HP Enterprise Maps

Software Version: 3.00 Windows and Linux Operating Systems

User Guide

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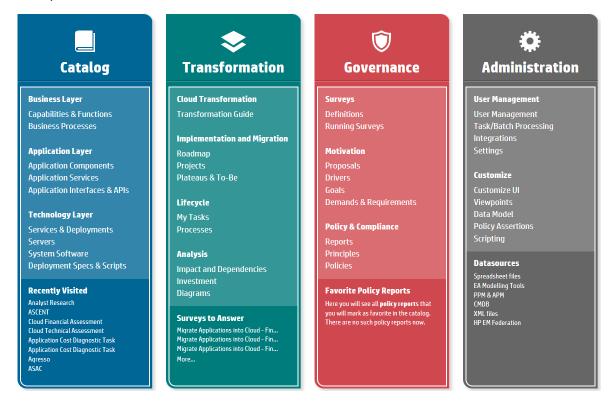
Chapter 1: Using HP EM

HP Enterprise Maps helps you centralize the enterprise infrastructure. This guide describes the key features and their inter-dependencies. It covers the following topics:

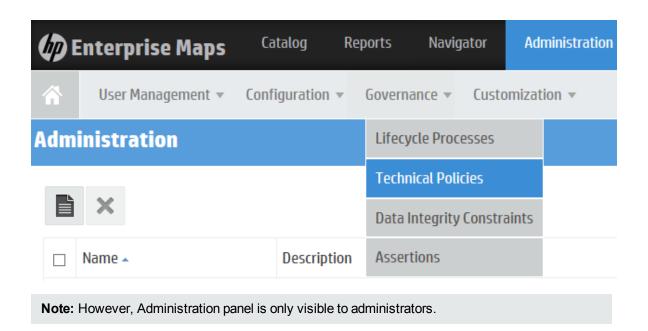
Feature	Description
"Catalog " on page 8	Explains how to create, edit, view artifacts and their relationships, and search for artifacts.
"Navigator" on page 44	Explains how to view related artifacts in graphical mode.
"Reports" on page 46	Explains how to view, print reports and customize the dashboard.
"Architecture Transformation " on page 60	Explains how to use architecture management to manage architecture changes.
"Cloud Transformation" on page 70	Explains how to use Cloud transformation UI to manage applications' migration into Cloud.
"Surveys" on page 91	Explains how to start, undertake, manage and monitor surveys.
"Collaboration " on page 102	Explains how to add comments, ratings, notify other contacts, share artifacts (provide access to others), complete assigned tasks and view artifact feeds and events.
"Excel/CSV File Export and Import" on page 113	Explains how to export and import spreadsheet data.
"Extension for Sparx Systems EA " on page 123	Explains how to use the Extension for Sparx Systems EA.

Chapter 2: Catalog

The HP Enterprise Maps Catalog tab home page starts you off with a set of panels which present the most common managerial functions. You can quickly jump to the desired UI by clicking the links on these panels.



However, these functions are also available from the main menus under their respective tabs. For example: Policies link under Governance panel is available in **Administration tab > Governance > Technical Policies** menu.



Catalog Browser

The HP EM catalog browser is the place for viewing artifacts by artifact collection type and Archimate model layer.

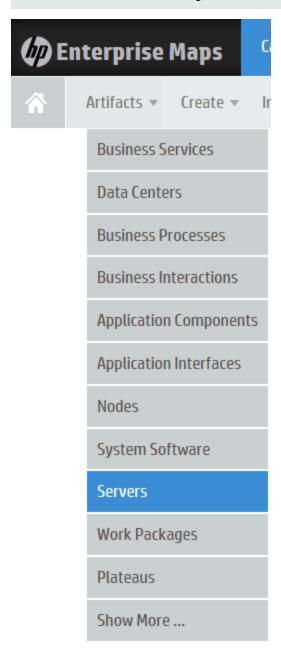
1. To open the catalog browser, click **Catalog > Artifacts > Show More**.



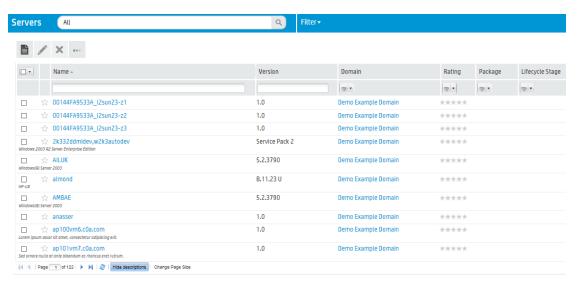
2. To open a collection of artifacts, click the type of artifact that you want to view. In this example, click **Servers** under the Technology Layer. It will appear under the artifacts as in below image:

Technology Layer Infrastructure Functions Nodes System Software Operating Systems Devices Servers Server Profiles Server Classes

Tip: You can pin the Server artifact collection to your Artifact menu, by clicking the Pin next to the Server collection. Pinning a collection makes it quick and easy to select.



3. After you select the artifact collection you want to view, the collection page opens. In the sample below, the Server collection is displayed.



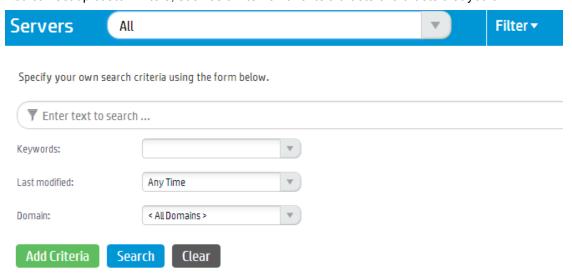
4. To customize your view, you can sort, filter, and manage columns. You can use controls at the bottom of the collection page to control the page size and amount of description displayed.



5. To perform bulk operations on artifacts in the collection, you can use the toolbar at the top of the collection page.



6. You can set up custom filters, such as a filter for favorite artifacts or artifacts that you own.

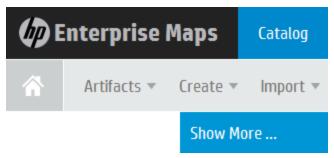


Creating Artifacts

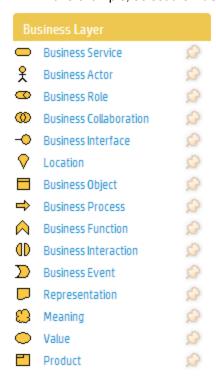
You can use HP EM to create new artifacts, and the attributes and relationships that impact those artifacts.

To create a new artifact:

1. Click **Catalog > Create > Show More** to open the catalog browser Create Artifact window.



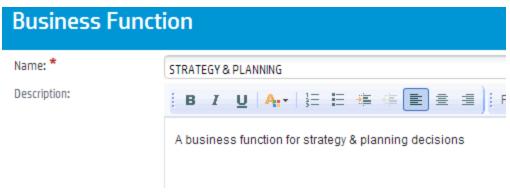
2. Select the artifact type that you want to create. The new artifact opens. In this example, select the **Business Function** artifact on the Business Layer.



3. Or you can click the **Open create dialog for this artifact** icon on Business Function collection page to create a new artifact.



Enter the name of your new artifact.
 You can optionally add a **Description**, select a **Status**, **Investment Priority**, or **Type**.

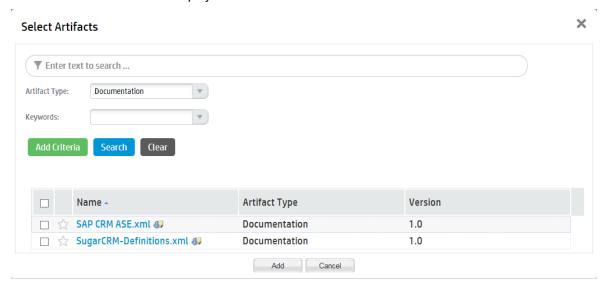


5. In the Documentation area, you can attach or link to any associated documentation. Documents that you load are viewable on the Documentation tab.

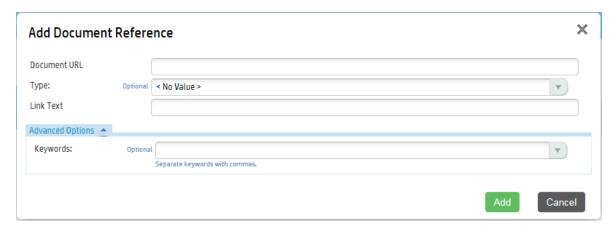
Documentation



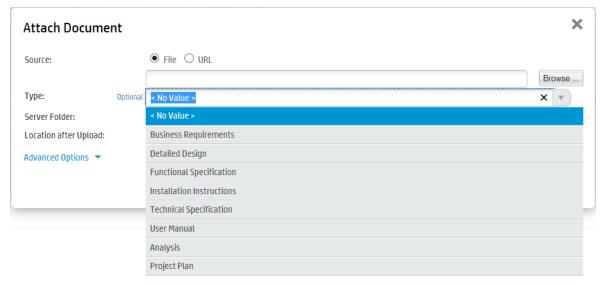
6. To add documentation from an existing artifact, click the **Add an existing artifact** icon. The Select Artifact window displays a list of documentation artifacts to choose from.



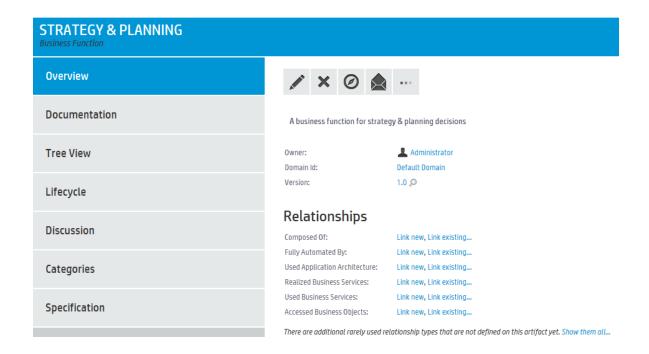
7. To add a link to documentation from a web resource, click the **Link a Web Resource** icon. The Add Document Reference window opens and you can use it to enter the document URL, the document type, and any text or keywords that you want to appear with the link.



8. To attach a documentation artifact directly, click the **Upload a Local File to the repository** icon. The Attach Document window opens and you can use it to enter the document source location, the document type, the server folder, and the location where the document should reside after upload, as well as keywords that you want to enable so that users can find the document. In this example, the document types are shown.



9. Click **Save** to save the new artifact that you created. Your new artifact record is displayed and you can add or modify attributes and relationships using the tabs. Documentation artifacts are shown on the Documentation tab.

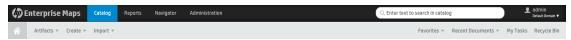


Searching for Artifacts

HP EM enables you to perform artifact search quickly and easily from every page.

To perform a basic search:

1. Enter the text to search for in the Search box.



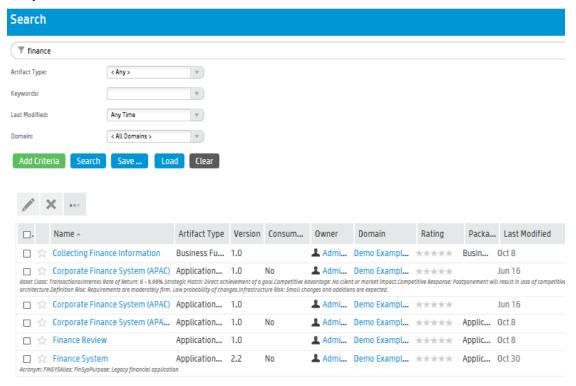
2. For example, if you search for the word "finance," a drop-down list of results is displayed.



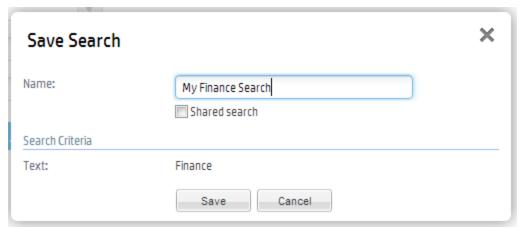
Click on the artifact you are interested in to open the Artifact details page.

To perform an advanced search:

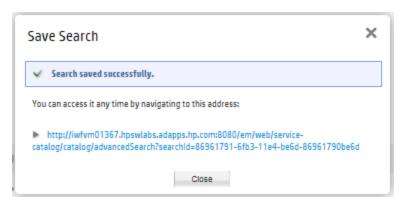
1. Enter the text to search for in the Search box and press enter. The Search page opens showing the text you searched for. In this case, the search word "finance" is shown.



- 2. To refine your query, use the additional boxes to add additional search terms, key words, or to add criteria.
- 3. If you want to save the Search for future use, click **Save**. The Save Search box opens.



4. Type the name of your search, and then click **Save**. You can access your search at any time by navigating to the URL address provided. You can also share the search URL with others.



Once you have saved a search, it is displayed every time you click Load in the Search page.

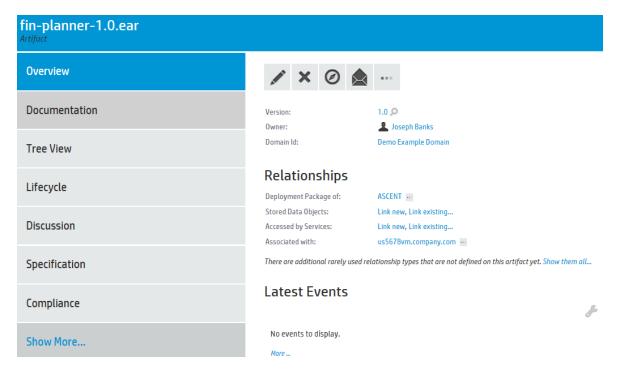


Artifact View Page

An Artifact View page in the Catalog tab presents comprehensive details about each object in the Catalog. Also it provides access to functionality required to perform most of actions related to individual artifacts.

Each artifact contains a large amount of detail, so an Artifact View page is organized into a set of tabs enabling you to focus on particular aspects of the artifact.

Access Artifact View page by clicking the name of an artifact wherever it appears in the Catalog tab.



The page header displays the artifact name, artifact type, and artifact ratings. For details about ratings, see "How to Use Ratings" on page 108.

The Artifact page contains all available tabs. When you click More further tabs are displayed.

Note: The available tabs and functionality vary according to your role, the artifact type, and your permissions.

Artifact View Page Tabs

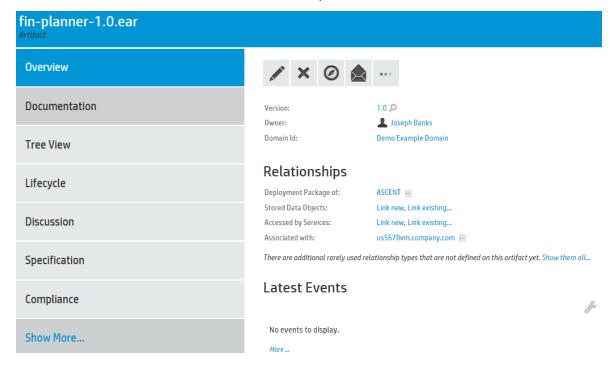
Tabs	Tab Content
"Overview Tab" on the next page	The most important information about the artifact, such as its major properties, the most important relationships, overviews of events, tasks, last edits, overview of policy compliance and keywords.
"Documentation Tab" on page 22	Manage the documents associated with the artifact.
"Cloud Transformation Tab" on page 22	Provides the ability to start, manage and review surveys, which helps assess and analyze current application components. Enables to publish service designs, cost estimation deployment and cloud assessment. Assessment can be done from financial, business and technical perspectives.
"Financial Profile Tab" on page 24	View and manage the financial properties of a Project or Application Component artifact. This tab is only available on the detail page of the project or application component artifact.
"Tree View Tab" on page 25	Shows an artifact structure browser. It either displays composite structure or impact report. In addition to artifact basic information

Artifact View Page Tabs, continued

Tabs	Tab Content
	(such as name, owner and type) the browser captures lifecycle information such as the current stage.
"Lifecycle Tab" on page 26	Information related to the artifact lifecycle, including as a graphical view of the lifecycle process showing stage details.
"Discussion Tab" on page 27	A discussion forum for the artifact.
"Specification Tab" on page 28	A page for a full specification of the artifact including edit options with rich text and HTML tagging.
"Compliance Tab" on page 29	A detailed breakdown of the current policy compliance status of the artifact.
"Access Rights Tab" on page 30	View and manage the access rights for the artifact.
"Contacts Tab" on page 31	View and manage the contacts for the artifact.
"History Tab" on page 32	Lists artifact revisions enables users to compare selected two revisions and see the differences between them.
"Relationships Tab" on page 33	View all the incoming and outgoing relationships for the artifact.

Overview Tab

The Overview tab is the default view of an artifact and contains the most important information about the artifact and access to the most common artifact operations.



Overview Tab Content

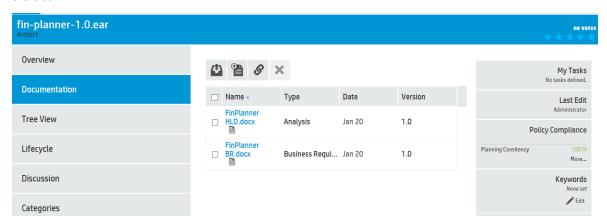
Content	Description
Properties	The first section of the page displays the most important properties of the artifact including options to compare versions, and set the provider.
Relationships	The most important relationships display in the Overview tab and in case of a service, the implementations. Click Show them all to show the full relationships section.
Latest Events	Displays the latest actions affecting the artifact. Click More to open the Events tab or the Tool icon to customize the Events component content. For details, see "Events Tab" on page 1 and "How to Use Events" on page 105.
Architecture Changes (Plateau & Deliverable only)	Manages changes for plateau or deliverable. For details, see "Setting Target Architecture" on page 65
Context Actions	Displays a set of context actions for the artifact relevant to the artifact type, its current status, and your role. The available actions include the following:
	Edit - Open the Edit artifact page.
	Attach Document - Attach a local or remote document to the artifact.
	Navigator - Switch to the graphical navigator view for the artifact.
	Delete - Delete the artifact and its sub-artifacts
	Export - Create a ZIP archive for the artifact and its sub-artifacts.
	New Version - Create a new version of the artifact and its sub-artifacts.
	• Atom Feed - Publish a feed for artifact changes or artifact comments. For details, see "How to Use Feeds" on page 108.
	• Send Notification - Send an email notification to artifact stakeholders. For details, see "How to Use Notifications" on page 104.
	Change Domain - Move the artifact to another domain.
	• Artifact Comments Feed - Subscribing to the feed allows you to view the latest updated comments on the artifacts.
	XML View - Shows the code view of the artifact.
Last Edit	Displays the user and time for the last change to the artifact.
Policy Compliance	Displays the current compliance status with an option to recalculate it.
My Tasks	Displays any actions you may be required to perform related to the artifact. For details, see "How to Use Tasks" on page 107.
Add to Favorites	Click this button to add the artifact to Favorites. Once the artifact is added, the button changes to Favorite button instead. Click this button again to remove it from Favorites.

Overview Tab Content, continued

Content	Description
Keywords	Displays any custom tags applied to the artifact with the option to edit them.
Contacts	Displays the contacts for the artifact with the option to edit them.

Documentation Tab

The Documentation tab provides a place to view and manage the documents associated with the artifact.



Documentation Tab Content

Content	Description	
Documentation Table	Displays the documents associated with the artifact with functionality to manage them and add more.	

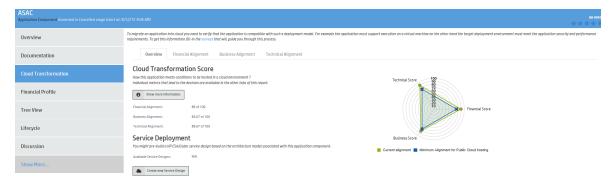
Cloud Transformation Tab

The Cloud Transformation tab provides the ability to start the survey for the application component, review available answers and assessment results. From the UI it allows you to publish the application to CSA as a deployable component using predefined templates (service designs or reference models).

This tab is available only for Application Component and its sub-artifacts. Description of different tabs within Cloud Transformation tab are as follows:

Overview sub-tab:

Provides an overview of the cloud transformation state including top-level scores, transformation strategy, deployment models and few other aspects.



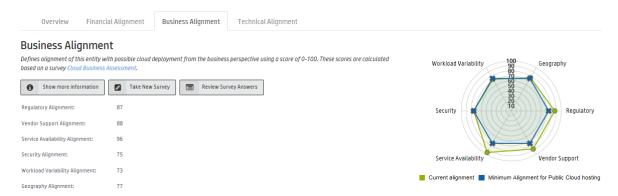
Financial Alignment sub-tab:

Assesses the viability of transformation from a financial perspective (rough and model-based estimated cost for deployment onto different data centers).



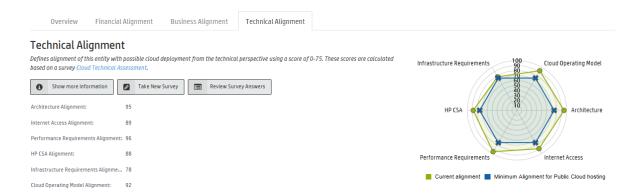
Business Alignment sub-tab:

Assesses the viability of transformation from a business perspective.



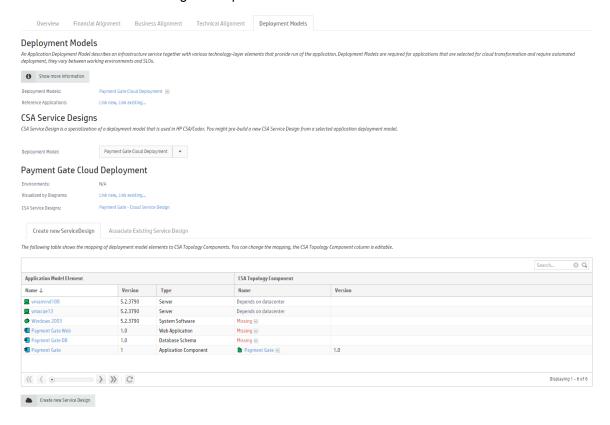
Technical Alignment sub-tab:

Assesses the viability of transformation from a technical perspective.



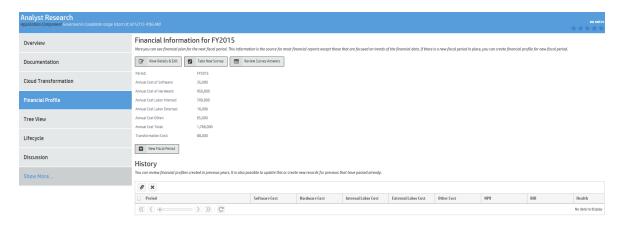
Deployment Models sub-tab

Deployment Models UI is entirely to manage the deployment models associated with this application and to build CSA service designs on top of these models.



Financial Profile Tab

The Financial Profile tab provides a place to view and manage the financial information associated with an Application Component or Project.



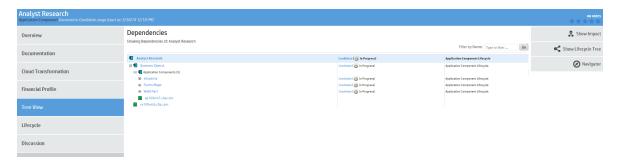
Artifact Financial Profile Tab Content

Content	Description
Financial Information	Shows the financial information associated with the current fiscal period.
New Fiscal Period	Click this button to create a new financial profile and set it as the current fiscal period. Once the new profile is created, the current profile automatically moves to the History table below.
	The financial profile created by clicking this button is named automatically after the current application component/project name and the current fiscal period.
	To disable this feature change the <i>enableAutoNamingFinancialProfile</i> to false (for details see, "System Configuration Properties" in the <i>Administration Guide</i>).
	You can create only one record for each fiscal period
View Details & Edit	Click this button to modify the financial profile of the current fiscal period.
Take New Survey	Click this button to conduct a financial cloud assessment survey for the application component.
Review Survey Answers	Click this button to go over or reassess the survey answers.
History	View a summary of all financial profiles created in the past.

Tree View Tab

The Tree View tab allows you to explore the impact and dependency effects of the current artifact.

The default Dependency view shows the tree of artifacts that the current artifact depends on.

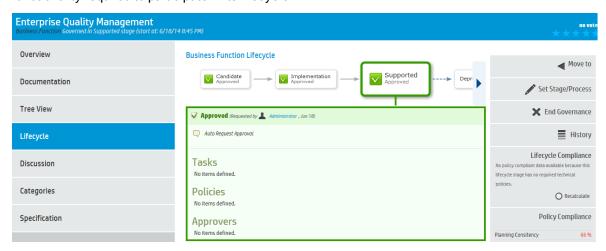


Tree View Tab Content

Content	Description
Filter	Use the filter to highlight specific artifacts from the tree.
Artifact Tree	The tree displays impacting artifacts in Dependency view or impacted artifacts in the Impact view, organized by artifact type. Expand groups of artifact types and click artifact names to view their details.
Show Impact	Click to see the impact the current artifact has on the tree of artifacts.
Show Lifecycle Tree	Click to switch over and view the tree of artifacts that follow the current artifact in the lifecycle process.
Navigator	Open the graphical navigator view for the artifact.

Lifecycle Tab

The Lifecycle tab provides a visualization of the lifecycle process the artifact belongs to and the functionality required to participate in its lifecycle.



Artifact Lifecycle Tab Content

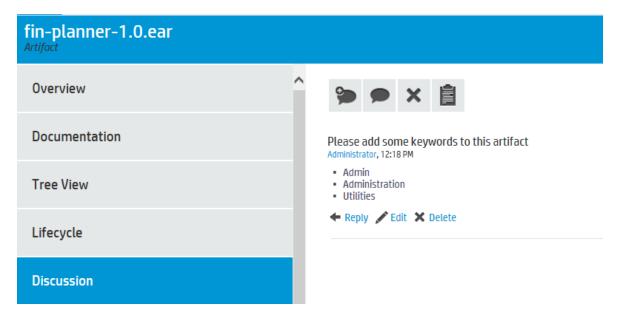
Content	Description
Lifecycle Process	The top part of the view displays the lifecycle stages for the lifecycle process

Artifact Lifecycle Tab Content, continued

Content	Description
	the artifact belongs to. The larger stage box is the current stage in progress and the box highlighted in green matches the stage detail information below. Click a stage to view its details and use the arrow controls to view stages that are off the page.
Stage Details	The large green box displays the stage details for the stage selected above. For the current stage, the details start with a summary of the current lifecycle status. For all stages the details box displays the tasks, policies, and stage approvers. As a participant in the lifecycle you can use the stage details box to mark lifecycle tasks as complete, to validate policies associated with the stage, and to approve or reject approval requests.
Context Actions	Displays a set of context actions for the artifact relevant to its current lifecycle status and your role. The available actions include the following:
	Start Governance - Put a non-governed artifact into an appropriate lifecycle process.
	End Governance - Remove the artifact from a lifecycle process.
	• Set Stage/Process - Change the current stage and lifecycle process for the artifact (administrator only).
	 Request Approval - Request approval for the current lifecycle stage for the artifact.
	Cancel Approval - Cancel an approval request.
	Notify Approvers - Send a notification email to the stage approvers.
	History - View the lifecycle history for the artifact.
Compliance	Displays the current compliance status with an option to recalculate it.

Discussion Tab

The Discussion tab provides a forum for users to comment and discuss the artifact.



Discussion Tab Content

Content	Description
Discussion Threads	The main part of the page displays discussion threads and comments about the artifact with options to Reply , Edit , and Delete comments.
Context Actions	Displays a set of discussion context actions for the artifact. The available actions include the following:
	Show List / Threads - Organize the discussion by comments or by threads.
	Sort - In the list view, organize the comments by newest or oldest first.
	Add Comment - Start a new discussion about the artifact.
	Delete All Comments - Remove all comments and threads about the artifact (administrator only).
	 Artifact Comments Feed - Obtain a feed URL that you can use in a feed reader or in the Reports Tab. For details, see "How to Use Feeds" on page 108.

For details about using the Discussion features, see "How to Use Comments" on page 103.

Specification Tab

The Specification tab provides a place to view and manage a detailed description of the artifact including rich text and HTML support.

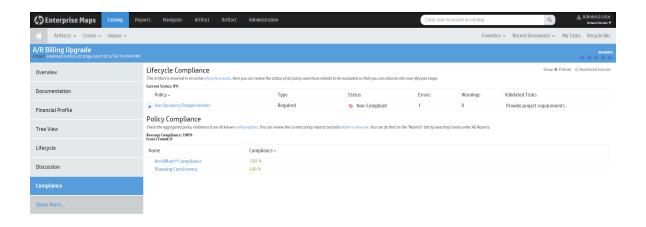
fin-planner-1.0.ear Artifact	
Overview	
Documentation	Account Service Features: • Balance Check
Tree View	Cash WithdrawalSavingsBank Transfers
Lifecycle	Overdraft Facilities 24 hrs Account Acces
Discussion	
Categories	
Specification	

Specification Tab Content

Content	Description
Detailed Description	Displays the full description for the artifact.
Edit Specification	Changes the Detailed Description area to an input form with rich text and HTML support.

Compliance Tab

The Compliance tab provides a detailed view of the policies that apply the current lifecycle stage that the artifact belongs to with an option to view the XML representation of the resources that the policies validate.



Enterprise Maps

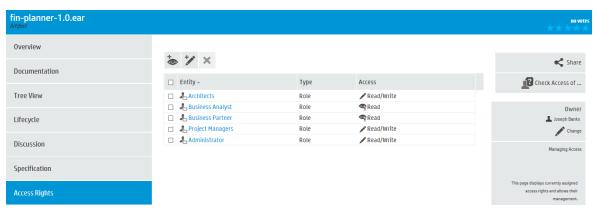
About | Documentation | Current Date: Jun 11, 2015 3:35:47 PM, IST | Last Login: Jun 11, 2015 3:17:31 PM, IST

Compliance Tab Content

Content	Description
Show	Switch between the Policies view and the Annotated Sources view.
Policies	The table of currently applicable policies, their type, and current status.
Annotated Sources	Provides a detailed XML view of the relevant resources that the policies validate. This view is most useful to assertion and WSDL developers resolving validation errors.

Access Rights Tab

The Access Rights tab provides a detailed view of the users, groups, and roles with permissions for the artifact and access management actions for users with appropriate permissions.

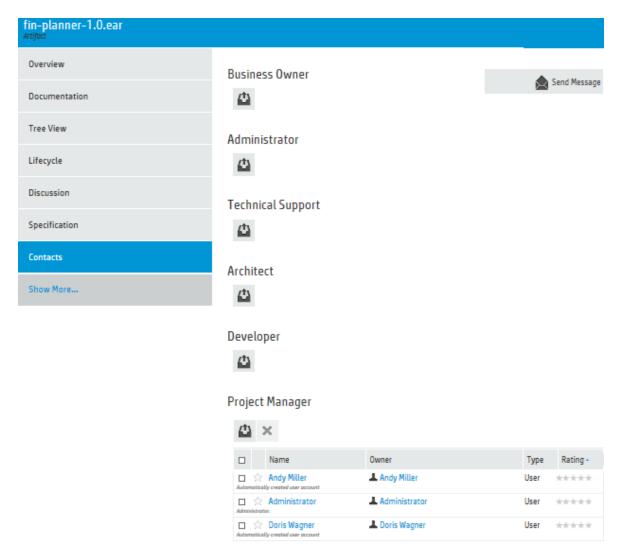


Access Rights Tab Content

Content	Description
Access Rights Table	Displays the users, groups, and roles with permissions for the artifact and their rights. Users with appropriate permissions can manage the access rights using the table actions.
Context Actions	Displays a set of discussion context actions for the artifact depending on your role and artifact permissions. The available actions include the following:
	Share - Make the artifact visible to all users by giving them all read permission. For details, see "How to Share Artifacts" on page 110.
	Check Access Of - Verify the access rights for a particular user.
Owner	Displays the current user, group, or role ownership for the artifact with the option to change it for users with appropriate permissions.

Contacts Tab

The Contacts tab provides a detailed view and management options for contacts for the artifact organized by their contact type.

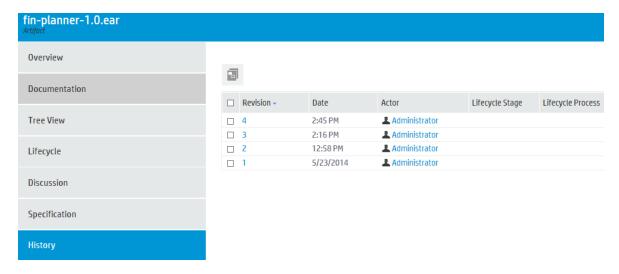


Contacts Tab Content

Content	Description
Contacts	The set of contacts for the artifact organized by contact role. Users with appropriate permissions can manage the contacts.
Send Message	Send a notification email to selected users. For details, see "How to Use Notifications" on page 104.

History Tab

The History tab provides a detailed view of the revisions of the artifact with functionality to compare revisions.

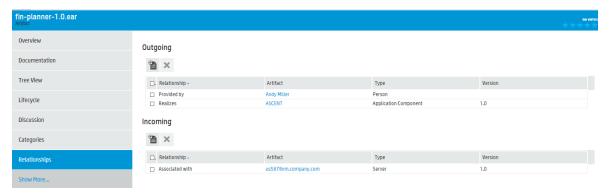


History Tab Content

Content	Description
Revisions Table	Displays a list of the revisions with details about the time of the change, who performed it, and lifecycle details. Click a revision number to view its details including options to revert to that revision or use the Compare Revisions action to examine the changes in detail.

Relationships Tab

The Relationships tab provides a detailed view of the related artifacts organized by outgoing and incoming relationships.



Relationships Tab Content

Content	Description
Relationship Tables	Displays the set of outgoing and incoming relationships with details of the related artifact, its type and version, and the relationship type.

Relationship Editor

The HP EM relationship editor enables you to view and modify artifact relationships directly. Relationships can be those predefined within the ArchiMate model or you can add new relationships. Both ArchiMate and non-ArchiMate relationships are shown on the Overview tab view. You can add new or manage relationships by using the Relationship tab view.

This section covers the following topics:

- "Understanding Relationship Types" below
- "Relationships Editor UI" on page 36
- "Adding an Artifact Relationship" on page 37
- "Removing an Artifact Relationship" on page 40
- "Adding a Shortcut" on page 41
- "Non-Compliant Relationships" on page 42

Understanding Relationship Types

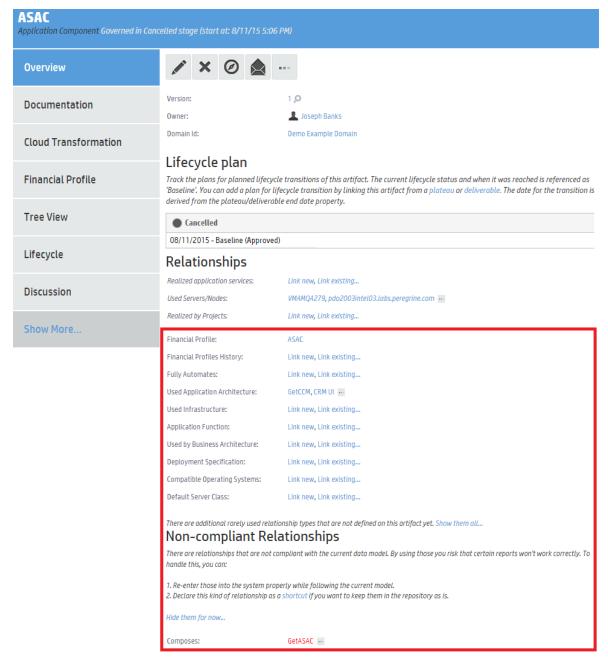
Relationships are created according to the HP EM SDM which is based on Archimate® specification. HP EM supports the following relationship types:

- *Direct relationship*: relationships between the artifacts that are defined as relationship properties in SDM.
- Shortcut relationship: relationships that are derived from a chain of direct relationships. For more details, see "Shortcut Relationship" in Concepts Guide.

Direct relationships are further divided into 2 sub types:

- Compliant relationship: relationships defined in Archimate® specification.
- Non-compliant relationship: relationships not defined in Archimate® specification. These
 relationships are either HP EM system relationships (for example: documentation) or user-defined
 relationships.

Compliant relationships are shown in normal color while non-compliant ones are highlighted in red.



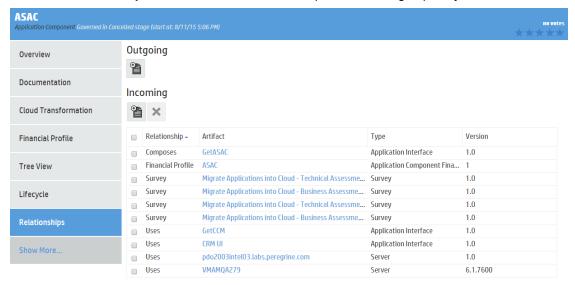
Each relationship that you create for an artifact has another paired artifact. Each member of the paired relation is assigned a unique name, representing the outgoing and incoming relation between the artifacts.

To explain better, an outgoing relation between artifacts A and B automatically implies the corresponding incoming relation between B and A. Outgoing relations are properties of source artifact (A), whereas incoming relations are projections of the outgoing relationships with target artifact (B).

You might want to assess the outgoing and incoming relationships listed for a selected artifact, so as to browse through the data and learn the relationship structure of the artifact.

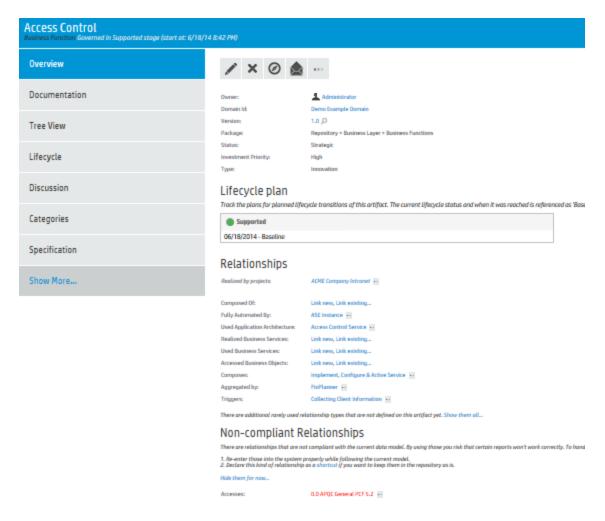
To view the outgoing and incoming relationships of a selected artifact:

- 1. Select the artifact in the Catalog Browser or in the Navigator, and then open the artifact.
- 2. Click the **Relationships** tab. The artifact's relationships are shown, grouped by direction.



Relationships Editor UI

The Overview tab shows you two types of relationships: Archimate standard relationships in the Relationships area, and Non-Archimate standard relationship in the Archimate Non-compliant Relationships area. The example shows an application service artifact.



If you have many relationships defined by a single relationship type, only a few artifacts are shown on the artifact overview page. If you want to show more relationships, you can click the **More...** button to show 10 artifacts at one time.

The most recently modified artifact will be displayed first on the list of relationship artifacts. The quantity of displayed artifacts after clicking More is decided by a system property titled platform.ui.relationship.artifact.max in system properties. Changing this value determines how many artifacts are shown.

Adding an Artifact Relationship

To add relationships to existing artifacts or create new artifacts to relate to:

- 1. Select the artifact in the Catalog Browser or in the Navigator, and then open the artifact.
- 2. There are Link new and Link existing buttons available next to the relationship type that you can use to create a new artifact or link to existing artifacts.

Relationships

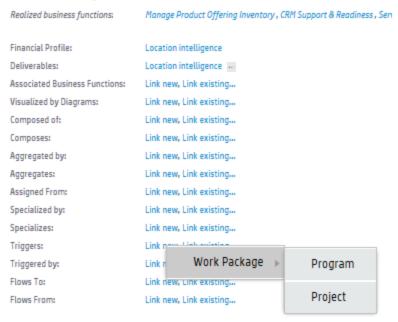
Realized business functions: Manage Product Offering Inventory , CRM Support & Readin Financial Profile: Location intelligence Location intelligence ... Deliverables: Associated Business Functions: Link new, Link existing... Visualized by Diagrams: Link new, Link existing... Composed of: Link new, Link existing... Composes: Link new, Link existing... Link new, Link existing... Aggregated by: Aggregates: Link new, Link existing... Assigned From: Link new, Link existing... Specialized by: Link new, Link existing... Specializes: Link new, Link existing... Triggers: Link new, Link existing... Triggered by: Link new, Link existing... Flows To: Link new, Link existing... Flows From: Link new, Link existing...

There are rarely used relationship types that are not defined on this artifact yet. Hide them...

3. When you click the Link new button, the available artifact types will appear in a menu. Only an applicable artifact type is visible when you click the Link new or Link existing buttons. After establishing a relationship to one or more artifact(s), the menu is replaced with a list of the existing relationships.

For example, when you click Link new on the Triggers relationship type, the available type menu might display Work Package consisting of Program and Project as available artifact types.

Relationships



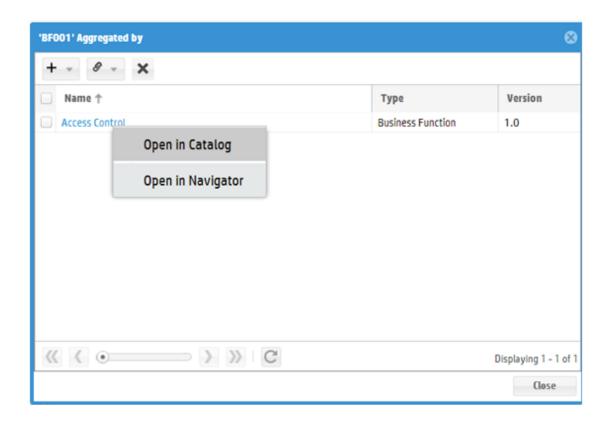
There are rarely used relationship types that are not defined on this artifact yet. Hide them...

4. For artifact types that already contain data, the Link new and Link existing buttons will be hidden from view. You can add more artifacts to this relationship type by clicking on the relationship type name. You will see a separate menu for managing the relationship, which includes the option to view the relationships in a table view:

Relationships



5. If you choose to view in Table View, each row has a context menu to open an artifact in the Catalog or Navigator:

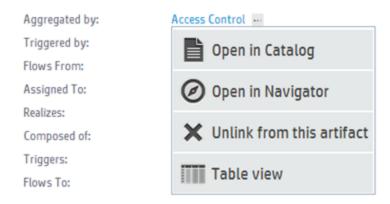


Removing an Artifact Relationship

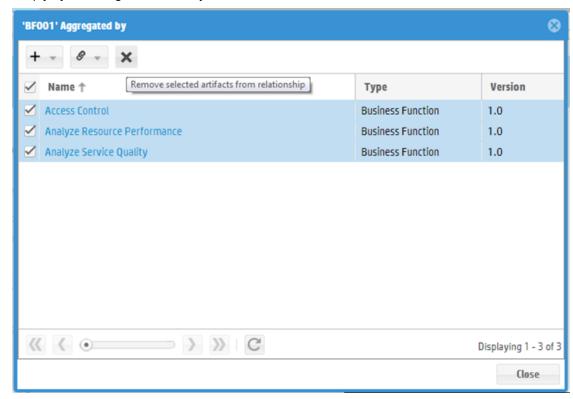
To remove existing artifact relationships:

- 1. Select the artifact in the Catalog Browser or in the Navigator, and then open the artifact.
- 2. From the Overview tab, you are able to remove the link between the selected artifact and another artifact. For removing a specific artifact link from a current artifact, right-click on the artifact you want to remove, then remove it by selecting the 'Unlink from this artifact' option.

Relationships



3. You can also remove a set of artifacts linked to a the selected artifact while in the Table view,

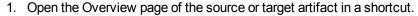


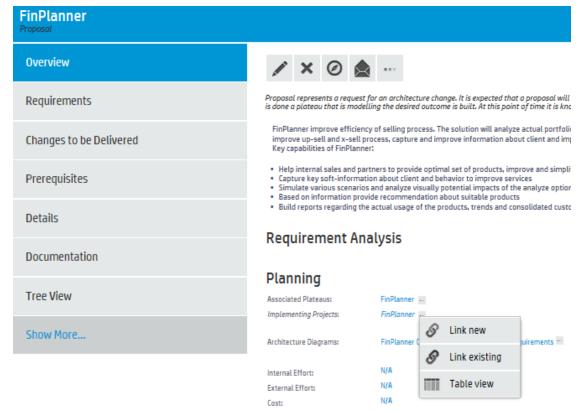
simply by selecting each artifact you wish to remove from the list.

Adding a Shortcut

Shortcut can be created without using the Relationship Editor or Relationships tab of an artifact. Here is how:

Note: Make sure that the canBeEntered attribute is set to *true* in the shortcut definition.





- 2. There must be at least one shortcut created for this artifact. Click the icon next to the shortcut.
- 3. Select the **Link new** to create a shortcut to a new artifact.
- 4. Select **Link existing** to create a shortcut to an existing artifact.

Note: When opening the source artifact of a shortcut, Link new/Link existing creates a shortcut to the target artifact and vice versa.

Non-Compliant Relationships

HP EM enables you to create relationships between compliant and non-compliant artifacts. Artifacts that are non-compliant with the Archimate-based HP EM data model are shown in the artifact view. However some of the relationships can be non-compliant according to the data model. These are shown in the Relationship Editor component, but with red color:

Non-compliant Relationships

There are relationships that are not compliant with the current data model. By using those you risk that certain reports won't work correctly. To handle this, you can:

- 1. Re-enter those into the system properly while following the current model.
 2. Declare this kind of relationship as a shortcut if you want to keep them in the repository as is.

Hide them for now...

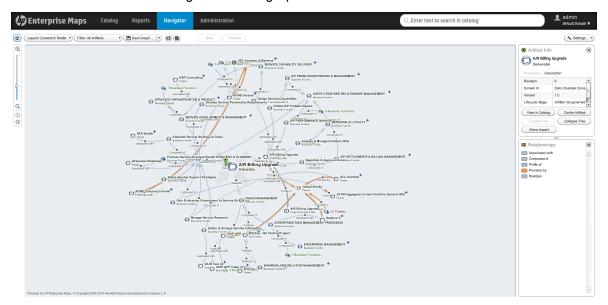
Accesses:

0.0 APQC General PCF 5.2 ---

Chapter 3: Navigator

The Navigator tab graphically represents the content of a catalog. The objective is to bring about and showcase the structure and dependencies of the Archimate® concepts in the Catalog, rather than simply focusing on a single artifact.

Navigator primarily provides for an alternative view, equipped with the capability to explore, browse, and traverse across the Catalog content along a pictorial view.



The main features of the Graphical Navigator are:

Catalog Browsing

Allows you to browse the content of the Catalog in an easy and quick manner.

Layouts

Enables you to view artifact graphs by selecting different layouts. You can organize the artifacts into various structures to view a particular aspect of their relationship. There is also the option to create customized layouts if you wish to focus on specific relationship structures.

Filters

Provides a set of filters focusing on artifacts of interest to each architectural layer, as well as the option to create custom filters.

Save Graphs

Allows you to save a particular graph with the selected layout, which means you can return to the saved graph at a later time. The graph is interactive and lets you move or expand it, or collapse nodes to change the appearance.

Impact Highlights

Enables you to view the impact of change to an artifact (impact analysis).

Screenshots

Enables you to create an image file copy of the graph layouts.

Chapter 4: Reports

HP EM provides many reports that you can run based on the artifacts in your enterprise architecture data model. On the Reports tab, you can access many artifact, policy, heatmap, structure map, and custom reports. You can also view Architecture reports such as Archimate Compliance and Installed Software as well as Transformation reports such as Roadmaps, Investments, Project by Cost, and Applications by Cost. Maintenance reports such as Application Costs are also available, and you can also customize the reports that appear on your dashboard.

The report type that you choose depends on the results, data format, and granularity that you require. The following are the report types to choose from:

- · "Report Dashboard" below
- "Artifact Reports" on page 49
- "Policy Reports" on page 51
- "Heat Map Reports" on page 54
- "Structure Map Reports" on page 55
- "Custom BIRT Reports" on page 56
- "Roadmap Reports" on page 56

Reports are customizable. Administrators can therefore create and deploy new reports without having to restart Enterprise Maps. For more details, see "Report Creation" in *Developer Guide* or contact HP sales representative for assistance.

Report Dashboard

Report dashboard is a collection of reports created for a purpose. For example: Governance Dashboard gives you an overview of the compliance level percentage as a result of the Enterprise Maps policy reports.

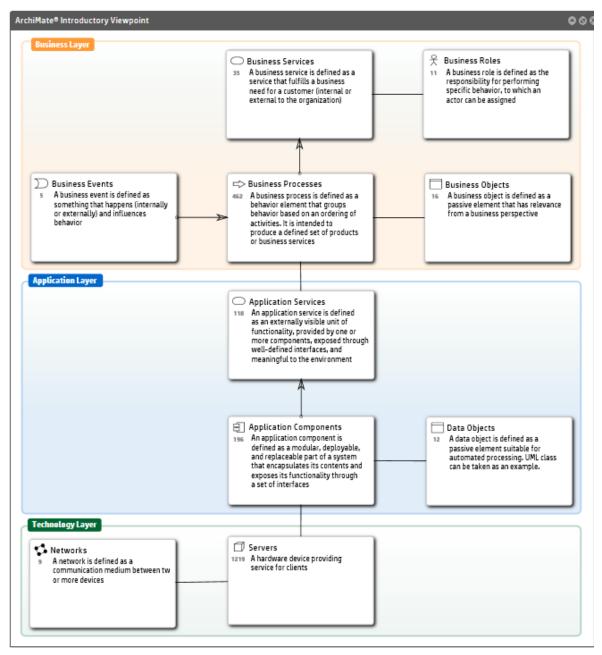
Report dashboard can be customized by the users as per their requirement, or can be reset back to the default installation. Users can also create new report dashboards for their own use.

- "Archimate Introductory Viewpoint" below
- "Policy Radar Report" on the next page
- "Adding a Portlet to Your Dashboard" on page 48
- "Printing Portlet Content" on page 48

Archimate Introductory Viewpoint

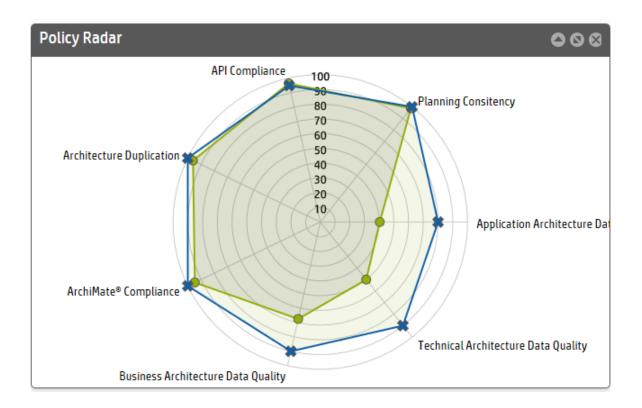
The HP EM data model is based on Archimate® modeling language specification and similar to that it consists of artifacts grouped on the basis of type of artifacts belonging to different layers, and also artifact properties and relationships.

The Archimate® Introductory Viewpoint displays common artifact types and their relationships in 3 basic layers. This viewpoint supports the impact analysis of its artifacts.



Policy Radar Report

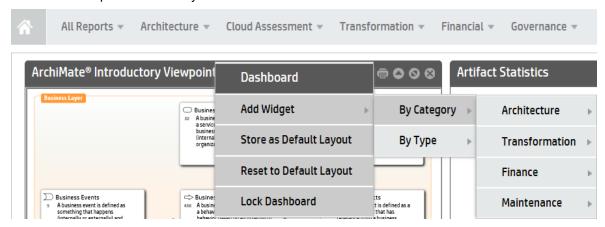
HP EM policy radar reporting is a web UI portlet that displays a radar chart showing the difference between the policy report's actual and target compliance. By default, the policy radar displays all policy reports available HP EM. The layout and contents of the radar can be customized using a managed server-side script.



Adding a Portlet to Your Dashboard

To add a Portlet to your dashboard:

- 1. In the Reports page right-click to open the Dashboard menu as shown in the image below.
- 2. Select the portlet to add to your dashboard.



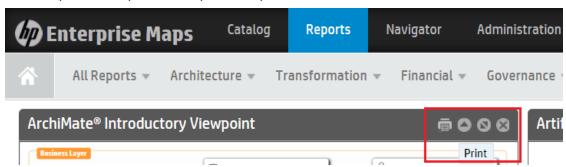
Printing Portlet Content

HP EM provides the option to print dashboard portlet contents from the Reports tab. This is useful as you can convert the report to PDF for instance.

As of now, this option is available for Viewpoint Model, Artifact Statistic and Policy Radar on the Reports home page. Other reports that can be printed are Structure map Reports, Heatmap Reports, Data Matrix Reports and Rating Reports under drop-down for different sub-menu options.

To print, the instructions are as follows:

- 1. Select the report you wish to print.
- 2. Click the print icon to preview and print the report.



- 3. For each browser the print instruction may differ, follow the steps and then click **OK**.
- 4. Select **Shrink To Fit** on Print dialog or Printing Preferences to print the entire portlet content on a single page.

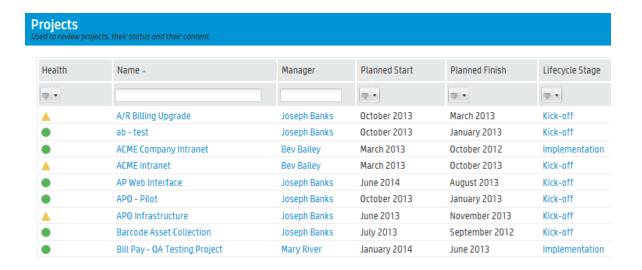
Note: For print preview in IE, click **Internet Options > Security > Custom level**. Scroll down for the option **Initialize and script ActiveX controls not marked as safe for scripting** and select **Prompt**. Restart your machine and click the print icon to see the print preview.

For Chrome the print preview shows automatically upon clicking the print icon. Firefox does not support print preview.

- 5. For good print results, set the following in your browser Page Setup or Preview page:
 - a. Mode: Landscape
 - b. Paper size: A3 or larger
 - c. Background graphics / Print Background (colors & images): must be selected

Artifact Reports

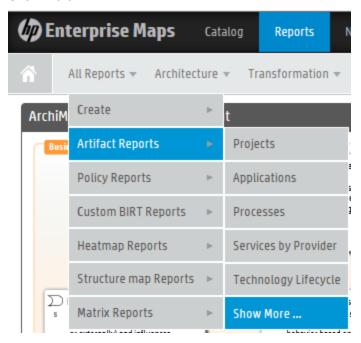
HP EM artifact reports provide table views of the artifact data contained in the HP EM repository. The report is designed and used directly in the HP EM web UI. The artifact table represents the result of a DQL query that is part of the report definition. Artifact reports are re-calculated every time the user accesses the report's web UI page.



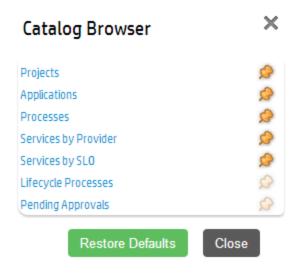
Viewing Artifact Reports

To view artifact reports:

- 1. Log in to HP EM and select the Reports tab.
- Select the All Reports > Artifact Reports menu, which shows any favorite reports as well as a Show More link.



Click Show More to open the catalog browser. The catalog browser lists all reports and also allows you to pin or unpin a particular report as a favorite onto the Artifact Reports menu.



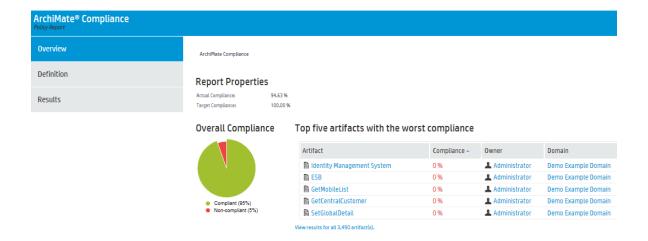
4. Click Projects to view the artifact report called Projects, which is used to review projects and their status and content data. The Projects report is a table with columns that were defined by associated DQL queries.



5. Make any modifications that you want. Column headers contain text fields or list boxes that allow you to perform additional filtering. A column's context menu appears when you click the right side of the column header. The menu lets you choose the sort order or make columns visible or invisible. The columns can be resized by moving the line between them. You can also reorder the columns by dragging them.

Policy Reports

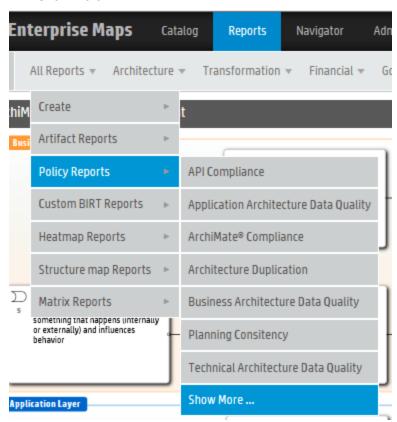
HP EM policy reports are used to report the levels of policy compliance of the artifacts in HP EM repository. The report is designed and used directly in the HP EM web UI. You can select the policies to validate as well as the filter that specifies what artifacts and data to include in the validation directly in the web UI when you define the report. The report's results are cached in the HP EM repository. Users always view results from the most recent calculation of the report.



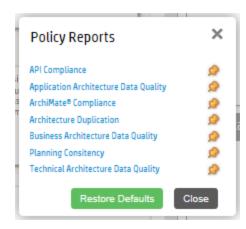
Viewing Policy Reports

To view policy reports:

- 1. Log in to HP EM and select the Reports tab.
- Select the All Reports > Policy Reports menu, which shows any favorite reports as well as a Show More link.



3. Click Show More to open the catalog browser. The catalog browser lists all reports and also allows you to pin or unpin a particular report as a favorite onto the Policy Reports menu.

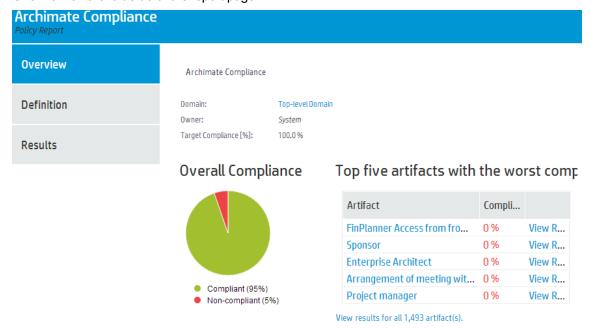


4. Click Archimate Compliance to view the policy report called Archimate Compliance.

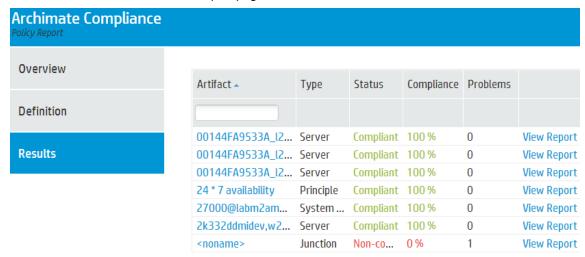
Archimate Compliance Report Structure

The Archimate Compliance policy report consists of three subreports:

Overview: shows the percentage of compliant and non-compliant artifacts in a pie chart as well as a
list of the top 5 artifacts with the worst compliance level. It is accessible when you click the
Overview on the left side of the report page.



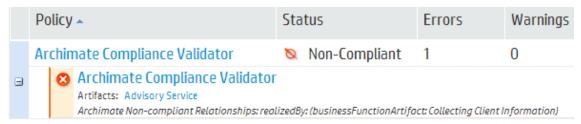
 Results: shows an index table with columns containing clickable artifact names, artifact types, compliance status (Compliant/Non-Compliant), artifact compliance (0 – 100 percent), number of problems found, and a link to details about policy calculations. It is accessible when you click the Results tab on the left side of the report page.



Artifact Results: shows a table with policy calculation details by artifact. Each row of the table
represents a technical policy included in the report definition. It contains a clickable name,
compliance status, and the number of errors and warnings. It is accessible when you click on the
View Report link in any Results row or the Overview subreport.



Each row starts with a clickable plus symbol (+). When clicked it expands a row to show a full textual description of all errors are warnings.



Heat Map Reports

You can use the HP EM heatmap portlet to create graphs of your data where individual values contained in a matrix are represented as colors. Planned cost is shown by the relative size of the rectangular areas and project health is shown by the color shading of the rectangles. Heatmap reports are updated immediately when there is a change in the data reported. HP EM provides three Heatmap reports out of the box:

- Applications by Cost report -- shows the Annual Cost Total(s) of selected projects.
- Projects by Cost report -- shows Planned Cost of selected projects (shown).
- Installed Software report -- shows Lifecycle Stage of selected System Softwares.

A Heat Map is defined in the web UI using a managed server-side script that specifies how the data and its two dimensions (that is, planned cost and project health) are calculated and visualized. The Heat Map is also shown directly in the web UI, either as a portlet (an area of the HP EM home page) or as a standalone report. Heat Map reports are recalculated every time the user accesses the report's web UI page.

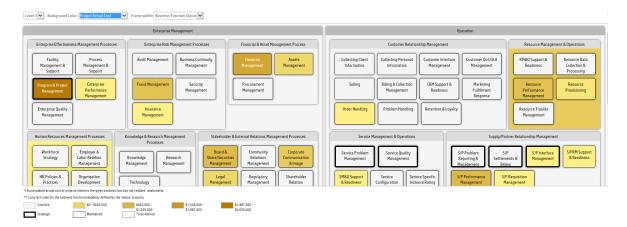


Structure Map Reports

As an HP EM administrator, you can use HP EM to create a structure map of artifacts by business function, which allows you to view the relationships between artifacts and the status of each artifact. Users can group artifacts by defining DQL queries and colors, and can modify the way that artifacts are displayed by using a color renderer and legend renderer.

Another way to characterize structure map reporting is as a boxed visualization of a data tree structure. You can use a structure map to model business capabilities, but the visualization itself is not restricted to business capabilities. Each rectangular area contains boxes that can be nested several levels. Boxes can be decorated to show dimensions of input data by using background colors or border lines of varying widths. Unlike the heap map report, the area size of a box is calculated to fit. Several levels of boxes are shown at the same time.

For example, an out-of-box Capabilities to project mapping structure map report shows business functions as nested boxes. The box's background color represents the cost of the projects allocated to a business function. The box's bold frame indicates that the function is going to retire.



A structure map is defined in the web UI using a managed server-side script that specifies how the data and its dimensions are calculated and visualized. The structure map is shown directly in the web UI, either as a portlet (an area of the HP EM home page) or as a standalone report. Structure map reports are recalculated every time the user accesses the report's web UI page.

Custom BIRT Reports

You can use the HP EM Workbench to design custom reports. The reports are defined and executed using Eclipse's BIRT, which is a very powerful reporting system that includes the reporting features such as report layout, data access, and scripting. For more information, see http://www.eclipse.org/birt/ where you can find details about the technology used and a few report examples.

BIRT report definitions can be deployed and used in HP EM. The BIRT execution engine is part of HP EM and the report definitions are executed to create a custom report. Custom reports are cached in HP EM and you can access them directly in the HP EM web UI. Unlike other reports, custom reports are provided as standalone documents (PDF or HTML) that can be easily downloaded from HP EM.

Roadmap Reports

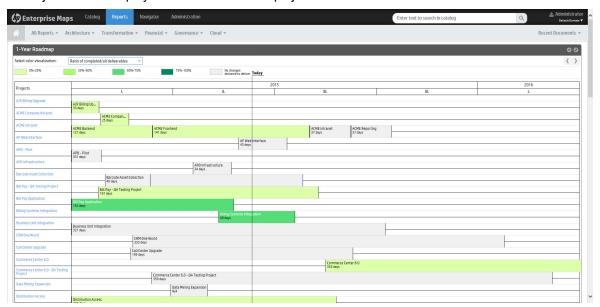
HP EM Roadmap reports provide quarter wise view of the projects and their deliverables over a period of one year. The report gives a quick snapshot of the project status; the project links help navigate to the project/deliverable page directly. The number of days along below the deliverable on the report represents the time it took for the deliverable to get completed.

Hover over the deliverable box to see the following:

- Start Date and End date based on which the number of days are calculated and displayed with the artifact.
- Number of prerequisites required by the deliverables.
- Number of delivered architecture changes for the deliverable.

Select any of the following options from the **Select color visualization** drop down to change the visualization of the deliverables:

- Ratio of completed/all deliverables: displays percentage of completed architecture changes.
- Ratio of completed/all prerequisites: displays percentage of completed prerequisite architecture changes.
- Project health: displays overall health of the project associated with the deliverable.



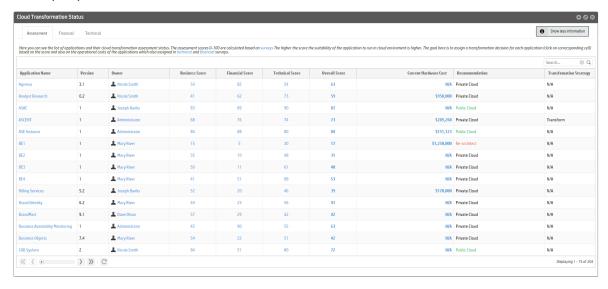
Cloud Transformation Reports

Cloud Transformation provides the following reports:

- "Cloud Transformation Status" below
- "Cloud Transformation Map" on the next page
- "Cloud Transformation Data Quality" on the next page

Cloud Transformation Status

This report provides an overview of cloud assessment based on the scores.



In this report:

Minimum Estimated Hardware Cost

The lowest cost for all deployments (infrastructure services) of the application component. If there is no cost for this estimate type (for example: when the application component has no associated deployment or the deployment has no specified server class), the estimated cost from the number of servers property and server class relationship is used.

The calculation algorithm is the same as in Financial Alignment of the application component in the Cloud Transformation tab.

Current Hardware Cost Estimate

Sum of the costs of deployment for all deployments (infrastructure services) into the current data center. Again if no infrastructure services are available, estimate from number of servers property and server class is used.

• Current Hardware Cost

Annual Hardware Cost from current financial profile. If not available, this column displays Current Hardware Cost Estimate (prefixed with 'Est.').

Savings Opportunity

Is calculated as:

Savings Opportunity = Current Hardware Cost - Minimum Estimated Hardware Cost

If the savings opportunity is negative, this column displays \$0 instead.

• ROI (5 years)

Is calculated as:

ROI (5 years) = 100 * [(5*Savings Opportunity) - Transformation Cost] / Transformation Cost

Cloud Transformation Map

This report visualizes applications suitable for cloud transformation in heat map style.



Cloud Transformation Data Quality

This report provides the level of data quality as policy compliance.



Chapter 5: Architecture Transformation

Enterprise Maps (HP EM) enables the enterprise architect to provision future states of an enterprise architecture in order to evaluate new solution architecture designs. This enables the Enterprise Architect to maintain a view of shared IT assets and to make decisions regarding asset sharing through the approved solution design of a new project. The ability to create consolidated future views in selected time slices is made possible through the export of a new solution design layout to the HP EM repository during the Solution Architecture Design phase.

HP EM is capable of managing not only the current architecture (as-is) but also the future architecture (to-be) provisioned for the enterprise. HP EM uses the same artifacts as in Archimate2® Implementation, and Migration and Motivation layers to model the transformation process.

In HP EM you can create an architecture from a proposal which enables you to not only manage the demands of the users but at the same time be able to exercise better control over the project's progress.

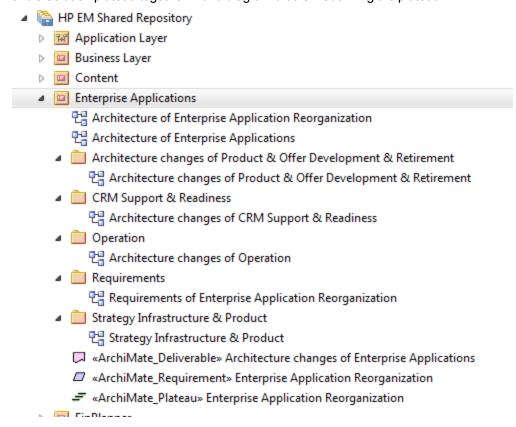
In HP EM, the to-be architecture can be created and monitored automatically using HP best practices. For details, refer to following topics:

- "Creating Proposal" on the next page
- "Creating Project from Proposal" on page 64
- "Setting Target Architecture" on page 65
- "Setting Efforts of Architecture Changes" on page 68
- "Monitoring Architecture Changes" on page 68

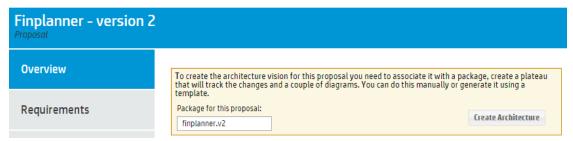
Creating Proposal

An enterprise architect helps build an architecture vision in the following manner:

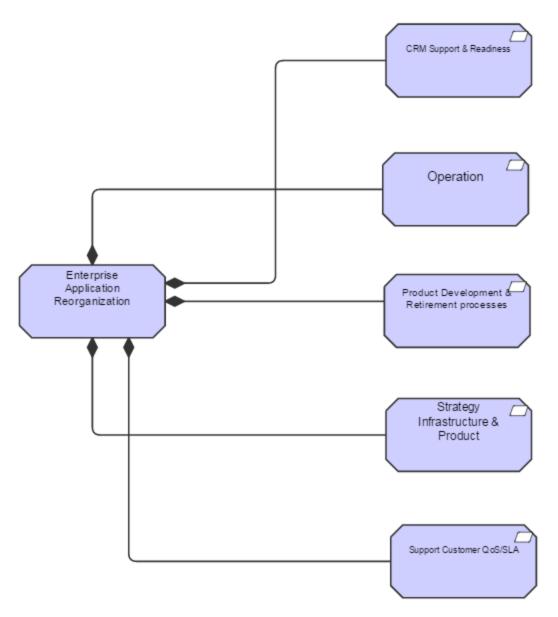
1. Generates a basic proposal document structure, which includes a requirement structure diagram, and a solution plateau together with a diagram that is visualizing the plateau.



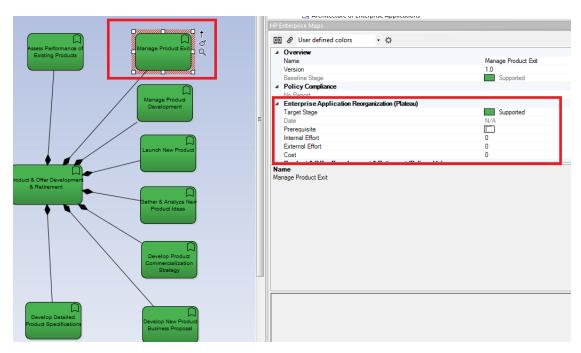
You can start by defining a package that is used as a container for data related to the proposal. The package is also represented as a package folder in the Sparx add-in later on.



3. Once the proposal has the structure defined, the architect or the proposal owner is using the "Extension for Sparx Systems EA" on page 123 to decompose the requirements. You can see that the aggregation/composition relationship is used for the decomposition.

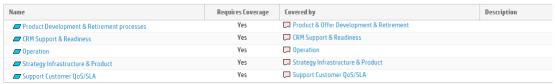


4. Then, the architect defines the solution plateau using the **Sparx add-in**. While doing so you can assign the values for the estimates on the effort needed to build the solution.



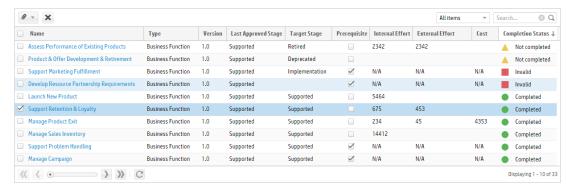
The architect links the solution components to the requirements created in step 3 above. Once this is done it is possible to monitor the requirement coverage on the **Requirements** tab of the proposal.

Requirement Coverage



6. In HP EM, for each element in the plateau (on plateau catalog page) it is possible to assign a lifecycle stage that is reached when the proposal is implemented. For example: if the element is about to be removed, the target is shown as the **retired** lifecycle stage. But if the target is a new element, it will probably be shown as the **production** stage.

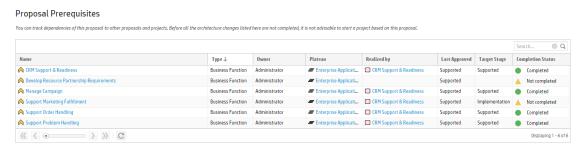
Target Architecture Changes



7. Also, on the same page certain plateau elements can be marked as **prerequisites**. These elements are handled by projects other than the current proposal or projects created on behalf of it.

8.

This ensures dependencies on other proposals/projects, visible on the **Prerequisites** tab of the proposal.

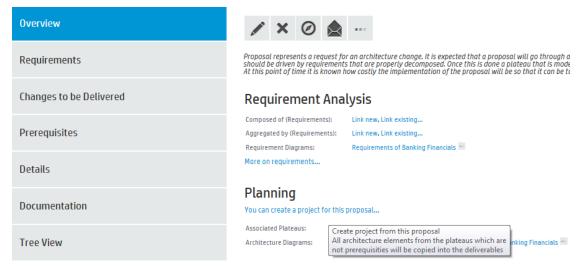


Creating Project from Proposal

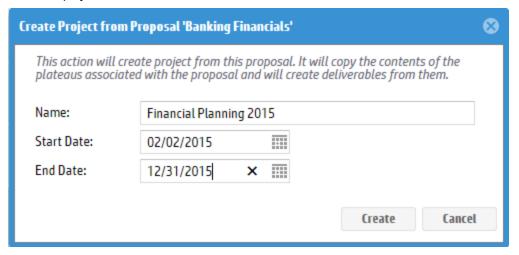
The HP EM proposal page allows you to automatically create a project and the associated deliverables.

To achieve this, perform the following steps:

1. Open the proposal and in the Overview tab click the link 'You can create a project for this proposal...'. This link is available only for an empty proposal; it does not have association with any project as such.



2. Enter the project name, start date and end date.



This action creates a project linking it with the current proposal and for each plateau associated with the current proposal, a realizing deliverable. All elements aggregated in a plateau of proposal are also aggregated by the corresponding deliverable of the project created.

Setting Target Architecture

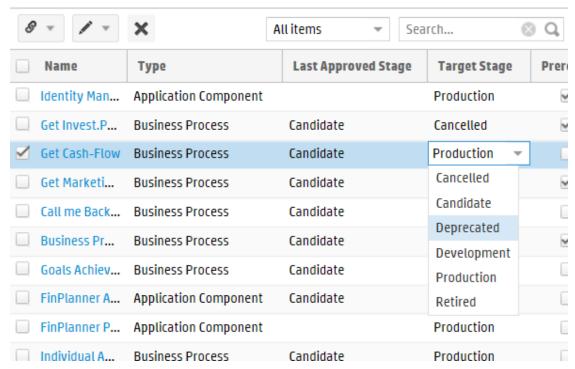
HP EM makes it possible to manage architecture changes which are going to be delivered or have been delivered for a Plateau or a Deliverable respectively.

Setting Target Stage

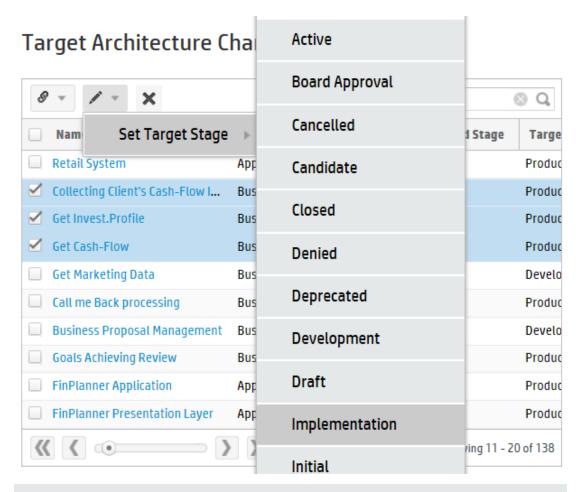
1. In the Overview page of a plateau or deliverable, scroll down to see Target Architecture Changes or Delivered Architecture Changes.

To make changes for a specific artifact, double-click the target stage of the artifact you wish to modify and select the desired target stage.

Target Architecture Changes



2. To make changes to multiple artifacts at once; select the artifacts, click **Set Target Stage** icon and select the desired target.



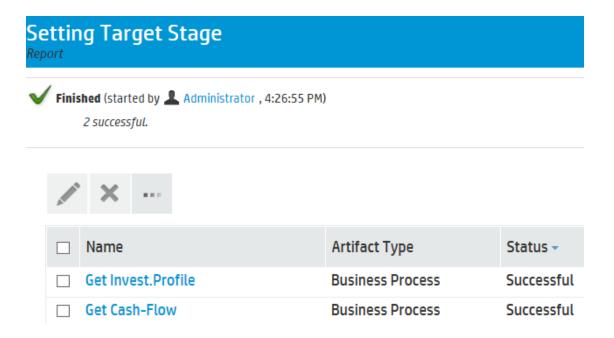
Note: The list of target stages is extracted from all the lifecycle processes which are currently being published. Some of them may not be applicable to the artifacts you have selected, in which case you will get a notification in the report once the operation is finished.

3. You will see a summary of the status which shows the stage as successfully set and/or skipped.

Setting Target Stage finished. Result: 2 successful. Click here for detailed report.

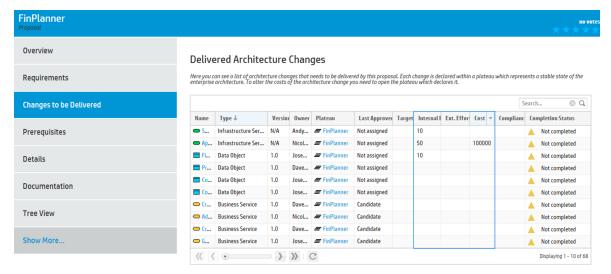
The stages which are not applicable for certain artifacts are automatically skipped; these are those artifacts which are not under governance. There are other artifacts which are under governance but the governing process does not contain the selected stage, those also, are skipped.

4. Click to see detailed report of the artifacts with the status.



Setting Efforts of Architecture Changes

HP EM allows users to manage costs, and internal and external effort of the architecture changes. The data can be entered through Plateaus UI or *Changes to be Delivered* tab of Proposals. This helps speed up the evaluation process and assists stakeholders make some key decisions.



Monitoring Architecture Changes

The proposal owner can monitor the following aspects:

• The overall aggregated cost and effort required to implement the proposal

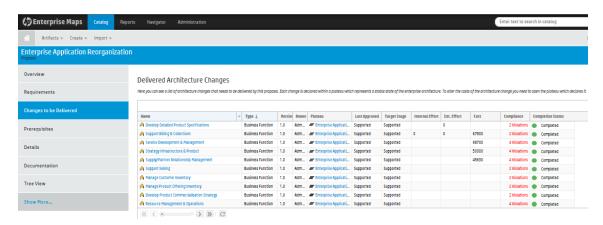
Changes to be Delivered

30 Elements total, more...

Internal Effort: 23127
External Effort: 2840
Cost: 266483

Completed
Not completed

- The progress of the process:
 - This is possible if a link is setup from PPM to EM ().
 - Monitoring compliance of the solution to company policies.



Chapter 6: Cloud Transformation

For a detailed overview of this topic refer to "Cloud Transformation" in the Concepts Guide.

This section covers the following 3 topics:

"Cloud Transformation Dashboard" below

"Estimating Cost of Deployment" on the next page

"Service Design Publishing" on page 75

Cloud Transformation Dashboard

The Enterprise Maps Cloud Transformation Dashboard functions like a wizard and comprises of 3 separate panels. The wizard runs you through the cloud transformation process. This process helps provide insights into status of IT infrastructure.



The 3 panels on the dashboard are:

- Left panel: statistics of applications and associated deployments
- Middle panel: wizard to build up reference models and service designs
- Bottom panel: recommended Cloud platforms based on KPIs

Left Panel

Concept	Description
Contacts	All contacts.
Applications	All application components.
Application	Infrastructure services representing deployments of applications.

Left Panel, continued

Deployments		
Surveys in-progress	Surveys currently open.	
Service Designs	Infrastructure services representing CSA service designs (in CSA Service Designs domain).	

Middle Panel

Step	Description
Import Data	Publish data through Catalog UI or from CSV, PPM and UCMDB.
Run Surveys	Start surveys for applications. Each survey generates scores relevant to the survey perspective.
Analyze Results	View Cloud Transformation Status and Cloud Heat Map reports.
Model Deployments	Build up deployments from Sparx Systems EA or import them from Spreadsheets.
Build Service Designs	Create topology service designs in CSA.

Bottom Panel

Concept	Description
Cloud Ready	Application components having Technical Alignment above 25%. This default value can be customized. The technical alignment score is generated after respondents fill in Cloud Technical Survey.
Automated Deployments	Application components having a service design associated.
Without Known Deployments	Application components with no deployments associated.
Public Cloud	Application components having Technical Alignment above 75%. This default value can be customized. The technical alignment score is generated after respondents fill in Cloud Technical Survey.

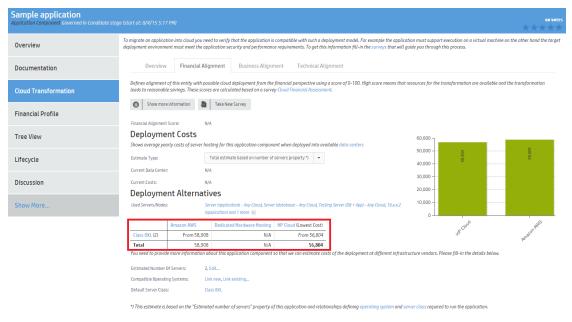
Estimating Cost of Deployment

Cloud Transformation UI provides 2 types of estimation for deployment cost:

- 1. Rough: based on required Server Class and estimated number of servers.
- 2. Detailed: based on deployment model.

For rough estimation:

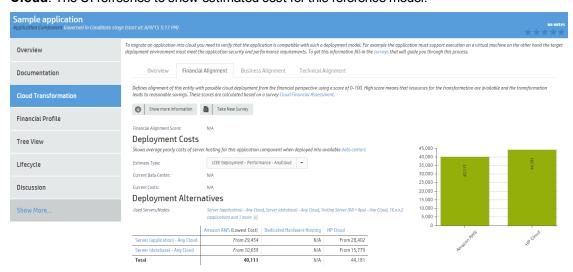
- 1. Open the Application Component.
- 2. Go to Cloud Transformation tab and click Financial Alignment sub tab.
- 3. In Estimated Number Of Servers field click Edit and enter a number here.
- In the Compatible Operating Systems field select the Operating System required. If no selection is made, the estimation assumes that the application component can run under any operating system.
- 5. In **Default Server Class** field click **Link Existing** and select a Server Class.
- 6. Once all the details are entered, the UI refreshes to show the estimated cost.



Note: Most applications in EM demo data contain a rough estimation. See one of the examples such as ASAC.

For detailed estimation:

- Follow "Building Reference Model for Cloud Transformation" on page 128 to create a reference model.
- Go to Cloud Transformation tab of the application component and click Financial Alignment sub tab.
- 3. In Estimate Type field, from the drop down, select J2EE Deployment Performance Any



Cloud. The UI refreshes to show estimated cost for this reference model.

Note: Some applications in EM demo data contain a detailed estimation based on one or more deployment models. Refer to any one of the below for example:

- ASCENT
- CCM Core
- DWH
- HR System
- Payment Gate
- RMC Backend
- TLS
- Travel Mobile Connect

How cost estimation works

In both estimation types, a Server Class must be specified; for each Server in deployment model (in case of detailed estimation) and for the application component (in case of rough estimation). The specified Server Class is used to find Server Profiles provided by data centers (listed as columns).

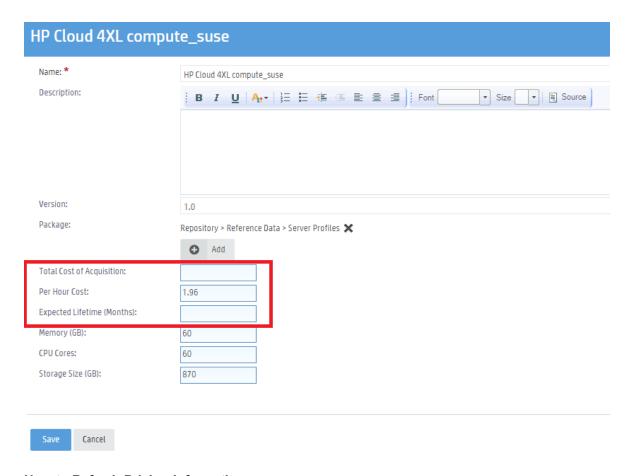
In case a data center provides only a single matched server profile (mostly in cases when no Operating System is specified), a single cost value is returned as the estimate for that data center. Else, the lowest cost is returned with 'From' as a prefix.

Server profiles provided by a data center have *Assigned* from relationship with that data center. Optionally, a data center may have a default server profile ('Default Server Profile' relationship). This default server profile is used for estimation in case no Server Class is specified.

Cost per Server (yearly) is calculated from its specialized Server Profile following the formula below:

Server Yearly Cost = [Total Cost of Acquisition / (Expected Lifetime / 12)] + [Cost Per Hour * 24 * 365.25]

Note: If Total Cost of Acquisition and Expected Lifetime are not entered (as in below image), the default values are 0 and 48 respectively.



How to Refresh Pricing Information

Pricing information of Amazon Web Service and HP Cloud data centers is available and up-to-date as of the release of Enterprise Maps. To get the latest pricing information of these data centers follow the steps below:

- Run EM_HOME/demos/cloud-pricing-import/createCSVs.bat.
- 2. Check EM_HOME/demos/cloud-pricing-import/generated folder to make sure aws.csv and hpcloud-data.csv are updated (check the modified dates). If an error occurs or these files are not updated, refer to README file for more troubleshooting details.

Tip: If you are behind the firewall, modify createCSVs.bat and add these Java options "-Dhttp.proxyHost=proxyhostURL-Dhttp.proxyPort=proxyPortNumber"

- 3. In case Amazon Web Server returns more Server Profiles, modify aws-classes.csv to specify Server Classes for the new server profiles.
- 4. Run EM_HOME/demos/cloud-pricing-import/import.bat to import updated CSV files. Alternatively, copy updated CSV files to your local machine and use Import Spreadsheet function to import them.

Service Design Publishing

A topology service design in CSA is modeled by an Infrastructure Service in Enterprise Maps. This service along with other model elements such as servers, application components, system software etc. can be then published to CSA as a real service design.

An infrastructure service can be published in 2 ways: either from a CSA reference service design or from a deployment model.

Publishing from a CSA Reference Service Design:

This approach requires a service design which is created in CSA and then imported into EM as a reference model. The reference model is then used to publish the actual model back into CSA.

The reference service design must contain a component with functional type of Capability. This component acts as a reference component; a place holder which is then replaced by a more concrete one during publishing.

How to Publish

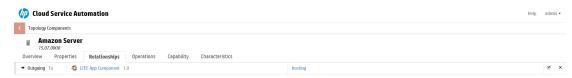
• In CSA, create a reference service design as below:



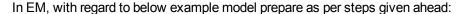
- Create a component called ASAC; the functional type for which is Concrete.
- Create another component called J2EE App Component; the functional type for which is Capability.
- Define J2EE App Component as the supported capability of ASAC.

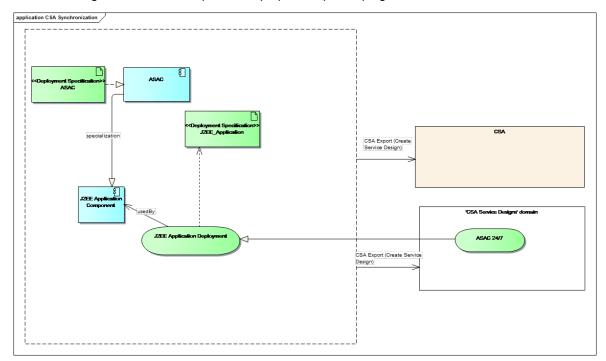


• Define **outgoing** relationships from other components. For example: servers to J2EE Application Component. These relationships are inherited by ASAC by default.



 Create the service design with J2EE App Component and other relevant components such as servers.

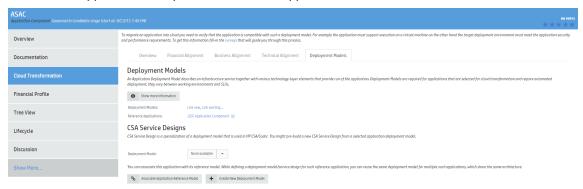




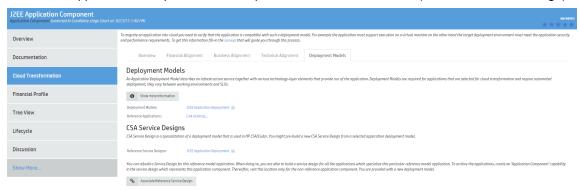
- Create an application component: ASAC.
- Create a reference application component (application in a Reference Model domain): J2EE Application Component.
- Import the components and service designs from CSA (For details see, "Importing Data from Integration Server" in *Administration Guide*).
- Run the Deployment Specification Association Update Task to link the imported deployment

specification (representing components in CSA) to the existing application components - system software. This is required to publish application components and system software into CSA.

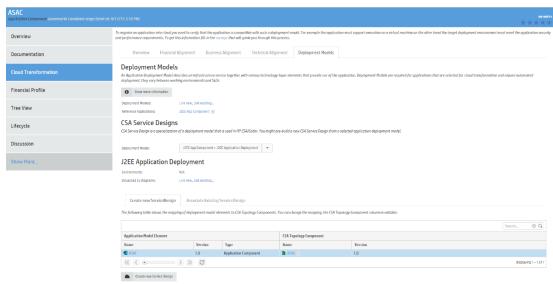
Make J2EE Application Component a reference application of ASAC.



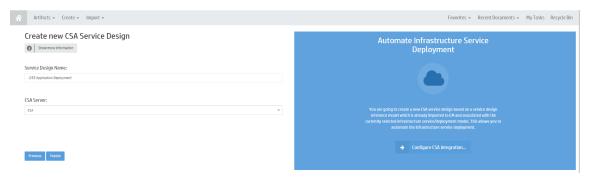
Link J2EE Application Component to the imported infrastructure service (reference service design).



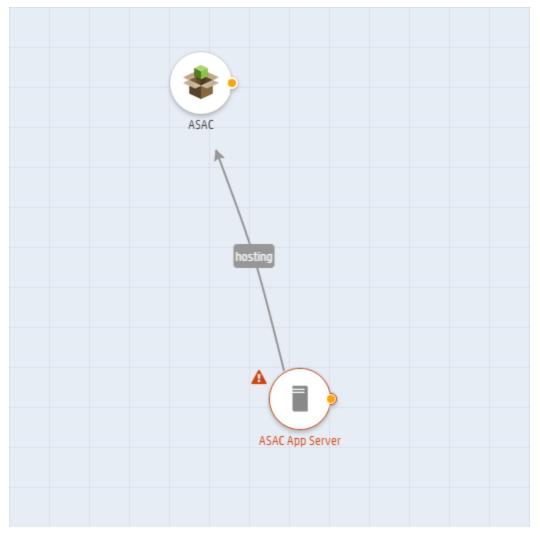
- Ensure that infrastructure service is linked to a deployment specification which contains JSON data
 of the reference service design.
- Go to Cloud Transformation > Deployment Models tab of ASAC application component. Select
 the deployment model to be published from the drop-down list, review its mapping to CSA topology
 components and click Create new Service Design button.



• Provide the service design name and a CSA integration server for publishing and then click **Publish**.



• The published service design looks as in the below image:



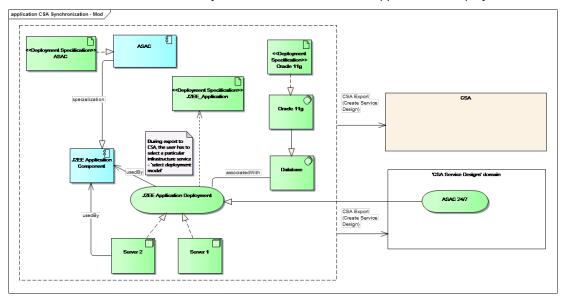
Publishing from a Deployment Model:

This type of publishing relies upon the artifacts (model elements) associated with an infrastructure service. Together, they form a complete deployment model to be published into CSA.

• Supported Models:

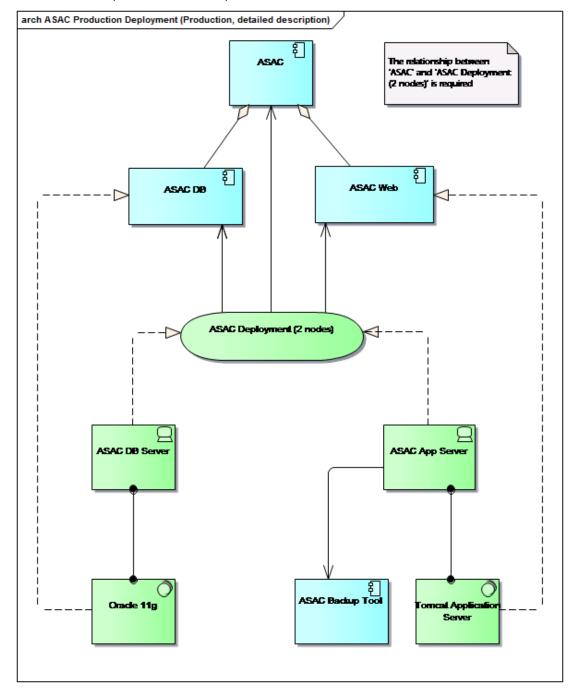
• Archimate Compliant Model

This model demonstrates a simple deployment model compliant with Archimate. It just provides an overview of the model without any details of which server the application is deployed on.



• In-Depth Model

In addition to the Archimate compliant model, EM also supports a model with a higher level of granularity which provides further details on how the application components are deployed onto

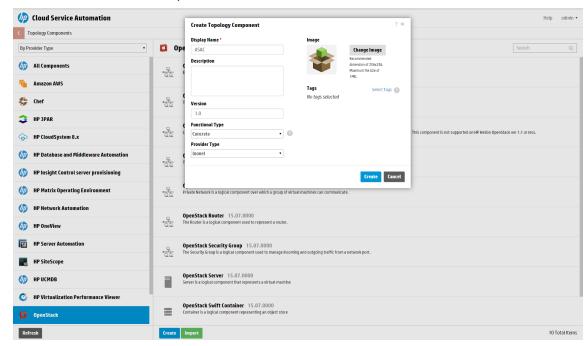


servers or decomposed into sub-components.

How to Publish

In CSA

 Create relevant components with the same names, which represent the application components, system software to be published to CSA. For example: ASAC, Oracle 11g, etc. It is not required to create a component for an application component or system software which is specialized by



another one as these are not published into CSA at all.

Define the *outgoing* relationships amongst the components created, based on how they are
visualized in the models. However, the relationship names can be defined arbitrarily as they do not
rely upon EM relationship names. These relationships, if defined correctly, are used to visualize how
components are connected in the service design.

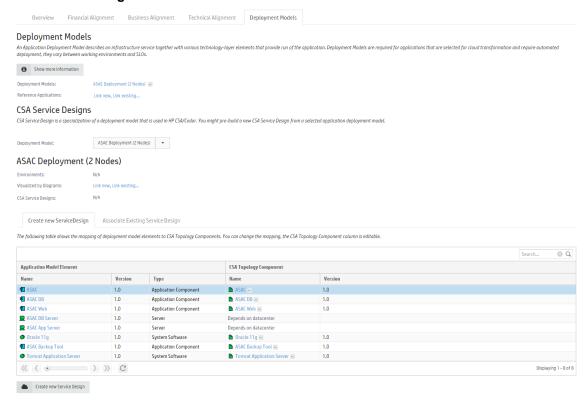


In EM

- Prepare a model as illustrated above (it is recommended that the model is developed by a modeling tool such as Sparx EA), with the following prerequisites/practices:
 - The infrastructure service can be used by one or more application components.
 - An application component can use multiple infrastructure services. User must select which one is required for publishing.
 - Application components and system software might be specialized by other components and system software. These components and system software are not published, since they are regarded as reference artifacts in the model.
 - Application components and system software (which are not specialized by others) must be
 realized by deployment specifications imported from CSA (For details see, "Importing Data from
 Integration Server" in Administration Guide). These deployment specifications contain the CSA

component information which is required to publish an application component and system software to a CSA service design.

- The data center is required to create the components which represent servers in a CSA service design. Currently supported data centers are: "Amazon AWS", "VMware vCenter" and "HP Cloud". The data center artifacts must be named accordingly.
- Open an application component in the model which is not specialized by any other. For example: ASAC application component.
- Go to Cloud Transformation > Deployment Models tab, select the deployment model to be
 published from the drop-down list, review its mapping to CSA topology components and click Create
 new Service Design button.



• Provide further inputs for publishing, as in the below image. Click **Show more information** button to display the help texts.



- Publishing is disabled if no data centers or CSA integration servers are available in Enterprise Maps.
- The second step of the wizard provides a summary of the service design to be created in CSA.

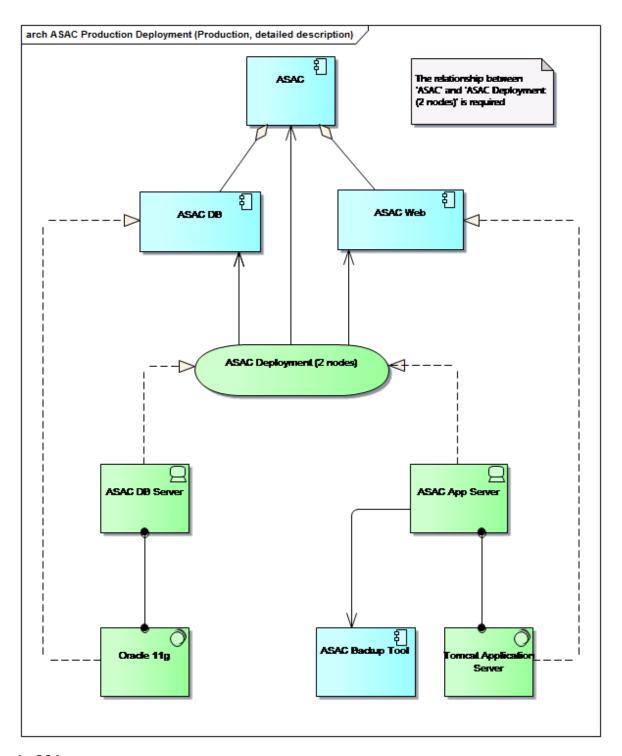


Note: The current user publishing the infrastructure service must have the "Read" access rights for all artifacts involved in the model. Else, either the publishing is disabled or the published service design is incomplete.

Publishing Example Diagrams

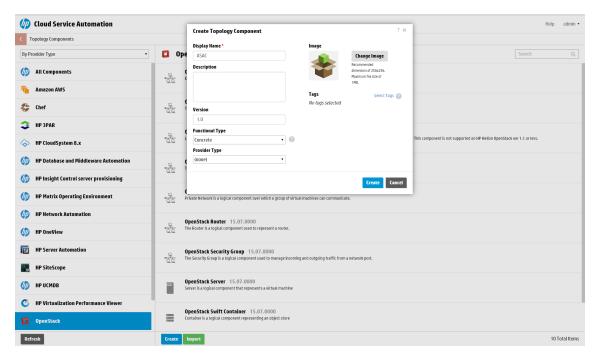
EM provides some example service designs which are modeled by the diagrams in Sparx EA. Examples of these diagrams can be found in [EM installation folder]\demos\service-design-publishing\publish-csa-sample.eap.

This topic provides step-by-step instructions on how to publish one of these supported design models to CSA as a service design.

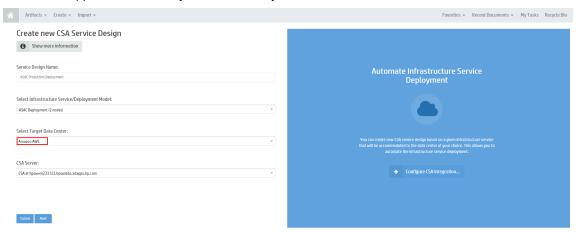


In CSA:

 Create relevant components which represent the application components and system software to be published to CSA. For example: ASAC, ASAC DB, ASAC Web, Oracle 11g, ASAC Backup Tool and Tomcat Application Server.



EM supports default server components in CSA such as Amazon Server, vCenter Server and
OpenStack Server. These servers are used for publishing depending on the data center chosen as
highlighted in the image below. Hence, it is not required to create components for ASAC DB Server
and ASAC App Server, unless you wish to use your own-defined servers.



Note: Currently, OpenStack Server is being used for HP Cloud data center.

- Define the relevant relationships between CSA components to visualize how application components, system software and servers are related to each other. That is to create:
 - Outgoing relationship from ASAC DB to ASAC
 - Outgoing relationship from ASAC Web to ASAC
 - Outgoing relationships from Oracle 11g to ASAC DB and ASAC DB Server

- Outgoing relationships from Tomcat Application Server to ASAC Web and ASAC App Server
- Outgoing relationship from ASAC App Server to ASAC Backup Tool

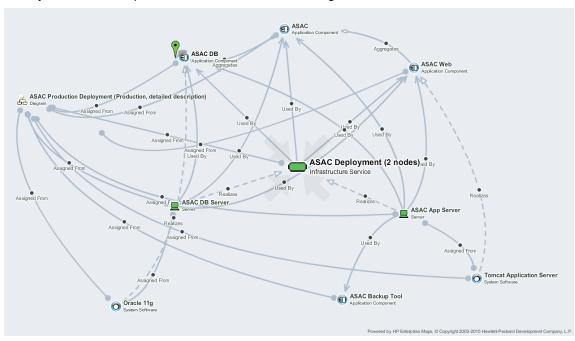


In Sparx EA

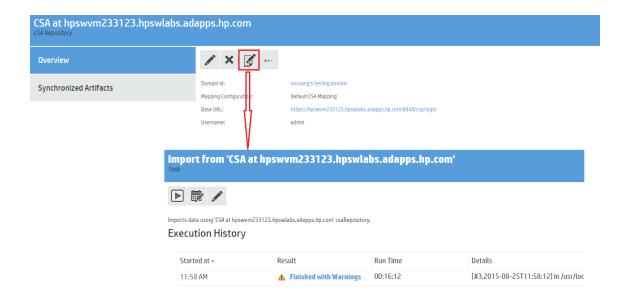
- Open the ASAC Production Deployment (production, detailed description) diagram in the project
- · Sync to EM

In EM

• Verify that artifacts and their relationships are created accordingly. To do so, open the diagram that was synced to EM or open one of the artifacts in the Navigator as illustrated below:



 Create a CSA repository and then execute the associated sync task to import the components from CSA.

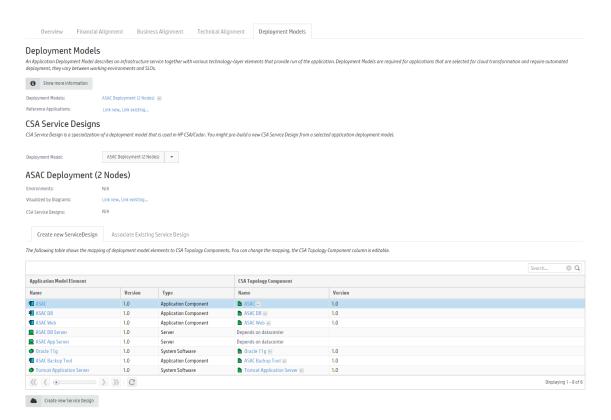


Note: Components are imported to EM as Deployment Specification artifacts.

 Run the Deployment Specification Association Update Task to associate the application components and system software to the ones imported from CSA.



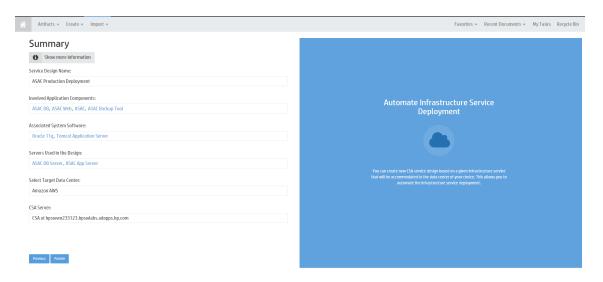
Go to Cloud Transformation > Deployment Models tab of ASAC, select the deployment model
to be published from the drop-down list, review its mapping to CSA topology components and click
Create new Service Design button.



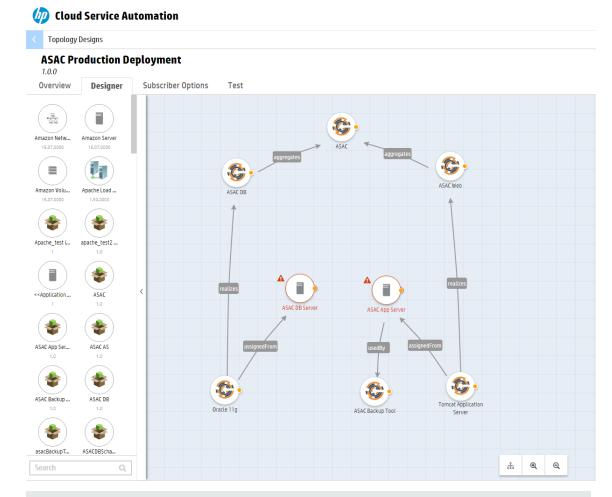
 Provide more information such as service design name, target data center which decides what server component is used to create the server components, etc. in the first step of the publishing wizard.



• Thereafter, in the summary step, verify the data to be published to CSA.



• Once the publishing is finished successfully, you can check the service design created in CSA.



Note: The relationship names and component icons are defined arbitrarily by CSA users. Therefore, the published service design could look slightly different from the one above.

Chapter 7: Surveys

This section covers the following topics:

- "Understanding Survey Definition" below
- "Starting New Survey" on the next page
- "Undertaking the Survey" on page 95
- "Keeping Track of Survey" on page 97
- "Reviewing Answers" on page 98
- "Taking a Self-Assessment Survey" on page 99
- "Monitoring and Managing Survey" on page 100

Understanding Survey Definition

A Survey Definition In Enterprise Maps consists of the questions in a survey . This Survey Definition artifact contains out-of-the-box survey definitions designed to help assess the possibility of migrating Application Components into Cloud.

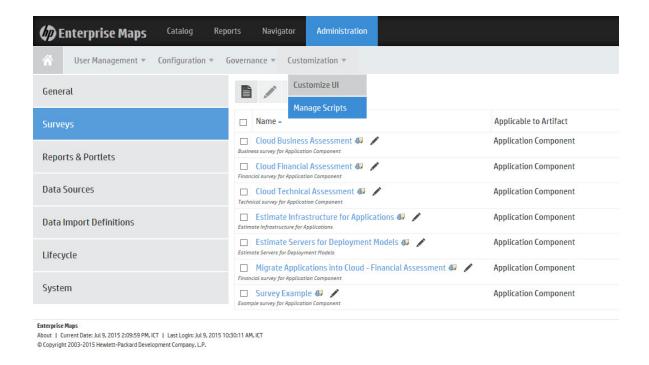
Cloud Business Assessment

Survey for assessing the possibility of cloud migration from business perspective.

Cloud Technical Assessment

Survey for assessing the possibility of cloud migration from technical perspective.

Note: Only Administrator role can create or edit survey definitions. Survey Definitions can be accessed both from **Survey Definition** in Catalog UI and **Manage Scripts** in Administration UI.



Starting New Survey

Once a survey is defined (i.e. Survey Definition artifact is created and previewed), a Survey Manager or Administrator can invite the owner or contacts of the artifacts to fill out the survey (Survey artifact).

A survey comprises of a list of artifacts, respondents and their responses.

Note: Only Survey Manager or Administrator can start a survey.

To start a survey, login as a user with Survey Manager role/credentials and follow the steps below:

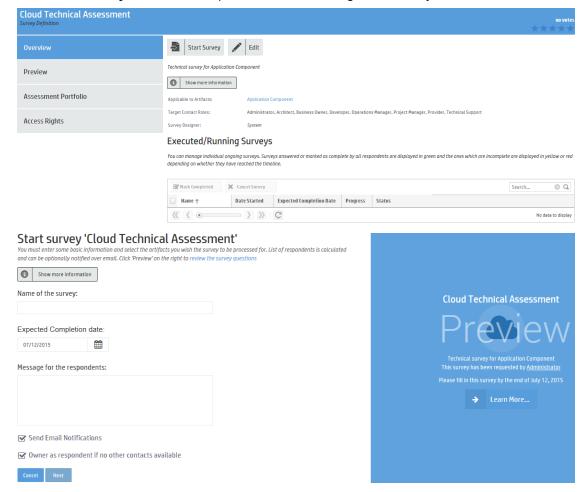
1. Open Catalog Browser and click **Survey Definitions** under Content tab.



- 2. Select a survey definition to start the survey.
 - a. If you are the Administrator, you may click **Edit** to change the following fields in the survey definition:
 - a. Applicable to Artifacts: artifact types this survey applies to.
 - b. Target Contact Roles: contacts under the survey artifacts who will be invited to take the survey. By default, all contacts of the survey artifacts are invited.

Note: Survey Manager is not allowed to access Edit function.

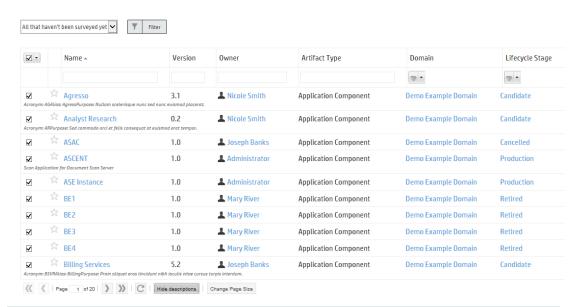
3. Click Start Survey and fill in the required information to begin with survey.



4. Click **Next** and select the artifacts to be included in this survey.

Start survey 'Cloud Technical Assessment'

Select the artifacts you want to be surveyed. You see all that haven't been surveyed yet and you can switch the table to display all and further filter the list. If you are missing some artifacts, import them from external sources.



Note: The filter **All that haven't been surveyed yet** is selected by default. You can select **All** to view artifacts that have been surveyed earlier.

- 5. Verify the counts of artifacts and respondents and if they are as expected. You can do the following if required:
 - Remove unwanted artifacts from the survey
 - · Add or remove respondents

Click Finish.

Start survey 'Cloud Technical Assessment'

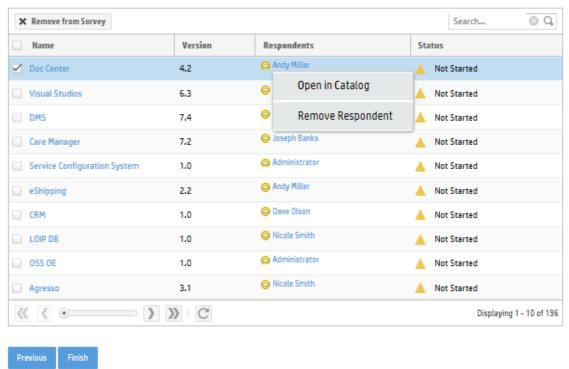
You are about to start a survey 'Cloud Technical Assessment' that:

Surveys information about 196 artifact(s)
Affects about 7 people
Each survey wizard contains 25 questions

Email notifications to fill in the survey are sent out right after you click 'Finish'

Surveyed Artifacts

You can see the list of artifacts to be surveyed below. You can also review respondents calculated on artifact contacts and ownership.



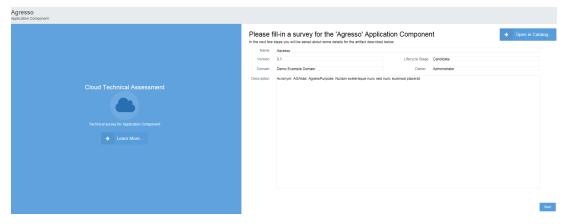
Undertaking the Survey

You can respond to the survey in the following 2 ways:

- Via Notification Email: respond to an invite for survey through email by Survey Manager as given below:
 - a. Open your Inbox and look out for an email with the subject title "Survey Invitation: ..." sent by Enterprise Maps.

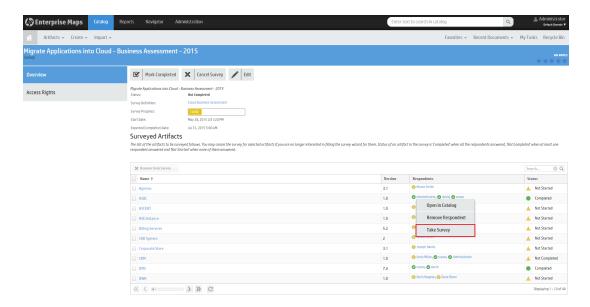


b. Open the link corresponding to the artifact name (for example : Agresso). The survey opens in a new window. You need to login to Enterprise Maps in order to fill in the survey.

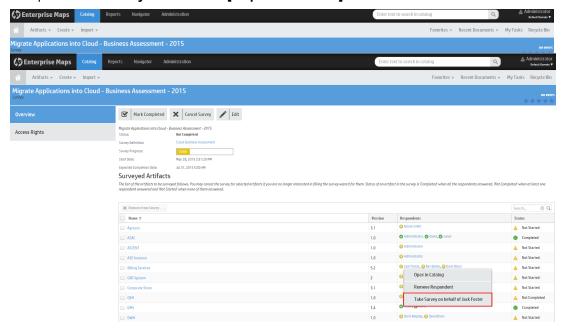


Note: Your account must at least have the READ permission for the survey artifact, else you will just see an error message in the open window. If this happens contact your administrator.

- c. Answer the survey questions, then click Finish to complete the survey for that artifact.
- d. Repeat steps 1-3 to complete survey for other artifacts.
- Via a Survey Instance: respond to a survey directly on EM UI as given below:
 - a. Open the survey artifact you wish to undertake. Look for the surveyed artifacts you would like to respond to. Click your name in the respondents list to start filling out the survey.



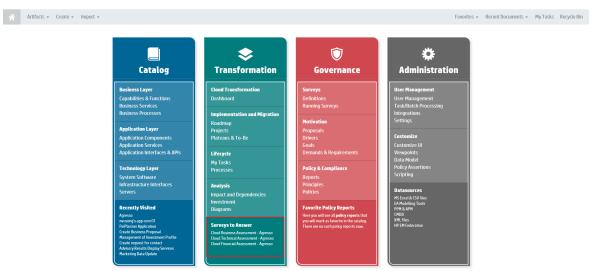
b. A Survey Manager or a user with 'write' permission for the current survey can also undertake the survey on behalf of other respondents. Simply, click the particular respondent's name and select the option **Take Survey on behalf of [respondent name]**.



Keeping Track of Survey

As a survey respondent and user you can keep track of the surveys that require your response via Survey Tasks. These tasks are created for each respondent in a survey right after the survey is started, or when a user is added into that survey as a respondent. The task is removed once a respondent finishes the survey or is removed from the survey.

Survey respondents can follow their tasks to complete the surveys. The survey tasks are available right on Catalog page and Task page.



Tasks page



Note: If a particular user does not have 'Read' permission to the survey artifact, the link to that artifact will not be available. See image below.



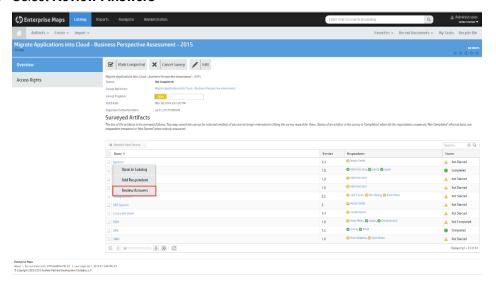
Reviewing Answers

Once you complete a survey, you can review your answers and even redo the survey.

Review Survey:

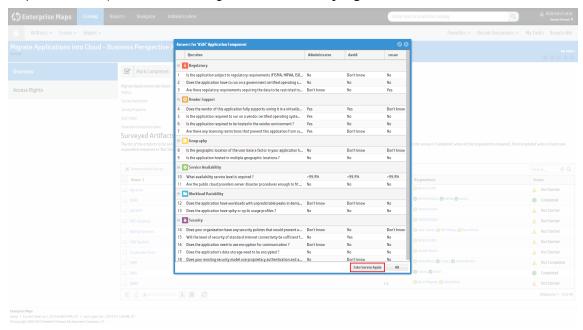
- · Open the survey instance
- Click the surveyed artifact you wish to review the answers for

Select Review Answers



Redo the Survey:

 As one of the respondents, it is possible for you to redo the entire survey (assuming you have responded before) in the review dialog. Click Take Survey Again.



Taking a Self-Assessment Survey

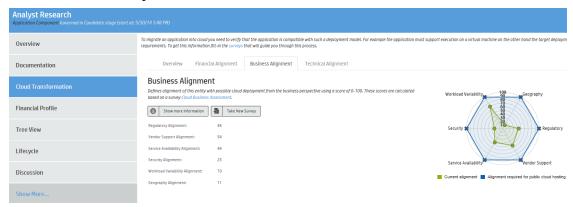
Alternatively, as an artifact owner or contact, you can also fill out the survey for that artifact without having to wait for a Survey Manager to initiate it for you. There are two surveys designed out-of-the-box for self-assessment by Application Component's owner and contact.

In Business Alignment UI: survey 'Cloud Business Assessment'

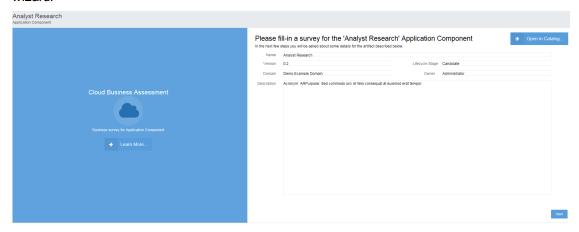
• In Technical Alignment UI: survey 'Cloud Technical Assessment'

To fill out a self-assessment survey:

- 1. Open the Application Component view page.
- 2. Click the Cloud Transformation tab.
- 3. Navigate to Business Alignment or Technical Alignment tab.
- 4. Click Take New Survey button.



The survey opens in a new window. Click **Start** to begin answering the survey questions in the wizard.



6. Click **Finish** to complete the survey.

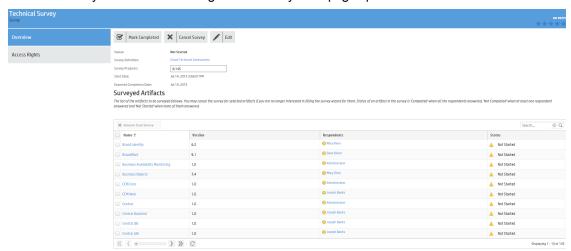
Monitoring and Managing Survey

To monitor or manage surveys:

1. Open Catalog Browser and click **Surveys** under Content tab.



2. Select a Survey to monitor or manage. The Survey view page opens as follows:



- 3. As per your role, you can execute all or some functions in the Survey view page. For instance:
 - Catalog User can only view the status and progress of the survey.
 - Survey Manager and Administrator can additionally:
 - Mark the survey as Completed.
 - o Cancel the survey.
 - Remove artifacts from the survey if not completed.
 - Edit survey information such as Description and Expected Completion Date.
 - Add or Remove respondent to and from the survey.

Chapter 8: Collaboration

HP EM is a collaborative platform enabling you to actively participate and provide information to other users throughout the service lifecycle.

This part contains the following topics:

Tasks

- "How to Use Comments" on the next page
- "How to Use Notifications" on page 104
- "How to Use Events" on page 105
- "How to Use Tasks" on page 107
- "How to Use Ratings" on page 108
- "How to Use Feeds" on page 108
- "How to Share Artifacts" on page 110

HP EM provides the following collaboration features:

Comments

The Artifact View page provides a Discussion area where you can start threads and respond to other comments. For details, see "How to Use Comments" on the next page.

Notifications

You can send e-mail notifications about an artifact to specified stakeholders. For details, see "How to Use Notifications" on page 104.

Events

Events keep you up-to-date with changes to artifacts that you are a stakeholder in and user actions that may impact you. For details, see "How to Use Events" on page 105.

Tasks

Tasks provide you with updates for lifecycle and contract tasks assigned to you. For details, see "How to Use Tasks" on page 107.

Ratings

You can apply an individual rating to an artifact, contributing to an overall rating that enables other users to select the best artifacts. For details, see "How to Use Ratings" on page 108.

Feeds

HP EM provides artifact and search feeds that enable you to track changes and discussions about artifacts in your feed readers and in the Reports tab. For details, see "How to Use Feeds" on page 108.

Sharing

HP EM provides a simple action to provide all users with read access to an artifact, making it visible across the whole user-base. For details, see "How to Share Artifacts" on page 110.

HP EM is also a collaborative platform in combination with your development environments. HP Software provides plug-ins for widely used IDEs that enable your developers to collaborate using the discovery and publishing features of HP EM directly from their IDE.

How to Use Comments

HP EM provides an artifact discussion forum where you can make comments about particular artifacts.

The Artifact View page Overview tab includes a Discussion component showing the last few comments.

Discussion

Comments for Artifact (1 Comment)
Last Comment: Administrator, 3:27 PM

Enter Discussion

Click a thread title to enter that discussion or click **Enter Discussion** to open the Artifact Details Discussion tab.

You can browse all comments in the Artifact Details Discussion tab.



You can organize the Artifact View Discussion tab using **Show Thread** and **Show List** with an option to sort the list view by oldest or newest comment first.

Start a new discussion thread using **Add Comment**.

Tip: In the Add Comment dialog, click to provide a reference link to another artifact in your comment.

Respond to a particular comment using by clicking **Reply** for that comment.

If these are no replies to your thread or comment, you can **Edit** and **Delete** your comments.

The Artifact Comments Feed context action provides a URL that you can use in feed readers or in the Reports Tab to keep up-to-date with any new comments about the artifact. For details, see "How to Use Feeds" on page 108.

How to Use Notifications

HP EM enables you to send e-mail notifications to artifact stakeholders.

To Send Manual Notifications:

1. In the Artifact Details page Overview tab, click the **Send Message** context action for the artifact you want to send the notification for, to open the Send a Message page.



2. Select the recipients to notify.

Notification Recipients

Recipient	Description
Owner	The user, group, or role that owns the artifact. "How to Edit Artifact ownership" in the UG.
Maintainers	Users, groups, and roles groups with write permission for the artifact. For details, see "How to Edit Access Rights in the UG.
Contacts	Users and organizational units associated with the artifact by the contact relationship or listed in the artifact stakeholder property. For details, see "How to Manage Contacts" in the UG. The Contacts recipient group can be refined into selectable contact roles.
Other Recipients	Click Add Other Recipients and use the user, group, and role search feature to add any other required recipients.
Previous Stakeholders	Expand Show Advanced Options and select Include Recipients from Previous Versions to notify stakeholders from previous versions of the artifact about changes to a newer version. The stakeholders notified by this option match those for the current artifact version. For example, if Consumers is selected, then the consumers of previous versions are notified.

Note: The recipient options vary depending on the status of the artifact.

- 3. Optional: Change the subject for the mail if required.
- Optional: Check Lifecycle Status to include a section containing current lifecycle status in the mail.
- 5. Enter the message text for the mail.
- 6. Click **Preview** to view a draft of the mail message.
- 7. Click **Send** to send the notification to the selected recipients.

The administrator can set up automatic notifications as part of the lifecycle process. For details, see "How to Define Automatic Actions" in the *Administration Guide*.

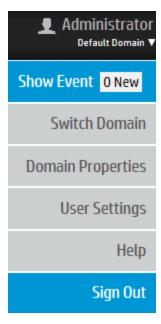
How to Use Events

HP EM keeps you up-to-date with all actions on artifacts that are relevant to you. Actions may appear in the Events lists because you performed them, or because they affect artifacts that you are a stakeholder for.

Events information appears in the following places in the UI:

- New Events notification in the Profile Status section of all pages.
- Actions on individual artifacts displayed in the Artifact Details page Events component and the Artifact Details page Events tab.

The Events components in the Artifact Detail page Overview tab display the latest actions performed in HP EM that are relevant to you.



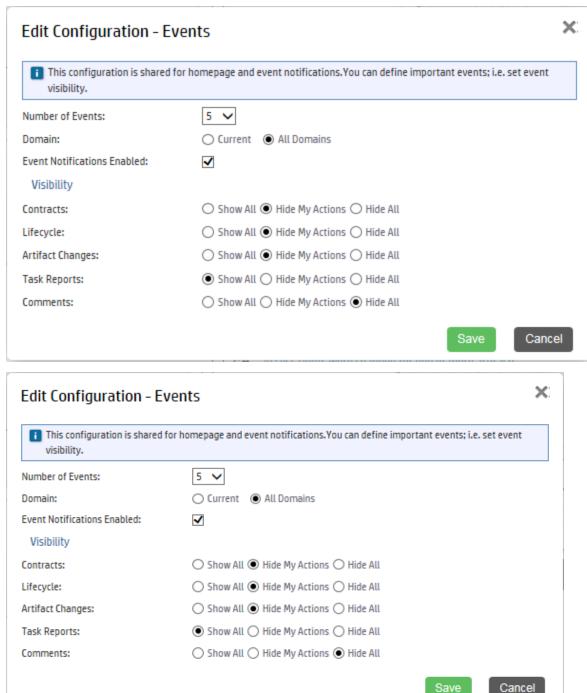
The Artifact Overview Events component displays actions performed on the artifact with a **More...** link to the Artifact Events tab.



You can customize the information the Events component displays.

To Customize the Events Component:

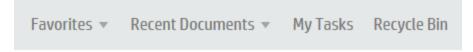
- 1. Click the tool icon in the Events component on the home page to open the Edit Configuration Events dialog box.
- Customize the following events parameters:



3. Click **Save** to apply your changes.

How to Use Tasks

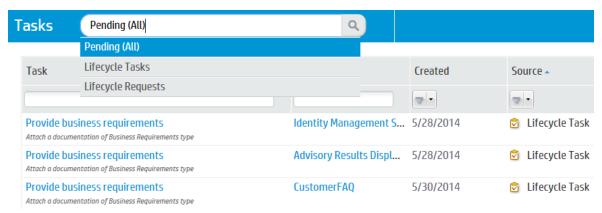
As a user in HP EM you may be required to perform actions related to contracts and the lifecycle of artifacts. Tasks may be assigned to you as an individual, a member of a group, as a user in a particular role, or because you are the owner of an artifact. The My Tasks component in the Catalog Homepage updates you with your latest tasks assignments.



Catalog Homepage My Tasks Component

Task assignments come from lifecycle or as a result of a contract request. Click the task name to open the relevant page to view the lifecycle.

To view all your outstanding tasks, click My Tasks to open the Tasks page.



The Tasks page shows more details about each tasks and enables you to sort them by type or filter to find a particular task or artifact.

In addition to viewing all tasks assigned to you, Artifact Details pages contains task information specific to the artifact in the My Tasks component.



The My Tasks component enables you to complete a lifecycle task to view its details.

For all these task displays, clicking the task opens the appropriate page to perform the required actions depending on the task type.

Lifecycle Tasks

Perform a task assigned to you, your group, or your role as part of a lifecycle process.

Lifecycle Requests

Process requests for approval of the completion of a lifecycle stage for artifacts.

How to Use Ratings

HP EM enables you to apply a rating score to artifacts. You can apply a rating to each artifact once and change your rating at any time.

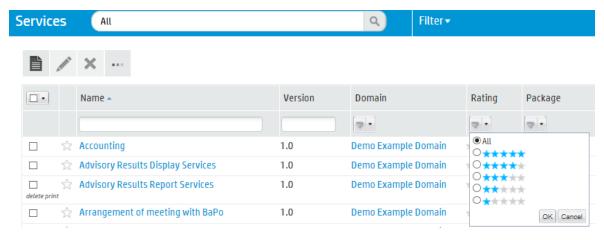
The average rating is available in Artifact Detail pages and in tables of artifacts, enabling you to choose services based on their collective rating.



To Rate an Artifact:

- 1. Open the Artifact Details page.
- 2. Move the cursor over the stars and click a star to set your rating. The status next to the rating stars indicates the current status and indicates if you have previously rated the service.

Average ratings are available to filter and sort tables of artifacts. For details, see "Tables in the User Interface".



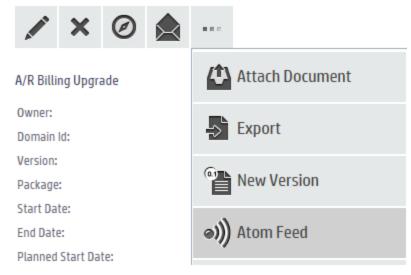
How to Use Feeds

HP EM provides Atom feed support to enable you to track changes either with your own feed reader or using the Content Feed feature of the Reports Tab.

You can access the following feeds:

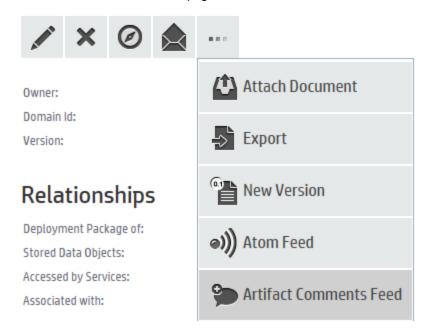
Individual Artifact Feeds

Track changes to a specific artifact. Use the **Atom Feed** context action from the Artifact Details page Overview or Details tabs to obtain the URL for the feed.



• Individual Artifact Comment Feeds

Track the discussion about a particular artifact. Use the **Artifact Comments Feed** context action from the Artifact Details page Overview or Details tabs or the **Artifact Comments Feed** context action from the Artifact Details page Discussion tab to obtain the URL for the feed.





Search Result Feeds

Use the Search URL provided with saved searches to create a custom search feed. A typical example would be to create a search feed for all services. This feed would then notify you about the creation of new services.

How to Share Artifacts

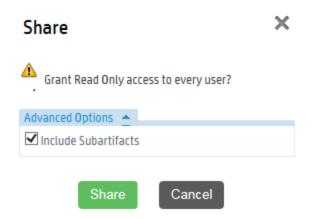
By default, the separation of the Catalog into domains and default security mean that artifacts are only visible to users who need to see them. However, there are situations where you want to make an artifact visible to all users, for example, when a service goes into Production.

HP EM provides a simple share mechanism which enables the administrator or the owner of an artifact gives all users read access to an artifact, making it visible to everyone. Share may be performed on an individual artifact or in bulk.

Note: The default functionality of sharing uses the system#registered group which represents all users who access HP EM. The administrator can change the users that can access shared artifacts. For details, see "How to Change the Sharing Principal" in the *Administration Guide*.

To Share an Artifact:

- 1. Open the Artifact Details page for the artifact and select the Access Rights tab.
- Click the Share context action to open the Share dialog box.
- Optional: Expand Advanced Options and select Include Subartifacts to also share sub-artifacts in the artifact aggregate.



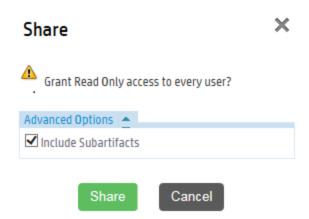
4. Click **Share** to make the artifact visible to all users.

To Share a Set of Artifacts:

1. From a table of artifacts, select the artifacts to change, open the **Edit** context menu, and select **Share** to open the Share dialog box.



2. *Optional*: Expand **Advanced Options** and select **Include Subartifacts** to also share sub-artifacts in the artifact aggregates.



3. Click **Share** to make the selected artifacts visible to all users.

Chapter 9: Excel/CSV File Export and Import

Enterprise Maps provides the capability to export and import data in spreadsheet formats. This is useful if you want to transfer spreadsheets or relational databases data from other systems to HP EM. You can also edit multiple data sets efficiently in spreadsheet format in offline mode and upload the data back to Enterprise Maps in one step.

The following operations are supported by Spreadsheet Import UI:

- · Export an artifact collection to a CSV file
- Export multiple artifact collections to a ZIP file (which contains CSV files and each of them contains a collection of artifacts)
- · Import an artifact collection from a CSV file
- Import multiple artifact collections from an XLS or XLSX file

Note: Some operations are not available for Spreadsheet Import Command Line. For more details, see "CSV Import and Export Tools" in *Developer Guide*.

To populate a simple collection from a spreadsheet file, a good practice to begin with is to create one artifact in the HP EM collection by using the Catalog, open the collection list, select it, and then use the Save as CSV function to access the CSV file from HP EM. You can then open the result in a spreadsheet editor such as Excel, add more data in the specified form as per the first record, and then use the Excel/CSV import to publish all the data inside HP EM.

You can also store successfully imported spreadsheet files as templates for future use. For more information, go through below mentioned topics:

- "Exporting CSV Files" below
- "Importing Spreadsheet Files" on page 115
- "Managing Template" on page 118
- "Spreadsheet Template Options" on page 121

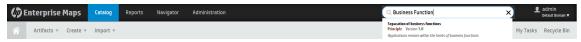
Exporting CSV Files

To export CSV data from HP EM:

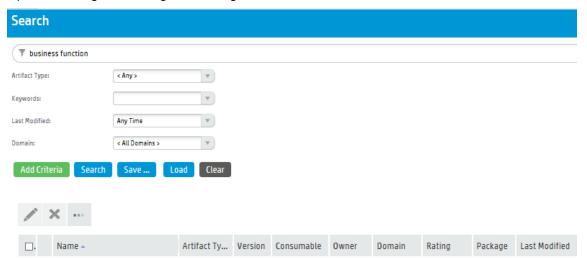
- 1. Open the Catalog in a browser.
- 2. If the collection you are interested in is empty, create the first artifact so that the exported CSV file contains an example data row.
- 3. Open the collection you are interested in either by searching for it in the Search box or by opening the collection from the Catalog panel. For example, to open the Business Function collection, select Capabilities and Functions from the Catalog panel list and perform your search by clicking

the Filter menu to open the Search page. Then you can the Business Function value from the Artifact Type selector and click Search.

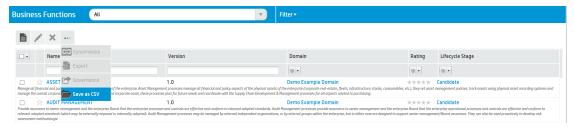
· Option A: Using the Menu Bar Search Field.



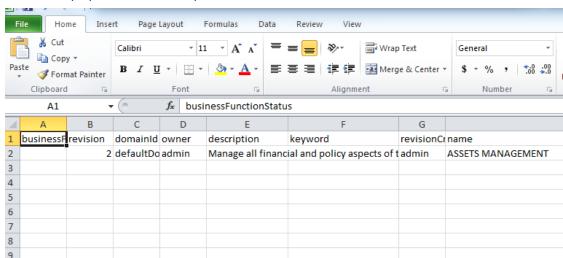
· Option B: Using the Catalog Search Page



4. After you have located and opened the collection you are interested in exporting, click the More Actions button (e.g., the button with three dots next to the Edit and Delete buttons), and click Save as CSV. This will start the download of data in CSV format from the table to your local computer.

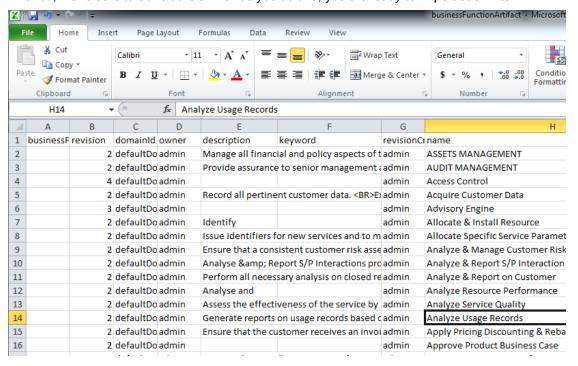


5. Open the downloaded CSV file in a spreadsheet editor, such as Excel. The first row is a header that specifies the mapping of data in HP EM. It helps you to learn how to link the data in specific



columns to properties, relationships, etc.

6. Remove unnecessary and redundant headers. For example: delete all columns but keep the following headers: businessFunctionStatus, revision, domainId, owner, description, keyword, revisionCreator, name. Add new data to complete the collection in spreadsheet, and when you are finished, make sure to Save as CSV. Once you do this, you are ready to Import back into HP EM.



Importing Spreadsheet Files

To import spreadsheet files, first decide what type of information and relationship data you want to import and also how you would like to view the results of your import mapped into HP EM repository.

Preparing Spreadsheet Files

To import the spreadsheet files successfully, you must follow the HP EM spreadsheet syntax. Do one of the following to obtain a valid spreadsheet file and then start adding data into it:

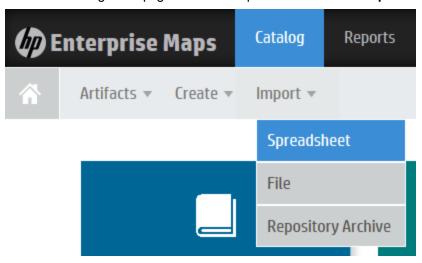
- Use Download Template to Get Started to download from a spreadsheet artifact. For more details, see the section To download Excel/CSV Import Template in "Managing Template" on page 118.
- Use Save as CSV. For more details, see "Exporting CSV Files" on page 113.
- See EM_HOME/client/demo/import folder to refer to examples of CSV and XLS/XLSX files. For example: for XLS/XLSX spreadsheet syntax, follow the path EM_HOME/client/demo/import/excel/from-ui/*.xlsx.

Using UI

HP EM provides the option to directly import the Excel/CSV file from the Catalog UI.

To do so, follow the instructions given below:

1. Go to the Catalog home page. Click the Import menu and select Spreadsheet.



2. In the Spreadsheet Import page select the CSV/XLS/XLSX file to drag and drop from your local folder. Alternatively, click anywhere in the box to manually upload.

Spreadsheet Import

To use an prepare the date in CSV/XLSX spreadsheet files and import them into HP EM later on. You can also export data from other systems and import them into EM in CSV format.

Dipload Data

Select File(s)

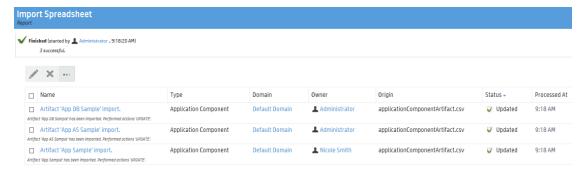
Settings

Drop file(s) to upload or click to pick manually

Click Settings to view more options and Show More Information button to view their usage.
 Spreadsheet Import

You can prepare the data in CSV/XLS/XLSX spreadsheet files and import them into HP EM later on. You can also export data from other systems and import them into EM in CSV format. Upload Data You can override the default behavior of the import so that you can overcome problems with different input formats and redefine behavior of overwriting data that already exist in HP EM. Show more information <Autodetect> Artifact Type: Column Separator: Value Separator: yyyy-MM-dd HH:mm:ss Date Format: Artifact Processing Mode: Create new and update existing O Create new only Additive Force CSV given values Relationship Processing Mode: Property Processing Mode: • Ignore empty values in the import file Force data removal according to the import file

- 4. Select the Artifact Type from the drop down list. If artifact type is <Autodetect>, the artifact type will be determined by CSV file names or Excel sheet names as follows:
 - a. Matches artifact type in SDM. For example: applicationComponentArtifact
 - b. Starts with artifact type in SDM and a dash (-). For example: applicationComponentArtifact-sample
- 5. Click **Start Import**. The Import Spreadsheet report appears.



Using Command Line

If you are an administrator or have administrator role privileges you will find the CSV Importer command line tool in the EM_HOME\client directory. If you are not an administrator, you can ask your administrator to archive the tool and share it with you so that you can access it.

To get the CSV Importer command line tool and be able to run it:

- Unzip the archive and open a command-line shell and change to the client/bin directory. The tool depends on java 1.8, so make sure you have access to the java command at the PATH variable.
- Call csvimport.bat or csvimport.sh to get help messages displaying the command-line options.

- 3. Type the command with at least host, user, password, sdmName and file parameters to your environment. For example: "csvimport -host http://hpdemo/em -user admin -password changeit -file businessFunctions.csv -sdmName businessFunctionArtifact"
- 4. The CSV import of Business Functions from CSV file starts. The tool will log all events related to the progress and status of the import.
- 5. When you refresh your browser, you can view the results imported into the HP EM collection.

For more details, see "CSV Import Tool" in the Administration Guide.

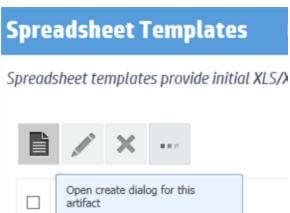
Managing Template

The Spreadsheet Templates provide the initial structure for data to be imported using Import Excel/CSV function. As a Catalog user, you can create such templates for your own usage or share with others. Administrator can change access rights for Excel/CSV Import Templates as with other artifacts.

To create a new Excel/CSV Import Template:

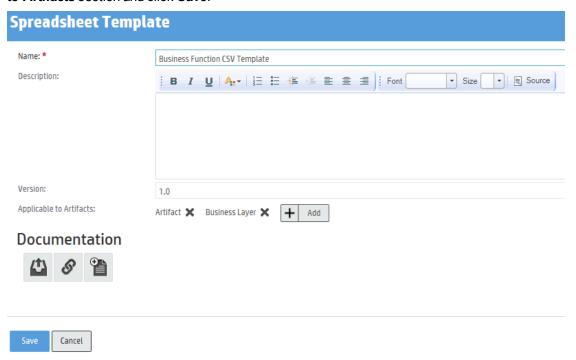
 Open the Catalog Browser and then click Spreadsheet Templates. In the next screen click Open create dialog for this artifact.



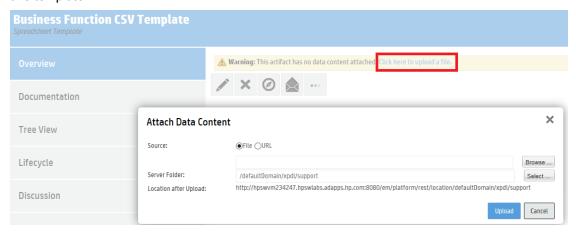


Enter the name of the template and select the artifact types this template applies to in Applicable

to Artifacts section and click Save.



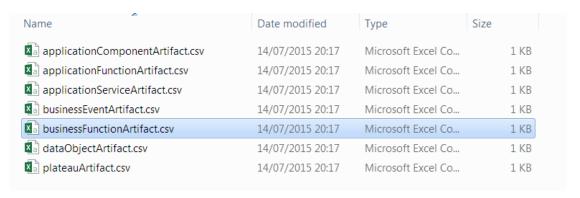
3. In the template view page, click the **Click here to upload a file** link to add the Excel/CSV file for this template.



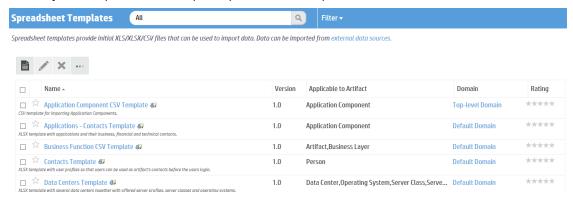
Click Browse and select the Excel or CSV template file and then click Upload.

Note:

- You can use 'Save as CSV' function in artifact collection or search pages to produce CSV files and use them as CSV templates. For details, see "Exporting CSV Files" on page 113.
- To create Excel/CSV template manually (for example: using Microsoft Excel), refer to "CSV Import Tool" in *Developer Guide* to get help on syntax for Excel/CSV files.



To verify the template created, open 'Spreadsheet Templates' collection.



The Spreadsheet Import UI provides a convenient way to download the template of a specific artifact type.

To download Excel/CSV Import Template:

1. Go to **Import** tab, click **Spreadsheet** and then click the **Settings** tab.



2. Select an artifact type. The **Upload Data** is automatically changed to **Upload Data about...** to inform the selected artifact type for downloading template or uploading data.



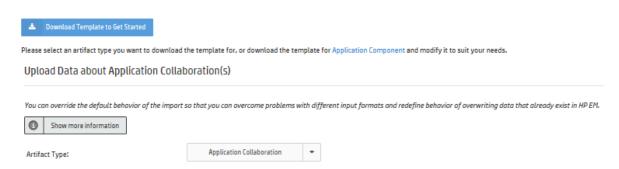
Click Download Template to Get Started. You can then add data into the saved template and import the Excel/CSV file back to Enterprise Maps to publish data.

Note:

- If such a template is not available, the template of higher-level artifact type, if exists, is used instead. An example of template hierarchy is as below:
 - Artifact > Application Layer > Application Component > J2EE Application.
- If the template for J2EE Application does not exist, then template for Application Component is used and so on.
- In the case of no available templates, users are prompted to download a default template for Application Component (as in the image below).

Spreadsheet Import

You can prepare the data in CSV/XLS/XLSX spreadsheet files and import them into HP EM later on. You can also export data from other systems and import them into EM in CSV format.



Spreadsheet Template Options

Certain data that you enter in excel sheets might be non-importable. Such meta data can be ignored by specifying the instructions in the spreadsheet import function.

You can add the following options at the beginning of the excel sheet:

Column 1 Keyword	Option Name	Option Parameters	Option Parameters	Description
Option	ignore			Ignore this sheet
Option	sdmName	<artifact type in SDM></artifact 		Import data as this artifact type
Option	skipRowWhenEmptyFirstCell			Skip data row if first column is empty
Option	constantColumn	<property in="" sdm=""></property>	<property value=""></property>	Add this property for all imported artifacts

Before the header is reached, rows that have the first column starting with capitalized text are ignored. (except above "Option" rows).

Refer the example below:

Option	sdmName	serverArtifact	
Option	constantColumn	realizes target=infrastructureServiceArtifact property=name	
Option	skipRowWhenEmptyFirstCel	1	
Server Name	Description	Server Class	Installed Software
name key=true	description	specializes target=serverClassArtifact property=name	assignedTo target=systemSoftwareArtifact property=name
		Class M	Tomcat Java
		Class 4XL	MySQL

Chapter 10: Extension for Sparx Systems EA

HP EM integrates with the widely used Sparx Systems Enterprise Architect data modeling tool via extension module. The Sparx Systems EA is a fully integrated data modeling environment for you to use with HP EM. The HP EM user is able to synchronize data models bi-directionally using the extension.

Installing Extension for Sparx Systems EA

You can install the HP EM Extension for Sparx Systems EA to extend your local installation of Sparx Systems EA to synchronize models with the HP EM server.

You must already have Sparx Systems EA installed. For more details of supported Sparx Systems EA versions, see "Supported Product Integrations" in *Installation and Configuration Guide*.

To install the HP EM Extension for Sparx Systems EA:

- 1. Close Sparx Systems EA if it is running.
- 2. Run the installer hp-em-sparx-3.00.msi.
- 3. Click **Next** until the final wizard panel appears, and then click **Finish**.

WARNING: Extension for Sparx Systems EA stores the HP EM user password(s) using a Triple DES password encryption method. User passwords are stored outside the HP EM server, thus bypassing HP security policies. This could cause security issues such as decryption or corruption.

Note: To avoid error when installing Sparx Systems EA into a Windows system folder, disable User Access Control (UAC) in Windows Control Panel.

Supported Archimate® version

HP EM Sparx Systems EA mapping configuration supports only synchronization elements having Archimate® 2.0 stereotypes. Both Archimate® 1.0 and 2.0 stereotypes are available in Sparx Systems EA. Make sure you choose the correct Archimate® stereotypes in your architecture.

Uninstalling the Add-In for Extension for Sparx Systems EA

Before you install a new version of the HP EM Extension Sparx Systems EA, it is helpful to uninstall any existing version on your system.

To uninstall the HP EM Add-In:

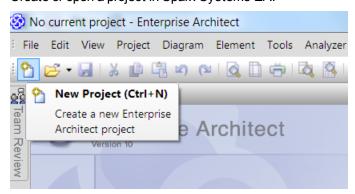
- 1. Close Extension for Sparx Systems EA 12 if it is running.
- 2. Open the Control Panel > Programs > Programs and Features.
- 3. Select the program from the list, and then click Uninstall.



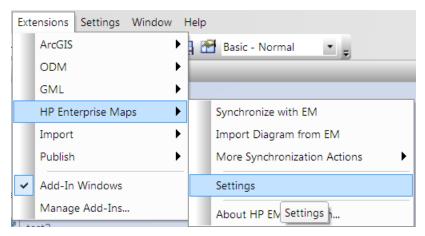
Connecting Sparx Systems EA to EM

Once the installation for HP EM Extension for Sparx Systems EA is complete, you can connect to Enterprise Maps in the following manner:

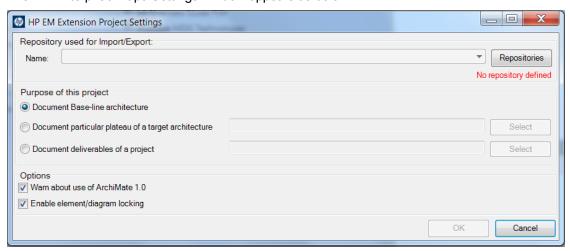
1. Create or open a project in Sparx Systems EA.



2. From the main menu, click Extensions > HP Enterprise Maps > Settings.

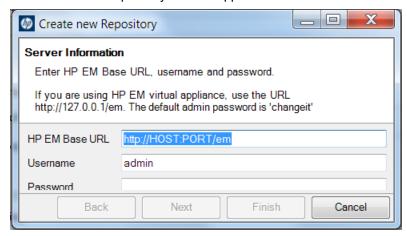


The HP Enterprise Maps Settings window appears as below.



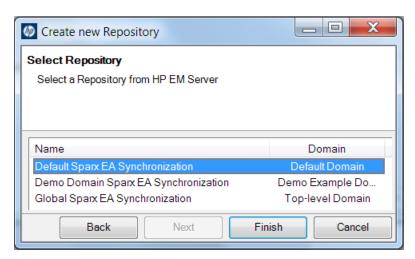
3. Click the Repositories button to define a repository.

The Create new Repository window appears as below.

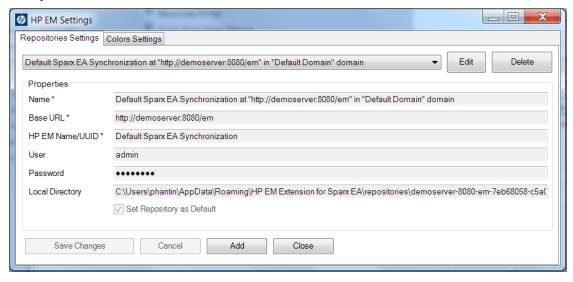


4. Enter HP Enterprise Maps URL with the credentials and click Next.

A list of the available Sparx EA repositories on the Enterprise Maps server is generated. Select a repository in the domain where you would like Sparx EA to be synchronized, and click **Finish**.



5. The newly added repository is automatically set as the default repository for all the import, export and synchronization actions.

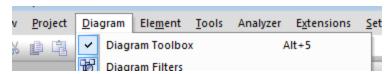


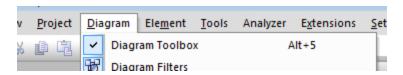
Click Close to exit Settings window.

Basic Modeling with Sparx Systems EA

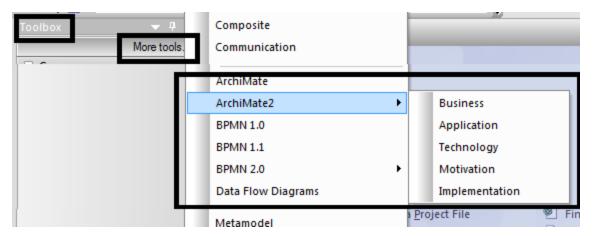
When building data models in HP EM, Sparx Systems EA users can access Archimate 2.0 elements using the following steps:

1. Display Toolbox by clicking **Diagram > Diagram Toolbox** in the Main menu.

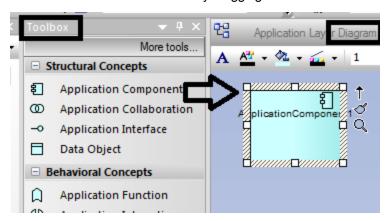




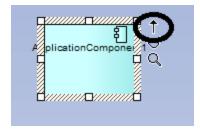
2. Display elements of an Archimate 2.0 layer by clicking More tools, and then select the layer for your model.



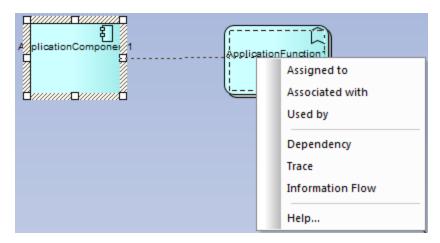
3. You can create new elements by dragging them from the Toolbox to a working diagram.



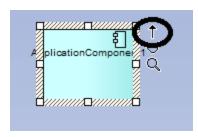
4. In a working diagram, you can create a link between elements by dragging the arrow (quick linker) from a selected element to another element.



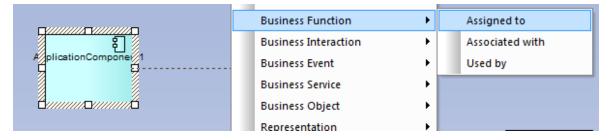
5. After linking elements, Sparx Systems EA will ask for a link type. Define the relationship between elements using the link type menu.



6. You can create a new element together with a link by dragging the arrow from a selected element to an empty area of your diagram.



7. Sparx Systems EA prompts you for a target element type and link type after you stop dragging the arrow.

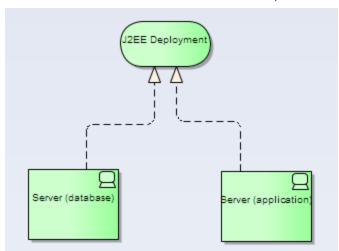


8. Sparx Systems EA opens a dialog that allows you to specify element properties. After you click **OK**, the element is created along with the link.

Building Reference Model for Cloud Transformation

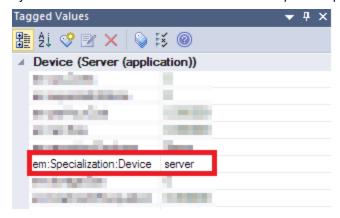
Reference model (or deployment model) in Enterprise Maps represents the required infrastructure of an application to be deployed on to different platforms. A reference model can be abstract and suitable for any platform, or can be specific to a particular platform (for example: Cloud). A reference model can also be further fine-tuned to a specific Cloud such as HP Cloud or Amazon AWS.

To build a reference model follow the steps mentioned below:



1. Create an Infrastructure Service and link the required Devices using Realizes relationship.

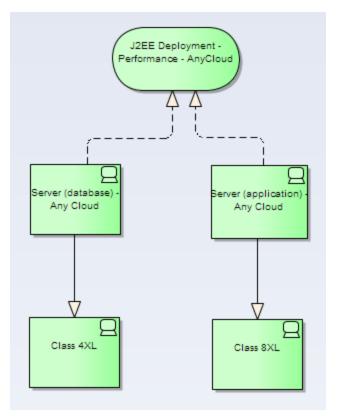
2. In **Tagged Values** window of Device, select **server** in the Specialization field for all Devices. This synchronizes the Devices as Servers into Enterprise Maps.



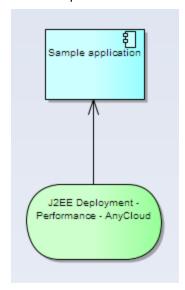
3. Additionally, define preferred Server Class(es) for each Server in the reference model using *Specializes* relationship.

Note:

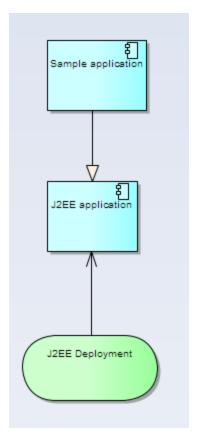
- You can also define Server Class required by the application later in its overview page in Enterprise Maps.
- Server Classes already available in EM can be imported from Enterprise Maps.



4. Define usage of this reference model by the application component linking through *Uses* relationship.



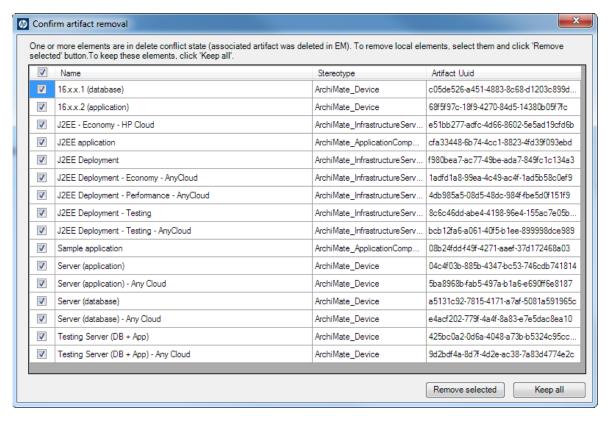
Or, making the application component *Specializes* another application that *Uses* this reference model.



5. Export these reference models to Enterprise Maps.

Synchronizing Deleted Artifacts

Over a period of time, administrators might delete some of the artifacts in EM. The problem arises, when a Sparx EA project containing deleted artifacts is synchronized with EM. The synchronization can detect this inconsistency and show the below message prompting the user to take action on deleted artifacts.



The following options are available for the user:

- Remove Selected: remove artifacts from Sparx EA project as well.
- Keep All: keep artifacts in Sparx EA project and restore them in EM too.

Note: Sparx EA project must be connected either to the same repository/domain as it was last synchronized with, or to a Global Sparx Repository. If connected to a new repository/domain, all artifacts in the Sparx EA project are considered as deleted artifacts.

Element/Diagram Locking

HP EM Extension for Sparx Systems EA provides a locking mechanism to assist Sparx EA users who work concurrently on the same elements/diagrams, either within Sparx EA or HP EM.

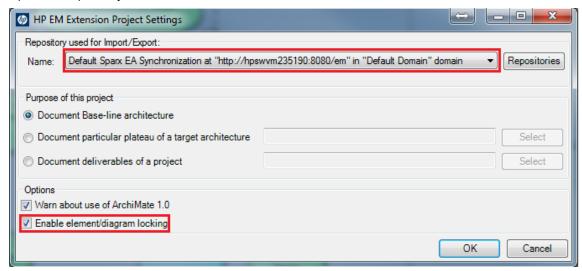
Locking does cause certain intermittent interruptions for the user. However, the benefit is far more utilitarian, in terms of protecting data integrity.

Prerequisites

In order to take advantage of the locking, please ensure the following:

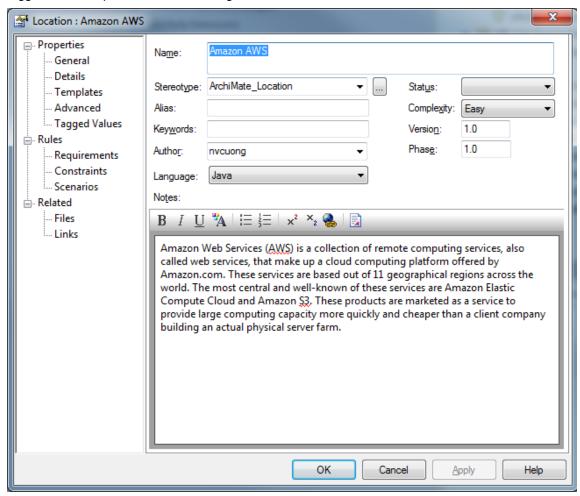
- · Locking must be enabled in project settings.
- Elements, diagrams or the entire project must be synced to the same EM server, using the same

Sparx EA repository.



How it works

• When you open a diagram or edit an element using properties window or project browser, the lock is triggered for that particular element/diagram.



- You can then release the lock after you complete your work by syncing the edited element/diagram
 to EM again. This propagates the changes made by you and allows other users to begin their work
 on the same element/diagram.
- In case the edited element/diagram is not synced with EM, other users receive the below warning
 message when they attempt to open the diagram or while they edit the element during the locking
 period.



- If you choose **Edit Anyway**, the changes for this element/diagram become indeterminable. The last user, who syncs the changes with EM, overwrites the changes done by previous users.
- If you click **OK**, you are unable to edit the element/diagram until the lock is released. However, data integrity is assured.
- The lock is auto released after a lapse of 30 minutes, if there is no further editing from the user who triggered the lock. The other users can then start their work on the same element/diagram.