

Orchestration and Monitoring of the Photonic Transport Layer (TUE)

SURFnet has procured a new photonic layer transmission equipment, manufactured by ECI Telecom (ECI). This equipment has been designed according to classic integrator's design rules and specifications. Today also "Whitebox" equipment is becoming available. These Whiteboxes claim more flexibility as long as the operator is taking (partly) the role of integrator. SURFnet would like to understand what it takes in terms of controlling and orchestrating software to allow the ECI equipment to behave and operate according to the Whitebox concept.

The purpose of this work is to investigate how SURFnet can orchestrate the new photonic transport layer. SURFnet has identified three use cases: (1) Optical pre-emption of waves. (2) WSON (monitoring and restoration) (3) Alien Wave service creation, modification and deletion. These use cases will be worked out in detail by means of sequence diagrams and descriptions in accordance standardization and ongoing activities in the research communities.