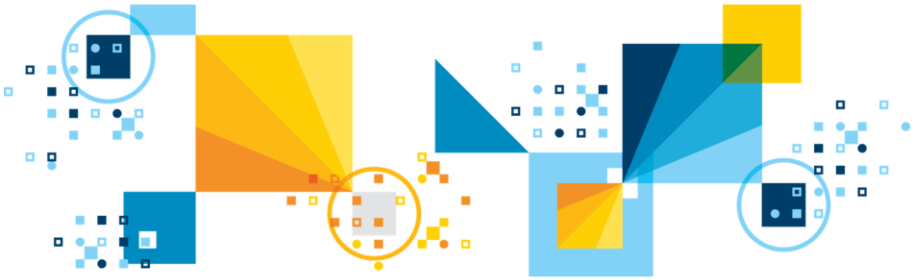
Business Analytics

IBM Cognos Mobile 10.2.1 and 10.2.2

Successfully deploy and manage IBM Cognos Mobile in your enterprise



Purpose

The purpose of this document is to provide information and recommendations on how to successfully deploy IBM Cognos Mobile in your enterprise.

Applicability

The information is focused on deploying the iOS and Android native applications as well as the Mobile Webapp in Cognos Mobile 10.2.1.

Terminology

Cognos Mobile refers to entire IBM Cognos Mobile offering.
Apps refer to the Android and iOS native applications available through their respective app stores.
Mobile Server refers to the Mobile Cognos service running in Cognos Administration.
Mobile Webapp refers to the touch-friendly interface accessible through a mobile web browser.

Agenda

- IBM Cognos Mobile overview
- Installation
- Connecting to the server
- Consuming content on the mobile device
- Security overview
- Personalize your app
- Support for MDMs and internal app stores

IBM Cognos Mobile

- Secure access to your content
- Performance and scalability
- BYOD support
- Connected or disconnected

IBM Cognos Mobile leverages your existing Cognos BI installation and allows you to consume your existing content on mobile devices without having to re-author them. Author once and consume on the desktop and mobile.

• Secure access: User authentication, local encryption, timer based access, application PIN, client-side certificates
• Performance and scalability: Is integrated with the BI Server and can be distributed across multiple servers
• BYOD: Support on iOS and Android
• Connected or disconnected: Users can push content to their device and consume it while disconnected

Analysis on IBM Cognos Mobile

View your existing Cognos content on your mobile device

Active Reports
- Great for dashboards
- Interactive, visually pleasing
- Disconnected, portable

Regular HTML Reports
- Great for lots of data
- Can have multiple pages
- Connected / Disconnected

IBM Cognos Workspace
- Self-serve for Business Users
- Optimized for a touch interface
- Connected

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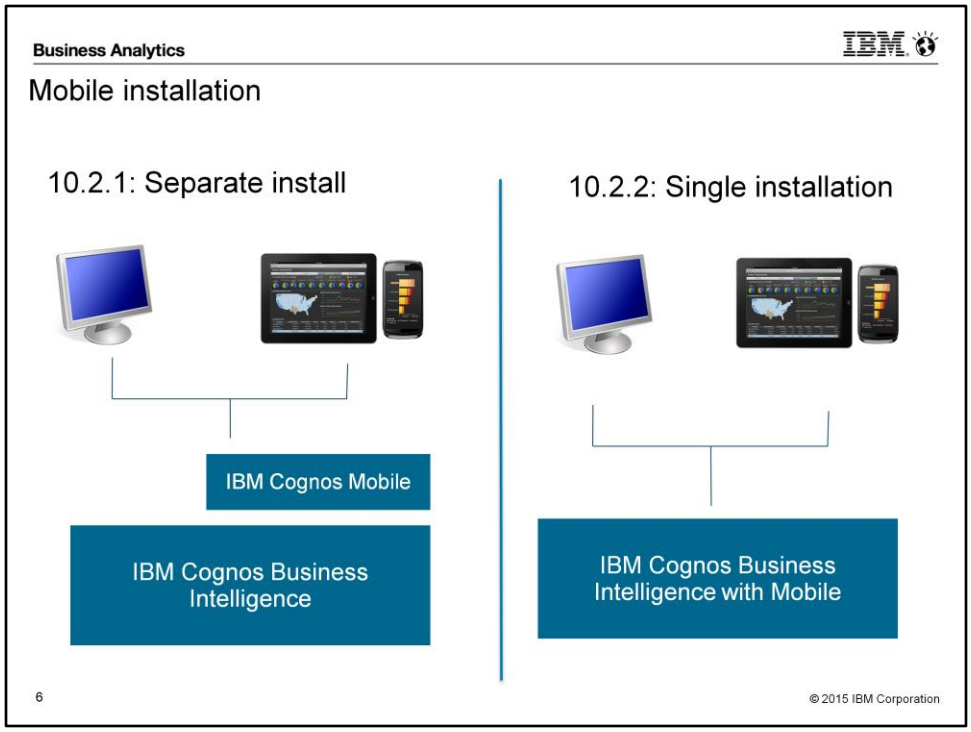

Server

In 10.2.1, Cognos Mobile is installed separately from the BI Server's installation steps. It is not however a stand-alone product, it needs to be installed on top of an existing BI server installation. In a distributed environment, all BI servers must have Cognos Mobile installed, but not necessarily enabled. Only a few servers can be identified to handle the mobile traffic while the others handle only the desktop requests. For detailed information on installing and configuring the Mobile Server, refer to the Mobile Installation and Administration Guide on the IBM Knowledge Center. The Cognos Mobile fix packs can be downloaded from the Fix Central website.

In 10.2.2, Cognos Mobile is part of the Cognos BI server installation and is enabled by default. An administrator can disable the Mobile service through the Cognos Admin portal.

Apps

The iOS and Android apps are available as free downloads from their respective app stores. All texts and labels have been localized and translated to many different languages; allowing the app to display itself in the language set by the device.

• iOS : https://itunes.apple.com/ca/app/ibm-cognos-mobile/id455326089?mt=8

• Android: https://play.google.com/store/apps/details?id=com.ibm.cogmob.artoo&hl=en

Tip: send these links to your mobile users to allow them to simply tap on the links and let the device open up the store to the app.

Performance Tuning

The Mobile server acts like a conduit between the device and the BI server. Its main role is to handle the traffic and caching mechanism to offer a seamless disconnected experience for the users. Refer to the Performance and Tuning Guide for details and recommendations.

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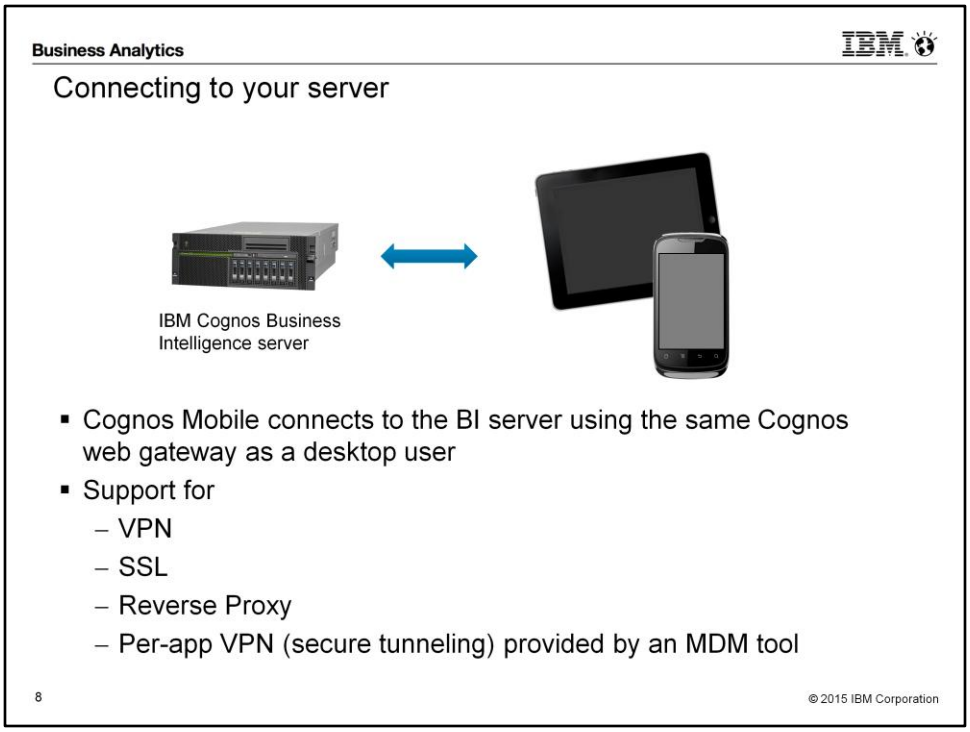
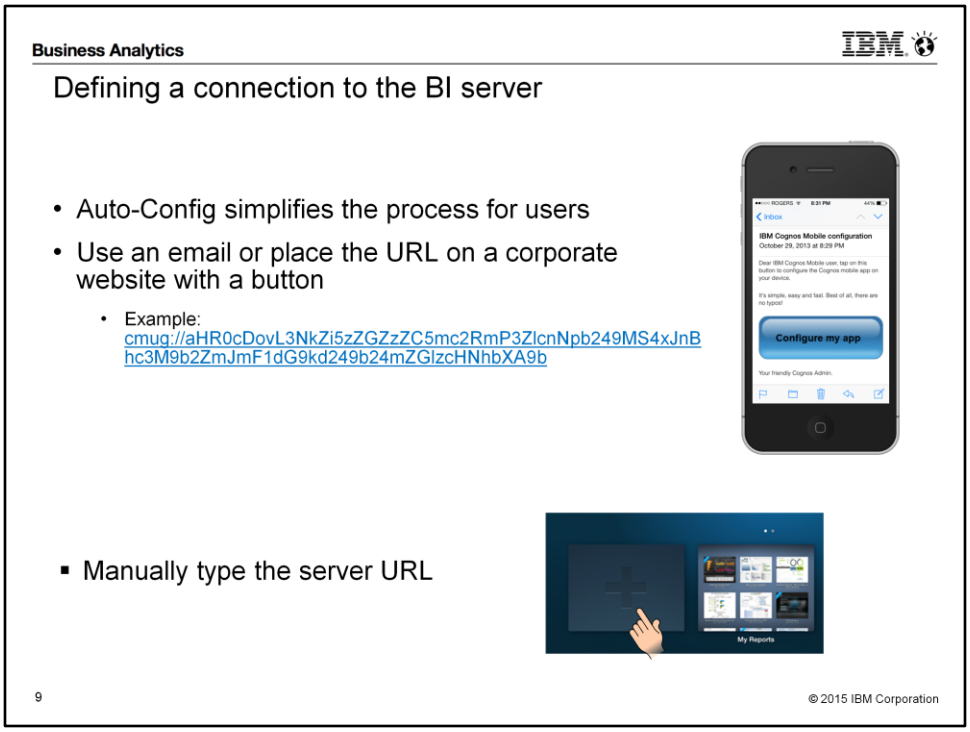


Connectivity
Cognos Mobile transfers data between the server and the device using HTTP; meaning that it will leverage your existing network infrastructure to connect back to the BI server.
It can connect through regular HTTP, HTTPS (SSL/TLS), Reverse Proxy and VPN connections.

VPN
Both Android and iOS provide built-in VPN capabilities. Users can also install a 3rd party VPN app that will handle the communication back to their network. Once the connection is established, the Cognos Mobile app will be able to reach the BI Server.

SSL connection
A network administrator can configure their web server to use a secured encrypted connection (HTTPS). The main difference from a user's stand-point is the ease of use since they don't need to log into a VPN first. Cognos Mobile supports SSL certificate pinning to safeguard against man-in-the-middle attacks as well as having the ability to consume client-side certificates.

Reverse Proxy
A reverse proxy is a server that is publicly addressable and is configured to forward incoming traffic to specific servers within an intranet.
When using a Reverse Proxy with Cognos BI, it needs to be transparent to the BI server.



From within the app, a user can manually create a connection to the BI server or an admin can send an automatic configuration link that configures the app for the users. There is no limit to the number of connections a user can create.

URL

The Cognos Mobile apps use the same URL to connect to the Cognos BI servers as a regular user would from the desktop browser.

Depending on your DNS configuration, you may need to use the fully qualified server names rather than their short form. For example, on the desktop, a URL such as “http://myserver/ibmcognos/” may work, but on Cognos Mobile, the user will likely need to type the full path: “http://myserver.ibm.com/ibmcognos/”

Pre-configure the app by sending an encoded URL

Manually typing in a lengthy URL to connect to the server is error-prone and not always practical. A much more simple method is for the administrator to create an encoded URL and email or post it on a website for the users to simply tap on it. Read more about it in the docs

Manually creating a connection

The user can tap on the plus sign, located on the bottom left on the main screen and type in the Cognos BI server URL.

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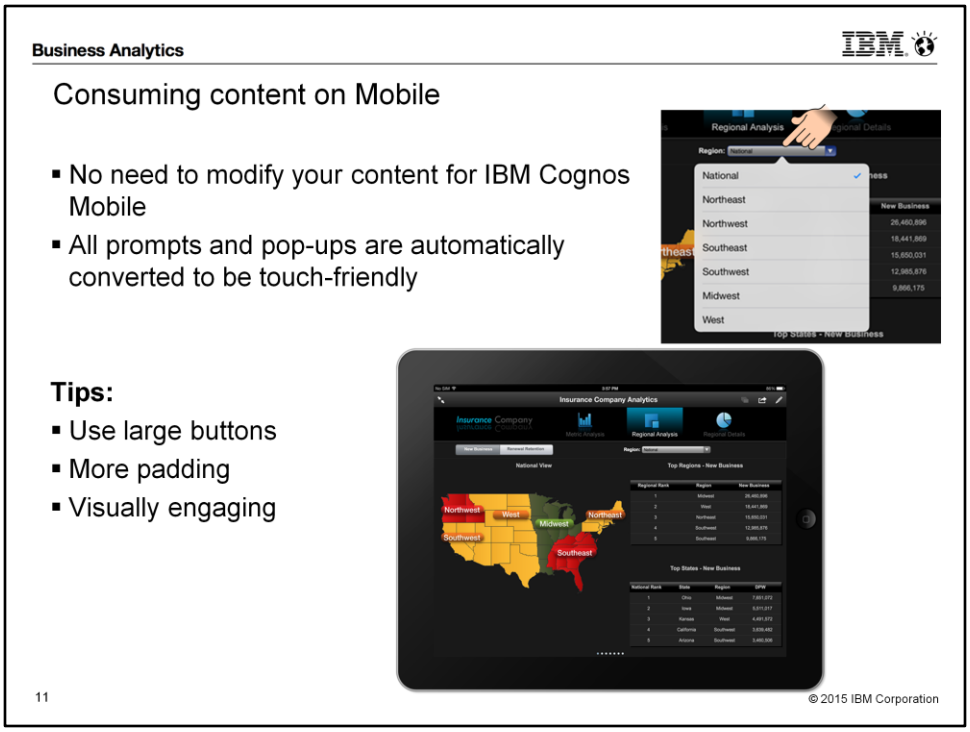


Author once

No additional work needs to be done to the reports and dashboards in order to view them through Cognos Mobile. The same reports that were originally built and designed for the desktop will automatically be available in Cognos Mobile. The prompts and controls will be converted to HTML5 touch-friendly prompts without any re-authoring required.

Cognos Mobile supports regular reports, Active Reports and Cognos Workspace dashboards.

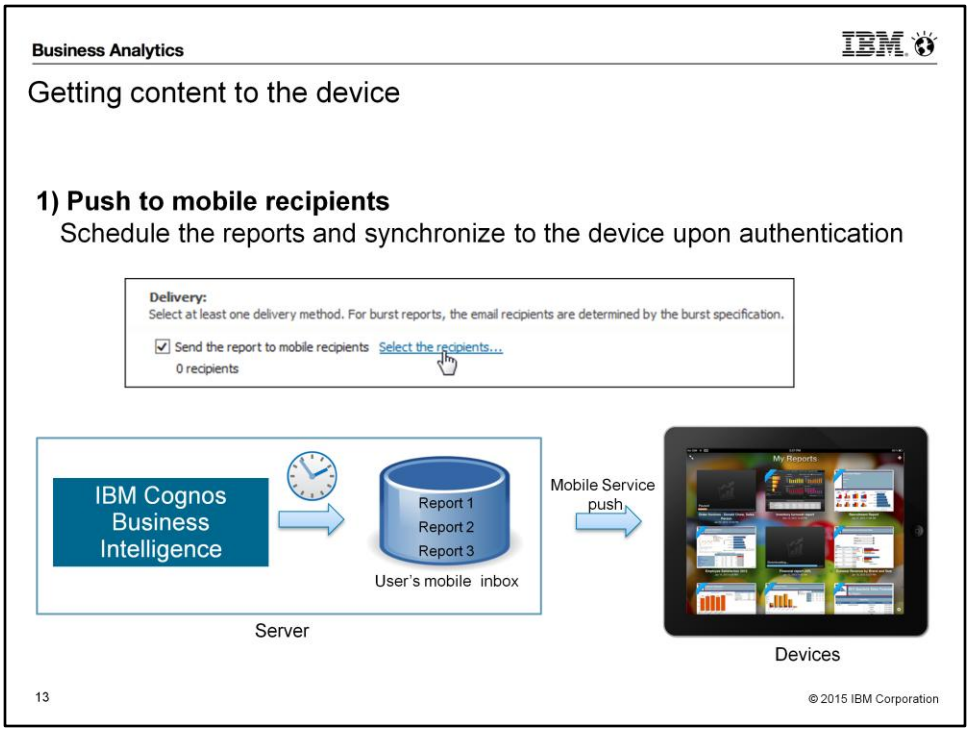
Fit to the width of the screen of the device

If the Cognos Mobile app determines that the width of a report or dashboard is too wide for the width of the screen, rather than displaying scroll bars or making the user pan around horizontally, it will scale (zoom-out) the view until it fits perfectly within the width. This ensures that the user always sees a full width view of their content, allowing them to zoom in if necessary. Note that this applies only to the width, not the height of the content

Getting content to the device

There are three mechanisms to get content onto your devices:

1. Push the content using a schedule
2. Browse the server from the app
3. Manually import Active Reports



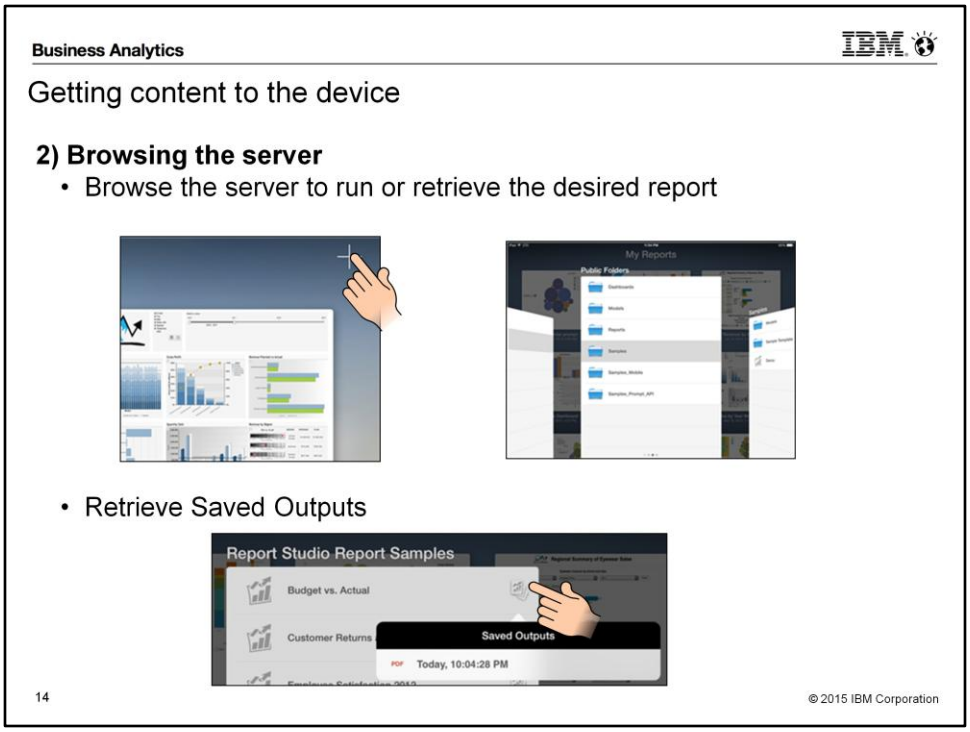
Mobile Inbox

Every user has what is referred to as a "mobile inbox" on the server. The BI server delivers content to each user's mobile inbox and accumulates it there until the user makes a connection to the BI Server. Once a connection is established, the server will by default push the content to the user's device.

Sending reports to mobile recipients

The most popular mechanism to send reports to mobile users is to schedule the reports at night and deliver them to the user's mobile inbox. When the user connects to the server, the report are automatically pushed to their device.

From the Cognos scheduler, select the option to send to mobile recipients and add users or groups to the list.



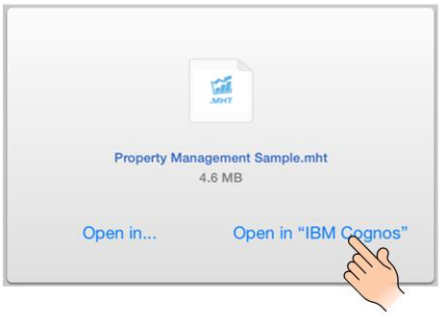
Manually retrieving content
A user can tap on the plus symbol on the top right of the screen to browse the server content and access the same content as viewed through a desktop browser. Once the user taps on a report, the report is executed and pushed to their device.

Downloading a saved output version
When a saved output version of a report has been saved to the server, an icon appears in the browsing panel. Users can select the output type the wish to download to the device.

Getting content to the device

3) Manually importing an Active Report

- Import from a web server, email, iTunes (iOS) or locally (Android)



By manually importing the Active Report output file (MHT). These reports will show up in a space called Imported Content in the app and are kept separate from the server-based reports since they are unmanaged by the server. Access to these reports never expire, they will stay on the device until the user manually deletes them.

A user can manually import Active Reports files in three ways:

1. Through a web browser on the device, the user can navigate to a file server and tap on a filename and select to open with the Cognos Mobile app.
2. Through an email attachment, the user can tap on the attachment and select to open with the IBM Cognos Mobile app.
3. Through iTunes for iOS devices. In iTunes, navigate to the Apps tab and click on the Add button.

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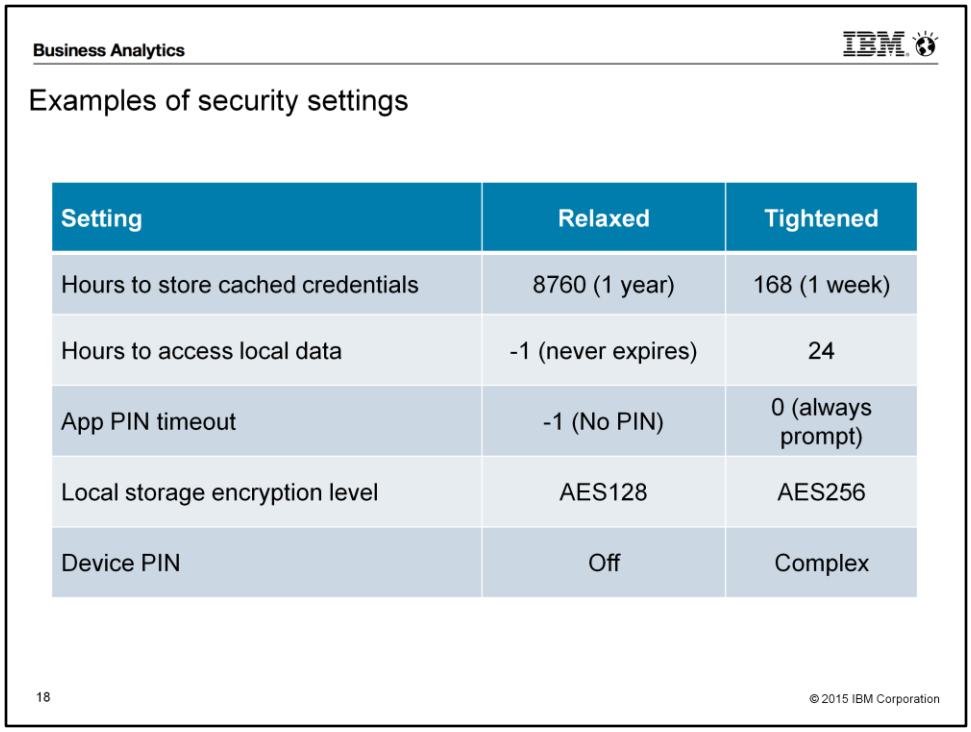
Security – Overview

- Leverages **Cognos BI security**: namespaces, users (e.g. AD, LDAP)
- Supports **web server security**: TLS/SSL, NTLM, Kerberos, SiteMinder, etc.
- Communication is **standard HTTP** and works with standard network security: VPNs, TLS/SSL, secure WiFi, etc.
- Support for **SSL pinning** to guard against man-in-the-middle attacks
- Support for **client-side certificates**
- **Encrypted** local content
  - AES 128 or 256 bit
  - Uses device PIN to re-encrypt the contents
- Leverages a **'lease key'** mechanism to allow time-limited access to data while offline.
- **Application Passcode** (PIN) can restrict access to the App

IBM Cognos Business Intelligence server



Security Settings
The administrator can enforce certain settings through the Mobile tab in Cognos Administration. Once set, these settings are pushed down to the devices. Refer to the server settings section of the Install and Config Guide to read a full description and the role for each settings.
• Local storage encryption level for IBM Cognos Mobile applications
• Maximum number of hours to store cached credentials
• Maximum number of hours to access Mobile local data stored on a device
• Permission to email report screen captures
• Security code session timeout
• Maximum number of attempts to enter a security code when accessing the IBM Cognos Mobile Application
• Maximum number of days to store a report

Examples of security settings
Relaxed — Users need to enter their passwords only once per year if it doesn't expire and are thereafter authenticated transparently. Locally-cached data can be used offline indefinitely.
Tightened — Users need to re-enter their passwords every week. Locally-cached data can be used offline for up to 1 days. Users need to enter the security code whenever they access the application.

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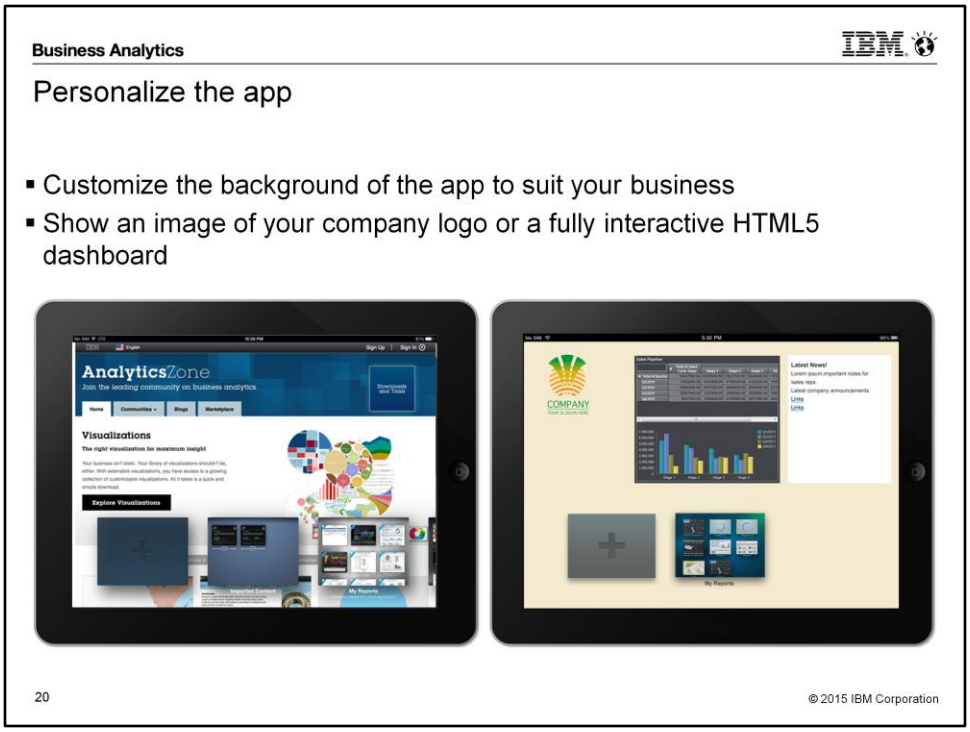

Personalizing the app

Cognos Mobile offers a mechanism to replace the app's main screen with a customized version that better suits the customer's branding and usage. The existing background image can either be tweaked, or completely replaced by a new custom HTML page. The administrator can create an HTML page and upload it to the server. The assigned users will receive the new background the next time they log into the BI Server. More details can be found in the documentation.

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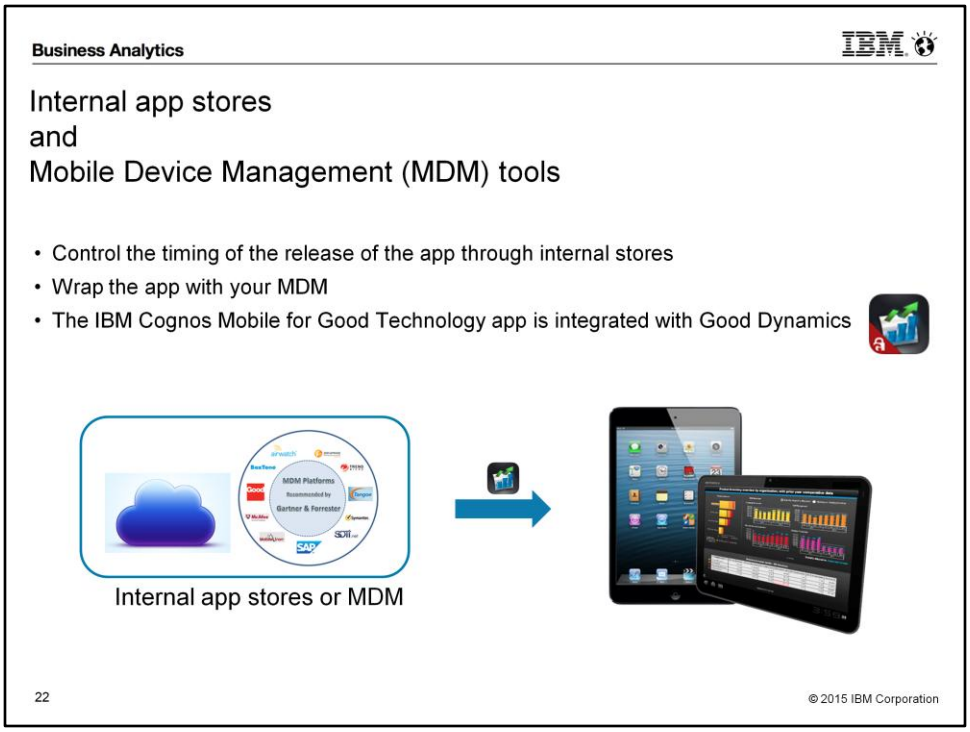

IBM Cognos BI offers the ability for customers to download an unsigned version of the IBM Cognos Mobile iOS native app. This allows customers who have standardized on a Mobile Device Management (MDM) tools to wrap the app and deploy it internally within their organization.

The unsigned version of the app is identical to the one that is posted to the public appStore, the only difference is that the Apple Push Notifications feature is not functional in the unsigned version.
IBM will continue to support the app's functionality and capabilities, but will be limited in terms of the level of help it can provide with the wrapping process or any MDM capabilities.
The customer needs to have an active Apple Development license in order to sign and deploy the app within their enterprise.

More information can be found in the following FAQ article.

Appendix – Useful IBM Cognos Mobile Links

- IBM Cognos Mobile Overview:
  http://www-01.ibm.com/support/docview.wss?uid=swg27045608
- IBM Cognos Getting Started Guide:
  http://www-01.ibm.com/support/docview.wss?uid=swg27037028
- IBM Cognos Mobile for Good Technology Getting Started Guide:
  http://www-01.ibm.com/support/docview.wss?uid=swg27041729
- IBM Cognos BI conformance site
  http://www-01.ibm.com/support/docview.wss?uid=swg27037784
- IBM Cognos Mobile How-to Videos:
  http://ibmtvdemo.edgesuite.net/software/analytics/cognos/videos/HTVs/cm102/index.html
- IBM Cognos Active Reports Cookbook:
  http://www.ibm.com/developerworks/data/library/cognos/reporting/active_report/page593.html