Portal Platform and SDK Features for ONAP developers

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Today’s focus

What is Portal Platform?

How does Portal work?

How to use Portal’s SDK to build new application?

What’s next for Beijing?

Questions and feedback
ONAP Portal - “The Control Panel for ONAP”

Provides single **Access, Framework and SDK** to develop new and integrate existing applications to support ONAP Platform and Service Management functions.

**Applications Paradigm**
- **Federated** application development and onboarding model
- **Distributed** and decoupled applications on cloud infrastructure
- **Integrated** existing and 3rd party applications with minimal effort
- **Managed** applications hosting environment (upcoming)

**Key Drivers**
- **Single** access point, authentication, authorization with personalized content
- **Reusable** software libraries and API’s via Portal SDK and Framework
- **One-Stop** access for virtualized services design, test and distribution functions
- **Secure** role based access for ONAP platform administration
- **Operations** support for VNF lifecycle management and service assurance
- **Consistency** across broad set of tools and applications
- **Seamless** user interface and experience
- **Self-Service** internal and external access for customers and vendors
ONAP Portal User Functions

**Design**
- **Product Design**
  - Create Product
  - Create Vendor Software Product
- **Design Administration**
  - User/Category Management
- **Testing**
  - Test/Approve a Resource or Service
- **Catalog Browser**
  - Manage Resource/Service/Product
- **Distribution**
  - Distribute a Service
- **Resource/Service Design and Onboarding**
  - Approve Service for distribution
  - Create a license model
  - Create a Resource / Service
  - Create/Manage Policy

**Operation**
- **Technology Management**
  - Message Bus Management
  - Network Operations
    - VF Management
    - Router Management
  - Service Topology
    - Viewer
  - IP Address Management
  - Customer Configuration
  - Closed Loop Management
    - Control Loop Automation Management
  - Change Management
    - Change Scheduling, Orchestration & Validation
- **Operations Planning**
  - Project Management
    - Team Tools
    - Policy Engineering
- **Capacity Planning**
  - Applications
- **Technology Insertion**
  - Name & Address
  - Infrastructure Provisioning
    - Infrastructure VNF Provisioning
  - Configuration
    - VNF Compose
- **Performance Management**
  - Network Analytics
  - Service Analytics
- **Platform Management**
  - ONAP Comp. OA&M
    - Databus Provisioning

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Overview → Demo → SDK → Beijing → Questions
Demo Topics

• Homepage
  - Applications
  - Layout

• Access Management
  - Portal Administration
  - Account admin
  - Standard User

• Onboarding – Applications/Widgets

• Functional menu

• Personalization

• Notifications/Role based

• Search

• Support
  - Contact us
  - Get Access

• SDK Sample app
## Portal’s SDK - Applications Integration Levels

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Sign-On</strong></td>
<td>Align with Corporate Security Authentication tooling and guidelines</td>
</tr>
<tr>
<td><strong>Authorization</strong></td>
<td>Adopt/Integrate common roles &amp; role management</td>
</tr>
<tr>
<td><strong>Style</strong></td>
<td>Align to User Experience Guidelines</td>
</tr>
<tr>
<td><strong>Device Compliance</strong></td>
<td>Enable UIs to be exposed on multiple device types</td>
</tr>
<tr>
<td><strong>Auditing, Logging</strong></td>
<td>Status monitoring and system level logging / alarms / auditing</td>
</tr>
<tr>
<td><strong>Component</strong></td>
<td>Factor functional capabilities into Component UIs to facilitate navigation</td>
</tr>
<tr>
<td><strong>Session Mgmt</strong></td>
<td>Implement Session Management to drive a consistent behavior across partner</td>
</tr>
<tr>
<td><strong>Context Sharing</strong></td>
<td>Participate in Context Sharing capabilities drive an integrated experience</td>
</tr>
</tbody>
</table>

### Target

- **Component**
  - Factor functional capabilities into Component UIs to facilitate navigation at the functional level
  - Utilize ONAP SDK to build component based UIs that enable functional navigation/personalization

- **Session Mgmt**
  - Implement Session Management to drive a consistent behavior across partner applications
  - Employ Corporate Security Cookie or Junction (preferred) technology

- **Context Sharing**
  - Participate in Context Sharing capabilities drive an integrated experience relative to current context
  - Utilize ONAP SDK to enable Context Sharing capabilities and associated interactions/interfaces

### Extended

- **Usability Enhancements**
  - Search, Analytics, Visualization, Workflow, Rules, Animations
  - Utilize ONAP SDK to build usability enhancements to applications
Portal SDK Features part 1

Single sign-on from Portal via encrypted cookie

Centralized user and role management at Portal
- Application defines roles OR roles can be delegated to AAF
- Implemented via REST API
- SDK provides complete API implementation
- Functions associated to each role
- Page-level checking of function authorization

Application session management across ONAP applications
- Active in any application keeps all sessions alive

Seamless user experience across the Platform
- Look and feel compliance
## Roles

Click on a Role to view its details.

<table>
<thead>
<tr>
<th>Name</th>
<th>Priority</th>
<th>Edit</th>
<th>Active?</th>
<th>Delete?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard User</td>
<td>5</td>
<td></td>
<td>On</td>
<td></td>
</tr>
<tr>
<td>System Administrator</td>
<td>1</td>
<td></td>
<td>On</td>
<td></td>
</tr>
</tbody>
</table>
Portal SDK Features part 2

Full implementation of ONAP-compliant auditing and logging

- Based on EELF contributed to ONAP
- In Beijing, support ELK log analysis

Basic caching (context sharing) via Portal

- Applications can share data with each other via REST APIs

Demonstration code for DROOLS rule-engine integration
SDK App Landing
Portal SDK Reusable Pieces

Portal/SDK Libraries

- epsdk-fw
- epsdk-core
- epsdk-analytics
- epsdk-workflow
- Distributed via ONAP Maven repository

Portal/SDK application

- Web app based on Angular, Hibernate, Spring MVC
- Starting with a fully functional app accelerates development
- Demonstrates features of EPSDK libraries
- Requires database - MySql or Postgres
- Distributed via ONAP wiki as zip archive
What’s next in Beijing?

**Planned Contributions**

- Scheduler Widget (dependent on policy, vid and scheduler teams)
- Role Centralization capability for framework based partners
- Bootstrapping of VID roles and tighter integration with AAF
- JUNIT – 50% code coverage
- Enhancements - Improved logging, Security Hardening, and SDK Simplification

**Integration with Projects**

- OOM – for support high availability
- AAF – for role authorization
- UseCaseUI
- CLI support
Thank You!

https://wiki.onap.org/display/DW/Portal
Getting started with Portal SDK Application

Reference:
https://wiki.onap.org/display/DW/Developing+Portal+SDK+based+UI+App+and+the+initial+setup

- Browsing the SDK
- Downloading the SDK
- Prerequisites
- Eclipse Project setup
- Database setup
- Eclipse Project/Tomcat configuration/startup
- Project Customization
Appendix
## Users

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>User ID</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo</td>
<td>User</td>
<td>demo</td>
<td>System Administrator</td>
</tr>
<tr>
<td>sdk</td>
<td>sdk</td>
<td>sdk</td>
<td>System Administrator</td>
</tr>
</tbody>
</table>

[ONAP Portal Management Page]

**Online Users**

**Home**

**Application Catalog**

**Widget Catalog**

**Users**

**Admins**

**Roles**

**Portal Admins**

**Application Onboarding**

**Widget Onboarding**

**Edit Functional Menu**

**User Notifications**

**Microservice Onboarding**

**App Account Management**

**Web Analytics Onboarding**

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**THE LINUX FOUNDATION**

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20
## Roles

<table>
<thead>
<tr>
<th>Name</th>
<th>Priority</th>
<th>Active</th>
<th>Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Administrator</td>
<td>1</td>
<td>On</td>
<td>/</td>
</tr>
<tr>
<td>Portal Notification Admin</td>
<td>1</td>
<td>On</td>
<td>/</td>
</tr>
<tr>
<td>Portal Usage Analyst</td>
<td>6</td>
<td>On</td>
<td>/</td>
</tr>
<tr>
<td>Restricted App Role</td>
<td>1</td>
<td>On</td>
<td>/</td>
</tr>
<tr>
<td>Standard User</td>
<td>5</td>
<td>On</td>
<td>/</td>
</tr>
<tr>
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<td>On</td>
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</tr>
<tr>
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<td>1</td>
<td>On</td>
<td>/</td>
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Edit Functional Menu

- Manage
  - Favorites
- Design
  - Product Design
  - Resource/Service Design & Onboarding
  - Orchestration (recipe/Process) Design
  - Service Graph visualizer
- Distribution
- Testing
- Simulation
- Certification
- Policy Creation/Management
- Catalog Browser
- Administration
- Operations Planning
- Capacity Planning
- Technology Insertion
- Technology Management
- Performance Management
- ECOMP Platform Management
- Support
  - Contact Us
  - Get Access

[Regenerate Menu] Click when you are done with your changes
# Contact Us

To give feedback or report an issue to the OpenECONP Portal team, send email to portal@lists.onap.org.

## Application Functions

<table>
<thead>
<tr>
<th>Category</th>
<th>ECOMP Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Policy Creation/Management, Create/Manage Policy, Distribute a Service, Manage a Resource/Service, Test/Approve a Resource or Service, User Management, Category Management, Manage a Product, Approve a Service for distribution, Create a Product, View a Resource/Service/Product, Create a License model, Create a Vendor Software Product</td>
</tr>
<tr>
<td>Operations Planning</td>
<td>Policy Engineering</td>
</tr>
<tr>
<td>Technology Integration</td>
<td>Infrastructure/VNF Provisioning</td>
</tr>
<tr>
<td>Technology Management</td>
<td>Message Bus Management</td>
</tr>
</tbody>
</table>

## All Applications

- A&AI UI
- CLI
- Policy
- SDC
- Virtual Infrastructure Deployment
## Get Access

Request access for following functions by sending email to the Application's Admin. For Admin contact details, please click here.

<table>
<thead>
<tr>
<th>ECOMP Function</th>
<th>Application Name</th>
<th>Role Name</th>
<th>Current Role</th>
<th>Request Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create/Manage Policy</td>
<td>Policy</td>
<td>System Administrator</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Create/Manage Policy</td>
<td>Policy</td>
<td>Standard User</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecomp Function Not Available</td>
<td>A&amp;AI UI</td>
<td>View</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecomp Function Not Available</td>
<td>Default</td>
<td>System Administrator</td>
<td>✅</td>
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