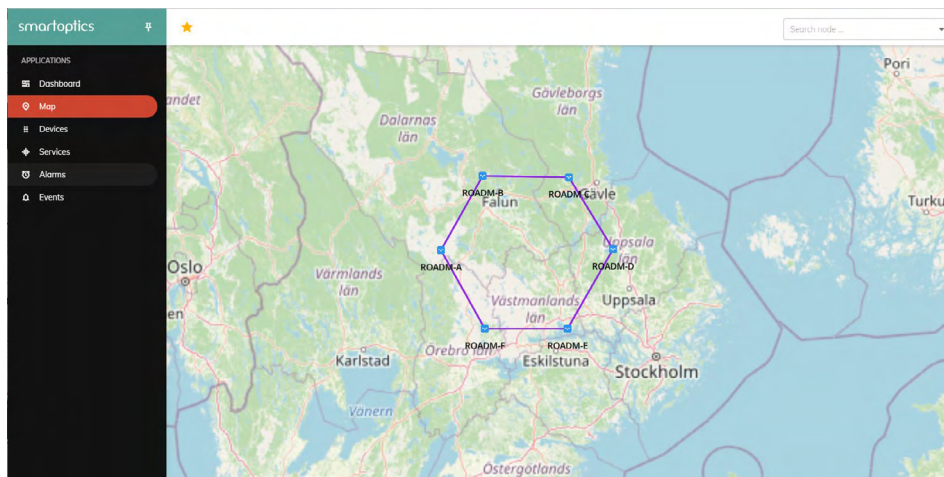


# SOSMART SOFTWARE SUITE

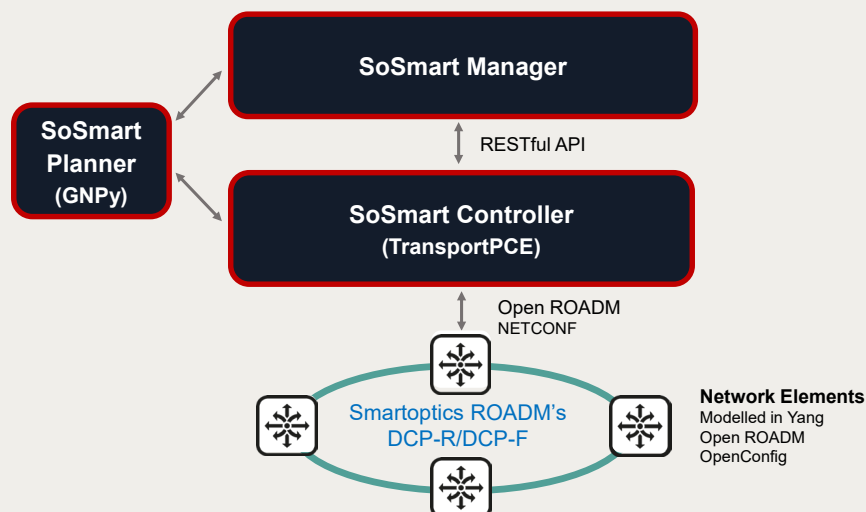
An open environment management suite



## A MODERN, OPEN AND FLEXIBLE MANAGEMENT SOLUTION

SoSmart is a modular software suite for SDN-based management of Smartoptics products in an open, multi-layer and multi-vendor optical networking environment. The management suite has a new and modern software architecture with open API:s that enable a high level of management flexibility, modularity, multiple integration possibilities and openness. The Smartoptics SoSmart Software Suite includes the following building blocks:

- The SoSmart Manager – The management application for optical network provisioning, also including fault, configuration, administration, performance, and security (FCAPS) functions, and operated via an advanced graphical user interface (GUI).
- The SoSmart Controller – An open source SDN controller based on TransportPCE.
- The SoSmart Planner – An optical planning and simulation tool with the same GUI as the SoSmart Manager and using the open-source module GNPY for path simulations.



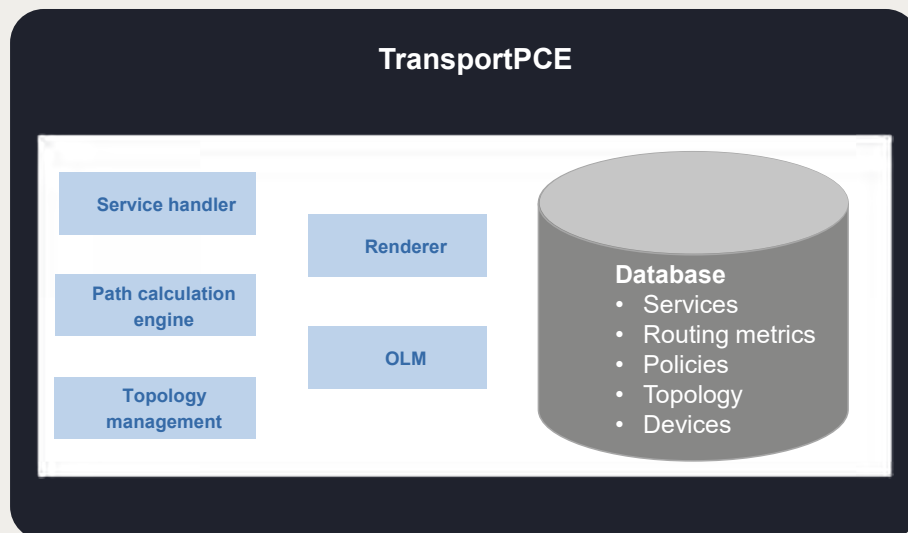
Both the SoSmart Manager and the SoSmart Controller are included in the initial release while the planner is coming later.

## SOSMART MANAGER IN SHORT

- Provides an intuitive and easy to use graphical user interface, GUI
- Use Open APIs and is integrated towards Transport PCE
- Graphical network visualization based on geographical locations and GPS coordinates
- Optical point-and-click provisioning
- Information about services and topology is presented in the GUI
- Basic inventory
- Basic FCAPS (Fault, Configuration, Administration, Performance, Security) in early versions, but more advanced features are planned for coming releases
- Supporting DCP-R platform initially and later also DCP-M, DCP-F and DCP-2

## SOSMART CONTROLLER IN SHORT

- SDN controller based on open-source TransportPCE
- Provides a standardized path calculation engine (PCE), a service handler and topology management
- Communicates with network elements through a standardized NetConf interface that complies to the Open ROADM API
- Communicates with SoSmart Manager via a RESTful API
- Contains a database with services, routing metrics, policies, topology and devices



## OPTICAL POINT AND CLICK PROVISIONING

Smartoptics DCP-R family is a disaggregated multi-degree ROADM platform used for Open Line Systems. This platform has a high level of automation, but it is still important that the SoSmart Manager can provide a good network representation and an easy way to configure network. Optical channels can easily be configured and activated by using the point-and-click provisioning feature in the SoSmart Manager. The SoSmart Manager provides the GUI for provisioning while the SoSmart Controller will conduct the path calculation and communication to the network elements.

The screenshot displays a network configuration interface. On the left, a map of Sweden shows a network topology with ROADMs labeled ROADM-A through ROADM-F. ROADMs B, C, D, and E are connected in a ring, with ROADMs A and F also connected to ROADM-B. Various ports (S1-S8, D1, D2) are shown connected to ROADM-B. On the right, a configuration panel titled 'ROADM-B-SRG1 ADD DROP UNIT' is visible. It contains a grid of port selection buttons (PP1-TXRX to PP6-TXRX) with 'Tx' and 'Rx' icons and frequency values (192.1THz to 192.6THz). Below this is a 'PORT DETAILS' section for 'PP1-TXRX' at '192.1THz', with 'Tx power: XX' and 'Rx power: XX'. The 'SERVICE' section includes 'SET START POINT' and 'SET END POINT' buttons, a 'Compute Path' toggle, a 'Create Service' button, and 'SUBMIT' and 'DISCARD' buttons.

After a service is configured the information is stored in the SoSmart Controller database. All provisioned services can be viewed in a detailed service list in a separate window or in a miniature list in the network window.

## ORDERING INFORMATION

### Sosmart product codes

SOSMART-MANAGER	SoSmart Manager Server License, one time entry fee
DCP-R-SML	DCP-R SoSmart Manager License, yearly subscription fee per DCP-R chassis
DCP-2-SML	DCP-2 SoSmart Manager License, yearly subscription fee per DCP-2 chassis
DCP-M-SML	DCP-M SoSmart Manager License, yearly subscription fee per DCP-M chassis

## SERVER SPECIFICATIONS

The SoSmart Software Suite runs on x86 64-bit hardware with Linux as operating system. Installing and hosting the SoSmart Software suite is as easy as operating the network. The SoSmart Manager, Controller and Planner are all installed as docker containers on standard server hardware. A docker container can package an application and its dependencies in a virtual container, isolated from other processes in the system. This is a modern way of running applications which is extremely easy to install and at the same time consumes small processing resources compared to older alternatives. Because of their isolated nature, docker containers are very well suited for running on cloud servers.

Both the SoSmart Controller and the SoSmart Manager can be hosted on Virtual Machines, and server redundancy can be achieved through modern data centre technologies.

Required disk space: 100 GB

Required RAM memory: 16 GB

*NOTE. THE INFORMATION IN THIS DOCUMENT IS VALID FROM RELEASE R1.0 FOR SOSMART*