



## Video-Aware OSS for Nationwide Network for TM Forum, Multi-Technology Network Management NGOSS



### Implementing a Video-Aware OSS Across a Nationwide Broadcast/Media Network

**Company submitting case study:**  
Dimetis-GmbH, [www.dimetis.de](http://www.dimetis.de)

**Author:**  
Dr. Shahin Arefzadeh- CTO & VP Engineering  
[sarefzadeh@dimetis.de](mailto:sarefzadeh@dimetis.de)

**Applicable TM Forum Technical Areas:**  
Multi-technology Network Management, NGOSS

**Viewpoint:**  
Software vendor and System Integrator perspective

**Services:**  
Video, Voice, Data, IPTV, VPN, Content

**Network Technologies:**  
Sonet/SDH, MPLS, Converged Network, Broadband

**Business Challenge:** Current/legacy OSS and Network Management systems cannot quickly provision and real-time manage video services per growing market demands.

**Business Opportunity:** Provision & Manage Video Services "on-the-fly" to:

- Increase market share in lucrative, high-growth, media-rich communications market
- Gain competitive advantages over other carriers/service providers
- Increase revenues and profit margins

With increasing bandwidth demand at both metro and long haul levels due to "media-rich" transport applications, a major US-based provider of triple-play services desired a more expedient way to provision and manage video communication over its nationwide, intercity fiber optic network. The challenge was to maximize revenue contribution from high profile video content providers who desire "immediate" video circuit provisioning with real-time video management/control, features their current OSS and network management systems cannot provide.

The desired system needed to provide for customer network configuration, connection and bandwidth management, scheduling, path finding, redundancy switching, permanent monitoring of all nodes, ports and connections, and export of billing data. Furthermore the system needed to provide a portable and scalable architecture to readily couple and be compatible with next generation OSS platforms, still being internally evaluated and researched.

#### Solution Implementation:

Built from a standards-based, modular software architecture, the design was easily fine-tuned to the specifics of the service provider and their end-user customers using a Client-Server model running Linux with an Oracle database, implemented in Java on a fault-tolerant server. End-User customer access is through a web client with additional "hooks" into the customer's management system. Communication/control with both the transport network and video-specific equipment is through SNMP.



#### Deployment and Results:

Installed and operational, the video-aware management system provides a unique modular solution for media companies and video broadcasters, allowing them to transport rich media content (including HDTV – High Definition TV, and compressed/uncompressed Standard Definition TV) as well as large video files. Point-to-point and point-to-multipoint connections for video and Ethernet as well as point-to-point T1 connections are also supported across the nationwide network.



**Please select all categories that apply to your case study. These categories will be used for placement on the TM Forum website and to make your case study retrievable by the TM Forum website search engine:**

VIEWPOINT:	
	Service provider perspective
X	Software vendor perspective
	Hardware vendor perspective
X	System integrator perspective
SERVICES:	
X	Voice
X	Video
X	Data
X	VoIP
X	IPTV
X	VPN
X	Content

NETWORK TECHNOLOGIES:	
	Mobile GSM/GPRS
	Mobile CDMA/EVDO
	Mobile Edge/UMTS
	ATM
X	SONET/SDH
X	MPLS
X	Ethernet
	Frame Relay
X	Converged network
	Cable
	Satellite
X	Broadband
	Fixed Line
	DSL
X	IP
	WiFi/WiMax



### Applicable Telecom Application Map Categories: (check all that apply)

Market/Sales	
	Campaign Management
	Channel Sales Management
	Product/Service Catalogue
	Product Life Cycle Management
Product	
	Product/Service Catalogue
	Product Life Cycle Management
Customer Management	
	Customer Contact, Retention & Loyalty
X	Customer Self Management
X	Order Management
X	Customer QoS/SLA Management
	Customer Service/Account Problem Resolution
X	Customer Billing Management
	Collection and Receivables Management
	Fraud Management
Service Management	
	Service Design/Assign
	Service Configuration Management
X	Service Performance Management
X	Service Quality Monitoring & Impact Analysis
	Service Problem Management
X	Revenue Assurance Management
	Service Rating/Discounting Management

Resource Management	
X	Resource Inventory Management
	Workforce Management
X	Resource Planning/Optimization
X	Resource Design/Assign
X	Resource Activation
X	Resource Provisioning/ Configuration
	Resource Logistics
X	Correlation & Root Cause Analysis Resource Performance
X	Monitoring/Management
	Resource Data Mediation
X	Resource Status Monitoring
	Resource Testing Management
X	Resource Problem Management
	Billing Data Mediation
	Arbitrage Management
X	Real-time Billing Management
Enterprise Management	
	HR Management
	Financial Management
	Asset Management
	Security Management
	Knowledge Management
Supplier/Partner Manager	
	Partner Management
	Supply Chain Management
X	Wholesale/Interconnect Billing