

# Next Generation Networks - Already up and running!



## Case Study from IPnett

**Telge Energi - a utility-based, government-owned leading Metro Service Provider in Sweden - is presently running one of the world's most advanced Metro Networks! IPnett is their System Integrator and partner in Multi-Play expertise. In total 21,000 households and 4,000 companies throughout the Södertälje region of Sweden. The base is a Fibre-To-The-Home (FTTH) network.**

The solution provides Telge with tools and services like capacity control, priority, intrusion detection/protection and tracing. Other tools and services are management, quality-of-service (QoS), service level agreement (SLA), redundancy in distribution, core switches/routers and a system for central configuration and control.

IPnett has access to an impressive product portfolio in order to provide ideal solutions for operators wishing to break into the Multi-Play and Metro Ethernet markets. As traditional sources of revenue and margins continues to decrease for traditional operators and providers, the requirement to deliver new, more innovative services for companies and communities increases.

### Service and support

IPnett's assignment to Telge Energi was to implement the new triple play network and integrate the existing services functions with a goal to keep Telge's well known existing processes and procedures, but extending it with new efficient support access functionality. The IPnett turn key solution included network design, installation and troubleshooting.

**"This solution enables us to confidently and efficiently provide automated self provisioning to our subscribers..."**

*Mikael Stenqvist,  
Technical director at Telge Energi*

Telge's NOC (network operation center) have 24/7 access to IPnett Nordic Help Desk. Escalations, remote- and on site support are handled by IPnett Nordic Support Desk, which is an essential part of our support capability, including local engineers from IPnett Nordic support centers.

To ensure 'In life' support of the network, IPnett provides Telge with detailed statistics and reporting on regular basis. The information is also accessible at any time by using IPnett's web/internet services. This includes KPI reporting, trouble tickets, logs, root cause analysis, software and hardware bulletins. IPnett also provides asset management and inventory services to maintain installed base.

Telge also provides its own broadcast TV content. Telge will use the E320 and SDX-300 combination to enable end-use customers to conveniently select and self provision services from a wide range of ISPs and network-based applications. The network is secured by the Juniper Networks ISG-1000 with integrated intrusion detection and prevention (IDP) system.

"In this dynamic environment, the ability for subscribers to selfprovision their chosen services is a huge competitive advantage for us. The E-series and SDX have a proven performance and reputation in similar service provider environments throughout Europe," said Mikael Stenqvist, technical director at Telge Energi. "This solution enables us to confidently and efficiently provide automated self-provisioning to our subscribers, and to ensure that wirespeed access to the bandwidth intensive broadband services we offer is maintained without compromising security."

### About Telge Energi

- Leading, Swedish Metro Service Provider
- Utility-based, government-owned company
- Runs one of the most advanced Metro Networks in the world

### About the solution

The Network provides the subscribers with services as:

- Internet access, Residential and business, including SLA
- Storage
- IPbased voice services including Flat Rate packages
- IPbased TV services
- Security/Fire wall services
- Intrusion detection/protection
- Video-on-Demand (VoD)
- Broadcast and speciality TV channels
- Pre-paid services
- Alarm/emergency services

### IPnett metronet solution:

- Core level: Juniper E320 Broadband Services Router and MX960 Ethernet Services Router
- Distribution level: Allied Telesis integrated Multiservice Access platform (iMap)
- Access level: Allied Telesis switches and CPEs
- Management: NETadmin
- Provisioning: Juniper SDX 300
- Firewalls: Juniper ISG 1000



Telge services are delivered to both corporate and residential customers using Ethernet and fiber to the building, so the company is deploying E320s with Gigabit Ethernet line modules. The E320 provides an ideal platform for delivering multimedia broadband services such as IPTV, video on demand and IP telephony.

Juniper MX960 ESR is a high density Layer 2 and Layer 3 Ethernet services router platform. MX960 is selected for a variety of processing and scaling demands for the growth of Ethernet traffic in their edge network. Powered by the industry leading JUNOS operating system and the high performance I-Chip, the MX960 delivers the scalability, reliability, performance and feature richness needed to meet the evolving requirements of the Carrier Ethernet market.

**Up to 300% increase in new subscriptions**

The automation involved in the subscription of a service allows it to be triggered by the helpdesk, service providers or the end users directly. This means that your customers can subscribe to services 24/7 without having to contact helpdesk or service provider using true self activation (no keys etc. are required).

The NETadmin self registration portal that allows end users connected to the network to activate services in the network on their own has shown to increase

the amount of new subscriptions per day with up to 300%. The introduction of NETadmin has shown similar increase in revenue on most installations. This self registration system is capable of handling the entire process from the creation of a customer in the CRM to the activation of the Billing system and the provisioning of a subscription in the entire network, regardless of what network equipment is being used. All this is done with NETadmin.

**Up to 80% lower costs for the handling of each subscription.**

It has been shown that, with NETadmin self registration, over 50% of the end users never call the help desk at all asking about their subscriptions or ordering but does it directly from the customer portal. Of the 50% that do call, the number of calls are heavily reduced and the questions asked are simpler in nature while the helpdesk has access to more powerful tools to help the customer. Since the provisioning process is fully automated, the need for support staff and network operators is significantly reduced.

It also offers a higher quality and safety to the delivery of each service, not to mention that a standard service is delivered in a matter of seconds within the customer placing the order in the portal. NETAdmin has the power to halt activation in order to request for additional information from a service provider, as well as informing them upon completion.

In many cases NETadmin has assumed total responsibility over networks, for instance student campuses, apartment buildings and handles all operations and communication with the end user. The case handling system is then used for communication with the helpdesk. These cases are examples of when NETAdmin has reduced the cost of handling activations and deactivations for subscriptions with 100%.

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