**hiT 7100**

With the Nokia Siemens Network hiT 7100 OTN (Optical Transport Network) Switch and specifically its service independent traffic switching capabilities, bandwidth hungry applications and the widespread adoption of smartphones no longer place increased pressure on operator's network infrastructures.

**Address surging network traffic**

Optimized transport switching enables operators to efficiently address surging data traffic and the migration to next-generation converged optical networks, by providing increased flexibility and scalability. Our hiT 7100 enables core network traffic engineering and bandwidth provisioning to be more efficient, by aggregating and grooming traffic at the sub-lambda level, combining the best of the electrical switching world with the optical switching world. The hiT 7100 provides service agnostic traffic switching with sub-wavelength granularity (ODU0-4 & ODUflex supported). The interfaces allow efficient multi-service support (e.g. OTUk, OCh, SDH/SONET, SAN) including connection-oriented Ethernet transport.

**Key applications**

Sub-lambda grooming is being driven by 40Gbit/s+ line rates, in terms of aggregation and grooming. Widespread use of 40Gbit/s+ line data rate in carriers' carrier scenarios and aggregation of 10Gbit/s client services can be leveraged only with ODU aggregation and grooming, achieving up to 40% less wavelength usage. The hiT 7100, with its agnostic switching capability and the scalability of multi-terabit, is also addressing the dynamic IP off-loading topic for network core routers, reducing up to 80% CAPEX (Capital Expenditure) and up to 60% OPEX (Operational Expenditure).

**Integration with the hiT 7300**

The Nokia Siemens Networks hiT 7100 brings new quality into the Nokia Siemens Networks optical transport portfolio providing a higher grade of network flexibility. The product is fully integrated into the already established portfolio, based on DWDM (hiT 7300 / 7500) and MSPP (hiT 70xx) families, to offer customers a highly efficient, robust, reliable, and future-proof next-generation optical transport network. Further savings for network operators are achieved by integration of the hiT 7100 with the hiT 7300 DWDM platform, creating a Packet Optimized Transport Switch (P-OTS) which able to provide full range of features requested in modern optical networks.

**Operator benefits**

- Efficient sub-lambda granularity and enhanced resiliency
- Multi-service support from a single platform
- Excellent scalability: 0.6 up to 24Tbit/s & beyond
- Port densities of 10, 40 & 100Gbit/s
- Interworking with 3rd-party platforms
- Simplified operation (any interface card in any interface slot)
- IP-core ‘off-load’ capabilities

**Why do you need the hiT 7100?**

- High capacity aggregation and switching of MPLS and TDM
- Increases efficiency by improving fill rate of data containers across DWDM links
- Frees expensive IP router capacity by taking over switch related tasks

**Fact file**

**hiT 7100**
- Functionality
  - Versatile interface card placements between different configurations
  - Packet services transparency
  - Dynamic multi-layer protection & restoration according to OTN & ASON/GMPLS for dynamic re-routing to protect against multiple failures
  - Multi-layer dynamic bandwidth provisioning
  - GMPLS for automated end-to-end service creation
  - MPLS-TP and ODU switching from the same platform

**hiT 7100 Benefits**
- Migration of TDM/SDH to IP/SONET networks
- Fully supported Multi-layer network switching and grooming from a single platform
- Ensurance of high service availability for relevant environments
- Flexible solutions for future needs to be scaled to changing capacities
- Common NMS for integrated management

**Target customers**

This can be any customer, particularly network operators with high capacity, flexible networks and large traffic volumes independently of the type of traffic.

**Service agnostic**

The Nokia Siemens Networks hiT 7100 provides high availability service agnostic switching and grooming from a single platform for all network requirements, in combination with common service, fault and performance management functionality with the hiT 7300.

Fully optimized DWDM & OTN switching is realized with the hiT 7300-PXC and hiT 7100 switch working either in stand-alone or as a single network element.

**Capacity**

The hiT 7100 switch capacity ranges from 0.6 terabytes per second (Tbps) to more than 24 Tbit/s, with 40 & 100Gbit/s optimized line interfaces, in addition to more efficient use of network resources and multi-service support from a single platform.

**FACT FILE**

- hiT 7100 switch working either in stand-alone or as a single network element.
- Common NMS for integrated management.
- Multi-layer network switching and grooming from a single platform.
- Flexible solutions for future needs to be scaled to changing capacities.
- Ensurance of high service availability for relevant environments.