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ORACLE COMMUNICATIONS DESIGN STUDIO

Oracle Communications Design Studio is a unified design time environment that accelerates the creation and delivery of Oracle Communications Solutions by providing an efficient, intuitive, and consistent design experience across the various fulfillment and resource management applications within the Oracle Communications portfolio.

Design Studio simplifies the creation of metadata specifying order decomposition and orchestration rules in order management, inventory specifications, design / assign rules and discovery / reconciliation rules in inventory, and configuration of composite and atomic task translations in activation. It enables development collaboration and solution packaging, versioning and deployment with reduced time to market for new services.

Design Studio’s Context within Oracle’s BSS/OSS Portfolio

Design Studio unifies and accelerates the design of fulfillment processes across the Oracle Order to Cash Solutions.

Within the Rapid Offer Design and Order Delivery (RODOD) solution Product Classes are synchronized from Oracle’s Siebel CRM to Design Studio as Product Specifications. Design Studio is then used to define for each Product Specification the order decomposition and orchestration rules that will be used by Oracle Communications Order and Service Management (OSM) for Order Delivery.

Within the Rapid Service Design and Order Delivery (RSDOD) solution Design Studio is used to enable consistent and efficient definition of services, rules, resource specifications, and task

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**WHAT IS DESIGN STUDIO**

- Graphical, integrated development environment for the design, deployment, and testing of integrated, multi-application OSS solutions
- Applies to solution development in:
  - Central Order Management
  - Service Fulfillment
  - Network Resource Management
- Target users of Design Studio:
  - Product & Service Designers
  - Network Engineering
  - Cartridge Developers
  - Configuration Managers

**KEY FEATURES**

- Full lifecycle support from concept design to solution deployment
- Common data dictionary with data sharing across applications
- Integrated design using cross-application concepts and inter-application integration
- Flexible solution packaging and interactive cartridge deployment
- Open architecture based on an Eclipse IDE

**KEY BENEFITS**

- Simplifies solution development with intuitive graphical design by domain experts
- Speeds solution development with pre-built integration and application cartridges
- Ensures documentation accuracy through constant synchronization with solution design
- Lowers solution development costs requiring a single consistent tool and skill set

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![Figure 1. Oracle Order to Cash Solutions – RODOD Solution](image-url)
translations through a unified design environment providing a common design dashboard, repository, and methodology for Oracle Communications OSM, UIM, ASAP, and IPSA.

![Figure 2. Oracle Order to Cash Solutions – RSDOD Solution](image)

Design Studio enables the designer to develop, package and deploy solutions to the integrated application runtime environment. Such solutions generally comprise of one or more “cartridges” which are application specific modules that encapsulate service or solution logic and specifications. Cartridges may be licensed from Oracle’s cartridge catalog of productized application cartridges and / or developed and extended by Oracle Communications Consulting, systems integrators or service providers themselves using Design Studio. This open approach gives service providers full control over their initial and ongoing solution development.

Design Studio supports the design time configuration of integrated solutions that include:

- Oracle Communications Order and Service Management (OSM) for BSS central order management and OSS service order management (OSM “cartridges”)
- Oracle Communications Unified Inventory Management (UIM) for service / resource definitions, rules and domain specific metadata (UIM “tech packs” and “cartridges”)
- Oracle Communications Network Integrity for configuration of network discovery, assimilation and reconciliation behavior (Network Integrity “cartridges”)
- Oracle Communications ASAP for definition of service actions, network actions and scripts for service activation (ASAP “cartridges”)

The role of Design Studio within Oracle Communications’ BSS/OSS footprint is shown below.

![Figure 3. Design Studio context within Oracle Communications OSS suite](image)

**Design Studio Architecture**

Design Studio is an integrated GUI tool based the Eclipse IDE (www.eclipse.org). This enables designers and developers to use the fully-featured Java IDE capabilities to further enhance, extend
or integrate the solution business logic. Figure 2 outlines the Design Studio architecture with specific functional capabilities for each of the supported applications together with an integrated modeling layer enabling cross-application solution development.

- Metadata configuration, programmatic extensions
- Integrates to source control
- Multi-user development
- One Design Studio for Oracle Communications portfolio
- Cross-applications consistency checks
- Common data dictionary

Figure 4. Design Studio – Modular Architecture Built on an Open Platform

Common Functions of Design Studio across Applications

Design Studio provides a number of common core capabilities that enable rapid development of consistent, integrated multi-application solutions including:

- Cross application design utilizing a common data dictionary with data sharing across applications
- Consistent solution deployment of application cartridges interactively from Design Studio with full support of the design-build-deploy-test cycle
- Auto generation of design information avoiding inaccurate documentation
- Consistent graphical representation for use by design and development teams

Figure 5. Rich Feature Set Across the Solution Design Lifecycle

Design Studio for Oracle Communications Applications

Design Studio for OSM

Design Studio may be used to configure and deploy OSM solutions for:

- Order orchestration in to enable users to configure and deploy order management cartridges that make use of the OSM Orchestration Model including support for importing Order Classes from Product Hub (via Siebel CRM), order data fields containing XML documents and the use of XQuery within automation
- Order provisioning enables users to configure and deploy service provisioning cartridges that may include integrations with UIM, ASAP, etc.
Design Studio for UIM enables the design and deployment of UIM configuration information such as specifications, characteristics, rules, equipment models, capacity models, component packaging, etc. to the UIM runtime environment.

It enables service designers and engineers to quickly and easily define the metadata needed to configure services and map the services to logical and physical resources.

Design Studio for Network Integrity

Design Studio enables the creation of Network Integrity cartridges that may perform different roles, including:

- Network Discovery and Modeling
- Assimilation (manipulate and change discovered data)
- Import and Resolution (to and from Inventory – UIM, MSS or 3rd party inventory)
Figure 8. Modeling of Network Actions and Processors

Figure 9. Modeling of Activation Service and Network Actions

Design Studio for ASAP

Design Studio enables the creation, packaging and deployment of ASAP cartridges that include service and network actions, scripts and network configuration information. Designers may select from the list of available off-the-shelf cartridges for a wide variety of applications, network devices and service domains, and together with newly developed / extended cartridges, may create activation solutions tailored to the service provider’s specific requirements.

Oracle Communications supports an expansive library of extensible Service Activation Cartridges which are fully compatible with Design Studio and provide a substantial basis from which to assemble services, minimizing deployment time, cost and risk.

Using Design Studio for Integrated Solution Development

The real benefit of Design Studio is seen when designing multi-application solutions in which the application integration and cross product modeling and data sharing reduce the effort and time to deploy such solutions.

For example, Design Studio for OSM supports the seamless integration with ASAP for activation, greatly simplifying the design and deployment, as shown below in Figure 8.
The following screen shot further illustrates the integrated design time behavior that Design Studio brings when designing Service Fulfillment solutions – in this case highlighting the interworking of OSM in a service order management role, UIM for auto-design and ASAP for activation of an access service.

This paradigm may be readily applied to more complex services such as a business VPN site with optional VoIP service requiring broadband access, new site creation in the corporate VPN, configuration of appropriate QoS for VoIP, service activation of additional VAS services, etc. all as part of a single multi-service customer order. Design Studio provides the flexibility to create and modify such complex service fulfillment models and present the service fulfillment interface for upstream systems to invoke – simplifying the OSS architecture.

Contact Us
For more information about Oracle Communications Design Studio, visit oracle.com or email comms-oss_ww@oracle.com.
Oracle is committed to developing practices and products that help protect the environment.

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