test, commission, and provision of (additional) subsystem interface functionality for building(s) or site(s).	Once off fixed fee per subsystem	R	R	R

Development of a central server architecture design for the CNL IPSC system

The items priced here is for conducting an architectural review to develop a centralised server architecture, design development, project plan and data migration plan for a CNL IPSC solution.

The pricing for the data migration plan must include the installation and configuration of the server and database architecture to N+1 with primary site catering for the application and database solution. The design must include redundancy and therefore cater for primary and secondary (redundant) locations. In addition, and included in the once-off fee for data migration is the preparation and updating of the as-built documentation.

The prices indicated must be a once-off fixed fee per activity as described here and valid per year over the contract term.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
A.3.6.	Architectural review, design development, project plan, and data migration plan	Once-off fixed fee	R	R	R
Item	**Description**	**Unit**	**Supplier Price per Unit (ZAR excl. VAT)**		

			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.7.	Implement Data migration and system consolidation	Once-off fixed fee	R	R	R

Business Management of the FMES environment

The item(s) priced here is for overall business management of the FMES environment, thereby ensuring adherence to minimum operating standards through service management, project management, responding to queries, enquiries and other information requests, preparing quotations, vendor relationship management including client liaison, reporting, and contract management.

The prices must show the fixed annual business management fee, valid per year over the contract term. All prices exclude VAT

Item	Description	Unit	Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.3.8.	Business Management of the FMES environment.	Annual Business Management fee	R	R	R

Installation of CNL IP Security Centre (if required)
Although CNL IP Sec is currently used by the City, this pricing is for the installation of the software on a primary and secondary server, if required

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)
A.3.9.	Installation of a redundant instance of CNL IP Security Centre (primary and secondary server)	Once off fee	R

Table A.4. Technical Support and Maintenance Services for the FMES environment, including CNL IP-Security Centre and Related OEM Products.

This table is for the support and maintenance services required for the full FMES environment and is for award

Please refer to **Schedule 15B,** where evidence or proof in terms of a copy of the certificate or a letter from the ISV and / or OEM Product supplier for all the proposed solutions in this tender.

Technical Support services for the full FMES environment.
The pricing information required here must cater for a tenderer fee for the technical support and maintenance of the CNL IPSC application and the full FMES environment. This pricing must also include support for all new and existing drivers and interfaces. In addition, technical support services must cover hardware, middleware, software as well as FMES terminals and solutions. This implies technical support services are for the full system excluding networks and the items specified in the subsequent schedules. Lastly, technical support services also include support services for the data mediator. The City currently uses *EzFlo* as a data mediator solution. This fee covers an FMES environment with up to 10 000 devices and support for any new drivers or interfaces developed during the course of the tender.

The prices must show the fixed fee for technical support services, valid per year over the contract term..

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.4.1.	**Technical Support services for a full existing FMES Environment (Including existing servers and security environment and up to 10 000 end devices).**	Annual technical support cost	R	R	R
A.4.2.	**Technical Support services per additional node for the FMES Environment (up to 10 000 end devices).**	Annual technical support cost	R	R	R

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.4.3.	**Additional Technical Support services for the FMES Environment, for all end devices, up to 20 000.**	Annual technical support cost	R	R	R
A.4.4.	**Additional Technical Support services for the FMES Environment for all end devices, up to 50 000.**	Annual technical support cost	R	R	R
A.4.5.	**Additional Technical Support services for the FMES Environment for all end devices, up to 500 000.**	Annual technical support cost	R	R	R
A.4.6.	**Technical Support services for each additional server.**	Annual technical support cost	R	R	R
A.4.7.	**Technical Support services for the Water Data Management System.**	Annual technical support cost	R	R	R

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
A.4.8.	**Technical Support services for the Energy Data Management System.**	Annual technical support cost	R	R	R

Technical Support services for the Space Management System
Pricing here is for the technical support services of the Space Management system, including the SMS module and SAP integration. The current Space Management System used by the City is *Korasoft*.

Item	Description	Unit	Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
A.4.9.	**Technical Support services for the Space Management System.**	Annual technical support cost	R	R	R

SCHEDULE B. SUPPLY, SUPPORT AND MAINTENANCE FOR A NEW PSIM (Option 2)

In this schedule tenderers must respond with pricing information to supply, install, configure and integrate a new **Physical Security Information Management System (PSIM)** with functionality that is equivalent to or better than the existing CNL IPSC System. Furthermore, tenderers must provide pricing information to support and maintain the newly proposed PSIM System for the duration of the tender contract period.

Option	Indicate "YES" if responding to this Schedule, or "NO" if not responding to this Schedule. (Refer 5.10.)
Response to Schedule B. If option 2 was selected in 5.10 this schedule must be included in your response.	

Table B.1. Supply of a new Physical Security Information Management (PSIM) System
This table is for the supply of a **Physical Security Information Management System (PSIM)**, equivalent to the existing CNL IPSC application, plus all drivers, add-ons, plug-ins, and enhancement packages as currently required for a fully functional FMES environment. This also includes necessary software license maintenance and support services such as software updates and upgrades. The award for this schedule will be for the identified **Independent Software Vendor (ISV)** and the discount offered (%) and mark-up percentage (%) applied to the list prices of that ISV. Tenderers must provide proof the relationship with the specified **Independent Software Vendor (ISV) or Original Equipment Manufacturer OEM Product** supplier and that the Tenderer is authorised or certified to deliver and support the identified PSIM OEM Product. Evidence of the **relationship and/or authority** to provide the PSIM OEM Product as well as software license support services from the specified ISV or OEM Product supplier must be submitted together with the tender response in Error! Reference source not found. as indicated in the relevant sub-schedule of **Schedule 15.**

Please indicate here the ISV / OEM and Product proposed for the Physical Security Information Management System (PSIM):	
Indicate the ISV / OEM and Product proposed for the Physical Security Information Management System (PSIM)	
Please indicate here the ISV / OEM and Product proposed for the Space Management System:	

Indicate the ISV / OEM and Product proposed for the Space Management System: (The current implemented Space Management System is *Korasoft.*)	
Please indicate here the relationship status for the identified ISV or OEM Product provider:	
Indicate the ISV / OEM Product Relationship status for the proposed PSIM solution: (Partner Status / Authorised Reseller / Distributor etc.)	
Indicate the ISV / OEM Product Relationship status for the Space Management System: (Partner Status / Authorised Reseller / Distributor etc.)	

Item	Description	Discount Offered (%)	Mark-Up %
B.1.1.	Physical Security Information Management System (PSIM) application and related products	%	%
B.1.2.	Space Management System with SAP-CAD interface.	%	%
B.1.3.	License for the interface with a proprietary sub-system (when needed)	%	%

Table B.2. Supply and Support of PSIM Licenses and Related OEM Products.

THE FOLLOWING TABLE WILL BE USED FOR EVALUATION PURPOSES ONLY.

This table is for the supply, and support of the newly proposed PSIM software licenses and related OEM Product licenses. The pricing in the following tables will be used for evaluation

Supply and installation of new PSIM

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
B.2.1.	Supply of a redundant instance of the new PSIM solution based on a centralised architecture	Once off fee	R

Physical Security Information Management System (PSIM) Licenses
Pricing is for a single instance with redundancy (i.e. operational on primary and failover server). The pricing must include the annual fee for OEM product support and maintenance

The price(s) must also include all currently required drivers and interfaces so that a fully functional equivalent system to that currently in place is operational. The license fee must be a flat fee regardless of the number of sub-systems supported. Device licensing is priced separately.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit
B.2.2.	**PSIM License** Annual license fee, including OEM costs for a single instance with redundancy (i.e. on primary and failover server).	Annual license cost	R

PSIM Node License (if needed)

The prices for these items this must include the annual fee for OEM Product support and maintenance. The price(s) must also include all required drivers and interfaces. The license fee must be a flat fee regardless of the number of sub-systems. The price(s) are for the annual licence for a single site server instance of the PSIM. Device licensing is priced separately.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit
B.2.3.	**PSIM Node License** Annual license fee, for a single instance	Annual license cost	R

Device Licenses

The price(s) for the items in this table is for the device licenses for the devices interfacing with the existing systems and subsystems and managed or controlled by the new PSIM. The pricing is for all devices linked to the new PSIM system regardless of location. The pricing must indicate the fixed device license cost, per device, per month, for the 3-year period of this tender.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit for Year 1
B.2.4.	Device License - Per device from device **1**, for up to **10 000** devices	**per device per month**	R
B.2.5.	Device License – Per device from device 1, for up to **20 000** devices	**per device per month**	R
B.2.6.	Device License – Per device from device 1 up to **50 000** devices	**per device per month**	R
B.2.7.	Device License – Per device from device 1, for more than **50 000** devices	**per device per month**	R

Space Management Licenses

The price(s) for the items in this table is for Space Management System licensing, including OEM Product license support and maintenance. The current implemented Space Management System the City uses is Korasoft.

The price(s) for the items in this table must also include the SAP-CAD interface, annual license fees, OEM Product license support and maintenance as well as all available drivers and interfaces. The prices must show the fixed annual license costs, for the 3-year period of this tender.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
			Price per Unit for Year 1
B.2.8.	License for Space Management System	Annual license cost	R

Table B.3. Development Services for the new PSIM solution.

This table is for development services required for the new PSIM solution and include development of software modules, infrastructure, architecture, planning and design, technical services, together with overall business management of the FMES environment. These are supplier (vendor) prices, for award.

Development of new drivers for the new PSIM solution

The pricing here is for the development and installation of driver interfaces for new sub-systems as and when needed. The prices indicated must be for the fee per developed driver interface which is a once off fixed fee for the development and installation of drivers, dependent on the year in which it is required. Prices must include and updates and upgrades needed for drivers developed.

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.3.1.	Development and installation of PSIM driver interfaces.	Once off fixed fee per driver	R	R	R

Development of new interfaces for the PSIM solution

The pricing here is for the development and installation of the new PSIM interfaces to SAP, SharePoint, Active Directory and other corporate systems as and when needed. The prices indicated must be for the fee per developed interface which is which is a once off fixed fee for the development and installation of interfaces. Prices must include and updates and upgrades needed for drivers developed..

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.3.2.	Development and installation of interfaces of the new PSIM to identified systems.	Once off fixed fee per interface	R	R	R

Expansion of the PSIM system to a new building / site

The pricing here is for the evaluation, design, project plan and costing an expansion to a new building or site as and when needed. The prices indicated must be a once-off fixed fee per additional building / site valid per year over the contract term.

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.3.3.	Planning, design and project management of expanding the PSIM solution to a new building / site.	Once off fixed fee per new building or site.	R	R	R

Additional node for the PSIM system, if needed

The pricing here is for the installation, set-up, testing, commissioning and provisioning of a new node for the new PSIM system when expansion to a new building or site is requested, if this is required by the PSIM application's architecture. The prices indicated must be a once-off fixed fee per new node for an additional building / site and valid per year over the contract term.

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.3.4.	Install, setup, test, commission, and provision of PSIM Node functionality for new site.	Once off fixed fee per new site/node.	R	R	R

Additional subsystem interface for the PSIM system

The pricing here is for the installation, set-up, testing, commissioning and provisioning of new subsystem interface functionality for existing or new building(s) or site(s). The once-off price for this service must include the linking of subsystems in the site or node to the existing central application. The prices indicated must be a once-off fixed fee per subsystem over the contract term

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
B.3.5.	Install, setup, test, commission, and provision of (additional) subsystem interface functionality for building(s) or site(s).	Once off fixed fee per subsystem	R	R	R

Development of a central server architecture design for the new PSIM system

The items priced here is for conducting an architectural review to develop a centralised server architecture, design development, project plan and data migration plan for a new PSIM solution.

The pricing for the data migration plan must include the installation and configuration of the server and database architecture to N+1 with primary site catering for the application and database solution. The design must include redundancy and therefore cater for primary and secondary (redundant) locations. In addition, and included in the once-off fee for data migration is the preparation and updating of the as-built documentation.

The prices indicated must be a once-off fixed fee per activity as described here and valid per year over the contract term. This item is for award.

Item	Description	Unit	Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.3.6.	Architectural review, design development, project plan, and data migration plan	Once-off fixed fee	R	R	R
B.3.7.	Implement Data migration and system consolidation,	Once-off fixed fee	R	R	R

Business Management of the FMES Environment

The item(s) priced here is for overall business management of the FMES environment, thereby ensuring adherence to minimum operating standards through service management, project management, responding to queries, enquiries and other information requests, preparing quotations, tenderer relationship management including client liaison, reporting, and contract management.

The prices must show the fixed annual business management fee, per year over the contract term. All prices exclude VAT

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
B.3.8.	Business Management of the FMES environment.	Annual Business Management fee	R	R	R

Installation of new PSIM/FMES

This pricing is for the installation, commissioning and setup of the software on a primary and secondary server.

Item	Description	Unit	Supplier Price per Unit (ZAR excl. VAT)
B.3.9.	Installation of a redundant instance of PSIM/FMES (primary and secondary server)	Once off fee	R

Table B.4. Technical Support and Maintenance Services for the new FMES environment, including the PSIM System and Related OEM Products.

This table is for the support and maintenance services required for the new PSIM system as well as support and maintenance services for related OEM Products. These items are for award

Technical Support services for the new PSIM-Security system
The pricing information required here must cater for a local tenderer fee for the technical support and maintenance of the PSIM application and the FMES environment. This pricing must also include all new and existing drivers and interfaces. In addition, technical support services must cover hardware, middleware, software as well as FMES terminals and solutions. This implies technical support services is for the full system excluding networks and the items specified in the subsequent schedules. Lastly, technical support services also include support services for a data mediator. The City currently uses EzFlo as a data mediator solution. This fee covers an FMES environment with up to 10 000 devices and support for any new drivers or interfaces developed during the course of the tender.

The prices must show the fixed fee for annual technical support services, for the 3-year period of this tender.

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
B.4.1.	**Technical Support services for a full FMES Environment (Including existing servers and security environment and up to 10 000 end devices.)**	Annual technical support cost	R	R	R
B.4.2.	**Technical Support services per additional node for the FMES Environment (up to 10 000 end devices).**	Annual technical support cost	R	R	R

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
B.4.3.	Additional Technical Support services for the FMES Environment, for all end devices, up to 20 000.	Annual technical support cost	R	R	R
B.4.4.	Additional Technical Support services for the FMES Environment, for all end devices, up to 50 000.	Annual technical support cost	R	R	R
B.4.5.	Additional Technical Support services for the FMES Environment, for all end devices, up to 500 000.	Annual technical support cost	R	R	R
B.4.6.	Technical Support services for each additional server.	Annual technical support cost	R	R	R
B.4.7.	Technical Support services for the Water Data Management System.	Annual technical support cost	R	R	R
B.4.8.	Technical Support services for the Energy Data Management System.	Annual technical support cost	R	R	R

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
Technical Support services for the Space Management System Pricing here is for the technical support services of the Space Management system, including the SMS module and SAP integration. The current Space Management System used by the City is *Korasoft*. The prices must show the fixed fee for annual technical support services, for the 3-year period of this tender.					

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
B.4.9.	**Technical Support services for the Space Management System.**	Annual technical support cost	R	R	R

SCHEDULE C. Goods and Services Which Apply to The Supply and Maintenance of Either the Existing FMES Using IPSC, Or The New FMES Using an Alternative PSIM (Apply to Option 1 and 2)

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NOTE: THIS SCHEDULE MUST BE COMPLETED BY ALL TENDERERS IRRESPECTIVE OF OPTION SELECTED IN 5.10

</div>

FMES Hardware and Middleware
Please refer to the relevant section in **(13) Specifications** for detail technical specifications for this schedule. This schedule is for the supply, installation, and commission of specific pieces of hardware and middleware to expand the FMES solution. Note that other City tenders cover hardware supply and therefore only specific hardware items relevant to the solutions included in the scope of this tender are specified here.

Item	Description	OEM Required	Discount Offered (%)	Mark-up %
C.1.1.	IP Converter or IO module	Moxa or equivalent (specify)	%	%
C.1.2.	IP Converter or IO module	ADAM or equivalent (specify)	%	%
C.1.3.	IP Converter or IO module	Controllino or equivalent (specify)	%	%
C.1.4.	IP Converter or IO module	**Other – (Specify OEM)** ……………………………………… ……………………………………… ………………………………………	……………………… % ……………………… % ……………………… %	……………………… % ……………………… % ……………………… %

Table C.2. Installation, Setup and Commissioning of New FMES Hardware and Software.

This table is for the installation, setup and commissioning of new hardware and software for the FMES environment including new server units and workstations and associated equipment. Pricing information provided in this table must excludes the cost of server and/or workstation hardware and operating systems. The prices here are for award

Item	Description	Unit	Fixed Price per Unit (Rand excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
C.2.1.	Install and commission new server	Once off fee per server	R	R	R
C.2.2.	Install and commission new FMES workstation.	Once off fee per workstation	R	R	R
C.2.3.	Install and commission IP converters or IO modules.	Once off fee per item	R	R	R

Networking and Security

Please refer to the relevant section in **(13) Specifications** for detail technical specifications for this schedule. This schedule is for the supply and support of network security services specific to the CNL IPSC or PSIM solutions as well as the FMES environment. Note that other City tenders cover network security services and therefore only specific network security services relevant to the solutions included in the scope of this tender are specified here.

Table C.3. Supply of Network Security Solutions
This table is for the supply and support of network security solutions specific to the CNL IPSC or PSIM solutions as well as the FMES environment. The award for this schedule will be for the identified **OEM product supplier (OEM), discount offered (%)** and the **mark-up percentage (%)** applied to the list prices of that OEM.

Item	Description	OEM Required	Discount Offered (%)	Mark-up %
C.3.1.	Firewalls and Security Appliance	Checkpoint or equivalent (specify)	%	%
C.3.2.	Anti-virus Software	McAfee or equivalent (specify)	%	%
C.3.3.	Web Application Firewall	Fortinet or equivalent (specify)	%	%
C.3.4.	**Other – (Specify Solution / Product)** …………………………………………… …………………………………………… ……………………………………………	**Other – (Specify OEM)** …………………………………… ……………………………….……… ……………………………………	……………………… % ……………………… % ……………………… %	……………………… % ……………………… % ……………………… %

Table C.4. Connectivity for Peering Link / Remote Access for Monitoring Purposes by the Tenderer

Please provide pricing information for the supply of connectivity services for peering link / remote access, to a City of Cape Town data centre or switching centre. The services must include necessary support services. The minimum required connection speed for connectivity is 20 Mbps. This item is for award

Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	**Price per Unit for Year 2**	**Price per Unit for Year 3**
C.4.1.	ADSL connectivity for peering link / remote access.	**per year**	R	R	R
C.4.2.	Fibre connectivity, for peering link / remote access.	**per year**	R	R	R

Table C.5. Supply of FMES Middleware devices

THE FOLLOWING TABLE WILL BE USED FOR EVALUATION PURPOSES ONLY.

Information in this table is for evaluation purposes only, tenderers are required to respond with the supplier / manufacturer / OEM Price. Items listed here only depict a typical requirement and doesn't indicate the items or quantities that will be procured through this tender.

Item	Description	Unit	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
C.5.1.	Moxa ioLogik E1242 or equivalent	Per item	R
C.5.2.	ADAM 6050 or equivalent	Per item	R

Table C.6. Supply of Network Security Systems and support

THE FOLLOWING TABLE WILL BE USED FOR EVALUATION PURPOSES ONLY.

Information in this table is for evaluation purposes only, tenderers are required to respond with the supplier / manufacturer / OEM Price. Items listed here only depict a typical requirement and doesn't indicate the items or quantities that will be procured through this tender.

Item	Description	OEM	Quantity	OEM Price per Unit (In ZAR Excl. Discount, Mark-up and VAT)
C.6.1.	CPAP-SG2200B-NGTP Collaborative Standard Support, 3 years	*Checkpoint* or equivalent	Per unit	R
C.6.2.	CPSB-NGTP-2200-3Y Next Generation Threat Prevention, 3 years	*Checkpoint* or equivalent	Per unit	R
C.6.3.	CPAP-SG2200B-NGTP-HA Collaborative Standard Support, 3 years	*Checkpoint* or equivalent	Per unit	R
C.6.4.	CPSB-NGTP-2200-3Y-HA Next Generation Threat Prevention, 3 years	*Checkpoint* or equivalent	Per unit	R
C.6.5.	CPAP-SM205 Collaborative Standard Support, 3 years	*Checkpoint* or equivalent	Per unit	R
C.6.6.	CPSB-EVS-SM205-2Y Check Point SmartEvent and SmartReporter for Smart-1 225 Appliance, for 2 years	*Checkpoint* or equivalent	Per unit	R
C.6.7.	CPAP-SG2200-NGFW Collaborative Standard Support, 3 years	*Checkpoint* or equivalent	Per unit	**R**

C.6.8.	DTSYFM-AB-AA - MFE Server Security Suite Adv 1YrGL[P+]	*McAfee* or equivalent	Per unit	R
C.6.9.	DTSYFM-AB-AA - MFE Server Security Suite Adv 1YrGL[P+]	McAfee or equivalent	Per unit	R
C.6.10.	EPSYLM-AA-AA - MFE Endpoint Protection 3Yr GL [P+]	McAfee or equivalent	Per unit	R
C.6.11.	FortiWeb-1000D 1 Year Advanced Bundle (24x7 FortiCare plus AV, FortiWeb Security Service, IP Reputation, FortiSandbox Cloud Service, and Credential Stuffing Defence Service)	Fortinet or equivalent	Per unit	R

Services

This schedule is for the purchase of services required for projects within the FMES environment. Services already provided in other schedules shall be charged at the rate quoted in those schedules.

Table C.7. Services
These services are not to be used for the maintenance and support of existing systems and only pertain to additional, ad-hoc services required in addition to the maintenance and support services deemed included as described in other schedules and in (13) Specifications. Use of these services will first require the approval of the scope and budget and procured through a specified purchase order request.
The rates must show the fixed fee for these services, expressed as an hourly or daily rate fixed per year as indicated in the "Unit" column. These items are for award

Ad-Hoc Services (Hourly Rate)					
			Rate / Price per Unit (ZAR excl. VAT)		
Item	**Description**	**Unit**	**Price per Unit for Year 1**	**Price per Unit for Year 2**	**Price per Unit for Year 3**
C.7.1.	Project Manager	Rate per hour	R	R	R
C.7.2.	SAP Developer	Rate per hour	R	R	R
C.7.3.	Software Developer	Rate per hour	R	R	R
C.7.4.	Network Engineer	Rate per hour	R	R	R
C.7.5.	Electrical / Electronics / IoT Engineer	Rate per hour	R	R	R
C.7.6.	Technician	Rate per hour	R	R	R

Ad-Hoc Services (Hourly Rate)					
			Rate / Price per Unit (ZAR excl. VAT)		
Item	Description	Unit	Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
C.7.7.	On Site Administrator	Rate per hour	R	R	R
C.7.8.	SQL DB Administrator	Rate per hour	R	R	R
C.7.9.	Network Security Expert	Rate per hour	R	R	R
C.7.10.	Security Administrator	Rate per hour	R	R	R
C.7.11.	Business Analyst	Rate per hour	R	R	R
C.7.12.	Data Analyst	Rate per hour	R	R	R
C.7.13.	Solution Architect	Rate per hour	R	R	R

Ad-Hoc Services (Day Rate)					
			Rate / Price per Unit (ZAR excl. VAT)		
Item	**Description**	**Unit**	**Price per Unit for Year 1**	**Price per Unit for Year 2**	**Price per Unit for Year 3**
C.7.14.	Project Manager	Rate per day	R	R	R
C.7.15.	SAP Developer	Rate per day	R	R	R
C.7.16.	Software Developer	Rate per day	R	R	R
C.7.17.	Network Engineer	Rate per day	R	R	R
C.7.18.	Electrical / Electronics / IoT Engineer	Rate per day	R	R	R
C.7.19.	Technician	Rate per day	R	R	R
C.7.20.	On Site Administrator	Rate per day	R	R	R
C.7.21.	SQL DB Administrator	Rate per day	R	R	R
C.7.22.	Network Security Expert	Rate per day	R	R	R

Ad-Hoc Services (Day Rate)					
Item	Description	Unit	Rate / Price per Unit (ZAR excl. VAT)		
			Price per Unit for Year 1	Price per Unit for Year 2	Price per Unit for Year 3
C.7.23.	Security Administrator	Rate per day	R	R	R
C.7.24.	Business Analyst	Rate per day	R	R	R
C.7.25.	Data Analyst	Rate per day	R	R	R
C.7.26.	Solution Architect	Rate per day	R	R	R

(6) SUPPORTING SCHEDULES

Schedule 1: Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums

This schedule is to be completed if the tender is submitted by a partnership/joint venture/ consortium.

1. We, the undersigned, are submitting this tender offer as a partnership/ joint venture/ consortium and hereby authorize Mr/Ms _____, of the authorised entity _____, acting in the capacity of Lead Partner, to sign all documents in connection with the tender offer and any contract resulting from it on the partnership/joint venture/ consortium's behalf.

2. By signing this schedule the partners to the partnership/joint venture/ consortium:

   2.1 warrant that the tender submitted is in accordance with the main business and objectives of the partnership/joint venture/ consortium;

   2.2 agree that the CCT shall make all payments in terms of this Contract into the following bank account of the Lead Partner:

   > Account Holder: _____
   >
   > Financial Institution: _____
   >
   > Branch Code: _____
   >
   > Account No.: _____

   2.3 agree that in the event that there is a change in the partnership/ joint venture/ consortium and/or should a dispute arise between the partnership/joint venture/ consortium partners, that the CCT shall continue to make any/all payments due and payable in terms of the Contract into the aforesaid bank account until such time as the CCT is presented with a Court Order or an original agreement (signed by each and every partner of the partnership/joint venture/ consortium) notifying the CCT of the details of the new bank account into which it is required to make payment.

   2.4 agree that they shall be jointly and severally liable to the CCT for the due and proper fulfilment by the successful tenderer/supplier of its obligations in terms of the Contract as well as any damages suffered by the CCT as a result of breach by the successful tenderer/supplier. The partnership/joint venture/ consortium partners hereby renounce the benefits of excussion and division.

SIGNED BY THE PARTNERS OF THE PARTNERSHIP/ JOINT VENTURE/ CONSORTIUM		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature…………………………….... Name………………………………… Designation…………………………..
		Signature…………………………….... Name………………………………… Designation…………………………..
		Signature…………………………….... Name………………………………… Designation…………………………..
		Signature…………………………….... Name………………………………… Designation…………………………..

Note: A copy of the Joint Venture Agreement shall be appended to List of other documents attached by tenderer schedule.

Schedule 2: Declaration for Procurement above R10 million

If the value of the transaction is expected to exceed R10 million (VAT included) the tenderer shall complete the following questionnaire, attach the necessary documents and sign this schedule:

1.　　　　Are you by law required to prepare annual financial statements for auditing ? (Please mark with X)

YES		NO	

1.1　　　If YES, submit audited annual financial statements:

(i)　　　for the past three years, or
(ii)　　　since the date of establishment of the tenderer (if established during the past three years)

By attaching such audited financial statements to **Schedule 13: List of other documents attached by tenderer** schedule.

2.　　Do you have any outstanding undisputed commitments for municipal services towards the CCT or other municipality in respect of which payment is overdue for more than 30 (thirty) days? (Please mark with X)

YES		NO	

2.1　　If NO, this serves to certify that the tenderer has no undisputed commitments for municipal services towards any municipality for more than three (3) (three) months in respect of which payment is overdue for more than 30 (thirty) days.

2.2　　　　If YES, provide particulars:

_____

_____

_____

_____

3.　　Has any contract been awarded to you by an organ of state during the past five (5) years? (Please mark with X)

YES		NO	

3.1   If YES, insert particulars in the table below including particulars of any material non-compliance or dispute concerning the execution of such contract. Alternatively attach the particulars to **List of other documents attached by tenderer** schedule in the same format as the table below:

Organ of State	Contract Description	Contract Period	Non-compliance/dispute (if any)

4.   Will any portion of the goods or services be sourced from outside the Republic, and if so, what portion and whether any portion of payment from the CCT is expected to be transferred out of the Republic? (Please mark with X)

YES		NO	

4.1   If YES, furnish particulars below

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the employer of any other remedies available to it.

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

Schedule 3: Preference Schedule

1 Definitions

The following definitions shall apply to this schedule:

All applicable taxes: Includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

Applicable Code: Shall be either the Amended Codes of Good Practise (published on 11 October 2013) or Sector Specific Codes as indicated in the tender conditions

B-BBEE: Broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act.

B-BBEE status level of contributor: The B-BBEE status of an entity in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act

Bid (Tender): A written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals.

Black Designated Groups: The meaning assigned to it in the codes of good practice issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003, (Act 53 of 2003).

Black People: The meaning assigned to it in section 1 of the Broad-Based Black Economic Empowerment Act.

Broad-Based Black Economic Empowerment Act: The Broad-Based Black Economic Empowerment Act, Act 53 of 2003.

Consortium or Joint Venture: An association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

Contract The agreement that results from the acceptance of a bid by an organ of state.

Co-operative: A co-operative registered in terms of section 7 of the Co-operatives Act, 2005 (Act no. 14 of 2005).

Designated Group: Black designated groups, black people, women, people with disabilities or small enterprises as defined in section 1 of the National Small Enterprises Act, 1996 (act no. 102 of 1996)

Designated Sector: A sector, sub-sector or industry or product that has been designated in terms of any relevant regulation of the Preferential Procurement Regulations, 2017.

Exempted Micro Enterprise (EME): An exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act

Firm Price: The price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.

Functionality: The ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.

Military Veteran: The meaning assigned to it in section 1 of the Military Veterans Act, 2011 (Act No. 18 of 2011).

National Treasury: The meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 18 of 1999.

Non-firm prices: All prices other than "firm" prices.

Person: Includes a juristic person.

People with disabilities: The meaning assigned to it in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998).

Price: Includes all applicable taxes less unconditional discounts.

Proof of B-BBEE status level of contributor: The B-BBEE status level certificate issued by an authorised body or person, a sworn affidavit as prescribed by the B-BBEE Codes of good Practice or any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.

Qualifying Small Enterprise (QSE): A qualifying small enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act.

Rand Value: means the total estimated value of a contract in Rand, calculated at the time of bid invitations.

Rural Area: A sparsely populated area in which people farm or depend on natural resources, including villages and small towns that are dispersed through the area or an area including a large settlement which depends on migratory labour and remittances and government social grants for survival, and may have a traditional land tenure system.

Stipulated Minimum Threshold: The minimum threshold stipulated in terms of any relevant regulation of the Preferential Procurement Regulations, 2017.

Sub-contract: The primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract.

The Act: The Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000).

Total Revenue: Bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007.

Township: An urban living area that at any time from the late 19th century until 27 April 1994, was reserved for black people, including areas developed for historically disadvantaged individuals post 27 April 1994.

Treasury: The meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 18 of 1999).

Trust: The arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person.

Trustee: Any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

Youth: The meaning assigned to it in section 1 of the National Youth Development Agency Act, 2008 (Act No. 54 of 2008).

2 Conditions associated with the granting of preferences

A supplier that is granted a preference undertakes to:

1) accept that the number of preference points allocated will be based on the B-BBEE status level of contributor of the supplier as at the closing date for submission of tender offers;

2) not sub-contract more than 25% of the value of the contract to sub-contractors that do not have an equal or higher B-BBEE status level of contributor than the supplier, unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works or unless otherwise declared in terms of Section 5 below;

3) accept that a contract may not be awarded if the price offered is not market related;

4) accept the sanctions set out in Section 3 below should Condition 2(2) be breached, or should the tenderer have submitted any false information regarding its B-BBEE status level of contributor, local production and content, or any other matter required in terms of this bid that will affect, or has affected the bid evaluation;

5) accept that, in order to qualify for preference points, it is the responsibility of the supplier to submit documentary proof of its BBBEE level of contribution in accordance with the Codes of Good Practise, 2013, to the CCT at the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5);

6) accept that, further to 5) above, Consortiums/Joint Ventures will qualify for preference points, provided that the entity submits the relevant certificate/scorecard in terms of the Preferential Procurement Regulations, 2017. Note that, in the case of unincorporated entities, a verified scorecard in the name of the consortium/Joint Venture must be submitted with the quotation (attached to this schedule);

7) accept that if it is found that, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) above was based, and the impact of which is that the Joint Venture would not have been awarded the contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, then a financial penalty shall be applied (in addition to any other remedies that the CCT may have) in accordance with Section 3 below;

8) accept that the CCT will verify the B-BBEE level of contributor of the supplier as at the closing date for submission of tender offers, to determine the number of preference points to be awarded to the supplier. In the case of Consortiums/Joint Ventures which tender as unincorporated entities, a verified scorecard

submitted with the tender and valid as at the closing date will be used to determine the number of preference points to be awarded to the supplier;

9) accept that, notwithstanding 8) above, a supplier will not be awarded points for B-BBEE status level of contributor if he indicates in his tender that he intends sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that the supplier qualifies for unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works;

10) accept that any subcontracting arrangements after the award of the tender may only be entered into upon the prior approval of the City of Cape Town; and

11) immediately inform the City of Cape Town of any change that may affect the tenderer's B-BBEE level of contribution upon which preference points will be or have been allocated.

3 Sanctions relating to breaches of preference conditions

The sanctions for breaching the conditions associated with the granting of preferences are:

1) disqualify the supplier from the tender process;

2) recover costs, losses or damages the CCT has incurred or suffered as a result of the supplier's or contractor's conduct;

3) cancel the contract in whole or in part and claim any damages which the CCT has suffered as a result of having to make less favourable arrangements due to such cancellation;

4) restrict the supplier, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from the CCT for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied and inform the National Treasury accordingly;

5) forward the matter for criminal prosecution; and/or

6) financial penalties payable to the CCT, as set out below.

Financial penalty for breach of Condition 2 in Section 2 above:

The penalty to be applied for sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the preference points that the supplier qualified for (unless so declared or proven to be beyond the control of the supplier, or the sub-contractors are EMEs that have the capability and ability to execute the sub-contract works) shall be as provided for in the following formula:

Penalty = 0.5 x E(%) x P*

where:

E = The value of work (excluding VAT) executed by sub-contractors that do not qualify for at least the preference points that the supplier qualified for, expressed as a percentage of P*, less 25%

P* = Value of the contract

Financial penalty for breach in terms of condition 6 in Section 2 above:

The penalty to be applied where, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) in Section 2 above was based, and the impact of which is that the Joint Venture would not have been awarded that contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, shall be as provided for in the following formula:

Penalty = $5/100$ x (B-BBEE^a – B-BBEE^t) x P*

where:

B-BBEE^a = The B-BBEE level of contribution that is achieved, determined in accordance with the actual participation of the Joint Venture partners in the performance of the contract

B-BBEE^t = The B-BBEE level of contribution that was used to determine the number of preference points granted to the Joint Venture at the time of tender evaluation

P* = Value of the contract

Financial penalty for breach in terms of condition 10 in Section 2 above:

The penalty to be applied where the supplier fails to disclose subcontracting arrangement after the award of the tender is up to a maximum of 10% of the value of the contract.

4 Level of Contribution in respect of enterprise status or structure of the tendering entity (the supplier)

In the interest of transparency, suppliers are required to complete Table 1: Level of Contribution below.

Table 1: Level of Contribution

Type of B-BBEE Contributor	Status (tick box(es) below as applicable)
Exempted Micro Enterprise (EME), 100% black-owned	
Exempted Micro Enterprise (EME), at least 51% but less than 100% black-owned	
Exempted Micro Enterprise (EME), less than 51% black-owned	
Qualifying Small Enterprise (QSE), 100% black-owned	
Qualifying Small Enterprise (QSE), at least 51% but less than 100% black-owned	
Qualifying Small Enterprise (QSE), less than 51% black-owned	
Verified B-BBEE contributor B-BBEE Status Level of Contributor [1]	
Non-compliant contributor	

[1] If it is indicated that the company/firm/entity is a verified B-BBEE contributor, then the verified status level of contributor must be inserted in the box provided (insert a number from 1 to 8 as applicable)

5 Declarations

1) With reference to Condition 8 in Section 2 above, the supplier declares that:

I/we hereby forfeit my preference points because I /we DO intend sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that I/we as supplier qualify for or are not exempted micro enterprises that have the capability and ability to execute the sub-contract works

Note:

Suppliers who do not tick this box will be allocated preference points but the sanctions relating to breaches of preference conditions in Section 3 will be applicable if the supplier contravenes the conditions in Section 2.

2) The undersigned, who warrants that he/she is duly authorised to do so on behalf of the supplier, hereby certifies that the preference claimed based on the B-BBEE status level of contribution indicated in Table 1, qualifies the supplier, subject to condition 8 in Section 2 above, for such preference claimed, and acknowledges that:

(i) the information furnished is true and correct;

(ii) the preference claimed is in accordance with the conditions of this schedule;

(iii) the supplier may be required to furnish documentary proof to the satisfaction of the CCT that the BBBEE level of contributor as at the closing date is correct; and

iv) he/she understands the conditions under which preferences are granted, and confirms that the supplier will satisfy the conditions pertaining to the granting of preferences.

_____   _____

Signature   **Date**

_____

Name (PRINT)

(For and on behalf of the Supplier (duly authorised))

For official use.		
SIGNATURE OF CITY OFFICIALS AT TENDER OPENING		
1.	**2.**	**3.**

Schedule 4: Declaration of Interest – State Employees (MBD 4 amended)

1. No bid will be accepted from:
   1.1 persons in the service of the state[1], or
   1.2 if the person is not a natural person, of which any director, manager or principal shareholder or stakeholder is in the service of the state, or
   1.3 from persons, or entities of which any director, manager or principal shareholder or stakeholder, has been in the service of the City of Cape Town during the twelve months after the City employee has left the employ of the City, or
   1.4 from an entity who has employed a former City employee who was at a level of T14 of higher at the time of leaving the City's employ and involved in any of the City's bid committees for the bid submitted, if:
      1.4.1 the City employee left the City's employment voluntarily, during a period of 12 months after the City employee has left the employ of the City;
      1.4.2 the City employee left the City's employment whilst facing disciplinary action by the City, during a period of 24 months after the City employee has left the employ of the City, or any other period prescribed by applicable legislative provisions, after having left the City's employ.

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the tenderer or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

   3.1 Full Name of tenderer or his or her representative:……………………………………………...
   .2 Identity Number:……………………………………………………………………………………

   3.3 Position occupied in the Company (director, trustee, shareholder[2])………………………….

   3.4 Company or Close Corporation Registration Number:……………………………………………

   3.5 Tax Reference Number…………………………………………………………………………..

   3.6 VAT Registration Number:…………………………………………………………………………

   3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in <u>paragraph 4</u> below.

   3.8 Are you presently in the service of the state? **YES / NO**

      3.8.1 If yes, furnish particulars ………………………………………………………………….

   3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

      3.9.1 If yes, furnish particulars ………………………………………………………………….
      3.10   Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

      3.10.1 If yes, furnish particulars ……………………………………………………………………

   3.11 Are you, aware of any relationship (family, friend, other) between any other tenderer and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

      3.11.1 If yes, furnish particulars………………………………………………………………….

   3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

      3.12.1 If yes, furnish particulars ……………………………………………………………..……

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

    3.13.1 If yes, furnish particulars …………………………………………………………………

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**

    3.14.1 If yes, furnish particulars …………………………………………………………………

3.15 Have you, or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company been in the service of the City of Cape Town in the past twelve months? **YES / NO**

    3.15.1 If yes, furnish particulars …………………………………………………………………

3.16 Do you have any employees who was in the service of the City of Cape Town at a level of T14 or higher at the time they left the employ of the City, and who was involved in any of the City's bid committees for this bid? **YES / NO**

    3.16.1 If yes, furnish particulars …………………………………………………………………

4.   Full details of directors / trustees / members / shareholders

Full Name	Identity Number	State Employee Number

If the above table does not sufficient to provide the details of all directors / trustees / shareholders, please append full details to the tender submission.

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the employer of any other remedies available to it.

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

¹*MSCM Regulations: "in the service of the state" means to be –*
  (a) a member of –
        (i)   any municipal council;
        (ii)   any provincial legislature; or
        (iii)   the national Assembly or the national Council of provinces;

  (b) a member of the board of directors of any municipal entity;
  (c) an official of any municipality or municipal entity;
  (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
  (e) an executive member of the accounting authority of any national or provincial public entity; or
  (f) an employee of Parliament or a provincial legislature.

² *Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.*

Schedule 5: Conflict of Interest Declaration

1.   The tenderer shall declare whether it has any conflict of interest in the transaction for which the tender is submitted. (Please mark with X)

YES		NO	

1.1   If yes, the tenderer is required to set out the particulars in the table below:

2.   The tenderer shall declare whether it has directly or through a representative or intermediary promised, offered or granted:

2.1   any inducement or reward to the CCT for or in connection with the award of this contract; or

2.2 any reward, gift, favour or hospitality to any official or any other role player involved in the implementation of the supply chain management policy. (Please mark with X)

YES		NO	

If yes, the tenderer is required to set out the particulars in the table below:

Should the tenderer be aware of any corrupt or fraudulent transactions relating to the procurement process of the City of Cape Town, please contact the following:

the City's anti-corruption hotline at 0800 32 31 30 (toll free)

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the employer of any other remedies available to it.

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

	Schedule 6: Declaration of Tenderer's Past Supply Chain Management Practices (MBD 8)

Where the entity tendering is a partnership/joint venture/consortium, each party to the partnership/joint venture/consortium must sign a declaration in terms of the Municipal Finance Management Act, Act 56 0f 2003, and attach it to this schedule.

1   The tender offer of any tenderer may be rejected if that tenderer or any of its directors/members have:

    a)   abused the municipality's / municipal entity's supply chain management system or committed any fraudulent conduct in relation to such system;
    b)   been convicted for fraud or corruption during the past five years;
    c)   willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
    d)   been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers.

2   In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
2.1	**Is the tenderer or any of its directors/members listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?** (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
2.1.1	If so, furnish particulars:		
2.2	Is the tenderer or any of its directors/members listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
2.2.1	If so, furnish particulars:		
2.3	Was the tenderer or any of its directors/members convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐

2.3.1	If so, furnish particulars:		

Item	Question	Yes	No
2.4	Does the tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
2.4.1	If so, furnish particulars:		
2.5	Was any contract between the tenderer and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
2.7.1	If so, furnish particulars:		

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, , restriction of the tenderer or the exercise by the employer of any other remedies available to it.

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

Schedule 7: Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town

To: THE CITY MANAGER, CITY OF CAPE TOWN

From: _____
             (Name of tenderer)

RE: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN

The tenderer:

a) hereby acknowledges that according to SCM Regulation 38(1)(d)(i) the City Manager may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the tenderer (or any of its directors/members/partners) to the CCT, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months; and

b) therefore hereby agrees and authorises the CCT to deduct the full amount outstanding by the Tenderer or any of its directors/members/partners from any payment due to the tenderer; and

c) confirms the information as set out in the tables below for the purpose of giving effect to b) above;

d) The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the employer of any other remedies available to it.

Physical **Business** address(es) of the tenderer	Municipal Account number(s)

If there is not enough space for all the names, please attach the information to **List of other documents attached by tenderer** schedule in the same format:

Name of Director / Member / Partner	Identity Number	Physical **residential** address of Director / Member / Partner	Municipal Account number(s)

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

Schedule 8: Contract Price Adjustment and/or Rate of Exchange Variation

THIS SCHEDULE IS NOT APPLICABLE TO THIS TENDER AND SHOULD BE DISREGARDED.

THE TENDER OFFERS OF TENDERERS WHO SUBMIT PRICES SUBJECT TO ADJUSTMENT AND/OR RATE OF EXCHANGE VARIATION (INSTEAD OF FIRM PRICES) SHALL BE DECLARED NON-RESPONSIVE.

Schedule 9: Certificate of Independent Tender Determination

I, the undersigned, in submitting this tender **202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS** in response to the tender invitation made by THE CITY OF CAPE TOWN, do hereby make the following statements, which I certify to be true and complete in every respect:

I certify, on behalf of:_____ (Name of tenderer)

That:

1. I have read and I understand the contents of this Certificate;

2. I understand that this tender will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorised by the tenderer to sign this Certificate, and to submit this tender, on behalf of the tenderer;

4. Each person whose signature appears on this tender has been authorised by the tenderer to determine the terms of, and to sign, the tender on behalf of the tenderer;

5. For the purposes of this Certificate and this tender, I understand that the word 'competitor' shall include any individual or organisation other than the tenderer, whether or not affiliated with the tenderer, who:

    (a) has been requested to submit a tender in response to this tender invitation;

    (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and

    (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.

6. The tenderer has arrived at this tender independently from and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium[1] will not be construed as collusive price quoting.

7. In particular, without limiting the generality of paragraphs 5 and 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

    (a)   prices;

    (b)   geographical area where product or service will be rendered (market allocation);

    (c)   methods, factors or formulas used to calculate prices;

    (d)   the intention or decision to submit or not to submit a tender;

    (e)   the submission of a tender which does not meet the specifications and conditions of the tender; or

    (f)   tendering with the intention not to win the contract.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.

9. The terms of this tender have not been and will not be disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act, Act 89 of 1998, and/or may be reported to the National Prosecuting Authority (NPA) for criminal investigation, and/or may be restricted from conducting business with the public sector for a period not exceeding 10 (ten) years in terms of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, or any other applicable legislation.

_____   _____

Signature   **Date**

_____

Name (PRINT)

(For and on behalf of the Tenderer (duly authorised))

([1] Consortium: Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.)

Schedule 10: Local Content Declaration / Annexure C – NOT USED

NOT APPLICABLE TO THIS TENDER

Schedule 11: Price Basis for Imported Resources – NOT USED

NOT APPLICABLE TO THIS TENDER

Schedule 12: Schedule of Pre-Qualification Criteria Sub-Contractors

NOT APPLICABLE TO THIS TENDER

Schedule 13: List of other documents attached by tenderer

	Date of Document	Title of Document or Description (refer to clauses / schedules of this tender document where applicable)
The tenderer has attached to this schedule, the following additional documentation:

	Date of Document	**Title of Document or Description** **(refer to clauses / schedules of this tender document where applicable)**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

Attach additional pages if more space is required.

_____   _____
Signature
Print name: Date
On behalf of the tenderer (duly authorised)

Schedule 14: Record of Addenda to Tender Documents

	We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:	
	Date	**Title or Details**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15: Information to be provided with the tender

Please refer to Section Error! Reference source not found. as well as section Error! Reference source not found. for references to this schedule, **Schedule 15,** where evidence or proof in terms of technical data sheets, product specifications, technical drawings, proof of certificates and other information is requested to confirm the Tenderer's response in these sections. Tenderers are required to supply all the requested information in this schedule and in the format and detail as requested. Failure to respond to this information may result in the tender response marked as non-responsive.

Schedule 15 A.   ISV or OEM Product Price Lists

Please provide the **complete ISV / OEM product price lists** for all the application software, licenses and/or equipment proposed in this tender.

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 B.   ISV / OEM Product Relationship and Authorized Support Provider

Please provide a copy of the certificate or a letter from the ISV and / or OEM Product supplier for all the proposed solutions in this tender. The evidence (copy of certificate or letter) must show both;

1. **Relationship status between the Tenderer and the ISV / OEM**
2. **As well as authorisation to deliver support services on the ISV / OEM products.**

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 C.   Technical specifications and product data sheets.
Please provide **technical specification** of solutions and equipment proposed in the form of **technical data sheets** and/or **technical brochures** and/or **drawings**.

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 D.   Financial Standing.
Provide details to show that your company is financially stable, as reflected by annual financial statements for the last three years. This information must show the annual turnover for the last financial year of the company.

Annual turnover for the last financial year:

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 E.   Technical Support Service

Please state if you provide a business hours call centre / helpdesk or 24hr call centre / helpdesk service. As evidence to your response please provide here the Call Centre / Helpdesk contact information as well as summarised procedure of how calls are logged and resolved.

Refer to in Error! Reference source not found. **in section 6.2 Tenderer's Obligations for information on the scoring to evaluate the information to be provided in this table.**

Operating hours of call centre/helpdesk:

Call Centre / Helpdesk contact details during business hours:

Call Centre / Helpdesk contact details after hours (24h services):

Summary process steps or procedure to log a service call.

Escalation procedure for unresolved or priority calls.

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 F.   Company Resources – Senior Managers

Please state the number of Senior Managers with at-least 5 years of experience in the PSIM or FMES environment. Provide names and qualifications and include an abbreviated CV for each of the senior managers as identified in the list below.

Please provide a high-level summary below of relevant skills, and the names and details of particular key individuals.

Name and Surname of Senior Managers	Position	Qualification	Experience (≥ 5 years)	CV Included "Yes / No"

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 16.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 G. Company Resources – Engineering / Technical and Support

Please state the number of Engineering/Technical staff that have more than 5 years of experience in the PSIM or FMES environment

Please provide a high-level summary below of relevant skills, and the names and details of particular key individuals.

Name and Surname of Engineer / Technical Specialist	Position	Qualification	Experience (≥ 5 years)	CV Included "Yes / No"

Additional information or annexures may be attached with the response. Tenderers MUST properly reference any additional information or annexures to specific sub-schedule of Schedule 15.

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 H.   Track record - IPSC Experience with Enterprise clients

Provide details of all similar projects conducted for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 16 and is accurately referenced.

Item Number	Name of Client	Project Description	Value of Project	Contact Details

Schedule 15 I.   Track record - IPSC Experience to driver interfaces for subsystems

Provide details of all similar projects where IPSC driver development and installation occurred for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 15 and is accurately referenced.

Item Number	Name of Client	Project Description	IPSC driver interface	Contact Details

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 J.   Track record - IPSC Systems Interface Experience

Provide details of all similar projects where IPSC driver development and installation occurred for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 15 and is accurately referenced.

Item Number	Name of Client	Project Description	IPSC driver interface	Contact Details

Schedule 15 K.   Track record - Network Architecture Experience

Provide details of all similar projects conducted for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 15 and is accurately referenced.

Item Number	Name of Client	Project Description	Value of Project	Contact Details

SIGNED ON BEHALF OF TENDERER: . . . .

Schedule 15 L.   Track record - Experience in managing PSIM and FMES data environments

Provide details of all similar projects conducted for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 15 and is accurately referenced.

Item Number	Name of Client	Project Description	Value of Project	Contact Details

Schedule 15 M.   Track record – General PSIM experience

Provide details of all similar projects conducted for enterprise clients in the last five years. Please ensure that all additional information and documentation is attached with the Tender Response in Schedule 15 and is accurately referenced.

Item Number	Name of Client	Project Description	Value of Project	Contact Details

SIGNED ON BEHALF OF TENDERER: . . . .

TENDER DOCUMENT GOODS AND SERVICES	CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT	

TENDER NO: 202S/2021/22

SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT UNTIL 30 JUNE 2024 (THREE FINANCIAL YEARS)

VOLUME 3: DRAFT CONTRACT

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

VOLUME 3: DRAFT CONTRACT (7) SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract, referring to the National Treasury – Conditions of Contract (revised July 2010), are applicable to this Contract:

1. Definitions

Delete Clause 1.15 and substitute with the following

1.15   The word 'Goods' is to be replaced everywhere it occurs in the GCC with the phrase 'Goods and / or Services' which means all of the equipment, machinery, materials, services, products, consumables, etc. that the supplier is required to deliver to the purchaser under the contract. This definition shall also be applicable, as the context requires, anywhere where the words "supplies" and "services" occurs in the GCC.

Delete Clause 1.19 and substitute with the following

1.19   The word 'Order' is to be replaced everywhere it occurs in the GCC with the words 'Purchase Order' which means the official purchase order authorised and released on the purchaser's SAP System

Delete Clause 1.21 and substitute with the following:

1.21   'Purchaser' means the **City of Cape Town**. The address of the Purchaser is **12 Hertzog Boulevard, Cape Town, 8001**.

Add the following after Clause 1.25:

1.26   'Supplier' means any provider of goods and / or services with whom the contract is concluded

1.27   "Intellectual Property" means any and all intellectual property rights of any nature anywhere in the world whether registered, registerable or otherwise, including patents, trademarks, registered designs and domain names, applications for any of the foregoing, trade or business names, copyright and rights in the nature of copyright, design rights, rights in databases, know-how, trade secrets and any other intellectual property rights which subsist in computer software, computer programs, websites, documents, information, techniques, business methods, drawings, logos, instruction manuals, lists and procedures and particulars of customers, marketing methods and procedures and advertising literature, including the "look and feel" of any websites

3. General Obligations

Delete Clause 3.2 in its entirety and replace with the following clauses.

3.2   The parties will be liable to each other arising out of or in connection with any breach of the obligations detailed or implied in this contract, subject to clause 28.

3.3   All parties in a joint venture or consortium shall be jointly and severally liable to the purchaser in terms of this contract and shall carry individually the minimum levels of insurance stated in the contract, if any.

3.4   The parties shall comply with all laws, regulations and bylaws of local or other authorities having jurisdiction regarding the delivery of the goods and give all notices and pay all charges required by such authorities.

3.4.1   The parties agree that this contract shall also be subject to the CCT's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised**, save that if the Employer adopts a new SCM Policy which contemplates that any clause therein would apply to the contract emanating from this tender, such clause shall also be applicable to that contract**. Please refer to this document contained on the CCT's website.

3.4.2   Abuse of the supply chain management system is not permitted and may result in cancellation of the contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

3.5   The **supplier** shall:

3.5.1   Arrange for the documents listed below to be provided to the Purchaser prior to the issuing of the order:

   a)   Proof of Insurance (Refer to Clause 11) or Insurance Broker's Warrantee
   b)   Letter of good standing from the Compensation Commissioner, or a licensed compensation insurer (Refer to Clause 11)
   c)   Initial delivery programme
   d)   Other requirements as detailed in the tender documents

3.5.2   Only when notified of the acceptance of the bid by the issuing of the order, the supplier shall commence with and carry out the delivery of the goods in accordance with the contract, to the satisfaction, of the purchaser

3.5.3   Provide all of the necessary materials, labour, plant and equipment required for the delivery of the goods including any temporary services that may be required

3.5.4   Insure his workmen and employees against death or injury arising out of the delivery of the goods

3.5.5   Be continuously represented during the delivery of the goods by a competent representative duly authorised to execute instructions;

3.5.6   In the event of a loss resulting in a claim against the insurance policies stated in clause 11, pay the first amount (excess) as required by the insurance policy

3.5.7   Comply with all written instructions from the purchaser subject to clause 18

3.5.8   Complete and deliver the goods within the period stated in clause 10, or any extensions thereof in terms of clause 21

3.5.9   Make good at his own expense all incomplete and defective goods during the warranty period

3.5.10   Pay to the purchaser any penalty for delay as due on demand by the purchaser. The supplier hereby consents to such amounts being deducted from any payment to the supplier.

3.5.11   Comply with the provisions of the OHAS Act & all relevant regulations.

3.5.12   Comply with all laws relating to wages and conditions generally governing the employment of labour in the Cape Town area and any applicable Bargaining Council agreements.

3.5.13   Deliver the goods in accordance with the contract and with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.

3.6   The **purchaser** shall:

3.6.1   Issue orders for the goods required under this Contract. No liability for payment will ensue for any work done if an official purchase order has not been issued to the supplier.

3.6.2   Make payment to the **supplier** for the goods as set out herein.

3.6.3   Take possession of the goods upon delivery by the supplier.

3.6.4   Regularly inspect the goods to establish that it is being delivered in compliance with the contract.

3.6.5   Give any instructions and/or explanations and/or variations to the supplier including any relevant advice to assist the supplier to understand the contract documents.

3.6.6   Grant or refuse any extension of time requested by the supplier to the period stated in clause 10.

3.6.7   Inspect the goods to determine if, in the opinion of the purchaser, it has been delivered in compliance with the contract, alternatively in such a state that it can be properly used for the purpose for which it was intended.

3.6.8   Brief the supplier and issue all documents, information, etc. in accordance with the contract.

5. Use of contract documents and information; inspection, copyright, confidentiality, etc.

Add the following after clause 5.4:

5.5   Copyright of all documents prepared by the supplier in accordance with the relevant provisions of the copyright Act (Act 98 of 1978) relating to contract shall be vested in the purchaser. Where copyright is vested in the supplier, the purchaser shall be entitled to use the documents or copy them only for the purposes for which they are intended in regard to the contract and need not obtain the supplier's permission to copy for such use. Where copyright is vested in the purchaser, the supplier shall not be liable in any way for the use of any of the information other than as originally intended for the contract and the purchaser hereby indemnifies the supplier against any claim which may be made against him by any party arising from the use of such documentation for other purposes.

The ownership of data and factual information collected by the supplier and paid for by the purchaser shall, after payment, vest with the purchaser

5.6   Publicity and publication
The supplier shall not release public or media statements or publish material related to the services or contract within two (2) years of completion of the services without the written approval of the purchaser, which approval shall not be unreasonably withheld.

5.7   Confidentiality
Both parties shall keep all information obtained by them in the context of the contract confidential and shall not divulge it without the written approval of the other party.

5.8   Intellectual Property

5.8.1   The supplier acknowledges that it shall not acquire any right, title or interest in or to the Intellectual Property of the Employer.

5.8.2   The supplier hereby assigns to the Employer, all Intellectual Property created, developed or otherwise brought into existence by it for the purposes of the contract, unless the Parties expressly agree otherwise in writing.

5.8.3   The supplier shall, and warrants that it shall:

5.8.3.1 not be entitled to use the Employer's Intellectual Property for any purpose other than as contemplated in this contract;

5.8.3.2 not modify, add to, change or alter the Employer's Intellectual Property, or any information or data related thereto, nor may the supplier produce any product as a result of, including and/or arising from any such information, data and Intellectual Property, and in the event that it does produce any such product, the product shall be, and be deemed in law to be, owned by the Employer;

5.8.3.3 not apply for or obtain registration of any domain name, trademark or design which is similar to any Intellectual Property of the Employer;

5.8.3.4 comply with all reasonable directions or instructions given to it by the Employer in relation to the form and manner of use of the Employer Intellectual Property, including without limitation, any brand guidelines which the Employer may provide to the supplier from time to time;

5.8.3.5 procure that its employees, directors, members and contractors comply strictly with the provisions of clauses 5.8.3.1 to 5.8.3.3 above; unless the Employer expressly agrees thereto in writing after obtaining due internal authority.

5.8.4 The supplier represents and warrants to the Employer that, in providing goods, services or both, as the case may be, for the duration of the contract, it will not infringe or make unauthorised use of the Intellectual Property rights of any third party and hereby indemnifies the Employer from any claims, liability, loss, damages, costs, and expenses arising from the infringement or unauthorised use by the supplier of any third party's Intellectual Property rights.

5.8.5 In the event that the contract is cancelled, terminated, ended or is declared void, any and all of the Employer's Intellectual Property, and any and all information and data related thereto, shall be immediately handed over to the Employer by the supplier and no copies thereof shall be retained by the supplier unless the Employer expressly and in writing, after obtaining due internal authority, agrees otherwise.

7. Performance Security

NOT APPLICABLE TO THIS TENDER

Delete clause 7.1 to 7.4 and replace with the following:

'Not Applicable. Tenderers must disregard **Form of Guarantee / Performance Security** and are not required to complete same.

8. Inspections, tests and analyses

Delete Clause 8.2 and substitute with the following:

8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the purchaser or an organisation acting on behalf of the purchaser.

10. Delivery and documents

Delete clauses 10.1 and 10.2 and replace with the following:

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The time for delivery of the goods shall be the date as stated on the order. Orders for the supply and delivery of goods may be raised up until the expiry of a framework agreement bid, provided that the goods can be delivered within 30 days of expiry of the framework contract. All orders, other than for the supply and delivery of goods, must be completed prior to the expiry of the contract period.

10.2 The purchaser shall determine, in its sole discretion, whether the goods have been delivered in compliance with the contract, alternatively in such a state that it can be properly used for the purpose for which it was intended. When the purchaser determines that the goods have been satisfactorily delivered, the purchaser must issue an appropriate certification, or written approval, to that effect. Invoicing may only occur, and must be dated, on or after the date of acceptance of the goods.

11. Insurance

Add the following after clause 11.1:

11.2 Without limiting the obligations of the supplier in terms of this contract, the supplier shall effect and maintain the following additional insurances:

a) Public liability insurances, in the name of the supplier, covering the supplier and the purchaser against liability for the death of or injury to any person, or loss of or damage to any property, arising out of or in the course of this Contract, in an amount not less than **R20 million** for any single claim**;**

b)   Motor Vehicle Liability Insurance, in respect of all vehicles owned and / or leased by the supplier, comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity;

c)   Registration / insurance in terms of the Compensation for Occupational Injuries and Disease Act, Act 130 of 1993**.** This can either take the form of a certified copy of a valid Letter of Good Standing issued by the Compensation Commissioner, or proof of insurance with a licenced compensation insurer, from either the bidder's broker or the insurance company itself (see **Proof of Insurance / Insurance Broker's Warranty** section in document for a pro forma version).

d)   Professional indemnity insurance providing cover in an amount of not less than R5 million in respect of each and every claim during the contract period.

In the event of under insurance or the insurer's repudiation of any claim for whatever reason, the CCT will retain its right of recourse against the supplier.

11.3   The supplier shall be obliged to furnish the CCT with proof of such insurance as the CCT may require from time to time for the duration of this Contract. Evidence that the insurances have been effected in terms of this clause, shall be either in the form of an insurance broker's warranty worded precisely as per the pro forma version contained in the **Proof of Insurance / Insurance Broker's Warranty** section of the document or copies of the insurance policies.

15. Warranty

Add to Clause 15.2:

15.2   This warranty for this contract shall remain valid for **twelve (12) months** after the goods have been delivered. This includes all equipment, parts and labour.

16. Payment

Delete Clause 16.1 in its entirety and replace with the following:

16.1   A monthly payment cycle will be the norm. All invoices which are dated on or before the 20th of a particular month will typically be paid between the 23rd and 26th of the following month. The supplier may submit a fully motivated application regarding more frequent payment to the Employer's Director: Expenditure for consideration. Requests for more frequent payments will be considered at the sole discretion of the Employer and is not a right in terms of this contract.

Delete Clause 16.2 in its entirety and replace with the following:

16.2   The supplier shall furnish the purchaser's Accounts Payable Department with an original tax invoice, clearly showing the amount due in respect of each and every claim for payment.

Add the following after clause 16.4

16.5   Notwithstanding any amount stated on the order, the supplier shall only be entitled to payment for goods actually delivered in terms of the Project Specification and Drawings, or any variations in accordance with clause 18. Any contingency sum included shall be for the sole use, and at the discretion, of the purchaser.

The CCT is not liable for payment of any invoice that pre-dates the date of delivery of the goods.

16.6   The purchaser will only make advanced payments to the supplier in strict compliance with the terms and details as contained on **Proforma Advanced Payment Guarantee** and only once the authenticity of such guarantee has been verified by the City's Treasury Department.

17. Prices

Add the following after clause 17.1

17.2 If as a result of an award of a contract beyond the original tender validity period, the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then the contract may be subject to contract price adjustment for that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.

17.3 If as a result of any extension of time granted the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then contract price adjustment may apply to that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.

17.4 The prices for the goods delivered and services performed shall **NOT** be subject to contract price adjustment

17.5 If price adjustment for variations in the cost of plant and materials imported from outside of South Africa is provided for in the contract, such adjustment shall be based on the information contained on the schedule titled "**Price Basis for Imported Resources**" (Schedule 11 in this document) and as below. For the purposes of this clause the Rand value of imported Plant and Materials inserted on the schedule titled "**Price Basis for Imported Resources**" (column (F)) shall be the value in foreign currency (column (A)) converted to South African Rand (column (C)) by using the closing spot selling rate quoted by **CCT's** main banker, NEDBANK, on the **Base Date (seven calendar days before tender closing date)** rounded to the second decimal place (column(B)), to which shall be added any Customs Surcharge and Customs Duty applicable at that date (columns (D) and (E)).

17.5.1 Adjustment for variations in rates of exchange:

(a) The value in foreign currency inserted in column (A) shall be subject to clause (h) below when recalculating the Rand value.

(b) The rate of exchange inserted in column (B) shall be the closing spot selling rate quoted by Council's main banker, NEDBANK, on the Base Date, rounded to the second decimal place, subject to sub-paragraph (c) below.

(c) If the rate of exchange inserted by the Tenderer differs from the NEDBANK rate referred to above, then the NEDBANK rate shall apply and the Rand value in columns (C) and (F) shall be recalculated accordingly, without altering the price in the Price Schedule for the relevant items.

(d) If a tender from a supplier or sub-contractor provides for variations in rates of exchange, the Supplier may **only** claim for variations in rates of exchange if he binds the supplier or sub-contractor to the same provision to take out forward cover as described in sub-paragraph (e) below.

(e) The Supplier (or sub-contractor) shall within five working days from the date of placing a firm order on an overseas supplier, cover or recover forward by way of a contract with a bank which is an authorised foreign exchange dealer, the foreign exchange component of the cost of any imported Plant and Materials inserted by the Tenderer on the scheduled titled "**Price Basis for Imported Resources**".

(f) When the Supplier (or sub-contractor) so obtains forward cover, the Supplier shall immediately notify the CCT of the rate obtained and furnish the CCT with a copy of the foreign exchange contract note.

(g) Based on the evidence provided in sub-paragraph (f) above, the value in Rand inserted in column (C) of on the schedule titled "**Price Basis for Imported Resources** "shall be recalculated using the forward cover rate obtained, and any increase or decrease in the Rand value defined in this clause shall be adjusted accordingly, subject to sub-paragraph (h) below.

(h) The adjustments shall be calculated upon the value in foreign currency in the Supplier's (or sub-contractor's) **forward cover contract**, provided that, should this value exceed the value in foreign currency

inserted in column (A) of on the schedule titled "**Price Basis for Imported Resources"**, then the value in column (A) shall be used.

17.5.2   Adjustment for variations in customs surcharge and customs duty

(a) Any increase or decrease in the Rand value between the amounts of Customs Surcharge and Customs Duty inserted in on the schedule titled "**Price Basis for Imported Resources"** and those amounts actually paid to the Customs and Excise Authorities, which are due to changes in the percentage rates applicable or to the foreign exchange rate used by the authorities, shall be adjusted accordingly.

(b) The Tenderer shall state the Customs Duty Tariff Reference applicable to each item and the Supplier shall advise the CCT's Agent of any changes which occur.

17.5.3   Adjustment for variation in labour and material Costs

If the prices for imported Plant and Materials are not fixed, the Supplier shall in his Tender specify the formula for calculating Contract Price Adjustments normally used in the country of manufacture and the indices and relative proportions of labour and material on which his Tender prices are based. Evidence of the indices applicable shall be provided with each claim. The indices applicable 42 days before contractual dispatch date from the factory will be used for the purposes of Contract Price Adjustment.

Failure to specify a formula in the Tender shall mean that the prices are fixed or shall be deemed to be fixed.

18. Contract Amendments

Delete the heading of clause 18 and replace with the following:

18.   Contract Amendments and Variations

Add the following to clause 18.1:

Variations means changes to the goods, extension of the duration or expansion of the value of the contract that the purchaser issues to the supplier as instructions in writing, subject to prior approval by the purchaser's delegated authority. Should the supplier deliver any goods not described in a written instruction from the purchaser, such work will not become due and payable until amended order has been issued by the purchaser.

20. Subcontracts

Add the following after clause 20.1:

20.2   The supplier shall be liable for the acts, defaults and negligence of any subcontractor, his agents or employees as fully as if the were the acts, defaults or negligence of the supplier.

20.3   Any appointment of a subcontractor shall not amount to a contract between the CCT and the subcontractor, or a responsibility or liability on the part of the CCT to the subcontractor and shall not relive the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

Delete Clause 21.2 in its entirety and replace with the following:

21.2   If at any time during the performance of the contract the supplier or its sub-contractors should encounter conditions beyond their reasonable control which impede the timely delivery of the goods, the supplier shall notify the purchaser in writing, within 7 Days of first having become aware of these conditions, of the facts of the delay, its cause(s) and its probable duration. As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation, and may at his discretion extend the time for delivery.

Where additional time is granted, the purchaser shall also determine whether or not the supplier is entitled to payment for additional costs in respect thereof. The principle to be applied in this regard is that where the purchaser or any of its agents are responsible for the delay, reasonable costs shall be paid. In respect of delays that were beyond the reasonable control of both the supplier and the purchaser, additional time only (no costs) will be granted.

The purchaser shall notify the supplier in writing of his decision(s) in the above regard.

21.3 No provision in a contract shall be deemed to prohibit the obtaining of goods from a national department, provincial department, or a local authority.

22. Penalties

Delete clause 22.1 and replace with the following:

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum as stated herein for each day of the delay until actual delivery or performance.

22.2 The purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, financial penalties as contained on the **Preference Schedule** relaying to breaches of the conditions upon which preference points were awarded.

22.3 The purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, financial penalties as contained in the below methodology read with table 22.3: Penalty Points for Infringement of each Performance Metric.

22.3.1 Whenever a Performance Metric is not achieved, the Infringement will cause the stipulated number of Penalty Points to be incurred. The Purchaser shall be entitled (but not obliged) to penalise each Infringement by recording the incurrence of Penalty Points.

22.3.2 When incurred, the Penalty Points will be totalled up at the end of each Calendar Month.

22.3.3 If the total number of Penalty Points incurred in a Calendar Month is more than twenty (i.e. >20; 21 or more) (the Penalty Point Threshold) at any time during the Contact Period, then a Non-Compliance Event has occurred.

22.3.4 The occurrence of a Non-Compliance Event will result in the Purchaser imposing a Performance Penalty, which may be claimed by the Purchaser.

22.3.5 On the first occurrence of a Non-Compliance Event, the Purchaser will claim a Performance Penalty of 1% (one percent) of the total invoices value of all Services procured during the preceding twelve Calendar Months.

22.3.6 The Performance Penalty amount shall be claimed as a credit on the following month's account.

22.3.7 The first imposition of a Performance Penalty initiates a 12-month rolling period. This 12-month rolling period will commence on the 1st day of the Calendar Month in which the Non-Compliance Event occurred. Thereafter, the 12-month rolling period shall be defined as the current Calendar Month and the previous 11 months.

22.3.8 On the second occurrence of a Non-Compliance Event in a 12-month rolling period, the City will claim a Performance Penalty of 2% (two percent) of the total invoices value of all Services procured during the preceding twelve Calendar Months, paid as a credit on the following month's account.

22.3.9 If a second Non-Compliance event does not occur in a 12-month rolling period, then at the end of the 12-month rolling period the default situation at the start of the contract period will prevail until a new Non-Compliance Event occurs, which will initiate a further 12-month rolling period.

22.3.10 On the third and subsequent occurrence of a Non-Compliance Event in a 12-month rolling period, the City will claim a Performance Penalty of 3% (three percent) of the total invoices value of all Services procured during the preceding twelve Calendar Months, paid as a credit on the following month's account.

Table 22.3: Penalty Points for Infringement of each Performance Metric

#	Minimum capability requirement	Dependencies	Performance Indicators		Penalty Points for Infringement
			Performance Measure	Metric	
1	Monitor the physical security systems and building management systems of all building integrated with the PSIM, and respond to incident alerts, using a <u>single</u> platform, which has a very high level of availability	Functionality and performance of the PSIM application, FMES server environment, data mediator, backup server, PSIM terminals and video walls, and all integration links with the sub-systems (including MOXA and ADAM units where applicable) must be functional and available The FMES Network and Metro Area Network must also be available	Availability of the PSIM system and the FMES environment within which it operates Degraded Performance resolved promptly	>99% at all times (subject to network availability) Time to Repair Degraded Performance: 12 Business Hours	10 Points 5 Points

2	Co-ordinate the response to alerts across multiple sub-systems at the same site. This must be achievable manually using predefined standard operating procedures and workflows, but preferably with continually improving levels of automation and machine autonomy	Functionality and performance of the PSIM application, and FMES environment must be functional and available as above
		
		The integration links with the sub-systems and associated drivers must be functional and available
			Coordinated response to events:
			
			  in a test environment
			
			  in live situations
			
			Degraded Performance resolved promptly
				Test simulations to be conducted at least once every six Calendar Months
				
				Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence
				
				Time to Repair Degraded Performance: 12 Business Hours
					3 Points
					
					5 Points

3	Minimise the risk of external security threats capable of degrading the performance of the FMES environment, or affecting its availability.	Functionality and performance of the security tools that protect the FMES environment	Target is zero security breaches Identified threats and actual breaches resolved promptly	Time to Resolve threats and breaches: 8 Business Hours	10 Points
4	Integrate alternative (replacement) and new (additional) sub-systems with this platform.	Compatible of alternative (replacement) and new (additional) sub-systems Standards-based interface protocols Availability of interface drivers Ability of service provider to install and/or develop necessary drivers	Alternative (replacement) and new (additional) sub-systems to be integrated within specified time; integrated functionality to be agreed and documented in advance	Alternative (replacement) and new (additional) sub-systems to be integrated within one Calendar Month of request	4 Points
5	Expand the physical	Functionality, capacity,	New sites (nodes)	Expansion project	4 points

#	Minimum capability requirement	Dependencies	Performance Indicators		Penalty Points for Infringement
			Performance Measure	**Metric**	
	security systems and/or and building management systems monitoring capability to new sites, at low marginal cost.	and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	to be established and monitoring capability to be expanded within agreed time Expansion project plan to define expansion project completion date	completion date	
6	Monitor the physical security systems and/or and building management systems of multiple, geographically dispersed sites from a single central control room.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Capability to be defined and agreed in advance of project plan Capability to be tested as part of project sign-off Availability of each sub-system, per site Degraded Performance resolved promptly	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Expansion project outcomes (capabilities) to be signed off in advance Expansion project outcomes (capabilities) tested as part of project sign-off Thereafter, Availability >99% at all times Time to Repair Degraded Performance: 12 Business Hours	 8 Points 5 Points

#	Minimum capability requirement	Dependencies	Performance Indicators		Penalty Points for Infringement
			Performance Measure	**Metric**	
7	Monitor logical groups of geographically dispersed sites (for example, all libraries within the metro area) from a subsidiary control room, on a federated basis.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Capability to be defined and agreed in advance of project plan Capability to be tested as part of project sign-off Availability of each sub-system, for each group of site Degraded Performance resolved promptly	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Expansion project outcomes (capabilities) to be signed off in advance Expansion project outcomes (capabilities) tested as part of project sign-off	
				Thereafter, Availability >99% at all times	8 Points
				Time to Repair Degraded Performance: 12 Business Hours	5 Points
8	Identify faults with sub-systems and sub-system devices, and trigger appropriate support or maintenance actions.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Fault alert and logging capability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence	2 Points

#	Minimum capability requirement	Dependencies	Performance Indicators		Penalty Points for Infringement
			Performance Measure	Metric	
9	Display real-time 'dashboards' of the security status (including incident alerts) of each site, or collection of sites. Such displays (including incident alerts) should be available remotely (including on smart phones).	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Dashboard availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence	2 Points
10	Produce incident (event) reports for each site, or for a collection of sites, on demand.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Incident (event) reports availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence	2 Points
11	Produce sub-system fault reports for each site, or for a collection of sites, on demand.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Sub-system fault reports availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence	2 Points

	Additional Performance Requirements			
	Performance Requirement	**Performance Indicators**		**Penalty Points for Infringement**
		Performance Measure	**Metric**	
12	Provide contact information	Contact information provided for key contact person and other identified functions are correct and complete at all times	Contact Details provided (yes/no) Assessed monthly by random check Contact information found to be incorrect, leading to delays in communication	2 Points
13	Attend Performance Review Meetings	Key contact person, or a substitute, attends each scheduled Performance Review Meeting	Physical attendance of the Key Contact Person Assessed per meeting as evidenced by Attendance Register (yes/no)	3 Points

23. Termination for default

Delete the heading of clause 23 and replace with the following:

23. Termination

Add the following to the end of clause 23.1:

> if the supplier fails to remedy the breach in terms of such notice

Add the following after clause 23.7:

23.8   In addition to the grounds for termination due to default by the supplier, the contract may also be terminated:

23.8.1 Upon the death of the supplier who was a Sole Proprietor, or a sole member of a Close Corporation, in which case the contract will terminate forthwith.

23.8.2 The parties by mutual agreement terminate the contract.

23.8.3 If an Order has been issued incorrectly, or to the incorrect recipient, the resulting contract may be terminated by the purchaser by written notice

23.8.4 If a material irregularity vitiates the procurement process leading to the conclusion of the contract, rendering the procurement process and the conclusion of the resulting contract unfair, inequitable, non-transparent, uncompetitive or not cost-effective, provided the City Manager follows the processes as described in the purchasers SCM Policy.

23.8.5 After providing notice to the supplier, if the implementation of the contract may result in reputational risk or harm to the City as a result of (inter alia):

23.8.5.1	reports of poor governance and/or unethical behaviour;	
23.8.5.2	association with known family of notorious individuals;	
23.8.5.3	poor performance issues, known to the Employer;	
23.8.5.4	negative social media reports; or	
23.8.5.5	adverse assurance (e.g. due diligence) report outcomes..	

23.9   If the contract is terminated in terms of clause 23.8, all obligations that were due and enforceable prior to the date of the termination must be performed by the relevant party.

26.   Termination for insolvency

Delete clause 26.1 and replace with the following:

26.1   The purchaser may make either of the following elections to ensure its rights are protected and any negative impact on service delivery is mitigated:

26.1.1   accept a supplier proposal (via the liquidator) to render delivery utilising the appropriate contractual mechanisms; or

26.1.2   terminate the contract, as the liquidator proposed supplier is deemed unacceptable to the purchaser, at any time by giving written notice to the supplier (via the liquidator).

26.2   Termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

Amend clause 27.1 as follows:

27.1   If any dispute or difference of any kind whatsoever, with the exception of termination in terms of clause 23.1(c), arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

Delete Clause 27.2 in its entirety and replace with the following:

27.2   Should the parties fail to resolve any dispute by way of mutual consultation, either party shall be entitled to refer the matter for mediation before an independent and impartial person appointed by the City Manager in accordance with Regulation 50(1) of the Local Government: Municipal Finance Management Act, 56 of 2003 – Municipal Supply Chain Management Regulations (Notice 868 of 2005). Such referral shall be done by either party giving written notice to the other of its intention to commence with mediation. No mediation may be commenced unless such notice is given to the other party.

Irrespective whether the mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and share the costs of the mediator and related costs equally.

The mediator shall agree the procedures, representation and dates for the mediation process with the parties. The mediator may meet the parties together or individually to enable a settlement.

Where the parties reach settlement of the dispute or any part thereof, the mediator shall record such agreement and on signing thereof by the parties the agreement shall be final and binding.

Save for reference to any portion of any settlement or decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement by mutual consultation, or the fact that any particular evidence was given, or to any submission, statement or admission made in the course of

amicable settlement by mutual consultation or mediation.

28. Limitation of Liability

Delete clause 28.1 (b) and replace with the following:

(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the sums insured in terms of clause 11 in respect of insurable events, or where no such amounts are stated, to an amount equal to twice the contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

Add the following after clause 28.1:

28.2 Without detracting from, and in addition to, any of the other indemnities in this contract, the supplier shall be solely liable for and hereby indemnifies and holds harmless the purchaser against all claims, charges, damages, costs, actions, liability, demands and/or proceedings and expense in connection with:

a) personal injury or loss of life to any individual;
b) loss of or damage to property;

arising from, out of, or in connection with the performance by the supplier in terms of this Contract, save to the extent caused by the gross negligence or wilful misconduct of the purchaser.

28.3 The supplier and/or its employees, agents, concessionaires, suppliers, sub-contractors or customers shall not have any claim of any nature against the purchaser for any loss, damage, injury or death which any of them may directly or indirectly suffer, whether or not such loss, damages, injury or death is caused through negligence of the purchaser or its agents or employees.

28.4 Notwithstanding anything to the contrary contained in this Contract, under no circumstances whatsoever, including as a result of its negligent (including grossly negligent) acts or omissions or those of its servants, agents or contractors or other persons for whom in law it may be liable, shall any party or its servants (in whose favour this constitutes a *stipulatio alteri*) be liable for any indirect, extrinsic, special, penal, punitive, exemplary or consequential loss or damage of any kind whatsoever, whether or not the loss was actually foreseen or reasonably foreseeable), sustained by the other party, its directors and/or servants, including but not limited to any loss of profits, loss of operation time, corruption or loss of information and/or loss of contracts.

28.5 Each party agrees to waive all claims against the other insofar as the aggregate of compensation which might otherwise be payable exceeds the aforesaid maximum amounts payable.

31. Notices

Delete clauses 31.1 and 31.2 and replace with the following:

31.1 Any notice, request, consent, approvals or other communications made between the Parties pursuant to the Contract shall be in writing and forwarded to the addresses specified in the contract and may be given as set out hereunder and shall be deemed to have been received when:
a) hand delivered – on the working day of delivery
b) sent by registered mail – five (5) working days after mailing
c) sent by email or telefax – one (1) working day after transmission

32. Taxes and Duties

Delete the final sentence of 32.3 and replace with the following:

In this regard, it is the responsibility of the supplier to submit documentary evidence in the form of a valid Tax Clearance Certificate issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5).

Add the following after clause 32.3:

32.4 The **VAT registration** number of the City of Cape Town is **4500193497**.

ADDITIONAL CONDITIONS OF CONTRACT

Add the following Clause after Clause 34:

35. Reporting Obligations.

35.1 The supplier shall complete, sign and submit with each delivery note, all the documents as required in the Specifications. Any failure in this regard may result in a delay in the processing of any payments.

Add the following Clause after Clause 35 IF THE RESPONSE IN THIS TENDER IS FOR OPTION 1 AND PRICE SCHEDULES A AND C

36. Required Certifications.

36.1 The supplier shall be required to be certified for PSIM/FMES suite of products throughout the contract period and to provide proof of such when requested by the Purchaser. Failure to do so shall result in breach of contract.   Please provide OEM certificates in Schedule 15B.

The supplier shall be required to be maintain its existing relationship with the specified Independent Software Vendor (ISV) or Original Equipment Manufacturer OEM Product supplier throughout the contract period and to provide proof of authority to provide OEM product when requested by the Purchaser. Failure to do so shall result in breach of contract.   Please provide proof of authority in Schedule 15B.

37.   Contracts with Suppliers Performance Criteria

The City of Cape Town requires that all Contracts with Suppliers be actively managed. The performance of the contracted tenderer will be measured by the company's achievement of the City's minimum capability and performance requirements.

(8) GENERAL CONDITIONS OF CONTRACT

(National Treasury - General Conditions of Contract (revised July 2010))

TABLE OF CLAUSES

1. Definitions

1. The following terms shall be interpreted as indicated:

    1.1 'Closing time' means the date and hour specified in the bidding documents for the receipt of bids.

    1.2 'Contract' means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

    1.3 'Contract price' means the price payable to the supplier under the contract for the full and proper performance of his or her contractual obligations.

    1.4 'Corrupt practice' means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

    1.5 'Countervailing duties' are imposed in cases in which an enterprise abroad is subsidised by its government and encouraged to market its products internationally.

1.6 'Country of origin' means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognised new product results that is substantially different in basic characteristics or in purpose or utility from its components.

1.7 'Day' means calendar day.

1.8 'Delivery' means delivery in compliance with the conditions of the contract or order.

1.9 'Delivery ex stock' means immediate delivery directly from stock actually on hand.

1.10 'Delivery into consignee's store or to his site' means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.

1.11 'Dumping' occurs when a private enterprise abroad markets its goods on its own initiative in the RSA at lower prices than that of the country of origin, and which action has the potential to harm the local industries in the RSA.

1.12 'Force majeure' means an event beyond the control of the supplier, not involving the supplier's fault or negligence, and not foreseeable. Such events may include, but are not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

1.13 'Fraudulent practice' means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the bidder of the benefits of free and open competition.

1.14 'GCC' means the General Conditions of Contract.

1.15 'Goods' means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

1.16 'Imported content' means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and
which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.

1.17 'Local content' means that portion of the bidding price which is not included in the imported content, provided that local manufacture does take place.

1.18 'Manufacture' means the production of products in a factory using labour, materials, components and machinery, and includes other, related value-adding activities.

1.19 'Order' means an official written order issued for the supply of goods or works or the rendering of a service.

1.20 'Project site', where applicable, means the place indicated in bidding documents.

1.21 'Purchaser' means the organisation purchasing the goods.

1.22 'Republic' means the Republic of South Africa.

1.23 'SCC' means the Special Conditions of Contract.

1.24 'Services' means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance, and other such obligations of the supplier covered under the contract.

1.25 'Written' or 'in writing' means handwritten in ink or any form of electronic or mechanical writing.

2. Application

2.1 These general conditions are applicable to all bids, contracts and orders, including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable, a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za.

4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for the purposes of such performance.

5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1, except for purposes of performing the contract.

5.3 Any document, other than the contract itself, mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from the use of the goods or any part thereof by the purchaser.

7. Performance Security

7.1 Within 30 (thirty) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in the SCC.

7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

7.2 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser, and shall be in one of the following forms:

    a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or

    b) a cashier's or certified cheque.

7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than 30 (thirty) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in the SCC.

8. Inspections, tests and analyses

8.1 All pre-bidding testing will be for the account of the bidder.

8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organisation acting on behalf of the Department.

8.3 If there are no inspection requirements indicated in the bidding documents and no mention of such is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7 Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier, who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal, the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of the GCC.

9. Packing

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in the SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in the SCC.

10.2 Documents to be submitted by the supplier are specified in the SCC.

11. Insurance

11.1 The goods supplied under the contract shall be fully insured, in a freely convertible currency, against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, including additional services (if any) specified in the SCC:
 (a) performance or supervision of on-site assembly, and/or commissioning of the supplied goods;
 (b) furnishing of tools required for the assembly and/or maintenance of the supplied goods;
 (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
 (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified in the SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
 (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
 (b) in the event of termination of production of the spare parts:

 (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and

(ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications), or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for 12 (twelve) months after the goods, or any portion thereof, as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for 18 (eighteen) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in the SCC.

15.3 The purchaser shall notify the supplier promptly, in writing, of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in the SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in the SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in the SCC.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of any other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than 30 (thirty) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated in the SCC.

17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices tendered by the supplier in his bid, with the exception of any price adjustments authorized in the SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract Amendments

18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

21.2 If at any time during the performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly
notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his or her discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

21.4 The right is reserved to procure, outside of the contract, small quantities of supplies; or to have minor essential services executed if an emergency arises, or the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.

21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in
substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and, without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services, using the current prime interest rate, calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

(a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
(b) if the supplier fails to perform any other obligation(s) under the contract; or
(c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than 14 (fourteen) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated 14 (fourteen) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

23.5 Any restriction imposed on any person by the Accounting Officer/Authority will, at the discretion of the Accounting Officer/Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person is or was, in the opinion of the Accounting Officer/Authority, actively associated.

23.6 If a restriction is imposed, the purchaser must, within 5 (five) working days of such imposition, furnish the National Treasury with the following information:
(i)   the name and address of the supplier and/or person restricted by the purchaser;
(ii)   the date of commencement of the restriction;
(iii) the period of restriction; and
(iv)   the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period of not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction, and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidised import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall, on demand, be paid forthwith by the contractor to the State, or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he or she delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him or her.

25. Force majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if, and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall notify the purchaser promptly, in writing, of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

27.2 If, after 30 (thirty) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5 Notwithstanding any reference to mediation and/or court proceedings herein,
(a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
(b) the purchaser shall pay the supplier any monies due to the supplier.

28. Limitation of Liability

28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6:
(a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable Law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in the SCC.

31. Notices

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail, and any other notice to him shall be posted by ordinary mail, to the address furnished in his bid or to the address notified later by him in writing; and such posting shall be deemed to be proper service of such notice.

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and Duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, licence fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, licence fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

34 Prohibition of Restrictive practices

34.1 In terms of section 4 (1) (b) (iii) of the Competition Act, Act 89 of 1998, as amended, an agreement between or concerted practice by firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is/are or a contractor(s) was/were involved in collusive bidding (or bid rigging).

34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act, Act 89 of 1998.

34.3 If a bidder(s) or contractor(s) has/have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and/or terminate the contract in whole or part, and/or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding 10 (ten) years and/or claim damages from the bidder(s) or contractor(s) concerned.

(9) FORM OF GUARANTEE / PERFORMANCE SECURITY

FORM OF GUARANTEE / PERFORMANCE SECURITY

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: ....

Physical address of Guarantor: ....

"Supplier" means: ....

"Contract Sum" means: The accepted tender amount (INCLUSIVE OF VAT) of R ....

Amount in words: ....

"Guaranteed Sum" means: The maximum amount of R ....

Amount in words: ....

"Contract" means: The agreement made in terms of the Form of Offer and Acceptance for tender no _____: _____ and such amendments or additions to the contract as may be agreed in writing between the parties.

PERFORMANCE GUARANTEE

1.   The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

2.   The Guarantor's period of liability shall be from and including the date of issue of this Guarantee/Performance Security up to and including the termination of the Contract or the date of payment in full of the Guaranteed Sum, whichever occurs first.

3.   The Guarantor hereby acknowledges that:

        3.1   any reference in this Guarantee/Performance to "Contract" is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;

        3.2   its obligation under this Guarantee/Performance Security is restricted to the payment of money.

4.   Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the City of Cape Town the sum due and payable upon receipt of the documents identified in 4.1 to 4.2:

        4.1   A copy of a first written demand issued by the City of Cape Town to the Supplier stating that payment of a sum which is due and payable has not been made by the Supplier in terms of the Contract and failing such payment within seven (7) calendar days, the City of Cape Town intends to call upon the Guarantor to make payment in terms of 4.2;

        4.2   A first written demand issued by the City of Cape Town to the Guarantor at the Guarantor's physical address with a copy to the Supplier stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum has still not been paid.

5.   Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the City of Cape Town the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the City of Cape Town to the Guarantor at the Guarantor's physical address calling up this Guarantee / Performance Security, such demand stating that:

        5.1   the Contract has been terminated due to the Supplier's default and that this Guarantee/Performance Security is called up in terms of 5; or

5.2 a provisional or final sequestration or liquidation court order has been granted against the Supplier and that the Guarantee/Performance Guarantee is called up in terms of 5; and

5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.

6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.

7. Where the Guarantor has made payment in terms of 5, the City of Cape Town shall upon the termination date of the Contract, submit an expense account to the Guarantor showing how all monies received in terms of this Guarantee/Performance Security have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee/Performance Security shall bear interest at the prime overdraft rate of the City of Cape Town's bank compounded monthly and calculated from the date payment was made by the Guarantor to the City of Cape Town until the date of refund.

8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

9. The City of Cape Town shall have the absolute right to arrange its affairs with the Supplier in any manner which the City of Cape Town may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee /Performance Security on account of any conduct alleged to be prejudicial to the Guarantor.

10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

11. This Guarantee/Performance Security is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee / Performance Security shall be returned to the Guarantor after it has expired.

12. This Guarantee/Performance Security, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.

13. Where this Guarantee/Performance Security is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at ....

Date ....

Guarantor's signatory (1) ....

Capacity ....

Guarantor's signatory (2) ....

Capacity ....

Witness signatory (1) ....

Witness signatory (2) ....

ANNEXURE

LIST OF APPROVED FINANCIAL INSTITUTIONS

The following financial institutions are currently (as at 18 October 2016) approved for issue of contract guarantees to the City:

National Banks:
ABSA Bank Ltd.
FirstRand Bank Ltd.
Investec Bank Ltd.
Nedbank Ltd.
Standard Bank of SA Ltd.

International Banks (with branches in SA):
Barclays Bank plc.
Citibank n.a.
Credit Agricole Corporate and Investment Bank
HSBC Bank plc.
JP Morgan Chase Bank
Societe Generale
Standard Chartered Bank

Insurance companies:
ABSA Insurance
Coface s.a.
Compass Insurance Co.
Constantia Insurance Co.
Credit Guarantee Insurance Co.
Guardrisk Insurance Co.
Hollard Insurance Company Ltd.
Infiniti Insurance Limited
Lombard Insurance
New National Assurance Co.
Regent Insurance Co.
Renasa Insurance Company Ltd.
Santam Limited
Zurich Insurance Co.

(10) FORM OF ADVANCE PAYMENT GUARANTEE – NOT USED

(10.1) ADVANCE PAYMENT SCHEDULE – NOT USED

(11) OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT MADE AND ENTERED INTO BETWEEN THE CITY OF CAPE TOWN (HEREINAFTER CALLED THE "CCT") AND

…………………………………………………………….......…………………………. ,
(Supplier/Mandatary/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993 AS AMENDED.

I, …………………………..…………………………..............………………………. , representing

………………………………………………………….......…………………………. , as an employer in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number: …………………………………………………………………………..

OR Compensation Insurer: .... Policy No.: ....

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the Occupational Health and Safety Specifications contained in this tender and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan submitted and approved in terms thereof.

Signed at ....on the...................................day of...................................20….

_____   _____
Witness   **Mandatary**

Signed at .... on the...................................day of...................................20 ....

_____   _____
Witness   for and on behalf of
                                                                    City of Cape Town

(12) INSURANCE BROKER'S WARRANTY (PRO FORMA)

Logo

Letterhead of supplier's Insurance Broker

Date _____

CITY OF CAPE TOWN
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

TENDER NO.:   2013/14

TENDER DESCRIPTION:

NAME OF SUPPLIER: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the CITY OF CAPE TOWN with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____   (Supplier's Insurance Broker)

(13) SPECIFICATION(S)

13.1   INTRODUCTION AND BACKGROUND

The City seeks to appoint a single tenderer that will be responsible for the management, support and maintenance of the Facilities Management Enterprise System (FMES) environment. This currently operates at the Cape Town Civic Centre and the Goodwood Transport Management Centre (TMC). This environment is essentially a physical security information management (PSIM), which integrates the functionality of a range of security and building management related sub-systems, and exchanges data with the City's SAP ERP system. The FMES environment currently primarily consists of a proprietary PSIM software application (*IP-Security Centre* made by *CNL Software*), and the servers, databases, and related hardware and software on which it operates.

A **Physical Security Information System** (PSIM) is a software application that integrates multiple security systems and building systems and their associated devices so that they can be monitored and controlled through a single interface, in a coordinated manner. This allows responses to alarms and alerts to be prioritised and managed in a coordinated way, using workflow tools based on standard operating procedures. Subsystem faults are also flagged for maintenance or repair. Reports based on activity logs can be easily generated. Status 'dashboards' can be monitored and reviewed by both operators and managers. PSIM solutions are generally deployed to centralize information to single or multiple control hubs. An important feature is the capability to integrate various proprietary sub-systems using open standards. Security and building systems that are frequently integrated into PSIM solutions include access control, building management (heating, HVAC, lifts, generators), CCTV, fire detection and suppression, intercoms and public address, intrusion detection, lighting control, and physical key issue management.

Respondents to this tender have two alternate options:

1. Supply, Support and Maintain the existing IP-Security Centre provided by CNL Software[1] ('CNL IPSC') PSIM system, and other related data management solutions such as water and electricity usage monitoring, for the duration of the tender period; or

2. Recommend an alternative PSIM application that will meet the same needs by providing similar functionality (or better). If this alternate offer is accepted, then the tenderer must install, configure, support and maintain the new PSIM application, as well as support and maintain the existing functionality of the drivers and interfaces to existing subsystems. The related data management solutions such as water and electricity usage monitoring must be maintained throughout the tender period.

Respondents to option 1 must also be prepared to migrate the CNL IPSC system to a centralised architecture consisting of a single instance of CNL IPSC with a redundant back up. Respondents to option 2 will be required to implement the new PSIM application using the required centralised architecture.

Whilst the City does not commit to expand the functionality of the current FMES environment, or to install it at new sites (whether as new instances or by expanding the number of sites monitored by the existing application), the service provider should have the capability and capacity to do this, if required.

These technical specifications first describe the existing FMES environment ("Current status"), and then describe the required scope of work to be undertaken be the tenderer. This scope will vary depending slightly on the option offered.

All prices for any new installations shall include a 12-month guarantee on all equipment, parts and labour

Respondents to Option 2 (Schedule B + Schedule C) should be aware that, if awarded, then the support and maintenance of the existing CNL IP-Security Centre application during the migration period will be limited to maintaining the existing interfaces and databases. No new licensing, subsystem integrations, or new development will be required during this time.

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1 cnlsoftware.com

Tenderers must provide **technical specification** of solutions and equipment proposed in the form of **technical data sheets** and/or **technical brochures** and/or **drawings in Schedule 15 C**.

13.2   CURRENT STATUS

The City of Cape Town has a Facilities Management Enterprise System (FMES) installed and operational at the Civic Centre (Hertzog Boulevard) and the Goodwood Transport Management Centre (TMC) buildings. The primary function of the FMES environment is to enable an integrated physical security information management (PSIM) at these sites. The primary purpose of this tender is to contract a service provider to maintain and support the current system, or provide and alternative system.

In addition, due to on-going business process management requirements of the City over the last few years, the FMES environment has expanded to include broader facility-related information and data management functionality, such as water and electricity usage monitoring. These additional systems are not integrated into the CNL IPSC PSIM, but still must be supported and maintained. As they are part of the existing FMES environment and closely related to facility management, their support is also a requirement of this tender. However various other applications that have grown out of the FMES environment, such as the monitoring of control systems at *MyCiTi* bus stations, are excluded.

The City's FMES environment should therefore be thought of as a system of interrelated applications, rather than a single piece of software. *Figure 1* shows the generalised overview of the FMES environment with the following components:

- **Sub-systems:** Sub-systems are sensors, actuators, data acquisition modules and their respective application management software. All the sub-systems currently active at the Civic Centre and TMC are listed and described in detail in section 13.13.213.2.2 **IPSC Deployment at Civic Centre**, in section 13.13.213.2.3 **IPSC Deployment at the Goodwood TMC** and also 13.13.213.2.5 **Functional Specifications of Sub-System Interfaces** of these specifications.

- **PSIM**: This functionality is provided by *CNL Software's* IP Security Centre (IPSC) Suite, version 4.9. Both the Civic Centre and the TMC building have an instance of the IPSC v4.9 installed locally each with a hub license. The PSIM is explained in detail in section 13.13.213.2.1 **Physical Security Information Management (PSIM)** of these specifications.

- **SAP:** The City of Cape Town uses SAP as its ERP system. SAP collects data from both the IPSC and information and data management systems through a data mediation tool.

- **Data Mediator:** This functionality is provided by *EzFlo,* which is a software package developed by Britehouse2. *EzFlo* was primarily a SAP integrator, but has been expanded on an *ad hoc* basis to provide additional data exchange functionalities.

- **Water and Energy Data Management Systems:** These consist specifically of water and electricity usage monitoring system. These are explained in detail in these specifications.

- **Reporting & Analytics:** The City uses Microsoft's PowerBI, and SQL Server Reporting Services for reporting and analytics.

- **Visualisation:** The City uses Microsoft's PowerBI, .Net, HTML and Stylesheets for visualisation.

The successful tenderer appointed to manage the FMES environment will be provided with detailed "as-built" documents describing all the elements of the current CNL IPSC PSIM system, and the FMES environment within which it resides. The appointed contractor must also be capable of extending the coverage of the PSIM system to other sites, if needed.
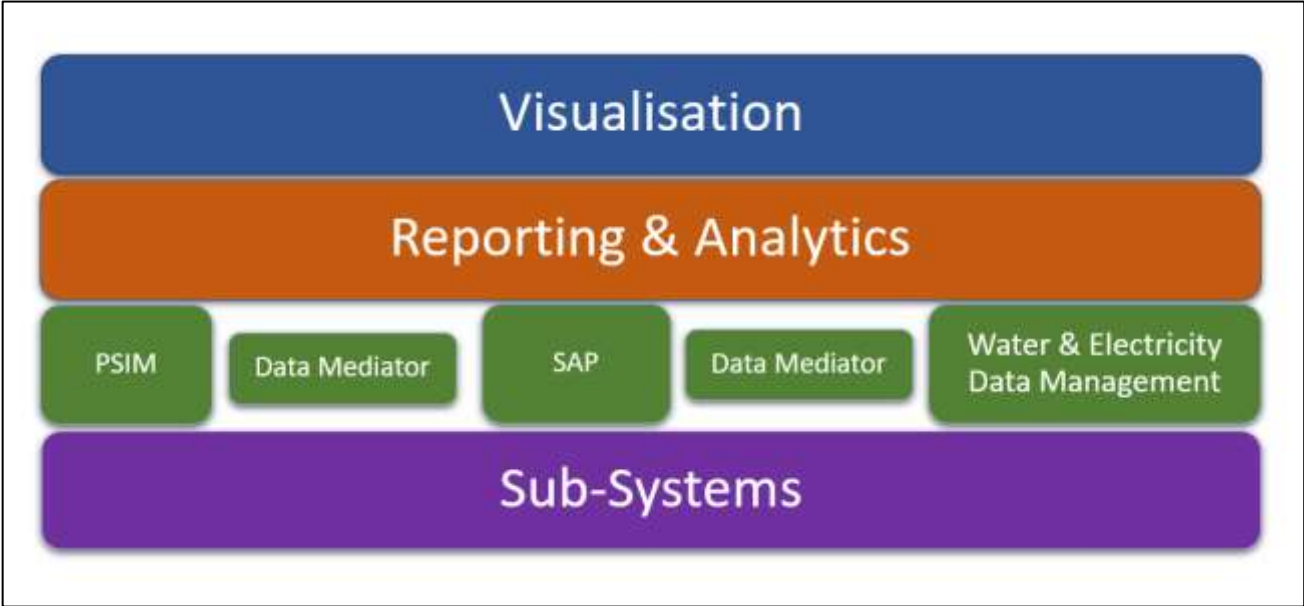
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2 britehouse.co.za

Figure 1: Overview of the FMES environment

13.2.1 Physical Security Information Management (PSIM)

CNL's PSIM software, IPSC (IP-Security Centre) version 4.9, running on a Microsoft platform, is an integrated management platform, which manages several facility sub-systems at the Civic Centre. A second unique instance of the same application is installed at the TMC building.

IPSC integrates various subsystems and devices, e.g. fire detection, intrusion detection, CCTV, and access control systems. This integration allows sub-system event data to be aggregated, and/or used to activate other integrated subsystems so that the relevant devices can be monitored and controlled. An essential task of IPSC is to provide the Control Room (staffed with system operators) with comprehensive information about individual events and their context, and to enable Control Room staff to respond. IPSC actively monitors and controls some of the sub-systems (viz. CCTV, access control, public address), whilst others are only monitored. Real time control allows cross subsystem integration so that events or incidents can trigger subsystem responses in a coordinated way. IPSC gives the control room staff secondary control over the relevant sub system.
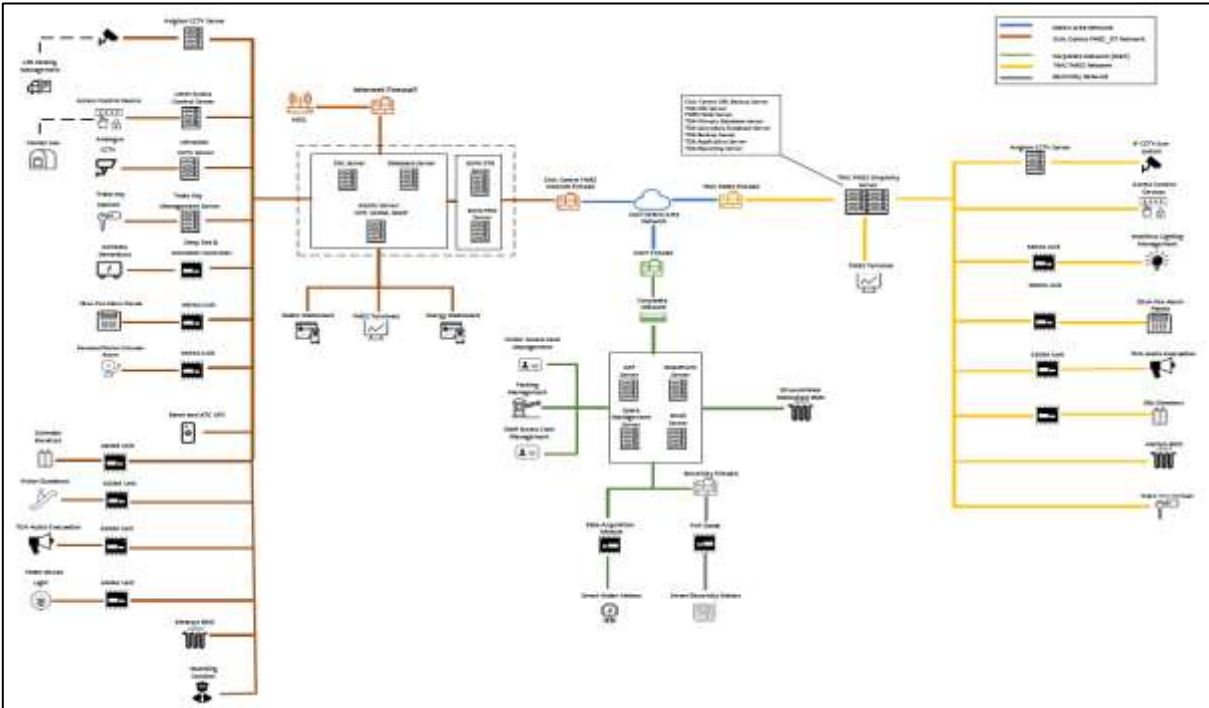
Figure 2: Generalised schematic diagram of the FMES environment

Note that the IPSC deployment at Civic Centre differs from that in the TMC, as explained below.

13.2.2   IPSC Deployment at Civic Centre

The Cape Town Civic Centre is a single large building complex, with multiple blocks and towers together with several physical separate but nearby facilities.

The Civic Centre houses the City's Cape Town Data Centre, which is one of the City's two main data centres. This data centre is connected directly to the Goodwood Data Centre (located within the TMC complex) by a dedicated high capacity network link, as well as to most other municipal buildings within the Cape Town metro area by means of the City's Metro Area Network.

The table below lists all the sub-systems integrated with IPSC at the Civic Centre.

Sub-system	OEM
IP CCTV	*Avigilon*
Analogue CCTV	*Ultraview*
Access Control	*Lenel*
Key Management	*Traka*
Generator	*Komatsu*
Fire Panels	*Ziton*
Elevators	*Schindler*
Escalators	*Vision*
Audible Siren Evacuation	*TOA*
Strobe Light	-
Guarding Management	*Virdi*
Building Management System	*Metasys*
LPR Parking Management	*Avigilon*
Tender Box Management	*Lenel*
Data Centre BMS	*StruxureWare*

Figure 3 represents an overview of the subsystems and the components used to integrate with IPSC, and Figure 4 shows the current IPSC deployment at the Civic Centre. Note the following:

- The CNL IPSC application runs on a dedicated server located in the Civic Centre Data Centre. It is a unique instance of the IPSC v4.9 installed locally with its own hub license.

- An FMES Terminal is a PC supporting a Graphical User Interface that displays data from IPSC.

- The Civic Centre FMES_OT Network is a stand-alone network built for the exclusive use for the FMES environment at the Civic Centre. It is physically separate from the building LAN used for the Corporate Network. This network is managed by the City's Telecommunications Branch.

- The IP CCTV, analogue CCTV, access control and key cabinet each have a sub-system server physically located at the Civic Centre Data Centre.

- The LPR Parking Management system is a License Plate Recognition system that makes use of *Avigilon* IP CCTV inputs; it outputs signals Lenel Access control to opens boom gates at parking entrances at the Civic Centre building complex.

- The Tender Box management system makes use of the *Lenel Access Control* system to remotely lock tender boxes.

- The *Komatsu* generators are the Civic Centre's back-up power system generators. Key parameters of the generator are readable on the FMES terminal.

- IPSC has read and write privileges to the Fire Alarm Panel, which is integrated using a *Moxa* protocol converter hardware unit.

- Key parameters from the Uninterrupted Power Supply (UPS) units can be viewed on the FMES terminal.

- The Elevators, Escalators, Audio (public address) Evacuation System, and the strobe light are all integrated to IPSC via ADAM protocol converter hardware units.

- IPSC's Audio Evacuation System integration allows announcements to be made and/or sirens sounded on specific floors, inside elevators, or throughout the entire building.

- IPSC can automatically return the Elevators to the ground floor. Control Room staff can also manually ground the Elevators in case of emergencies.

- IPSC can automatically stop Escalators in an emergency. Control Room staff can also manually stall the Escalators.

- IPSC activates a FMES Strobe Light in the control room when there is a "double knock" fire alarm.

- The Guarding Solution is a database of guards, which tracks their clock in and clock out times. At the time of the preparation of this specification, this sub-system application had not been commissioned.

- IPSC has read rights to the *Metasys* BMS software from the FMES terminal.

Civic Centre

Sub-System	Brand	Middleware	Integration Method	Driver Used
CCTV	Avigilon	N/A	API/SDK	IPSC Avigilon
CCTV	Ultraview	N/A	API/SDK	Custom Ultraview
ACS	Lenel OnGuard	N/A	API/SDK	Lenel DataConduIT
Tender Box	Lenel OnGuard	N/A	API/SDK	Lenel DataConduIT
Tender Box	Lenel OnGuard	SharePoint	SharePoint & SQL	N/A
Key Mgmt	Traka	N/A	SQL	N/A
Generator Monitoring	Deep Sea	N/A	Run App	IPSC OPC
Fire	Ziton	N/A	API/SDK	IPSC Ziton
UPS	Eaton	N/A	SNMP MIB	IPSC SNMP
UPS	APC	N/A	SNMP MIB	IPSC SNMP
Elevators	Schindler	ADAM	I/O	IPSC ADAM
Escalators	Vision	ADAM	I/O	IPSC ADAM
PA/Audio Evac	TOA	N/A	API/SDK	IPSC TOA
PA/Audio Evac	TOA	ADAM	I/O	IPSC ADAM
Strobe Light	N/A	ADAM	I/O	IPSC ADAM
BMS	Metasys	Launcher App	Run App	N/A
Data Centre BMS	Struxure ware	N/A	API/SDK	IPSC Struxureware

Figure 3: Overview of sub-systems and the components that are integrated with CNL IPSC at the Civic Centre
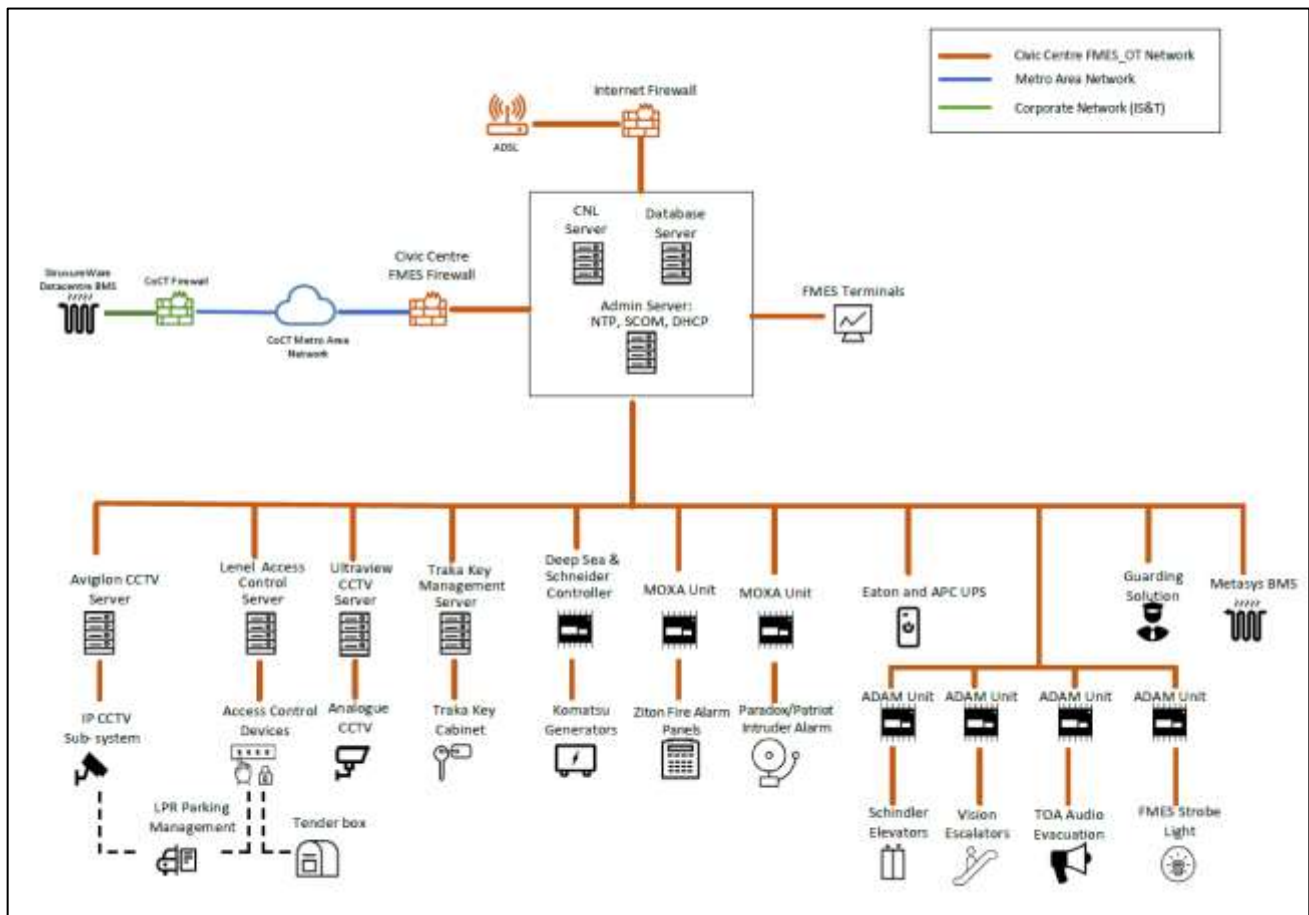
Figure 4: Current CNL IPSC Deployment at the Civic Centre

13.2.3 IPSC Deployment at the Goodwood TMC

The Transport Management Centre is a large complex consisting of a number of buildings all physically located on the same campus site. Within the campus, several of the buildings are physically separated, whilst others are physically connected. All the buildings within the complex use the same campus network (LAN).

One of the buildings within the TMC houses the Goodwood Data Centre, which is the City's main data centre facility. This data centre is connected directly to the Cape Town Data Centre (located within the Civic Centre) by a dedicated high capacity network link, as well as to most other municipal buildings within the Cape Town metro area by means of the City's Metro Area Network.

The table below lists all the sub-systems integrated with CNL IPSC at the TMC.

Sub-system	OEM
IP CCTV	*Avigilon*
Access Control	*Lenel*
Key Management	*Traka*
Fire Panels	*Ziton*
Lighting Management	*Intellibus*
Building Management System	*Alerton*
Elevators	*Otis*
Audible Siren Evacuation	*TOA*

Figure 5 represents an overview of the subsystems and the components integrated with the TMC instance of

IPSC, and Figure 6 shows the current IPSC deployment at the TMC building, with the following points to note:

- The CNL IPSC application runs on a dedicated server located in the Goodwood Data Centre (TMC building). It is a unique instance of the IPSC v4.9 installed locally with its own hub license.

- The *Avigilon* IP CCTV has a sub-system server physically located at the Goodwood Data Centre (TMC building). This is to ensure low-latency feeds from the TMC cameras. All other sub-system servers supporting devices at the TMC are located within the Civic Centre data centre.

- The Access Control and Key Cabinet sub-systems are hosted on their respective servers at the Civic Centre.

- The TMC FMES_OT Network is a stand-alone network built for the exclusive use for the FMES environment at the TMC. It is physically separate from the building LAN.

- IPSC has read and write privileges to the Fire Alarm Panel, which is integrated using a *Moxa* protocol converter hardware unit.

- IPSC has read and write privileges to the Lighting Management System, which is integrated using a *Moxa* protocol converter hardware unit.

- IPSC has read rights to the Alerton BMS software from the FMES terminal.

- The Elevators and Audio (public address) Evacuation System are integrated to IPSC with an ADAM protocol converter hardware unit.

- IPSC's Audio Evacuation System integration allows announcements to be made on specific floors, inside elevators, or throughout the entire building.

- IPSC can automatically return the Elevators to the ground floor. Control Room staff can also manually ground the Elevators in case of emergencies.

Figure 5: Overview of sub-systems and the components that are integrated with CNL IPSC at the Civic Centre
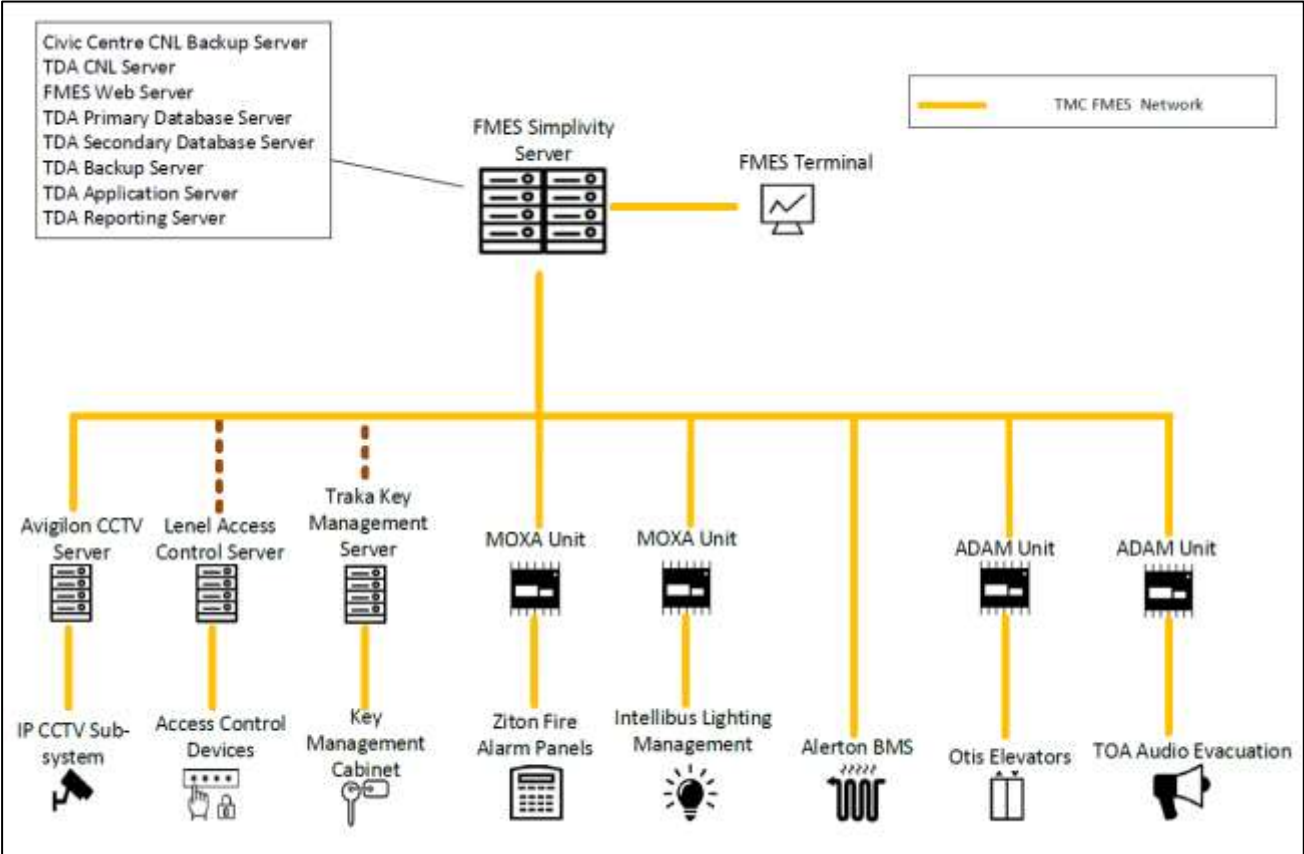
Figure 6: Current CNL IPSC Deployment at the TMC Building

13.2.4 IPSC User Groups Rights and Permissions

IPSC follows the permissions principles established by Microsoft. A user group is created with specific permissions to allow specific tasks to be completed; a user is then added to the group and the associated permission inherited. Users can be promoted or demoted from groups within IPSC to enable or disable functionality per user. The following user groups are configured for each sub-system:

User Group	Definition
Administrator	Performs all activities of the operator and supervisor with elevated permissions to administer the solution such as add locations, plot camera icons, perform routine maintenance, investigate issues, etc.
Supervisor	Performs all activities of the operator with the ability to handle alarms and view video from all locations
Operator	Performs general daily activities such as interacting with video feeds and generating manual alarms for their specific location only

13.2.5 Functional Specifications of Sub-System Interfaces

The following are functional specifications of the IPSC sub-system **interfaces**.

Note: If new PSIM software is implemented, then it must not negatively affect the functioning or functionality of any of the existing subsystems.

13.2.5.1 CCTV

IPSC integrates directly with the CCTV sub-system, thereby allowing Control Room staff or staff with FMES terminals to access CCTV footage related to events directly from the FMES application console. The City has deployed a large number of analogue and IP based CCTV cameras.

The analogue CCTV system (*UTC Ultraview*) is integrated to IPSC through Digital Video Recorder (DVR) units that terminate the analogue cameras. These DVR units are IP addressable and integrate directly into IPSC.

The IP CCTV system uses *Avigilon* high definition cameras. The *Avigilon* system has been integrated with the IPSC installations at both the Civic Centre and the TMC. The *Avigilon* CCTV Server is responsible for all camera management, and is the point of integration with IPSC. A number of additional servers are used to store the IP video streaming data received from the *Avigilon* cameras.

IPSC is able to access video streams from any of the IP cameras directly by interfacing with the *Avigilon* CCTV Server or the relevant *Ultraview* DVR. The returned video stream is then presented to the FMES Terminal.

Note: The City has recently issued a new CCTV tender, which may result in a requirement to integrate new OEM camera systems.

13.2.5.2 Access Control

The City uses a *Lenel* Access Control system to control physical access to, and within, its buildings. The *Lenel* system consists of a central *Lenel* management system, controllers, and access control devices such as door locks, turnstiles, card readers, etc.

IPSC interfaces to the *Lenel* management system through a driver using a *DataConduit* license to enable communication with the *Lenel* software. The following features are accessible from IPSC via the driver:
- Server events & commands
- Card holder and badge holder management
- Visitor access management
- Door controller events
- Access events and commands
- Reader events and actions

13.2.5.3 LPR Parking Management system

The LPR Parking Management system uses the FMES database, but is not directly integrated with the IPSC application. The LPR Parking Management system is a combination of two separate subsystems that are integrated with IPSC, namely the *Avigilon* CCTV system and *Lenel* access control. Vehicle data is stored on *MS SharePoint* and on the FMES database. The system is used to control access to parking by City-owned fleet vehicles and staff owned vehicles. The database stores details of vehicles (license plate numbers), which are then allowed access to the relevant building(s) or parking areas. This database is mirrored from *MS SharePoint*, which is used to update the schedule of recognised license plate numbers.

The same system is used to manage visitor parking. A digital visitor parking request application form is available on the City's *SharePoint* portal, and can be filled out by City staff when they are expecting a visitor that needs to park in the Civic Centre. The database retrieves and updates the list of visitor license plate numbers from this SharePoint portal at set intervals.

When any vehicle arrives at parking entrances to the Civic Centre building, the *Avigilon* Licence Plate Recognition (LPR) system is triggered and a request is made to check the license plate number against the database. If the license plate number is known, a trigger is sent to the *Lenel* access control system to open the required parking boom. The same process is followed when the vehicle exits the building, at which time the license plate number is removed from the database (unless the visitor is scheduled for multiple visits).

Though this system is not directly integrated with the IPSC, it must also be supported and maintained by the Service Provider.

13.2.5.4 Key Cabinet Management

The City uses a large number of physical keys for door locks that limit access to secure locations. The management of these keys is of prime importance so as to ensure the physical security of these locations. The City has deployed a Key Management system made by *Traka* at the Civic Centre and the TMC. This system is IP capable, and integrated with IPSC.

The *Traka* system comprises a key storage locker (cabinet) for the storage of tagged keys, together with a management server, and an administration client desktop computer (with biometric reader) for user management. These three components are all connected directly across the OT network, and integrated into IPSC for monitoring and reporting purposes. The key storage locker identifies the person using it so as to track who has removed or returned any particular key.

As an example, the following metrics are extracted from the Traka system by IPSC.

ID	Signal
Traka	Storage Locker Door Left Open
	Storage Locker Door Opened Manually
	Item Removed From Wrong Location
	Item Returned to Wrong Location
	No Transaction Took Place
	Item Returned by a Different Person

Each event captured by IPSC is then further enhanced with the following contextual information:
- Event Date & Time
- Cabinet Field ID
- Cabinet Title
- FOB Serial Number
- Position ID
- User First and Last Names

Keys are recorded on the *Traka* database with each Key Fob assigned to a room or area. *Traka's* Fobs are nickel-plated brass devices each with a unique electronic ID, that when secured to a key set enables those keys to be identified to *Traka's* administration software, and all movements in and out of the Cabinet are recorded. These movements are passed through to IPSC and can be set to trigger specific events as may be required.

13.2.5.5 Generator monitoring

The Civic Centre has *Komatsu* Generators installed to ensure a continued supply of electricity in the event of an electricity grid failure. The generator system includes sub-systems that monitor and control the actual generator engine, and different subsystems that monitor and control the electrical switching gear that brings the generator on or offline depending on the state of the main grid feed.
The generator management interface is used to:
- Monitor diesel generators and emergency fire system diesel engines for start/fail, water and diesel pumps, various loads, fuel levels, etc.
- Monitor the level of diesel fuel in each tank.
- Monitor the availability of water for generator cooling.

The generators use of *Deep Sea Electronics* controllers for engine management, and *Schneider* controllers for switchgear management. All the controllers use the industrial RS485 interface running the ModBus protocol to interact with their appropriate subsystems, while the. The generators' *Deep Sea* and *Schneidler* controllers are integrated with IPSC for monitoring purposes only; backhaul communication to IPSC is achieved over the FMES_OT network.

13.2.5.6 Fire Detection System

The City has a comprehensive Fire Detection system installed at both the Civic Centre and the TMC. The system, manufactured by *Ziton*, is an all-inclusive fire detection solution. IPSC is able to monitor the fire detector control panel status by means of access to the system's RS232 serial port. This port is made accessible to the FMES_OT network through a *Moxa* interface convertor.

A number of metrics/commands are available from the Ziton system; these are shown below in the table below.

Function	Description
Event Monitoring	
Fault Alarm	Indicates that a detector or attached devices is faulty
Fire Alarm	Indicates that there was a fire alarm triggered. (This will include the input triggered by the Fire Suppression Alarm)
Device Disabled	This event is raised when a detector has been disabled on the *Ziton* fire panel
Device Enabled	This event is raised when a detector has been enabled on the *Ziton* fire panel
Panel Acknowledgement	This event is raised when the "Acknowledge/Silence" button is pressed on the *Ziton* fire panel or when the acknowledge command is sent from IPSC
Panel Reset	This event is raised when the "Reset" button is pressed on the *Ziton* fire panel or when the panel reset command is sent from IPSC
Zone Disabled	This event is raised when a zone has been disabled on the *Ziton* fire panel
Zone Enabled	This event is raised when a zone has been enabled on the *Ziton* fire panel
Fire Suppression Gas Dump	This event is raised when the Fire Suppression system initiates a Gas Dump
Commands	
Reset Panel	Allows reset of a specific panel and clear alarms from IPSC
Silence Panel	Allows an alarm buzzer to be silenced from IPSC

13.2.5.7 Intruder Alarms

The City uses a number of intruder alarm systems at Civic Centre and the TMC, manufactured either by *Paradox* and *Patriot*. IPSC is able to monitor, alert and report on the status of these alarms.

To gain access to the alarm status information, the native RS232 alarm interface is integrated onto the FMES_OT network either through a *Moxa* serial to IP convertor the module, or using dedicated driver developed using IP as the interface mechanism.

IPSC is able to read the Panic Status, Zone-in-Alarm Status and the Fault Status of each of the Civic Centre's alarm units individually.

13.2.5.8 Uninterrupted Power Supply (UPS)

A number of UPS systems are deployed at the Civic Centre and the TMC. IPSC is integrated directly with those UPS systems that are fitted with IP interface cards. Most modern UPS systems have this feature, and IPSC can access status and command information directly via the IP based SNMP protocol. Each UPS type uses a different SNMP set of Management Information Base fields (MIBs), which provides information such as capacity, current load, voltages, current, and frequencies, as well as alarms.

13.2.5.9 Elevator Management System

The Civic Centre has elevators supplied by *Schindler*. These have built-in intelligence that can be queried to provide status information. The elevators' control systems use an interface convertor to translate the proprietary protocols to Ethernet/IP. *Advantech* Data Acquisition Module (ADAM) interface conversion units are used in this conversion process. These units allow bi-directional communication and provide IPSC with to read a number of status registers such as the state of an elevator, operational condition and fault alarms. Further, instructions can be sent to the lift via the convertor, which can, for example, ground lifts in the event of an emergency situation. Each elevator system has its own set of IO modules, which govern the exact functionality.

By way of example, a sample list of metrics that can be read and written to the Elevator Management System is shown in the table below. The first five metrics are status metrics, while the last two are command metrics.

Lift ID	Signal
Foyer K	Lift Doors open
	Lift Doors closed
	Lift in normal operation
	Lift in Fault
	Lift in fire condition
	Ground Lift to Primary
	Ground Lift to Secondary

Additionally, the *Schindler* elevators are integrated with the *Lenel 'Onguard'* access control sub-system, in order to provide access card control to the elevators at the Civic Centre. This integration is done using *Schindler's* PORT technology system that stores user access card data acquired from *Lenel Onguard* database. *EzFlo* is the data mediator used for communication between *Lenel Onguard* and *Schindler's* PORT Technology.

13.2.5.10 Escalator

In a similar fashion to the Elevator Management Systems, the escalators in the Civic Centre and the TMC are being monitored by IPSC. An *Advantech* ADAM unit is used to convert the escalator controllers' status and control signals into IP. Each escalator has its own ADAM unit and, depending on the direction of travel, will produce status information accordingly. As an example, two escalator unit status tables are shown below.

ADAM UNIT ID	Signal	Port
P-2-H4-CONC-ESCAL1 (Serial # 1AA7887984)	UP Emergency Stop	DI0
	UP Escalator STOP/START	DI1
P-2-H5-CONC-ESCAL2 (Serial # 1AA7811751)	DOWN Emergency Stop	DI0
	DOWN Escalator STOP/START	DI1

13.2.5.11 Public Address and Audio Evacuation System

The Civic Centre has an in-building public address communications systems (including an audible evacuation siren) manufactured by *TOA Electronics*. While the *TOA* system has a native Ethernet connection, IPSC still requires an interface unit in order to gain access to status information. The Ethernet interface can be used to record and distribute emergency messages to the buildings directly from the IPSC application. The status information is accessed via an *Advantech* ADAM interface unit, giving access to the status information as shown in the table below.

ADAM Unit ID	Signal
P-1-E4-EMC-TOA **(Serial # IAA7811757)**	Microphone Fault
	System Manager Fault
	Surveillance Frame Fault
	Amplifier Fault
	Speaker Fault
	Power Fault (Both 220VAC and DC)

13.2.5.12 Alarm Strobe Light

An automated Strobe Light is installed in the Emergency Medical Services (EMS) Control Room located in the Civic Centre. This strobe light can be activated directly from IPSC to alert Control Room personnel to emergency situations. The strobe light is a simple device, and is fronted by an ADAM unit to integrate it to IPSC. Backend logic in the application determines when the light is switched on or off.

13.2.5.13 Guarding Solution

At the time of preparation of these tender specifications, this system had not been deployed. The successful tenderer may be required to integrate this application as a new (additional) sub-system.

13.2.5.14 Building Management System (air ventilation, cooling and heating)

The Civic Centre has a *MetaSys* Building Management System (BMS) manufactured by *Johnson Controls* while the TMC has an *Alerton* BMS manufactured by *Honeywell*. The BMS at both sites is responsible for the control and management of the Heating, Ventilation and Air Conditioning (HVAC) system. The BMS control system consists of a management application, Network Automation Engines (NAE), and Network Control Engines (NCE). The latter devices are used to control a number of subsystems that make up a HVAC system, such as chillers, aircon head units, power supply units, etc. All communication between the BMS application, the NAE's and the NCE's is via the BACnet protocol.

The NAE, NCE and BMS applications are all connected directly to the FMES_OT network, IPSC integration being achieved through a software driver. The BMS deploys a software protocol convertor that converts the BACnet messages to IP as readable by the FMES application.

13.2.5.15 Data Centre Building Management System

The IS&T data centre in the Civic Centre, is monitored by the *StruxureWare* system, supplied by *Schneider Electric*. The data centre's BMS provides a core platform to monitor, manage and operate the City's data centre assets, such as generators, UPS, air handling units, and fire detection and suppression systems. The *StruxureWare* server sits on the IS&T Corporate Network and, connects to the IPSC server via the CoCT and FMES firewall. The data centre BMS integrates with IPSC through a Modbus driver. All dry contacts from the various devices managed by the BMS are connected via a *Netbotz 550* unit, which is integrated with the *StruxureWare* software. The following table shows the devices that are managed by *StruxureWare* and the respective metrics that are monitored:

Equipment	Metric
Incoming Datacentre Supply	• Mains tripped (incoming) • Mains tripped (outgoing) • Phase failure alarm
Generator	• Generator running • Low fuel level • Generator supply on
2 x UPS units	• UPS online • Inverter online • Battery Status • Static Bypass
10 x *Hiross Liebert* Air Handling Units	• High temp • Low temp • High humidity • Low humidity • Water leak under floor
Fire Detection and Suppression (CO2) System	• Fire Alarm • Fire Panel – no supply • Fire Panel – battery low

13.2.5.16 Lighting Management

The TMC makes use of an automated lighting management system to control building energy use by controlling the state of the lights in the public areas. This system uses the Digital Addressable Lighting Interface (DALI) protocol to communicate between the ballasts and the management system. While the DALI protocol is widely supported, the version deployed at the TMC is restrictive, which forced the integration to be limited to IO monitoring of the DALI loop drivers. This IO monitoring is achieved through a *Moxa* module.

13.2.5.17 Tender Box

The City employs a tender process to conduct business with suppliers. An automated Tender Box closing system is used to automatically close and lock the tender boxes allocated to a specific tender at a specified time. The system makes use of the *Lenel* access control subsystem to do this.

IPSC is able to monitor the state of the tender boxes by accessing information from both the *Lenel* access control system as well as the City SharePoint portal containing the tender date and time parameters.

IPSC will raise an alert if there are faults with the closing process, as well as any attempted forced entry. CCTV footage from the integrated CCTV system is synchronised with the alert, thereby allowing an operator to check on the physical status of the tender box in the event of an alarm being triggered.

13.2.5.18 TETRA Radio Recording (currently inactive)

The City uses a widely deployed TETRA radio network for two-way radio communications. All radio voice traffic is consolidated at the TETRA head end, based at the Haardekraaltjie Building in Bellville. A DataVoice voice recording solution, deployed in this location, is used to record all radio conversations.

IPSC can integrate directly with the DataVoice recorder, providing operators with the ability to access and playback radio conversation recordings. This TETRA radio voice recording system has not yet been commissioned.

13.2.6   Water and Electricity Data Management System

The Water and Electricity Data Management System is a stand-alone system that collects data from the water and electricity meters of the Civic Centre and the TMC, analyses the data, and presents it on a digital dashboard, available to City employees on the Corporate network (IS&T). This system does not have control of or write data to the water or electricity meters.

Though this system is not integrated with the IPSC, it is considered to be a part of the FMES environment, and so must also be supported and maintained by the tenderer.

Figure 7 shows the overview of the current deployment of the Water and Electricity Data Management System, with the following points to note:

* The Water, and Energy dashboards are custom built to display data collected from smart water meters and smart electricity meters (Initially deployed as a proof of concept for water).

* Currently, smart water meters are physically located at the 44 and 50 Wale Street building complex.

* The smart electricity meters are physically located at the Civic Centre building.

* The SAP, *SharePoint*, Space Management and Email servers are also physically located in the Civic Centre, on the City's Corporate Network.
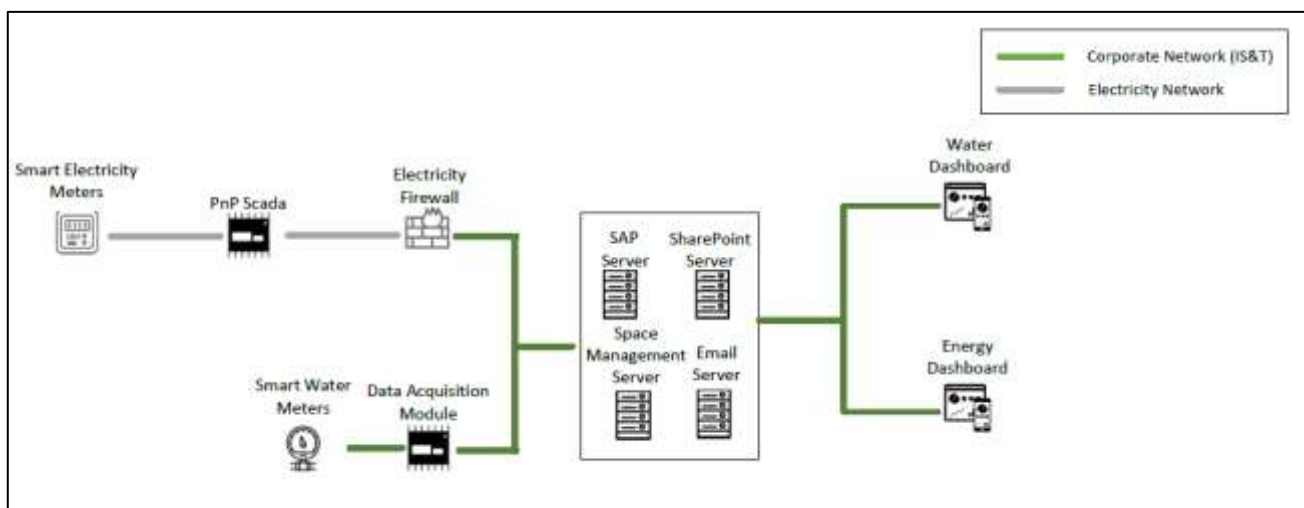

Figure 7: Water and Electricity Data Management at the Civic Centre

The following are functional specifications of the sub-system interface with the water and energy data management system.

13.2.6.1   Smart Electricity Meters

The City has a legacy Electricity Consumption Monitoring System in place. This system interfaces with remotely installed electricity meters via GSM or manual readings and retrieves and records the consumption values in SAP via a PnP SCADA.

The Energy Data Management System directly queries the Consumption Monitoring System to obtain the consumption values. The query is in the form of an HTTP web request, with the results being returned as a web page. These web page results can be displayed within the IPSC application console, but are presented separately on a dashboard.

The Energy Data Management System collects and collates energy utilisation information about City buildings. This provides the functionalities listed below:

- Automatically collects City facility billing meter data (PnPScada/MDUS), marries the information with SAP, and updates fields with the verified information
- Option of adding new energy meters to improve metering points
- Integrated process from meters to SAP & Energy management
- Multi-factor reporting for building managers:
  - Occupancy
  - Lighting energy usage
- Platform for future additions
- Data Analysis: benchmarks to determine deviations or consistently underperforming buildings (in terms of energy utilisation)
- Maintenance prediction

The following table shows the various components of the Energy Data Management System:

Component	Description
Database	Captures the extracted meter information from PnP SCADA; also allows configurable fields to be modified, such as user roles.
Data Collection	See table below
Security	Leverages the *Windows* Integrated Enterprise Single Sign-On for authentication, which uses a role-based authorization tool to allow users selective access to the appropriate user interfaces.
Data Visualisation	SQL Server Reporting Services (SSRS) is deployed to enable reporting and data visualization. The following pre-defined reports are made available through a web interface: • Facilities Report – Provides a listing of currently configured Facilities Information in *Excel* format, including associated meters • Public Dashboard – Provides an overview of the energy consumption in the specified facility shown at 30-minute intervals for the current day overlaid with baseline and trend line and current performance indicator. Annual and Monthly values are shown • Maintenance Dashboard - Provides an overview of the energy consumption in the specified facility shown at 30-minute intervals for the current day, against target baseline and user defined predetermined thresholds • Custom Building Energy Consumption - Provides an overview of the energy consumption in the building shown at 30/60-minute intervals for the selected date range • Monthly Building Energy Consumption – Provides an overview of the energy consumption for a specified facility shown at a rolling 12-month interval. Intervention Project Information will be on this report

The following data is utilised by the Energy Data Management System:

Data Type	Data
Facility Information	• Building name • Building address • Building type (e.g. library, clinic…) • ERF, GIS co-ords • Usable space (m^2) • Building Manager (Contact details)

	• Projects: Tender number, intervention etc.
Meter Infrastructure Information	• Old Meter number • New Meter number • Billing factor • Tariff
Meter Data Information	• Electricity data (kWh) • KVA, KVAR, KVARH • Power factor correction • Load factor (%) • Max KVA • Demand and kWh • Phase Graphs
Data Analysis & Interpretation	• Baseline • Trend line • Annual average consumption • Monthly average consumption • Daily average consumption • Benchmarks/indicators (kWh/m2) • Ref to SANS204:2011 • Cost per kWh • Alerts • Calculated impacts (savings) • Temperature • CO_2 emissions

13.2.6.2   Smart Water Meters

The City has installed electronic water meters at selected City buildings, therefore enabling it to present real-time water consumption data, as well as historic trends and reports.

The solution currently consists of in-line smart water meters installed on the main incoming water pipe downstream of the City's current utility water meter. This water meter provides a pulsed output that is converted into data packets by a Data Acquisition Module (DAM) able to be transported on the City's Metro Area Network using Internet Protocol (IP).

A DAM driver in the FMES environment is then used to extract data from the data acquisition module located at the building and populates the usage data into a database. This data is rendered in HTML format to the requester using their Internet browser as the interaction tool.

City employees connected to the IS&T Corporate Network enter the Water Management Dashboard URL in their Internet browser. This request is relayed by the City's network to the relevant FMES server where the data is located. The data can be used for department, building or other baseline comparisons. The data can also be presented on large display TV screens at building entrances for water consumption awareness.

The following table shows the various components of the electricity monitoring system:

Component Type	Description
Water Meter	• Provides infra-red pulses as outputs proportional to the water usage
Data Acquisition Hardware	• The infrared pulses from the water meter are converted by a sensor into a latching pulsed output. • This voltage output is fed into a Digital Input port of a Data Acquisition Module (DAM) from where the data is made available over a Modbus TCP connection. • Each building has its own DAM, which is connected to the City metro area network (MAN) switch on an Ethernet CAT6 RJ45 port
Network	• Consists of a broadband Virtual Private LAN Service (VPLS) connecting the existing FMES network to the City's MAN network

Middleware	• Middleware software is used to extract data from the DAM over the network and store data usage figures into a database in a time stamped manner • Consists of web-services that fetch data from the DAM periodically as required
Dashboards	• 'Water' Facility tracker for the relevant buildings: e.g. 44 Wale and 50 Wale • Similar layout to the electricity facility tracker • Loads all historical monthly data for the buildings (44 and 50 Wale) water meters • Ability to add water meters to the system as the project is expanded • Meter notification reports can be generated, which reports the last readings on meter
Data & SAP	• Water usage data gathered from the water meter will be stored on the FMES domain • Comparable data is also available through SAP based on a monthly manual data entry process of the "legacy" meter

13.2.6.3   Business system maintenance

The IPSC system uses the data mediation function provided by *EzFlo* to created automated SAP notifications and works orders in response to device and sub-system fault alerts.

13.2.6.4   Email Integration

IPSC integrates with an email/exchange server using a standard built-in SMTP capability. No driver is used for the integration. This integration is done to notify relevant recipients of an event that took place. Only outgoing email functionality is supported. The email server sits on the Corporate Network and connects to the IPSC server via the CoCT and FMES firewall.

13.2.6.5   Space Management

The Facility Management department uses a digital spatial mapping tool to allocate, organise, and optimise the use of internal building space. At the Civic Centre, this is done using *Korasoft*, a visual real estate and facility management software application. *Korasoft* integrates existing floor plans and geographical maps into alphanumeric property data drawn from the SAP ERP system. The software's graphic visualization is based on the SAP GUI interface and Web-based SAP Fiori® apps built with SAP 3D Visual Enterprise applications. Master data support is provided by *AutoCAD* or *Autodesk Revit. Korasoft* automates a number of processes based on the floor plans, including occupant services and maintenance.

13.2.7   Data Mediation

The data mediation functionality is an important element of the current FMES environment. Data mediation enables the interconnects and data flows between various sub-systems, devices and other data/information management systems such as:
- SAP
- IPSC
- BMS
- Utility devices such as energy and water meters
- Databases
- Other data sources

The FMES environment currently uses *EzFlo* (a *Britehouse* product) as the data mediation system. This ensures that the data mediation function, like the data store, is independent of the CNL PSIM system. This provides the City with robustness for its data platforms and removes data and information management from the functionality of specific pieces of software or system.

13.2.8   Server Architecture

Figure 8 provides an overview of the current server architecture at the Civic Centre and the TMC. Note the following:

- **IPSC Application Server**: This hosts the IPSC application, which integrates with the various sub-systems.

- *EzFlo* **Server:** The server hosts the data mediation software *EzFlo*.

- **Primary Database Server:** This hosts the production data consisting of all the building assets including their status or alarm messages. The database server hosts a number of databases, all in SQL Standard 2016.

- **Secondary Database Server**: This is a standby server for the Primary Database Server. The server is always kept in sync but it does not process production data at the same time as the Primary Database Server.

- **Reporting Database Server:** This hosts a copy of the IPSC production database but only a read-only instance. All reporting systems reference this server and database so as to reduce the processing and load on the production database server.

- **BI Server:** This hosts the reporting engine that interrogates data stored in the database and creates a visual representation thereof**.**

- **Back-up Server:** This server acts as a Network Attached Storage device for all the physical back-ups of the aforementioned servers. No processing of data occurs on this server.

- **Web Server:** This server is the interface point for applications rendering data to the public (www) domain. This architecture allows security to be applied to this server with all connections to other servers being protected

- *Avigilon, Lenel, Ultraview,* **and** *Traka* **Servers:** These host the respective sub-system applications.

All the application servers supporting the TMC are virtual servers operating within a *SimpliVity* hosting environment. The *SimpliVity* system is managed by the current vendor for this purpose.
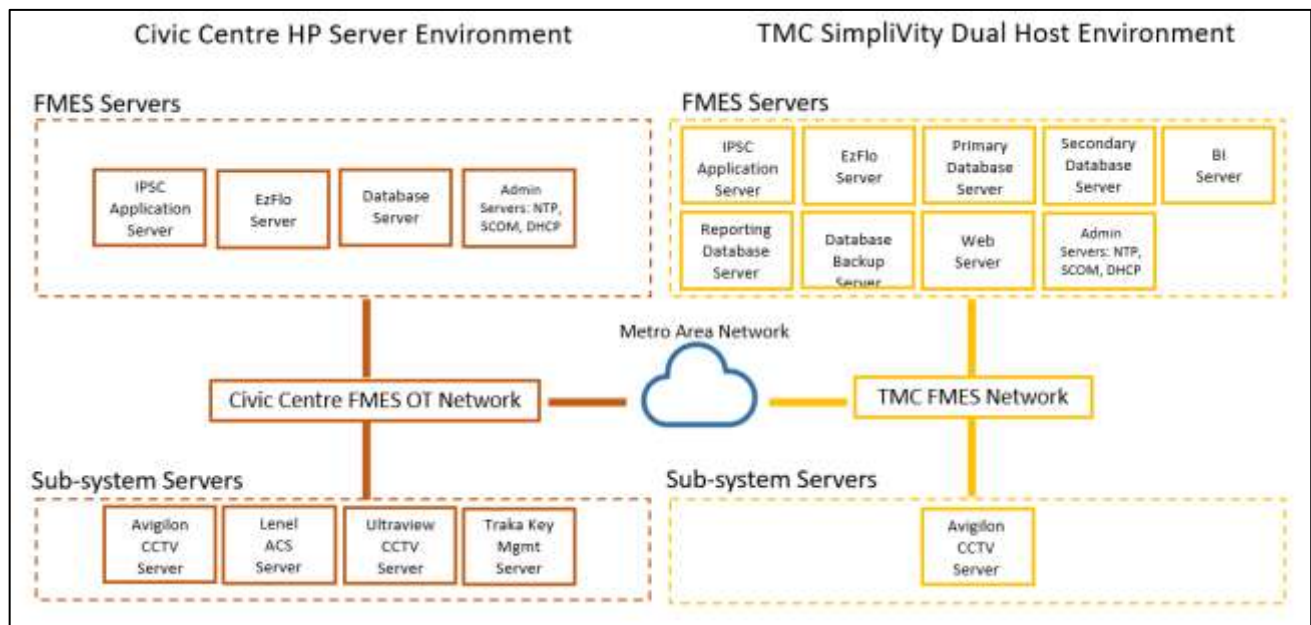

Figure 8: Server architecture across the Civic Centre and the TMC.

13.2.9   Hardware and Software Specifications

This section describes the specification of the hardware and software currently in use in the FMES environment.

13.2.9.1 Core Server Hardware

The following specification is for the currently deployed server. These are the minimum requirement as recommended by CNL.

CNL Application Server SQL Server	
Base	2x Intel Xeon E5-2630v3 2.4GHz
Memory	128 GB RDIMM Dual Rank
RAID Controller	Dedicated RAID card OS: RAID 10, 4x 512GB Solid State Drives
Network	4x 1GB Minimum 2x 10GB - for connection to Storage
Power Supply	Dual, Hot Plug
Operating Systems	Windows Server licenses as required
Monitors	VGA / KVM as required

13.2.9.2 Video export server hardware

The following table describes the server required to enable the mass download of video for export.

Video Export Server	
Base	1x Intel Xeon E5-2630v3 2.4GHz
Memory	32 GB RDIMM Dual Rank
RAID Controller	Dedicated RAID card OS: RAID 1, 2x 500GB SAS/SSD Drives Data (for Export): RAID 5, 15k SAS/SSD sized for storage - recommended minimum 3TB of useable storage
Network	4x 1GB Minimum
Power Supply	Dual, Hot Plug
Operating Systems	Windows Server licenses as required
Monitors	VGA / KVM as required
Note: It is not recommended to run Video Export on the same primary application server hardware due to limited resources.	

13.2.9.3 List of current servers

Identifier	Description
Q8D81A	HPE SimpliVity 380 Gen10 Node
Q8D81A 001	HPE SimpliVity 380 Gen10 VMware Solution
826870-L21	HPE DL380 Gen10 Intel Xeon-Gold 6132 (2.6GHz_14-core_140W) FIO Pr
826870-B21	HPE DL380 Gen10 Intel Xeon-Gold 6132 (2.6GHz_14-core_140W) Process
Q8D86A	HPE SimpliVity 288G 12 DIMM FIO Kit
Q5V87A	HPE SimpliVity 380 for 6000 Series Medium Storage Kit
870548-B21	HPE DL Gen10 x8_x16_x8 Riser Kit
P01366-B21	HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable
804338-B21	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes_4GB Cache)

700751-B21	HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
811546-B21	HPE Ethernet 1Gb 4-port 366T Adapter
830272-B21	HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Ki
BD505A	HPE iLO Advanced 1-server License with 3yr Support on iLO License
Q8A62A	HPE OmniStack 8-14c 2P Medium SW
733664-B21	HP 2U Cable Management Arm for Easy Install Rail Kit
864279-B21	HPE Trusted Platform Module 2.0 Gen10 Option
867809-B21	HPE Gen10 2U Bezel Kit
826703-B21	HPE DL380 Gen10 SFF Systems Insight Display Kit
733660-B21	HP 2U Small Form Factor Easy Install Rail Kit
826870-L21	HPE DL380 Gen10 Intel Xeon-Gold 6132 (2.6GHz_14-core_140W) FIO Pr
P1F60A	HPE Inside Unpack Clean Up XL SVC
HA114A1 5LY	HPE SimpliVity 380 HW Start-up SVC
HA124A1 5LZ	HPE SimpliVity 380 SW Start-up SVC
HA113A1 5BW	HPE ProLiant Add On Options Install SVC
H1K92A3	HPE 3Y Proactive Care 24x7 SVC
H1K92A3 R2M	HPE iLO Advanced Non Blade - 3yr Support
H1K92A3 Z9X	HPE SVT 380 Gen10 Node (1 Node) Support
H1K92A3 ZA6	HPE OmniStack 8-14c 2P Medium Support
HF385A1	HPE Trng Credits ProLiant_HybridIT Svc
	Dell Server, 2 x E5620 @ 2.4GHz (total 16 cores), 8GB RAM, 2 x Gb Ethernet (BCM5716C), 2 x 500GB 7k2rpm SATA HDD (C: in RAID 1), 2 x 300GB 15krpm SAS HDD (JBOD)
	HP DL380G8, Two E5-2620 (2.0GHz/6-core) processors, 64GB memory, 4x 1TB SATA drives, DVD-RW, 4x1GbE Nic, P420i/1GB Controller, redundant power, Insight Control
	Workstation: Basic
	Workstation: Medium spec
	Workstation: High spec
	Screen: 23" with wall bracket
	Screen: 30" with wall bracket
	Screen: 40" with wall bracket
	Screen: 50" with wall bracket
	KVM over IP kit
	HD over IP kit
	10" tablet
	Desk mount tablet bracket
PT-2205-SWB-ADNSGD	PT 2205 Software Bundle, Advanced DNS Protection and Grid
PT-2205-SWBSUB-	PT 2205 Software Bundle Subscription, Advanced DNS Protection and Grid

ADNSGD-3	
TR-1405-HWB	Reporting & Analytics Hardware Bundle 1405, requires Infoblox Reporting and Analytics License or Subscription. Includes 500/mb Day Splunk Trial
TR-SWTL-5GB-3	Reporting and Analytics Subscription License, 1 License per Grid, requires Reporting and Analytics HW or Activation Software Bundle
TE-1415-SWB-NS1GD	Trinzic 1415 Software Bundle, DDI and Grid
TE-1425-SWB-NS1GD	Trinzic 1425 Software Bundle, DDI and Grid
IB-SUB-ATC-PL-20000-39999	ActiveTrust Cloud Plus
NT-MRI-2000-4999	NetMRI Device License 100 pack, Full NetMRI Module, Perpetual License
NT-4000-HWB-MRI	Network 4000 Hardware Bundle w/ NetMRI Operating System
T-PSU600-AC	FRU, Trinzic 1405 & 2205 Series AC Power Supply Unit, 600W
IB-SFP-CO	FRU, Transceiver, Copper 1000-BASE-T Ethernet SFP for IB-SFP-CARD

13.2.9.4 List of current application software

The City has the following FMES-related application software deployed:

- *CNL IPSecurityCenter* – the primary PSIM application
- *EzFLo IX* and *GX* suite – data mediation interface and graphical application
- *NTP*, *AD* and *SCOM* server software
- Various interfaces eg. *Lenel DataConduit*
- Custom developed Dashboards
- SQL database
- NTP server including configuration
- AD server including configuration
- SCOM server including configuration
- IPSecurityCenter Server
- Dashboard deployment
- Virtual floor drawing deployment
- Report generation
- Standard Operating Procedure creation
- Driver development: *Avigilon* CCTV
- Driver development: *Truevision* CCTV
- Driver development: *Lenel* ACS
- *DataConduit* licence
- Driver development: *Centaur* ACS
- Driver development: *JCI* BMS
- Driver development: *Alerton* BMS
- Driver development: IO module (e.g. *Moxa*/ADAMs/etc.)

- Driver development: *Ziton*

- Driver development: UPS (e.g. *Eaton* / *APC* / *Qon* / etc.)

- Driver development: *Intellibus*

- Driver development: *Patriot*

- Driver development: *Galaxy*

- Driver development: *Paradox*

- Driver development: *Traka*

- Driver development: *TOA*

- Driver development: *StruxureWare*

- Driver development: *Cisco CMX*

- Driver development: *PNP SCADA*

- Energy Management dashboard

- Water Management dashboard

13.2.10 Security of the FMES environment

13.2.10.1 List of security systems

- Web Application Firewall - 2 x GE SFP slots, 6 x GE RJ45 ports (includes 4 x bypass ports), dual AC power supplies, 4 TB storage

- FortiWeb-1000D 1 Year Advanced Bundle (24x7 FortiCare plus AV, FortiWeb Security Service, IP Reputation, FortiSandbox Cloud Service, and Credential Stuffing Defence Service)

- Smart-1 525 Next Generation Security Management Appliance for 25 gateways (SmartEvent & Compliance 1 year)

- Standard Collaborative Enterprise Support For 1 Year

- Next Generation Security Management Software for 10 gateways (SmartEvent & Compliance 1 year)

- Antivirus per server/PC

- Antivirus server

- CPAP-SG2200B-NGTP Collaborative Standard Support, 3 years

- CPSB-NGTP-2200-3Y Next Generation Threat Prevention, 3 years

- CPAP-SG2200B-NGTP-HA Collaborative Standard Support, 3 years

- CPSB-NGTP-2200-3Y-HA Next Generation Threat Prevention, 3 years

- CPAP-SM205 Collaborative Standard Support, 3 years

- CPSB-EVS-SM205-2Y Check Point SmartEvent and SmartReporter for Smart-1 225 Appliance, for 2 years

- CPAP-SG2200-NGFW Collaborative Standard Support, 3 years

- DTSYFM-AB-AA - MFE Server Security Suite Adv 1YrGL[P+]

- EPSYLM-AA-AA - MFE Endpoint Protection 3Yr GL [P+]

13.2.10.2 List of current firewall software

Product Name (Checkpoint)	Description
2200 *Next Generation* Firewall (NGFW)	2200 *Next Generation* Firewall Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS and APCL Blades)
2200 NGFW	2200 *Next Generation* Firewall Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS and APCL Blades)
2200 NGTP	2200 *Next Generation* Threat Prevention Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS, APCL, URLF, AV, ABOT and ASPM Blades)
2200 NGTP HA	2200 *Next Generation* Threat Prevention HA Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS, APCL, URLF, AV, ABOT and ASPM Blades)
Smart-1 205	Smart-1 205 Appliance with Policy, Log and Event Security Management for 5 Security Gateways

13.2.10.3 Antivirus

- *MacAfee* Antivirus loaded on all workstations and servers
- Updates managed from a central server

13.2.11 List of Networking Equipment

This list is proved for completeness. Note that responsibility for the FMES_OT Network has been transferred to the City's Telecommunications Branch.

Identifier	Description
C1-AIR-CT5520-K9	CISCO Cisco ONE - 5520 Wireless Controller w/rack mounting kit
C1A1TAIRK9-3Y	CISCO Cisco ONE Advantage Term Wireless 3Y
AIR-AP4800-E-K9	CISCO .11ac W2 Analytics AP w/CA; 4x4:3; Location; mGig -E Domain
C1A1TAIRK9-3Y	CISCO Cisco ONE Advantage Term Wireless 3Y
AIR-CAP3702I-E-K9	Cisco 802.11ac Ctrlr AP 4x4:3SS w/CleanAir; Int Ant; E Reg Domain
AIR-RM3010L-E-K9=	Cisco Hyperlocation Module with Advance Security; Reg. Domain -E
AIR-ANT-LOC-01=	Cisco Hyperlocation Antenna, Model 1, Attached Omni
WS-C3650-24PS-S	CISCO Cisco Catalyst 3650 24 Port PoE 4x1G Uplink IP Base
WS-C2960X-24PS-L	CISCO Catalyst 2960-X 24 GigE PoE 370W, 4 x 1G SFP, LAN Base
GLC-SX-MMD=	Cisco 1000BASE-SX SFP transceiver module, MMF, 850nm, DOM
GLC-TE=	Cisco 1000BASE-T SFP transceiver module for Category 5 copper wire
SG300-10PP-K9-EU	CISCO SG300-10PP 10-port Gigabit PoE+ Managed Switch
MGBSX1	CISCO Gigabit Ethernet SX Mini-GBIC SFP Transceiver
CON-PSRT-SG3012EU	CISCO PRTNR SS 8X5XNBD SG300-10PP 10-port Gigabit PoE+ Managed Switch
	CISCO Cisco Catalyst 3750 24 Port POE
	CISCO PRTNR SS 8X5XNBD Cisco
	Point to point wireless link full duplex 50Mbps
WS-C4500X-24X-IPB	CISCO Catalyst 4500-X 24 Port 10G IP Base, Front-to-Back, No P/S
	2504 Wireless Controller with 50 AP Licenses
	Cisco 5508 Series Wireless Controller for up to 100 APs

	Cisco 7500 Series Wireless Controller Supporting 300 APs

13.2.12 Licenses

The City currently pays for a license for each sub-system device monitored by IPSC. The City would prefer to not have pay for these device licenses, although these may be needed depending on the PSIM solution.

Current Workstation or Server licenses for the PSIM solution are to be supported.

The following is a complete list of all licenses active in the FMES environment.

- *CNL's IPSC*

  o Ownership including source code belongs to *CNL*

  o *CNL*'s software is sold within South Africa through the local *CNL* agent (*e-Thele*) to *Dimension Data*, which holds the current vendor relationship with the City

  o Licenses procured to load and use the software

  o *CNL*'s code base and sub-system interfaces (drivers) remain the IP of *CNL* and *e-Thele*

  o On-going annual license costs are required to use the software which also entitles the owner to upgrades

  o Licensing of user workstations and supervisor video wall

  o Device licenses – per device within each sub-system. A license is needed for each device plotted or integrated with the PSIM solution.

- **Sub-system interfaces or drivers**

  o Ownership of the drivers and use thereof belongs to the City for use within the City's FMES environment (i.e. cannot be sold to a third party)

  o Source code of some drivers is available and where ever so, then ownership has been transferred to the City

  o Licenses procured to load and use the software

  o No on-going license costs are required to use the interface mechanisms

- *Microsoft Windows* **Operating Systems**

  o Ownership including source code belongs to *Microsoft*

  o Licenses to load and use the *Windows* software are procured by the IS&T Department for the whole City administration

  o No on-going license costs, software remains on the servers until the software is removed or the hardware is disposed of

- *Microsoft SQL*

  o Ownership including source code belongs to *Microsoft*

  o Licenses procured to load and use the software

  o There are no on-going license costs to use the software, however licensing is required to maintain support on the environment which entitles the owner to free upgrades

  o *Microsoft BI* is a sub-set function of SQL Enterprise which is a monthly licensed product and will cease to operate should licensing not be kept up to date

- *EzFlo* **IX & GX**

  o Ownership including source code belongs to *Britehouse*

- o Drivers for *EzFlo* subsystem interfaces are available to the City

- o No license formally procured, but use of the software is provided to the City free of charge

- o There are no on-going license costs; the software remains on the servers until the software is removed or the hardware disposed of

- o The *EzFlo* platform will remain operational for third parties to use for further development

13.2.13 Operating System

A combination of *Windows* Server and *Unix Ubuntu* operating systems are utilised. The *Windows* machines must be licensed to *Windows Server* 2016 edition at a minimum.

13.2.14 SQL Database

Microsoft SQL 2016 is being utilised in the FMES environment. SQL enables functionality inclusive of:
- Database storage
- Replication
- Reporting
- Maintenance

- **Licensing for the Primary and Secondary SQL databases:**

- o Max 4 VCPU SQL Server STD 2Core Pack licenses

- Licensing for the Reporting DB

- o 7JQ-00314: SQLSvrEntCore Lic/SA Pack OLP 2Lic NL GOV - 2 Core License Pack

13.2.15 Firewalls

The FMES environment encompasses end-to-end data security for all data generated. The FMES environment currently has firewalls between itself and the City's Corporate Network and the attendant Corporate applications, such as *SAP*.

- **Firewalls**

- o Internet facing firewall: *Checkpoint* cluster

- o Corporate network facing firewall: Checkpoint

- o Web Application Firewall: *FortiWeb* 1000D Appliance, capable of protecting 1Gbps of throughput with 1 Year Advanced Protection Services and 1 Year *FortiCare Services*

- **Firewall Management**

- o *Next Generation Security Management Software* for 10 gateways with *SmartEvent & Compliance* for one year

- o Running on a virtual machine on the *SimpliVity* server

13.2.16 Summary of Protocols and Integration Methods Insert page number

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
CCTV (IP) Including Analytics	*Avigilon*	Civic Center & TMC	*Avigilon* SDK	System alarms, camera live footage, recordings, camera alarms, camera I/O	Per Camera	IPSC CCTV driver for ACC v5	Per Driver	Not Required	N/A (Network Video Recorder speaks to the cameras via IP on the FMES_OT network)	Live footage stream, recordings, alarm reports, virtual Pan-Tilt-Zoom control
CCTV (Analogue)	*Ultraview*	Civic Center	*Ultraview* SDK	System alarms, camera live footage, recordings, camera alarms	Per Camera	IPSC CCTV driver for Ultra-view v4	Per Driver	Not Required	N/A (Digital Video Recorder speaks to the cameras via analogue)	Live footage stream, recordings, alarm reports, virtual Pan-Tilt-Zoom control
Access Control	*UTC Lenel*	Civic Center & TMC	Software SDK by mean of a DataConduit license to enable communication with the *Lenel* software	Receive system status and alarm (duress and health) notifications. Sends credential data and controlling	Per Door	*EzFlo* uses the *Lenel* DataConduit license to receive and send data from Lenel and stories it in on FMES database for	Per Driver	Not required	Not applicable (*Lenel* system controls all devices at a hardware level while the FMES driver works at the software	Alarm reports Behavioural reports Controllable mimics on graphical building plans

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
				commands to field devices based on data FMES obtains from other systems or by means of operator controlled commands		processing			level)	
Access Control	*Centaur*	All other City buildings	None at present	As above	N/A	*EzFlo* communicates with the Centaur software and extracts info from the MySQL database	Per Driver	N/A since no current integrations	Not applicable (*Centaur* system controls all CDVI devices at a hardware level while the FMES driver works at the software level)	None at present
Fire Detection	*Ziton*	Civic Center (addressable), TMC (addressable)	ZP2 protocol via RS232	Fire suppression (gas) alarms and fire suppression (gas) activation. Detector	Per device (detector, strobe, line relay, sounder) required on and addressab	*IPSC* fire detection driver for *Ziton* v3.12	Per Driver	*Moxa* IP to RS232 converter	N/A (*Ziton* fire panel communicates to field devices as a standalone life safety	Alarming per detector (Civic) or per loop (TMC), reports

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
				alarms, detector triggers, loop information and panel information	le system, and per loop on an analogue system				system)	
Intruder Alarms	*Paradox* (EVO panels)	Civic Center	Alarm's printer port via RS232	All devices (door monitors, IR detectors and panic buttons) and system alarms	Per alarm panel	*IPSC* Intruder alarm driver for EVO v192	Per Driver	*Moxa* IP to RS232 converter	N/A	Device activation, device alarms, health alarms, reports
Intruder Alarms	*Patriot*	Civic Center	Alarm's printer port via RS232	All devices (door monitors, IR detectors and panic buttons) and system alarms	Per alarm panel	*IPSC* Intruder alarm driver for *Partriot* v6	Per Driver	*Moxa* IP to RS232 converter	N/A	Device activation, device alarms, health alarms, reports
Intruder Alarms	*Honeywell Galaxy*	IRT Stations	Security Industry Association (SIA) protocol via IP	All devices (door monitors, IR detectors and panic buttons) and system alarms	None	IPSC Intruder alarm driver for *Galaxy* GD-48 v6.72 and v6.84	None	Not required	N/A	Device activation, device alarms, health alarms, reports
Public Address,	*TOA*	Civic Center & TMC	*TOA* SDK and *TOA* server	Addressing (live audio	Per Zone	*IPSC* driver for *TOA*	Per Driver	ADAM field IO module	Not required to	Virtual PA system control

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
Voice Evacuation			I/O port (I/O port for fail safe alarm activation)	broadcast) paging zones and intercoms, system alarms, system events		and *IPSC* driver for ADAM 5			control speakers however integrated microphone required for live broadcasting	and system alarms and reports
Elevator	*Otis*	TMC	Digital I/O	Status of the lift, alarm conditions and ability to ground a lift	Per lift	IPSC I/O driver for ADAM 5	Per Driver	ADAM field IO module	Not applicable (*Otis* controls the lift car and doors. External monitoring relays are isolated from the system's autonomy)	System alarm, virtual grounding button
Elevator	*Schindler*	Civic Centre	Digital I/O	Status of the lift, alarm conditions and ability to ground a lift	Per lift	*IPSC* I/O driver for ADAM 5	Per Driver	ADAM field IO module	N/A	System alarm, virtual grounding button
Escalator	*Vision*	Civic Centre	Digital I/O	Status of the escalator, alarm conditions	Per escalator	*IPSC* I/O driver for ADAM 5	Per Driver	ADAM field IO module	N/A	System alarm
Escalation		Civic Center	Digital output	Activation	Per strobe	*IPSC* I/O	Per	ADAM field	Controlled	None

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
Strobe Light			activation command via ADAM	based on certain alarm conditions	light	driver for ADAM 5	Driver	IO module	via ADAM I/O unit	
Key Management	TRAKA	Civic Centre and TMC	SQL integration	System alarms	Per FOB	*IPSC* driver for TRAKA v2	Per Driver	Not required	N/A	System alarms
HVAC (BMS)	*Johnsons Control*	Civic Centre	Modbus driver via *Kepware*	System alarms	None	I*PSC* driver for OPC communication	Per Driver	Not required	N/A (communication to BMS done via NAE)	System alarms and JCI applet (iframe)
HVAC (BMS)	*Alerton*	TMC	Modbus driver via Kepware	System alarms	None	*IPSC* driver for OPC communication	Per Driver	Not required	N/A (communication to BMS done via Tridium JACE)	System alarms
UPS	*Eaton*, *APC*, *Q-on*, *Tower*	All buildings	SNMP	System alarms, system status and system parameters	Per UPS	*IPSC* driver for SNMP communication	Per UPS	SNMP card	N/A	Virtual LCD panel, system parameters and reports
Generator Monitoring (BMS)	*Deep Sea Controller*	Civic Centre	Via BMS	System alarms	Per Generator	Included within BMS interface	N/A	N/A	N/A	Alarm dashboard, system reports
Electricity Monitoring	*PnP SCADA*	All buildings	Web services	Energy usage	N/A	*IPSC* driver for *PnP SCADA*	Per driver	N/A	N/A	Energy usage graphs

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
TETRA Radio Recording	*Motorola*	Hardekraaltjie	Not active	Not active Initial integration outcome was to access recordings and monitor system alarms	Not active	Not active	Not active	Not active	Not active	Not active
Tender Box	*UTC Lenel*	Civic Center	Software SDK by mean of a DataConduit license to enable communication with the *Lenel* software	Status monitoring of tender box windows	Per tender box	*EzFlo* uses the *Lenel* DataConduit license to receive and send data from *Lenel* and stores it in on the FMES database for processing	Per Driver	Not required	Not applicable (*Lenel* system controls all devices at a hardware level while the FMES driver speaks at the software level)	Alarm reports Virtual Tender Box mimic
Parking Management	*Sharepoint* /*Avigilon* /*Lenel*	Civic Centre	Combination of web services and SDKs between sub-systems	Control of booms based on license plate data	Included above	*EzFlo* extracts data from CoCT *SharePoint* and uses it to control *Lenel*, based on *Avigilon*	Included above	N/A	N/A	Parking area occupancy dashboard

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
						license plate data				
Lighting Management	*Intellibus*	TMC	*Intellibus* via RS232	Control lighting zones	Per zone	*IPSC* driver for *Intellibus*	Per Driver	*Moxa* IP to RS232 converter	N/A (*Intellibus* controller addresses ballasts via proprietary control)	Virtual Light level switch
Sliding Doors (As part of the Station Information System)	*Frost*	IRT Stations	Webservices	Door status and door alarms	Per set of doors	EzFlo SIS driver	N/A	None	N/A (Frost door controllers communicate via Wi-Fi at the station to Frost Server at TMC)	Dashboard of door alarms and door mimics on virtual station maps
SAP PM and *SAP* HR	*SAP*	Corporate (IS&T network)	XI/PI integration (tbc)	Data to support FMES functionality	N/A	*EzFlo SAP* driver	N/A	Corporate Firewall	N/A	N/A
SharePoint	*Microsoft*	Corporate (IS&T network)	Web services	Data to support FMES functionality	N/A	*EzFlo SharePoint* driver	N/A	Corporate Firewall	N/A	N/A
Data center BMS	*Schneider StruxureWar*	Civic Centre	Web services	Monitor Data Center	N/A	*IPSC StruxureW*	Per Driver	Corporate Firewall	N/A	Reports

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
	e			environmental alarms		*are* driver				
Gates	Generic	IRT Stations	Digital I/O	Gate Status	Per Gate	IPSC driver for Controllino	Per Driver	Controllino I/O device	IP connection to I/O device that reads NO/NC and 4..20mA signals	Virtual gate mimic and event status reports
Server Room Temperature	Generic	IRT Stations	Analogue	Room Temperature	Per Server Room	IPSC driver for Controllino	Per Driver	Controllino I/O device	IP connection to I/O device that reads NO/NC and 4..20mA signals	Virtual thermometer and temperature graph
Water Monitoring System	Water Monitoring System	Water Monitoring System	Water Monitoring System	Water meter pulses to determine usage		*EzFlo* using Modbus web services		*Moxa* IO module	Receive pulse signals from the *Moxa* device which converts voltage signals into Modbus TCP	Virtual water meter readings Water usage graphs

Sub-system	OEM	Location	Integration Method	Integration Outcome	Device License	Driver	Driver License	Middleware (Hardware)	Field Device Comm-unication	Visualisation
Wi-Fi	*Cisco*	Public Transport Interchanges	Cisco web services	Wi-Fi analytics such as users, sites, throughput, device movement		EzFlo		N/A	N/A	Business Intelligence dashboards Wi-Fi heatmaps superimposed on facility maps
License Plate Recognition	*Avigilon*	Public Transport Interchanges	ACC SDK	Rank usage statistics per vehicle (unique license plate)		EzFlo		N/A	N/A	Business Intelligence dashboards

13.3 SCOPE OF THIS TENDER

13.3.1 Overall scope

The City seeks to appoint a single tenderer that will be primarily responsible for the management, support and maintenance of the Facilities Management Enterprise System (FMES) environment for the Cape Town Civic Centre, and the Goodwood Transport Management Centre. **This System is essentially a physical security information management (PSIM)**, which integrates the functionality of a range of sub-systems, and exchanges data with the City's Corporate Systems e.g. the SAP ERP system. Check bendor to tenderer in doc

The scope broadly includes:

- Supporting and maintaining the core PSIM system, as well as the FMES environment of which it is the central component

- Ensuring that the sub-system integrations are functional

- Monitoring the availability of the sub-systems

- Supporting the servers which run the FMES environment

- Ensuring the security of the FMES environment

- Managing the system as a whole

The scope does not include:

- Operating the sub systems, including acting on the data from the sub-systems, responding to incidents, and rectifying sub-system faults flagged by the System. These tasks are the responsibility of the Control Room staff

- Supporting and maintain the sub-systems (this is the responsibility of the sub-system vendors)

- Monitoring and supporting the networks that connect the System's servers and sub-systems (this is the responsibility of the City's Telecommunications Branch)

- Ensuring the security of the networks of the various elements outside the FMES environment (this is the responsibility of the City's Telecommunications Branch)

(For other out-of-scope activities, see 'Exclusions'.)

Currently there are two distinct instances of the *CNL* System, neither of which is redundant (i.e.: n*2). This situation can be maintained in the short term, but the City prefers a single centralised system that manages both sites on a distributed basis, and which could also be extended to other sites if required. This architecture should include a redundant failover installation (i.e.: n+1). The City wishes to avoid redundant installations of each of the two existing instances of *CNL* (i.e.: [n+1] *2).

Respondents have two options:

1. Take over the management of the existing *CNL IPSC* installations and the standalone FMES applications, for the duration of the contract period

   or

2. Install a new PSIM system with functionality that is at least equivalent or better than the existing System, and support and maintain it for the reaming duration of the contract.

In either option, the appointed service provider should be prepared to implement the preferred architecture for the City's FMES environment. This preferred architecture is based on a single centralised system, monitoring the two current sites (viz. the Civic Centre in the Cape Town CBD, and the TMC building complex in Goodwood). This active system should also have a redundant (failover) implementation (not necessary an active load-balanced parallel system), or some other comparable redundancy arrangement, which can take over from the main implementation in the event of its failure (i.e.: [n+1] as above).

This single redundant system should then be capable of being extended to support integrated PSIM services at any other site connected to the City's Metro Area Network. These sites may be a single, stand-alone building or facility (for example, an administration building or water treatment plant), a group of buildings located in close proximity within a campus, or a collection of widely dispersed, physically separate buildings with a common

function (for example, all clinics, or all libraries). Such a sites, or collection of sites, may each require its own dedicated localised management view. Please note that whist this must be possible, the City has no immediate plans to do this.

In either option, the data management solutions that are part of the FMES environment but which are not integrated with the PSIM system, so that, for example, the water and electricity data management system continue to operate throughout the tender period.

Due to the complexity and interoperability of the required solution the City requires a single tenderer to provide all the products and services needed. The City expects the appointed service provider to perform all duties necessary to support and maintain a fully functional system managing the facilities of both the Civic Centre and the TMC building complex. This will require the service provider to take responsibility for the management (but not the operations) of the FMES environment as a whole, by engaging with a number of different parties, including but not limited to line department staff, building level administrators, sub-system vendors, and the current vendors for various hardware, software and systems, such as network equipment, cabling, server hardware/workstations, network management service providers, and suppliers of control room hardware.

No orders shall be placed on the basis of the quantities in the Schedule(s). A scope of works will be defined by the Employer on a per project basis and an order placed in terms of the project requirement and the prices and mark-up tendered. Any projects issued to the successful tenderer(s) shall be completed within the project period as agreed upon.

13.3.2 Business case

The City operates over a thousand buildings and facilities in support of service delivery and the administration of the metro. Of these, the Civic Centre and the Goodwood Transport Management complex are among the largest. The buildings are equipped with a range of physical security systems, access control, fire detection and suppression systems, building management systems, and water and energy monitoring systems. These systems ensure the security of staff, visitors, and assets, as well as efficient facility management by, for example, optimising water and energy consumption, use of parking facilities, and responsive maintenance. These, in turn, support operational staff productivity, optimal asset utilisation, asset verification and security, and the responsible use of public facilities.

These systems are individually complex, each consisting of multiple devices; collectively the scale and interdependence of these systems cannot be monitored, operated, or maintained manually. Further, optimal use of these systems requires that they function in an integrated way, and that they can respond to inputs and alerts using automated processes or assist operators' workflow.

An PSIM application that makes this all possible should therefore:

- Integrate the sub-systems so that they can me monitored both automatically, and by human control room staff

- Allow the status of each sub-system to be monitored through a single screen, and hence the general operational state of each building

- Enable prompt and coordinated responses to incidents and alerts

- Prevent and mitigate security threats

- Ensure that the buildings' fabric and systems (for example, heating and cooling, elevators, access control) can be effectively maintained, and that faults of the sub-system devices themselves can be quickly identified and fixed

The capital and operating life-time costs of such a PSIM application should be orders of magnitude less that the measurable benefits of staff productivity, public safety, optimal asset utilisation, and asset security.

In response to this business need, in 2012 the City created a specification for an Integrated Building Management Capability[3]. This specification identified the need for compliance with the following legislated health, safety and security requirements:

- Fire detection

- Fire suppression

- Audio evacuation

- Heating, Ventilation and Cooling (HVAC)

- Lift control

- Access control including visitor control

- Closed Circuit Television (CCTV)

- Security Alarms

- Building Management Systems

- Energy management and control

Secondary operation systems identified included:

- Key management

- Emergency voice communications

- Technical maintenance, escalation and SLA monitoring (sub-system vendors)

The intention was that the resulting systems and processes could be applied to any building utilised by the City of Cape Town. Consequently, a *CNL IP-Security Centre* application was procured and installed at the Civic Centre and Goodwood Transport Management Centre.

13.3.3 Minimum capability requirements

This Scope of Work is designed to ensure that the City has the minimum capability to:

1. Monitor the physical security systems and building management systems installed at the Civic Centre and the TMC buildings, and respond to incident alerts, using a <u>single</u> platform, which has a very high level of availability.

2. Co-ordinate the response to alerts across multiple sub-systems at the same site. This must be achievable manually using predefined standard operating procedures and workflows, but preferably with continually improving levels of automation and machine autonomy.

3. Minimise the risk of external security threats capable of degrading the performance of the FMES environment, or affecting its availability.

4. Integrate alternative (replacement) and new (additional) sub-systems with this platform.

5. Expand the physical security systems and/or and building management systems monitoring capability to new sites, at low marginal cost.

6. Monitor the physical security systems and/or and building management systems of multiple, geographically dispersed sites from a single central control room.

7. Monitor logical groups of geographically dispersed sites (for example, all libraries within the metro area) from a subsidiary control room, on a federated basis.

8. Identify faults with sub-systems and sub-system devices, and automatically trigger appropriate support or maintenance actions.

9. Display real-time 'dashboards' of the security status (including incident alerts) of each site, or collection of sites. Such displays (including incident alerts) should be available remotely (including on smart phones).

10. Produce incident reports for each site, or for a collection of sites, on demand.

11. Produce sub-system fault reports for each site, or for a collection of sites, on demand.

The appointed contractor's activities and responsibilities (as set out in this Scope of Work) should enable the City to do all of the above, either through the continued use of the *CNL IPSC* application or an alternative.

Note that the minimum capability requirements are mandatory; product and data sheets to support evidence that the PSIM system meets these capabilities should be provided in Schedule 15.

13.3.4   Tenderer Capability and Capacity Profile

The previous FMES tender was for a "turn-key" solution in which the tenderer provided all systems, hardware, software, networks, and services. This tender rather places the emphasis on the management, support and maintenance of the FMES environment with the tenderer required to work with other parties and suppliers to the City now responsible for sub-systems, devices, networks, and other components. This approach is required to avoid the duplication of tenders, and to prepare the way for a systematic architecture for IoT-type applications, that can be used to expand the City's future OT projects in a coordinated and manageable way that ensures optimum integration and data sharing.

13.3.4.1   PSIM System

Due to the sunk investment in the development of existing interfaces between the FMES and the City's existing IS&T platform (which includes, *inter alia*, SAP enterprise system, *SharePoint*, AutoCAD, email, SIMS gateway, and a Network time server), it is a requirement that respondents must either maintain the existing *CNL IP-Security Centre* software and hardware, or provide a new system that is equivalent or better than *IPSC*. In either case the current sharing of data and integrated viewing, management and reporting must be maintained.

Any new PSIM application must have an **established track record as a credible and proven PSIM system** with the ability to integrate seamlessly with existing IS&T platform. Such an alternative system will only be considered if the overall cost of ownership over the coming five-year tender cycle is demonstrably less than the continued use of the existing *CNL* system, assuming that the functionality is the same.

The onus and the responsibility shall be on the respondent to obtain all the information that it requires about the existing system software and hardware so as to quote to provide at least the current level of functionality, as well as the architecture migration required. To this end, the City may request a site visit, if necessary.

If the respondent offers to install a new PSIM system to replace the existing *CNL IPSC* implementation, then it must make the necessary arrangements for the migration to the new PSIM system. The required architectural change (see below) should then be done as part of the new implementation.

This tender also allows for the expansion of the FMES environment to new buildings; ideally these sites should be managed by single central system after the proposed architectural migration has been completed.

13.3.4.2   Technical Support and Maintenance of The FMES Environment

As explained in the Current Status, the PSIM system is the core element of the FMES environment, but not its only element. Other elements include building management systems that have been integrated into the existing IPSC, operational systems such as the Tender Box system that are also integrated with IPSC, and other operational systems such as the Water and Electricity Data Management System which stand apart from the IPSC core, but which are considered to be a part of the FMES environment. The tenderer must be capable and have the capacity to maintain and support these additional elements of the FMES environment.

The current installation is described elsewhere in these specifications. In order to support and maintain this level of functionality, the appointed tenderer must be able to demonstrate that it has the capability and capacity to maintain and support the functionality of the current FMES environment and support the minimum capability requirements.

The appointed tenderer must therefore be able to:

1. Support and maintain a PSIM system (CNL IPSC or equivalent), including all software and related hardware. This will be used to manage the sub-systems at the Civic Centre and the Transport Management Centre
2. The support and maintenance of the interfaces of the existing systems and subsystems with the PSIM system.
3. The support and maintenance of the interfaces between the PSIM system and SAP (currently partially handled by the data mediator).
4. The support and maintenance of a data mediator that integrates data between related FMES applications, e.g. *SharePoint*, *Lenel*, and *Avigilon* cameras for LPR/parking management, etc.
5. The support and maintenance of the various databases that are either integral to the PSIM system, or are part of the wider FMES environment.
6. The support and maintenance of the existing Water and Energy data management systems.
7. The support and maintenance of interfaces of relevant systems and subsystems with the data mediator, and the existing Water and Energy data management system.

8. In addition to providing the functionality required, the tenderer must manage the support and maintenance of all software, applications, accessories, hardware and other items as required to maintain the overall FMES environment.

13.3.4.3   Architectural review and migration

As per the Capability Statement, the City must be able to:

Monitor the basic physical security systems and building management systems installed at the Civic Centre and the TMC buildings, and respond to incident alerts, using a single platform, which has a very high level of availability (>99% at all times).

This requires the tenderer to have the capability and capacity to:

1. Review the existing architecture of the FMES environment, including the way in which the current *FMEs* system has been deployed

2. Design a new architecture based on a single instance of the *PSIM* system, or its replacement, with the required level of redundancy to ensure the minimum level of availability. This architecture must also enable the City to expand its monitoring capability to new geographically dispersed sites from a single central control room, or from subsidiary control rooms on a federated basis.

3. Implement the design

13.3.5   General PSIM Functional Requirements

The on-going functionality provided by the PSIM System, and the associated services provided by the tenderer, must therefore include:

Aspect	Specification
Open Platform	The PSIM System should integrate easily with multiple security and building management sub-systems supplied by any tenderer
Third Party Integration	The PSIM System must be able to integrate with third party physical security infrastructure, e.g. CCTV, access control, intrusion detection etc.
Security system management	The PSIM system must enable efficient management and control of all security sub-systems installed on all sites
Video wall and remote displays	It must be able to view the PSIM System's information dashboards on video walls and remote displays that are easy to set up
Real Time Display	The PSIM System shall provide a real-time display of each sub-system's status and data feed
Bi-directionality	The PSIM System must support bi-directional communication with the connected sub-systems (i.e. it must enable both monitoring and control)
Authorization	The PSIM must allow authorized user access to the numerous sub-systems all managed by the PSIM System
Video Analytics	The PSIM must be able to receive automated video analytics from the CCTV system
Alarms	The PSIM System must monitor all secured areas and create visual and audible alarms (at both main Control Room and at the affected site)
Event Visualization	The PSIM System must enable event visualization via customizable GUI (Graphical User Interface), which must in turn be displayed on multiple large screens
Event Management	Events registered by the connected sub-systems shall be either managed individually by the PSIM System or grouped to provide an information rich alarm
Workflow Management	The PSIM System shall include an integrated dynamic workflow management for alarm processing and incident management, with

Aspect	Specification
	guidelines to help the operator in successfully resolving the alarm and logging every response step taken
Event Deference	If an event response cannot be completed immediately by the PSIM System, it shall be possible to defer the event message for processing it at a later stage
Event Filtering	The PSIM System must enable simultaneous event alarms to be filtered so as to both allow prioritisation and to disregard superfluous alarms
	The PSIM System should distinguish between incident alarms and sub-system fault notifications. It should be possible to easily group and analyse multiple fault reports so the System is not overwhelmed with fault logs
Actions	The PSIM System must initiate responsive actions, e.g. switching on cameras in the danger area, switching sensor groups, dialling telephone numbers, sending SMS etc., to be performed automatically or on demand by the operators
Security Incident Management/Investigative tools	Data from all sub-systems must be recorded, stored and made available for later analysis via automated reporting or user prompted search or historian type tracking for post-incident analysis or evidence presentation
Archive	A complete event record shall be stored in an archive with all actions and comments accomplished in the context of the event handling. The PSIM System's archives shall be accessible via variable filters; every event in the archive shall be able to be redisplayed as though in real time
Software Architecture	The PSIM System must be a redundant solution with 'hot-standby' and multi-level-fall-back if the main system server breaks down or becomes unavailable
Web and Mobile Apps	The PSIM System must enable monitoring of PSIM events (i.e. incident alarms and responses) on a web and mobile app
Video Analytics	The PSIM must be able to receive automated video analytics from the CCTV system
Expansion of coverage to additional sites	The PSIM but be capable of expanding the physical security systems and/or and building management systems monitoring capability to new sites, at low marginal cost
Centralised monitoring of multiple sites	The PSIM must be capable of monitoring the physical security systems and/or and building management systems of multiple, geographically dispersed sites from a single central control room
Federated monitoring of multiple sites of the same type	The PSIM but be capable of monitoring logical groups of geographically dispersed sites (for example, all libraries within the metro area) from a subsidiary control room, on a federated basis

13.3.6   Other FMES environment requirements

13.3.6.1   Cabling

Cabling necessary to connect sub-systems and servers to the FMES is not the responsibility of the tenderer. The City has a separate cabling tender. The tenderer appointed to manage the FMES environment will not be required to provide cabling, but must work with the existing cabling service provider.

13.3.6.2   Networks

The City has a separate tender for network equipment, and for network management. The tenderer appointed to manage the FMES environment will be required to work with these network equipment providers and the network management service provider for the operation, maintenance and expansion (including setup,

commissioning, provisioning) of the Facilities Management (OT) network, and its connections to other networks. Support for the existing Cisco network equipment that supports the FMES network will be done by the network equipment vendor(s) under management control of the Telecommunications Branch and the Metro Area Network Telecoms Operations Centre (TOC).

The system and database management functions required for the technical support and maintenance of the FMES environment will require the tenderer to establish a secure network link to the City's OT network. This is ideally done using an optic fibre interconnect to one of the City's switching facilities. Alternatively, an ADSL service can be used.

The tenderer is required to price for the provision of high bandwidth ADSL connectivity to the City's data centre at the Civic Centre. The tenderer is also required to price for fibre connectivity to any of the City's switching facilities. The cost of installing and configuring the connectivity must be amortised into the monthly connectivity costs.

13.3.6.3   Data mediation

The data mediation functionality of the FMES environment is currently provided by *EzFlo*, a Britehouse product. The tenderer may choose to either continue to support the existing *EzFlo* data mediation system, or replace it with an alternative.

The data mediation system is not required to have command and control of the sub-systems or the elements that it mediates, and should not provide functionality beyond acting as a platform for information and data integration. Reporting, analytics and business intelligence should not be built into the data mediation platform, but sit as software or systems that use the data mediation system to pull data from multiple data sources.

13.3.6.4   Server and workstation hardware and software

The City has a separate tender for servers and workstations. The tenderer appointed to manage the FMES environment will not be required to provide server and workstation hardware and software, and will therefore have to work with the City's existing tenderers to ensure the supply, support and maintenance of such equipment.

13.3.6.5   Security

Although the City has existing security systems and service providers, the tenderer appointed to manage the FMES environment will be required to ensure the on-going security of the PSIM and wider FMES environment, including the support and maintenance of the existing security systems that specifically protect it.

13.3.7   Development costs

The cost for development work required to commission and integrate the PSIM and/or the interfaces to sub-systems is provided for in the Pricing Schedule. If sub-systems are upgraded, replaced, or otherwise changed during the course of the tender, then a charge based on these line items for interface development and integration will be considered. Each such project must be costed and approved in advance, using the schedule of fees that are part of the Pricing Schedule. Such development costs must relate to new developments related to the facilities management environment only, and cannot be used for other projects.

13.3.8   System architecture

The tenderer will be required to re-design the system architecture as illustrated in section 1313.2.8 to fulfil the requirements of the Capability Statement

To this end, the following server architecture is likely to apply:

- All PSIM application, database, BI, reporting and database servers, and web servers currently located at the City's data centre within the Civic Centre will become the central hosting facility for all PSIM applications and databases within the FMES environment.

- A second redundant site with backup servers and systems must be commissioned and maintained on a 'hot standby' basis at the City's Goodwood Data Centre within the TMC complex. This may require a second IPSC hub license, such that it can provide N+1 type redundancy.

Note that the City's SAP, SharePoint, Space Management and Email servers are also physically located in the Civic Centre, but on the City's Corporate Network (IS&T).
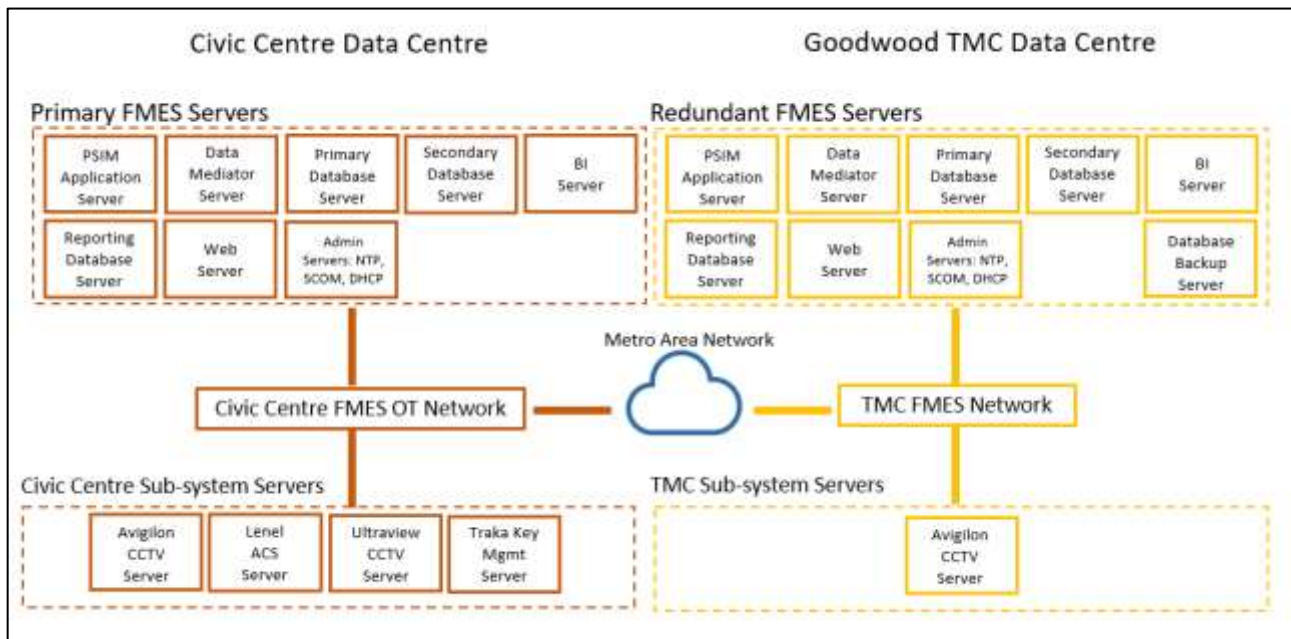
See Figure 9 below.

Figure 9: The envisaged server architecture across Civic Centre and the TMC

13.3.8.1   Control room configuration

Once this migration is complete, then it is expected that:

- The existing control room at Civic Centre will be main (first tier) control centre for the FMES environment; the Civic Centre and the TMC building will both be mapped as separate buildings managed by the PSIM System.

- The TMC building should be able to have its own second tier control room, specifically dealing with the TMC complex, but configured as a sub-set ("virtually separate building") within the FMES environment. However, this control room should be able to stand in for the main control room in the event of a critical emergency.

- The Strand Street Concourse site, which is currently configured as though it is part of the Civic Centre, shall be similarly configured as separate building, though without a second tier control room.

- All the sub-systems operating at the TMC complex and the Strand Street Concourse will be re-mapped in accordance with this architecture.

- Other large buildings, campuses, or collections of sites to which the PSIM is extended may have their own control rooms

- Logical groups of smaller buildings (which may not all necessarily be physically clustered together, e.g. all public libraries within the Metro) may have a control room dedicated to each group.

13.3.9   Expansion to new sites

Though the main focus of this tender is to support and maintain the PSIM functionality of the existing FMES environment at the Civic Centre and the Goodwood TMC. However, the PSIM installed i.e. CNL IPSC or an alternative, should provide the City with the capability to expand the FMES environment to other sites, should this be necessary. The contracted tenderer should therefore have the capability and capacity to do this, if required.

13.3.10 Exclusions

This tender does not include provision of any hardware or software for the various sub-systems in the buildings for either the PSIM sub-systems, or the building management sub-systems (including water and electricity data management system). The FMES service provider is only responsible for any hardware and software needed to integrate these sub-systems with the PSIM and wider FMES environment.

Earlier tenders, for which this tender is a replacement, were used a vehicle for a number of other facility management related projects. These included:

- the queue management system operating at the Vehicle Licensing facility at the Civic Centre

- the remote management of sub-systems installed at MyCiTi bus stations, including automated doors

- the vehicle management system operating at a number of transport interchanges (taxi ranks) across Cape Town

The maintenance and support of the resulting infrastructure and systems are excluded from the scope of this tender; the maintenance and support of these systems will be procured independently.

13.3.11 Business Management of The FMES Environment

As well as the technical support and maintenance and support activities needed to, the tenderer will also have to undertake a range of other activities to ensure that the FMES environment meets the City's minimum capability requirements. These may include:

- **Change control management**: configuration changes, equipment moves, additions or decommissions, or changes to sub-systems or network initiated by other vendors, must be managed by participation in the City Change Control process.

- **Service management**: day-to-day management activities required to ensure that the PSIM application and FMES environment are operationally available, and that all necessary recurrent technical support and maintenance activities are performed.

- **Project management**: planning and management of projects to change or add new functions, sub-systems, upstream integration (e.g. data exchange with SAP or other systems), or to bring new sites within the purview of the FMES environment. This may include co-ordination with vendors for devices, sub-systems, cabling, servers, and other goods and services necessary to implement a specific project.

- **Responding to queries, enquiries and other information requests**: responding to operational queries and change requests, including proposals for FMES-related projects.

- **Preparing quotations**: providing estimates for the use of goods and services available through this tender for the execution of proposed projects.

- **Tenderer relationship management**: Providing the primary channel of communication between the City and end tenderer for all matters relating to the execution of the tender contract.

- **Reporting and contract management**: Preparing and providing reports on the availability and performance of the PSIM system and the FMES environment of which the PSIM system is a part; attendance at Review Meetings and attending to issues raised, including investigation into two systems incidents and failures.

- **Billing**: preparing and presenting invoices for payments due to the tenderer for its performance in terms of the tender contract, and responding to any queries.

Note that this range of management responsibilities and activities is not exhaustive.

13.4   MINIMUM OPERATING STANDARDS AND PERFORMANCE MANAGEMENT

13.4.1 Definitions

In this section 13.4, the terms listed below have the associated meetings:

(a)   **Availability** means that portion of a period of time (typically a Calendar Month) during which a service is provided; a period of time during which a service is unavailable as the result of an Incident is referred to as "Downtime" and so Availability is synonymous with "Uptime".

$$Availability\ (\%) = 1 - \left(\frac{Minutes\ of\ downtime\ in\ the\ month\ under\ review}{Total\ minutes\ in\ the\ month\ under\ review}\right) \times 100$$

99% Availability in a Calendar Month of 30 Calendar Days therefore means that downtime (excluding Planned Downtime) may not exceed 432 minutes (roughly seven hours).

(b)   **Business Day** means a Calendar Day which is not a Saturday, Sunday or South African public holiday.

(c)   **Business Hours** means the period of time that begins at 08.00.00 and ends at 18.00.00 on any Business Day.

(d)   **Calendar Day** means the period of time that begins at 00.00.00 and ends 23:59:59 on any given day in any given month.

(e)   **Calendar Month** means any one of twelve named periods into which a year is divided in accordance with the Gregorian calendar.

(f)   **Contract Period** means the period of time during which the Tender is effect.

(g)   **Degraded Performance** means the consequence of an Incident that reduces or otherwise negatively affects the functionality of the PSIM and/or the FMES environment.

(h)   **GCC** means General Conditions of Contract.

(i)   **Incident** means any unplanned interruption or reduction in the performance of the PSIM and/or the FMES environment.

(j)   **Infringement** means an instance of non-conformance with a Performance Metric.

(k)   **Non-Compliance Event** means that the Penalty Point Threshold has been exceeded, resulting in a Performance Penalty being imposed.

(l)   **Notification Time** means the point in time when the contractor is notified of the occurrence of an Incident, or security risk / breach.

(m)   **Penalty Points** means the points system used to penalise an Infringement.

(n)   **Penalty Point Threshold** means the number of Penalty Points that must accumulate in a Calendar Month to trigger a Non-Compliance Event.

(o)   **Performance Measure** means the way in which a Capability Requirement is measured.

(p)   **Performance Metric** means a numerical limit for satisfactory performance of a Performance Measure; non-conformance constitutes an Infringement.

(q)   **Performance Penalty** means the incurrence of a financial cost to the Tenderer, imposed as a consequence of a Non-Compliance Event.

(r)   **Planned Downtime** means scheduled unavailability for the purpose of maintenance, upgrades, or other similar necessary tasks.

(s)   **Repair Time** means the point in time when a designated representative of the City of Cape Town accepts a notification that a performance related Incident has been repaired.

(t)   **Resolution Time** means the point in time when a designated representative of the City of Cape Town accepts a notification that a security related Incident has been resolved.

(u)   **Time to Repair** means the maximum number of consecutive Business Hours allowed to elapse for the resolution of an Incident causing PSIM unavailability or Degraded Performance, measured from the Notification Time to the Repair Time.

(v)   **Time to Resolve** means the maximum number of consecutive Business Hours allowed to elapse for the resolution of a security risk or breach, measured from the Notification Time to the Resolution Time.

(w)   **Two Weeks** means a period of fourteen consecutive Calendar Days, starting on the day that the Incident occurs (day 1), and ending at 18.00 on day 14, or the next Business Day if day 14 is not a Business Day.

The performance of the contracted tenderer will be measured by the company's achievement of the City's

minimum capability requirements. Additionally, the tenderer will be required to adhere to additional performance requirements below.

13.4.2 Performance Requirements

13.4.2.1   The performance of the contracted tenderer will be measured by the company's achievement of the City's minimum capability requirements. Additionally, the tenderer will be required to adhere to additional performance requirements below.

#	Minimum capability requirement	Dependencies	Performance Indicators	
			Performance Measure	Metric
1	Monitor the physical security systems and building management systems of all building integrated with the PSM, and respond to incident alerts, using a <u>single</u> platform, which has a very high level of availability	Functionality and performance of the PSIM application, FMES server environment, data mediator, backup server, PSIM terminals and video walls, and all integration links with the sub-systems (including MOXA and ADAM units where applicable) must be functional and available The FMES Network and Metro Area Network must also be available	Availability of the PSIM system and the FMES environment within which it operates Degraded Performance resolved promptly	>99% at all times (subject to network availability) Time to Repair Degraded Performance: 8 Business Hours
2	Co-ordinate the response to alerts across multiple sub-systems at the same site. This must be achievable manually using predefined standard operating procedures and workflows, but preferably with continually improving levels of automation and machine autonomy	Functionality and performance of the PSIM application, and FMES environment must be functional and available as above The integration links with the sub-systems and associated drivers must be functional and available	Coordinated response to events: - in a test environment - in live situations Degraded Performance resolved promptly	Time to Repair Degraded Performance: 8 Business Hours Test simulations to be conducted at least once every six month Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence
3	Minimise the risk of external security threats capable of degrading the performance of the FMES environment, or affecting its availability.	Functionality and performance of the security tools that protect the FMES environment	Target is zero security breaches Identified threats and actual breaches resolved promptly	Time to Resolve security threats and breaches: 8 Business Hours
4	Integrate alternative (replacement) and new (additional) sub-systems with this platform.	Compatibility of alternative (replacement) and new (additional) sub-systems	Alternative (replacement) and new (additional) sub-systems to be integrated within	Alternative (replacement) and new (additional) sub-systems to be integrated within one

#	Minimum capability requirement	Dependencies	Performance Indicators	
			Performance Measure	Metric
		Standards-based interface protocols

Availability of interface drivers

Ability of service provider to install and/or develop necessary drivers | specified time; integrated functionality to be agreed and documented in advance | Calendar Month of request |
| 5 | Expand the physical security systems and/or and building management systems monitoring capability to new sites, at low marginal cost. | Functionality, capacity, and performance of the PSIM application, and FMES environment

The FMES Network and Metro Area Network must also be available | New sites (nodes) to be established and monitoring capability to be expanded within agreed time

Expansion project plan to define expansion project completion date | Expansion project completion date |
| 6 | Monitor the physical security systems and/or and building management systems of multiple, geographically dispersed sites from a single central control room. | Functionality, capacity, and performance of the PSIM application, and FMES environment

The FMES Network and Metro Area Network must also be available | Capability to be defined and agreed in advance of project plan

Capability to be tested as part of project sign-off

Availability of each sub-system, per site | Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract

Expansion project outcomes (capabilities) to be signed off in advance

Expansion project outcomes (capabilities) tested as part of project sign-off

Thereafter, availability >99% at all times

Time to Repair Degraded Performance: 8 Business Hours |
| 7 | Monitor logical groups of geographically dispersed sites (for example, all libraries within the metro area) from a subsidiary control room, on a federated basis. | Functionality, capacity, and performance of the PSIM application, and FMES environment

The FMES Network and Metro Area Network must also be available | Capability to be defined and agreed in advance of project plan

Capability to be tested as part of project sign-off

Availability of each sub-system, for each group of site | Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract

Expansion project outcomes |

#	Minimum capability requirement	Dependencies	Performance Indicators	
			Performance Measure	Metric
				(capabilities) to be signed off in advance
				Expansion project outcomes (capabilities) tested as part of project sign-off
				Thereafter, availability >99% at all times
				Time to Repair Degraded Performance: 8 Business Hours
8	Identify faults with sub-systems and sub-system devices, and trigger appropriate support or maintenance actions.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Fault alert and logging capability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence
9	Display real-time 'dashboards' of the security status (including incident alerts) of each site, or collection of sites. Such displays (including incident alerts) should be available remotely (including on smart phones).	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Dashboard availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence
10	Produce incident (event) reports for each site, or for a collection of sites, on demand.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Incident (event) reports availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence

#	Minimum capability requirement	Dependencies	Performance Indicators	
			Performance Measure	Metric
11	Produce sub-system fault reports for each site, or for a collection of sites, on demand.	Functionality, capacity, and performance of the PSIM application, and FMES environment The FMES Network and Metro Area Network must also be available	Sub-system fault reports availability to be continually monitored during live use	Functionality, capacity, and performance of the PSIM application, and FMES environment must meet mandatory criteria as per contract Failure to achieve this capability to be diagnosed and rectified within Two Weeks of occurrence

13.4.3   Additional performance requirements

Adherence to the Minimum Operating Standards will be monitored and measured by the City, and reported at contract management and performance review meetings, which will be held monthly. In addition, the appointed contractor will be required to provide and maintain key contact information, and attend Performance Review Meetings.

13.4.3.1   Provide Contract Information

Upon award of the contract, the contractor must allocate a Key Contact Person, being an individual person who is an employee of the Service Provider, through whom all communications will be channelled in the first instance.

The Key Contact Person must be authorised and empowered to provide and receive information, and make day-to day sales and service related decisions.

The Service Provider's Key Contact Person will make the contact information (viz. fixed line telephone number, cell phone number and email address) available to the City, and will keep this information current, accurate and complete.

The Service Provider's Key Contact Person should be available for service related communications at all times during a Business Day.

The Service Provider's Key Contact Person should acknowledge and respond to emails and voice messages within eight consecutive Business Hours of receipt.

Upon Award of a Contract for the supply of Equipment, the Supplier shall provide the City with the Contact Information of its key staff (or their equivalent) as follows:

Title	Functional role	Contact Information required
Sales Representative / Account Manager (Key Contact Person)	Advises City on the suitability of items for specific needs Accepts orders Expedites orders Addresses problems, complaints and faults	Name Telephone number (s) Email address Physical address of office
Order Manager	Accepts and processes Purchase Orders issued by the City	Name Telephone number (s) Email address
Debtor Clerk	Addresses issues related to payment by the City	Name Telephone number (s) Email address

Title	Functional role	Contact Information required
Branch or Regional Service Manager (escalation level 1)	The person immediately senior to the above staff, to whom issues should be escalated if unresolved by them	Name Telephone number (s) Email address Physical address of office
Regional Manager, Company Manger (escalation level 2)	The most senior executive of the company's Cape Town operations (if applicable)	Name Telephone number (s) Email address Physical address of office
CEO (escalation level 3)	The most senior executive of the company's South African operations; if the company operates internationally or is owned by an company operating from outside of South Africa, then the most senior country manager	Name Telephone number (s) Email address Physical address of office

If any of this Contact Information changes during the duration of the Contract period, then the Supplier will advise the City timeously and update the information accordingly.

13.4.3.2 Attend Performance Review Meetings

The City will arrange and schedule Contract Performance Review Meetings, which must be attended by the Supplier's Key Contact Person, or a substitute. Such meetings will be scheduled to occur regularly, at least four times per year but not more than one each month. At least two Calendar Weeks' notice of each meeting will be given.

13.5 TRADE NAMES OR PROPRIETARY PRODUCTS

Bid specifications may not make any reference to any particular trade mark, name, patent, design, type, specific origin or producer, unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the words "or equivalent".

<u>TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS 'OR EQUIVALENT"</u>

13.6 EMPLOYMENT OF SECURITY PERSONNEL

All security staff employed by the supplier on behalf of the CCT or at any CCT property must be registered with Private Security Industry Regulatory Authority (PSiRA). Proof of such registration must be made available to the CCT's agent upon request.

13.7 FORMS FOR CONTRACT ADMINISTRATION

The supplier shall complete, sign and submit with each invoice, the following:

a)   Monthly Project Labour Report **(Annex 3)**.
b)   B-BBEE Sub-Contract Expenditure Report **(Annex 4)**.
c)   Joint Venture Expenditure Report **(Annex 5)**.

The Monthly Project Labour Report must include details of <u>all</u> labour (including that of sub-contractors) that are South African citizens earning less than R350.00 per day, as adjusted from time to time (excluding any benefits), who are employed on a temporary or contract basis on this contract in the month in question.

In addition to the Monthly Project Labour Report the Supplier shall simultaneously furnish the CCT's Agent with copies of the employment contracts entered into with such labour, together with certified copies of identification documents, proof of attendance in the form of attendance register or timesheets as well as evidence of payments to such labour in the form of copies of payslips or payroll runs. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it and proof of such acknowledgement shall be furnished to the CCT's Agent.

The Monthly Project Labour Reports shall be completed and submitted in accordance with the instructions therein.

The **B-BBEE Sub-Contract Expenditure Report** is required for monitoring the supplier's compliance with the sub-contracting conditions of the **Preference Schedule**.

The Joint Venture Expenditure Report is required for monitoring the joint venture's/consortium/partnership compliance with the percentage contributions of the partners as tendered, where the joint venture/consortium/partnership has been awarded preference points in respect of its consolidated B-BBEE scorecard.

(14.1) MONTHLY PROJECT LABOUR REPORT (EXAMPLE)

ANNEX 1

CITY OF CAPE TOWN
MONTHLY PROJECT LABOUR REPORT

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Instructions for completing and submitting forms

General

1. The Monthly Project Labour Reports must be completed in full, using typed, proper case characters; alternatively, should a computer not be available, handwritten in black ink.

2. Incomplete / incorrect / illegible forms will not be accepted.

3. Any conditions relating to targeted labour stipulated in the Contract (in the case of contracted out services or works) shall apply to the completion and submission of these forms.

4. This document is available in Microsoft Excel format upon request from the City's EPWP office, tel 021 400 9406, email EPWPLR@capetown.gov.za.

Project Details

5. If a field is not applicable insert the letters: NA

6. Only the Project Number supplied by the Corporate EPWP Office must be inserted. The Project Number can be obtained from the Coordinator or Project Manager or from the e-mail address in point 4 above.

7. On completion of the contract or works project the anticipated end date must be updated to reflect the actual end date.

Beneficiary Details and Work Information

8. Care must be taken to ensure that beneficiary details correspond accurately with the beneficiary's ID document.

9. A new beneficiary is one in respect of which a new employment contract is signed in the current month. A certied ID copy must accompany this labour report on submission.

10. Was the beneficiary sourced from the City's job seeker database?

11. The contract end date as stated in the beneficiary's employment contract.

12. Where a beneficiary has not worked in a particular month, the beneficiary's name shall not be reflected on this form at all for the month in question.

13. Training will be recorded separately from normal working days and together shall not exceed the maximum of 23 days per month

14. Workers earning more than the maximum daily rate (currently R450 excluding any benefits) shall not be reflected on this form at all.

Submission of Forms

15. Signed hardcopy forms must be scanned and submitted to the City's project manager in electronic (.pdf) format, together with the completed form in Microsoft Excel format.

16. Scanned copies of all applicable supporting documentation must be submitted along with each monthly project labour report. Copies of employment contracts and ID documents are only required in respect of new beneficiaries.

17. If a computer is not available hardcopy forms and supporting documentation will be accepted.

PROJECT DETAILS

Numbers in cells below e.g (6) refer to the relevant instruction above for completing and submitting forms

CONTRACT OR WORKS PROJECT NAME: (6)		EPWP SUPPLIED PROJECT NUMBER: (6)	
DIRECTORATE:		DEPARTMENT:	
CONTRACTOR OR VENDOR NAME:		CONTRACTOR OR VENDOR E-MAIL ADDRESS:	
CONTRACTOR OR VENDOR CONTACT PERSON:		CONTRACTOR OR VENDOR TEL. NUMBER:	CELL / WORK

PROJECT LABOUR REPORT CURRENT MONTH (mark with "X")

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR

ACTUAL START DATE (yyyy/mm/dd)	ANTICIPATED / ACTUAL END DATE (yyyy/mm/dd) (7)

TOTAL PROJECT EXPENDITURE / VALUE OF WORK DONE TO-DATE (INCLUDING ALL COSTS, BUT EXCLUDING VAT)

R

ANNEX 1 (continued)

MONTHLY PROJECT LABOUR REPORT

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

BENEFICIARY DETAILS AND WORK INFORMATION

CONTRACT OR WORKS PROJECT NUMBER:		Year	Month		Sheet	
				1	of	

No.	(8) First name	(8) Surname	(8) ID number	(9) New Beneficiary (Y/N)	Gender (M/F)	Disabled (Y/N)	(10) Job seeker database (Y/N)	Contract start date (DDMMYY)	(11) Contract end date (DDMMYY)	(12) No. days worked this month (excl. training)	(13) Training days	(14) Rate of pay per day (R – c)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
										0	0	R -

Declared by Contractor or Vendor to be true and correct:	Name		Signature	
	Date			

Received by Employer's Agent / Representative:	Name		Signature	
	Date			

(14.2) BBBEE SUB-CONTRACT EXPENDITURE REPORT (PRO FORMA)

TENDER NO. AND DESCRIPTION: **202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS**

SUPPLIER:

B-BBEE SUB-CONTRACT EXPENDITURE REPORT

Rand Value of the contract (as defined in Schedule 4: Preference Schedule) (**P***)	R		B-BBEE Status Level of Prime Supplier	

Name of Sub-contractor (list all)	B-BBEE Status Level of supplier[1]	Total value of Sub-contract (excl. VAT)[1]	Value of Sub-contract work to date (excl. VAT)[1]	Value of Sub-contract work to Sub-contractors with a lower B-BBEE Status Level than supplier
Sub-contractor A		R	R	R
Sub-contractor B		R	R	R
Sub-contractor C		R	R	R

[1]Documentary evidence to be provided

	Total:	R
%	Expressed as a percentage of **P***	%

Signatures

Declared by supplier to be true and correct: _____ **Date:** _____

Verified   by   CCT Project Manager: _____ **Date:** _____

(14.3) PARTNERSHIP/ JOINT VENTURE (JV) / CONSORTIUM/ EXPENDITURE REPORT (PRO FORMA)

TENDER NO. AND DESCRIPTION: **202S/2021/22 SUPPLY, INSTALLATION AND MAINTENANCE OF FACILITIES MANAGEMENT ENTERPRISE SYSTEMS**

SUPPLIER:

PARTNERSHIP/ JOINT VENTURE (JV)/ CONSORTIUM EXPENDITURE REPORT

Rand value of the contract (as defined in Schedule 4: Preference Schedule) (**P***)	R	B-BBEE Status Level of Partnership/ Joint Venture (JV)/ Consortium	

Name of partners to the Partnership/ JV / Consortium (list all)	B-BBEE Status Level of each partner at contract award	Percentage contribution of each partner as per the Partnership/ JV/ Consortium Agreement[1] **A**	Total value of partner's contribution (excl. VAT)[1] $B = A\% \times P^*$	Value of partner's contribution to date (excl. VAT)[1] **C**	Value of partner's contribution as a percentage of the work executed to date $D = C/P^* \times 100$
Partner A		%	R	R	%
Partner B		%	R	R	%
Partner C		%	R	R	%

[1]Documentary evidence to be provided

Signatures

Declared by supplier to be true and correct: _____ **Date:** _____

Verified by CCT Project Manager: _____ **Date:** _____