



IMAGINE OSS ETHERNET™

DESCRIPTION

Imagine OSS Ethernet™ is a comprehensive suite of products that enable the design, deployment, provisioning and monitoring of Data, Voice, Video and IPVPN services over Metro-Ethernet infrastructure. Based on the same OSS system that has proven its scalability and reliability in multi-million subscriber networks, Imagine OSS Ethernet™ enables key processes to be automated, removing the complexity of operations. In addition, its modular architecture makes Imagine OSS Ethernet™ a very cost-efficient platform to support migration strategies between existing, hybrid, and future, complete Ethernet networks.

BUSINESS ISSUES

TRIPLE-PLAY OVER ETHERNET

Traditionally Voice, Video and Data services address different market segments with different technologies, provisioning and management systems. Multiple systems require multiple teams and skill sets to operate and maintain which is not cost effective. This applies equally to Metro-Ethernet networks that offer the opportunity to provide voice, video and data over the same platform. To achieve efficiencies operators require integrated tools to enable the design, deployment, provisioning and monitoring of triple-play services. These tools must be flexible enough to meet changing customer requirements and be implemented at a highly competitive price to maintain profitability margins.

PROVISIONING SCALABILITY

One of the main reasons for the worldwide success of Metro-Ethernet is the unmatched flexibility to implement networks that can match almost any physical and logical requirement. No matter how centralised or how distributed the network is, there is no combination that a Metro-Ethernet network cannot accommodate. The challenge is to ensure a consistent service quality across these very diverse topologies. This requires an OSS solution that can manipulate bundled video, voice and data services regardless of the layer 2 constraints.

SERVICE SECURITY AND STABILITY

In large-scale networks, the difficulty of stabilising newly created services has, delayed Service Providers in launching new, advanced services. In Metro-Ethernet infrastructures, the large number of VLAN's and the different types of vendor equipment makes this problem all the more challenging. One single parameter conflict can cause security breaches as well as service outages if transactions are not monitored centrally and based on reliable, pre-tested provisioning processes.

IMAGINE OSS Ethernet™ ANSWERS

SINGLE PLATFORM FOR TRIPLE-PLAY PLATFORMS

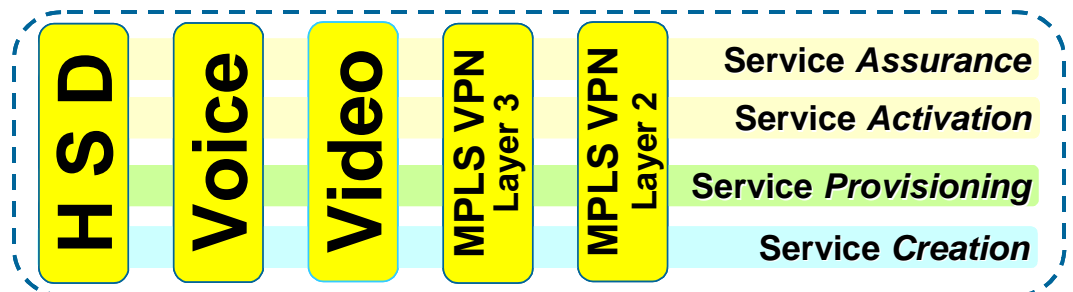
The key concept of Imagine OSS is to provide a coherent method of dealing with complex services. From marketing to design to deployment, the activation of the core switches, aggregation switches, and access switches, the service is treated as one end-to-end entity, removing all the complexity from the OSS. Once the service is designed, the entire provisioning and activation process is fully automated, requiring minimal resources. The simplicity of the provisioning process also enables a self-provisioning front-end to be provided allowing corporate and home users to directly manage their own subscription. The changes are immediately available in a standard format, enabling seamless integration with billing applications.

MULTI-VENDOR, MULTI-TOPOLOGY

Imagine OSS Ethernet™ comes with a comprehensive library of activation modules. These are automatically adapted for the equipment used in the service provider's network according to the information provided in real-time by advanced auto-discovery features. This enables the deployment of any combination of services across a large variety of different topologies in heterogeneous core and access networks.

CARRIER GRADE IP

Beyond granting any service to the end-user, an advanced verification process relates the service entitlement, the physical port of delivery and the IP address of the user. It enables the secure delivery of high-value streams such as business critical applications and protected video content. In addition, the OSS Database keeps track of the actual service usage providing unprecedented ability to target specific users for upgrades and promotions. For the first time, services can go hand in hand with the ability to launch powerful one-to-one customer marketing campaigns.



FEATURES

- One Platform for **Voice, Video, Data, VPNs**
- One Platform for **All Equipment**
- Advanced, Secured Self-Provisioning
- Seamless BSS and CRM Integration

Imagine broadband was founded on the skills of the first team in the world to deliver broadband interactive digital TV over a broadband platform. Since then Imagine broadband have established many additional world firsts in multi-service platforms over multiple access technologies.

BENEFITS

- Reduced Operational Costs
- Easy Increase In Average Revenue Per Subscriber With Advanced Services
- Significant Reduction in Truck Rolls

Imagine OSS ETTx™ is part of the Imagine OSS Suite.
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 For more information, please visit us at www.imagineOSS.com



TECHNICAL HIGHLIGHTS

Highly-Scalable, Operator Proven OSS Platform
Multi-Vendor Library of Triple-Play Service Activation Modules
Fully Customisable Provisioning and Activation Workflows
Advanced Customer Experience Monitoring

Integrated Inventory Management Features

How many switches are involved? What are their type and current state of configuration? All these time-consuming questions are automatically answered through a comprehensive set of integrated auto-discovery features.

Template-Based Service Creation

The services are created using pre-tested templates as a basis. Only the relevant parameters are presented to the operator. Creating a service only requires selecting relevant parameters from easy-to-use pop-up lists.

Easy
Just decide. Choose the settings, select the VLAN and the DHCP lease policy. Imagine OSS Ethernet™ will translate this into the appropriate series of commands.

Policy-based
Avoid human errors as well as over-provisioning by creating policy-compliant services.

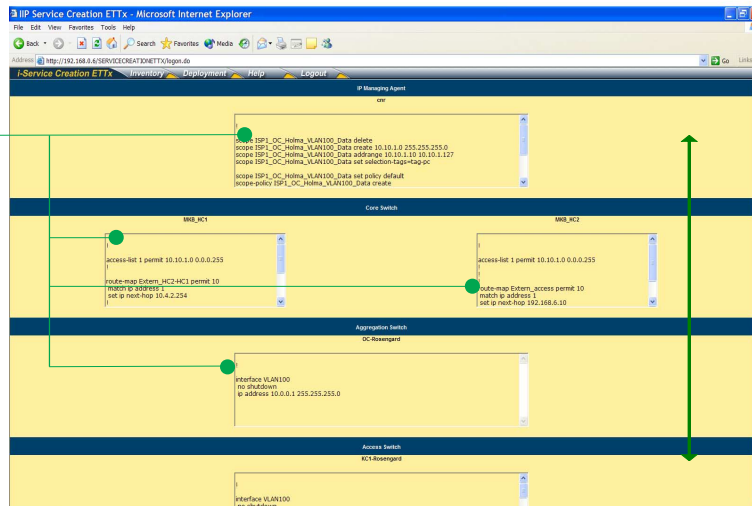
Automation
The template, instantiated by the selected parameters, automatically generates error free configuration files.

Natural Language
The service is named and explained in plain words making it easy to retrieve and modify.

The screenshot shows the 'Update Service' form in the 'i-Service Creation ETTx' application. The form is divided into several sections:

- Service Provider:** Central West Traffic
- VLAN:** HSG-VLAN200
- Service Type:** Data
- Service Code:** HSD P 21c
- Service Name:** Data Premium 2
- Service Description:** High-Speed Data Premium 2 CPE 1072 Mbps
- Service DHCP Lease policy:** pol-pc
- Upstream Policy Parameters:**
 - Upstream Policy Name: test_hed_us
 - Upstream bitrate (bps): 1000000
 - Normal burst Bytes: 5000
 - Exceed Action: Drop
- Downstream Policy Parameters:**
 - Downstream Policy Name: test_hed_ds
 - Downstream bitrate (bps): 1000000
 - Normal burst Bytes: 5000
 - Exceed Action: Drop
- CPE parameters:**
 - Number of allowed CPEs: 2

 Buttons for 'Save' and 'Cancel' are at the bottom right.



End-to-End
From the core switches down to the edge and local hubs, a consistent series of configuration files are implemented. These are adapted to the actual model of devices found on the way, in multi-vendor networks.

IMAGINE OSS ETHERNET™

HARDWARE*

- | | |
|---|---|
| Provisioning Back-End and Database | Imagine OSS Ethernet™ Front-End |
| <ul style="list-style-type: none"> • 2 x Sun F 280 • 2 x 900 MHz CPU each • 2 x 2 GB RAM • 2 x 36 GB Disk | <ul style="list-style-type: none"> • 2 x Sun V 120 • 1x 650 MHz CPU • 1 GB RAM • 2 x 36 GB Disk |

SOFTWARE*

- | | |
|---|--|
| Provisioning Back-End and Database | Imagine OSS Ethernet™ Front-End |
| <ul style="list-style-type: none"> • Solaris Version 8 or 9 • Tomcat 3.2.1 Apache 1.3.19 • JVM 1.3.1 | <ul style="list-style-type: none"> • Solaris Version 8 or 9 • Oracle 9i • SunONE DS 5.1 |

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*Example of configurations for a small centralised architecture.