# Content

1. **Target Readership.** ................................................................. 5

2. **About the Application and the Supported BI Content Types.** ....................... 6

3. **What’s New in 6.3?** ................................................................. 10

4. **Administering SAP BusinessObjects Mobile for iOS.** ............................... 13
   4.1 **Solution Overview.** ............................................................. 13
      - SAP BusinessObjects Mobile Client. ........................................ 14
      - SAP BusinessObjects Mobile Server. ........................................ 15
      - SAP BusinessObjects Business Intelligence (BI) Platform. .......... 15
   4.2 **Platform Support for the Application.** ....................................... 16
      - Support on iPhones. ............................................................. 17
   4.3 **Language Support in the App.** .............................................. 18
   4.4 **Installing the Required Components.** ....................................... 19
      - Installing the SAP BusinessObjects Mobile Application For iOS. ..... 19
      - Installing the SAP BusinessObjects Mobile Server. .................... 19
      - Installing the SAP BusinessObjects BI Platform Server. ............ 21
      - Installing the Configuration Server. ....................................... 22
   4.5 **Creating and Configuring Server Connections (Including BIOD and Sybase Afaria).** 22
      - Creating, Importing and Sharing Server Connections Using the App on Device. 22
      - Configuring Connections for Importing to Mobile for iOS. ........... 22
      - Using SAP BI URLs For Managing Connections. ............................ 24
   4.6 **Using SAP BI URLs For Managing Connections.** .............................. 28
      - Creating an SAP BI URL To Add a Corporate Connection. ............. 28
      - Creating an SAP BI URL To Add an SMP Connection. .................... 29
      - Using URLs To Delete Connections. ....................................... 30
      - Creating a URL to Modify a Connection. .................................. 31
      - Creating SAP BI URLs to Add Single Sign On Connections. ............ 32
   4.7 **Configuring Application’s Behavior by Specifying Properties on the Server.** 33
      - Using URLs To Delete Connections. ....................................... 35
   4.8 **Granting Users the SAP BusinessObjects Mobile Application Rights on the BI Platform.** 36
   4.9 **Customizing Application’s Interface Features.** ................................ 37
      - Mobile Server and Property File Locations Matrix. ....................... 38
      - Using the CMC to Define Properties on BI Platform 4.1. .............. 38
      - Configuring the Thumbnail Background Image of BI Documents. ........ 40
      - Configuring Document-Specific Help. .................................... 42
      - Configuring the Collaboration Options. ................................... 42
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.10</td>
<td>Configuring Categories on the Mobile Server</td>
</tr>
<tr>
<td>4.11</td>
<td>Generating SAP BI URLs for Opening BI Documents</td>
</tr>
<tr>
<td></td>
<td>Creating SAP BI URLs For Opening Specific BI Documents or Reports</td>
</tr>
<tr>
<td></td>
<td>Creating SAP BI URLs For Opening The Latest Instance of BI Documents</td>
</tr>
<tr>
<td></td>
<td>Creating SAP BI URLs For Opening BI Documents With Prompts</td>
</tr>
<tr>
<td></td>
<td>Creating SAP BI URLs For Opening Specific Sections of the BI Documents With Sections</td>
</tr>
<tr>
<td></td>
<td>Creating SAP BI URLs for Opening the Latest Available Version of a BI document or Its Instance</td>
</tr>
<tr>
<td></td>
<td>Features of Application Password.</td>
</tr>
<tr>
<td></td>
<td>Touch ID Support for Securing Documents.</td>
</tr>
<tr>
<td></td>
<td>User Data Protection and Privacy Parameters.</td>
</tr>
<tr>
<td>4.13</td>
<td>MDM Configuration Support for iOS 8 and 9 Devices.</td>
</tr>
<tr>
<td>4.14</td>
<td>Working With Notifications.</td>
</tr>
<tr>
<td>5</td>
<td>Creating Personal Views of Web Intelligence Reports.</td>
</tr>
<tr>
<td>6</td>
<td>Managing the Mobile support for Dashboards.</td>
</tr>
<tr>
<td>6.1</td>
<td>Using the Mobile Compatibility panel.</td>
</tr>
<tr>
<td>6.2</td>
<td>Supported components in mobile dashboards.</td>
</tr>
<tr>
<td></td>
<td>Using components in mobile dashboards.</td>
</tr>
<tr>
<td>6.3</td>
<td>Unsupported features in mobile dashboards.</td>
</tr>
<tr>
<td>6.4</td>
<td>Saving mobile dashboards to BI platform folders.</td>
</tr>
<tr>
<td>7</td>
<td>Managing the Mobile support for Information Spaces and Information Views</td>
</tr>
<tr>
<td>7.1</td>
<td>Valid Data Format for Augmented Views.</td>
</tr>
<tr>
<td>8</td>
<td>Managing the Mobile Support for Analysis Applications.</td>
</tr>
<tr>
<td>8.1</td>
<td>Installation.</td>
</tr>
<tr>
<td>8.2</td>
<td>Configuration Tasks for Mobile Usage of Analysis Applications.</td>
</tr>
<tr>
<td></td>
<td>Creating a Mobile Category on the BI Platform.</td>
</tr>
<tr>
<td></td>
<td>Assigning Analysis Applications to the Mobile Category.</td>
</tr>
<tr>
<td>8.3</td>
<td>Creating Analysis Applications for Mobile Devices.</td>
</tr>
<tr>
<td>8.4</td>
<td>Further information.</td>
</tr>
</tbody>
</table>
9  Managing the Mobile Support for SAP Lumira Server or SAP Lumira Cloud. ....................... 90
9.1 Configuring the Connection to SAP Lumira server or SAP Lumira Cloud. ......................... 90
9.2 Further Information. ........................................................................................................ 90
10 Managing Mobile Support for SAP Lumira, server for BI Platform. ............................... 91
1 Target Readership

This guide is designed to help the following types of users:

- **IT administrators** who:
  ○ Install and configure the various components of the SAP BusinessObjects Mobile for iOS solution including the application on the user’s device (iPhone or iPad), the SAP BusinessObjects Mobile server and the SAP BI platform server.
  ○ Configure various application properties and server properties using the property files on the Mobile server or by using the CMC (Central Management Console) on the BI platform.
  ○ Troubleshoot errors

- **Business Intelligence administrators** who:
  ○ Manage user rights and permissions for accessing documents and performing actions on BI reports.
  ○ Manage the accessibility and security of BI documents.

**Tip**

Many concepts mentioned in this guide relate to the SAP BusinessObjects Mobile server. The information that does not apply directly to the client application (such as connecting to the SAP Mobility platform and configuring Single Sign On) is not covered in this guide. It can be found in the *Mobile Server Deployment and Configuration Guide* published on [http://help.sap.com/bomobserver40](http://help.sap.com/bomobserver40) and [http://help.sap.com/bomobiserver41](http://help.sap.com/bomobiserver41)
About the Application and the Supported BI Content Types

SAP BusinessObjects Mobile application for iOS provides access to multiple SAP BusinessObjects Business Intelligence (BI) content types to users of iPhone and iPad devices through a single mobile app.

The SAP BusinessObjects Business Intelligence (BI) content supported by the app includes Web Intelligence, Crystal Reports, hyperlinks, Dashboards, Analysis applications, Explorer information spaces/exploration views, and BI HANA-based visualizations (based on the SAP Lumira Server and SAP Lumira Cloud).

Using the SAP BusinessObjects Mobile application for iOS, users can do the following:

1. Create connections to the SAP BusinessObjects BI platform server and access the various BI documents and analytics content available on the server.
2. Search, view, and download documents on their iPhone and iPad devices.

SAP BusinessObjects Web Intelligence

Here are some of the key features of SAP BusinessObjects Web Intelligence reports:

1. Web Intelligence reports offer capabilities such as filtering, drilling down, displaying data in charts, and displaying data based on formulas.
2. Data of Web Intelligence reports comes from a variety of data sources, including:
   - Universes (which organize data from relational and OLAP databases into objects)
   - Personal data providers (such as CSV files or Microsoft Excel spreadsheets)
   - Bex queries (based on SAP Info Cubes)
   - Web services
   - Advanced analysis workspaces
   - SAP HANA

SAP Crystal Reports

Here are some of the key features of SAP Crystal Reports:

1. SAP Crystal Reports can be based on virtually any data source.
2. Formulas, cross-tabs, subreports, conditional formatting, geographic maps and graphs in SAP Crystal Reports communicate information visually and effectively.

By default, interactive mode is set in iPad, and pdf mode is set in iPhone.
i Note

iPhone supports Crystal Reports in pdf mode only, which has limited functionality.

The following table gives a list of features supported in iPad and iPhone, for both pdf and interactive modes.

<table>
<thead>
<tr>
<th>Crystal Reports in pdf mode (feature.crystal.showAsPDF=True)</th>
<th>Crystal Reports in Interactive mode (feature.crystal.showAsPDF=False)</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPad and iPhone supports pdf mode.</td>
<td>Only iPad supports interactive mode.</td>
</tr>
<tr>
<td>You can use PDF format for a pixel perfect view. This format is intended for distribution and printing.</td>
<td>Interactive mode is used for easy access of data.</td>
</tr>
<tr>
<td>Download option is available.</td>
<td>Download option is not available.</td>
</tr>
<tr>
<td>In the toolbar, you can find the following icons:</td>
<td>In the toolbar, you can find the following icons:</td>
</tr>
<tr>
<td>● Refresh</td>
<td>● Refresh</td>
</tr>
<tr>
<td>● Settings</td>
<td>● Settings</td>
</tr>
<tr>
<td>● Back</td>
<td>● Back</td>
</tr>
<tr>
<td></td>
<td>● Search</td>
</tr>
<tr>
<td></td>
<td>● Filter</td>
</tr>
<tr>
<td></td>
<td>● Group Tree</td>
</tr>
<tr>
<td>When you tap on the Settings button, the following options are available:</td>
<td>When you tap on the Settings button, the following options are available:</td>
</tr>
<tr>
<td>● Download</td>
<td>● Offline PDF</td>
</tr>
<tr>
<td>● Help Info</td>
<td>● Download</td>
</tr>
<tr>
<td>● Collaborate</td>
<td>● Help Info</td>
</tr>
<tr>
<td>● Annotate</td>
<td>● Collaborate</td>
</tr>
<tr>
<td>● Email</td>
<td>● Annotate</td>
</tr>
<tr>
<td>● Full screen</td>
<td>● Email</td>
</tr>
<tr>
<td></td>
<td>● Full screen</td>
</tr>
<tr>
<td>i Note</td>
<td>You can use the Offline PDF option multiple times although you download the document in interactive mode.</td>
</tr>
</tbody>
</table>

The info popover contains the following options:

- View
- Add to Device
- Add to Favorites

You cannot access instance documents and OpenDocument links.
Crystal Reports in pdf mode (feature.crystal.showAsPDF=True)  
Pdf mode does not support Crystal documents with prompts (saved with and without data).  

Crystal Reports in Interactive mode (feature.crystal.showAsPDF=False)  
Interactive mode supports Crystal documents with prompts (saved with and without data).

### SAP BusinessObjects Analysis Applications

Analysis applications are Web applications that allow users to analyze data from SAP NetWeaver Business Warehouse (BW) and SAP HANA. They are created using the SAP BusinessObjects Design Studio.

The design studio uses the latest technologies including HTML 5 rendering and the Eclipse plug-in for designers.

### SAP BusinessObjects Dashboards

SAP BusinessObjects Dashboards (created with a Dashboard Builder) are corporate dashboards with analytics based on Universe queries. They are rich in look and feel, and provide support for the following features on Mobile:

- Query-pane-based data connectivity
- Hierarchies in tables
- Add-on components
- Maps, radar charts, bubble charts, waterfall charts, menus (such as Picture Menu, Accordion menu), list-builder selectors, and checkboxes.
- The Nova style theme

### Hyperlink Objects

Hyperlink objects can be created in the BI LaunchPad. A hyperlink object has a name and a URL. On tapping a hyperlink document in the app, it opens a Web view within the application to render the URL contents (by default, the hyperlink does not open the browser on the device).

**Note**

If you want the report to open in a Safari (browser) window, append the parameter `<SAPBI_target>` with the value `_blank` to the URL. If you do not use this parameter, the target report always opens within the application container itself.
Visualizations (Based on the SAP Lumira Server and SAP Lumira Cloud Application)

The SAP Lumira Cloud application allows users to explore datasets and create visualizations that are stored on the cloud. It also allows you to upload, share, and delete SAP Lumira documents (.svid), SAP Crystal Reports documents, Design Studio files, Microsoft PowerPoint files, Microsoft Excel worksheets, and CSV files. It also allows you to share visualizations with other individual users.

Note

Files can only be shared with individuals using the iPad app, not with teams. For more information on the SAP Lumira Server, refer to the SAP Lumira Cloud User guide available at http://help.sap.com/boall_en

Note

For more information on the above BI content types, refer to the documentation available on the SAP Help Portal-> http://help.sap.com/boall_en
3  What's New in 6.3?

Increased Platform or OS support

The application is now supported on iOS-9-based devices.

Note
The application no longer supports iOS 7.

User Experience Enhancement

The existing Download, Information and Update icons are replaced with new icons for easy access. These images are as shown below.

Table 2: Updated Icons

<table>
<thead>
<tr>
<th>Existing Icons</th>
<th>Updated Icons</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Download Icon" /></td>
<td><img src="image2" alt="Download Icon" /></td>
</tr>
<tr>
<td><img src="image3" alt="Information Icon" /></td>
<td><img src="image4" alt="Information Icon" /></td>
</tr>
<tr>
<td><img src="image5" alt="Update Icon" /></td>
<td><img src="image6" alt="Update Icon" /></td>
</tr>
</tbody>
</table>

Note
The Download option is provided for offline storage of documents and has been removed for online-only documents.
Metadata of the previously downloaded documents are deleted.

Web Intelligence Enhancements

- In Web Intelligence documents with sections, the parallel section selection that you make in a report persists when you switch to other reports within the document. When you tap the Report List icon, a list of reports for the sections you chose previously appears.
To simplify the selection of values each time, all the parameters that you require are saved as variants. Every time you refresh the report you can select the variant directly instead of selecting every parameter that you want to view.

This application supports enhancement in BI 4.1 SP06 Semantic layer in prompts.

Support for Kerberos SSO

This application provides support for Kerberos SSO on mobile iOS. To enable Kerberos-based authentication for the mobile iOS application, you need to execute a few steps on both the iOS device and mobile server.

BOE landscape should be configured for Kerberos-based Authentication.
Kerberos is not supported via SMP and SUP Connections.

For further details refer to Mobile Server Deployment and Configuration Guide 4.1 SP7

Enhancement in Default Landing Category

A personal category as well as a corporate category can now be defined as the default landing category. The default landing category is also enabled in offline mode.

Personal category can be set for default landing only from the device.

Device Notifications

You can view various notifications in the Notification Panel of your device.

For more information, watch Push Notification SAP BusinessObjects Mobile 6.3 Business Intelligence 4.2
Search within Sections

You can navigate to any section by entering its name in the navigation panel.

SAP Lumira, server for BI Platform on Mobile

You can now view existing Lumira documents on your mobile.

i Note
SAP Lumira, server for BI Platform is supported only on iPad.

For more information, watch What’s New in SAP BusinessObjects Mobile 6.3
4 Administering SAP BusinessObjects Mobile for iOS

4.1 Solution Overview

The SAP BusinessObjects Mobile solution for iOS allows end users to access the SAP BusinessObjects Business Intelligence (BI) content through their iPhone and iPad devices. It is suited to running ad-hoc query reporting and analysis.

This solution contains three essential components:
- SAP BusinessObjects Mobile client (SAP BI app)
- SAP BusinessObjects Mobile server
- SAP BusinessObjects Business Intelligence (BI) platform server

Besides the above mandatory components, you can also have the following optional elements for enhanced security in your landscape:
- A reverse proxy server
- A Sybase Unwired Platform server (with a relay server)

The overall SAP BusinessObjects Mobile architecture for server versions XI 3.1 and 4.0 is shown in the following illustration:
For Business Intelligence platform 4.1, the architecture includes the SAP BusinessObjects Explorer server in the BI platform. The architecture is shown in the following illustration:

### Related Information

- SAP BusinessObjects Mobile Client [page 14]
- SAP BusinessObjects Mobile Server [page 15]
- SAP BusinessObjects Business Intelligence (BI) Platform [page 15]

### 4.1.1 SAP BusinessObjects Mobile Client

The SAP BusinessObjects Mobile app for iOS is the client. Using this app, professionals can access Business Intelligence content from their iPad and iPhone devices. The application gives its users access to the following types of BI documents:

- SAP BusinessObjects Web Intelligence
- SAP BusinessObjects interactive Crystal Reports
- SAP BusinessObjects Dashboards
- SAP BusinessObjects Analysis applications
- SAP BusinessObjects Explorer information spaces/exploration views
- **SAP BusinessObjects Lumira server and cloud content (HANA visualizations)**

The documents are displayed on an iPad or iPhone with user interactivity appropriate to the device.

The app offers the following functions: document viewing, refreshing, document sharing, navigation, data drilling, data filtering (using prompts and input controls), report data viewing (in sections), and collaboration options.

The SAP BusinessObjects Mobile solution runs on data infrastructures based on Wi-Fi, 3G, and 3G+ networks.

### 4.1.2 SAP BusinessObjects Mobile Server

The SAP BusinessObjects Mobile server is a Web application that can do the following:

- Receive requests sent by the SAP BusinessObjects Mobile client and pass them to the SAP BusinessObjects BI platform server.

  **Note**
  
  The SAP BusinessObjects Mobile client is the "SAP BI" application installed on a client device such as iPhone, iPad, Android phone/tablet, or Blackberry.

- Receive the responses (for example, Web intelligence or CR documents, report data or parameter values) from the SAP BusinessObjects BI platform and send them to the SAP BusinessObjects Mobile client (app installed on mobile device).

- Optimize the responses of the Business Intelligence (BI) platform, thus making it suitable for use with the Mobile client.

- Provide flexibility and customization options for client applications such as the types of BI documents, and the document layout to be displayed on the device.

- Provide additional security options such as restricting users from downloading confidential documents.

  **Note**
  
  The application administrator can configure app security and customization options using the various properties files on the server. The required configuration details are provided in this document.

### 4.1.3 SAP BusinessObjects Business Intelligence (BI) Platform

The SAP BusinessObjects BI platform server gives you access to all data captured from corporate databases and data warehouses by business intelligence (BI) documents. It handles the whole document life cycle including creation, catalog, refresh, content delivery, and report interactivity.

The SAP BusinessObjects BI platform server processes requests sent by SAP BusinessObjects Mobile client through the SAP BusinessObjects Mobile server, and sends back responses.
4.2  Platform Support for the Application

1. Device Support

The SAP BusinessObjects Mobile application for iOS is supported on the following devices:

- iPhone 4 and above
- iPad mini
- iPad 2 and above

**Note**

1. iPad 1 is deprecated.
2. Certain application features are not supported on iPhones. For more information, see the relevant section of this chapter: Support on iPhones [page 17]

2. Operating System Support

The application is supported on **iOS 6.0 and all higher versions up to iOS 7.1**

**Note**

iOS versions older than 6.0 are not supported by the application.

3. Web Application Server Support

The Mobile server and BI platform server can be based on one of the following Web Application servers:

- Apache Tomcat
- IBM Websphere
- SAP NetWeaver
3. BI Platform Dependency

To ensure that you can use the complete application functionality, you require SAP BusinessObjects BI platform 4.0 Support Package 8 or 4.1 Support Package 2. However, the application is backward compatible and the legacy features of the application still work on older server versions (including XI 3.1 SPXX, 4.0 SPXX).

For information on the application features-versus-server compatibility for new features of the application, refer to the relevant section of this chapter. For the detailed compatibility matrix including legacy features of the application, refer to the Application Features versus the BI platform Server Compatibility guide at http://help.sap.com/bomobileios

Note

The application is also supported on the Crystal Report SAP BusinessObjects Edge 4.0 and SAP BusinessObjects Edge 4.1. For information on SAP BusinessObjects Edge, refer to http://help.sap.com/boall_en/

4. Data Sources Support

To create a Web Intelligence document or add new data to a document, use queries to retrieve data from a data source to the document.

Depending on the interface you are using, you can create queries based on:

1. Universes, which represent data in relational or OLAP databases as objects.
2. Local data sources such as text files or Microsoft Excel files
3. SAP Info Cubes in a SAP BW Business Warehouse by using BEx queries.
4. Pioneer data sources
5. Web services

All the above Web Intelligence data sources and HANA are now supported by the application.

4.2.1 Support on iPhones

Users can now install and use the SAP BusinessObjects Mobile application for accessing SAP BI data on iPhone devices. All application features are supported on the iPhone except for:

- Annotation
- SAP JAM and SAP StreamWork collaboration (discussions and activities)
- “Page layout” model of displaying report parts on the device screen
- Exploration views (created using the SAP BusinessObjects Explorer server)
- Dashboards
4.3 Language Support in the App

The SAP BusinessObjects Mobile application for iOS provides support for the following language locales:

- Simplified Chinese
- Japanese
- Russian
- Polish
- French
- German
- Portuguese
- Spanish
- Arabic
- Hebrew

**i Note**

Design Studio content is not supported in the Hebrew language.

**i Note**

Both Product locale and the Viewing locale (as configured on device) are supported in the app.

- You configure the product locale on an iPad by choosing the following option:
  
  ```
  Settings > General > International > Language
  ```

- You configure the viewing locale on an iPad by choosing the following option:
  
  ```
  Settings > General > International > Region Format
  ```

The Product locale and the Viewing locale settings that you make on the device take precedence over the settings you make for the same parameters in the BI LaunchPad.
4.4 Installing the Required Components

4.4.1 Installing the SAP BusinessObjects Mobile Application For iOS

You install the SAP BusinessObjects Mobile application on your iOS device by downloading the application directly from the iTunes app store to your device.

Note
If you delete the existing app version from your device and install the latest version, you need to add new server connections, and all your password information and downloaded documents are lost. However, if you upgrade the application, your data and the server connections remain as they are.

4.4.2 Installing the SAP BusinessObjects Mobile Server

Pre-requisite:
Your Web Application server has the the same version as the SAP BusinessObjects BI platform server.

Note
The SAP BusinessObjects Mobile server can be installed on the same Web application server on which other SAP BusinessObjects BI platform Web applications are deployed.

For BusinessObjects Enterprise XI 3.1, SP xx, and BI platform server versions up to 4.0, Support Package 4

For information on how to deploy the SAP BusinessObjects Mobile server based on the BI platform version, your Web application server, and your operating system, refer to the Installation and Deployment Guide:

- http://help.sap.com/bomobilexi31 (for XI 3.1)
- http://help.sap.com/bomobile40 (for BI 4.0)

For BI platform 4.1, BI platform 4.0, Support Package 5 and higher

In version 4.0, Support Package 5 of the SAP BusinessObjects Mobile server and higher, and on BI 4.1, the MobileBIService.war and MOBIServer.war files are auto-deployed. For more information on how to auto-deploy the SAP BusinessObjects Mobile server, refer to the Installation and Deployment Guide:
In release 5.1 and higher, the SAP BusinessObjects Mobile application for iOS only allows connections to trusted servers. A trusted server is a server with secure server certificates signed by certificate authorities (CAs) that are trusted by iOS. If the server is not trusted and users try to add a server connection in the application, they encounter an error. For more information, refer to the related topic below.

### Related Information

**Ensuring that the Mobile Server is Trusted** [page 20]

#### 4.4.2.1 Ensuring that the Mobile Server is Trusted

If you are using HTTPS to connect to your SAP BusinessObjects Mobile server, the SAP BI application (for iOS and Android) only allows connections to trusted servers. In order for the application to establish successful connections to a server, it is essential that one of the following conditions is met:

- **Your server is trusted.** This means that the server has secure server certificates from a Certificate Authority (CA), and these CAs are trusted by iOS (such as Verisign, Thawte and others listed at [http://support.apple.com/kb/ht5012](http://support.apple.com/kb/ht5012)).

- **The root certificate of your server is installed on the client device** (iPhone or iPad) as a profile, which means when the connection to the server is added in the application, the device can verify the server certificate.

If one of the above conditions is not met, and you try to add a server connection in the application, you encounter an error like this:

Connection to the server could not be established (MOB06031) (HTTP-1202) Details: The certificate for this server is invalid. You might be connecting to a server that is pretending to be <server1.servers.xxcompany.com>, which could put your confidential information at risk.

If you are not using a root certificate that is preinstalled on the user’s device, you can distribute it in one of the following ways:

- Using the Mobile Device Management (MDM) tools
- Sending the root certificate as an email attachment
- Hosting the root certificate on a server and sharing the link

**Note**

Self-signed root certificates are not supported.

For example, to retrieve the root certificate of a trusted server and to share it with other users, follow the procedure below:
1. Open your browser settings and open the certificates (depending on your browser, the Manage Certificates or Certificates option may appear in one of the tabs).

2. In the Certificates window, access the Trusted Root Certification Authorities tab as shown in the figure below:

3. Select the trusted root certificate corresponding to your server, and choose Export. The Certificate Export wizard appears.

4. Follow the prompts to export the certificates.

The certificate is saved on your machine. Attach the certificate to an e-mail and send it to the required recipients. Alternatively, host the root certificate on a server and send the URL to the users.

When users receive the certificate on their iOS device, they can choose the Install option when they tap the file or URL. Once installed, the certificate appears on the device as a profile, and users can check the installation on their iPhone or iPad: Settings > General > Profiles.

### 4.4.3 Installing the SAP BusinessObjects BI Platform Server

For more information about installing the SAP BusinessObjects BI platform server, see the Business Intelligence Platform Administrator Guide on the SAP Help Portal at http://help.sap.com/boall_en
4.4.4 Installing the Configuration Server

To enable users to import connections from the Mobile server to the client application on their devices, you need to install a configuration server on your network.

Ensure that you have the same version of the Web application server and the SAP BusinessObjects BI platform server. To install a configuration server, perform the following steps:

1. Stop your Web application server.
2. Copy the MOBIServer.war from the following SAP BusinessObject BI platform location to the <Web_app_server home directory>/webapps folder on your Web app server:
   [Installation directory]/BusinessObjects Enterprise 12.0/java/applications
3. Start the Web app server again.

4.5 Creating and Configuring Server Connections (Including BIOD and Sybase Afaria)

4.5.1 Creating, Importing and Sharing Server Connections Using the App on Device

Refer to the User guide (available on the SAP Help portal at http://help.sap.com/bomobileios) for information on the following:

1. How to configure BI platform server connections and SMP connections using the application on the device.
2. How to import connections from the Configuration server and the Sybase Afaria server to the application.
3. How to share configured connections with other users:

4.5.2 Configuring Connections for Importing to Mobile for iOS

Pre-requisite

You have the Configuration server/Sybase Afaria server installed on your network.
Configuring connections on the Configuration Server

To allow users to directly import mobile server connections to the iOS application, you need to update the following file on the Configuration server:

<webapps ROOT FOLDER>\MOBIServer\WEB-INF\server.properties

First make a back-up of the server.properties file. Set the following connection properties in the file for every connection that you want to make available for importing:

- DisplayName (mandatory)
- BOBJ_MOBILE_URL
- BOBJ_MOBILE_CMS
- BOBJ_MOBILE_AUTH_METHOD
- BOBJ_MOBILE_CONNECTION_TYPE_STRING

<AuthenticationType> can have one of the following values:

- secEnterprise for Enterprise
- secLDAP for LDAP
- secWinAD for Windows AD
- secSAPR3 for SAP

<Connection Types> can be set to one of the following values:

- BOESMP for SUP REST connection
- SUP for SUP legacy connection

**Note**
If you do not specify a value, it defaults to an Enterprise (BI platform) connection

For example, you can add a connection to the properties file as follows:

```
mobi.connections=connection1
connection1.DisplayName=SAMPLE Connection
connection1.BOBJ_MOBILE_URL=http://11.22.33.44:8080
connection1.BOBJ_MOBILE_CMS=55.66.77.88
connection1.BOBJ_MOBILE_AUTH_METHOD: secEnterprise
connection1.BOBJ_MOBILE_CONNECTION_TYPE:1
```

**Note**
Several users of the SAP BusinessObjects BI platform might have common user names. Therefore, when you configure BOBJ_MOBILE_USER_NAME, create a unique username.

Configuring connections on the Sybase Afaria server

To enable users to import connections from the Sybase Afaria server, you need to perform the following configuration:
1. In Sybase Afaria server, navigate to **Policy > Edit > iOS Enterprise Application > Configuration**.

2. In the view that appears, upload and **save** the following XML file (in text format):

```xml
<?xml version="1.0" encoding="UTF-8"?>
<configuration_parameters>
  <version>123</version>
  <mobi>
    <connections>
      <connection id="connectionId1">
        <property key="BOBJ_MOBILE_URL" value="http://10.50.111.111:8080"/>
        <property key="BOBJ_MOBILE_CMS_LOCKED" value="true"/>
        <property key="BOBJ_MOBILE_CONNECTION_TYPE" value="Default"/>
        <property key="BOBJ_MOBILE_AUTH_METHOD" value="secEnterprise"/>
        <property key="BOBJ_MOBILE_CMS" value="10.50.111.111"/>
        <property key="DisplayName" value="connection name"/>
      </connection>
    </connections>
  </mobi>
</configuration_parameters>
```

For each connection, set the connection properties as shown above. The properties for each connection are the same as in the `server.properties` file on the Configuration server.

Once you save this file on the Afaria server configuration, users can import connections from Sybase Afaria using the Mobile for iOS application.

### 4.5.3 Using SAP BI URLs For Managing Connections

#### 4.5.3.1 Creating an SAP BI URL To Add a Corporate Connection

By creating an SAP BI URL and making it available to users of the SAP BusinessObjects Mobile for iOS application, you enable users to easily add connections from the Mobile client to the SAP BusinessObjects BI platform server.

Users access the SAP BI URL on their iOS device (iPhone or iPad) and launch the **Connection** details screen. This screen is pre-populated with the values for all required input parameters (set by you). The users then save the connection.

This avoids user errors made when a connection is created manually. This can occur when the user enters the input parameter values on the **Connection** details screen of the app, for example. Possible errors include an invalid `<Connection name>`, incorrect `<Server URL>`, invalid `<Server name>`.

To create the URL for a Corporate connection, you need to specify values for the required parameters using the following format:

```
sapbi://addconnection?
ConnectionType=BOEConnection&name=ConnectionName&server_url=ServerName/IP:Port&cms=ServerName/IP:Port&authType=AuthenticationType&default=yes/no
```

where `<AuthenticationType>` can have one of the following values:
- *secEnterprise* for Enterprise
- *secLDAP* for LDAP
- *secWinAD* for Windows AD
- *secSAPR3* for SAP

For example, assume you are using the following parameters:

- **Connection Name** = Manufacturing
- **Server URL** = https://yoda.corp.com:8080
- **CMS**: Luke77

The corresponding URL for the above parameter values would be:

```
```

Once the SAP BI URL is created, you can share it with users by e-mailing it to them.

### Guidelines for URL Parameters

#### Connection Type

The connection type for a Corporate connection is a constant value: `BOEConnection`

#### Connection Name

You can use alphanumerics, hyphens, underscores, periods, and round brackets; the maximum number of characters allowed is 20.

#### Server URL

- You can use alphanumerics, hyphens (`-`), underscores (`_`), periods (`.`), colons (`:`), and forward slashes (`/`); the maximum number of characters allowed is 281.
- If you want to connect to the mobile server in HTTPS mode, use HTTPS in the server URL. For example, `https://<hostname>:<port>` or `https://<IP>:<port>`.
- If you want to connect to the mobile server with reverse proxy, add the proxy context path after the port in the server URL. For example, `http://<hostname>:<port>/<context path>` or `http://<IP>:<port>/<context path>`.

### 4.5.3.2 Creating an SAP BI URL To Add an SMP Connection

Like Corporate connections, you can create a URL that allows users to create valid connections to the mobile server by using the SAP Mobility Platform (earlier known as the SUP). This means, you prevent users from creating connections manually and thereby, from unintentionally creating invalid connections.

An SMP URL should have this format:

```
sapbi://addconnection?
ConnectionType=SMPCo\nc\nnection&Application_ID=MobiApp&Sec_Config=MobiSec&server_url=10.53.129.243&SUP_Port=5001&SUP_Farm_ID=0
```

4.5.3.3 Using URLs To Delete Connections

Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server/ SAP BusinessObjects Mobile server specified in the URL.
2. The SAP Mobile for iOS app installed on their iPhone or iPad device.

Deleting all connections

To delete all active connections including Corporate, BIOD and SUP, use (or provide) the URL:

Sapbi://DeleteConnection?ConnectionType=ALL

Deleting specific Corporate connections

To remove a specific Corporate connection from the application, append the URL with the specific details of the connection as shown below:

Sapbi://DeleteConnection?
ConnectionType=BOEConnection&name=Tom&server_url=10.53.10.10:8080&cms=10.53.10.10&authType=secEnterprise&default=no&user=UserName

Deleting a Sybase connection

To delete a Sybase connection, use the URL:

Sapbi://DeleteConnection?ConnectionType=SUPConnection

Deleting a BIOD connection

To delete a BIOD connection, use the URL:

Sapbi://DeleteConnection?ConnectionType=BIOD
Before you delete an SUP connection, ensure that you **Deregister** from SUP using the **Settings** screen of the app. Otherwise, problems may occur when creating connections in future.

### 4.5.3.4 Creating a URL to Modify a Connection

#### Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP Mobile for iOS app installed on their iPhone or iPad device.

#### Modifying Corporate Connections

To modify an existing Corporate connection, create a URL with the following format:

```
sapbi://ModifyConnection?ConnectionType=BOEConnection&ConnectionName_Prev=Conn1&
ConnectionName_New=Conn2&Server_Url_Prev=10.53.10.10:8080&Server_Url_New=10.10.10.10:1010&
CMS_Prev=10.53.10.10&CMS_New=10.10.10.10&AuthType_Prev=secEnterprise&AuthType_New=
secLDAP&default=yes&UserName_Prev=Administrator
```

For every parameter in the URL, you need to include

1. `<Parameter_Name>_Prev` Previous (current) value of the parameter
2. `<Parameter_Name>_New` New value for the parameter

**Note**

Previous values of connection parameters in the URL help identify the specific Corporate Connection to be modified on the device.

Tapping this URL on the device, overwrites the parameter values of the existing Corporate connection with new values and the connection is modified.

### Modifying SMP Connections

To modify an SMP connection, you need to pass the new parameter values in the SMP connection URL. Here is an example:
Tapping this URL on the device, overwrites the parameter values of the existing SUP connection with the new values passed in the URL and the connection is modified.

**Note**

Because only one SMP connection can exist for the SAP BI application on the device, the old values of the connection parameters do not need to be included in the URL. Passing the new values in the URL simply overwrites the old values with the new values.

### 4.6 Using SAP BI URLs For Managing Connections

#### 4.6.1 Creating an SAP BI URL To Add a Corporate Connection

By creating an SAP BI URL and making it available to users of the SAP BusinessObjects Mobile for iOS application, you enable users to easily add connections from the Mobile client to the SAP BusinessObjects BI platform server.

Users access the SAP BI URL on their iOS device (iPhone or iPad) and launch the *Connection* details screen. This screen is pre-populated with the values for all required input parameters (set by you). The users then save the connection.

This avoids user errors made when a connection is created manually. This can occur when the user enters the input parameter values on the *Connection* details screen of the app, for example. Possible errors include an invalid `<Connection name>`, incorrect `<Server URL>`, invalid `<Server name>`, etc.

To create the URL for a Corporate connection, you need to specify values for the required parameters using the following format:

```
sapbi://addconnection?
ConnectionType=BOEConnection&name=ConnectionName&server_url=ServerName/IP:Port&cms=ServerName/IP:Port&authType=AuthenticationType&default=yes/no
```

where `<AuthenticationType>` can have one of the following values:

- `secEnterprise` for Enterprise
- `secLDAP` for LDAP
- `secWinAD` for Windows AD
- `secSAPR3` for SAP

For example, assume you are using the following parameters:

- Connection Name = Manufacturing
- CMS: Luke77
The corresponding URL for the above parameter values would be:

Once the SAP BI URL is created, you can share it with users by e-mailing it to them.

Guidelines for URL Parameters

Connection Type
The connection type for a Corporate connection is a constant value: BOEConnection

Connection Name
You can use alphanumerics, hyphens, underscores, periods, and round brackets; the maximum number of characters allowed is 20.

Server URL
- You can use alphanumerics, hyphens ('-'), underscores ('_'), periods ('.'), colons (':'), and forward slashes ('/'); the maximum number of characters allowed is 281.
- If you want to connect to the mobile server in HTTPS mode, use HTTPS in the server URL. For example, https://<hostname>:<port> or https://<IP>:<port>.
- If you want to connect to the mobile server with reverse proxy, add the proxy context path after the port in the server URL. For example, http://<hostname>:<port>/<context path> or http://<IP>:<port>/<context path>.

4.6.2 Creating an SAP BI URL To Add an SMP Connection

Like Corporate connections, you can create a URL that allows users to create valid connections to the mobile server by using the SAP Mobility Platform (earlier known as the SUP). This means, you prevent users from creating connections manually and thereby, from unintentionally creating invalid connections.

An SMP URL should have this format:
sapbi://addconnection?
ConnectionType=SMPConnection&Application_ID=MobiApp&Sec_Config=MobiSec&server_url=10.53.129.243&SUP_Port=5001&SUP_Farm_ID=0

4.6.3 Using URLs To Delete Connections

Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server/ SAP BusinessObjects Mobile server specified in the URL.
2. The SAP Mobile for iOS app installed on their iPhone or iPad device.

Deleting all connections

To delete all active connections including Corporate, BIOD and SUP, use (or provide) the URL:

Sapbi://DeleteConnection?ConnectionType=ALL

Deleting specific Corporate connections

To remove a specific Corporate connection from the application, append the URL with the specific details of the connection as shown below:

Sapbi://DeleteConnection?
ConnectionType=BOEConnection&name=Tom&server_url=10.53.10.10:8080&cms=10.53.10.10&authType=secEnterprise&default=no&user=UserName

Deleting a Sybase connection

To delete a Sybase connection, use the URL:

Sapbi://DeleteConnection?ConnectionType=SUPConnection

Deleting a BIOD connection

To delete a BIOD connection, use the URL:

Sapbi://DeleteConnection?ConnectionType=BIOD

Note

Before you delete an SUP connection, ensure that you **Deregister** from SUP using the **Settings** screen of the app. Otherwise, problems may occur when creating connections in future.
4.6.4 Creating a URL to Modify a Connection

Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP Mobile for iOS app installed on their iPhone or iPad device.

Modifying Corporate Connections

To modify an existing Corporate connection, create a URL with the following format:

```
sapbi://ModifyConnection?ConnectionType=BOEConnection&ConnectionName_Prev=Conn1& ConnectionName_New=Conn2&Server_Url_Prev=10.53.10.10:8080&Server_Url_New=10.10.10.10& CMS_Prev=10.53.10.10&CMS_New=10.10.10.10&AuthType_Prev=secEnterprise&AuthType_New =secLDAP &default=yes&UserName_Prev=Administrator
```

For every parameter in the URL, you need to include

1. `<Parameter_Name>_Prev` Previous (current) value of the parameter
2. `<Parameter_Name>_New` New value for the parameter

**Note**

Previous values of connection parameters in the URL help identify the specific Corporate Connection to be modified on the device.

Tapping this URL on the device, overwrites the parameter values of the existing Corporate connection with new values and the connection is modified.

Modifying SMP Connections

To modify an SMP connection, you need to pass the new parameter values in the SMP connection URL. Here is an example:

```
sapbi://ModifyConnection?
ConnectionType=SMPConnection&Application_ID=MobiApp1&Sec_Config=MobiSec1&server_url =10.10.10.10&SUP_Port=5001&SUP_Farm_ID=0
```

Tapping this URL on the device, overwrites the parameter values of the existing SUP connection with the new values passed in the URL and the connection is modified.
4.6.5 Creating SAP BI URLs to Add Single Sign On Connections

This chapter explains the syntax for creating SAP BI URLs using which mobile users can directly add Single Sign On (SSO) connections in the SAP BI application on their devices.

<table>
<thead>
<tr>
<th>SSO Connection Type</th>
<th>SAP BI URL Syntax (With example values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSO2Cookie</td>
<td>sapbi://addconnection/?cms=10.X.X.X&amp;isSSO=YES&amp;server_url=ServerUrl:Port&amp;connection_name=SSO2Cookie&amp;SSOTYPE=SSO2Cookie&amp;authType=secEnterprise&amp;ConnectionType=BOEConnection</td>
</tr>
<tr>
<td>SITE MINDER SSO Basic Auth</td>
<td>sapbi://addconnection/?cms=10.X.X.X&amp;isSSO=YES&amp;server_url=ServerUrl:port&amp;connection_name=sso_SITEMINDER_BASIC&amp;SSOTYPE=SITEMINDER_BASIC&amp;authType=secLDAP&amp;ConnectionType=BOEConnection</td>
</tr>
<tr>
<td>SUP SSO IMO SSO2Cookie</td>
<td>sapbi://addconnection/?ConnectionType=BOESUPConnection&amp;SUP_Farm_ID=0&amp;Sec_Config=SecurityConfigName&amp;server_url=SUPServer_Url&amp;isSSO=YES&amp;connection_name=SUP_SSO_IMO_SSO2Cookie&amp;SSOTYPE=SSO2COOKIE&amp;Application_ID=MobiApp&amp;SUP_Port=5001</td>
</tr>
<tr>
<td>SUP SSO REST SSO2Cookie</td>
<td>sapbi://addconnection/?ConnectionType=BOESMPConnection&amp;isSSO=YES&amp;server_url=SUP_Server_URL&amp;connection_name=SUP_SSO_REST_SSO2Cookie&amp;proxyConnection=MobiApp&amp;SSOTYPE=SSO2COOKIE&amp;Application_ID=MobiApp&amp;Sec_Config=SecurityConfigName</td>
</tr>
<tr>
<td>SUP SSO X509 REST X509 Certificate</td>
<td>sapbi://addconnection/?ConnectionType=BOESMPConnection&amp;isSSO=YES&amp;server_url=Mutual_SSL_SUPServer_Url&amp;connection_name=SUP_SSO_REST_X509&amp;proxyConnection=X509&amp;SSOTYPE=X509Certificate&amp;Application_ID=MobiApp&amp;Sec_Config=SecurityConfigName</td>
</tr>
</tbody>
</table>

**Note**

Because only one SMP connection can exist for the SAP BI application on the device, the old values of the connection parameters do not need to be included in the URL. Passing the new values in the URL simply overwrites the old values with the new values.
<table>
<thead>
<tr>
<th>SSO Connection Type</th>
<th>SAP BI URL Syntax (With example values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUSTED AUTH Basic USER_PRINCIPAL</td>
<td><code>sapbi://addconnection/? cms=10.X.X.X&amp;isSSO=YES&amp;server_url=Server_url&amp;connection_name=SSO_Trusted_Auth_Basic_UserPrincipal&amp;SSOType=TRUSTED_AUTH_Basic&amp;authType=secEnterprise&amp;ConnectionType=BOEConnection</code></td>
</tr>
<tr>
<td>TRUSTED AUTH Basic REMOTE_USER</td>
<td><code>sapbi://addconnection/? cms=10.X.X.X&amp;isSSO=YES&amp;server_url=Server_url&amp;connection_name=SSO_Trusted_Auth_Form_RemoteUser&amp;SSOType=TRUSTED_AUTH_FORM&amp;authType=secEnterprise&amp;ConnectionType=BOEConnection</code></td>
</tr>
<tr>
<td>SSO SAP Custom App FORM</td>
<td><code>sapbi://addconnection/? cms=10.X.X.X&amp;ssOCookieName=MYSAPSSO2&amp;isSSO=YES&amp;server_url=Server_url:Port&amp;connection_name=SSO_SAP_Custom_App_Form&amp;SSOType=SSO_Form&amp;authType=secEnterprise&amp;ConnectionType=BOEConnection</code></td>
</tr>
<tr>
<td>SSO SAP Custom Query String</td>
<td><code>sapbi://addconnection/? cms=10.X.X.X&amp;isSSO=YES&amp;server_url=Server_url:Port&amp;ssO2CookieQueryURL=QueryUrl:Port/AuthService/SSO2Servlet? j_username=EnterUserName&amp;j_password=EnterPassword&amp;connection_name=SSO_SAP_Custom_App_QueryString&amp;SSOType=SSO2COOKIE_QueryString&amp;authType=secEnterprise&amp;ConnectionType=BOEConnection</code></td>
</tr>
</tbody>
</table>

**Note**

For information on Single Sign On Support on the SAP BusinessObjects Mobile platform, refer to the *Mobile Server Deployment and Configuration Guide* available on the SAP Help portal.

### 4.7 Configuring Application's Behavior by Specifying Properties on the Server

**Pre-requisites**

1. You have the SAP BusinessObjects Mobile server and the SAP BusinessObjects BI platform server in your network.
2. You have the SAP BusinessObjects Mobile (SAP BI) application for iOS installed on your iPhone/iPad device.

You can configure some chief behavioral aspects of the application by configuring the client settings on the SAP BusinessObjects Mobile server. You configure client settings using the `clientsettings.properties` file on the Mobile server.
The location of `clientsettings.properties` file on the SAP BusinessObjects Mobile server is based on the server version you are using. To find the file-path for your specific server version, refer to the related topic of this chapter.

If you are using the BI platform 4.1 and higher versions, you can also use the **Central Management Console** (CMC) interface for configuring client settings. For information on how to configure client settings using the CMC, see the related topic of this chapter.

Following is a typical default configuration of the `clientsettings.properties` file:

```text
savePassword=false
offlineStorage=false
offlineStorage.ttl=365
offlineStorage.appPwD=true
```

**Note**

If you are using BI platform 4.1 or BI 4.1 SP1, the **negative** mobile application **rights** that are granted via the CMC take precedence over the above client settings (properties). For example, if the right To save documents to the local store of a device is not granted to the user in the CMC, users cannot download BI documents to their device even if the `offlineStorage` property is set to true in the client settings.

Also note that if the right to save documents is granted in the CMC, but `offlineStorage=false` in client settings, users cannot download BI documents to the mobile device. Only when the right is granted and `offlineStorage=true` that users can download/save BI documents to the device. For information on how to grant the application rights using the CMC, refer to the related topic of this chapter.

You can add the following features to the file, if you need to customize some of these based on your requirements:

- `feature.email.enabled`
- `feature.collaboration.enabled`
- `feature.annotation.enabled`
- `feature.streamwork.enabled`
- `feature.jam.enabled`
- `feature.jam.url`
- `feature.jam.consumer.key`
- `feature.jam.consumer.secret`
- `feature.jam.callback.urlverb`
- `feature.help.enabled`
- `feature.help.url`
- `feature.help.video.enabled`
- `feature.help.video.playlistfeed`
- `feature.webi.refresh.enabled`
- `feature.webi.reportTitle.enabled`
- `feature.rel.legacy.mode`
• feature.webi.default.palette.enabled
• feature.dashboard.sup.enabled

The above listed features are also configurable using the application SDK. For information on the significance and impact of above features on the application, see the Developer’s Guide available at http://help.sap.com/bomobileios.

Related Information

Using the CMC to Define Properties on BI Platform 4.1 [page 38]
Mobile Server and Property File Locations Matrix [page 38]
Granting Users the SAP BusinessObjects Mobile Application Rights on the BI Platform [page 36]

4.7.1 Using URLs To Delete Connections

Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP Mobile for iOS app installed on their iPhone or iPad device.

Deleting all connections

To delete all active connections including Corporate, BIOD and SUP, use (or provide) the URL:

Sapbi://DeleteConnection?ConnectionType=ALL

Deleting specific Corporate connections

To remove a specific Corporate connection from the application, append the URL with the specific details of the connection as shown below:

sapbi://DeleteConnection?
ConnectionType=BOEConnection&name=Tom&server_url=10.53.10.10:8080&cms=10.53.10.10&authType=secEnterprise&default=no&user=UserName
Deleting a Sybase connection

To delete a Sybase connection, use the URL:
Sapbi://DeleteConnection?ConnectionType=SUPConnection

Deleting a BIOD connection

To delete a BIOD connection, use the URL:
Sapbi://DeleteConnection?ConnectionType=BIOD

Note
Before you delete an SUP connection, ensure that you Deregister from SUP using the Settings screen of the app. Otherwise, problems may occur when creating connections in future.

4.8 Granting Users the SAP BusinessObjects Mobile Application Rights on the BI Platform

Once installed and configured, the users of an SAP BusinessObjects Mobile application can perform various actions in the app on device, including:

- Logging on to the application.
- Downloading BI documents.
- Sharing BI documents with other business users.
- Subscribing to document alerts.

Note
Alerts are notifications that appear in the application when Web Intelligence documents with conditional formatting are refreshed or updated on the server. Alerts appear only if the document is subscribed for alerts in the SAP BusinessObjects Mobile application.

However, to use the above features and interact with the application, users need to have the necessary rights on the BI platform.

As an administrator, you can grant these application rights to users through the Central Management Console (CMC) by following the procedure below:

1. Access the CMC on the BI platform 4.0
   For example: http://10.10.111.111:8080/BOE/CMC/
2. Choose Applications in the drop-down that appears on the CMC page.
   The User Security window appears.
4. In the table, select the particular user or user-group to which you want to grant SAP BusinessObjects Mobile rights. Choose Assign Security.

5. In the Assign Security window, choose the Advanced tab and choose Add/Remove Rights. The Add/Remove Rights window appears displaying the specific rights for SAP BusinessObjects Mobile:

<table>
<thead>
<tr>
<th>Specific Rights for SAP BusinessObjects Mobile</th>
<th>Implicit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log on to SAP BusinessObjects Mobile application.</td>
<td>Granted</td>
</tr>
<tr>
<td>Save documents to the local store of a device.</td>
<td>Granted</td>
</tr>
<tr>
<td>Send documents from device as an email.</td>
<td>Granted</td>
</tr>
<tr>
<td>Subscribe to document alerts.</td>
<td>Granted</td>
</tr>
</tbody>
</table>

6. Based on your security requirements, ensure that you have enabled the rights for various actions (such as subscribing to document alerts) by selecting the radio button in the first (tickmark) column.

7. Choose Apply, close the User Security: SAP BusinessObjects Mobile window and logout from the CMC.

Note

The rights for SAP BusinessObjects Mobile do not appear in the CMC on any release of the BusinessObjects Enterprise XI 3.1

This feature is supported only on BI platform 4.0 and higher; BI platform 4.1 and higher release versions.

### 4.9 Customizing Application’s Interface Features

You can customize the appearance and certain behavioural aspects of the application by performing the required configurations on the Mobile server. These include application’s Home screen and tool-bar appearance, and also the time duration after which the application times out.

To quite an extent, the appearance of the Home screen on device is based on the organization of your documents and the specification of document properties defined in the BI LaunchPad (or your report designing client tool) on the BI platform. Other UI features are based on a metadata driven approach in which you update variables and their values in the .properties files on the Web application server, and restart the server for changes to take effect in the application on device.

The sub-sections of this chapter explain the configurations required to customize the application.

Note

1. The server location of the .properties files depend on the Mobile BI platform server version you are using. See the related topic of this chapter for more information.

2. If you have deployed SAP BusinessObjects mobile server 4.1 or 4.1 SP1 in your set-up, you can use the Central Management Console (CMC) to configure client settings and mobile properties. See the related topic of this chapter for more information.
4.9.1 Mobile Server and Property File Locations Matrix

<table>
<thead>
<tr>
<th>SAP BusinessObjects Mobile server version</th>
<th>File location of clientsettings.properties and mobi.properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>XI 3.1 SP3, SP4, SP5, SP6</td>
<td><code>&lt;WebApp root&gt;\webapps\MobileBIService\WEB-INF\</code></td>
</tr>
<tr>
<td>BI 4.0, SP5 and lower versions</td>
<td><code>&lt;WebApp root&gt;\webapps\MobileBIService\WEB-INF\</code></td>
</tr>
<tr>
<td>BI 4.0, SP6</td>
<td><code>&lt;WebApp root&gt;\webapps\MobileBIService\WEB-INF\config\default</code></td>
</tr>
<tr>
<td>BI 4.1</td>
<td><code>&lt;WebApp root&gt;\webapps\MobileBIService\WEB-INF\config\default</code></td>
</tr>
</tbody>
</table>

**Note**

The `<WebApp root>` is the root folder location specific to your deployed application server, for example: C:\Program Files (x86)\SAP BusinessObjects\Tomcat6

4.9.2 Using the CMC to Define Properties on BI Platform 4.1

If you have deployed SAP BusinessObjects mobile server 4.1 or 4.1 SP1 during your setup, you can use the Central Management Console (CMC) to configure client settings and mobile properties. These parameters are otherwise configured through the clientsettings.properties and mobi.properties files on the Mobile server, respectively.

You need to explicitly define the following parameter in the MobileBIService\WebContent\WEB-INF\web.xml file, so that the application can identify whether the Mobile configuration is defined on the CMC (BI platform) or in the properties files on the Mobile server:

```xml
<context-param>
  <description>local-if configuration on server, boe-if configuration in CMC</description>
  <param-name>mobile.server.configuration.location</param-name>
  <param-value>boe</param-value>
</context-param>
```

If you specify the `context-param` value as `boe` in the file above, your mobile server configuration on the CMC is considered.

To access mobile properties on the CMC, perform the following steps:
1. Open the **Central Management Console** on the BI platform server and access **Applications**. You’ll find the **SAP BusinessObjects Mobile** application listed on the page.

2. Right-click **SAP BusinessObjects Mobile** and choose **Properties**. You’ll see the following window:

   ![Properties Window](image)

   - **Mark for deletion**
   - **Key**
   - **Value**
     - `default.corporatCategory` → Mobile
     - `default.personalCategory` → Mobile
     - `default.category.mobileDesigned` → MobileDesigned
     - `default.category.secure` → Confidential
     - `default.category.featured` → Featured
     - `default.imageSize` → 1048576
     - `default.save.maxPages` → 20

3. Edit the category values in **Properties** as required.

   **Note**
   - For information on the various categories, see the topic Configuring Categories on the Mobile Server of the *Administrator and Report Designer’s guide* available at [http://help.sap.com/bomobileios](http://help.sap.com/bomobileios).

4. To edit client settings, choose **Client Settings**:

   ![Client Settings](image)
5. Save your property settings and exit from the CMC.

**Note**

The *negative* mobile application *rights* that are granted via the CMC take precedence over the values specified for client settings via the CMC. For example, if the right To save documents to the local store of a device is not granted to the user in the CMC, users cannot download BI documents to their device, even if the `offlineStorage` property is set to `true` in the client settings.

Also note that if the right to save documents is granted in the CMC, but `offlineStorage=false` in client settings, users cannot download BI documents to the mobile device. Downloading/saving BI documents to the device is possible only if the right is granted and `offlineStorage=true`.

### 4.9.3 Configuring the Thumbnail Background Image of BI Documents

Based on your requirements, you can customize the thumbnail image for BI documents that appear as tiles on the *Home* screen of the application.

If you do not configure a thumbnail image for BI documents on the server, the documents display a default image (based on document type) on the Home screen. Once you open the document and return to the Home
screen, the default background image of the thumbnail is replaced by a snapshot of the first report of the document. The figure below illustrates this behavior for a Web Intelligence document:

![Default thumbnail for an unopened Web Intelligence document](image1)

![Thumbnail after the Web Intelligence is opened at least once](image2)

However, once configured on the server (BI LaunchPad), the thumbnail background image remains constant on the Home screen. It does not change even after you open the BI document and return to the Home screen:

![Configured thumbnail background image (remains constant before and after opening the BI document)](image3)

To configure the thumbnail background image for a BI document, perform the following steps:

1. Access the **Properties** of the document on the BI platform (BI LaunchPad/Web Intelligence Rich client).
2. Enter the URL of your image in the **Keywords** field and choose **Save**.

**Note**

1. The recommended thumbnail image size for best results on the device screen is 208 pixels * 208 pixels.
2. The background image size should not be greater than one hundred Kilobyte (100 KB).
3. Valid image formats include .jpeg, .jpg and .png.
4. If multiple image URLs are specified in the BI document’s Keywords field on the BI platform, the application considers only the last valid image URL for the thumbnail background image.
5. If there are multiple strings specified in the Keywords field, and if the image URL is not the last keyword string, a space is required between the URL and the comma (for example: `keyword1, http://www.xyz.com/myImage.png , keyword2, keyword3`).

### 4.9.4 Configuring Document-Specific Help

For an open BI document on the device, when you tap Help in the secondary report toolbar, the Mobile knowledge center ([http://help.sap.com/bomobileios](http://help.sap.com/bomobileios)) opens by default.

If you want to replace this Help URL with some other URL based on your specific requirements for the BI document, you can do so by performing the procedure below:

1. Access the Properties of the document on the Mobile BI platform (BI LaunchPad/ Web Intelligence Rich client).
2. Enter the URL of your custom Help in the Keywords field with the syntax below:
   ```
docHelpURL=<new_URL>
   
   new_URL is your custom URL, for example, http://www.myHelpURL.com
   ```
3. Choose Save.

**Note**

In the current release of the application, you can use a BI document’s Keywords field to customize either the document Help or the thumbnail image. However, you cannot implement both of these functionalities at the same time.

### Related Information

*Configuring the Thumbnail Background Image of BI Documents [page 40]*

### 4.9.5 Configuring the Collaboration Options

In an open BI document on device, users choose Collaborate in the secondary report toolbar to share or discuss the report with business colleagues using SAP JAM. Based on requirements, you can do either of the following:

- Disable collaboration on the server, so that it does not appear as an option in the secondary report toolbar on device.
- Specify SAP JAM or SAP StreamWork as a collaboration options in the server configuration.

**Note**

- By default the application supports SAP JAM as the Web based collaboration tool if no configuration is performed on the server.
Both collaboration tools cannot be simultaneously specified for use by the application. Only one can be used at a time.

To configure collaboration settings based on your specific requirements, perform the following procedure:

1. Access the `clientsettings.properties` file available at the following location on the Mobile server:
   `<Web_app_root>/webapps/MobileBIService/WEB-INF/config/default`

   **Note**
   - The `<WebApp root>` is the root folder location specific to your deployed application server, for example: `C:\Program Files (x86)\SAP BusinessObjects\Tomcat6`
   - The location of `clientsettings.properties` varies based on the Mobile server version you are using. See the related topic for more information.

2. If you want to enable SAP Streamwork as the collaboration tool in the application, follow the below substeps and proceed with step 3.
   1. Set the value of following property in the file as ‘true’
      ```
      feature.streamwork.enabled=true
      ```
   2. Ensure that the following property is disabled (set to ‘false’):
      ```
      feature.jam.enabled=false
      ```

   If you want to configure SAP JAM as the collaboration tool (default enabled) based on your specific requirements, follow the below substeps below:
   1. Ensure that the following property is disabled (set to ‘false’)
      ```
      feature.streamwork.enabled=false
      ```
   2. Specify values for the following properties based on their description:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
</table>
   | feature.jam.enabled    | ○ If you set this property to "false", SAP JAM is disabled for collaboration in the application.  
   |                         | ○ If the value is "true" (default), SAP JAM appears as the collaboration web site when users choose Collaborate in the secondary report toolbar in the application on device. |
   | feature.jam.url        | The JAM URL to which the application should redirect when users choose Collaborate in secondary toolbar of BI reports on device. |
   | feature.jam.consumer.key | The consumer key that is issued when you register the application on JAM. |
   | feature.jam.consumer.secret | The secret key that is issued when you register the application on JAM. |
### Property Description

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>feature.jam.callback.urlverb</td>
<td>The link that you specify as the redirection address while registering the application. For example, sapbi://token. This ensures that the application is launched when the user clicks this link (with the URI scheme defined by you).</td>
</tr>
</tbody>
</table>

**Note**

For SAP JAM to be enabled, it is mandatory that you specify a value for all the above listed parameters.

3. Save and close the `clientsettings.properties` file.
4. Restart the Web application server.
5. Launch the application on device, connect to the server, open the BI document and validate the result of your configuration by checking the **Collaborate** option in the secondary report toolbar.

### Related Information

**Mobile Server and Property File Locations Matrix [page 38]**

### 4.9.6 Configuring the Visibility of BI Document Samples

This topic explains how you can enable or disable the offline BI document samples that appear in the application (until you add a server connection).

1. Access client settings using the `clientsettings.properties` file on the Mobile server, or the Central Management Console (CMC) interface (if you are using the BI platform 4.1).
2. To disable the BI document samples in the application, set the value of the following property to **false**: `feature.show.samples.enabled`  

**Note**

- See the related topics in this chapter for information on how to access client settings based on the server version that you are using.
- You can also *generate custom BI report samples* based on your specific requirements, and use them in the application. For more information, refer to the Developer's Guide published on [http://help.sap.com/bomobileios](http://help.sap.com/bomobileios).
4.9.7 Configuring QR Code Scanning

If you do not want users to use the Scan QR Code option in the application, you can disable it using the client settings on the Mobile server. This topic explains how to disable QR code scanning in the application (by default it is enabled in the application).

1. Access client settings using the clientsettings.properties file on the Mobile server, or the Central Management Console (CMC) interface (if you are using the BI platform 4.1).
2. To disable the QR code scanning in the application, set the value of the following property to false:
   
   `feature.qrcode.enabled`

Note

See the related topics in this chapter for information on how to access client settings based on the server version that you are using.

Related Information

Using the CMC to Define Properties on BI Platform 4.1 [page 38]
Mobile Server and Property File Locations Matrix [page 38]

4.9.8 Configuring the Session Timeout Duration of the Application

The number of concurrent sessions running on the SAP BusinessObjects Mobile server can impact its performance.

If you want a session of an SAP BI mobile application to be terminated after a defined period of inactivity, perform the following configuration on the Mobile server:

1. Open the `web.xml` file found at the following location:
   
   `<Webapp-server-root>\webapps\MobileBIService\WEB-INF`

Note

The `<WebApp-server-root>` is the root folder location specific to your deployed application server, for example: C:\Program Files (x86)\SAP BusinessObjects\Tomcat6
2. Set the value of the session-timeout parameter found within the tags shown below:

   <session-config>
   <session-timeout>60</session-timeout>
   </session-config>

Note
○ The session-timeout element defines the default session timeout interval for all sessions created in MobileBI Service (Mobile server).
○ The timeout duration begins when the device is locked or the application is sent to the background (user switches to other applications on the device).
○ When a session times out, the user is logged off from the BI platform.
○ The specified timeout must be expressed as a whole number of minutes. In the example above, the timeout is 60 minutes.
   If the timeout is zero (‘0’) or less, sessions never time out.

4.9.9 Configuring the Auto Update option for BI documents

You can configure the Auto Update option for BI documents in CMC. When you enable the Auto update option, if there are any updates to the downloaded BI documents on the server, the application automatically downloads the updated documents onto your device. In addition, if there are any BI documents available in BI Inbox, they get downloaded as well.

To configure the Auto Update option for BI documents in CMC, perform the following steps:
1. Log on to CMC and under the Manage section, choose Applications.
3. Choose Client Settings.
4. Choose +Add More....
5. Add the following keys and the corresponding values.

<table>
<thead>
<tr>
<th>Key</th>
<th>Possible Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>feature.autoupdate.enabled</td>
<td>true, false</td>
<td>Set to true to enable the auto update option for BI documents.</td>
</tr>
<tr>
<td>feature.autoupdate.bi.inbox.enabled</td>
<td>true, false</td>
<td>Set to true to enable the auto update option for BI documents located in BI Inbox.</td>
</tr>
</tbody>
</table>
6. Choose Save & Close.

Once you configure the Auto Update option in CMC, the user needs to enable this feature on the device to automatically download the updated documents from BI platform server onto the device.

### 4.9.10 Configuring the Auto Refresh (polling) option for BI documents list

You can configure the Auto Refresh option also known as polling for BI documents list in CMC. As an administrator, you can either enable or disable this option by setting the auto-refresh duration on the server.

To configure the Auto Refresh option for BI documents list, perform the following steps:

1. Log on to CMC and under the Manage section, choose Applications.
3. Choose Client Settings.
4. Choose +Add More....
5. Add the following key and the corresponding value.

<table>
<thead>
<tr>
<th>Key</th>
<th>Possible values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>feature.notification.polling.interval</td>
<td>Any positive integer value.</td>
<td>By default, auto-refresh happens in every 15 mins interval. You can change this interval by setting any positive integer value for the polling interval. To disable the auto-refresh option, set the value to 0.</td>
</tr>
</tbody>
</table>
6. Choose *Save & Close*.

The application Home screen is now auto-refreshed at the specified time interval. When an auto-refresh takes place, the BI documents are refreshed on the Home screen such that they are synchronized with the server.

### 4.9.10.1 Configuring auto refresh for application running in background

The auto-refresh duration setting is applicable only when you are running the mobile application in foreground. Once you run the application in background, the iOS takes the control of the polling interval. However, the administrator can manage background polling in CMC.

To manage background polling in CMC, perform the following steps:

1. Log on to CMC and under *Manage*, choose *Applications*.
2. Double-click *SAP BusinessObjects Mobile*.
3. Choose *User Security*.
4. Choose the required user to whom you want to grant or deny rights.
5. Choose *Assign Security*.
6. Choose *Advanced*.
7. Choose *Add/Remove Rights*. 
The **Subscribe to document alerts** right controls background polling. By default, this right is granted to the user. If required, you can choose to deny this right for the user.

### 4.9.11 Configuring the Default Display Category for Web Intelligence Documents for Application's Home Page

By default, the application displays the documents available within the All Reports corporate category on the Home screen. If you want Web Intelligence documents from a specific corporate category to appear on the screen when you log on to the application, you can configure it as a client setting.

To define a default category for the Web Intelligence documents displayed on Home page of the application, perform the following steps:

1. Log on to CMC and under the **Manage** section, choose **Applications**.
2. Double-click **SAP BusinessObjects Mobile**.
3. Choose **Client Settings**.
4. Choose **+Add More...**.
5. Add the key `feature.webi.default.landing.category` and specify a string (for example `Growing_Revenue`) in the Value field.

**Caution**

The name of the default category should be other than the key category names that are defined in `mobi.properties` file, such as ‘mobile’ or ‘mobiledesigned’.

6. Choose **Save & Close**.

**Note**

In the BI LaunchPad, create a corporate category with the name that you specify for `feature.webi.default.landing.category` (for example `Growing_Revenue`) and assign the Web Intelligence documents that you wish to see on the Home page of the application by default.

### 4.9.12 Configuring the display of nested categories on the Home screen

You can configure the display of nested categories on the Home screen in CMC.

1. Log on to CMC and under the **Manage** section, choose **Applications**.
2. Double-click **SAP BusinessObjects Mobile**.
3. Choose **Client Settings**.
4. Choose **+Add More...**
5. Add the following key and the corresponding value.
### 4.10 Configuring Categories on the Mobile Server

#### Note

Not Applicable for Lumira documents.

A category is a logical classification of BI documents (objects). BI documents are assigned to categories on the BI platform. In the context of Mobile BI, categories help control various aspects of the BI documents accessed through the SAP BI applications on mobile devices.

These aspects include:

1. **Controlling the user accessibility of BI documents:**
   - Defining the specific devices on which a BI document can be accessed.
   - Preventing confidential documents from being saved in the device memory.
2. **Customizing the display layout of BI documents on the mobile device screen.** (Display layout of BI documents on device screen can be based on the Card Layout or Page Layout model).
3. **Organizing BI content based on your custom requirements.**

Category names are configured in the `mobi.properties` file on the Mobile server at the following location:

```
[<WebAppServer>_Home]\webapps\MobileBIService\WEB-INF\mobi.properties
```

There are three types of technical categories to which you can assign a BI document in the document designing tool on the BI platform:

1. Category to allow the BI document to be displayed and accessed on the mobile device. (By default, this category is named "Mobile").
2. Category to ensure that the report layout on the device screen is the same as the "page layout" defined on the BI platform. (By default, this category is named "MobileDesigned").
3. Category to secure the document. Documents assigned to this category cannot be downloaded and saved in the device memory. They can only be accessed by users who are connected to the server. (By default, this category is named "Confidential").

The extract below displays the default configuration of `mobi.properties` file on the mobile server:

```
#default
```
The mobi.properties file contains various sections based on request sources such as <default>, <iphone>, <ipad>, <blackberry mobile>, <androidphone>, and <androidtablet>. All the properties in the default request source govern various aspects of SAP BI applications on all mobile devices. If different parameter values are entered in a request source, then the default request source is overridden.

You do not need to tweak the default settings in the properties file. However, if you have custom requirements for a specific device or platform, you can enter specific category names in the corresponding request source and the values will override the ones in the <default> request source.

In the mobi.properties file:

1. The lines:
   
   ```plaintext
   <RequestSrc>.corporateCategory=Mobile
   <RequestSrc>.personalCategory=Mobile
   ```
indicate that BI documents assigned to the {Mobile} category can be accessed using the SAP BI (SAP BusinessObjects Mobile) application on a mobile device.

2. The line:

```<RequestSrc>.category.mobileDesigned=MobileDesigned```

indicates that BI documents assigned to the MobileDesigned category (on the BI platform) would appear on the mobile device screen according to the reports’ page layout defined on the BI platform.

3. The line:

```<RequestSrc>.category.secure=Confidential```

indicates that BI documents assigned to the Confidential category on the BI platform are secured. Documents assigned to this category cannot be saved in the device memory, and therefore, they cannot be accessed in disconnected (offline) mode.

**Note**

- On the BI platform, you can change (customize) the category names that you see on the right side of the assignment operator (such as “Mobile”, “MobileDesigned” and “Confidential”) in the `mobi.properties` file. However, if you are changing a category name on the BI platform, you should update the corresponding line in the `mobi.properties` file.
- Categories of type: mobileDesigned and secure cannot be personal categories. They have the Corporate type.
- To make SAP BusinessObjects Dashboards accessible on mobile, they need not be assigned to a Mobile category. This is an exceptional BI document type for which mobile access is enabled by the Dashboard model designer using the SAP BusinessObjects Dashboards. See the related topic for more information.

### Example 1: Controlling visibility of BI documents

Suppose that you have 5 BI documents designed for the Mobile for iOS application, and you want 2 to appear on both (iPhone and iPad) devices; 2 documents to appear only on an iPad and 1 document to appear only on an iPhone.

You need to perform the following configuration:

1. In your report designing tool, assign the 2 documents you want to appear on both devices, to a category named **Mobile**. This is because the “Mobile” category name is present in the `<default>` request source of `mobi.properties` and is not specific to any device.

2. In your report designing tool, assign the 2 documents you only want to appear on iPad to a custom corporate category name (such as **iPad_specific**). Then, edit the following line in `mobi.properties` (replace old category name with the new name):

   ```ipad.corporateCategory=iPad_specific```

   Since the corporate category name in the ipad request source is different from the name in the default request source (Mobile), the iPad request source overrides the default request source. This ensures that the mobile server recognizes these BI documents for the iPad request source and they only appear in the SAP BI app installed on an iPad.

3. In your report designing tool, assign the document you want only to appear on iPhone, to a custom Corporate category name (such as **iPhone_specific**). Then, edit the following line in `mobi.properties` (replace old category name with the new name):

   ```iphone.corporateCategory=iPhone_specific```
Now the iPhone request source overrides the default request source. This ensures that the mobile server recognizes these documents for the iphone request source and they only appear on the SAP BI app installed on an iPhone.

Example 2: Controlling display layout of BI documents on the mobile device screen

You have 4 Web Intelligence documents. 2 are designed for Android phones and 2 are designed for an iPad screen. To ensure that documents are displayed in the respective devices in the correct layout, perform the following steps:

1. Web Intelligence documents meant for iPad devices, perform the following steps:
   - In your report designing tool, assign the documents to a custom category name such as "iPad_designed". Then, make this update in the *mobi.properties* file:
     \[\text{ipad.corporateCategory}=\text{iPad\_designed}\]. This ensures that the documents only appear on iPads and not on other devices.
   - Assign the documents to the "MobileDesigned" category on BI platform. This ensures that reports are displayed on the iPad screen according to their page layout defined on the BI platform.

2. Web Intelligence documents for the Android phone:
   - In your report designing tool, assign the documents to a custom category name such as "Android_designed". Then, make this update in *mobi.properties* file:
     \[\text{androidphone.corporateCategory}=\text{Android\_designed}\]. The Android phone request source overrides the default request source. This means that the documents only appear on Android phones and not on other devices.
   - Assign the documents to the "MobileDesigned" category on BI platform. This ensures that the reports are displayed on the android device screen according to their "page layout" defined on the BI platform.
   - If you give a custom name to this category on the BI platform (such as "Mydesign"), you should update *mobi.properties* file:
     \[\text{androidphone.category.mobileDesigned}=\text{Mydesign}\] accordingly.

**Note**

If you do not assign your BI documents to a mobileDesigned category on the BI platform, they appear on the mobile device screen according to the Card Layout model. For information on the two layout models (Card layout and Page layout), see the *Mobile BI Report Designer’s Guide*.

Example 3: Securing BI documents with confidential data

You have certain BI documents that contain sensitive business information. You do not want users to save these documents on their device or to have offline access. The device the user is using to access the document is irrelevant. You just need to assign the confidential BI documents to the "Confidential" category on the BI platform (via the BI LaunchPad or otherwise).

This is because by default, the "Confidential" category is defined as a secured category in the *mobi.properties* file. If you choose a different name for this category on the BI platform (such as "Restricted"), update the properties file for the following line:

\[\text{default.category.secure}=\text{Restricted}\].
Related Information

Saving mobile dashboards to BI platform folders [page 83]

4.11 Generating SAP BI URLs for Opening BI Documents

An SAP BI document viewed in the application can have either of the following views on device:
- Default view (first report, first page)
- A report (page) view within the document
- A report part (zoomed) view

As an administrator, you can share a BI document (so that it opens in a particular view on the recipient’s device) by generating and sending an SAP BI URL.

You can generate an SAP BI URL for a document in either of the following ways:

a. Using the Email option in the report on app

When you choose Email in the secondary report tool-bar of an open report view on the device, the application generates an SAP BI URL with various parameters based on the view/type of report.

b. Manually creating an SAP BI URL

You can create SAP BI URLs to allow users to directly open a BI document on their devices. The sub-sections of this topic explain how to create SAP BI URLs for various scenarios.

i Note

Use SAP BI URLs to launch the SAP BI application from outside the app, that is from a third party iOS application. Once you are inside the application and you have to navigate between documents, use OpenDocument instead of creating SAP BI URLs.

See the Mobile BI Report Designer’s Guide for information on OpenDocument URLs.
4.11.1 Creating SAP BI URLs For Opening Specific BI Documents or Reports

Pre-requisite

Recipients of the SAP BI URLs should have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP BusinessObjects Mobile application for iOS installed on their iPhone or iPad device.

1. Creating an SAP BI URL for opening a simple BI document (default view: first report, first page) in the app

To enable users to directly open a BI document with the tap of a URL on their iPad or iPhone devices, create an SAP BI URL with the following format:

```
sapbi://OpenDoc/?
ConnectionType=<conntype>&connection_name=<name>&server_url=<server_I.P address>&cms=<CMS_ipaddress>&Type=<Doctype>&iDocID=<ID>&reportPartKey=&reportPageNumber=0&reportIndex=&isInstance=N&prompt=
```

- **ConnectionType**, **connection_name**, **server_url** and **cms** are the regular SAP BI URL parameters that help the app (on user's device) identify the particular BI platform server with the relevant BI document.
- **Type** is the BI document type that has 2 valid values: 'webi', '<>'
- **iDocID** is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI platform (report designing client tool).
- For other parameters (**reportPartKey**, **reportPageNumber**, **reportIndex**, **isInstance** and **prompt**), you do not need to assign any specific values. However, they should be retained in the URL syntax will null values assigned to them as shown in the above URL format.

2. Creating an SAP BI URL for opening a specific report within a BI document in the app

To enable users to directly open a specific report within a BI document with the tap of a URL on their iPad or iPhone devices, create an SAP BI URL with the following format:

```
sapbi://OpenDoc/?
ConnectionType=<Conn_type>&connection_name=<name>&server_url=<server_ipaddress_with Port>&cms=<CMS_ipaddress>&Type=<docType>&iDocID=<idocID>&reportPartKey=&reportPageNumber=&reportIndex=5&isInstance=N&prompt=
```
• ConnectionType, connection_name, server_url and cms are the regular SAP BI URL parameters that help the app (on user’s device) identify the particular BI platform server with the relevant BI document.

• Type is the BI document type that has 2 valid values: ‘webi’, ‘<>’

• iDocID is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI platform (report designing client tool).

• reportIndex is the index number of the report. The number count starts from zero. To give access to nth report in the document, assign (n-1) as the value for this parameter.
  For example, if you want users to get direct access to third report of the BI document, assign the value (3-1)= 2 to the reportIndex in the URL.

• For other parameters (reportPartKey, reportPageNumber, isInstance and prompt), you don’t need to assign any specific values. However, they should be retained in the URL syntax will null values assigned to them as shown in the above URL format.

**i Note**

The SAP BI URL that the application generates dynamically (on sharing a report) may have values for all parameters including the reportPageNumber and reportPartKey. When creating the SAP BI URL manually, we do not recommend that you pass values for these parameters, as they are not guaranteed to work in the application.

4.11.2 Creating SAP BI URLs For Opening The Latest Instance of BI Documents

**Pre-requisite**

Recipients of the SAP BI URLs should have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP BusinessObjects Mobile app for iOS installed on an iPad or iPhone device.

To enable users to directly open the latest instance of a BI document (that is scheduled on the BI platform) with the tap of a URL on their devices, create an SAP BI URL with the following format:

```
sapbi://OpenDoc/?
ConnectionType=<type>&connection_name=<conn_name>&server_url=<server_IPaddress>&cms=<CMS_ipaddress>&Type=<doctype>&iDocID=<docID>&reportPartKey=&reportPageNumber=0&reportIndex=&isInstance=Y&prompt=
```

• ConnectionType, connection_name, server_url and cms are the regular SAP BI URL parameters that help the app (on user’s device) identify the particular BI platform server with the relevant BI document.

• Type is the BI document type that has 2 valid values: ‘webi’, ‘<>’

• iDocID is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI platform (report designing client tool).
4.11.3 Creating SAP BI URLs For Opening BI Documents With Prompts

Pre-requisite

Recipients of the SAP BI URLs have:
1. Access to the SAP BusinessObjects BI platform server/ SAP BusinessObjects Mobile server specified in the URL.
2. The SAP BusinessObjects Mobile application for iOS installed on their iPhone or iPad device.

1. Creating an SAP BI URL for opening documents with prompts without refresh

To enable users to directly open a BI document with prompts using the SAP BI URL on their devices, create a URL with the following format:

```
sapbi://OpenDoc/?
ConnectionType=<conn_type>&connection_name=<name>&server_url=<server_IPaddress>&cms=<CMS_IPaddress>&Type=<docType>&iDocID=<ID>&reportPartKey=&reportPageNumber=0&reportIndex=&isInstance=N&prompt=
```

- **ConnectionType**, **connection_name**, **server_url** and **cms** are the regular SAP BI URL parameters that help the app (on user’s device) identify the particular BI platform server with the relevant BI document.
- **Type** is the BI document type that has 2 valid values: 'webi', '<>'
- **iDocID** is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI platform (report designing client tool).
- **prompt** defines the type of prompt (single or multiple).

2. Creating an SAP BI URL for opening documents with prompts (on refresh) with list of values (LOV)

To enable users to directly open a BI document with prompt (on refresh) with LOVs, take the following steps:

1. Create an SAP BI URL with prompt names and corresponding LOVs in the following format: `sapbi://OpenDoc/?
   ConnectionType=BOEConnection&connection_name=243&server_url=10.10.10.243:8080&cm...`
Note
Observe that multiple prompts (lsM) are separated by an underscore (\_).

2. Encode the <prompt> parameter section (prompt names and LOVs) of the URL.
   For example, after encoding the prompt section of the above URL, it looks like:
   
   lsM%5BEnter%20value(s)%20for%20Year%3A%5D%5B2005%5D%5B2006%5D%5B2004%5D%5B2002%5D
   lsM%5BEnter%20value(s)%20for%20City%3A%5D%5BLos%20Angeles%5D%5BSan%20Francisco%5D
   %5BWashington%5D%5BNew%20York%5D%5BMiami%5D

3. Again encode the prompt section and join it with the remaining URL.
   After performing this step, the URL for the above example looks like this:
   sapbi://OpenDoc/?
   ConnectionType=<connType>&connection_name=<name>&server_url=<server_IPaddress>&
   cms=<CMS_IPaddress>&Type=<docType>&iDocID=<ID>&reportPartKey=&reportPageNumber=0&
   reportIndex=&isInstance=N&prompt=lsM%5BEnter%20value(s)%20for%20Year%3A%5D%5B2005%5D%5B2006%5D%5B2004%5D%5B2002%5D
   lsM%5BEnter%20value(s)%20for%20City%3A%5D%5BLos%20Angeles%5D%5BSan%20Francisco%5D
   %5BWashington%5D%5BNew%20York%5D%5BMiami%5D

Note
For the parameters: reportPartKey, reportPageNumber, reportIndex and isInstance, you don't need to assign any specific values in the URL. However, they should be retained in the URL syntax will null values assigned to them as shown in the above URL format.

4.11.4 Creating SAP BI URLs for Opening Specific Sections of the BI Documents With Sections

Pre-requisite

Recipients of the SAP BI URLs (created using the format explained in this topic) have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP BusinessObjects Mobile application for iOS installed on their iPhone or iPad device.

To enable users to directly open a specific section of a BI document in the SAP BI app on their device, create an SAP BI URL with the following format:

sapbi://OpenDoc/?
ConnectionType=<connType>&connection_name=<name>&server_url=<server_IPaddress>&
&cms=<CMS_IPaddress>&Type=<docType>&iDocID=<ID>&reportPartKey=&reportPageNumber=0&
reportIndex=&isInstance=N&prompt=&sectionPathByName=<section_name>
ConnectionType, connection_name, server_url and cms are the regular SAP BI URL parameters that help the app (on user’s device) identify the particular BI platform server with the relevant BI document.

Type is the BI document type that has 2 valid values: 'webi', '<>'

iDocID is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI platform (report designing client tool).

reportIndex is the unique ID of the report, and enables the application to identify your specific report.

The parameter <sectionPathByName> enables the application to retrieve the specific report section you want to open on the user’s device. For this, pass the name of the section as specified on the server while creating the report-section.

**Note**

1. The parameters (reportPartKey, reportPageNumber, isInstance and prompt) are optional. However, if even you do not assign values to these parameters, you can retain them in the URL syntax will null values assigned to them as shown in the above URL format.
2. The parameter sectionPathByName cannot be used for specifying multiple sections in a report. At a time, you can open only a single report section using this parameter.
3. The parameter sectionPathByName cannot be used for multiple levels of section hierarchy if the report-sections are nested. Only a single level of hierarchy in report sections can be opened using this parameter.

4.11.5 Creating SAP BI URLs for Opening the Latest Available Version of a BI document or Its Instance

**Pre-requisite**

Recipients of the SAP BI URLs have:

1. Access to the SAP BusinessObjects BI platform server / SAP BusinessObjects Mobile server specified in the URL.
2. The SAP BusinessObjects Mobile application for iOS installed on their iPhone or iPad device.

To enable users to open the latest available version of the BI document or its instance on their device, create an SAP BI URL with the following format:

```
sapbi://OpenDoc/?
```

```
ConnectionType=<conntype>& connection_name=<name>& server_url=<server_I.P address>& cms=<CMS_ipaddress>& Type=<Doctype>& iDocID=<ID>& reportPartKey=& reportPageNumber=0& reportIndex=& isInstance=N& prompt=& sectionPathByName=<section_name>& useInstance=<param_value>
```

- ConnectionType, connection_name, server_url and cms are the regular SAP BI URL parameters that help the app (on user’s device) identify the particular BI platform server with the relevant BI document.
- Type is the BI document type that has 2 valid values: 'webi', '<>'
• iDocID is the CUID of the document. Retrieve the CUID by accessing document Properties on the BI LaunchPad.

**Note**
The parameters (reportPartKey, reportPageNumber, reportIndex, isInstance, prompt and sectionPathByName) are optional. However, you can retain them in the URL syntax will null values assigned to them as shown in the above URL format.

• The useInstance parameter can have the value 'last' or null. Below is how this parameter works:
  - If this parameter is assigned the value 'last', the BI document or its latest instance whichever is latest out of the two is opened from the server on the device.
  - If this parameter is assigned the value 'last', and the user has already downloaded the BI document or its latest instance to the device, the document or the instance, whichever is latest out of the two is opened from the device memory. Note that if there is an update available on the server that the user has not retrieved for the downloaded document, the URL does not consider that update while opening the document.
  - If no value is assigned to this parameter, always only the BI document is opened from the server. If the user has downloaded the BI document already to the Home screen (before tapping the SAP BI URL), the BI document is opened from the device memory. (Latest instance of the document even if available on the server or device memory is not opened when no value is assigned to this parameter.)

### 4.12 Understanding the Security Implementation in the App

#### 4.12.1 Features of Application Password

The application password acts as a source of input for encryption of user data, where other users cannot decrypt the data without this input.

Here are some features of the SAP BusinessObjects Mobile application password:

• By default, the application password is not enabled in the application, until users add a connection to the BI platform server. When users add a BI platform server connection, the application forces them to create an application password (this is because user specific or personal information comes on the device only after a connection is created).
  However, if users have not created a single connection, yet, they wish to enable the application password, they can do so using the Settings screen of the application. (Settings screen appears on tapping the [Settings] icon which is next to the current connection name in the left hand navigation panel.)

**Note**
The above behavior applies if the user has performed a fresh installation of the application. If a user has upgraded the existing installation with a newer version of the application from the iTunes store, server connections would already exist in the application, and so the password would remain enabled.

• Password prerequisites:
Password length must be minimum eight characters. For entering the password, the application allows a maximum of twenty attempts. If the attempts exceed this number, the application forces the user to reset the application.

**i Note**
Resetting the application erases the application password and all the SAP BI content downloaded on the device.

- By choosing the `Clear Data > Remove Application Data` option in the of the `Settings` screen, all BI data of the application is deleted from the local memory. However, this does not delete the application password.
- Users can change the password and set the "Application password timeout" parameter using the `Settings` screen.

**i Note**
The `Application password timeout` parameter defines the duration of inactivity. Once this is exceeded, the application forces the user to enter the password to resume the application activity. This applies to the scenario when the user has switched over to other applications, and returns to the SAP BusinessObjects Mobile application after some time. The default value of this parameter is 5 minutes.

- You can customize the password settings in the Central Management Console (CMC) by choosing

  `Applications > SAP BusinessObjects Mobile > Client Settings`

  ```
savePassword=true
deviceSettings=true
offlineStorage=true
offlineStorage.ttl=365
offlineStorage.appPwd=true
```

If you set `savePassword=true`, the `Save Password` option appears in the Connection settings screen of the application. Otherwise, it does not appear for the user.

If for a server, the administrator has set the value of `offlineStorage.appPwd` parameter to `true`, users cannot disable the application password (for the particular server connection) while using the application. If this parameter has the `false` (default) value, users can disable the application password using the `Settings` screen of the application.

Other parameters associated with offline storage (such as "time to live") apply to the password as well.

**i Note**
For information on the workflow of a particular action (such as disabling application password), use the embedded Help provided in the application.

### 4.12.2 Touch ID Support for Securing Documents

If you are using an iOS 8 (or later version) device, and have registered your finger print (using the `Device Settings`), you can enable touch ID in the application and use it to log on without needing to enter the application password every time you access the app.
Touch ID can be configured on the application level (using application Settings > Application Password > Enable Touch ID) and also on the BI document level.

If you want to restrict access to some BI documents in the application, such that they open only with your touch ID, you can assign those BI documents to the TouchID category in the BI LaunchPad.

**Note**
- The TouchID should be a corporate category.
- If your BI document is assigned to the TouchID category, but your touch ID is disabled on your device or in the application, the documents continues to remain secured. When the document is tapped on device, it asks for your application password. You can view the document if you specify the correct password.
- The Touch ID feature is supported only on iPhone 5s, iPhone 6, iPhone 6 Plus, iPad Air 2 and iPad Mini 3.

### 4.12.3 Support for Security Deployments On the Web Application Server

Ensure that you have implemented either of the following scenarios on your Web application server (on which you have installed the SAP BusinessObjects Mobile server):

- Basic authentication (for example Siteminder)
- Form based authentication (for example Siteminder, Webseal)
- X509 certificate (two way client certificate)

When users add connections to the SAP Mobile server (with either of the above security deployments) using the SAP BusinessObjects Mobile application on their devices, they see a security interface which asks for authentication. The following sections explain the three scenarios listed above.

**a. Basic Authentication**

1. Using the Settings screen of the application, users add a connection to the CMS with basic authentication deployed on it. (As an administrator, you provide the specific server details to the application users.)
2. On choosing the new connection in the Settings screen, the application displays the basic Authentication dialog box, asking the user to enter his/her credentials.
3. User is logged in to the connection, and can browse the BI documents available on the server.

**b. Form Based Authentication**

1. Using the Settings screen of the application, users add a connection to the CMS with form based authentication deployed on it. (As an administrator, you provide the specific server details to the application users.)
2. On choosing the new connection in the Settings screen, the application displays a form, asking the user to provide additional information.

   ! Note
   The form fields can be customized on the Web application server and UI features such as company logo can be included in the form. The form configured on the Web application server is displayed in the same way as in the application in a container on device.

3. User is logged in to the connection, and can browse the BI documents available on the server.

## c. Certificate Based Authentication

1. Users first install the X509 certificate on the device. Information on how to install the certificate is provided in the sub-topic of this chapter.

2. Using the Settings screen of the application, users add a connection to the CMS with certificate based authentication deployed on it. (As an administrator, you provide the specific server details to the application users.)

3. When you choose the new connection in the Settings screen, the application displays a dialog box stating that the connection requires a certificate.
   User chooses Yes to display the certificate.

4. Application displays the available certificates and asks for the right certificate.

5. User selects the certificate (installed in step 1) from the list.

6. User is logged in to the connection, and can browse the BI documents available on the server.

   ! Note
   1. Installed certificates can be removed from the application by choosing the Clear Data Remove Certificates option in the Settings screen.
   2. The application supports basic authentication and certificate based authentication for hyperlink objects as well.

### 4.12.3.1 Installing the x509 Client Certificate on Device

For adding or accessing a client certificate based connection in the application, users need to first install the certificate on their device. SAP BusinessObjects Mobile applications support the set ups that are deployed based on the x 509 certificate.

x 509 certificate is usually of the format "<>.p12" or "<>.pfx"

The procedures below are for users who install the certificate (received via email or accessed from a Web application server) on their device:
Installing the certificate received as an email attachment

1. On your desktop, download the certificate (*.p12) file.
2. Change the certificate file extension from ".p12" to ".mcert" and send it to the email account configured on your device. This ensures that the certificate file is in a recognizable format for the application.
3. On your device, double-click the certificate that you emailed to your account.
   The application is launched.
   • If the certificate is password protected, a dialogue box appears on the screen asking you to enter the password. For the installation to complete successfully, enter the password and choose OK.
   The message for successful certificate installation appears.

   **Note**

   If the certificate you are installing already exists on your device, on performing step 3 in the above task, a dialogue box appears saying: "This certificate <ID> already exists". If you want to delete the existing certificate from the app, choose Delete in the dialogue box. Else, choose Cancel.

Installing the certificate hosted on a Web Application Server

1. On your device, access the following link emailed to you by the administrator:

   SAPBI://action=downloadcert&certurl=<Download URL>

2. If you access the link above:
   The application is launched and the certificate file is downloaded from the URL location (certurl).
   A dialogue box appears asking you to enter the password. Enter the password and choose OK.
   The certificate is installed successfully on the device.

   **Note**

   If the certificate is not password protected, the application is installed directly on accessing the link.

   An example of the parameter "Download URL" is http://<IP address>:<Web Application server machine port>/Resource/<Certificate File>:

   **Note**

   If the certificate you are installing already exists on your device, on accessing the link, a dialogue box appears saying: "This certificate <ID> already exists". If you want to delete the existing certificate from the application, choose Delete in the dialogue box. Else, choose Cancel.
4.12.4 User Data Protection and Privacy Parameters

User data is the data or information which is personal to an individual user. This includes the downloaded reports and application logon credentials of the user. To ensure the security of user data, the application implements certain security measures.

Some of these measures are as follows:

- Users have the option of saving their password for a connection in the application. However, in the default mobile server configuration, this option is disabled by default (savePassword=false). If a user enables the Save Password option while configuring the connection on his or her device, the password is encrypted files using the FIPS compliant AES algorithm. On iPad/iPhone devices, files are stored with the iOS keychain.
- If users do not choose the option to save their password, they are prompted for the password whenever they access the application, whether they are in the online or offline mode of the device.
- In the default configuration of the application, the option to download and view documents locally on the device is disabled (offlineStorage=false). Users can only access the documents available on the server in online mode.
  
  Based on requirements, administrator can enable this option in the server configuration file.
  
  - If offline storage of documents is enabled, there is a "Time to Live" parameter in the server configuration file, with a default value of 365 days (offlineStorage.ttl=365). This means that the downloaded documents expire after 365 days and are automatically removed from the local memory of device.
  - For Web Intelligence or Crystal Reports documents with private or confidential data, you can secure the documents by assigning them to a "Confidential" category in document designing tool. A secure document can only be accessed by users while they are connected to the Mobile server. Once users log off from the server, the secure document is deleted from the device memory.

The parameters (savePassword, offlineStorage and offlineStorage.ttl) explained above can be found in the following file on the Mobile server:

```
[<Web app server>_Home]\webapps\MobileBIService\WEB-INF\ClientSettings.properties
```

Based on your specific security requirements, you can change the values of the above parameters in the `ClientSettings.properties` file.

**Note**

1. The location of `clientsettings.properties` file on the SAP BusinessObjects Mobile server is based on the server version you are using. To find the file-path for your specific server version, refer to the related topic of this chapter.
2. If you are using the BI platform 4.1 and higher versions, you can also use the Central Management Console (CMC) interface for configuring client settings. For information on how to configure client settings using the CMC, see the related topic of this chapter.
3. For your configuration changes to take effect in the app, ensure that you restart the Web application server after making updates to the `ClientSettings.properties` file.
4.13 MDM Configuration Support for iOS 8 and 9 Devices

For devices with iOS 8 or higher, Apple provides the “Managed App Configuration” functionality. This functionality allows a Mobile Device Management (MDM) server to push down a configuration dictionary into the managed app’s NSUserDefaults for the purpose of remotely configuring settings.

For further information on MDM configuration support, see https://developer.apple.com/library/ios/samplecode/sc2279/Introduction/Intro.html

SAP BusinessObjects Mobile (SAP BI) Application Configuration Properties that can be Managed by the MDM Server

Predefined Connections List

You can configure a single predefined connection or multiple predefined connections in the application by specifying values for the `conn.list.(n)` property on the MDM server, where ‘n’ is the array index starting with a value of 1. Each array item is of the type “String”, and the value of each item corresponds to a connection URL.

For example, you can specify a predefined connection URL for a BOE server connection with the syntax shown below:

```
conn.list.1=sapbi://addconnection?ConnectionType=BOEConnection&connection_name=SAP%20Analytics%20Gallery&server_url=&cms=
```

**Note**

For more information on specifying valid URL values for a predefined connections list, refer to chapter 5.1 Customizing the Onboarding Features of the Developer’s Guide posted on http://help.sap.com/bomobileios.
Default Application Behavior Properties (Other than the predefined connections list)

All the key properties defined in the defaultsettings.plist file of the application SDK that are described in chapter 5 of the Developer’s Guide (“Customizing the Default Behavior of the Application”), can be managed by the MDM using the corresponding key-value pairs.

For example, you want the MDM to remotely manage the email feature of the application functionality. The `feature.email.enabled.default` property in defaultsettings.plist has a default value of 'true'. To manage this feature remotely, you can define the corresponding key as `email.enabled` in the configuration dictionary of the MDM server and specify its value as 'true'/'false', based on your requirements. Similarly, you can manage other application features such as annotation, collaboration, Help, and default Home view.

For each property (formatted as `feature.<xyz>.default`) in defaultsettings.plist of the app, you can define the corresponding property on the MDM server in the format `<xyz>`.

For a description of all such properties that define the default behavior of the application, refer to the sub-chapters of chapter 5 in the Developer’s Guide posted on http://help.sap.com/bomobileios.

Note

The only property in `defaultSettings.plist` that does not follow the above rule is the predefined connections list (`feature.predefinedconnections.list.default`) that defines an array of predefined connection URLs.

4.14 Working With Notifications

When you refresh the Home screen (using the pull-down gesture) or when it is auto-refreshed, the (Notifications) icon appears in the tool-bar if server updates are available for your downloaded BI documents. You can view and fetch document updates using the panel that appears on tapping the Notifications icon. The notifications displayed in the panel include:

- Notifications for the downloaded BI documents that are updated on the server.
- Notifications for the downloaded BI documents that are removed from the server or are no longer assigned to the Mobile category.
- Notifications for mobile-enabled documents that are added new on the server, and are thus available on the Home screen of the application.

Note

Notifications when BI documents are added or deleted are no more supported.
Scenario 2: Notifications when Web Intelligence documents with conditional formatting are refreshed on the server

To understand this scenario, perform the following steps:

1. Create an SAP BusinessObjects BI platform server connection in the application.
2. Identify a document with conditional formatting and download it to the device.

   ➤ Tip

   You can identify conditional formatting by observing the formatting of table cells in the reports of the document. They may have a different colored text and background-image or hyperlinks.

3. Open the document, and tap (Settings) in the tool-bar to open the secondary report tool-bar, and choose 'i' (Info) to go to the Information screen of the document in the app, and ensure that it is subscribed for alerts.

4. Log on to the BI platform server (using the BI Launch Pad), search and open the Web Intelligence document, and choose (Refresh).
   (This refreshes the data-providers of the document.)

5. Refresh the application’s Home screen. Tap (Notifications) on the Home screen toolbar. The application takes you to the Notifications panel, and you find the BI document displayed in the panel.

6. Tap the document to retrieve the update and to view the updated document or tap the (Update) icon, which is located beside the document title, to update the document.

Notifications During Auto Refresh of Home Screen and Auto-Update of BI Documents

The application Home screen is auto-refreshed every 15 minutes. When an auto-refresh takes place, the BI documents are re-listed on the Home screen such that they are synchronized with the server.

When the screen is auto-refreshed, the (Notifications) icon appears in the tool-bar if server updates are available for your downloaded BI documents (as described in the 6 scenarios earlier in this topic).

The application provides you with an Auto Update option that you can enable using the application Settings. With each refresh of the Home screen, if you want the documents with available updates to be re-downloaded from the server, without explicitly fetching the updates from the Notifications panel, set Auto Update to ON.
The figure below displays how the "Notifications" panel appears when auto update is OFF and when it is ON:

- **Auto Update is off**
  - You can turn it on from the application settings
  - Takes you to the Additional Settings where you can enable auto update.
  - Tapping on this updates all listed documents.
  - Tapping on this manually updates one document at a time.

- **Auto Update is on**
  - Document will be update on Wi-Fi only
  - Since auto update is enabled, the document starts re-downloading without explicitly fetching the update.
  - The log section indicating the number of updated documents at any point in time.
  - Tapping here opens the updated document.
Notifications on the Application Icon

Whenever there are refresh updates available for your downloaded BI documents, the application icon on the device screen displays a notification badge as shown in the below image:

![Image of SAP BI icon with notification badge]

The number that appears over the badge is a summation of notifications from all server connections that you have added in the application. For example, if you have added 3 server connections, and there is 1 update available on first server, 1 update available on the second server and 2 updates available on the third server, the Notifications badge displays the sum of all notifications, which is 4.

This number changes dynamically and is always in synchronization with the (Notifications) icon that appears in the tool-bar of the application.

i Note
For details regarding notifications on the device, refer Mobile Server Deployment and Configuration Guide.
5 Creating Personal Views of Web Intelligence Reports

Personal Views is a capability to save personalized views of a Web Intelligence report.

Understanding the Significance of Personal Views

For some business requirements, you may want a particular view of a Web Intelligence report to be opened every day and refreshed. For example, consider the following use case:

For customer A, a sales representative filters data with certain input control values and drills down two levels in the report tables. The representative then saves a personal view of the report and names it Daily Sales - Customer A. Now the representative can open this personal view every day and quickly refresh (or update) the report with latest data from the server, without performing the same actions for customer A again. This way, having performed different server actions (for different customers), the representative can save multiple personal views of the same report (but with different results) for offline or personalized viewing (such as Daily Sales - Customer A, Daily Sales - Customer B and Daily Sales - Customer C).

Creating and Accessing Personal Views in the Application

To create a personal view of a Web Intelligence report, perform the following steps:

1. Open the report, and perform the required server actions so that the report arrives at your desired view. (Your actions may include drilling, filtering using input controls, displaying information in sections, and other actions based on server interaction.)

2. Tap (Report Settings) to open the secondary toolbar, then tap Save View. The "Save View" dialog opens.

3. Specify a Personal View Name and optionally a description of the view. Then tap Done. The personal view is created and you can access it using the Personal Views tab in the Browse panel. You can also refresh the data in your personal view anytime by tapping the [Refresh] option in the view toolbar.

Characteristics of Personal Views

1. You can create multiple personal views of the same base (source) document, and each view is independent of each other.
2. If you want a saved personal view to display the latest information from the server (in online mode), you need to explicitly **Refresh** the personal view after opening it. You can update the personal view with the latest data from the server in two ways:
   - By tapping the **Refresh** icon in the toolbar of the opened personal view.
   - By tapping the **Update** option that appears in the Information (>) screen of the personal view tile.

   **Note**
   If you want to disable the refresh or update of personal views in the application, you can set the value of the following client setting to ‘false’
   
   feature.webi.personal.view.update.enabled

   To access client settings based on the server version that you are using, see the related topics of this chapter.

3. When you refresh a personal view, the application refreshes the source BI report (from which you created the view) and applies all the history actions on the report to bring it to the view state.

4. You can save personal views of Web Intelligence documents only. Other BI document types do not support this feature.

5. Personal views are supported on both Web Intelligence documents and their instances.

   **Note**
   If the Web Intelligence document is scheduled on the BI platform server, and there is an instance of the same available on the server, when users tap **Update** or **Refresh**, the server returns either the refreshed document or its latest instance, depending what is more recent.

6. When you save a personal view, the application does the following:
   - **Saves the state** of a Web Intelligence report. (In whatever state you left the report before saving the view, the same state is maintained when you access the personal view.)
   - **Saves the history of server actions** that you performed on the report before saving the personal view.

   On a personal view, you can perform all server actions that you performed before saving the view. For example, if you drilled down in the report’s charts or tables and applied filters, you can perform the same actions after opening the personal view (*even in offline mode*).

   **Note**
   If the report has REL (report element linking), the application also records the sequence in which you filtered data in the linked report parts. You can only use REL in the same sequence of linking.

7. Irrespective of whether you are in offline or online working mode, you can perform only those actions on a saved personal view that you performed before saving it.

   For example, if you drilled down in report parts, but did not drill up, you cannot drill up in the personal view.

   If the report has hierarchical tables, but you did not perform an expand or collapse action on the nodes, you cannot expand or collapse nodes in the personal view.
Note

For a personal view, the application does not record the actions that are independent of server interaction (such as sort, re-order, or freeze in tables). Users can perform these actions in personal views anytime and in any order.

8. Apart from Refresh and Update, no other action (request) on a personal view goes to the mobile BI server. (Before saving the view, when you perform server actions such as drill and filter, the application fetches the required data and stores it in local memory of the device. When you perform the same actions on the saved personal view, the required data is fetched from device memory, and there is no server interaction.)

9. If the personal view has an OpenDocument URL that targets a BI document that is not Web Intelligence, the target document does not open when you tap the URL in the personal view (even if you tapped the URL before saving the view of report).

10. If the BI report has drill-enabled tables, the personal view displays the drill pop-up options on only those cells on which you have drilled information before saving the view. Other cells do not display the drill pop-up.

11. Using input controls, if you have filtered data in the BI report before saving the personal view, when you open the personal view and tap (Filter), the pop-up displays only the combination of values that you chose while filtering data. The following figure displays the view that appears:
When you tap on any value combination, the pop-up displays all the individual values the same way as they appeared in the original BI report, as shown below:

You can select any value and tap **Apply** to apply value selections.

12. You cannot create a personal view from an existing personal view.

13. The maximum number of personal views that you can save on-device depends on the value of the **Personal View Storage** setting that you specify in **Application Settings** -> **Additional Settings**.

   Note

   If you specify 'None' as the personal view storage limit, you can save an unlimited number of personal views on your device.

14. You can delete personal views from the device in one of the following ways:

   - By tapping the **Delete Personal View** option that appears on the Information(>) pop-up of the personal view tile.
   - By erasing application data using **(Settings)Application SettingsAdditional SettingsClear Data**
   - By removing the server connection that has the BI report from which the personal views are created.
15. In the following scenarios, you cannot save personal views for a Web Intelligence report:
   ○ The parent document is configured to "Refresh on Open".
   ○ The parent document is set to Confidential on the server.
   ○ The parent document is a "View as PDF".
   ○ The <offline storage> property on the Mobile server is set to 'False'.

16. In the following scenarios, saved personal views are automatically removed from the device memory:
   ○ The parent (source) document of the personal view has expired (based on the TTL server parameter).
   ○ The administrator has either removed the parent document from the server or unassigned it from the Mobile category.
   ○ The administrator set the parent document to Confidential on the server.
   ○ The <offline storage> property on the Mobile server is set to 'False'.

17. The secondary toolbar of a personal view does not have the Collaborate option, as personal views are not designed for discussing.

**Few Limitations of Personal Views**

1. If you use hierarchical input controls or hierarchical sections in a Web Intelligence report, the application does not permit you to save a personal view of the report.
2. When you email a personal view, the email body contains the view snapshot only. It does not contain any SAP BI URL for OpenDocument.
3. You cannot save a personal view of the Web Intelligence report that is invoked by a source report using the OpenDocument function. The application prompts you to return to the source document for saving a personal view.
4. Personal views are supported only on the following BI Platform server versions:
   ○ SAP BusinessObjects BI platform 4.0, Support Package 8 and above
   ○ SAP BusinessObjects BI platform 4.1, Support Package 2 and above
5. If your personal view has an OpenDocument URL that targets the same BI document as the source (parent document from which you created the view), the URL does not work as expected in the personal view.
6 Managing the Mobile support for Dashboards

SAP BusinessObjects Dashboards allows dashboard consumers to view models on mobile devices such as the iPad. Certain components and dashboard features are unavailable or behave differently on mobile devices. You can use the Mobile Compatibility panel to ensure that your model will run correctly on mobile devices.

Add-on components created using the Dashboards Component SDK can be made mobile-compatible. For more information, refer to the Dashboards Component SDK documentation, available on the SAP Help Portal (http://help.sap.com/bodash41).

Note
Mobile support requires SAP BusinessObject Business Intelligence platform 4.0 Support Package 5 or later.

6.1 Using the Mobile Compatibility panel

The Mobile Compatibility panel helps ensure that your model will run correctly on mobile devices. The panel displays a warning icon for each component or feature in your model that is unsupported on mobile devices. Selecting a component in the Mobile Compatibility panel selects it on the canvas and opens its property sheet.

To view all incompatible components or features in the model, in the Mobile Compatibility panel, click Refresh.

Incompatible items are categorized as follows:

- General - Miscellaneous warnings and suggestions, such as an oversized canvas or an unsupported theme.
- Component - Unsupported components. Component warnings are split into the following subcategories:
  - Unsupported components. These components are not displayed in the model when the model is viewed on mobile. Components in this category are denoted by a red warning icon.
  - Supported components with unsupported properties. These components are displayed when the model is viewed on mobile but may behave differently or have certain properties disabled. Components in this category are denoted by a yellow warning icon.
  - Visual variant components. These components are replaced by their fallback component when the model is viewed on mobile with all settings preserved. For example, Gauge2 or Gauge3 would be replaced by Gauge on mobile. Components in this category are denoted by a yellow warning icon.

Note
Background2, Background4, and Background5 are supported.

- Connectivity - Unsupported external connections. This includes all connections added through the Data Manager.
6.2 Supported components in mobile dashboards

The following is a summary of all components supported on mobile devices, along with any of their unsupported properties or features.

### Note
All components have *Entry Effect* and *Insert On: Mouse Over* disabled on mobile.

#### Chart components

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar Chart</td>
<td>- All Enable Run-Time Tools, Plot Area, Title Area, and Range Label options.</td>
</tr>
<tr>
<td>Column Chart</td>
<td>- Allow Zoom Out Only, Logarithmic, and Fixed Label Size scale options.</td>
</tr>
<tr>
<td></td>
<td>- Show Fill, Show Border, Border Thickness, and Check Box legend options.</td>
</tr>
<tr>
<td></td>
<td>- All underline font styles.</td>
</tr>
<tr>
<td></td>
<td>- Alerts.</td>
</tr>
<tr>
<td>Bubble Plot</td>
<td>- All Enable Run-Time Tools options.</td>
</tr>
<tr>
<td></td>
<td>- Allow Zoom Out Only, Logarithmic, and Fixed Label Size scale options.</td>
</tr>
<tr>
<td></td>
<td>- Show Fill, Show Border, Border Thickness, and Check Box legend options.</td>
</tr>
<tr>
<td></td>
<td>- All underline font styles.</td>
</tr>
<tr>
<td></td>
<td>- Alerts.</td>
</tr>
<tr>
<td>Combination Chart</td>
<td>- All Enable Run-Time Tools, Plot Area, Title Area, Legend Area, and Range Label options.</td>
</tr>
<tr>
<td>Line Chart</td>
<td>- Allow Zoom Out Only, Logarithmic, and Fixed Label Size scale options.</td>
</tr>
<tr>
<td></td>
<td>- Show Fill, Show Border, Border Thickness, and Check Box legend options.</td>
</tr>
<tr>
<td></td>
<td>- All underline font styles.</td>
</tr>
<tr>
<td></td>
<td>- Alerts.</td>
</tr>
<tr>
<td>Pie Chart</td>
<td>- All Plot Area, Title Area, and Legend Area options.</td>
</tr>
<tr>
<td></td>
<td>- All underline font styles.</td>
</tr>
<tr>
<td>Stacked Bar Chart</td>
<td>- All Enable Run-Time Tools, Plot Area, Title Area, Legend Area, and Range Label options.</td>
</tr>
<tr>
<td>Stacked Column Chart</td>
<td>- Allow Zoom Out Only, Logarithmic, and Fixed Label Size scale options.</td>
</tr>
<tr>
<td></td>
<td>- Show Fill, Show Border, Border Thickness, and Check Box legend options.</td>
</tr>
</tbody>
</table>
## Unsupported properties

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● The Marker Overlap appearance option.</td>
</tr>
<tr>
<td></td>
<td>● All underline font styles.</td>
</tr>
<tr>
<td></td>
<td>● Alerts</td>
</tr>
<tr>
<td>Waterfall Chart</td>
<td>● All Enable Run-Time Tools options.</td>
</tr>
<tr>
<td></td>
<td>● Allow Zoom Out Only, Logarithmic, Fixed Label Size, and Minor Divisions scale options.</td>
</tr>
<tr>
<td></td>
<td>● Show Fill, Show Border, Border Thickness, and Check Box legend options.</td>
</tr>
<tr>
<td></td>
<td>● All underline font styles.</td>
</tr>
</tbody>
</table>

**Container components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canvas Container</td>
<td>All Scroll Bar color options.</td>
</tr>
<tr>
<td>Tab Set</td>
<td></td>
</tr>
</tbody>
</table>

**Selector components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Box</td>
<td>All properties are supported.</td>
</tr>
<tr>
<td>Icon</td>
<td></td>
</tr>
<tr>
<td>Push Button</td>
<td></td>
</tr>
<tr>
<td>Radio Button</td>
<td></td>
</tr>
<tr>
<td>Toggle Button</td>
<td></td>
</tr>
<tr>
<td>Combo Box</td>
<td>● All Scroll Bar color options.</td>
</tr>
<tr>
<td></td>
<td>● Drop-Down Animation.</td>
</tr>
<tr>
<td></td>
<td>● Alerts</td>
</tr>
<tr>
<td>Label Based Menu</td>
<td>● All Interaction options except Always Expanded and Expand On Mouse Click.</td>
</tr>
<tr>
<td></td>
<td>● All Title options.</td>
</tr>
<tr>
<td></td>
<td>● Alerts</td>
</tr>
<tr>
<td>List Box</td>
<td>● All Scroll Bar color options.</td>
</tr>
<tr>
<td></td>
<td>● Alerts</td>
</tr>
<tr>
<td>List View</td>
<td>● All Scroll Bar color options.</td>
</tr>
</tbody>
</table>
### Component

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scorecard</td>
<td>Change Column Width at runtime and Column Width by percentage.</td>
</tr>
</tbody>
</table>

### Single Value components

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge</td>
<td>Object Elasticity, Adjustable and Open Limits, Mouse Sensitivity, and Vertical Mouse Tracking behavior options.</td>
</tr>
<tr>
<td>Gauge7</td>
<td>Play Button and Limit Background Color appearance options.</td>
</tr>
<tr>
<td>Gauge8</td>
<td>Play Button and Limit Background Color appearance options.</td>
</tr>
<tr>
<td>Horizontal Progress Bar</td>
<td>Adjustable and Open Limits behavior options.</td>
</tr>
<tr>
<td>Vertical Progress Bar</td>
<td>Play Button and Limit Background Color appearance options.</td>
</tr>
<tr>
<td>Horizontal Slider</td>
<td></td>
</tr>
<tr>
<td>Vertical Slider</td>
<td></td>
</tr>
</tbody>
</table>

### Text components

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Text</td>
<td>All properties are supported.</td>
</tr>
<tr>
<td>Input Text Area</td>
<td>Enable HTML Formatting.</td>
</tr>
<tr>
<td>Label</td>
<td>All Scroll Bar color options.</td>
</tr>
<tr>
<td></td>
<td>Enable HTML Formatting.</td>
</tr>
</tbody>
</table>

### Art and background components

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>All properties are supported.</td>
</tr>
<tr>
<td>Background2</td>
<td></td>
</tr>
<tr>
<td>Background4</td>
<td></td>
</tr>
<tr>
<td>Background5</td>
<td></td>
</tr>
<tr>
<td>Ellipse</td>
<td></td>
</tr>
</tbody>
</table>
### Web Connectivity

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>URL Button</strong></td>
<td>All properties are supported.</td>
</tr>
<tr>
<td></td>
<td><img src="https://example.com/note" alt="Note" /></td>
</tr>
<tr>
<td></td>
<td>Linking a <strong>URL button</strong> to unsupported data sources will not work. For example, an OpenDocument URL will not pass FlashVars to the model since FlashVars are not supported. For more information about unsupported data sources, see <a href="#">Unsupported features in mobile dashboards</a>.</td>
</tr>
<tr>
<td></td>
<td><img src="https://example.com/note" alt="Note" /></td>
</tr>
<tr>
<td></td>
<td>On an iPad, external URLs (such as <a href="http://help.sap.com">http://help.sap.com</a>) are opened in Safari.</td>
</tr>
</tbody>
</table>

### Universe Connectivity

<table>
<thead>
<tr>
<th>Component</th>
<th>Unsupported properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Query Refresh Button</strong></td>
<td>All properties are supported.</td>
</tr>
</tbody>
</table>

## 6.2.1 Using components in mobile dashboards

Mobile dashboard users interact with components using the device’s touch screen. The user can interact with components and items by tapping, touching, or dragging them. The user can also pinch to zoom chart component scales or models with a canvas size larger than the mobile device’s resolution.

Component interaction that involves clicking or dragging is unchanged on mobile. Component interaction that involves mousing over is unsupported, with the following exceptions:
Pie Chart

When viewing a model on a computer, the user can mouse over a slice of a Pie Chart to show detailed values. On mobile devices, the user must tap the slice. The values are displayed in the center of the chart, as shown below:

Column Chart and Line Chart

When viewing a model on a computer, the user can mouse over a column on a Column Chart or a point on a Line Chart to show detailed values. On mobile devices, the user must briefly touch the column or point. The values are displayed on the column or point, as shown below:
Pinch to zoom

The user must pinch to zoom chart component scales. Pinching to zoom a chart’s scale is shown below:

6.3 Unsupported features in mobile dashboards

The following is a summary of unsupported or partially supported features when viewing a model on mobile devices.

Fonts

For a list of fonts supported on mobile, see http://iosfonts.com/. All listed fonts that are installed on your local machine will be added to Dashboards’ font list with (iOS 5+) appended.

i Note
If a font is not supported, it defaults to Verdana.

Themes

Only the Nova theme is supported.

i Note
If another theme is used, it defaults to Nova. The color scheme remains the same.
Canvas size

If the canvas is larger than the mobile device’s native resolution, scroll bars will be used if the dashboard is viewed in Original Size Mode. The native resolution of the iPad is 1024x768, so it is recommended you set the canvas to this size when designing your model.

Model connectivity

If the model is running in offline mode, or if the mobile device has no network connection, all connections in the model will be disabled and will use cached data.

Note

Only connections added from the Query Browser are supported. Connections added through the Data Manager are supported if denoted by an asterisk.

6.4 Saving mobile dashboards to BI platform folders

When you create a new model and save it to the platform, it is saved as a Dashboards object that includes both the design file (XLF) and the runtime file (SWF).

Note


1. After creating or modifying a model, click File and select one of the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Save to Platform Mobile Only" /></td>
<td>Use this option if you have created a new model, or have opened and modified an existing Dashboards model. Features unsupported on mobile devices are omitted.</td>
</tr>
<tr>
<td><img src="image" alt="Save to Platform Desktop and Mobile" /></td>
<td>Use this option if you have created a new model, or have opened and modified an existing Dashboards model. In the mobile file, features unsupported on mobile devices are omitted.</td>
</tr>
</tbody>
</table>

Note

For more information about unsupported features, see Using the Mobile Compatibility panel [page 76].
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Save to Platform As Dashboards Object for Mobile Only" /></td>
<td>Use this option if you have opened and modified an existing Dashboards model, or have opened an Xcelsius object and want to save it as a new Dashboards object, but do not want to overwrite the existing object. Features unsupported on mobile devices are omitted.</td>
</tr>
<tr>
<td><img src="image" alt="Save to Platform As Dashboards Object for Desktop and Mobile" /></td>
<td>Use this option if you have opened and modified an existing Dashboards model, or have opened an Xcelsius object and want to save it as a new Dashboards object, but do not want to overwrite the existing object. In the mobile file, features unsupported on mobile devices are omitted.</td>
</tr>
</tbody>
</table>

**Note**
For more information about unsupported features, see *Using the Mobile Compatibility panel [page 76]*.

2. In the *Log On to SAP BusinessObjects Business Intelligence platform* dialog box, enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>Type the name of the Central Management console (CMC) where you want to save the file. The CMC stores information about the objects saved to the BI platform system. For more information about the CMC, refer to the BI platform documentation available on the SAP Help Portal (<a href="http://help.sap.com">http://help.sap.com</a>).</td>
</tr>
<tr>
<td>User name</td>
<td>Type your logon name.</td>
</tr>
<tr>
<td>Password</td>
<td>Type your password.</td>
</tr>
<tr>
<td>Authentication</td>
<td>Click the appropriate authentication type.</td>
</tr>
</tbody>
</table>

3. Click **OK**.

4. If you are not replacing an existing file, select the folder where you want to save the Dashboards object, enter a file name, and click **Save**.
SAP BusinessObjects Explorer is a data discovery application that allows you navigate through datasets known as Information Spaces and Exploration Views. These datasets are created in the web version of SAP BusinessObjects Explorer as part SAP BusinessObjects Business Platform.

When you open an Information Space on an iPhone or iPad, you can explore your corporate data, search, apply filters and dimensions and retrieve answers to your business questions.

In order to access your corporate data on your iPhone or iPad, you need to ensure that your data administrator makes the appropriate connections available to your user profile.


### 7.1 Valid Data Format for Augmented Views

When the data is correctly formatted, Information Spaces and Exploration Views show the information augmented, so that you can view the information in terms of your points of interest (POIs).

For the augmented view of a document to load, it is essential that one of the columns of the data set uploaded to the Explorer server is formatted as a point of interest (POI).

A POI is a structure containing the following information:

- POI name (mandatory)
- POI location (mandatory)
- POI image
- POI associated link

The POI column in the data set should be formatted as follows:

```
NAME|| LATITUDE;LONGITUDE|| IMAGE_URL|| LINK_URL
```

Example: `myStore||45.5;-1.2||http://mydomain/myimage||http://mydomain`

This order and format is mandatory. POI information must be separated by the string "||".

The following is an example of a data set which is valid for getting an augmented view:

<table>
<thead>
<tr>
<th>Store</th>
<th>Year</th>
<th>Quarter</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store 1</td>
<td>2010</td>
<td>Q1</td>
<td>7703</td>
</tr>
<tr>
<td>46.43431150;1.16331900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store</td>
<td>Year</td>
<td>Quarter</td>
<td>Revenue</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Store 1</td>
<td>2010</td>
<td>Q2</td>
<td>3918</td>
</tr>
<tr>
<td>Store 2</td>
<td>2010</td>
<td>Q1</td>
<td>1025</td>
</tr>
<tr>
<td>Store 2</td>
<td>2010</td>
<td>Q2</td>
<td>680</td>
</tr>
<tr>
<td>Store 2</td>
<td>2010</td>
<td>Q3</td>
<td>1100</td>
</tr>
<tr>
<td>Store 2</td>
<td>2010</td>
<td>Q4</td>
<td>6709</td>
</tr>
</tbody>
</table>

The data set can have any number of dimensions, but one of the columns should be formatted as POI. If this condition is fulfilled, then when tapping the document, the augmented view will load and the augmented views icon will be available. Otherwise, the normal exploration view opens up.
8 Managing the Mobile Support for Analysis Applications

Analysis applications are Web applications that allow users to analyze data from SAP BW and SAP HANA. Integration with SAP BusinessObjects Mobile means that users can access analysis applications on mobile devices, such as the iPad or the iPhone.

Application designers create analysis applications with SAP BusinessObjects Design Studio. For using analysis applications on mobile devices and integrating them with SAP BusinessObjects Mobile they need to create the analysis applications in the SAP BusinessObjects BI Platform mode of SAP BusinessObjects Design Studio.

This section provides administrators with an overview of the tasks required to integrate analysis applications with SAP BusinessObjects Mobile.

8.1 Installation

Make sure that you have installed the full installation of the Analysis Application Service for SAP BusinessObjects Design Studio on the BI platform, including: Analysis Application Web Components, Analysis Application Service, and Analysis Application support for Mobile Devices.

The installation feature Analysis Application support for Mobile Devices adds mobile support to analysis applications, thereby integrating analysis applications with SAP BusinessObjects Mobile. It allows application users to access analysis applications on mobile devices, such as the iPad or the iPhone.

**Note**
The setup feature Analysis Application support for Mobile Services requires Mobile Services to be installed.


8.2 Configuration Tasks for Mobile Usage of Analysis Applications

Before users can access analysis applications on the mobile app of the SAP BusinessObjects Mobile solution, you need to check whether a mobile category exists on the BI platform. If no mobile category exists, you need to create one. Then you need to assign the analysis applications to this category.

**Note**
The default name of the mobile category is Mobile. Administrators can change the category name in the mobi.properties file on the Mobile server under [<WebAppServer>_Home]\webapps
8.2.1 Creating a Mobile Category on the BI Platform

Check whether a mobile category exists on the BI platform. If this category does not exist, you need to create one.

1. In the Central Management Console under Categories, choose Manage ➤ New ➤ Category.
2. When prompted, type Mobile as the name for the new category.
3. Click OK.


8.2.2 Assigning Analysis Applications to the Mobile Category

Before users can access analysis applications on a mobile device using the SAP BusinessObjects Mobile solution, you need to assign the analysis applications to the mobile category on the BI platform.

1. In the BI launch pad, go to the folder that contains the analysis application that you want to assign to the mobile category.
2. Select the analysis application and click More Actions ➤ Categories.
   The Categories dialog box appears.
3. Choose the mobile category.
4. Click OK.

8.3 Creating Analysis Applications for Mobile Devices

When creating mobile analysis applications for mobile devices, you should take note of the following SAP recommendations:

- Keep the applications simple and do not use too many components.
- Do not use crosstab components for smartphone applications.
- To improve performance and user experience for tablet applications that contain a crosstab component, SAP recommends the following:
  - Limit to 500 the total number of cells in your crosstab.
  - Your crosstab should contain, for example, a maximum of 50 rows and 10 columns for pixel-based scrolling.
When running an application in the SAP BusinessObjects Mobile application, it is recommended that you design smartphone applications in portrait format and design tablet applications in landscape format.

Note

- Design Studio 1.6 now supports the so-called Main part of the SAPUI5 library. The Main (m) part was developed with the mobile use case in mind and those components are therefore specialized for mobile devices. When you select to create an analysis application in "m" mode, you also have to set the application property Compact Form Factor true or false. This allows you to adjust your visualization between two form factors: the compact form factor for the desktop and the cozy form factor with more spacing and padding for mobile use cases.
- For more information about Android version support, see the SAP Product Availability Matrix: https://support.sap.com/release-upgrade-maintenance/pam.html

You should also refer to the following SAP Note:

<table>
<thead>
<tr>
<th>SAP Note Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2240553</td>
<td>Considerations when viewing Design Studio 1.6 applications on SAP BI Mobile client application (MOBI).</td>
</tr>
</tbody>
</table>

8.4 Further information


9 Managing the Mobile Support for SAP Lumira Server or SAP Lumira Cloud

SAP Lumira server and SAP Lumira cloud are visual data analysis tools. Integration with SAP BusinessObjects Mobile means that users can access datasets and visualizations on the iPad. Users can also create visualizations on the iPad and save them to the SAP Lumira server or the SAP Lumira Cloud. This section provides administrators with an overview of the tasks required to connect SAP Lumira server or SAP Lumira Cloud with SAP BusinessObjects Mobile.

9.1 Configuring the Connection to SAP Lumira server or SAP Lumira Cloud

1. In the SAP BusinessObjects Mobile application, open the Application Settings.
2. Tap Create new connection, and then tap Connection type.
3. Choose SAP Lumira Cloud or SAP Lumira server.
4. Enter a Connection Name.
5. Enter the Server URL.
6. Enter a User Name.
7. Optional: Enter a Password then toggle Save Password to ON. If you do not enter a password, you will be prompted to enter a password when you attempt to connect to the SAP Lumira Server or SAP Lumira Cloud.
8. Tap Done.

The connection you created will appear in the connections list in the Application Settings. Tap the connection name to connect to SAP Lumira Server or SAP Lumira Cloud.

9.2 Further Information

For more information about creating visualizations with SAP Lumira Server, see the SAP Lumira Server User Guide on the SAP Help Portal at http://help.sap.com/lumira

Installation

While installing SAP Lumira, server for BI Platform, you must check the Mobile Web Application option in the feature tree to install SAP Lumira, on Mobile.

**Note**

SAP Lumira, server for BI Platform is supported from SAP BusinessObjects BI 4.1 SP04 onwards and SAP BusinessObjects 4.2.

However, it is not supported on iPad2 and iPhone. For more information, see [http://scn.sap.com/docs/DOC-42043](http://scn.sap.com/docs/DOC-42043).

For further details, refer to SAP Lumira, server for BI Platform Administration Guide.

Connections

All SAP BusinessObjects BI Platform connections are supported in SAP Lumira, on Mobile.

Access Rights

The Lumira content access rights for BusinessObjects Enterprise connections are same as those of Web Intelligence documents (Logon, Share and subscribe rights). However, the following additional rights are supported for SAP Lumira, server for BI Platform on Mobile:

- Refresh rights: If you do not have refresh rights, you cannot refresh the Lumira document.

  **Note**

  You do not see the Refresh icon on the toolbar if you do not have refresh rights.

Listing Lumira content on Mobile

By default, all Lumira documents are listed on the home page.
The Mobile and Mobile Designed categories are ignored for Lumira content.

Proceed as follows to modify the Lumira documents listed on the home page:

1. In the BI Platform server, navigate to `<SAP BusinessObjects Installation directory> \Tomcat \webapps\MobileBIService\WEB-INF\classes\internal\lumira.properties` file.
2. Change the `document.category.relevant` property to `True`.
3. Clear the Tomcat server cache.
4. Restart the Tomcat server.

Now the Lumira documents are available to the user only if they are added to the *Mobile* option under *Categories*.

### SAP BI URL for Opening Lumira Documents

The following are the three scenarios that can be used to open the Lumira document:

- SAP BI URL link to open a specific Lumira document
- SAP BI URL to open the latest instance of a Lumira document
- SAP BI URL to open the latest available version of a Lumira document or its Instance

### SAP BI URL Link to open a specific Lumira document (default view: first story, first page) in the application:

**URL**

```
sapbi://OpenDoc/?
ConnectionType=<conntype>&connection_name=<name>&server_url=<Server Name/IP:Port>&cms=<CMS_Name>&default=<yes/no>&Type=<Doctype>&iDocID=<ID>
```

The parameters in the URL are explained below:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>connectionType</td>
<td>These are the regular SAP BI URL parameters that help the application (on the user’s device) to identify the particular BI platform server with the relevant BI document.</td>
</tr>
<tr>
<td>connection_name</td>
<td></td>
</tr>
<tr>
<td>server_url</td>
<td></td>
</tr>
<tr>
<td>default</td>
<td></td>
</tr>
<tr>
<td>cms</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Type</td>
<td>This is the Lumira document type that displays valid Type=lumira.</td>
</tr>
<tr>
<td>iDocID</td>
<td>This is the CUID of the document. You can retrieve the CUID of the document by accessing the document’s properties on the BI platform (report designing client tool).</td>
</tr>
</tbody>
</table>

For example: Using the following URL, you can open a Lumira document with the specified CUID, in this case the Lumira document with CUID='AW5ZfNEUJ9RDhTrTyxtWPAE' is opened.

sapbi://OpenDoc?
authType=secEnterprise&<User_Name>&ConnectionType=BOEConnection&name=ConnectionName
&server_url=<server_Name/IP:Port>&cms=<CMS_Name>&default=yes/no&iDocID=AW5ZfNEUJ9RDhTrTyxtWPAE

SAP BI URLs for Opening the Latest Instance of a Lumira Document:

**URL**

sapbi://OpenDoc/?
ConnectionType=<type>&connection_name=<conn_name>&server_url=<Server Name/IP:Port>&cms=<CMS_Name>&Type=<doctype>&iDocID=<docID>&latest=<true>&id=<InstanceID>&idtype=<idtype>&useInstance=<last>

The parameter details for `ConnectionType`, `connection_name`, `server_url`, and `cms` are the same as explained in the table above. However, there are a few additional parameters, explained in the table below:

**Table 7: Parameter Table**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>idtype</td>
<td>This is used to open the latest instance of the document. If idtype=id, then the latest Instance is opened. If idtype=CUID, either the updated document or the instance is opened depending on whichever is the latest.</td>
</tr>
<tr>
<td>id</td>
<td>This is the Instance ID of the document’s Instance. If idtype=id, id=&lt;instanceID&gt;. If idtype=CUID, id=&lt;CUID of the document&gt;.</td>
</tr>
<tr>
<td>latest</td>
<td>This specifies the latest Instance of the document or the specified instance. If latest=true, the latest instance is opened.</td>
</tr>
</tbody>
</table>
### Parameter Description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>useInstance</td>
<td>It is used to open the latest instance or updated document. If useInstance=last, the latest instance is opened.</td>
</tr>
</tbody>
</table>

For example: Using the following URL, you can open a Lumira document’s latest instance:

```
sapbi://OpenDoc?authType=secEnterprise&<User_Name>&ConnectionType=BOEConnection&name=ConnectionName&server_url=<server_Name/IP:Port>&cms=<CMS_Name>&default=yes/no&iDocID=AW5ZfNEUJ9RDhTrTyxtWP9AE&idtype=id&latest=true&Id=12345&useInstance=last
```

### SAP BI URLs for Opening the Latest Available Version of a Lumira document or its Instance:

**URL**

```
sapbi://OpenDoc/?ConnectionType=<type>&connection_name=<conn_name>&server_url=<server_Name/IP:Port>&cms=<CMS_Name>&Type=<doctype>&iDocID=<docID>&latest=<true>&Id=<CUID&idtype=<idtype>&useInstance=<last>
```

The parameter details are the same as explained in the “SAP BI URLs for Opening the Latest Instance of Lumira Documents” scenario. However, the values for idtype and Id must be CUID and <CUID of the document>.

For example: Using the following URL, you can open a Lumira document’s latest instance or the updated document:

```
sapbi://OpenDoc?authType=secEnterprise&<User_Name>&ConnectionType=BOEConnection&name=ConnectionName&server_url=<server_Name/IP:Port>&cms=<CMS_Name>&default=yes/no&iDocID=AW5ZfNEUJ9RDhTrTyxtWP9AE&idtype=CUID&latest=true&Id=AW5ZfNEUJ9RDhTrTyxtWP9AE&useInstance=last
```
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