

# HP Enterprise Maps

Software Version: 3.00  
Windows and Linux Operating Systems

## Concepts Guide

Document Release Date: October 2015  
Software Release Date: October 2015



## Legal Notices

### Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

### Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

### Copyright Notice

© Copyright 2003-2015 Hewlett-Packard Development Company, L.P.

### Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

UNIX® is a registered trademark of The Open Group.

This product includes an interface of the 'zlib' general purpose compression library, which is Copyright © 1995-2002 Jean-loup Gailly and Mark Adler.

## Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

**<https://softwaresupport.hp.com>**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

**<https://hpp12.passport.hp.com/hppcf/createuser.do>**

Or click the **the Register** link at the top of the HP Software Support page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

## Support

Visit the HP Software Support Online web site at: **<https://softwaresupport.hp.com>**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests

- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

**<https://hpp12.passport.hp.com/hppcf/createuser.do>**

To find more information about access levels, go to:

**<https://softwaresupport.hp.com/web/softwaresupport/access-levels>**

**HP Software Solutions Now** accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is

**<http://h20230.www2.hp.com/sc/solutions/index.jsp>**

## About this PDF Version of Online Help

This document is a PDF version of the online help. This PDF file is provided so you can easily print multiple topics from the help information or read the online help in PDF format. Because this content was originally created to be viewed as online help in a web browser, some topics may not be formatted properly. Some interactive topics may not be present in this PDF version. Those topics can be successfully printed from within the online help.

# Contents

Chapter 1: Understanding HP EM .....	7
Chapter 2: Document Map .....	9
Chapter 3: Business and IT Alignment .....	10
Enterprise Portfolio Management and Business Alignment .....	11
Business Alignment Assessment .....	11
Chapter 3: Enterprise Architect and Solution Architect Roles .....	12
Business Capability .....	12
Business Capabilities and Structure Maps .....	13
Business Capability Investment Analysis .....	14
Business Capability Risk Map .....	14
Chapter 4: Architecture Transformation .....	16
Chapter 5: Cloud Transformation .....	18
Chapter 6: Survey Overview .....	19
Chapter 7: Model Viewpoint .....	20
Chapter 8: Lifecycle Overview .....	22
Chapter 9: Artifact Validation .....	23
Chapter 10: Shortcut Relationship .....	24
Chapter 11: Product Integration .....	26
Chapter 12: Data Import and Export .....	27
Chapter 13: Controlling UI Access - Tutorial .....	28
Create New User .....	28

Create a New User Perspective .....	31
Create a New UI Role .....	33
Assign Users to a Role .....	34
Import External Users .....	35
<b>Chapter 14: FinPlanner - Case Study .....</b>	<b>37</b>
FinPlanner Solution Design .....	37
Modeling Business Architecture .....	38
Defining Core Business Functions .....	38
Defining Application Services Integration .....	39
Modeling Application Architecture .....	40
Modeling Technology Architecture .....	40
FinPlanner Initial Installation and Setup .....	40
FinPlanner Sparx EA Project .....	41
FinPlanner Summary .....	43

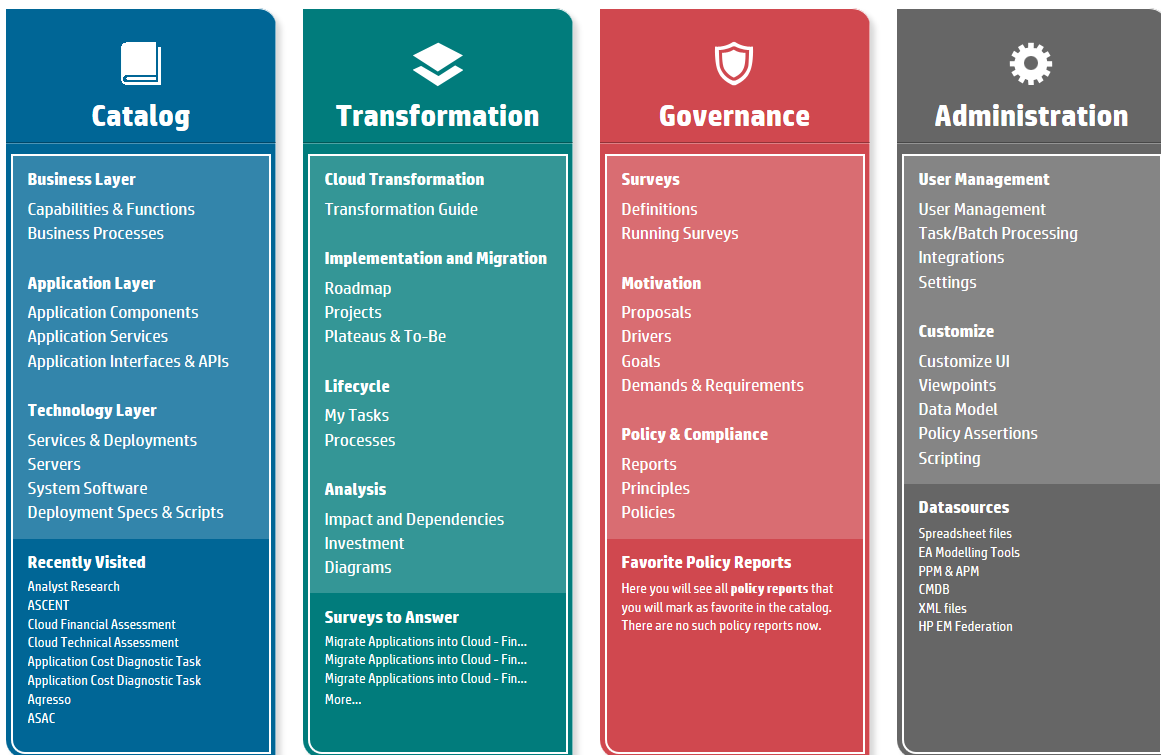


# Chapter 1: Understanding HP EM

Enterprise Maps is a software product that is an amalgamation of the IT infrastructure of an organization aligned to its business strategies, and is based on [Archimate 2.1](#) and [TOGAF](#) standards which defines a full set of architecture elements.

HP Enterprise Maps (HP EM) logically constructs enterprise architecture models aligned with projects, and enables you to capture and use information from various tools and across multiple locations. You can use HP EM tools to manage your architecture model and establish a solid baseline for making informed decisions about your IT assets and infrastructure. Investments can be planned more logically after detailed analysis, thus avoiding wastage of IT resources.

Prior to using the product the user needs to understand the objective and usage of the product. This guide explains clearly and concisely the fundamentals of the HP EM product. It emphasizes upon the architecture and tools used in implementing the business strategies and bringing to life the methodologies designed for the purpose.



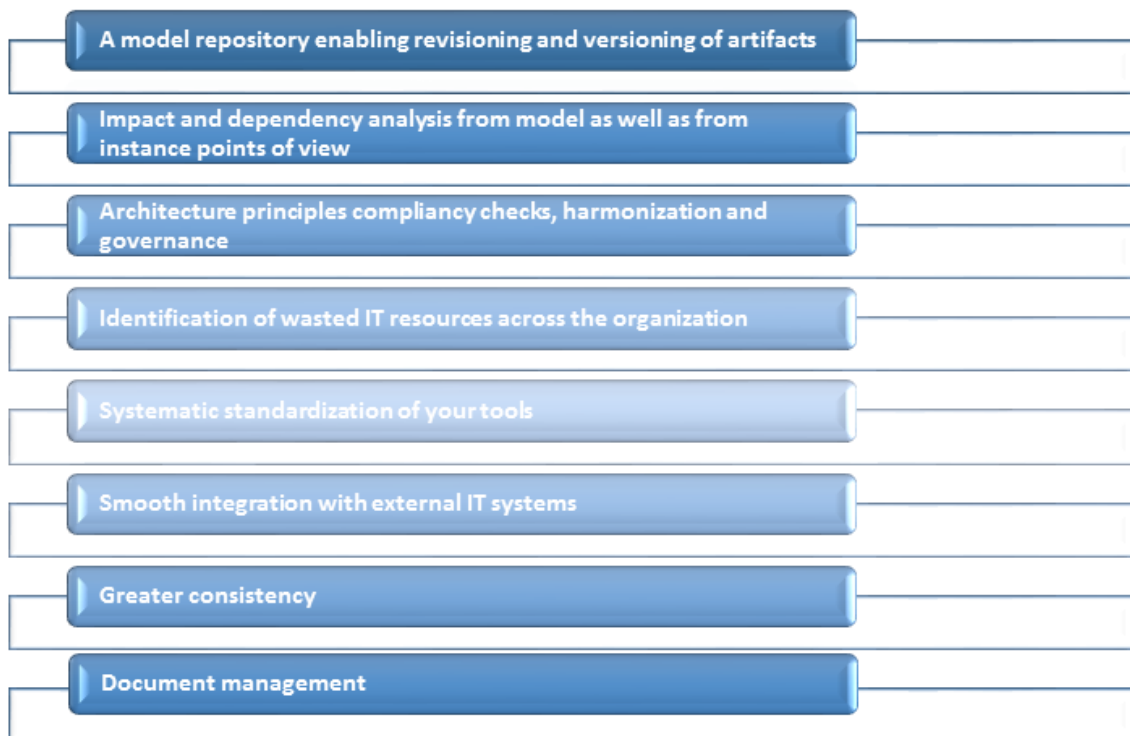
The home page above provides a synopsis of the elements in the enterprise architecture of HP Enterprise Maps. Upon installing the product the users need to start filling up data into the catalog using the import and integration methods. A brief explanation is given below:

- **Catalog**: similar to Archimate 2.1 model Enterprise Maps comprises of several layers which form a part of the HP EM catalog and can be navigated through the "Catalog" in *User Guide*.
- **Transformation**: enables improvising, through efficient reporting capability. Allows for creation of

dashboards with different layouts, or reports with personalized configuration. Further planning can be clicked off accordingly. For more details see, "Cloud Transformation" and "Architecture Transformation" in *User Guide*.

- Governance: ensures adherence to standards, compliance, KPIs, time-lines and quality. These controls accelerate the process of decision making and execution. For more details see, "Surveys" and "Reports" in *User Guide*.
- Administration: as an administrator you can customize and manage the UI scripts. You can exercise control on user rights and execute the integrations into HP EM which you will learn more about in the *Administration Guide*. For more details on usage of this element see, "Administration Overview" in *Administration Guide*.

The key takeaways to expect from HP Enterprise Maps are:



The HP EM product comes with a 60 days trial version. The licensed version can be purchased online.

HP EM has been designed with the objective of providing a holistic solution for the IT infrastructure lifecycle ensuring proper allocation of resources through artifacts and documents, linking of inter-dependent elements via relationships and browsing through navigator, monitoring the dependencies through reporting across the enterprise, presenting new proposals for approval, integrating data from supported plug-ins and creating repositories and all this to be managed by role based profiles.

The Concept Guide provides an overview of the old and new features and functionalities in HP EM which are covered in the upcoming topics. Refer the "[Document Map](#)" on page 9 to see the list of topics.



# Chapter 2: Document Map

The following topics are covered in this guide:

## **Topics**

"Understanding HP EM" on page 7

"Business and IT Alignment " on page 10

"Architecture Transformation" on page 16

"Cloud Transformation" on page 18

"Survey Overview" on page 19

"Model Viewpoint" on page 20

"Lifecycle Overview" on page 22

"Artifact Validation" on page 23

"Shortcut Relationship" on page 24

" Product Integration" on page 26

"Data Import and Export" on page 27

"Controlling UI Access - Tutorial " on page 28

"FinPlanner - Case Study" on page 37

# Chapter 3: Business and IT Alignment

In today's dynamic environment, business success requires the coordination of strategic business objectives with prioritization of investment and information technology transformation. Business and IT alignment enables business managers and IT leaders to align business goals and IT projects thereby making better and quicker decisions based on understanding IT impacts on planned business objectives.

Objectives of business alignment include:

- Ensure IT investment priorities are aligned with business strategy
- Make Demand Management transparent
- Achieve effective and efficient IT delivery
- Maintain a transparent view of IT support

Correct and quick decisions cannot be adopted without complete, high-quality, and accessible information. Instead of using outdated and incomplete enterprise architecture information as stored in such common sources as diagrams, spreadsheets, or slide decks, HP EM provides the following advantages for achieving business alignment:

- **Comprehensive information:** structured data contains all the information for each area of Business Alignment (Business Capability, projects, requirements, application, etc.)
- **High quality information:** continuously updated information that is mutually semantically consistent
- **Available information:** information that is centrally stored, managed, and available for analysis, planning, and control purposes.

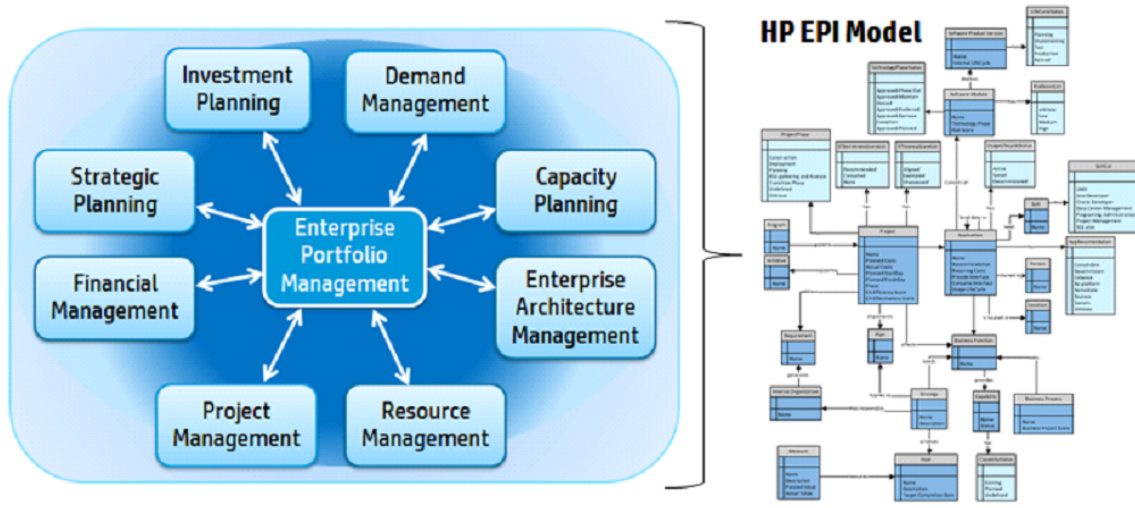
After ensuring that your information is comprehensive, high-quality, and available, the next step to achieving business alignment is to implement according to the right process, one that meets the goals of the business alignment strategy.

This section covers the following topics:

- ["Enterprise Portfolio Management and Business Alignment " on the next page](#)
- ["Business Alignment Assessment" on the next page](#)
- ["Enterprise Architect and Solution Architect Roles" on page 12](#)
- ["Business Capability" on page 12](#)
- ["Business Capabilities and Structure Maps" on page 13](#)
- ["Business Capability Investment Analysis" on page 14](#)
- ["Business Capability Risk Map" on page 14](#)

# Enterprise Portfolio Management and Business Alignment

Enterprise Portfolio Management (EPM) implements the business alignment strategy based on an information model called the Enterprise Portfolio Information Model (EPI Model). The model consists of about 17 information entities. The rest are codebooks. It is therefore not extremely complex and at the start of implementation can be generated as a generic design and later be modified according to customer needs.



## Enterprise Portfolio Management and Enterprise Portfolio Information Model

The EPI model covers all areas falling under Enterprise Portfolio Management. In addition to the enterprise architecture, it includes associations with business strategy, business capability, business requirements, and projects.

# Business Alignment Assessment

The first step in business alignment is a diagnostic phase that focuses on critical IT gaps as defined by the organization's business components. The baseline state is shown diagrammatically and in tabular form and both report types can be used to drive discussion of results with senior management. After this baseline reporting on the current state is complete, the next step is to specify appropriate Key Performance Indicators (KPIs) and metrics and to set the initial settings of your enterprise portfolio management process and associated procedures.

The task flow of the business alignment assessment process is:

1. Identify mandatory assets in Enterprise Portfolio Information (EPI)
2. Specify business capabilities (both current and planned)
3. Analyze and import existing EPI
4. Map business capabilities to IT resources, assets, investment and strategy, etc.

5. Deliver the first business alignment assessment
6. Define KPIs and metrics for improvement

## Chapter 3: Enterprise Architect and Solution Architect Roles

The enterprise architect must be able to guarantee that the new design solution will conform to the accepted and endorsed principles of enterprise architecture governance and work with the solution architect to drive successful solution delivery. The key activities of the enterprise architect role in the process of new business capability delivery are:

- Develop concept
- Assess alignment and impact
- Build into solution architecture approach (with vendor selection and contract negotiation as key subtasks)
- Develop solution architecture (after the solution architect defines development methodology)

The enterprise architect's focus is the business and IT alignment and the successful execution of a common approach to building enterprise architectures across the whole organization. The solution architect's focus is on the methodology and details of a new solution and on solution delivery. Both roles are critical to the new business capability delivery process.

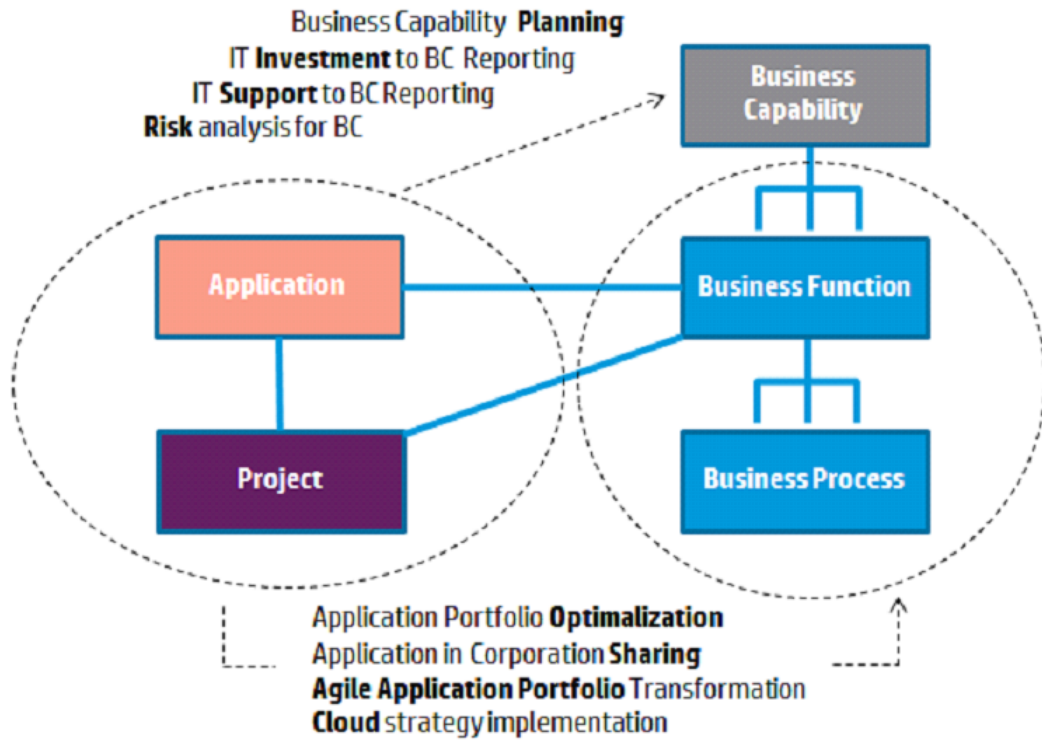
The enterprise architect's activities guarantee the establishment of a solution concept that conforms to EA governance rules as well as business needs, and defines the architectural approach. The control function of the enterprise architect can also be shown by visualizing an individualized architectural solution.

## Business Capability

The primary place for aligning business and IT goals is to define an organizational model's business capability. Business capability is defined in a list of necessary organization skills available for actualizing business plans, regardless of whether or not they are supported by IT assets or infrastructure. Planning the development of business capability is the first level of implementing the strategic business objectives of the enterprise.

The definition of business capability for your organization should include the following:

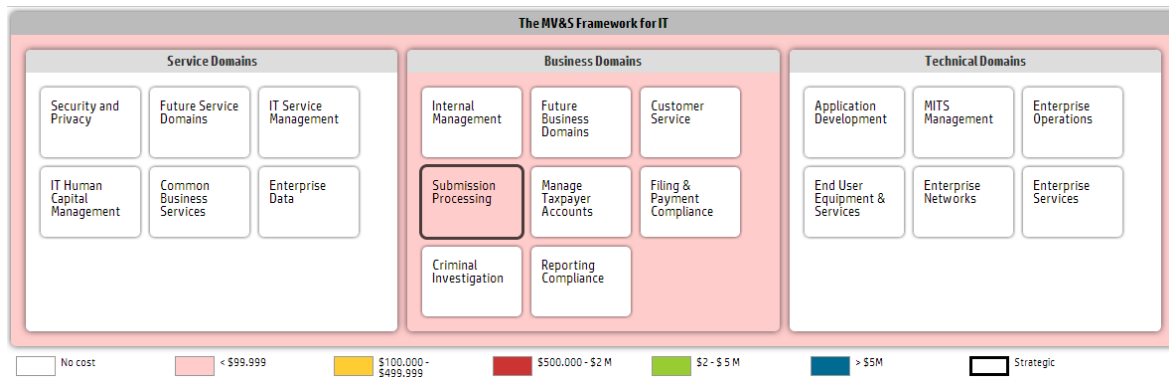
- How to capture the business's interests
- What are the building blocks of the business
- How to represent stable business functions
- Are they unique and independent from each other
- Are they abstracted from the organizational model



**Basic EPI Entities, Relationships, and Business Alignment Areas**

## Business Capabilities and Structure Maps

A summary diagram of business capabilities for the business segment is represented by a business structure map. This map provides a comprehensive view of all the necessary business skills grouped into higher architectural segments (for example, Sales and Marketing, Risk Management, etc.). Each industry segment has its own business structure map that covers all businesses within that segment. Enterprise Maps (HP EM) helps you to prepare for and implement business alignment strategies by providing a generic business structure map that you can use.



**Structure Map Showing Business Capabilities of Finance Organization**

# Business Capability Investment Analysis

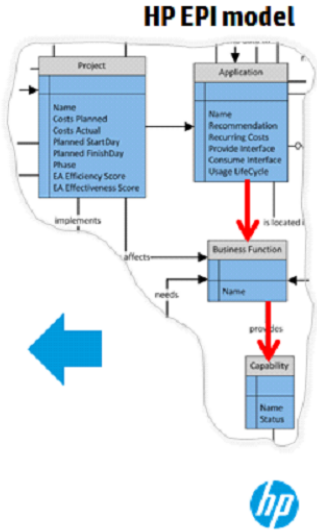
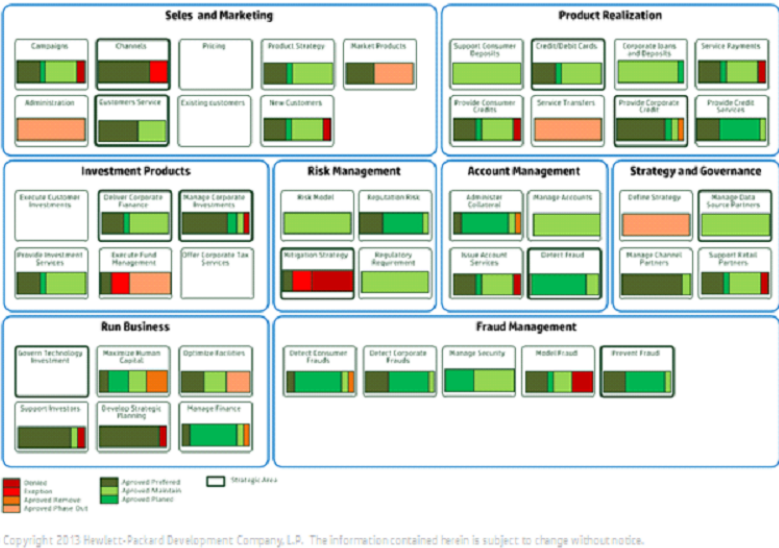
Capability investment analysis requires many steps to complete and the diagrammatic view allows senior management to easily see the measures of investment conformity to the project (shown as shaded colors) and strategically important capabilities (shown as highlighted areas). You can then provide drilldown to a list of concrete projects by a given capability. For more information, see *User Guide*, section *Structure Map Reports* under *Reports*.



Diagrammatic View of Capability Investment Analysis

# Business Capability Risk Map

The capability risk map or structure map presents a summary of applications within individual capabilities that are being evaluated for further support, exception, or dependency or other architectural risks. Red shades show the measure of risk for a given capability. Strategic capabilities are highlighted and you can generate background data for deeper analysis. You can then provide drilldown to a list of concrete projects by a given capability.



Capability Risk/Structure Map

# Chapter 4: Architecture Transformation

Architecture transformation is designed to offer cohesive business solution to stakeholders for their business needs. The objective is to provide a structure which is transparent, encourages wider involvement from those concerned with architecture changes, enable better control, and facilitate interoperability. The structure acts as a catalyst in bringing together the enterprise resources and reorganize them to present a less complicated, more logical structure. One that leads the organization towards a more efficient and systematic approach in realizing the business goals.

The HP architecture management provides a robust architecture keeping the entire business in focus. It integrates business strategies, architecture and projects by covering and managing the requirements, successfully negating the effects of a weak project planning present in other models.

IT related project issues are minimized with the help of proper standards of governance, smoother cross project inter-dependencies and clear cut road-map. These measures result in saving time and money, thereby improving the organizational efficiency by leaps and bounds.

Proposal is created as an integral part of architecture management to capture and cover the organizational demands of the users more effectively. In doing so, proposal offers a comprehensive solution which clearly defines the project, and provides a definite and logical course of action with a clear structure.

Proposal comprises of work breakdown structure involving - initiating plans, setting milestones and executing projects. Proposal is split across requirements for better manageability. The proposal architecture can be created manually or auto generated through a defined template.

The proposal architecture essentially consists of the following elements:

- Package: created to deliver clear business value, linked to the proposal representing a program, project, milestone or task. This package can be auto generated with links to diagrams and plateaus.
- Diagrams: created to describe the proposal architecture state modeled as diagrams showing the baseline and to-be architectures.
- Plateaus: created to show aggregate of elements marked with financial data expressing cost and effort. The elements of plateau are mapped to the requirements so the information of how a requirement is fulfilled is traceable in the architecture. It includes *Changes to be Delivered* which are the goals or objectives in terms of the task or project.



Once the architecture is created user can build upon it further by adding *Target Architecture Changes* (in case of plateau), and *Delivered Architecture Changes* (in case of deliverable). Alternatively the changes can be modeled in Sparx EA in the following manner:

1. Import data from HP EM
2. Model the target architecture in Sparx EA
3. Export data back to HP EM

Name	Type ↓	Version	Owner	Plateau	Last Approved	Target	Internal Effort	Ext. Effort	Cost	Compliance	Completion Status
S...	Infrastructure Ser...	N/A	Andy...	FinPlanner	Not assigned	10					▲ Not completed
Ap...	Infrastructure Ser...	N/A	NicoL...	FinPlanner	Not assigned	50		100000			▲ Not completed
Fi...	Data Object	1.0	Jose...	FinPlanner	Not assigned	10					▲ Not completed
Pr...	Data Object	1.0	Dave...	FinPlanner	Not assigned						▲ Not completed
Co...	Data Object	1.0	Jose...	FinPlanner	Not assigned						▲ Not completed
Co...	Data Object	1.0	Jose...	FinPlanner	Not assigned						▲ Not completed
Cr...	Business Service	1.0	Dave...	FinPlanner	Candidate						▲ Not completed
Ad...	Business Service	1.0	NicoL...	FinPlanner	Candidate						▲ Not completed
Cr...	Business Service	1.0	Dave...	FinPlanner	Candidate						▲ Not completed
G...	Business Service	1.0	Jose...	FinPlanner	Candidate						▲ Not completed

From proposal high level managers get an overall view of the following aspects :

- Requirement structure and other elements of the proposal on a single page.
- Project health of the proposal by reviewing the completion status.
- Planned architecture devised by other proposals or projects.
- Architecture changes to be delivered.
- Compliance status of architecture changes based on policies.
- Total cost, efforts of architecture changes and their details.

# Chapter 5: Cloud Transformation

Enterprise Maps provides the capability to manage the cloud transformation process for applications. This process involves surveys from technical, business and financial perspectives, cost analysis, reports and Cloud Service Automation. Cloud transformation features can be accessed via Cloud Transformation Dashboard . For more details, see "Cloud Transformation Dashboard" in *User Guide*.

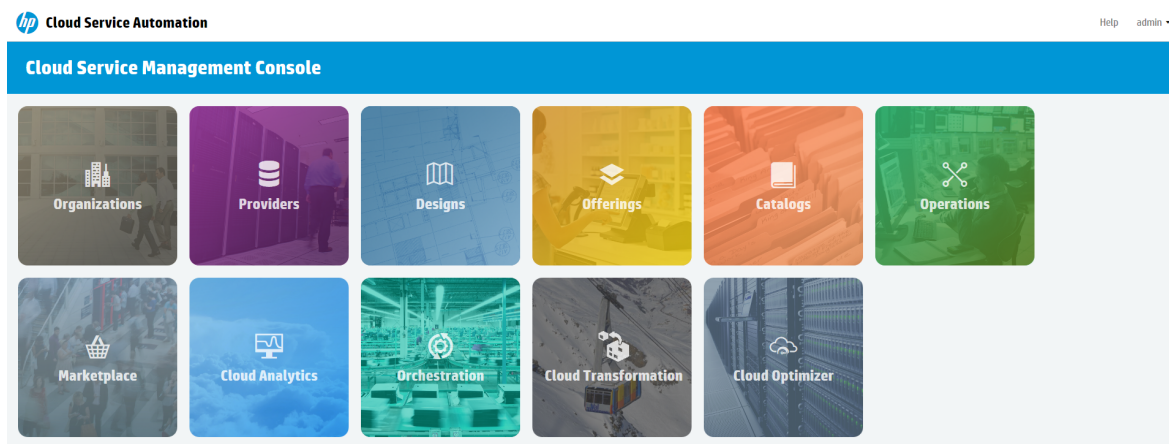
Through surveys you can gather inputs from respective stakeholders relevant from the Cloud transformation perspective. The results help in strategic decision making. Survey managers can take surveys on behalf of the respondents or inform them to take the assigned surveys. Once survey results are gathered, Cloud Transformation managers can view the results in Cloud transformation reports and decide on the viability of migrating applications into Cloud. For more details, see "Surveys" and "Cloud Transformation Report" in *User Guide*.

Cost analysis helps compare real costs when deploying the applications into Cloud data centers such as Amazon Web Service and HP Compute. Beside the already available data centers, others can be added for comparison to maximize cost savings. The estimation can be simply based on number of servers or can even be as detailed as per the deployment requirement. For more details, see "Estimating Cost of Deployment" and "Cloud Transformation Tab" in *User Guide*.

After completion of the assessment, integration with HP Cloud Service Automation, helps automate creation of service designs, which is the first step towards Cloud automated provisioning. For more details, see "CSA Integration" in *Administration Guide* and HP Cloud Service Automation documentation.

## Accessing from HP Cloud Service Automation

HP Enterprise Maps (HP EM) manages centralized Business Model that links with HP CSA and HP CODAR products. In the HP CSA/CODAR homepage, navigate to **Cloud Transformation** tile to access **Cloud Transformation Dashboard** and **Cloud Transformation Reports**.



# Chapter 6: Survey Overview

HP EM provides Survey as a tool to assess the enterprise architecture changes to further enhance the usability and feasibility of the artifacts. The survey is designed to encourage constructive and valuable feedback from catalog users as per their user experience and expertise. The objective is to obtain a conclusive feedback so as to bring about improvements keeping in mind the organization goals.

The survey results enthuse the stakeholders to arrive at a unanimous decision on the changes required for the artifacts.

## Workflow

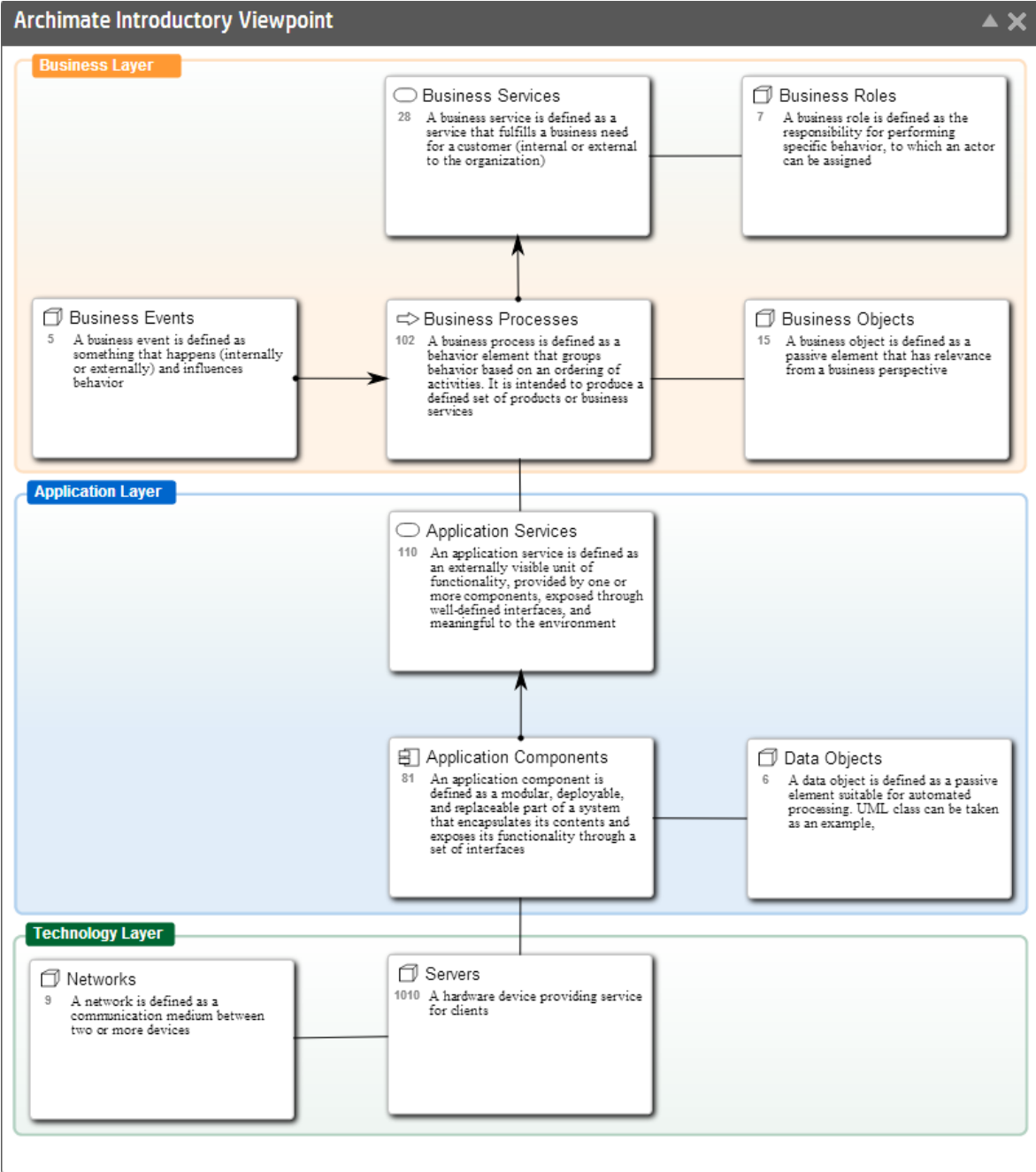
- The survey is designed through a survey definition which is a managed script on the Administrator UI. This definition is also available for the survey manager on the catalog page called the Survey Definition artifact.
- Once the definition is created and completed, the survey manager can initiate a survey and create survey artifacts from it. The artifacts to be surveyed can be selected from the list (by default all artifacts are selected). A survey definition may be associated with multiple survey artifacts.
- After starting the survey, notification emails will be sent out to all the stakeholders defined in the contact roles for each of the artifacts being surveyed. Following the email request, the stakeholders can go through the survey wizard to complete the survey. Each survey is time bound and the respondents will not be able to access the survey once it has expired.
- A survey manager, besides having the rights to start the survey is also granted with the rights to manage and monitor the surveys. This allows for editing, marking the survey as complete or if required canceling or deleting the surveys.

The screenshot displays a survey interface. On the left is a blue 'Survey Example Preview' card with the following text: 'Survey Example', 'Preview', 'Example survey for Application Component', 'This survey has been requested by Administrator', 'Please fill in this survey by the end of July 24, 2015', a 'Learn More...' button, and a 'Return back to the "Start Survey Wizard" ...' link. On the right is the 'Question Sample' section, which includes a progress bar with icons for Question Sample, Architecture, Internet, Security, Regulatory, Service Availability, and Finish. Below the progress bar, the goal is stated: 'The goal of this survey is to provide overview of the survey framework capabilities'. The questions are: 1. 'Is storage encrypted?' with radio buttons for Yes, No, and Don't know; 2. 'Please comment on the extra hurdles to overcome to automate this application using CSA availability and stability' with a text input field; 3. 'Please enter the recommended amount of memory needed to run this application' with a text input field containing '16 GB'; 4. 'Enter the business function type' with a dropdown menu showing 'Commodity'. A 'Next' button is located at the bottom right.

# Chapter 7: Model Viewpoint

Model viewpoints (or viewpoint portlets) are HP EM implementation of Archimate® viewpoints. Viewpoint portlets are defined by HP EM managed server-side scripts. The layout of the viewpoint is specified by using an SVG file that you can create in Inkscape (see [www.inkscape.org](http://www.inkscape.org)).

HP EM distribution contains the Extension for Inkscape, which allows administrators to create and deploy new viewpoints. For more information, see "HP EM Extension for Inkscape" in *Developer Guide*



## Chapter 8: Lifecycle Overview

Artifacts in Enterprise Maps go through several stages from candidate through development, implementation, and eventually deprecation and reuse. Each stage has own specific features and each organization has different detailed requirements for these different stages. The stages can be divided into development and runtime stages. Before an artifact is allowed to move from one stage to another, all necessary policy requirements and approvals must be in place.

In Enterprise Maps lifecycle processes are defined and given policy, task, and approval requirements by an administrator. These processes are then either automatically or manually applied to artifacts. Manual lifecycle tasks can be assigned to different users and can have policies that must be validated before a task is completed. Policies as well as permissions can be associated with the lifecycle process stage.

When all the requirements and tasks are complete, the artifact owner makes a request to move the process to the next stage. If the administrator has assigned approvers, they are notified and are required to vote on approval. Depending on the transition type, the governed artifact moves to the next stage and the lifecycle automatic actions defined for these stages are triggered.

# Chapter 9: Artifact Validation

HP Enterprise Maps enables you to validate your Catalog content against published policies to ensure its consistency and conformance to your business policy.

Policy management and validation uses the following artifact types:

- **Technical Policy**

A technical policy consists of a set of assertions and references to other technical policies, and serves as the central point of reference for validation. References to other technical policies enable you to collect a set of technical policies together into a larger policy enabling you to validate them collectively.

- **Assertion**

An assertion is a validation check for a single piece of data which can either pass or fail. For example, an assertion can check the following attributes of an artifact:

- **Property Values**

An assertion can check that a particular property has a value and what the value is. Typical examples include verifying that keywords are set when an artifact is created and verifying that an artifact is consumable before it enters the production lifecycle stage.

- **Related Artifacts**

An assertion can check whether a particular artifact type is associated with the artifact being verified and check property values of the related artifacts. A typical example is to verify that a service has an attached document which is categorized as a business specification document before the service is approved at the candidate lifecycle stage.

- **Data Content**

Some artifact types are expected to contain attached content. An assertion can verify that the attachment exists.

- **Artifact State**

An assertion can check various status attributes of an artifact, For example, its lifecycle status or its compliance status.

# Chapter 10: Shortcut Relationship

Shortcut relationships (or shortcuts) are HP EM implementation of Archimate® derived relationships. For more details, read *Derived Relationship* in Archimate® documentation.

Shortcuts are introduced in HP EM for these purposes:

- Speed up Reporting  
The performance of reports is improved by analyzing shortcuts instead of traversing the whole chain of direct relationships.
- Simplify the Architecture  
Unimportant artifacts can be skipped when modeling the enterprise architecture while keeping it compliant with Archimate® language specification. Forexample: modeling an application component and its providing services without modeling its detailed functions. In another example, 'Server realizes Infrastructure Service' shortcut represents the required servers/VMs of a deployment model (infrastructure service).

Shortcuts are defined as managed scripts by administrators. Due to performance reason, shortcuts may not be updated immediately to reflect the latest changes of artifacts. To avoid this inconsistency, the Shortcut Consolidation Task can be scheduled by administrators to update shortcuts frequently. In addition, Catalog users can resolve shortcuts of an artifact immediately by clicking **Recalculate Shortcuts** from its context menu.

The screenshot displays the HP Enterprise Maps interface for an artifact named 'ASAC'. The top header shows 'ASAC' and 'Application Component Governed in Cancelled stage (start at: 8/11/15 5:06 PM)'. A left sidebar contains navigation tabs: Overview, Documentation, Cloud Transformation, Financial Profile, Tree View, Lifecycle, Discussion, and Show More... The main content area is divided into sections: 'Lifecycle plan' (with a 'Cancelled' status and a date '08/11/2015 - Baseline (Approved)') and 'Relationships' (listing 'Realized application services', 'Used Servers/Nodes', and 'Realized by Projects'). A context menu is open over the 'ASAC' artifact, listing actions: Attach Document, Export, New Version, Atom Feed, Artifact Comments Feed, XML View, Change Domain, and Recalculate Shortcuts. The 'Recalculate Shortcuts' option is highlighted with a tooltip.



Shortcuts are displayed in Overview tab of an artifact in *italic* font so that they are distinguished with direct relationships. If a shortcut is defined as editable, it can be created using the UI.

**ASAC**  
Application Component Governed in Cancelled stage (start at: 8/11/15 5:06 PM)

Overview

Documentation

Cloud Transformation

Financial Profile

Tree View

Lifecycle

Discussion

Show More...

Version: 1

Owner: Joseph Banks

Domain Id: Demo Example Domain

### Lifecycle plan

Track the plans for planned lifecycle transitions of this artifact. The current lifecycle status and when it was reached is referenced as 'Baseline'. You can add a plan for lifecycle transition by linking this artifact from a *plateau* or *deliverable*. The date for the transition is derived from the plateau/deliverable end date property.

Cancelled

08/11/2015 - Baseline (Approved)

### Relationships

Realized application services: *Link new, Link existing...*

Used Servers/Nodes: VMAMQA279, pdo2003intel03.labs.peregrine.com

Realized by Projects: *Link new, Link existing...*

Financial Profile: ASAC

Financial Profiles History: *Link new, Link existing...*

Fully Automates: *Link new, Link existing...*

Used Application Architecture: GetCCM, CRM UI

# Chapter 11: Product Integration

HP EM includes integrations with many data sources that you can access directly from the Catalog tab catalog panel. These include modeling tools, other HP solutions such as HP PPM and HP uCMDB, as well as CSV and XML file importing, and direct imports from other HP EM instances. For more details, see "Product Integration Management" in the *Administration Guide*.

- **EA Modeling Tools:** You can edit the whole repository in an external diagramming tool where the data will be bidirectionally synchronized between HP EM and the tool project space. Out of the box you can integrate with Sparx Systems Enterprise Architect. For more information, see "[Extension for Sparx Systems EA](#) " on page 1.
- **Project & Portfolio Management:** It is easy to connect HP EM to project and portfolio management solutions to import project and financial information, which enables you to analyze data in a broader IT perspective, including the application and technology layers of the enterprise architecture. Out of the box you can integrate with HP Project and Portfolio Management, however, other systems may be supported as well. Contact your HP sales representative to request an extra integration connector license.
- **CMDB:** To be able to analyze the costs, impacts, and dependencies of IT infrastructure on your business, you can integrate HP EM with a configuration management database (CMDB). This allows the system to get information about servers and software running on it as well as enabling you to connect these objects to application and business architecture. This also enables you to control the lifecycle of these entities. Out of the box you can integrate with HP Universal CMDB, however, other systems may be supported as well. Contact your HP sales representative to request an extra integration connector license.
- **Database:** It is possible to import data from other systems into HP EM by integration with those system relational databases. A mapping between columns of database tables with HP EM artifact types and properties must be created, and database connection must be configured as a data source in HP EM application server. Contact your HP sales representative to request an extra integration connector license.
- **Cloud Service:** To fulfill Cloud transformation, Cloud infrastructure needs to be subscribed and provisioning needs to be run to host the applications. HP EM can provides the inputs for these services. Out of the box you can integrate with HP Cloud Service Automation, however, other systems may be supported as well. Contact your HP sales representative to request an extra integration connector license.

# Chapter 12: Data Import and Export

HP EM provides several methods for data import and export. These include Excel/CSV files, XML file importing, and direct imports from other HP EM instances. For more information see linked topics in below sections.

- **Excel/CSV Files:** You can import Excel/CSV files into HP EM directly using HP EM UI, or. If you have installed HP EM on your local machine you can find a command line tool for CSV file import in the following location: `INSTALL_DIR\client\bin\csvImport.bat[sh]`. You can also download the dedicated CSV importer distribution, which will enable you to use the `csvImport` command line tool.

**Note:** You can also export CSV files by using a context action directly from HP EM tables.

- **XML Files:** You can publish XML files into HP EM by using the File Import function. The XML file is analyzed and decomposed into artifacts based on a configuration file stored within script artifacts. This configuration is customizable and you can define your own for your custom XML schemas.
- **HP EM Archives:** You can selectively export some artifacts (a whole plateau for example) from another HP EM instance by selecting the desired artifacts in the catalog browser and clicking the Export context action. An archive file is produced. You can import the archive by using the Import Repository Archive feature. This enables you to transfer data between multiple, even disconnected instances of HP EM. In a similar way, you may export whole HP EM domains.
- **WebDAV:** HP EM supports standard WebDAV protocol for importing and exporting documents. You can copy documents attached to artifacts in a HP EM instance, then simply paste them into another HP EM instance. The artifacts corresponding to document names are reproduced in the target instance automatically.

# Chapter 13: Controlling UI Access - Tutorial

New perspectives can be granted for one or many UI Roles in HP EM.

Each unique User Perspective is defined by the Administrator, and allows access to many different views and a variety of artifacts in the UI. The Administrator can grant the User Perspective to an existing user, or can create a new UI Role and define a User Perspective for the new user.

You can do the following sequences of operations to customize your user experiences:

- Create a new UI Role, create a new Perspective, and Grant a new Perspective to an existing UI Role.
- Create a new Role and assign a new UI Role to this role.
- Create a new User and assign a new Role for the user.

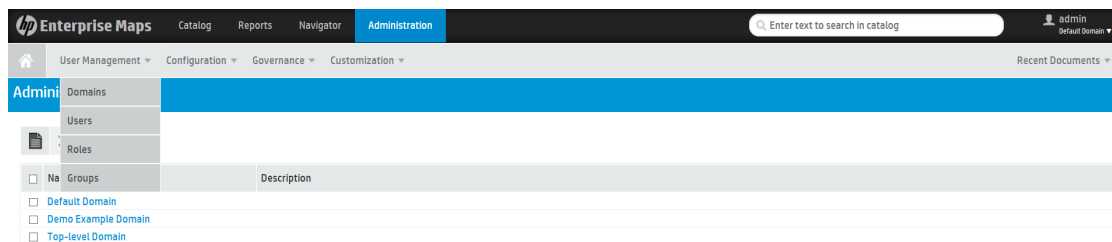
After following these steps, an assigned user will have access to a new perspective in the HP EM User Interface.

## Create New User

To create a new Internal User in HP EM, use the following procedure:


**NOTE:** This new user cannot log in until the Administrator creates and defines the user from LDAP or the user configuration file.

1. Log in as the Repository Administrator, and then navigate to the Administration tab.
2. Open User Management > Users.



3. On the Users page, click the Create User icon to create a new user.

### Users



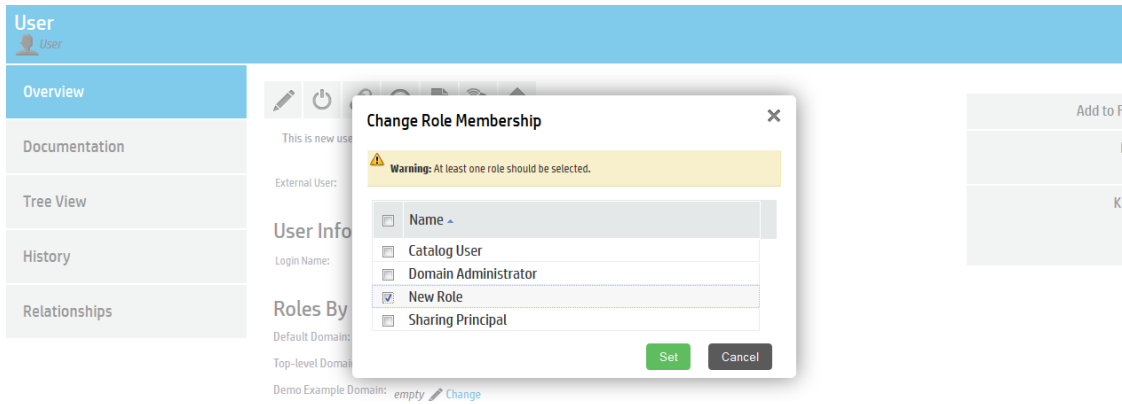
<input type="checkbox"/>	Name -	Status	Username	Email
<input type="checkbox"/>	Administrator	Active	admin	em@hp.com
<input type="checkbox"/>	Andy Miller	Active	euser	ppm@ppmdemo.com
<input type="checkbox"/>	APM Administrator	Active	aadministrator	
<input type="checkbox"/>	Bev Bailey	Active	bbailey	ppm@ppmdemo.com
<input type="checkbox"/>	Dave Olson	Active	dolson	ppm@ppmdemo.com
<input type="checkbox"/>	demoapprover	Active	demoapprover	
<input type="checkbox"/>	demouser	Active	demouser	
<input type="checkbox"/>	Doris Wagner	Active	dwagner	ppm@ppmdemo.com
<input type="checkbox"/>	Jack Foster	Active	jfoster	ppm@ppmdemo.com
<input type="checkbox"/>	Joseph Banks	Active	jbanks	ppm@ppmdemo.com

Page 1 of 2 | Change Page Size

4. Enter the information about the new user such as Name, Description, Login Name, email, Contact Information, Address and Categories if required.

5. When you finish, click Save to save the new user. The resulting page will display the New User.

6. Now the Administrator needs to change the Role Membership of the user. On the New User view page, go to the Roles By Domain section. Find the role that the new user belongs to, and click the Change link.

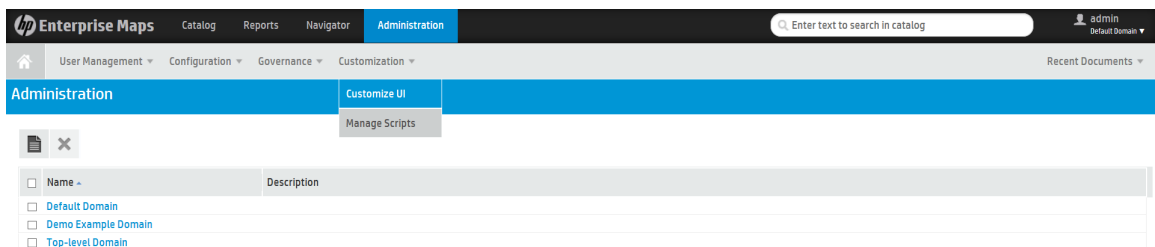


7. In the Change Role Membership dialog, select New Role, and then click the Set button to save the changes.

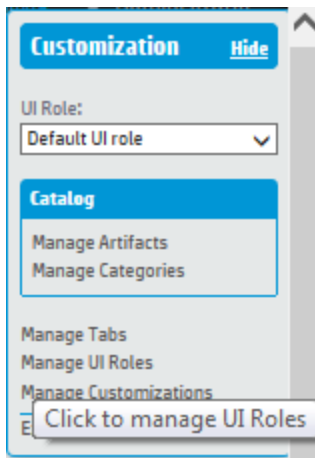
## Create a New User Perspective

You can create a new perspective for users in HP EM, which changes the user's view of the artifacts and the data available to that user.

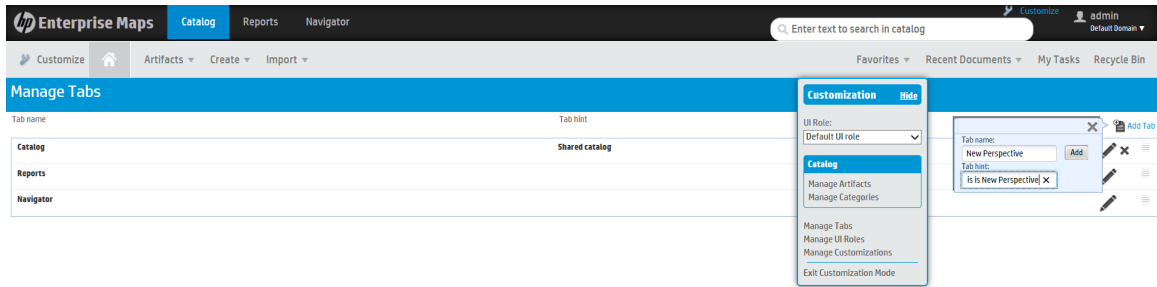
1. Log in as the Repository Administrator, and then navigate to the Administrator tab.
2. Navigate to the Customization tab and click Customize UI.



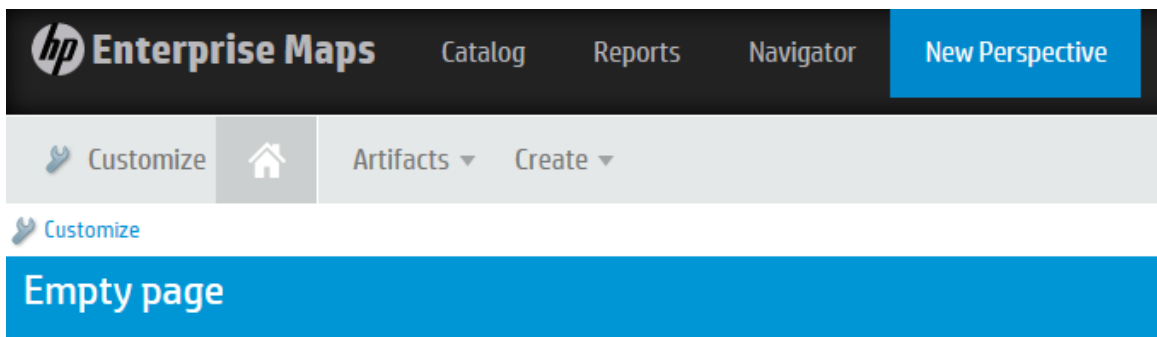
3. In the Customization menu, click Manage UI Roles.



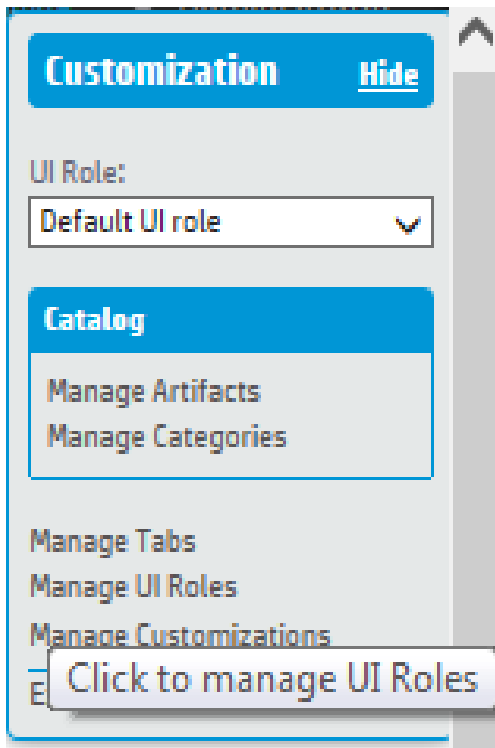
4. In the Manage Tabs page, select Add Tab > Input Tab name and Tab hint, and then click Add.



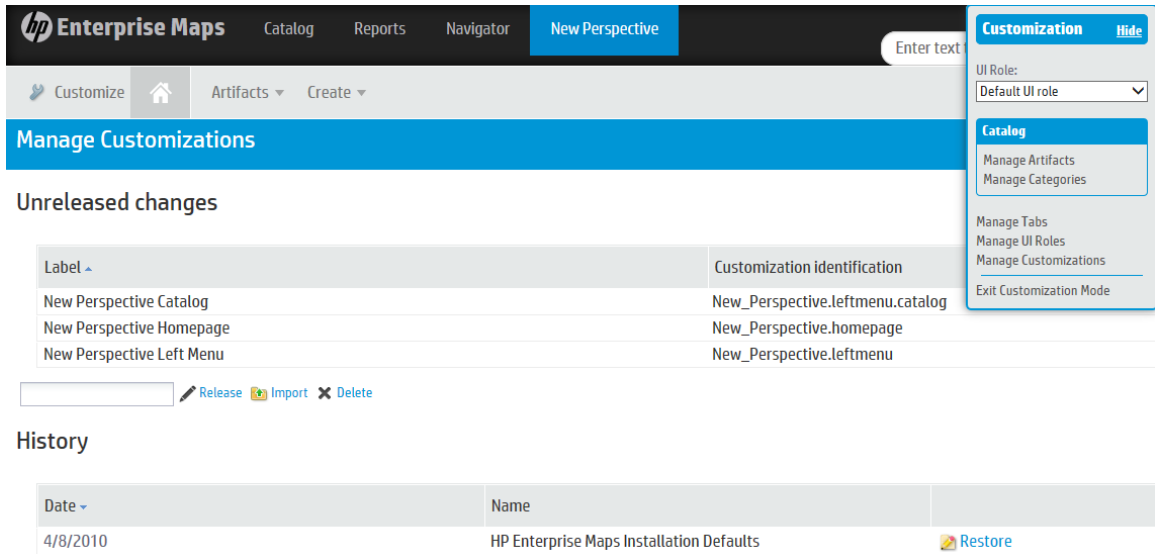
5. Navigate to the New Perspective tab. Click on the Customize icon and add the components and artifacts you want to make available in the user's new perspective.



6. Click on the Manage Customizations link in the Customization menu to open the Manage Customizations page, and then release all changes.





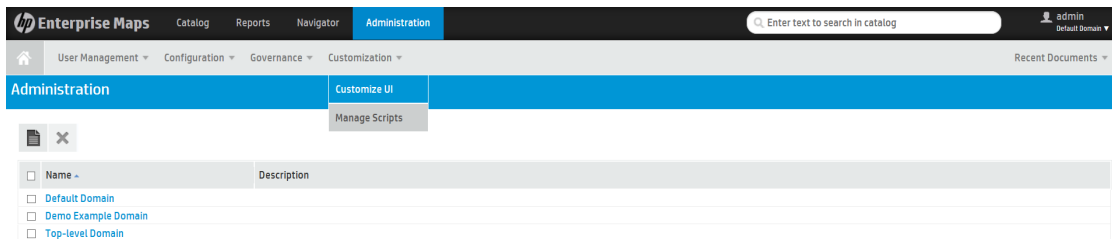


7. When you are finished, click Exit Customization Mode.

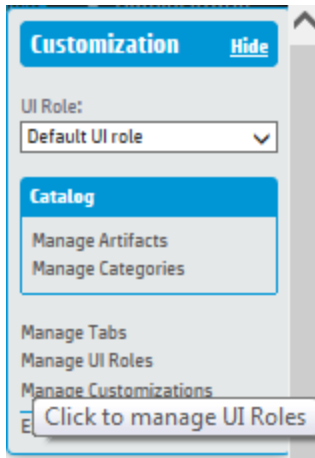
## Create a New UI Role

Create a new UI role in HP EM using the following steps:

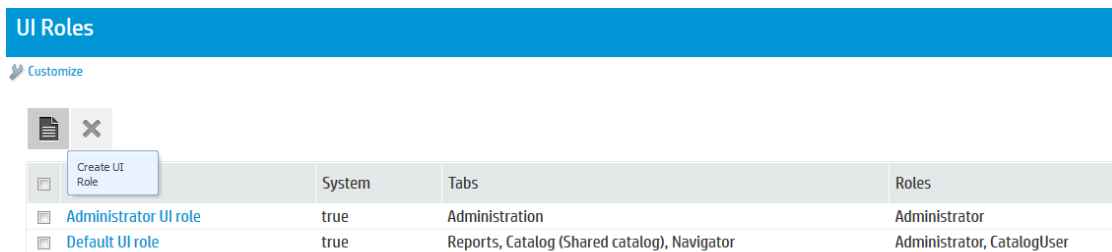
1. Log in as the Repository Administrator, and then navigate to the Administration tab.
2. Open Customization, and then click Customize UI.



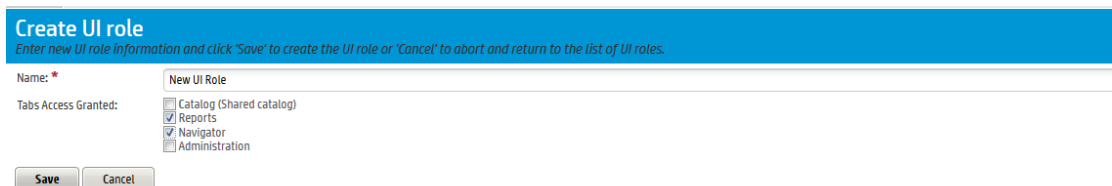
3. In the Customization menu, open UI Roles.



- In the UI Roles page, click the Create UI Roles button.



- Enter the Role Name, and then select Tabs Access Granted for the tabs you wish the role to have access to.



- When you finish, click Save to save the UI Role. The resulting page will display the new UI Role.



- When you are finished, click Exit Customization Mode.

## Assign Users to a Role

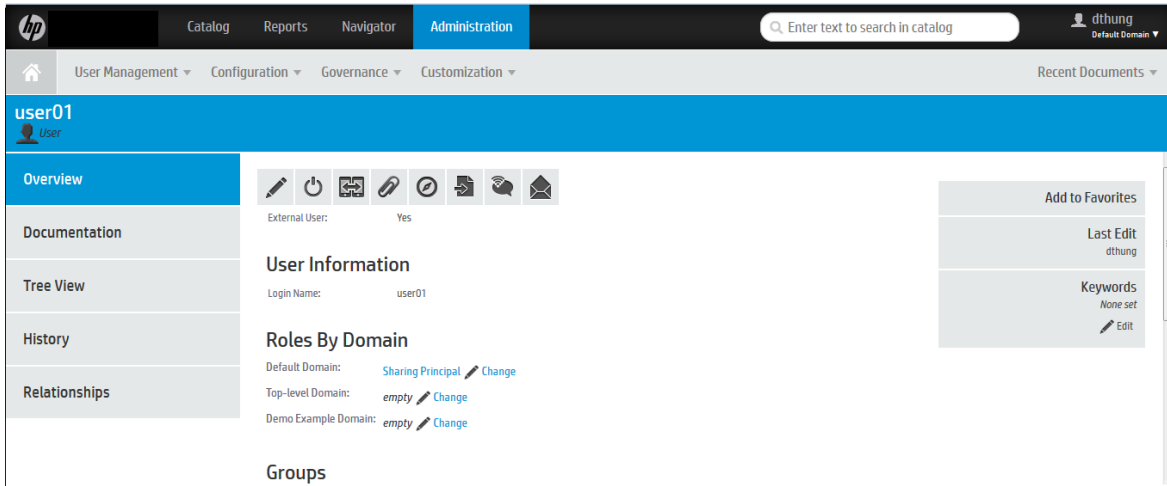
You can assign a user to a distinct role in HP EM.

Log in as the Administrator, and then click the Administration tab.

Open Customization, and then click Customize UI.

In the Customization menu, open UI Roles.

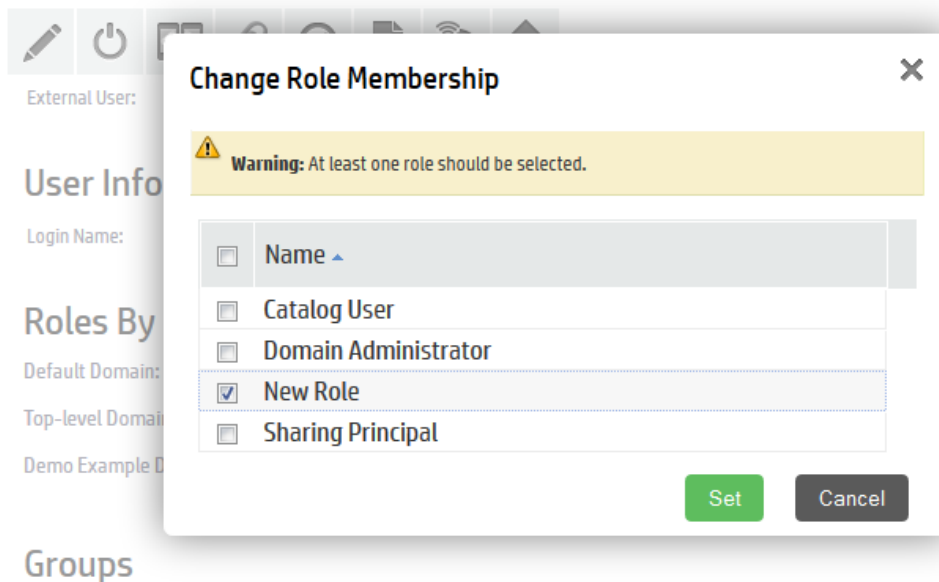
The Overview sidebar will open, where you can view the information page for the selected user.



In the Roles By Domain section, click the Change link.

**Note:** Make sure to assign each user to the correct domain.

On the Change Role Membership page, select the roles that you want the User to be assigned to, and then click Set. The user will see the new perspective in their UI the next time they sign in.

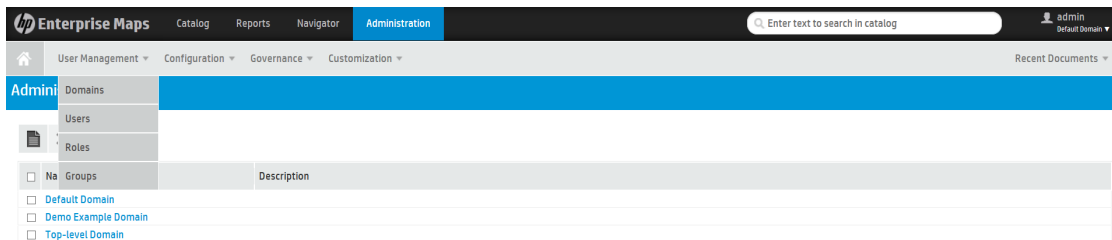


## Import External Users

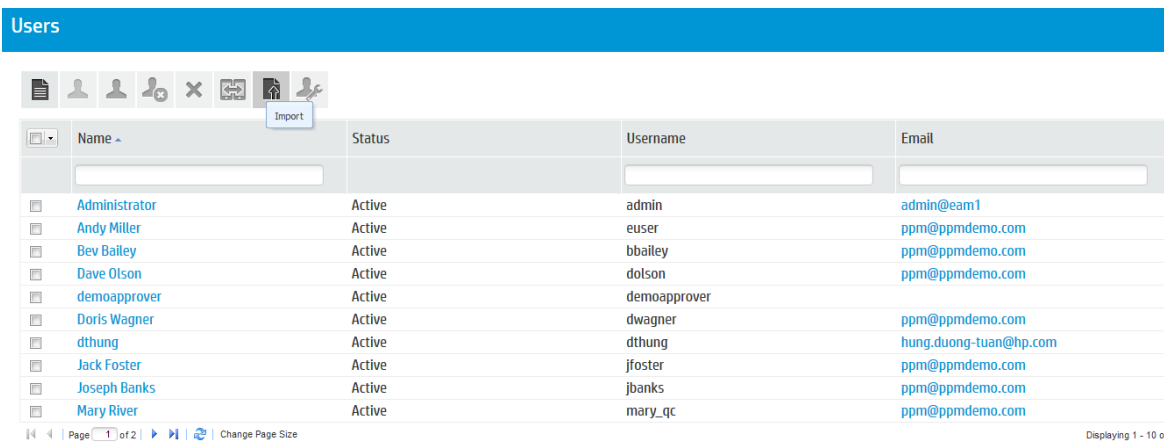
To import a new External User into HP EM, use the following procedure:

**NOTE:** This procedure is used when the HP EM server is already installed with LDAP.

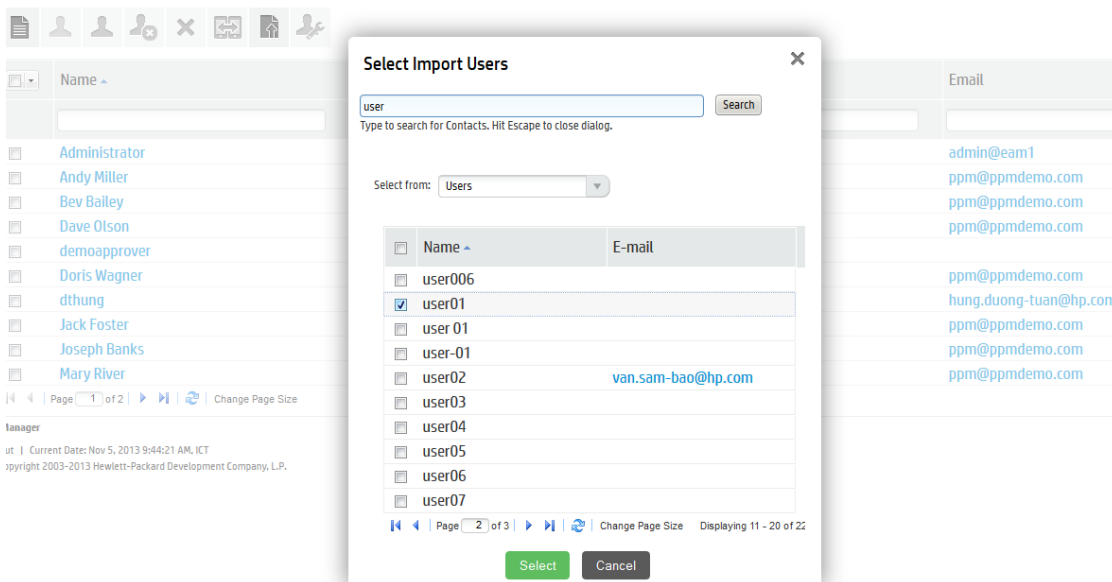
1. Log in as the Repository Administrator, and then click the Administration tab.
2. Click User Management > Users to open the Users page.



3. On the Users page, click the Import button to import users.



4. Select the users that you want to import, and then click the Select button to finish importing users.



# Chapter 14: FinPlanner - Case Study

The content of the Case Study section is a project called FinPlanner. FinPlanner is a banking application, which, through the means of an internet application, will empower clients to contract out their financial or investment aims.

This case study will show one approach, which matches the principles of building an agile enterprise architecture (Architecture Transformation), while simultaneously markedly reducing project risk connected with the definitions of scope, delivery strategy, delivery deadlines and costs.

Case Study Objectives:

- Demonstrate the approach to building an agile enterprise architecture
- Show the role of the Enterprise Architect in this process
- Show the means of working out high-level design solutions.
- Show the support of the EA application in working out a design solution
- Recapitulate the benefits for the project
- Recapitulate the benefits for the whole Enterprise Architecture.

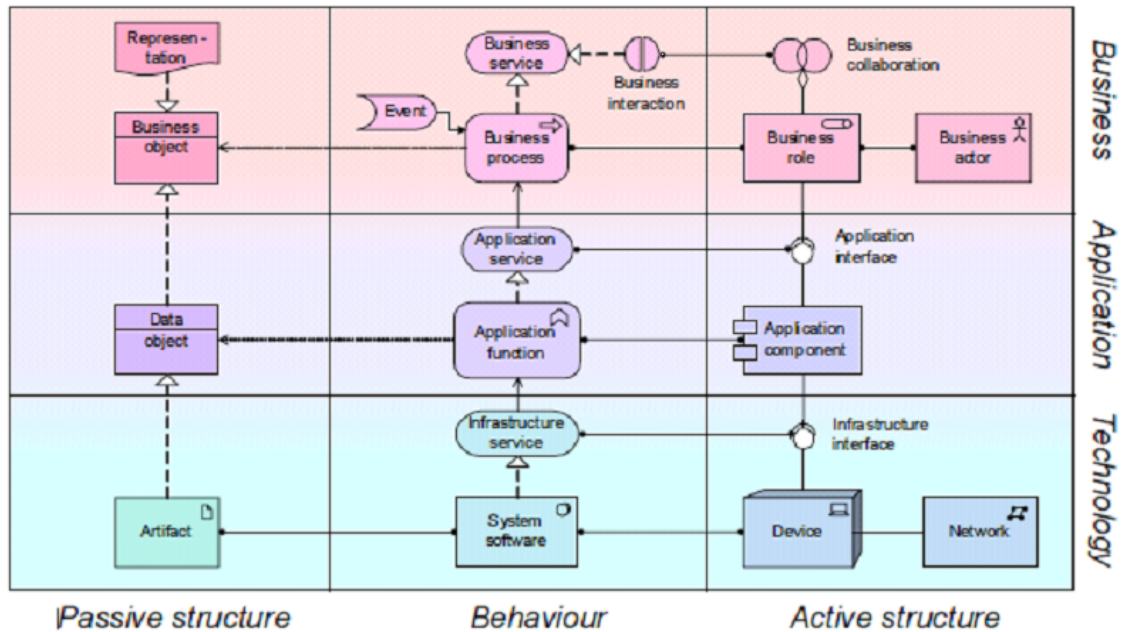
The Case Study covers the following topics:

- ["FinPlanner Solution Design " below](#)
- ["Modeling Business Architecture " on the next page](#)
- ["Modeling Application Architecture " on page 40](#)
- ["Modeling Technology Architecture " on page 40](#)
- ["FinPlanner Initial Installation and Setup " on page 40](#)
- ["FinPlanner Sparx EA Project " on page 41](#)
- ["FinPlanner Summary" on page 43](#)

## FinPlanner Solution Design

High-level design layers that are descriptive of the future solution design enable the enterprise architect and solution architect to create a list of component solutions as well as descriptions of their mutual relations and interfaces. For the FinPlanner case study, high-level design is created in layers using ArchiMate 2 notation, through the use of a strictly defined set of elements and relations that are also precisely defined. You can find more details about the ArchiMate meta-model in the ArchiMate® 2.0 Specification. The enterprise architecture has three layers: Business, Application, and Technology. The concept of services, when they are being furnished on individual layers and that are consumed

through various interfaces forms the basis.



**Basic List of Elements on All Layers and Relations**

## Modeling Business Architecture

The goal of modeling the business architecture is to create a comprehensive list of the following:

- Roles and Actors
- Business Services and Processes
- Business Objects
- A list of application services, which will be needed by business processes
- Create relationships between these elements

A list of business objects and their relations as an information model is created incrementally. In the high-level design layer only a core list of business objects and their relations is created. It is only in the phase of detailed modeling of business processes that the attributes are filled in with the help of BPMN. This approach also applies for the detailed specification of service integrations.

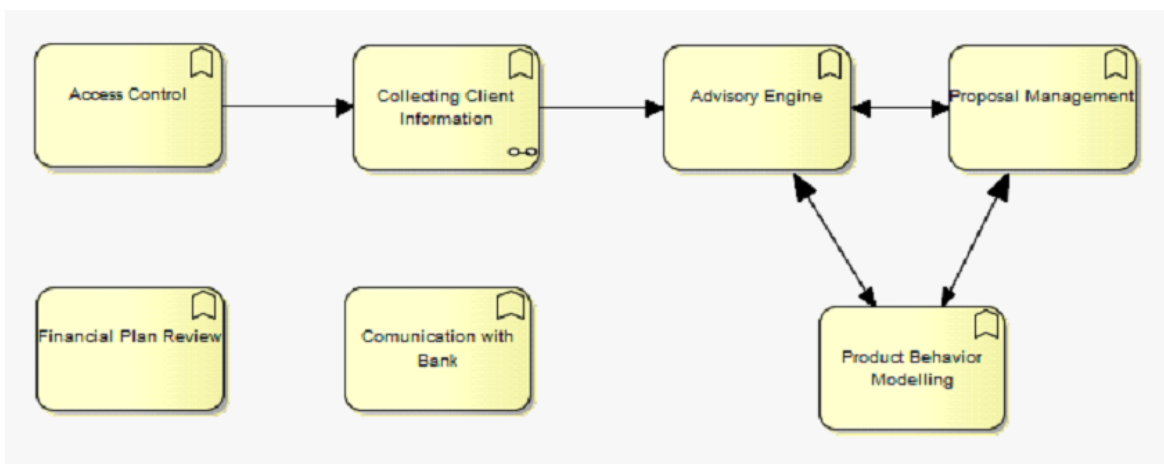
The business architecture in the FinPlanner case study was designed based on the client's documentation. Workshops with user groups followed. The users participated directly in creating the business architecture model.

## Defining Core Business Functions

To create the high-level design, begin with defining your core business functions, and then continue with a specification of business services. This must respond to the customer's vision and include the

definitions of services by role that will be used to create the business capability list. In this phase, you can go into more detailed or revised specification of deliverables.

In the FinPlanner case study, in the area of collecting client information and facilitating web services for the business service definition, questions are developed and a dialog with the customer conducted to collect the required information. For example, the customer responded that the application must be able to manage the client's investment portfolio and update personal data. Information collected on roles and related services also helps to define the core business functions.



### High-level Design of Business Functions

Once the core business functions are created in the high-level design, you will see the described functional areas in the design model.

## Defining Application Services Integration

Apart from the business architecture components there is also the creation of the integration requirements of a new solution with the existing application architecture. These requirements emerge gradually and become more precise over time, eventually creating a detailed specification of the IN and OUT parameters of the service integration. On a high-level design, only the service names are detected. These are then filled in with parameters on the detailed process description level (BPMN). At the end of the specification process, you will have a detailed service integration specification that corresponds to all application processes and all business contexts in which they are called.

The high-level design of application services and integration must constantly be updated so that it can serve as an actual view of the target solution. The high-level design diagram provides a consolidation space for all parts of the business architecture, including the integration layers and the information model.

In the FinPlanner case study, a single application service can be called in the context of a number of business processes. For example, the "Get Finbank products owned by client" application service is called within multiple business process contexts, including the Collecting Client Information business process (shown) and two additional business process modules (partially shown). The model shows the relationships between application services and business processes and conforms to Governance in the area of service design, concretely displaying definitions at a level of meaningful granularity.

## Modeling Application Architecture

After approving the high-level design model of the business layer, the next step is to create the application architecture model. The order of operations and required content at each step is designed according to the principles and recommendations of the TOGAF and other enterprise architecture frameworks. The goals for the design of the application layer architecture model are:

1. Transform the requirements into integration services
2. Create instructions for the realization of the required integration services
3. Fill in the existing application components, which will supply services to the business processes and the functioning new application, in the high-level design diagram.
4. Fill in the application component(s) in the high-level design diagram.
5. Inside of the application component, create the basic decomposition on the level of application functions.
6. Create relations between the application components and the application services.
7. In cooperation with the business architect create the relations between the application services and business process and functions.

Just as for the business layer, on the application layer, the requirement to provide constant updating through a gradual process of specifying an architecture solution leads to a stronger enterprise architecture model.

## Modeling Technology Architecture

The goal of the technology layer is to describe the runtime environment of the application represented by the elements of the ArchiMate 2.0 technology layer. The main building block is the node. It is a combination of a hardware device and system software. This represents an environment for execution artifacts, which are installed on a component node. The artifact represents a concrete physical software product element (application source code, source files, scripts, databases, etc). The task of a senior programmer is to gradually specify the technology layer model, with the key component being a detailed list of all artifacts that will be installed on a single node.

In the FinPlanner case study, you can see the first increment of the FinPlanner application's technology layer. Since the FinPlanner case study includes a classic three-tier architecture, the technology layer contains three nodes: database server, application server, and presentation layer.

The design of the technology layer must correspond to all the nonfunctioning requirements of the FinPlanner application and must be in accord with the enterprise architecture governance rules and policies.

## FinPlanner Initial Installation and Setup

To set up the FinPlanner case study, first a local installation of the Sparx Systems Enterprise Architect version 12 modeling environment was made, and then an HP EM instance in an organization's private cloud was set up. To access the HP EM application all that is needed is a standard web browser. Follow the instructions given in *User Guide* under section *Extension for Sparx Systems EA*.

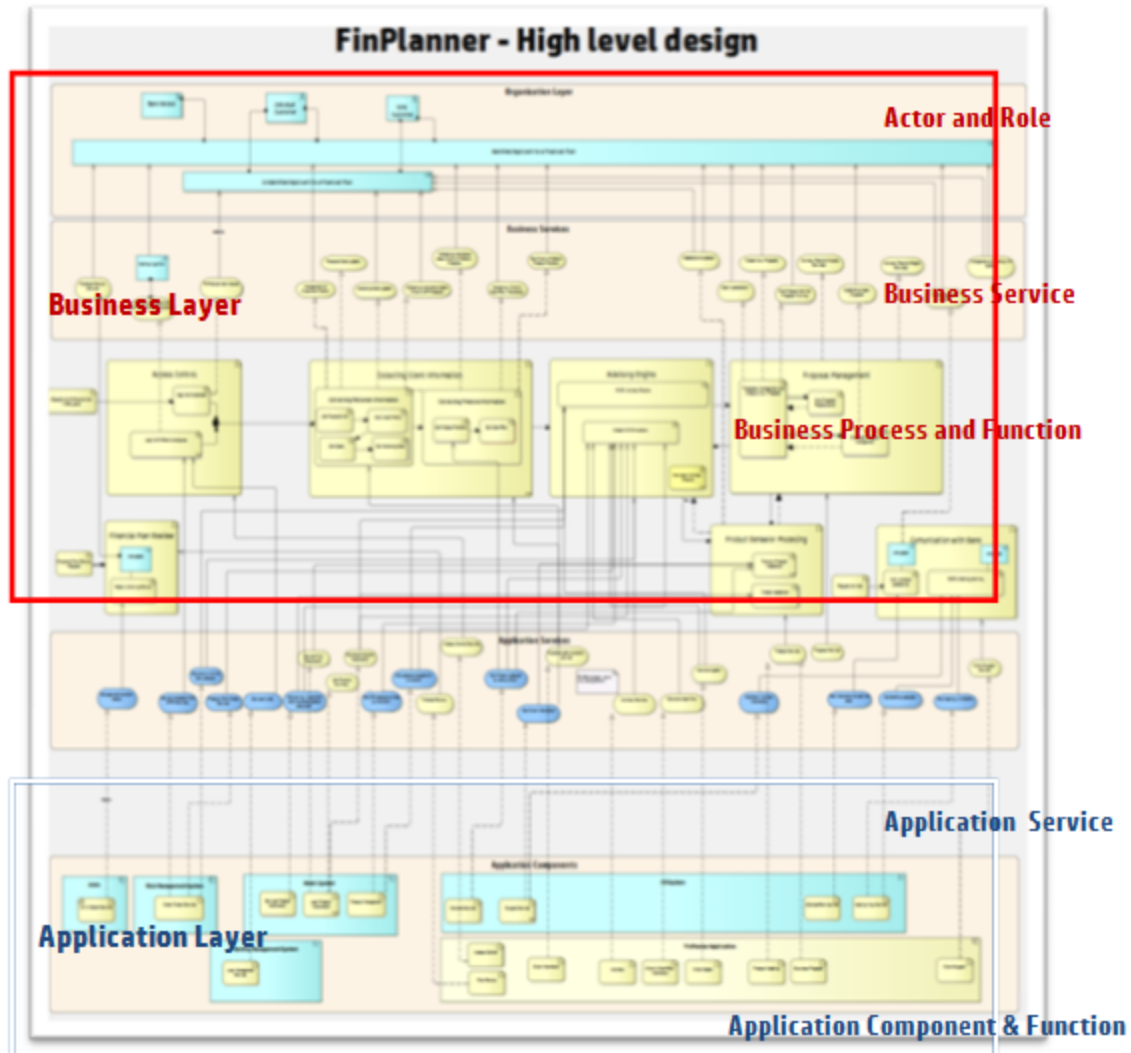


A high-level view includes the following steps:

1. Install Sparx Systems EA, and then install the HP EM Sparx Systems EA. After you finish the installation, the import and export functions are available in Sparx Systems EA.
2. Import the current architecture from HP EM into Sparx Systems EA. After you finish the import, all elements from your current architecture are available for modeling high-level design and relationships. The elements are shown in layers corresponding to the ArchiMate 2.0 language. This availability accelerates the possibility of reusing existing IT artifacts.

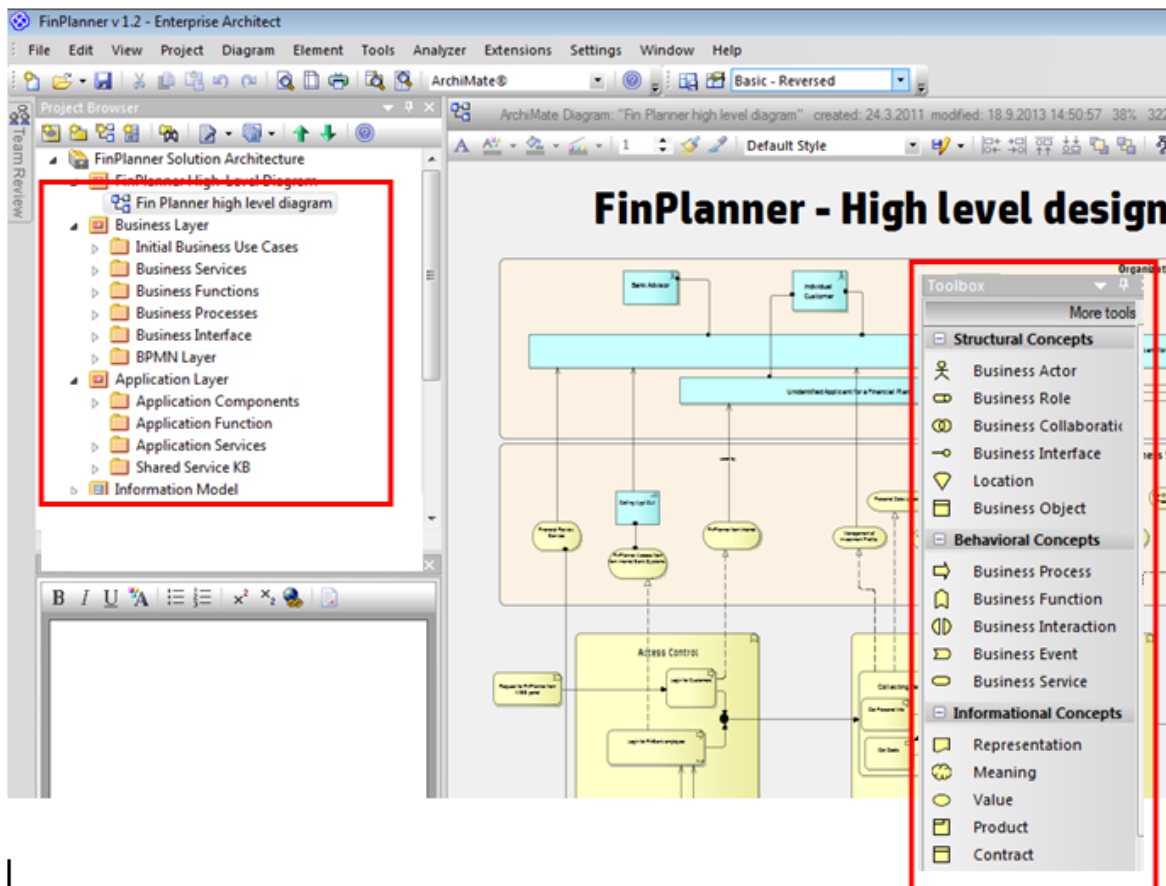
## FinPlanner Sparx EA Project

The FinPlanner high-level design is shown without a technological layer because it simplifies the diagrammatic view. Sparx Systems Enterprise Architecture version 12 is used as a modeling tool and incorporates the ArchiMate 2 toolbox. The diagram serves as an end-to-end view of the architecture of the future solution. The business architect creates the business layer and the integration architect the application layer. The solution architect works on the solution design as a whole and the enterprise architect works on the architectural design aspects. The technological layer (not shown) falls under the competence of a senior programmer.



Although the FinPlanner case study high-level design is created in Sparx Systems Enterprise Architect version 12, you can also create high-level designs using other modeling ArchiMate2-compliant tools. For more information about tools for modeling in ArchiMate2, see the publication Mastering ArchiMate in the ArchiMate 2 documentation set.

The FinPlanner high-level design model organization corresponds to the ArchiMate layers and element groups. This simplified view aids in synchronization with the enterprise architecture repository. For customizing the model, the ArchiMate2 toolbox is used. In the view area, elements of the business layer are shown. The toolbox also contains relational concepts for you to use in creating relationships between layout elements. Extension for Sparx Systems Enterprise Architect does not contain any control of language rules, which means that a strong practical understanding of the modeling language is key. As a good starting point, it is recommended that you study existing modeling patterns and that you and your team work through the high-level design model.



## FinPlanner Summary

### Shared Application Services

An important part of the solution design of a new application is its integration into the current application and information architecture of the organization. Underestimation in this area is frequently a reason for the failure of an entire project. Shared integration services (in the Service Oriented Architecture framework) are a subset of all application services and are likewise a part of the import from the HP EM repository to the modeling environment. The business architect user of the FinPlanner application can use the instant view of integration services, including their input and output parameters and their data types.

The business architect user can also immediately evaluate the FinPlanner application needs within the existing integration services, insert a concrete integration service into the application services layer, or create relations between the service and a given business process or business function. If a need arises, the business architect can create a request to modify an existing service or to create a design for a new service. HP EM will dynamically update in response to these requests, thereby providing guaranteed integration of services. This simplifies and improves the quality of the draft application design and automatically increases shared IT assets.

### FinPlanner Shared Application Components

Similar to shared application services, after importing from HP EM repository, the architect has immediate access to all existing enterprise architecture application components. These elements can then be used directly in the design layer of the application architecture.

Components of the shared application layer can even include future components, which arise as a part of other projects. This makes it possible to evolve and plan shared IT assets even when they are not part of the current architecture.

### **FinPlanner Standards Compliance**

Maintaining defined architectural principles and standards largely impacts the effectiveness of enterprise architecture management. You can use HP EM to define the principles that govern compliance and to automatically enforce adherence to related rules and policies.

In the case of FinPlanner; in synchronization with the HP EM repository, the case study arrived at a control for maintaining principles and standards, which is also a part of the control of the ArchiMate language rules. In cases where language rules are not adhered to, elements that are not in compliance are flagged in red in the high-level diagram.