Allied Telesis SDN/OpenFlow Activity Introduction

2018 Q2

AlliedTelesis K.K.
Global Product Marketing 2

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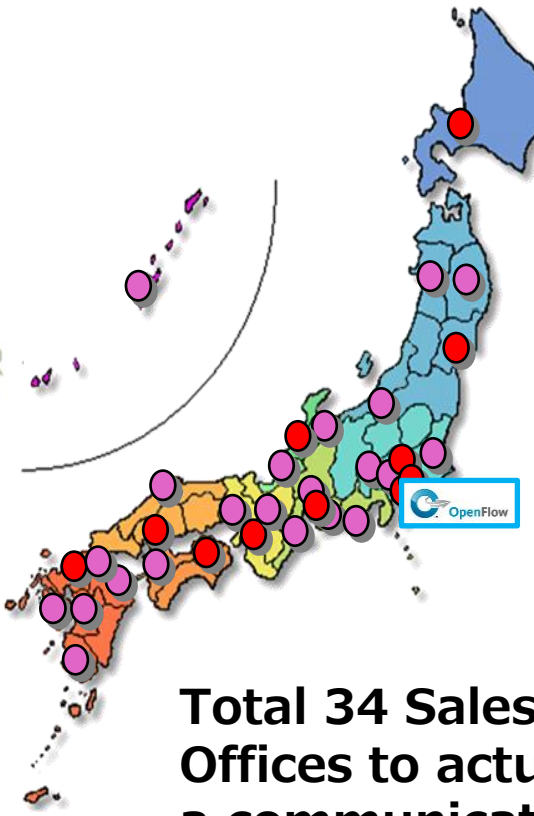
0. Corporate Introduction

□ Profile

- Company name: Allied Telesis Holding K.K
- Established: March 9,1987
- Head Office: No2. Bldg., Shinagawa, Tokyo Japan.
- Capital: 9,988 million Yen (as of Dec 31,2017)
- Number of Employees: 1,621 (as of Dec 31,2017)
- Chairman and CEO: Takayoshi Oshima

43 Group Companies is worldwide(38 Countries)



Total 34 Sales Offices to actualize a communication!

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R&D Center and Factory

Promoting the R&D of Cutting edge Solution!

R&D Center

We have R&D facilities around world to promote cutting edge solution

San Jose, USA

North Caroline, US

Philippines

New Zealand

Washington, US

Advanced Production Technologies and Cost Competitiveness.

Factory

We have maintained a high level of cost competitiveness in the market while providing product of Japanese Quality

Singapore

Dongguan, China

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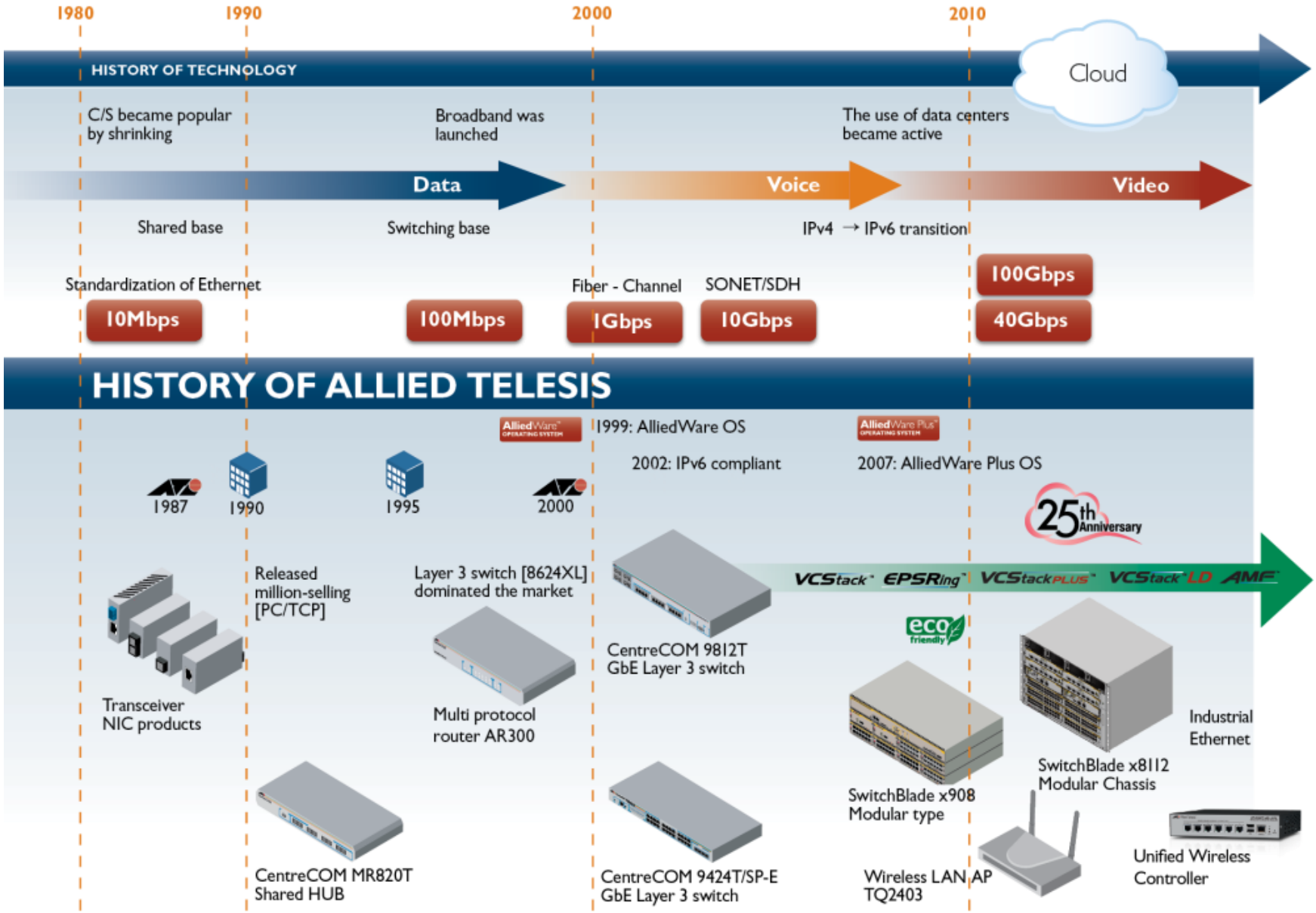
Brief History of our technology evolution



1987
Allied Telesis K.K. established in Japan
Allied Telesis Inc. established in U.S.

2000
Allied Telesis K.K. listed on the Tokyo Stock Exchange

1990
Jan: First European subsidiary opened (UK)

1995
Mar: Warehouse facility in the Netherlands established

2009
First Eco-Switch produced

MEMBERSHIPS

- Fiber-to-the-Home Council
- Metro Ethernet Forum
- Aerospace Industries Association
- Open Networking Foundation

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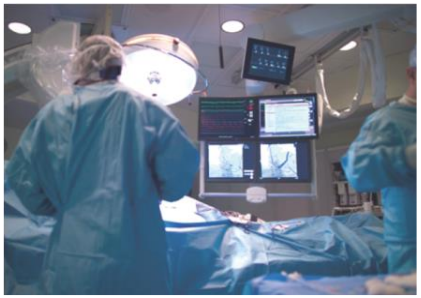
Installation record/Market Share in Japan

Healthcare



Ttl
3,200件
3,240件

Local Government

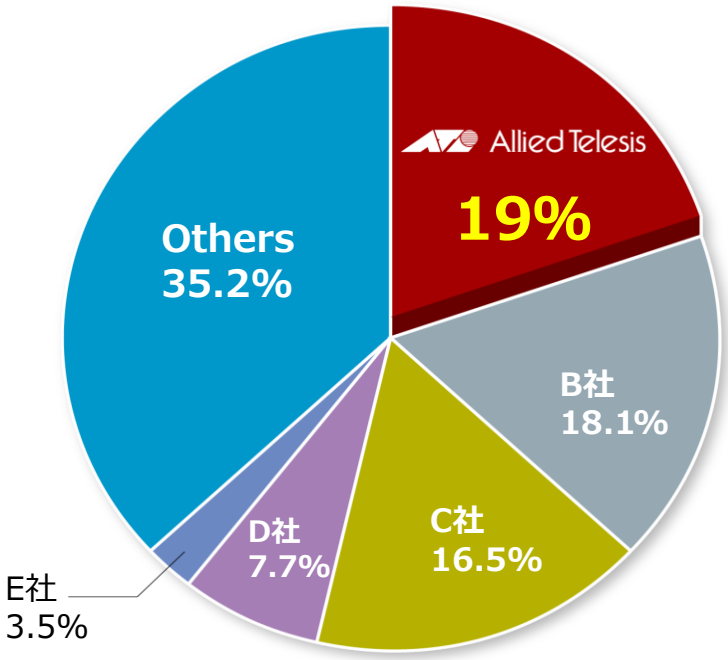
Ttl
4,000件
4,041件

Elementary/Junior High School

Ttl
5,100件
5,148件

●件数： 最近5年間（2009年～2013年）の累積。

Number of Port Shipment



- IT専門調査会社IDCJapanの数値（単年度）をもとに当社集計。
- 国内イーサネットスイッチ市場とは国内通信事業者向け、および企業向け市場を合わせた全てを対象。（レイヤー4-7スイッチは除く。）

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1. OpenFlow feature ready products

SBx908GEN2

Modular Chassis

Flow numbers

The maximum number of simultaneous active flows depends on the number of ACLs available. This is because active flows use ACLs. The following table shows the maximum number of ACLs available on each switch series:

SWITCH SERIES	MAXIMUM NUMBER OF FLOW TABLE ENTRIES (based on firmware version 5.4.7-1.x)
SBx908GEN2	4088
X930	2037
x510	245
DC2552XS/L3	757
x550	511
x310	117
x230	117
IE300/IE510	245

AT-DC2552XS

1/10G SFP+ X 48Slots, 40G QSFP+ X 4Slots

AT-x310 series

10/100BASE-TX and SFP X 2Slots Intelligent Switch

IE300 series

Industrial Switch

AT-x930-28/52GTX/GPX,28GTSXz

1/10G SFP+ X 48Slots, 40G QSFP+ X 4Slots

AT-x550-18XTQ/18XSQ

SFP+ X 16Slots | 1/10G X 16Ports + 40G QSFP+ X 2Slots

AT-x510 series

10/100/1000BASE-T X 24/48ports, SFP/SFP+ X 4Slots 10Gbe Ready Intelligent Switch

AT-x230 series

10/100/1000BASE-T X 8/16/26ports, SFP X 2/4Slots Intelligent Switch

AT-TQ4600-OF13

Wireless AP with IEEE 802.11a/b/g/n/ac Support 2.4GHz/5GHz Access

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2. Ryu score for x930.

layout: default title: Ryu Certification - AlliedTelesis x930

Ryu Certification

Default: SinglePacket

- AlliedTelesis x930
- Configuration - See Below

	OK	ERROR
Action	31	25
(Required)	(3)	(0)
(Optional)	(28)	(25)
set_field	106	64
(Optional)	(106)	(64)
Match	528	186
(Required)	(107)	(1)
(Optional)	(421)	(185)
Group	8	7
(Required)	(3)	(0)
(Optional)	(5)	(7)
Meter	0	36
(Optional)	(0)	(36)
Total	673	318
(Required)	(113)	(1)
(Optional)	(560)	(317)

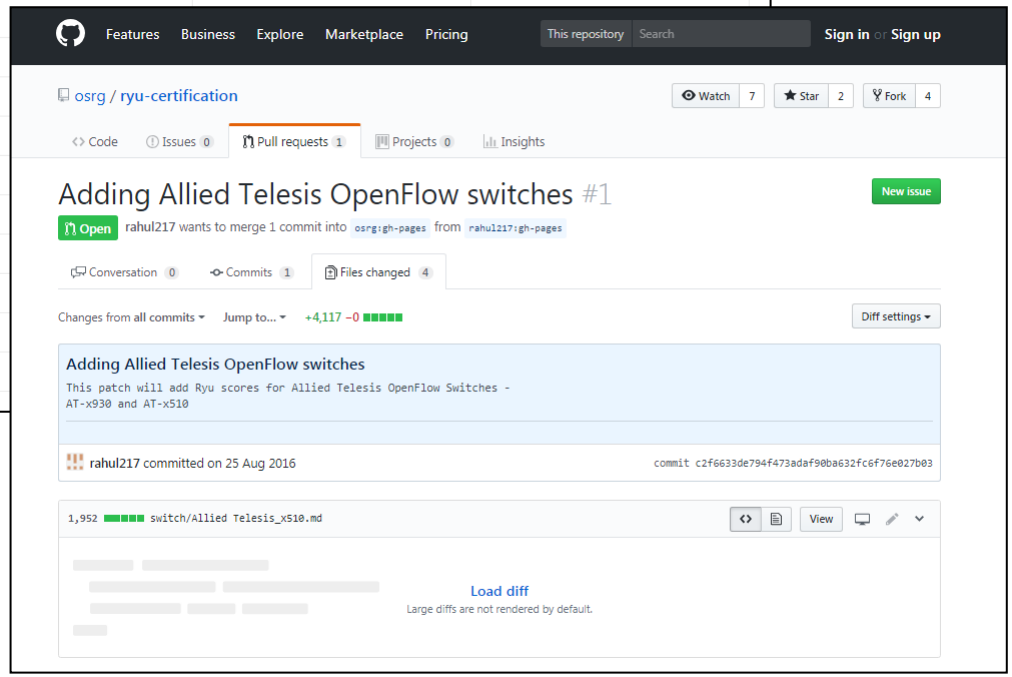
layout: default title: Ryu Certification - AlliedTelesis x930

Ryu Certification

Special: DoublePacket

- AlliedTelesis x930
- Configuration - See Below

	OK	ERROR
Action	14	42
(Required)	(3)	(0)
(Optional)	(11)	(42)
set_field	63	107
(Optional)	(63)	(107)
Match	320	394
(Required)		
(Optional)		
Group		
(Required)		
(Optional)		
Meter		
(Optional)		
Total		
(Required)		
(Optional)		



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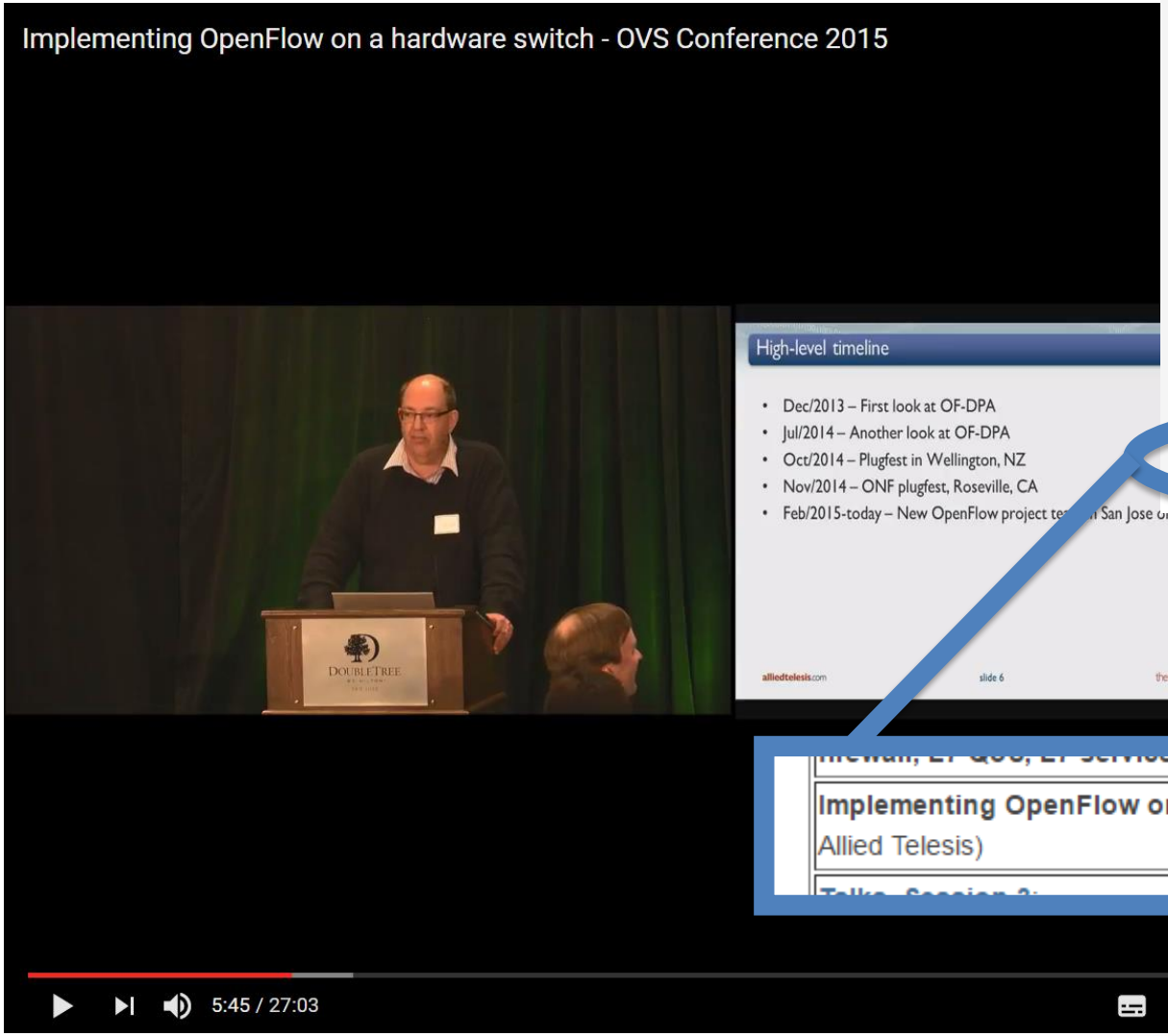
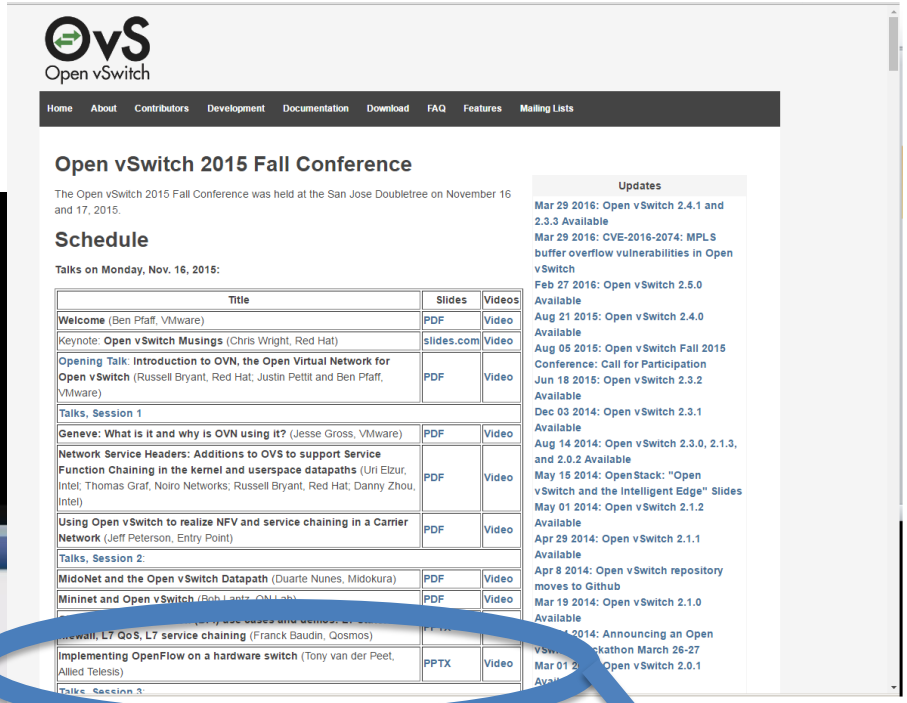
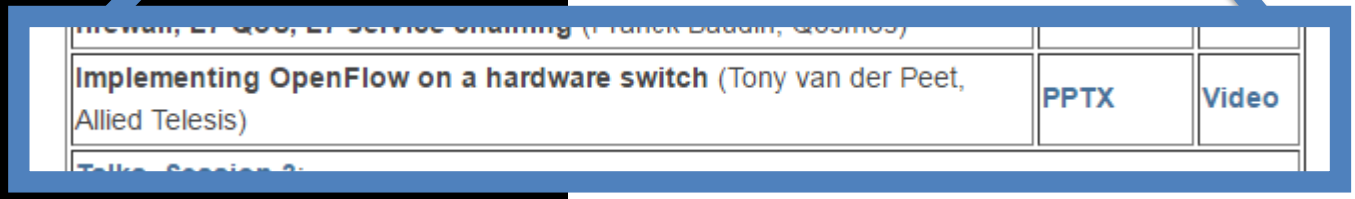
3. 2015 Fall OVS Con, Presentation.







http://openvswitch.org/support/ovscon2015/

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4. 2016 activities *Hackfest* at Bangalore.

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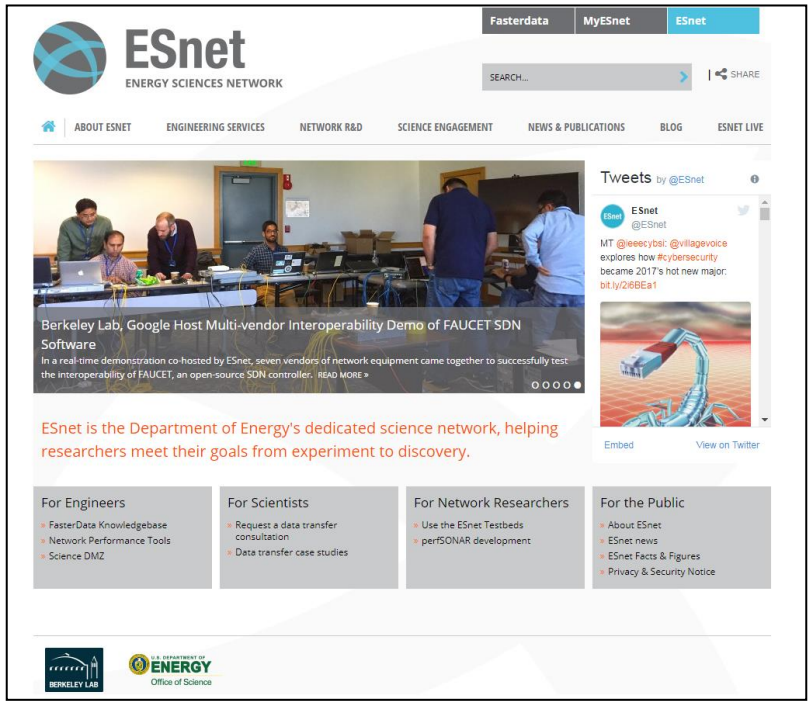
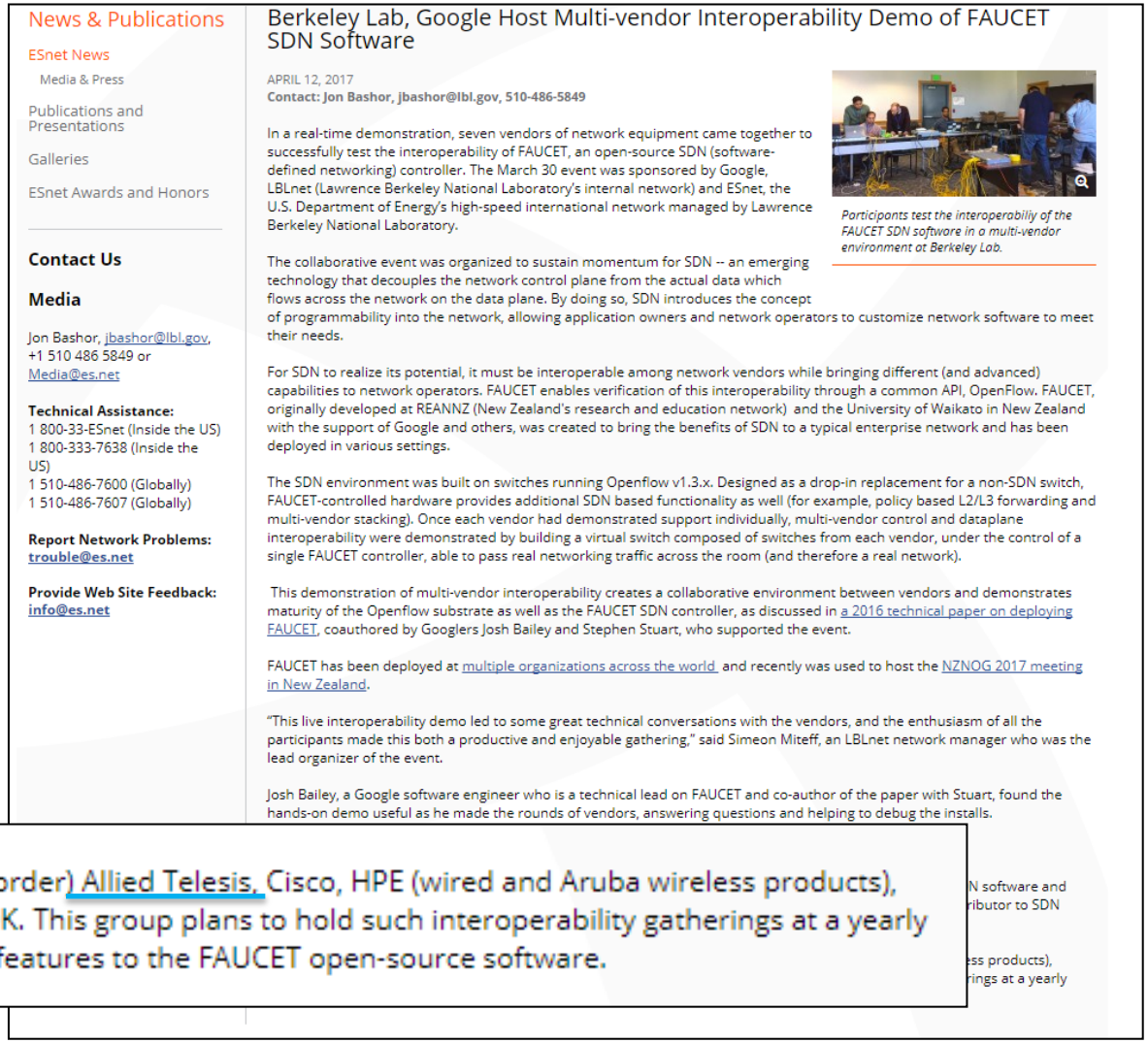
5. 2017 ESnet PlugFest.





Vendors participating in the demo are (in alphabetical order) Allied Telesis, Cisco, HPE (wired and Aruba wireless products), Netronome, NoviFlow and Intel OpenVSwitch with DPDK. This group plans to hold such interoperability gatherings at a yearly cadence, while continuing the momentum to add new features to the FAUCET open-source software.

http://www.es.net/news-and-publications/esnet-news/2018/berkeley-lab-google-host-multi-vendor-interoperability-demo-of-faucet-sdn-software/

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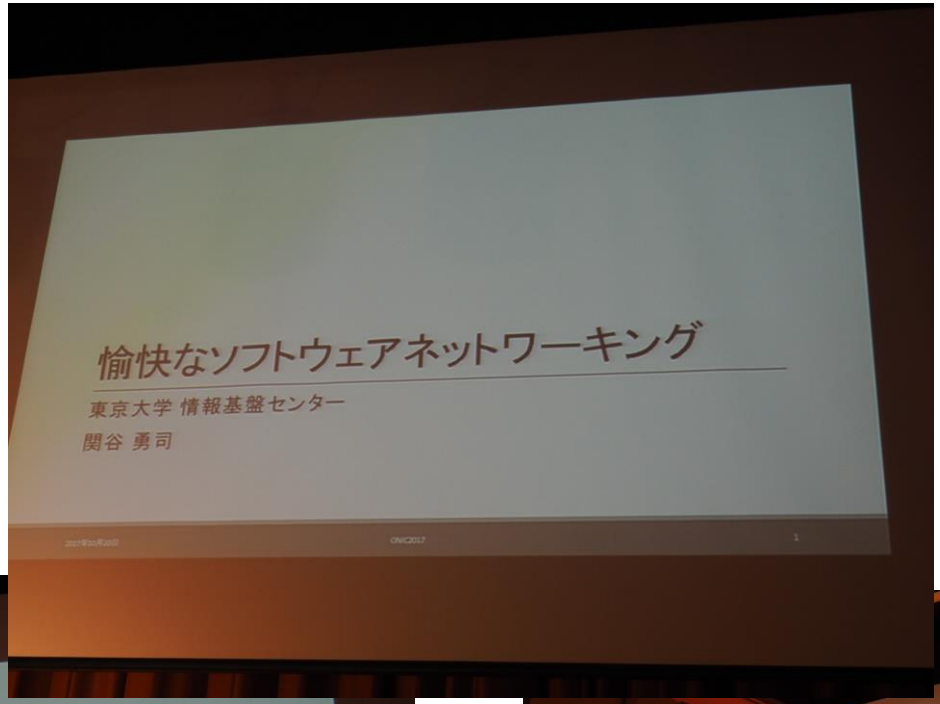
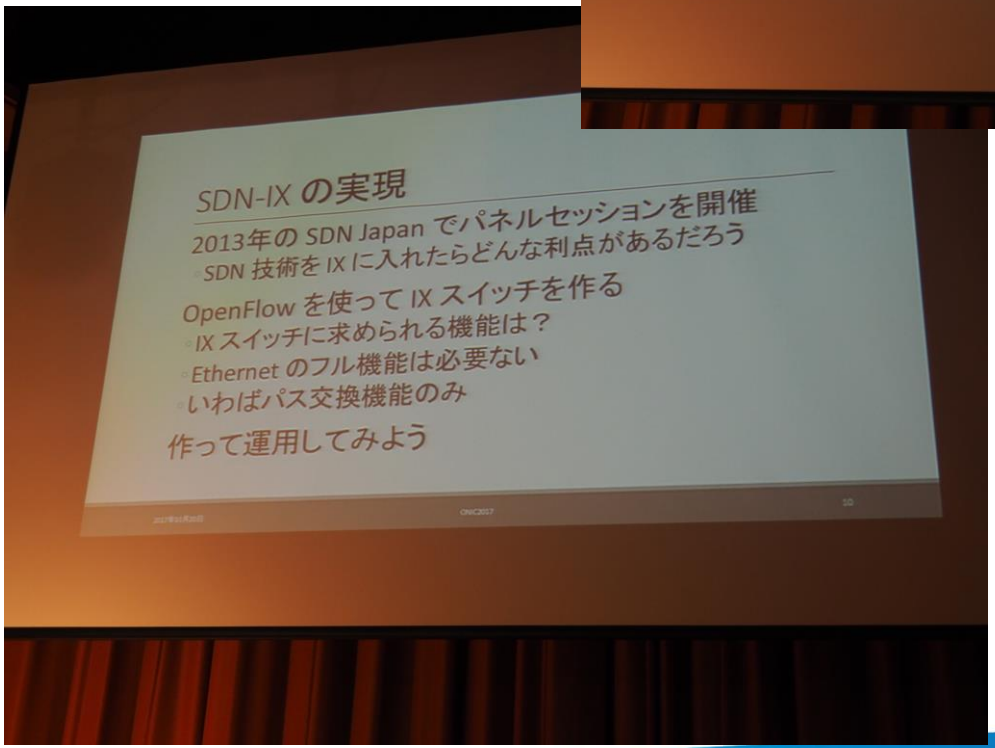
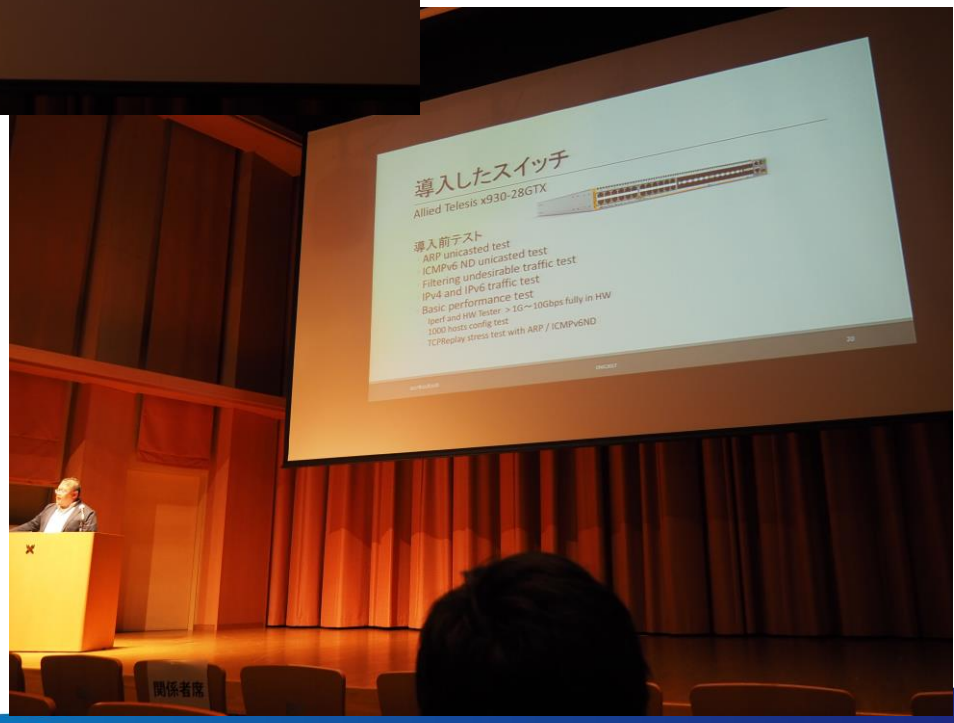
6. 2017 ONIC Japan







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7. 2017 ONF OpenFlow Certification

JITC CERTIFIED

OpenFlow CONFORMANT V1.3 BASIC

Allied Telesis x930 Series Gigabit Layer 3 Switches Earn Place on the Open Networking Foundation's OpenFlow® Conformant Certified Product List

OpenFlow Conformance Certification is the highest level of assurance today for any network product destined for SDN solution deployment.

SAN JOSE, CA – Jan 23rd, 2018 - Allied Telesis, a leading provider of hardware and software products that allow customers to build secure, feature-rich and scalable data exchange solutions, is pleased to announce that its x930 advanced Gigabit Layer 3 stackable switches have achieved the Open Networking Foundation's (ONF) OpenFlow V1.3 Basic Certificate of Conformance. This gives the x930 switches a coveted place on the OpenFlow Conformant Product registry of certified products.

ONF

ABOUT PLATFORMS SOLUTIONS INCUBATOR PROJECTS SOFTWARE DEFINED STANDARDS GET INVOLVED

SDN OVERVIEW PRODUCT CERTIFICATION SKILLS CERTIFICATION CORD LEARNING LABS NEW

ONF OpenFlow® Conformant: Certified Product List

The OpenFlow® Conformant Product registry provides a real time list ensuring that the following products demonstrate conformance to the OpenFlow® specifications. The OpenFlow® specification is the first Software-Defined Networking (SDN) standard and a vital element of an open software-defined network architecture. All conformance testing is performed by independent, accredited testing labs around the world, providing both impartial validation and ONF endorsement.

Device Profile Category: v1.3.4 Basic Single Table / Test Specification Version: v1.0

Logo ID	Approval Date	Vendor Name	Product Name & Description	Firmware Version	Product Family	Optional Support
OFS-1.3-BA-00-0175	2017-12	Allied Telesis, Inc.	AT-x930 Advanced Gigabit Layer 3 Stackable Switches with 10G and 40G Uplinks	AlliedWare Plus v5	x930 series	

https://www.opennetworking.org/product-registry/

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Last. OpenFlow Support Product Update

Wired Switch OpenFlow Feature Enhancement, history and plan

• Initial release (x930, x510)	2015 Oct	[5.4.5S]
• Support lower product line (x230, x310)	2018 Jun	[5.4.6-ini]
• Support two SW chip model (x510, x310)	2018 Oct	[5.4.6-M2]
• Hybrid OpenFlow	2018 May Rel	[5.4.7-ini]
• Connection Interrupt	2018 Sep	[5.4.7-M1]
• Control Plane Encryption(STD)	2018 Sep	[5.4.7-M1]
• Connection Interruption (Critical Mode)	2018	[5.4.8-M1]
• ONF OpenFlow Conformant Cert	2018 On Going	

Wireless AP OpenFlow Feature Enhancement, history and plan

• Initial release (TQ4K, 11ac models)	2015 Oct	[1.0.0]
• VAP Support, Performance Improvement, Critical Mode Support	2018 Dec	[1.1.1]
• Control Plane Encryption	2018 Nov	[1.2.0]
• Autonomous Wave Control*	2018 Mar	[4.1.1S]

*Central AP Management

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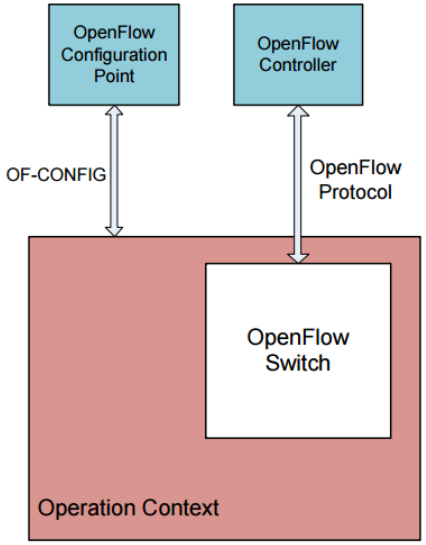
OF-Config/OVSDB standard, they figure out data relation image view below.

1 Introduction

This document describes the motivation, scope, requirements, and specification of the standard configuration and management protocol of an operational context which is capable of containing an OpenFlow 1.3 (or previous versions) switch as described in Figure 1. This configuration and management protocol is referred to as OF-CONFIG and is a companion protocol to OpenFlow. This document specifies version 1.2 of OF-CONFIG.



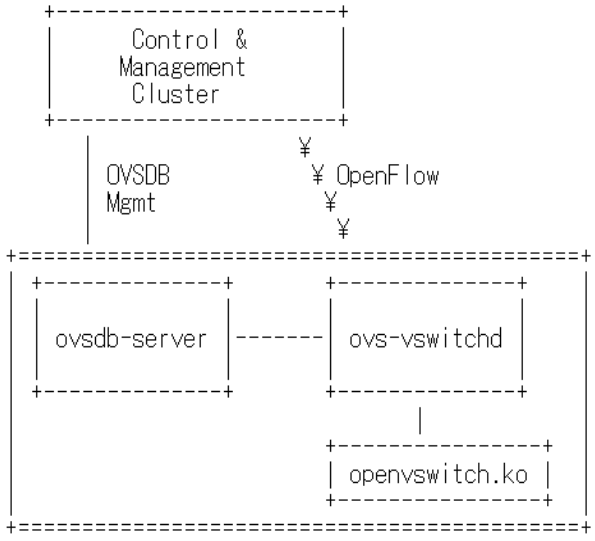


Figure 1: Open vSwitch Interfaces

Further information about the usage of the OVSDB management protocol is provided in [DB-SCHEMA].

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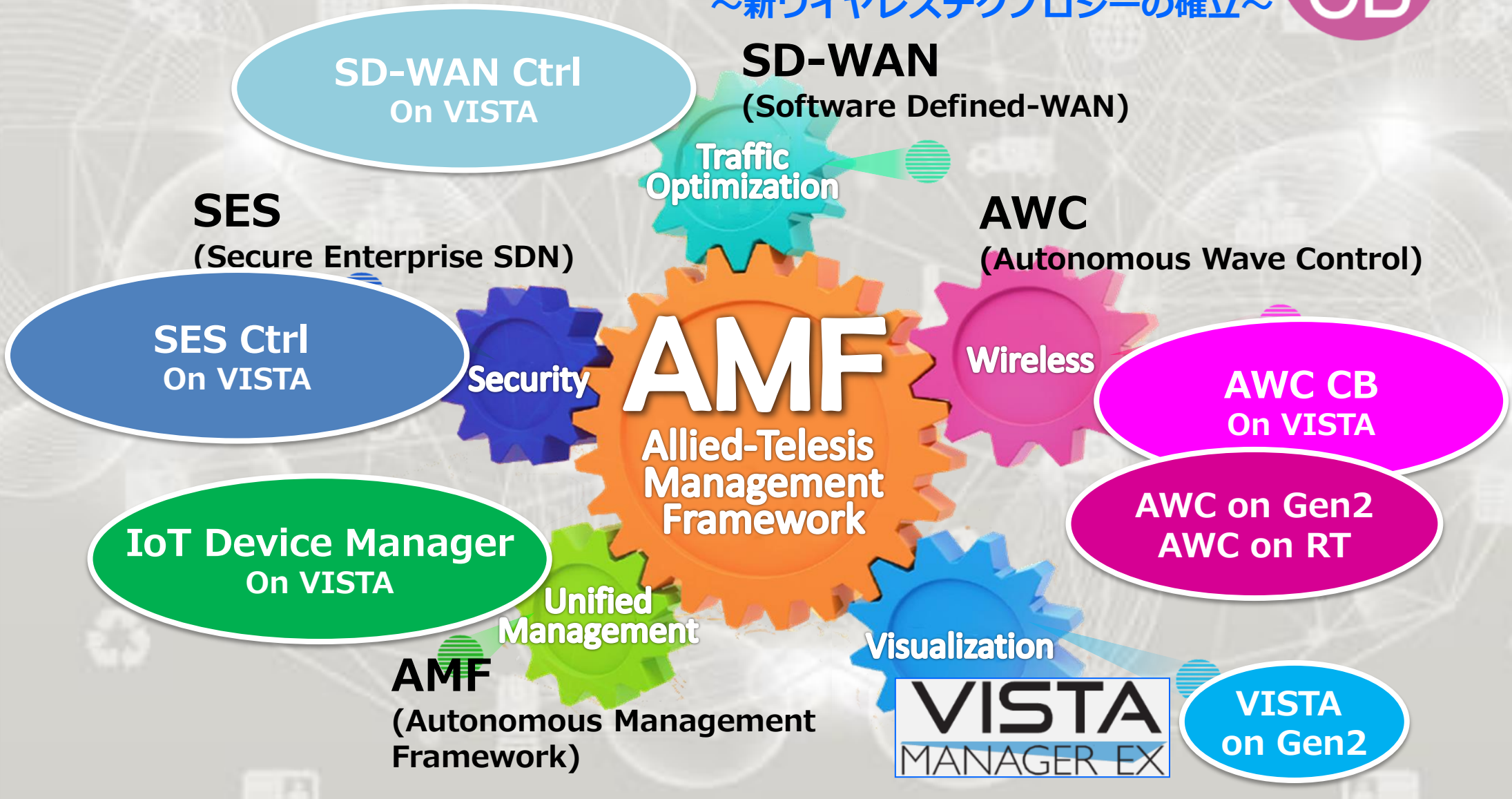
2018年 真のIoT化を実現

Smart Infrastructure
～実績ある技術でスマートに統合～

Flexible Wireless
～新ワイヤレステクノロジーの確立～



これまでも、これからも、
エンタープライズのお客様と共に。

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http://www.allied-telesis.co.jp/
http://www.allied-telesis.co.jp/sdn/blog.html

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