



NEW GENERATION Service Management

ABOUT US

OSSera, Inc. is a global provider of Operational Support System (OSS) solutions for IT organizations, service planners, service operations, and network operations. OSSera's multi-threaded symmetrically distributed platform fully leverages modern multi-core server hardware to provide higher flexibility, reliability, and scalability for service and resource management solutions. OSSera's products support the TM Forum's suite of standards especially in the area of Service Management, Fault Management, Performance Management, Data Mediation, and Configuration Management.



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Member of the
TeleManagement Forum



Management of Value-Added-Services for Wireless, Broadband, Cloud, and Content Services



Problems and Challenges

The complexity of Value Added Services (VASs) is increasing over wireless, broadband, cloud, and content service providers. At the same time, the existing VAS architectures require more flexibility to support dynamic marketing requirements, business models, and technology changes.

For Service Providers the VAS blueprints are sometimes designed in Visio or not even documented. The problem is

these diagrams, if they exist, are good for planners as historical records, however, are static and do not provide any dynamic value for Customer Support or Service/Network Operations. The Visio diagrams are also not stored in a "unified" manner. The blueprints provide a set of pictures but become static and limited in value.

Many service providers have several hundreds to thousands of services deployed but do not

have the standard processes and tools to manage the service blueprints.

Often service providers purchase closed off-the-shelf point products from vendors which cause redundancy among resource teams across several departments resulting in non-optimal service flows and inefficiencies.

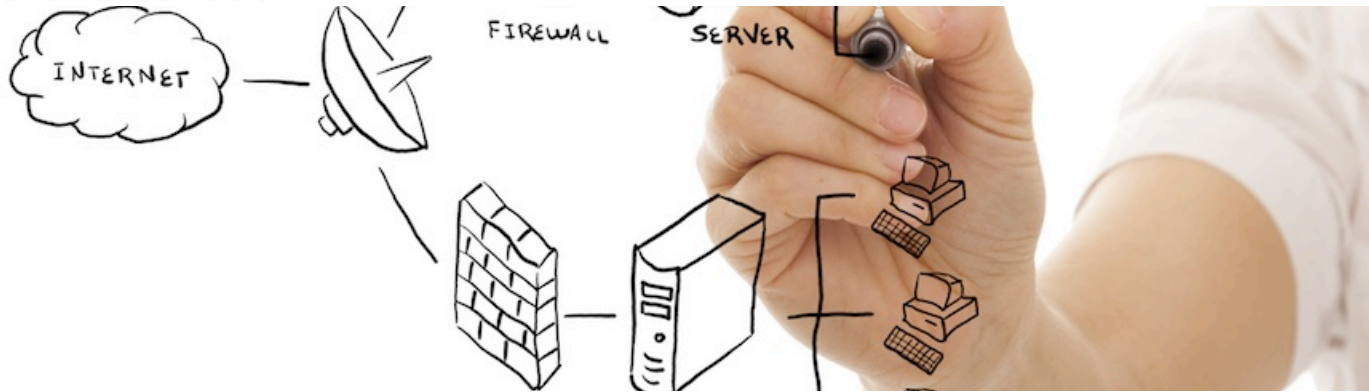
Service providers cannot control service blueprints and

architecture in the same unified view:

- to identify customers and services potentially impacted due to changes in the network
- to analyze the root cause of problems impacting end-to-end services
- to re-use service components as a reference for new service designs

"We wanted to eliminate Visio diagrams and manage our Value-Added-Services in a unified solution."

**- LARGE WIRELESS & BROADBAND
SERVICE PROVIDER (ASIA)**



SERVICE COMPLEXITY
SIMPLIFIED

Solution

The OSSera approach closely follows the TeleManagement Forum's (TMF) suite of business transformation standards.

OSSera's primary focus is on the Service Management Domain and Service Planning tools.

These rich Service Specification and Catalog planning tools allow a planner to create service impacting nodes, node groups, and network paths which are

glued together with Service Sequence, Topology, and Impact diagrams for critical Customer-Facing and Network-Facing Services.

All models are stored in the Unified Data Model (UDM) connecting the points across all services.

Also the UDM is the glue between organizations from the Service Planning teams to the

Operational stakeholders. All service diagrams, node groups, nodes, and network paths can now be explored by the Operation teams with real-time alert status indicators.

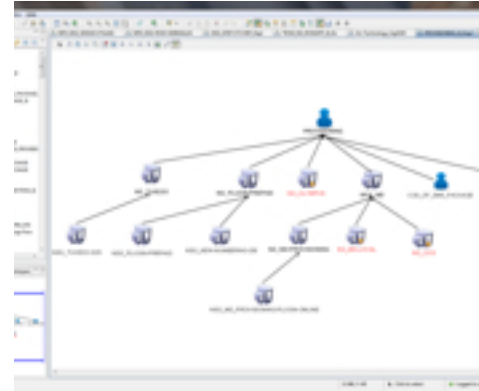
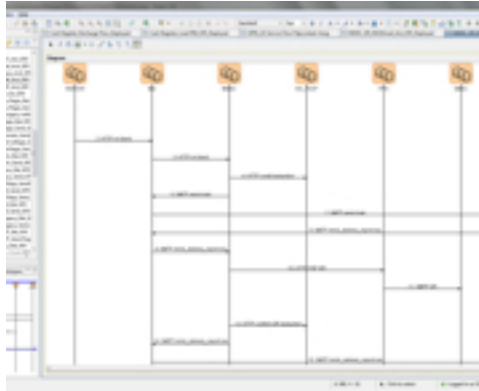
Real-time events, threshold crossing alarms, as well as KPI/KQI metrics are available to the Operational teams to determine Service Problem, Service Quality, and Service Impact Analysis.

This is the fundamental difference with OSSera's solution:

- Connecting the Dots across Service and Resource Management silos
- Connecting the Dots across Strategy, Infrastructure, & Product to Operational organizations

"We see great value with the Service Sequence and Topology diagrams between our planners and operators."

- LARGE WIRELESS & BROADBAND SERVICE PROVIDER (ASIA)



Service Specification, Inventory, and Operations

OSSera's Service Inventory Manager allows planners to model sequence diagrams, service topology, and network topology all with a single editor. This gives users a unified view into their services. Users can define services or import sequence diagrams in other formats such as UML or Visio to define services.

Service Sequence Diagrams

Service sequence diagrams help to map out the different event flows between objects which provide the end-to-end service. This type of interaction diagram shows how processes operate with one another and in what order to fulfill the service. This type of view is essential for service designers, service

specification, and service catalog definition. Using the sequence diagrams, Service Planners can automatically generate service topology diagrams which model the sequence of interactions between managed node groups.

Service Topology Diagrams

OSSera Service Manager systematically allows users to convert sequence diagrams into service topology diagrams automatically. This feature was developed as specified by our customers to reduce manually having to create diagrams.

Planners can drill down on node groups in both the Service Sequence and Service Topology diagrams to related nodes.

Service Impact Diagrams

Service Planner then can associate node groups with Sub-Services and Services. Service Impact Diagrams are specific to each service provider, therefore Service Impact Diagrams are configurable and proprietary.

Service Correlations are also specified and associated to Service Impact Diagrams. Correlations are triggered based upon object filtering and matching alert definitions.

Service Monitoring and Impact Analysis

Now that services are specified and correlations are associated to the diagrams. The models, stored in a Unified Data Model,

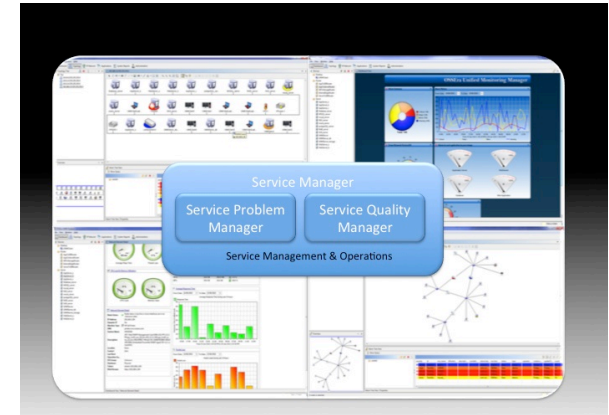
are deployed into a runtime operations system.

Operators can manage alerts, alert propagations, thresholds, and associated service models in real-time. Users can traverse service models to investigate what services are impacted if a resource fails and act accordingly to resolve the problem to restore the service.

Therefore when a service fails operators can drill down to the root cause related to the service based upon the Service Planner's detailed Sequence, Topology, and Impact Diagrams specified for Resource-Facing and Customer-Facing Services.



Multi-Threaded, Symmetrically Distributed, High Availability,
1000's of concurrent clients



Technology and Architecture

OSSera's fundamental architecture can support:

Tier 1 Scalability:

- No loss of events or system performance during an "Event Storm"
- Over 1000 concurrent clients
- N-number of redundant servers

99.999% High Availability

OSSera servers can be configured in a symmetrically distributed configuration. The

fully distributed and load balanced processes require no primary to secondary back configuration where operators lack visibility to critical network/service monitoring functions. The runtime processes can be configured along with database clustering to meet 99.999% availability requirements. To summarize:

- Servers are policy enabled and managed.
- Each server can be configured with redundant layers of software components.

- All servers are load balanced and share the duty in serving clients.
- In the case of system failure, surviving servers will automatically redistribute the load to provide the highest system availability possible.

OSSera's Unified Software Framework software architecture supports a complete Linux Redhat and MySQL deployment to lower your Total Cost of Ownership.

Also the software can run on your existing investment in Sun Oracle infrastructure fully leveraging any available hardware processing power.

NOTE: As a member of TMF, OSSera has adopted the TMF specifications on technologies and integration. A technology neutral approach has been followed. The software has been designed to be able to work on different platforms and adapt to technologies that are commonly used by the industry of today. As the technologies evolve, the software can be easily moved on to new technologies.

