Business Agility for Service Provider OSS

Ensuring Operations Support processes deliver maximum value to the service provider's business

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Agenda

• The Context
• Business Agility through an “Adaptive OSS”
• An Adaptive Architecture
Business Imperatives in the Traditional Telecom Model

Manage costs
- Wireless network expansion
- Wireline infrastructure investment over time

Increase quality
- Make the network work
- Regulatory oversight

Mitigate risk
- Ensure network security & integrity
- Use regulation as barrier to entry against new players
Change is the Only Constant

Mergers and Acquisitions

New Technology

New Business Processes

New Services

Re-Organization
Business Agility: the New Dimension for a New Marketplace

Manage costs:
- Reduce service deployment costs
- Manage fixed costs
- Optimize fixed vs. variable costs
- Create world class cost structures

Improve agility:
- Move to 500 new services/year from 1 service/year
- Organizational, technology and priority changes
- Build an adaptive network and OSS

Increase quality:
- Improve customer satisfaction
- Improve service levels across the value chain
- Link and extend value chain
- Agility as a service level

Mitigate risk:
- Ensure network integrity and service assurance
- Eliminate risk of not quickly deploying innovative service portfolios
- Adapt quickly to regulatory and market changes
Becoming Adaptable to Change

• "It is not the strongest of the species that survives, nor the most intelligent, but those most responsive to change." – Charles Darwin

• Operations Support People, Process and Technology monitor and control the infrastructure

• OSS is the “glue” linking the infrastructure to the business: provisioning, monitoring and billing

• OSS must be adaptable and can virtualize (simplify dramatically) the use of this infrastructure
Towards an “Adaptive OSS”

• To become adaptive, OSS must:
  • First ensure Stability of the infrastructure that is the foundation of the SPs business
  • Then provide Efficiency: ensure this infrastructure is most efficiently managed for profitability
  • Finally: Be adaptable so that both Operations and the infrastructure can respond easily to business changes
Agenda

• The Context

Business Agility through an “Adaptive OSS”

• An Adaptive Architecture
Adaptive OSS for Service Providers

- Business processes
- Services
- Infrastructure
- Access network
- Core network
- Hosting
- Content
- Public network
- IP network/NGN
- IT elements/applications/storage
Adaptive OSS for SPs

Adaptive
- Automatically Balance, schedule, and allocate resources based on business priorities and impact
- Optimize utilization and performance of business processes and applications
- Manage end-to-end business interactions across multiple services

Operations efficiency
- Link infrastructure with the business – communicate, measure & deliver services
- Align resources and processes to enable optimal utilization, performance and response

Operations stability
- Plan
- Provision
- Monitor
- Bill

Management & control
- Business processes
- Services
- Resources

Utilization
- Discrete partitioned
- Integrated clustered
- Virtualized federated
Implementing Adaptive OSS for SPs

Adaptive

Efficient

Stable
• Convergent Network and Service Management

Discrete partitioned
Integrated clustered
Virtualized federated

Utilization

Management & control

Business processes
Services
Resources
Stability Example: converging IT and Telecom Management

- Key Trend: Reducing the number of tools, processes and organizations involved
- Example: Combining IT and Telecom Management to help service providers gain control and drive down costs in their operations center;
Implementing Adaptive OSS for SPs

Efficient
- Service Impact Analysis
- Automated Service Provisioning
- Convergent Mediation

Stable
- Convergent Network and Service Management

Management & control

Resources

Services

Business processes

Adaptive

Utilization

Discrete partitioned

Integrated clustered

Virtualized federated
Efficient: Service Impact Analysis for telecom

- Complete control of the service provider’s infrastructure is a base function.
- Service providers now need to react instantly to problems affecting critical services.
- Allowing Operators to focus on what matters first, improving uptime, and customer notification in real time.

1. Get Complete Control
2. Resolve Problems Faster
3. Determine Impacted Services

**Service Impact Analysis**
**Root Cause Analysis**
**High-volume Fault, State and performance management**
Efficient: Service Activation for Telecom

- Complete automation of the provisioning process starting with a process-enabled message bus architecture provides efficiency and flexibility ①

- Automating the design phase as well as the activation of services is often critical ② ③

- Dramatically improving order handling time and accuracy – increasing time to revenue.

1. Provisioning Process
   - Begin process

2. Inventory, Planning, And Design
   - Automate Design

3. Activation
   - Automate Activation
Efficient: Convergent Mediation for Service Providers

- Key Trend: Usage and Content-based billing: with convergent mediation, usage data can be gathered from a huge variety of sources

- Enabling Usage-based and Pre/post-paid convergent billing

- Business intelligence and fraud management ensure the data is also used to improve the business for the future and the bottom line today

1. Gather Data from just about any source
2. Improve effectiveness
3. Assure revenue

Fraud Management

Business Intelligence

Mediation
Implementing Adaptive OSS for SPs

Management & control

- Business processes
- Services
- Resources

Utilization
- Discrete partitioned
- Integrated clustered
- Virtualized federated

Adaptive
- Efficient
  - Service Impact Analysis
  - Automated Service Provisioning
  - Convergent Mediation
- Stable
  - Convergent Network and Service Management

- Dynamically maximize infrastructure and business processes
Adaptive Ex - Prioritization through SQM and Activation

- Aggregate service quality data
- Respond to end-customer demand for SLAs
- Tune infrastructure for efficiency through real-time knowledge of how key customers services and SLAs are performing.
- Focus Operations staff on revenue impacting problems
- Maximize infrastructure for maximum revenue

Input from: business process, service probes, usage, performance data, fault and state management
Adaptive Ex – Integrate new technologies and Services

• Implement new technologies and services ①

• Integrate them easily into the OSS ②

• Gain competitive advantage over slower rivals

• Improve business case for these new technology and services

Operations Support

Monitor ②

IP network/NGN

public network
fixed & wireless

access network

core network

hosting

content

Broadband Wireless ①

Take Orders ②

Bill ②
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Adaptive OSS Today – Status and Standards

Operations efficiency

Prioritize Operations based on business importance
- Automation: NGOSS methodology, OSS/J
- Process Templates: eTOM, ITIL
- Growth Area

Operations stability

Get the network under control, through consolidated Fault & Performance Mgmt
- Base network interface standards: SNMP, 3GPP IRP, CMIP, MTNM.
- Majority of OSS

Adaptive

Automate Operations, auto-activate & reconfigure infrastructure based on business needs:
- NGOSS implementation, emerging web services and business process management standards
- Emerging Initiative

Growth Area
An Architecture for an Adaptive OSS

- Use TM Forum NGOSS Principles
- Pragmatism, since few green fields and few NGOSS interfaces exist
  - Flexibility/Cost trade-off
- Take advantage of best practices process guidelines such as ITIL for service/help desk
What IS the TMF’s NGOSS?

• NGOSS is a *paradigm shift*

• NGOSS is a business-oriented solution framework that specifies a methodology for building OSS components
  - Defines the salient characteristics of a next-generation OSS

• NGOSS is implemented as a set of programs
  - The TMF is producing a repository of business and system models, documentation, and code to support these efforts

Source: Introduction to NGOSS – TeleManagement Forum
The HP Approach – Integrated Service Management

- An NGOSS-based architecture; business consulting and integration services; HP and partner software
- Powered by HP OpenView’s portfolio for Service Providers and a choice of message bus.
- Maximum flexibility but controlled cost through reuse of adaptors and business process templates.
- Implements NGOSS, is also an instantiation of HP’s Adaptive Enterprise initiative.
HP ISM Architecture

Service delivery
- Customer portal
- Executive dashboard
  - Order Entry & management
- Process manager
  - Service activation
  - Inventory management
- Process-enabled message bus
  - Fault management
  - Performance management
- Usage mediation

Service assurance
- Problem management
- Service level management
- Billing

Service usage
- Business intelligence
- Customer portal
- Executive dashboard
- Order Entry & management
- Problem management
- Service level management
- Billing
- Executive dashboard
- Order Entry & management
- Problem management
- Service level management
- Billing
- Business intelligence
Our Vision for Adaptive Management

A single set of processes, tools and integration ...Maximum Agility in Operations

Customer Care

Billing

Integrated Service and Network Operations Center

BSS

OSS

adjust resource supply

analyze resource demand

access

core

hosting

content
Enjoy the Symposium!