

BATM/Telco Systems provides broadband services to home and business customers in Finland

Salon Seudun Puhelin Oy a part of FINNET group - a strong Finnish telecom company, built a modern and scalable area network with BATM/Telco Systems switches

- **Introduction:**

This case study demonstrates the solution offered by BATM/Telco Systems and its partner K&K Active Oy to Salon Seudun Puhelin Oy – a part of FINNET group.

K&K Active Oy is a well established player in the telecommunication network operator's arena. BATM/Telco Systems has been working together with K&K Active Oy to provide advanced communication solutions to its customers.

Salon Seudun Puhelin Oy is a strong Finnish telecom company which is actively trying to develop and offer services benefiting customers. The company decided to build a modern and scalable area network in order to provide broadband services and presented BATM/Telco Systems with several special considerations:

- High performance
- Minimum downtime
- Ease of management
- Security of network

- **The Solution:**

BATM/Telco Systems offered a combined solution based on its leading IP switches:



- **T6**

- Layer 2-7 Routing Switch
- Up to three power supplies and hot-swap modules
- Up to 2 10-Gigabit Ethernet ports per platform
- Unique ASIC based architecture offers a wire-speed non-blocking switching solution with up to 32 Gigabit Ethernet ports.

- Ideal for Multi-Gigabit aggregation and distribution applications.
- By augmenting efficiency with an unmatched level of modularity, which includes copper and SFP Gigabit Ethernet interfaces, the T6 is capable of providing infrastructure for dynamic high performance networks.



- **T5-24G**

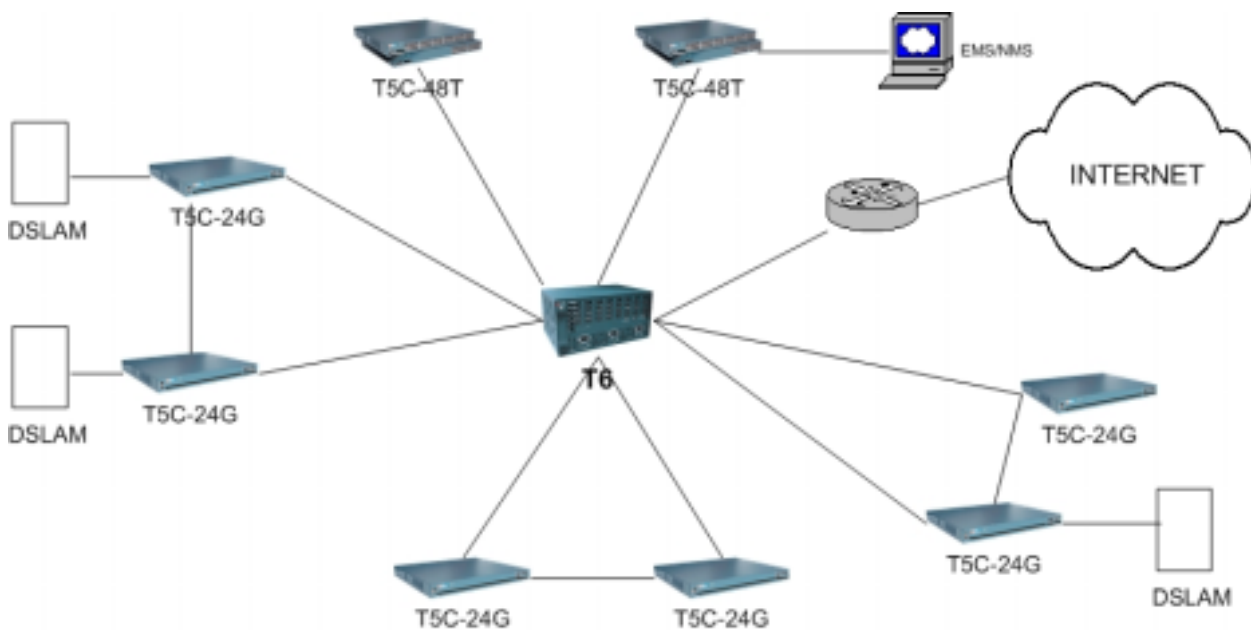
- High performance, compact Multi-Gigabit switch
- Up to 24 SFP Gigabit ports
- AC & Dual-feed DC power supply feeds
- Top-of-the-art protocols and techniques
- supports 24 plug-in (SFP) Gigabit Ethernet ports that provides any-distance and fiber type compliant, plus 4 fixed 10/100/1000Mbps Ethernet Dual-PHY ports
- Aggregation and/or distribution layer in Metro application or a core device in medium and small Metro access and enterprise networks



- **T5-48T**

- Excellent price/performance ratio access-switch
- 4 Gigabit Uplink interfaces
- Dual-feed DC Power Supply
- Enhanced L3 capabilities within 1RU uplink-rich routing switch.
- Support 2 copper Gigabit Ethernet ports, 2 fiber plug-in (SFP) ports, and 48 auto-sensing 10/100BaseT Fast Ethernet ports.

First phase Network Topology:



BATM/Telco Systems T6 switch was used as the core of the network. The T6 provides switching and routing services for the complete network. The T5C-24G switches are the distribution layer which collects many GigE interfaces to aggregated and concentrated into few GigE lines directed to the core. The T5C-24T/48T switches provide advanced L3 services such as QoS for better utilization of the bandwidth.

Features:

- **SFP (miniGBIC) interfaces**
 - SFP allow the switches to be much flexible and provides great cost-efficiency. It allows the customer to choose exactly the right transceiver for any individual application.
- **Multiple Spanning Tree (MSTP IEEE 802.1s)**
 - Field proven MSTP function provides very fast convergence times and separates possible malfunctions of a network to small, more easy to handle segments.
- **-48V DC Power Supplies**

- Dual feeding -48V DC power supplies ensures continues power without need of batteries etc. This decreases telecom's costs of implementation.
- **BATM/Telco Systems BiNOS management system**
 - The BiNOS management system allows a much easier and flexible network management. CLI's industry standard design makes adaptation appealing to engineers. Special consideration has also been put to security of management keeping hackers away from system.
 - BiNOSCenter element manager software provides functional tool to manage and control the network.
- **QoS and other traffic modification techniques**
 - BATM/Telco Systems switches offer extensive set of Quality of Service tools. These techniques are especially important in networks which should provide different types of traffic flows for different types of users.
 - In addition to these operations BATM/Telco Systems also introduce rate-limiting feature on VLAN, interface or even on CPU.
- **Why BATM/Telco Systems?**

K&K Active Oy and Telco Systems/BATM were chosen due to:

 - Performance and excellent adaptability of BATM/Telco Systems products
 - Powerful BiNOS management combined with high security
 - Field proven Multiple Spanning Tree for minimal downtime
 - Great cost-efficiency and DC-power supplies
 - Compact and easy-to-install equipment
 - Excellent customer care and support