Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Oracle Communications Evolution

Solutions Focused Strategy

- **Complete:**
  - Cross business involvement agreement to address this area
  - Synchronized Product roadmaps

- **Integrated:**
  - End-to-end processes engineered, tested, and supported together

- **Configurable**
  - Allow extensibility and configurability in a structured and facilitated way

Build

Best in Class Apps & Tech

Carrier Grade, Standards Compliant & Integrated Best in Class Solution

1977  Yesterday  Today
Oracle Communications
Approach to industrialize OSS/BSS Transformation

- OSS/BSS Application Products are broadly aligned with Frameworx

- Productized Solutions integrate several products to cover significant slices of Business Process Framework and ITIL

- Rapid Offer Design and Order Delivery Solution is the FIRST solution Certified by TM Forum
### Traditional Concept to Cash Approaches

#### Investment Ratio

<table>
<thead>
<tr>
<th>CSP</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Delivery Approach

<table>
<thead>
<tr>
<th>CSP</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One Implementation/ One Code Release</td>
<td>• Proprietary integration</td>
</tr>
<tr>
<td>• One vendor: Product &lt; 20%, Services &gt; 80% (SI or in-house)</td>
<td></td>
</tr>
</tbody>
</table>

#### Delivery Model

<table>
<thead>
<tr>
<th>CSP</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One vendor: Product &lt; 20%, Services &gt; 80% (SI or in-house)</td>
<td>• Integration led by SI + Apps vendors</td>
</tr>
</tbody>
</table>

#### Competence center
- Re-usable assets

#### Monolithic

<table>
<thead>
<tr>
<th>CSP</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Best of breed

<table>
<thead>
<tr>
<th>CSP</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Productized applications
- Competence center
- Re-usable assets
Oracle Approach for reduced risk and TCO

Investment Ratio ▬ CSP ▬ Vendor

**Monolithic**

- Delivery Approach:
  - One Implementation/One Code Release
  - Proprietary integration
- Delivery Model:
  - One vendor: Product < 20%, Services > 80% (SI or in-house)

**Best of breed**

- Delivery Approach:
  - Leverage best practices
  - Customization
  - System Integration
- Delivery Model:
  - Integration led by SI + Apps vendors

**Productized Solutions**

- Delivery Approach:
  - Adopt standards
- Delivery Model:
  - Configuration & Deployment

New Paradigm of pre-integrated & Productized solutions

- Competence center
- Re-usable assets

Productized applications
Competence center
Re-usable assets
Rapid Offer Design and Order Delivery

Solution Introduction

- **Rapid Offer Design and Order Delivery**
  - Enables providers to rapidly design and introduce offers, capture and fulfill orders efficiently and accurately, and provide visibility across the entire order lifecycle

- **Three Key Components**
  - Offer Design | Order Capture | Order Delivery

- **Addressing three key metrics**
  - Offer Time to Market | Order Cycle Time | Operational Efficiency
Rapid Service Design and Order Delivery

Solution Scope

- **Rapid Service Design and Order Delivery**
  - A comprehensive service fulfillment solution that enables Communications Service Providers to rapidly and efficiently design, launch and deliver any type of service for any network domain.

- **Four Key Capabilities**
  - Service Design | Service Order Management | Service & Resource Management | Service Activation

- **Key Business Metrics**
  - Service Introduction Time | Order Cycle Time | Cost of Ownership
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Introducing RSDOD

- **Rapid Service Design and Order Delivery Solution**
  - Enables Communications Service Providers to rapidly and efficiently design, launch and deliver any type of service for any network domain.

- **Four Key Capabilities**
  - Service Design | Service Order Management | Service & Resource Management | Service Activation

- **Key Business Metrics**
  - Service Introduction Time | Order Cycle Time | Cost of Ownership

Featured Oracle Communications Products
- Order and Service Management
- Unified Inventory Management | MetaSolv Solution
- Automated Service Activation Program | IP Service Activator
- Design Studio
**UIM Role in RSDOD**

**RSDOD Solution Context**

- **Central Order Management**
  - Understand order structure
  - Map Product Classes to Product Specifications
  - Generate orchestration plan

- **RSDOD**
  - Transform Product Order to Service Orders
  - **Design & Assign**
    - Retrieve existing service instance data
    - Design the target service instance
    - Create Technical Orders
  - **Provisioning**
    - Understand order structure
    - Generate orchestration plan
    - Execute orchestration plan
    - Network configuration

- **Start**
- **BSS**
- **UIM**
- **OSS**
- **Finish**

- **This generic Order-to-Activate process can handle:**
  - Various combinations of products on the order
  - Groupings scenarios – by hierarchy, by attribute, etc.
  - Permutations of the provisioning process
  - Different actions – Add/ Modify/ etc.
  - Service dependencies
  - Different fulfillment topologies

- **UIM allows a single solution to**
  - Support orders for any service
  - Adapt to service reuse in different products
  - Adapt to different technical fulfillment topologies and flows for various services
UIM Role in RSDOD
Definition, Management and Association of Services

UIM Roles
- Definition & life cycle management of Consumer & Business services
- Definition & life cycle management of service-associated resources and identifiers
- Association of service instances to product instances or customers
**UIM Role in RSDOD**

**UIM’s typical roles**

- **Central Order Management**
  - Calculate Technical Order
  - Manage Service Inventory
  - Manage Resource Inventory
  - Reserve/Assign Resource

- **RSDOD**
  - Design Studio for UIM
  - Service & Resource Catalog Management
  - Service Catalog
  - Resource Catalog
  - Service Inventory
  - Resource Inventory

- **OSM**
  - Service Order Management
  - Manage Order Lifecycle
  - Calculate Service Order
  - Qualify Service Order
  - Deliver Service Order
  - Calculate Technical Order
  - Deliver Technical Order

- **ASAP/IPS4A**
  - Network Activation
  - Configure Network Element

---

**UIM before the order**
- Model services at required degree of granularity
- Declare life cycles and behavioral rules
- Model and instantiate resources in readiness for assignment to services
- Model and instantiate service-relevant network topology for activation

**UIM in order processing**
- Perform auto-design (or support manual design) of service instance, based on service order and existing service/resource inventory
- Intelligently maintain inventory state, respecting dependencies and cascades
- Data-drive network activation process
Catalog & Inventory

A natural affinity

Concept to Market – Offer Design

1. Capability meaningful as a support for Products
   e.g. GSM subscription

2. Constituents of 1 that must be fulfilled separately
   e.g. Telephony, Voice Mail, SMS-MO

3. Network or vendor-specific alternative implementations of 2
   e.g. Ericsson HLR T11, Lucent VMS mailbox class A

Service & Resource Catalog contains
- Service definitions: composition, attributes, parameters, resource dependencies
- Definitions of those resources that visibly support service instances
- Service identification supporting mapping from services to product offerings
- Rules and policies for creating valid instances

Service & Resource Definitions

Order to Activate - Order Delivery

Fulfillment Inventory contains
- Details of each service instance: configuration, state, resource assignments etc.
- Resource statuses, allocations, capacities

Resource & Service Catalog

Product Offer

Product

Service

Resource

Fulfillment Inventory

Product Catalog

Offer Design

Product

Service

Resource

Offer

Product

Service

Resource

Service
RSDOD Solution
Software product alignment & integration

- Define Service Order flows
- Define Design & Assign Flows
- Define Activation Flows

- Define/Enrich CFS definitions
- Define RFS/Resource definitions

- Consolidate platforms – a single stack for multiple domains
- Reuse patterns of services, resources and flows
- Quickly reflect changes in technical implementations
- Reduce impact on BSS, reduce opportunity for error
RSDOD for Business Services

UIM in Oracle Communications solution

- **Fast time to revenue**
  - Rapidly define new services using Design Studio for UIM
  - Reuse services and resources in multiple commercial offers
  - Metadata-drive order management

- **Efficient and scalable**
  - Support high levels of automation and high order volumes

- **Empowered customer experience**
  - Provide end-to-end views of service

- **Low total cost of ownership**
  - Support multiple domains with a single platform
  - Reuse object definitions, business logic and policies

- Catalog of complex business services
- Logical resource readiness & assignment
- High-performance, scalable inventory repository

---

[Image of UIM in Oracle Communications solution diagram]
RSDOD for Business Services

UIM in Oracle Communications solution

- **Fast time to market**
  - Rapidly define new services using Design Studio for UIM
  - Reuse technical services and resources in multiple commercial offers
  - Metadata-drive order management

- **Efficient and scalable**
  - Enable automation and high order volumes for large customer bases

- **Low churn rate**
  - Minimize error rate through pattern-driven order fulfillment
  - Service visibility enables rapid trouble resolution

- **Low total cost of ownership**
  - Support multiple domains with a single platform
  - Reuse object definitions, business logic and policies

- Rich catalog of consumer service patterns
- Resource readiness & assignment
- High-performance, scalable inventory repository

---

**Copyright © 2012, Oracle and/or its affiliates. All rights reserved. Confidential – Oracle Restricted**
Example: Consumer Triple-Play
UIM modules and domain configuration

- Use Design Studio for UIM to create catalog for each domain, or modify/extend pre-built definitions
  - Services & service configurations
  - Assignable resources, fulfillment view of network infrastructure
  - Design & assign policies
  - Validation rules

- Select appropriate set of Functional Managers needed to manage the objects modeled
Working with Other Applications

Flexible, modular approach to leverage existing investment

- Add Network Integrity for network circuit & resource discovery and reconciliation with OSS.
- Add Network Intelligence for network planning, optimal resource utilization and CAPEX/OPEX reduction.
- Add INA Mgmt for IPv4/v6 IPAM modeling and DNS/DHCP server mgmt.
- Complement your current systems to expand the existing capability and avoid a huge capital investment on NRM consolidation. Augmentation options may include leveraging:
  - OSM SOM
  - UIM’s cooperation/federation framework
  - UIM’s open integration architecture
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Network Resource Mgmt (NRM) Solution

UIM in Oracle Communications solution

- Focus on service management & fulfillment for domains such as Mobile, Broadband, Video, Cloud, M2M, IP (solution typically includes OSM and Activation)
- Specialize for resource management of TNs, VLAN IDs, RTs/RDs, CPE, SIM cards, etc.
- Support foundational network & resource infrastructure modeling needs for current and next generation technologies such as SONET/SDH, T/E/J-carrier networks, IP, VoIP, IPTV, MPLS VPN, etc.
- Can be modified and extended to adapt to existing business processes.
- Adapt complex legacy OSS/BSS environments toward a new solution to consolidate services without transforming all at once.
UIM in Network Resource Management

Oracle solution context

UIM Roles
- Definition, planning and readiness of network infrastructure
- Database of record for lifecycle management of physical and logical network resources: “as-planned”, ”as-is”, “as-was”
- Kept in sync with network through discovery & reconciliation processes
Network Resource Mgmt (NRM) Solution

UIM in Oracle Communications solution

- Network Planning & Design
  - Define any kind of network in the abstract. Decorate, partition/subnet
  - Add, delete, reconfigure nodes and edges
  - Represent geographically or topologically
  - Associate nodes and edges with real resources

- Resource Modeling & Tracking
  - Represent physical and logical resources from any domain, throughout their life
  - Structure, containership, role/function, capacity, image, configuration rules, naming conventions
  - Other properties: physical, technical, financial, position/location, ownership
  - Relationship to other resources and to services, defined & customizable life cycles
  - Store as a SID-aligned model, exposed via SOA to any number of applications
Network Resource Mgmt (NRM) Solution

UIM in Oracle Communications solution

- Infrastructure Management & Network Maintenance for Many Domains
  - Location Management
  - Transmission design and capacity management
  - Device capacity management
  - Path analysis
  - Add/delete/reconfigure networks, devices, and connectivity
  - Visualization and reporting
  - SOA exposure of resource information to any application
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
UIM Customer Summary

Solution scenarios

RSDOD: Fulfillment Inventory Management

- Business service providers fulfilling large catalogs of complex products
- Mature, complex provider seeking flexible, scalable Service Fulfillment solution to unify multiplay
- Mobile operators enhancing service fulfillment with flexible resource management

NRM: Network Inventory Management

- Mature, complex providers transforming OSS with open, unified inventory
- Service providers managing new and expanding Next-Generation networks
Service Providers Select UIM

Established momentum

- Over 40 companies have licensed UIM. The largest deployments are scaled to support service fulfillment for 10’s of millions of subscribers

- UIM provides multi-domain Service and Resource Management for Service Fulfillment
  - Consumer Multiplay (B2C), Mobile Services
  - Enterprise IP Services (B2B)
  - Cloud/XaaS

- UIM supports network resource management and inventory life cycle management across
  - Fixed and Mobile Network

- UIM improves OSS without a capital intensive transformation project (i.e. UIM co-exists with other inventory systems)
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Oracle Communications applications support a common set of eTOM-aligned business processes. There are well-defined roles for an intelligent service/resource repository in each of these process areas.
Service & Resource Management

Dimensions of scope

Inventory of what?
- Market / Sales
- Product
- Customer
- Service
- Resource
- Supplier / Partner
- Enterprise

Inventory for which domains?
- GSM
- CDMA
- Wimax
- VoD
- UMTS
- LTE
- DTH
- Mobile
- Phone
- Data Networking
- Cloud Computing
- TV-Video
- Internet
- Phone
- Network
- L2VPN
- L3VPN
- Metro E
- FTTx
- IaaS
- Paas
- ATM / Frame
- DLC
- SONET / SDH
- VoIP
- PPV
- IPTV
- POTS
- TDM / PDH
- HFC
- VOIP
- ATM
- DSL
Oracle Communications UIM

Powerful and versatile

- Integrated service & resource management system built around an industry standard information model
- SOA-enabled inventory components participating in solutions for Service Fulfillment, Network Resource Management and Service Assurance
- Versatile catalog environment coupled to a high-performance inventory instance repository, providing unified support for multiple ICT domains
- Contemporary, open and extensible software product, part of the Oracle OSS suite
UIM Overview

Conceptual and architectural basis

- Architecture decouples generic functions from domain-specific specializations
- Core object manipulation and visualization functions are highly configurable and extensible
- Design-time environment for defining objects and adapting standard behavior to any domain
- SOA architecture: exposes inventory functions to OSS, BSS via Web Services or Java API
- Modular in both commercial and technical structure – acquire just the required components to craft a solution with the right scope
UIM Overview

Integrated service & resource management system

Domain-Specific Technology Packs
Enable concepts, terminology & process variants specific to customer-oriented services, or network-oriented technologies

Available à la carte, with certain dependencies

Domain-Independent Functional Managers
Manage service and resource life cycles as well as relationships between resources, services and customers

Available à la carte

Core Platform
Architectural framework and common services

Included with purchase of any Functional Manager
UIM Components
Tailored solution for specific needs

Domain-Specific Technology Pack
Pre-packaged catalog of object definitions and behavioral logic specific to Phone/VoIP service context

Domain-Independent Functional Managers
Manage service and resource life cycles as well as relationships between resources, services and customers as typically modeled for the VoIP domain

Core Platform
Architectural framework and common services

Example: UIM for VoIP service fulfillment
- Service definitions
- Definitions of service-associated resources
- Resource readiness
- Design/assign logic

Example:
UIM for VoIP service fulfillment
- Service definitions
- Definitions of service-associated resources
- Resource readiness
- Design/assign logic

UIM's commercial model allows a service provider to license just the required components
UIM Information Model
Alignment between Oracle CIM and TMF SID

- Product
  - Product

- Service
  - Customer-Facing Service
  - Resource-Facing Service

- Resources
  - Physical
    - Transmission Entity / Connectivity / Pipe
    - Device
    - Hardware
  - Logical
    - Network
    - Network Address

- Common Patterns
  - Configuration
    - Life Cycle
  - Entity
    - Involvement
  - Topology
    - Capacity

- Definitions
  - Specifications
  - Characteristics
  - Rules/Policies

- Common Business Entities
  - Location
  - Party
  - Business Interaction
  - Role
  - Collection / Group
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Visual Object Definition
Design Studio for UIM

- Eclipse-based development environment with UIM plug-in
- Powerful & flexible modeling
  - Service definitions
  - Resource definitions
  - Relationships & linkages
  - Transactions
  - Behavioral rules
- Complete standards-based signal architecture for SONET/SDH, and T/E/J-carrier
- Package domain-specific configuration metadata
  - Technology Packs
Unified OSS Solution Definition

Common Design Studio environment

- Facilitates end-to-end solution design & test
- Enables use of pre-packaged solution artifacts

Oracle Communication Design Studio provides a unified design environment for rapid definition of comprehensive solutions that configure multiple OSS products to solve a single business problem.

- Set of configuration metadata built around a common design metaphor, tested together
- Build from scratch using Design Studio or purchase accelerator kit from Oracle, then tailor to specific provider's environment

Import into operational systems

OSS Configuration for Metro Ethernet
- Service & Resource Definitions
- Service Order Flow Definitions
- Device Dialog Definitions
- Device Discovery Templates

OSS Configuration for Consumer VoIP
- Service & Resource Definitions
- Service Order Flow Definitions
- Device Dialog Definitions
- Device Discovery Templates

OSS Configuration for GSM Mobile
- Service & Resource Definitions
- Service Order Flow Definitions
- Device Dialog Definitions
- Device Discovery Templates

Design Studio
- for UIM
- for OSM
- for ASAP
- for NI

UIM
OSM Service Order Mgt
ASAP
NI
Oracle Technology Packs for UIM

Accelerating Communications Domain Support

- Packaged catalogs of patterns for the services and resources relevant to a particular service domain
  - Service definitions, with appropriate structure/hierarchy, properties and resource relationships
  - Resource definitions, with relevant properties
  - Rules implementing allocation logic and validation logic for services and resources
- Created in Design Studio for UIM
  - Designed to allow extension and adaption by service providers and integrators

Growing Library of Best-Practices Packs
- Includes common domain objects with leading-practice logic
- Leverage Oracle's domain expertise
- Save time in building fit-for-purpose
- Maintained and enhanced by Oracle
Working With UIM
Software experience

- Contemporary, long-lived IT architecture
- Leading-edge, widely available and supportable technology and platforms
- Designed to coexist with legacy OSS and other inventory systems

**Complete**
- Comprehensive Industry Portfolio
- More Value
- Less Complexity
- Comprehensive inventory model and function set
- Growing set of domain accelerators

**Open**
- Standards-Based Architecture
- More Choice
- Less Risk
- Java/J2EE
- SOA Web Services
- TMF SID model, field extensible

**Integrated**
- Engineered to Work Together
- More Flexibility
- Less Cost
- Part of Oracle OSS suite
- Common design environment
- Aligned integration model
Integration and Data Access
Contemporary open interfaces
UIM Platform Architecture

Common technology platform & pre-tested Suite installation & deployment

- Working seamlessly with other Oracle Communications OSS applications on a common technology platform – Oracle Communications OSS Foundation Stack based on Oracle Fusion Middleware
- Scalable and resilient deployment patterns ensure rapid and successful implementations
- Proven installation and upgrade paths eases planning and execution of new installations and upgrade of previous releases
- Deployment philosophy of standardized product with standardized upgrade
- Integrated solutions with a more consistent and improved user experience
- Overall result is reduced cost of ownership of Suite-based solutions
UIM Platform Architecture

Adaptable, scalable

### Inventory User Workstations
- Internet Explorer 7 & 8
- Other BSS/OSS application clients

*Any certified OS*

### Customer Service Agents
- Order to Activate
- Trouble to Resolve

### Service Designer Workstations
- UIM plug-in for Studio 7.2.2
- Design Studio 7.2.2
- Drools Rules FW 3.0.4

*Windows XP*

### Expert Users and Domain Experts
- Modeling of services, resources, equipment & connections

### Network Design Engineers
- Plan and Build
- Trouble to Resolve

### Customer Service Agents
- Order to Activate
- Trouble to Resolve

### Service Designer Workstations
- UIM plug-in for Studio 7.2.2
- Design Studio 7.2.2
- Drools Rules FW 3.0.4

*Windows XP*

### Expert Users and Domain Experts
- Modeling of services, resources, equipment & connections

### Administrator Workstations
- Internet Explorer 7 & 8
- telnet/ssh etc

*Any certified OS*

### Application Server(s)
- UIM 7.2.2
- WebLogic 10.3.6

*Solaris, OEL, AIX or HP-UX*

### Database Server(s)
- Oracle 11g R2 Enterprise Edition

*Any certified OS*

### IT Administrators
- App server, database, operating system admin

### Other BSS/OSS Servers
- Other Inventory
- Order Management
- Trouble Management
- Reporting
- ERP, etc.

### Network
- HTTP
- HTTPS
- JMS

### Clustered Environment
- Active-Active or Active-Passive

### Administrator Workstations
- Internet Explorer 7 & 8
- telnet/ssh etc

*Any certified OS*

### Administrator Workstations
- Internet Explorer 7 & 8
- telnet/ssh etc

*Any certified OS*

### Administrator Workstations
- Internet Explorer 7 & 8
- telnet/ssh etc

*Any certified OS*
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
# Rapid Service Design and Order Delivery

## UIM Role in Run Time

UIM controls & executes the Order to Activate process

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enables zero touch fulfillment across multiple domains, services and multiple vendor environments</td>
<td></td>
</tr>
<tr>
<td>Manages automated or manual service fulfillment inventory and order processing</td>
<td></td>
</tr>
<tr>
<td>Provides order status visibility - resource association across flow through provisioning process</td>
<td></td>
</tr>
<tr>
<td>Improves customer experience through pro-active order fallout prevention</td>
<td></td>
</tr>
<tr>
<td>Convergent, customer centric, standards-based inventory of services and resources</td>
<td></td>
</tr>
</tbody>
</table>
Rapid Service Design and Order Delivery

UIM Run Time Solution

Features
- Single platform receives and process requests for any domain, any service and any vendor technology
- Manages services and resource objects for any domain, service or technology
- Adapts to different technical fulfillment topologies and flows for various services

Benefits
- Consolidation of service & resource catalog management onto a single platform reduces TCO and OPEX
- Instantly retrieves existing service instance data and creates meaning technical orders for operational efficiency
- Single service and resource inventory platform reduces IT complexity and better utilises assets
Rapid Service Design and Order Delivery
UIM Run Time Solution

Features
- Supports auto-design of service instance based on service order and existing service and resource inventory models
  - Calculates Technical Order
- Automatically and intelligently maintains inventory state, respecting all dependencies
- Enables automated data-driven network activation process with ASAP or any 3rd party activation platform

Benefits
- Reduces OPEX – dependency on skilled engineering human resources
- Automated order processing ensures faster order delivery and a positive customer experience
- Eliminates order failure due to incorrect or inconsistent resource assignment

Service, Domain & Vendor Agnostic
Automated Order Processing
Order Status Visibility
Order Fallout Prevention
Convergent & Customer Centric
Rapid Service Design and Order Delivery
UIM Run Time Solution

Features

• Provides service and resource visibility across the entire order lifecycle:
  • Quickly reflects changes in technical implementations
  • Details of each service instance: configuration, state, resource assignments
  • Details of each resource statuses, allocations, capacities
• Updates OSM orders with detailed service and resource assignment level status

Benefits

→ Comprehensive visibility of order delivery status
→ Service visibility enables rapid trouble resolution
→ Provides real-time status preventing negative customer experience due to delayed or failed order delivery
Rapid Service Design and Order Delivery

UIM Run Time Solution

Features
- Minimizes errors with pattern-driven order fulfillment supporting full automation and high order volumes
- Rules and policies for creating valid instances avoiding order fallout / failure
- Manages resource readiness to ensure order delivery
  - Intelligently maintain inventory state, respecting dependencies and cascades
  - Quickly reflect changes in technical implementations

Benefits
- Accurate order delivery improves customer experience
- Automation minimises errors and order fallout
- Rule and policy enforcement ensures accurate fulfillment
- Inventory intelligence prevents order failures

Service, Domain & Vendor Agnostic
Automated Order Processing
Order Status Visibility
Order Fallout Prevention
Convergent & Customer Centric
Rapid Service Design and Order Delivery

UIM Run Time Solution

Features

• Provides unified view when inventory is distributed across multiple sources with differing non-standard data models
  • UIM data model based on TMF Frameworx SID model
• Enables a customer-centric view through inherent, standard support for customers, products, services, and resources
• Supports next generation services thru customer-centric rather than network-centric views of inventory information

Benefits

➤ SID based model enables convergent service fulfillment
➤ Supports revenue growth from next generations services
➤ Enables complete customer-centric view for CSRs and BSS
Rapid Service Design and Order Delivery

UIM role in Design Time

UIM greatly simplifies the Concept to Market and Order to Activate process

- Pre-integrated with OSM and ASAP via Design Studio for flow through service fulfillment
- Leverages Unified Design Time environment for end to end service, resource and rule definition
- Rapidly rollout new offers through pre-configuration and packaging of inventory service, resource and rule metadata
Rapid Service Design and Order Delivery
UIM Design Time Solution

Features
- Pre-integrated with OSM and ASAP via Design Studio
- GUI configuration allows easy mapping between OSM process data and UIM resources, services and rules
- Ability to update OSM orders with technical service and resource assignment data

Benefits
- Reduces integration time and complexity
- End to end order visibility and resource association across flow through provisioning process
- Faster configuration and implementation
Rapid Service Design and Order Delivery

UIM Design Time Solution

Features
- User configurable GUI to rapidly support / deploy new inventory services, resources and rules metadata
- Create, test and deploy technology packs, provisioning and activation cartridges
- Supports common data dictionary across OSM, UIM and ASAP configuration
- Supports version management of technology packs and cartridges for deployment.
- Supports team development and integrates with version control systems

Benefits
- Reduces time taken to design and rollout new inventory service, resources and vendor equipment
- Reduces skill-set required to create service inventory data
Rapid Service Design and Order Delivery
UIM Design Time Solution

Features
• Detailed modeling of services definitions: composition, attributes, parameters, resource dependencies
  • Model & instantiate resources for assignment to services
  • Model & instantiate service-relevant resources for activation
• Extensive library of technology packs with definitions of resources that support service instances
• Designed, developed and supported by Oracle - may be extended in customer environment
• Define life cycles and behavioral rules for creating valid service instances

Benefits
 Enables rapid service instances and resource introduction
 Pre-built configurations lowers TCO speeds TTR
 Reduces deployment risk with pre-built technology packs

Pre-integrated with OSM and ASAP
Unified Design Environment
Service Catalog Pre-configuration
Network Resource Management

UIM Role in Run Time

UIM models and tracks virtually any type of resources and networks

- Manages location and interacts with geocoding systems to validate address
- Manages assets with the capability to sync the identifier from underlying management system, assisting with activation and discovery processes
- Models and manages any type of network and connectivity
- Provides an inventory cooperation/federation framework
Network Resource Management
UIM Run Time Solution

Features
- Strong location validation by interaction with geocoding systems (i.e. Oracle Spatial/Oracle E-Location)
- Structured location coding enables identification of network locations and network entities at particular locations
- Devices and connectivity terminations being ‘located at’ a fixed place

Benefits
- Supports for address validation with external GIS systems
- Provides accurate entity location structures ensuing consistency
- Supports for asset tracking, connectivity routing and location-aware service planning
Network Resource Management

UIM Run Time Solution

Features
- Device identification aligned with network and entity location structures
- Device interfaces with pre-defined rate codes
- Management and display of cross-connects within devices

Benefits
- Provides accurate identification by synthesizing from underlying management system, assisting with activation and discovery
- Ensures consistency between devices and connections terminated on them
- Integrated with connectivity design and makes explicit the connectivity paths through devices
Network Resource Management
UIM Run Time Solution

Features
• Out-of-box support for SONET/SDH, T/E/J-Carrier technologies
• Support for rate code, function and serial number in the identification
• End-to-end visualization of connectivity in network view
• Network details in connectivity design for enhanced routing

Benefits
→ Streamlined and efficient definition and management of packet and channelized technologies
→ Intuitive ‘design and assign’ user experience results in validated connectivity paths with gaps clearly highlighted
→ Connectivity details in network canvas allows user to take better informed decisions in network planning.
Network Resource Management

UIM Run Time Solution

Features

- Works with existing inventory systems which manage the network connectivity for connection oriented technologies and integrates with them to holistically manage the services and connectivity
- Manages service configurations and federates to external systems which serves as a master resource repository for some network resources
- Works as the resource repository of resources and federates to external systems which manages service configurations

Benefits

- Provide a flexible inventory cooperation/federation framework that complements and leverages existing inventory investments
- Avoid the need for an inventory migration or transformation program
- Help to rapidly introduce next-generation services by leveraging existing inventory investments
Network Resource Management

UIM role in Design Time

UIM greatly simplifies the service and resource modeling process

- Pre-integrated with Network Integrity via Design Studio for discovery and reconciliation processes
- Leverages Unified Design Time environment for end-to-end service, resource and rule definition
- Streamlined and efficient definition and management of standards-based signal architecture and connectivity
Network Resource Management

UIM Design Time Solution

Features
• Pre-integrated with Network Integrity via Design Studio
• Shared Oracle Common Information Model based on the industry-standard TM Forum’s (TMF) Frameworx Shared Information Data (SID) model
• Able to import and update UIM inventory data with the ability to model and transform as required

Benefits
• Reduces integration time and complexity
• Keeps UIM synchronized with the network and other systems
• Supports any types of network equipment, connections and services
• Moves more focus from coding to configuration for extending/building cartridges and integration
## Network Resource Management

### UIM Design Time Solution

**Pre-integrated with Network Integrity**

**Unified Design Environment**

Standards-based signal structure & connectivity

---

### Features
- User configurable GUI to rapidly support / deploy new inventory services, resources and rules metadata
- Create, test and deploy technology packs, discovery and reconciliation cartridges
- Supports common data dictionary across OSM, NI and ASAP configuration
- Supports version management of technology packs and cartridges for deployment.
- Supports team development and integrates with version control systems

### Benefits
- Reduces time taken to design and rollout new inventory service, resources and vendor equipment
- Reduces skill-set required to create service inventory data
Network Resource Management
UIM Design Time Solution

Pre-integrated with Network Integrity Unified Design Environment

Standards-based signal structure & connectivity

Features
- Complete standards-based signal architecture for SONET/SDH, T/E/J-carrier
- Streamlined and efficient definition and management of packet and channelized connectivity
- Extended device model features of rate codes and location identification

Benefits
→ Provides a signal architecture aligned with industry standards for ease of use and ease of integration
→ Simplifies management of signal multiplexing and channel assignment
→ Brings packet and channelized connectivity together and works cohesively
Contents

- Oracle Solution Approach
- Rapid Service Design & Order Delivery
  - UIM Context
- Network Resource Management
  - UIM Context
- Selected Customer Experience
- UIM
  - Product Functionality
  - RSDOD & NRM Solution
- Resources & Q&A
Resources & Q&A

  - Datasheet
  - Product whitepapers

- Product Discussion Forums:

- Contact us @ comms-oss_ww@oracle.com
Hardware and Software
Engineered to Work Together