**ALTEN CALSOFT LABS**
AN ALTEN GROUP COMPANY

## SDN CONTROLLER APPLICATIONS & NETWORK INTEGRATION

The Client offers software defined networking and packet-optical transport platforms that drive transformation of networks globally.

### OVERVIEW

ALTEN Calsoft Labs developed SDN controller applications and device adapters for integration of multiple third party routing/switching products with the controller. We were also instrumental in enhancing the features of SDN platform capable of managing real-world carrier networks comprising Ethernet, SONET/SDH, OTN and DWDM technologies.

### BUSINESS NEED

The client wanted to develop controls and applications for their software-defined network solution spanning across multiple vendor devices supporting OpenFlow and non OpenFlow protocol in a quick time.

### TECHNOLOGY USED

ALTEN Calsoft Labs' extensive experience in SDN Application development, SDN Controller Orchestration, Device Adapter Development and Testing for various scenarios was leveraged for providing the solution.

- ⦿ OS: Linux and Windows
- ⦿ Scripting Language: Python
- ⦿ Management Protocols: SNMP, CLI, TL1, OpenFlow
- ⦿ Team size: 35

### BUSINESS BENEFITS

ALTEN Calsoft Labs helped the client -
- ⦿ Provide multi-vendor control and visibility to network operators
- ⦿ Reduced CAPEX cost
- ⦿ Greater operational efficiency, lower costs, and better customer experience.
- ⦿ Software driven infrastructure

### SOLUTION DELIVERED

ALTEN Calsoft Labs had the experience of designing and implementing large scale enterprise-grade management systems supporting heterogeneous devices for various clients. Leveraging this knowhow, ALTEN Calsoft Labs' engineers developed various device controllers and applications for client's software-defined network platform.

Some of the key features developed included device management support (discovery, configuration and monitoring) and SDN applications. SDN applications targeted network service provider centric use cases such as Cross-connect (multiplexing and demultiplexing) support and Service Creation Apps (like P2P and multipoint (MP) services).

ALTEN Calsoft Labs' contributions to the project included:

- ⦿ Development of new "device adapters" for multiple 3rd party routing/switching products
- ⦿ SDN application maintenance and new application development over client's controller platform viz., Network Provisioning, Topology management, Load Balancing, QoS management, etc.
- ⦿ Test planning and scenario-based testing in a multi-vendor environment, Bug fixing and Release management
- ⦿ Test automation development

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