



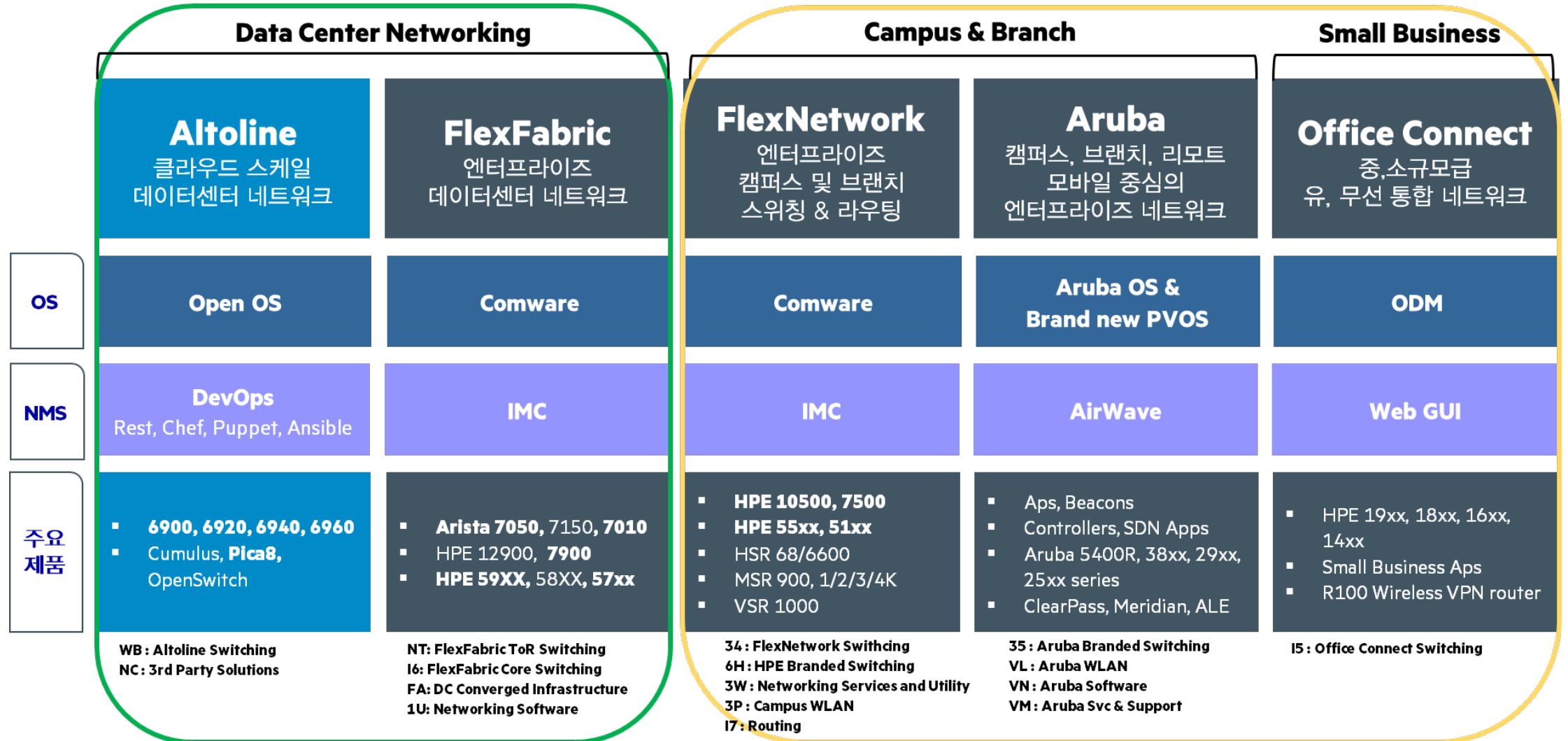
**Hewlett Packard
Enterprise**

DCN switch for SAP HANA

**DCN Specialist
Won-Shik Kim**

April 19th, 2018

HPE Networking Business Strategy



10G/25G/40G/100G 서버 연결

SAP HANA 연결

Data Center Networking
Server 연결 = DCN

HPE Data Center Networking 삼총사



FlexFabric (루크)
TOR, Core, Backbone
안정성, 합리적 가격
전통 DataCenter

Arista (아니킨)



Altoline (레이)
SDDC
SDN
Cloud













DCN Switch for SAP HANA

HPE FlexFabric 59xx/5700 Series Architecture

Overview

- 1-RU or 2-RU 의 Top of rack switch
- High Performance (up to 2976 Mpps Throughput and 3.2 Tbps switching capacity)
- AC/DC power 모두 수용가능한 Hot swappable PDU 제공
- SPB/L2 VXLAN/ L3 VXLAN 지원
- Simpler network management (up to 9 units)를 위한 IRF 제공
- Data Center Bridging (DCB) & FCoE 지원
- 추가 라이선스 없이 Layer 3 MPLS 지원
- Auto configuration 지원 (Python, Chef, Puppet, Ansible 기반 지원)
- MACSec 지원
- 새로운 제품군인 HPE FF 5980을 통한 Deep buffer 제공 (4GB)

 <p>HPE FF 5700 Series</p> <ul style="list-style-type: none">- 32 x 10GbE Base-T + 8 x 10GbE SFP+ + 2 x 40GbE QSFP+ ports- 40 x 10GbE SFP+ + 2 x 40GbE QSFP+ ports- 48 x 1GbE Base-T + 4 x 10GbE SFP+ + 2 x 40GbE QSFP+ ports	 <p>HPE FF 5900 Series</p> <ul style="list-style-type: none">- 48 x 10GbE Base-T + 4 x 40GbE QSFP+ ports- 48 x 1GbE Base-T + 4 x 10GbE SFP+ + 2 x 40GbE QSFP+ ports- 48 x 1/10GbE SFP+ + 4 x 40GbE QSFP+ ports- 48 x 1/10GbE SFP+ or 2/4 G FC + 4 x 40GbE QSFP+ ports	 <p>HPE FF 5930 Series</p> <ul style="list-style-type: none">- Up to 96 x 1/10GbE Base-T/SFP+ + 8 x 40GbE QSFP+ ports- 32 x 40GbE QSFP+ ports- 2 and 4 Slot Chassis- L2 VXLAN 	 <p>HPE FF 5940 Series</p> <ul style="list-style-type: none">- Up to 96 x 1/10GbE Base-T/SFP+ + 8 x 40GbE QSFP+ ports- 32 x 40GbE QSFP+ ports- 2 and 4 Slot Chassis- EVPN and L3 VXLAN 	 <p>HPE FF 5950 Series</p> <ul style="list-style-type: none">- Up to 128 x 1/10GbE SFP+ (splitter cables)- Up to 128 x 25GbE QSFP28 (splitter cables)- 32 x 40GbE QSFP+ ports (using 40GbE port mode)- 32 x 100GbE QSFP28 ports - fixed 	 <p>HPE FF 5980 Series</p> <ul style="list-style-type: none">- 48 x 1/10GbE SFP+- 6 40GbE/100GbE QSFP+/QSFP28- Deep Buffer- EVPN and L3 VXLAN 
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SAP HANA 1G UTP Mgmt용 : HPE FF5700

HPE 1Gb Ethernet Switch

HPE FlexFabric 5700 48G 4XG 2QSFP+



- ✓최대 960Gbps fixed port 48 x 1GbE or 40 x 10GbE
- ✓UTP 타입 모델 제공하여 MGMT용 적합
- ✓Uplink로 10G / 40G interface support

PN	Description	Qty
JH594A	Arista 7010T 48T 4SFP+ BF AC Swch	2
JH594A	OD1 Factory integrated	2
JH773A	Arista 10G SFP+ to SFP+ 1m DAC Cable	2
JH773A	B01 Include with complete system	2
H1K92A3 W0Y	HPE Arista 7010T Support	2

1G UTP타입 switch HPE FF 5700
(1G * 48 port & 10G * 4 port * 40G * 2 port)

PN	Description	Qty
JG894A	HPE 5700 48G 4XG 2QSFP+ Switch	2
U4VF3E	HPE 3Y FC 24x7 FF 5700 SVC [for JG894A]	2
JC683A	HPE 58x0AF Frt(prt) Bck(pwr) Fan Tray	4
JG900A	HPE A58x0AF 300W AC Power Supply	4
JG900A	AC6 INCLUDED: Power Cord - Korea localization	4
JL287A	HPE X2A0 40G QSFP+ 7m AOC Cable	2
JL290A	HPE X2A0 10G SFP+ 7m AOC Cable	2

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SAP HANA 10G SFP+ 연결용 스위치 : HPE FF5940

HPE 10Gb Ethernet Switch

HPE FlexFabric 5940 48SFP+ 6QSFP+



- ✓최대 2.16Tbps fixed port 48 x 10GbE + 6 x 40GbE
- ✓48개의 SFP+ 포트 구성
- ✓Uplink로 40G 6port interface support

Mgmt스위치, HANA, DL360 서버 연결
Irf용

PN	Description	Qty
JH948A	Arista 7160 48SFP25 6QSFP28 BF AC Swch	2
JH948A 0D1	Factory integrated	2
JH627A	Arista 100G QSFP QSFP 1m DAC Cable	2
JH627A B01	Include with complete system	2
JH644A	Arista 10G SFP+ LC SRL Transceiver	8
JH644A 0D1	Factory integrated	8
JH652A	Arista 10G SFP+ SFP+ 1.5m DAC Cable	8
JH652A B01	Include with complete system	8
JH984A	Arista 25G SFP28 to SFP28 5m AOC Cable	16
JH984A B01	Include with complete system	16
H1K92A3	W1Q HPE Arista 7160-48YC6 Support	2
HA114A1	56V HPE Top of Rack Startup for Arista SVC	4

10G SFP+타입 switch HPE FF 5940
(10G * 48 port & 40G * 6 port)

PN	Description	Qty
JH395A	HPE FF 5940 48SFP+ 6QSFP+ Switch	2
H2SH4E	HPE 3Y FC 24x7 5940 Fixed 48G SVC [for JH395A]	2
JG552A	HPE X711 Frt(prt) Bck(pwr) HV Fan Tray	4
JC680A	HPE 58x0AF 650W AC Power Supply	4
JC680A AC6	INCLUDED: Power Cord - Korea localization	4
JL437A	HPE X130 10G SFP+ LC SR DC Transceiver	4 3par
JL290A	HPE X2A0 10G SFP+ 7m AOC Cable	24
JL287A	HPE X2A0 40G QSFP+ 7m AOC Cable	4
H1XD7A1	HPE Ancis 1-day Onsite SVC	3

* Uplink 별도 Transceiver 필요 (10G/40G연결 가능)

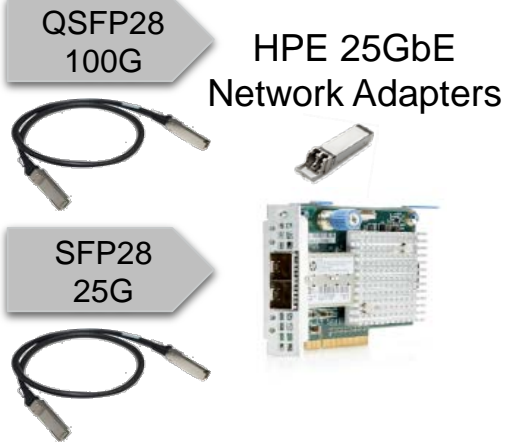
SAP HANA 25G SFP28 연결용 스위치 : HPE FF 5950

HPE 25Gb Ethernet Ecosystem

HPE FlexFabric 5950



- ✓6.4Tbps fixed port 48 x 25GbE + 6 x 100GbE
- ✓48 x 10/25GbE 포트 구성
- ✓Uplink로 100G 8port interface support



Mgmt스위치, DL360 서버 연결

HANA연결

PN	Description	Qty
JH948A	Arista 7160 48SFP25 6QSFP28 BF AC Swch	2
JH948A	0D1 Factory integrated	2
JH627A	Arista 100G QSFP QSFP 1m DAC Cable	2
JH627A	B01 Include with complete system	2
JH644A	Arista 10G SFP+ LC SRL Transceiver	8
JH644A	0D1 Factory integrated	8
JH652A	Arista 10G SFP+ SFP+ 1.5m DAC Cable	8
JH652A	B01 Include with complete system	8
JH984A	Arista 25G SFP28 to SFP28 5m AOC Cable	16
JH984A	B01 Include with complete system	16
H1K92A3	W1Q HPE Arista 7160-48YC6 Support	2
HA114A1	56V HPE Top of Rack Startup for Arista SVC	4

25G switch (25G * 48 port & 100G * 8 port)

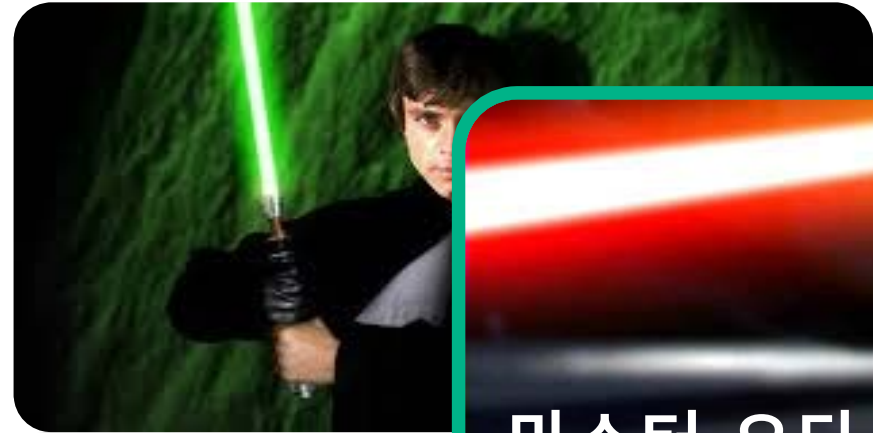
PN	Description	Qty
JH402A	HPE 5950 48SFP28 8QSFP28 Switch	2
H5YQ7E	HPE 3Y FC 24x7 FF48SFP28 8QSFP28 SwtchSVC [for JH402A]	2
JH389A	HPE X712 Bck(pwr)-Frt(prt) HV2 Fan Tray	4
JC680A	HPE 58x0AF 650W AC Power Supply	4
JC680A	AC6 INCLUDED: Power Cord - Korea localization	4
JL271A	HPE X240 100G QSFP28 1m DAC Cable	2
JL437A	HPE X130 10G SFP+ LC SR DC Transceiver	4
JL290A	HPE X2A0 10G SFP+ 7m AOC Cable	8
JL295A	HPE X240 25G SFP28 to SFP28 3m DAC	16
HR202E	HPE Onst NW Conf and Integ Afrtr Hr SVC	3

Irf용

3par

* Uplink 별도 Transceiver 필요 (10G/25G/40G/100G 연결 가능)

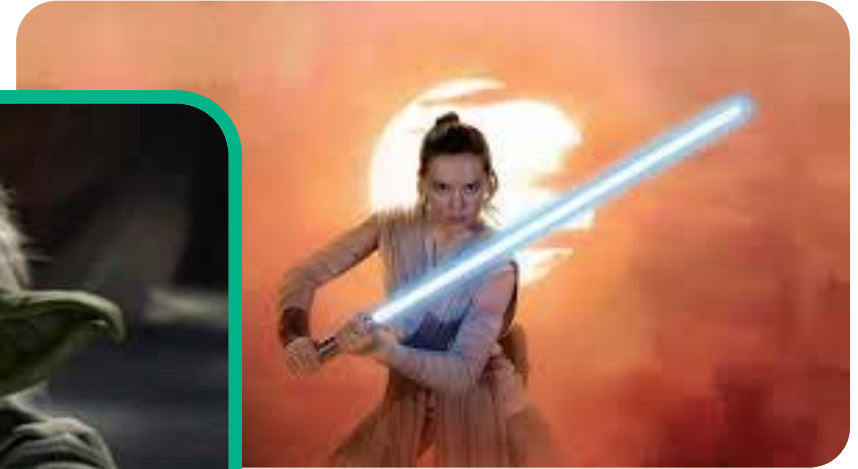
HPE Data Center Networking 삼총사



FlexFabric
TOR, Core
안정성, 합
전통 DataCenter



마스터 요다 (HPE김원식)
Core/집선 스위치
Attached TOR
Data Center, SDN



Altoline (레이)
SDDC
SDN
Cloud





Hewlett Packard
Enterprise

Thank You

won-shik.kim@hpe.com

+82-10-8427-0623