

Service Inventory

BUSINESS-TO-CONSUMER SERVICES IN PHYSICAL NETWORK INVENTORY

- Supports service fulfilment and assurance processes
- Improves network capacity planning and management
- Handles voice, broadband internet and television services

Service Inventory (SI) for business-to-consumer services establishes and maintains connections across the network inventory resources to support service provisioning. Module supports routes for simple services such as voice lines, broadband internet access and digital TV. It combines the network resources in Physical Network Inventory with services details and routes.

SI supports the main business processes of telecommunication service providers:

- service provisioning and network fulfilment
- network capacity planning and management
- network maintenance and fault management

Together with PNI, Service Inventory allows to operate on a new network layer. As a result, users are able to easily navigate between services and network resources.

The module provides:

- a list of physical resources required for service to operate ('a service route'),
- a list of all services utilizing a given network element.

Provisioning and fulfilment

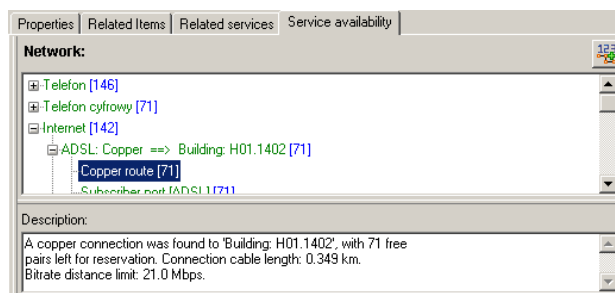
The main feature provided by Service Inventory for business-to-consumer services is automated routing of a path which consists of network resources capable of

supporting one or more services. Automatic routing algorithms are available for simple services, such as voice lines or broadband internet access. PNI can be used for integration with access network.

Service type	Technology
Telephone	POTS – copper, radio or RF (NIU) network
	VOIP – using IP-HFC, ADSL, ADSL2+ or IP-RADIO technologies
Digital telephone	ISDN – same as POTS Telephone
Television	HFC
Digital television	IPTV – using IP-HFC, ADSL, ADSL2+ or IP-RADIO technologies
	DTV – using HFC technology
Internet	IP-HFC
	ADSL
	ADSL2+
	IP-RADIO
Other	Copper pair reservation

List of service types supported by Service Inventory on PNI. It can be easily extended and provisioning rules for new types can be easily adapted.

Routing algorithms inspect available resources in order to establish the best path between customer distribution point and a suitable network access point.



Service availability tab—displays list of all available service types at customer site. It presents number of available services and all possible provisioning routes.

If network resources associated with the service route can not be shared with other services, they are marked as reserved. Information about cross-connections, service configuration and customer-premises equipment is available and can be used during activation process.

Capacity planning and management

Resource and service status data enables Service Inventory to provide reliable information about real network capacity and usage. Network utilization can be constantly monitored, thus providing valuable information for the optimal resource management. Planning decisions can be based on the real needs and network can be delivered on time.

Maintenance and fault management

Because information about consumers of each network element is stored within the system, reconfiguration and maintenance tasks can be planned to avoid impact on service availability. Service Inventory provides functions to support service assurance processes. In case of a failure, affected services can be identified to evaluate priority of the problem or for billing correction purposes. On the other hand, information about service failures reported by customers can be used to track down the root cause of a problem.

Integration with other IT systems

Service Inventory module for business-to-consumer services publishes a set of API functions that can be used for integration with customer relationship management (CRM) and workflow management systems to support service fulfilment on business level. Integration with trouble ticket and workflow management system can support network maintenance and fault management processes.

Main business advantages

- instant reaction to customer queries about service availability - more services sold,
- shorter service activation time - quicker return on investment,
- better network utilization - higher return on investment,
- assistance in identifying the location and impact of faults - improved Quality of Service.

Software requirements

- PNI 4.1

Id	Service	Technology	Status	City	Post code	Street	Ad...	Flat	Phone
86301	Internet	ADSL2+	Active	Exeter	39-200	Oxford St.	33	5	
86412	Internet	ADSL2+	Active	Exeter	39-200	Oxford St.	51	8	
86375	Internet	ADSL2+	Active	Exeter	39-200	Oxford St.	33	19	
97113	Internet	ADSL2+	Canceled	Exeter	39-200	Oxford St.	63	54	
65994	Internet	ADSL2+	Active	Exeter	39-200	Oxford St.	49	15	
65978	Internet	ADSL2+	Active	Exeter	39-200	Oxford St.	33	59	
32894	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	35	481468
32406	Telefon	POTS	Active	Exeter	39-200	Oxford St.	35	21	481468
33202	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	8	481468
41731	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	4	481468
42562	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	44	481468
32394	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	45	481468
32898	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	9	481468
33206	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	5	481468
32396	Telefon	POTS	Active	Exeter	39-200	Oxford St.	33	11	481468
32544	Telefon	POTS	Active	Exeter	39-200	Oxford St.	33	33	481468
33208	Telefon	POTS	Active	Exeter	39-200	Oxford St.	55	1	481468

List of all services utilizing the given physical resource. The report can be launched for inside or outside plan resources.