



MEF 3.0 LSO ORCHESTRATED MULTI-LAYER OPTICAL TRANSPORT PoC

Objectives/Goals

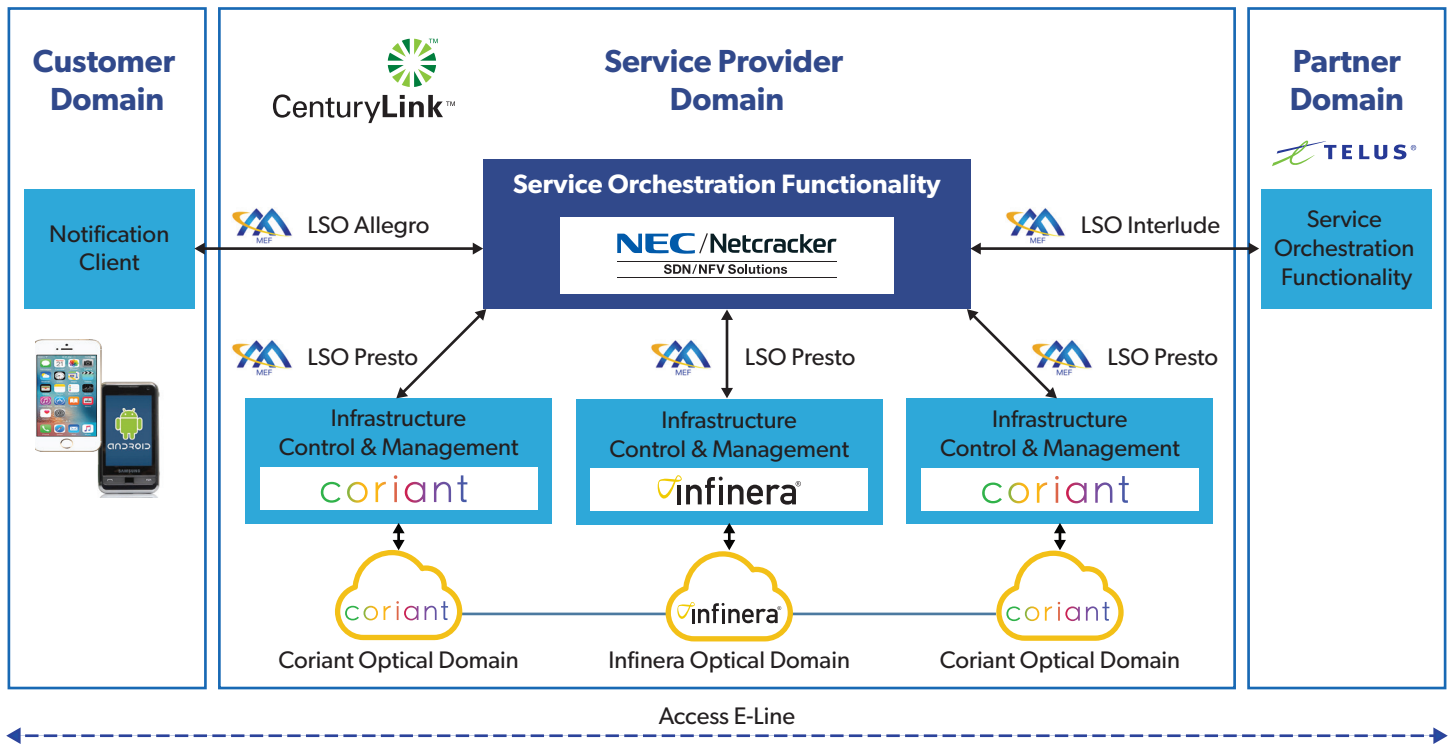
The Orchestrated Multi-Layer Optical Transport PoC demonstrates MEF 3.0 Access E-Line automated service activation, service failure detection and service restoration over multi-layer (Ethernet and OTN) network, managed by a multi-vendor full LSO stack. One of the goals of this PoC is to demonstrate end-to-end automation based on a combination of North-South and East-West LSO APIs working in concert. Another goal is to highlight the alignment and collaboration between MEF and ONF. The multi-layer orchestrated automated solution is an extension of the recently completed OIF SDN Interworking Demonstration.

Participants

This PoC brought together the following service providers and vendors – CenturyLink, Telus, Telefonica, NEC/Netcracker, Infinera and Coriant with a common goal of moving to open APIs as a key enabler for providing automated service fulfillment and assurance.



PoC Architecture



Benefits

This PoC helps to accelerate industry innovation and deliver lasting value for service providers and their end customers via orchestrating dynamic services over automated networks powered by MEF LSO and SDN.

- Dynamic ordering of services from a web-portal greatly reduces the service provisioning time, increasing time-to-revenue.
- Automated process of E-Access service creation improves wholesale business giving additional opportunity for Service Provider's offerings.
- Multiple open LSO APIs (Presto MEF 60 NRP API, Interlude Activation API, Allegro API) demonstrated during this PoC helps to reduce design, development and deployment cycles for all involved, thus getting to market faster and realizing the financial benefits of automation.
- Executive Dashboard application for iPhone/Android notification services illustrates how LSO APIs can be used with human interfaces.

This work effort can be considered a boilerplate for future extension of Presto Interface Profile Specifications and corresponding API/SDK development for other services such as IP and SD-WAN.

Components Overview

- NEC/Netcracker's Service Orchestration Functionality (SOF) includes Service Orchestration and Multilayer Transport SDN Controller components. Service Orchestration is LSO compliant and provides e2e service lifecycle management. It also provides smooth integration with partner and customer domains leveraging LSO Interlude and Allegro APIs. Multilayer Transport SDN Controller manages path computation and restoration on a multi-layer, multi-domain, multi-vendor optical infrastructure. It leverages LSO Presto API to manage Infrastructure Control & Management (ICP) components from Infinera and Coriant.
- The Infinera Xceed Software Suite is a portfolio of software solutions that make bandwidth more dynamic and flexible. Xceed combines an open, multi-layer SDN control platform with modular, commercially deployable applications that enable new revenue sources while increasing network efficiency.
- Coriant Transcend™ Symphony for Transport Controller acts as domain controller for the Coriant domains with a high degree of automation for management of Coriant networks. The flexibility provided by a modern optical layer can be leveraged through standard APIs enabling new application driven use cases of the network, with focus on dynamic service creation and increased resiliency.