

Mobility & Storage

17.15 – 17.40

IBM Endpoint Manager for Mobile Devices

Alessandra Pecorari – Tivoli Client Technical Professional

17.45 – 18.10

Simplify and optimize storage infrastructure in the cloud era

Carlo Anello – Italy Tivoli Storage Sales Leader & Business Development

18.10 - 18.30

Integrated platform for network management

Alessandro Proia - Tivoli Client Technical Professional



IBM Endpoint Manager for Mobile Devices

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PCTY2012 

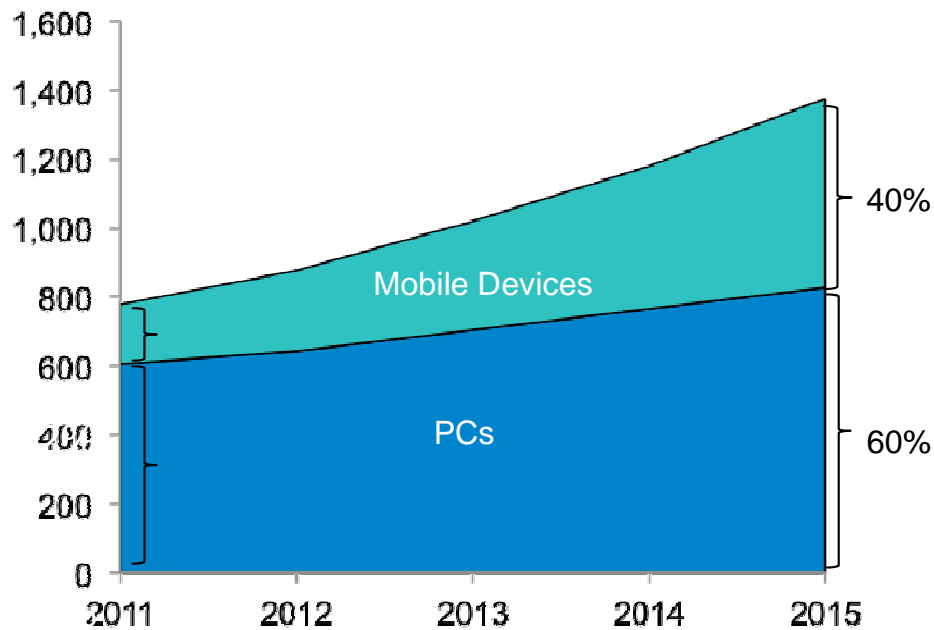
Pulse Comes to You

Optimizing the World's Infrastructure

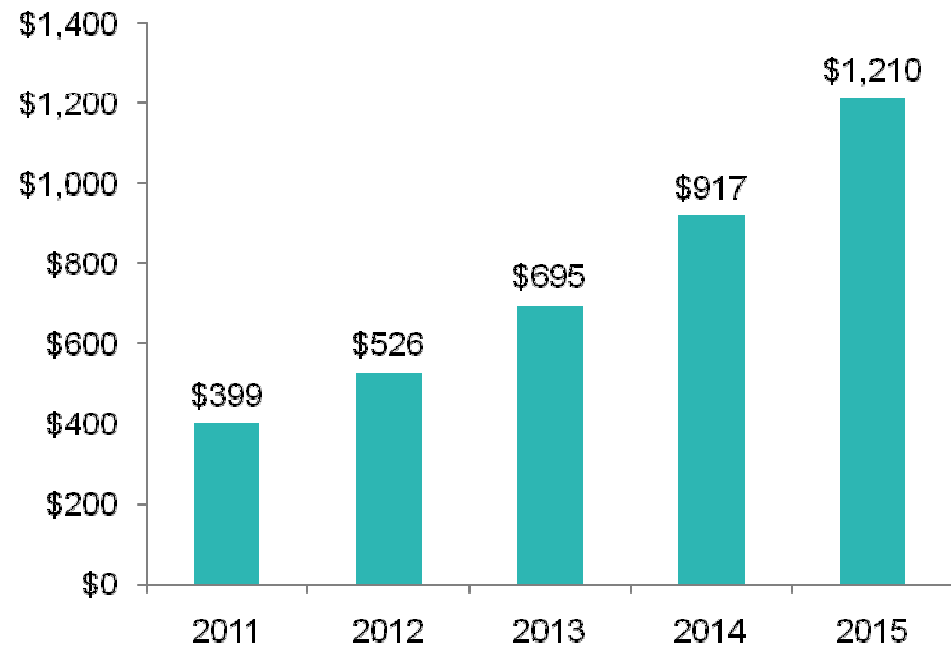
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Mobile device growth

Growth in Enterprise Devices by Type¹



Enterprise MDM Market Size (millions)²



¹ Gartner Forecast: PCs, All Countries (Annual Data) 1Q11; IDC, Worldwide Business Use Smartphone 2010-2014 Forecast, 9/2010; Gartner Forecast: Connected Mobile Consumer Electronics, Worldwide, 2008-2014, 4Q10 Update;

² IDC, Worldwide Mobile Device Management Enterprise 2011-2015 Forecast; August 2011

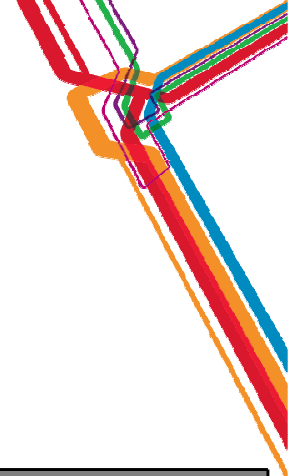
Note: Enterprise devices defined as PCs, smart phones, and media tablets (iPad, RIM PlayBook, etc)

IBM Endpoint Manager for Mobile Devices Summary

- IBM Endpoint Manager for Mobile Devices
 - New product released on March 2012
- Background
 - Smartphones and tablet usage continues to grow
 - Mobile devices (owned by employees or organization) access company data and resources
 - Enterprises do not have the tools to properly manage mobile devices
 - Old methods of managing devices (email-based management) do not give enterprises sufficient control of the devices
- Unique management console
 - IBM Endpoint Manager for Mobile Devices (built on the **BigFix**) platform provides fully-integrated, single-pane-of-glass **Unified Endpoint Management**



Mobile Devices Create New IT Challenges

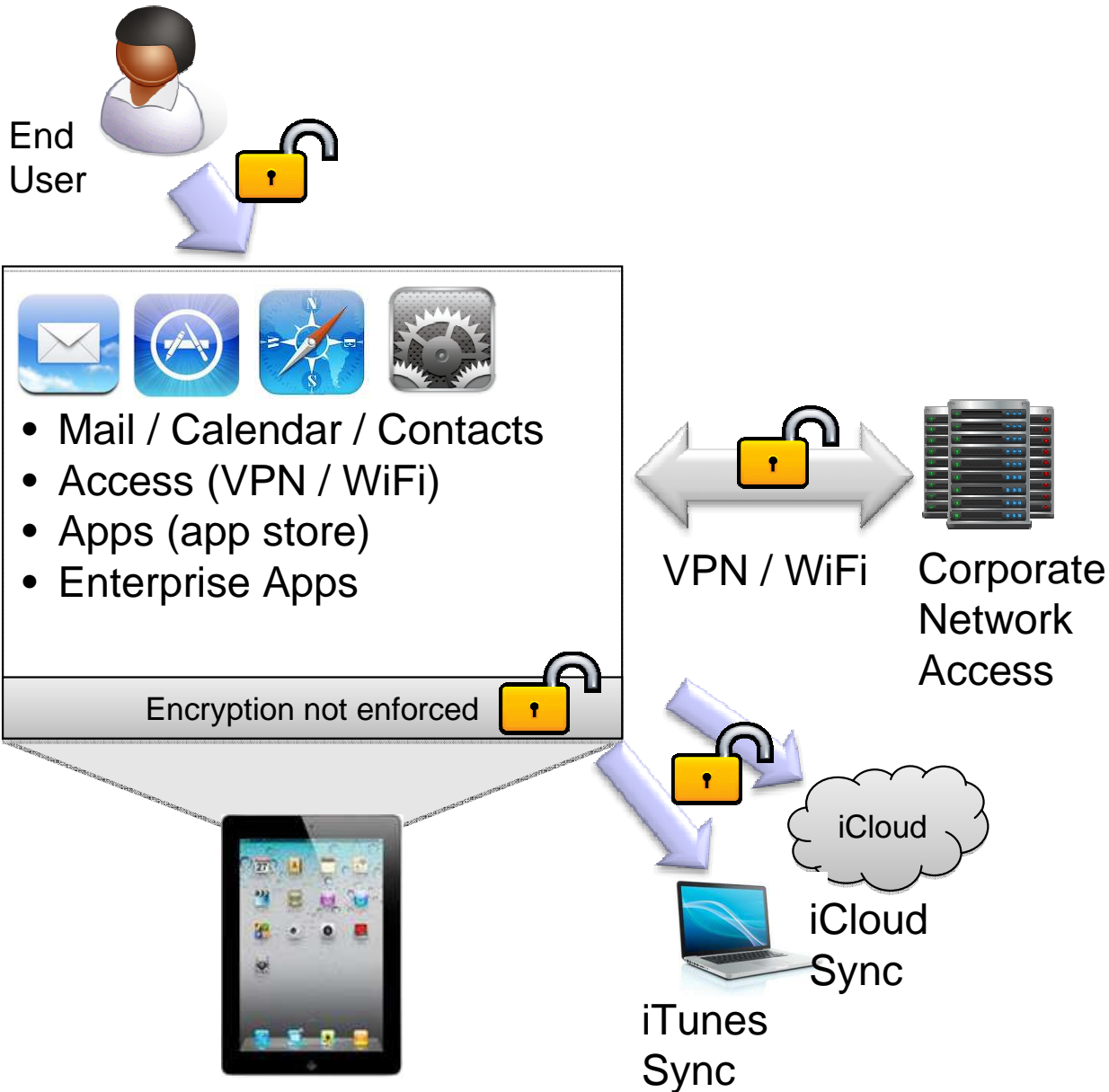


Traditional Mgmt Model	New Device Mgmt Paradigm
Enterprises provide all equipment	Employees bring personal devices (BYOD)
Small set of supported platforms / models	Many different manufacturers / models
IT initiates and manages upgrades	OS/app upgrades managed by carriers, OEMs, users
IT tightly controls apps and security	Users control their own devices

Options for IT departments

- ✗ Don't allow mobile devices because they are too hard to manage ✗
- ✗ Allow unmanaged and insecure mobile devices ✗
- ✓ Invest in tools to secure and manage devices ✓

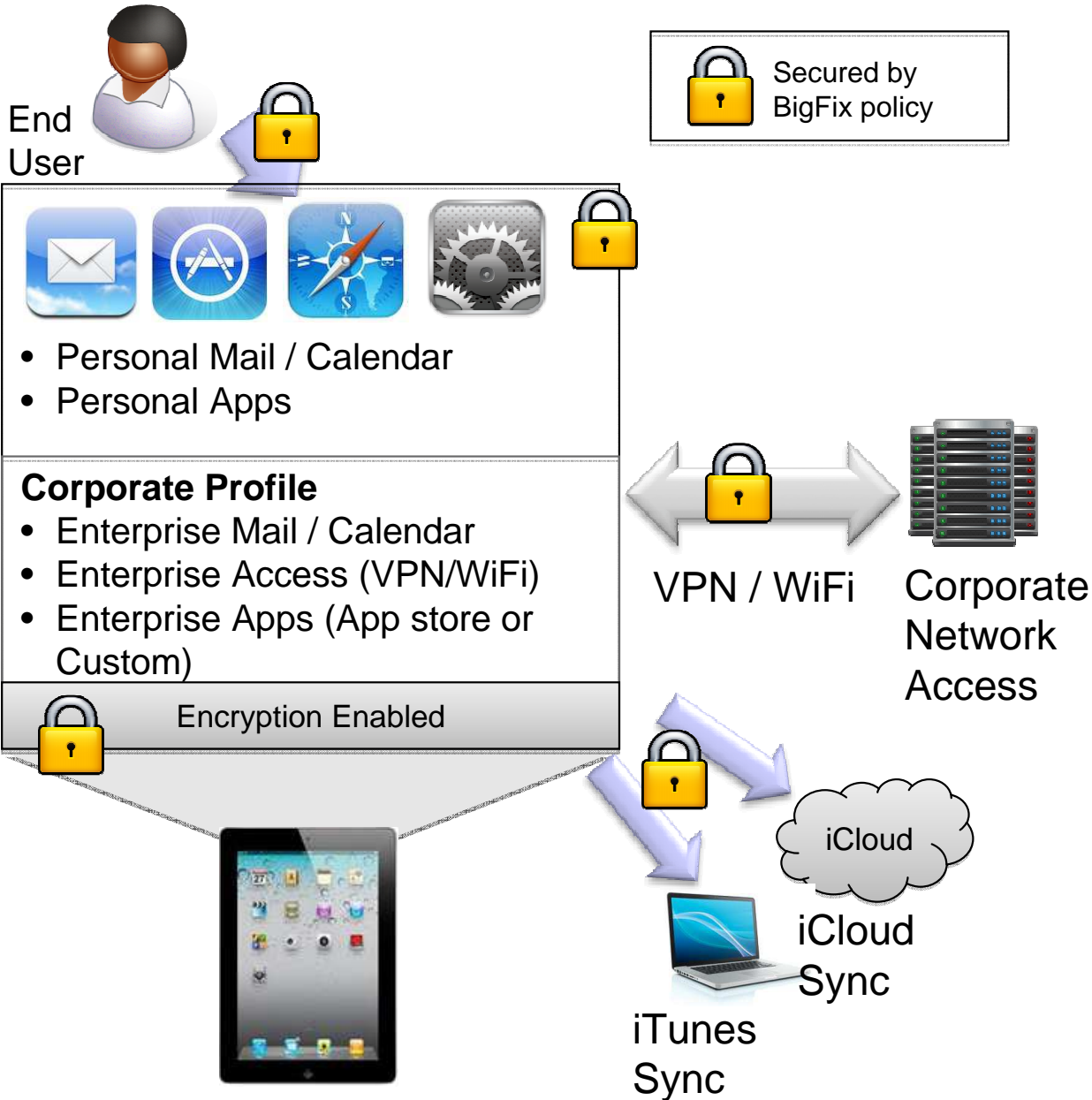
Managing Mobile Devices – The Problem



Security/Mgmt Problems

- Potential Unauthorized Access (lost, stolen)
- Insecure devices connecting to network
- Lack of encryption
- Corporate data leakage

Managing Mobile Devices – The Solution



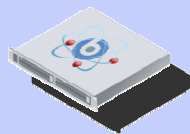
Endpoint Manager for Mobile Devices

- Enable PW Policies
- Enable Device Encryption
- Force encrypted backup
- Disable Sync
- Corporate Access, email access, and App access contingent on Policy Compliance!
- Wipe if lost / stolen
- Wipe corporate data if employee leaves company (selective wipe)

PCs and mobile devices have many of the same management needs

Traditional Endpoint Management

- OS provisioning
- Patching
- Power Mgmt
- Anti-Virus Mgmt



Mobile Device Management

- Device inventory
- Security policy mgmt
- Application mgmt
- Device config (VPN/Email/Wifi)
- Encryption mgmt
- Roaming device support
- Integration with internal systems
- Scalable/Secure solution
- Easy-to-deploy
- Multiple OS support
- Consolidated infrastructure
- Device Wipe
- Location info
- Jailbreak/Root detection
- Enterprise App store

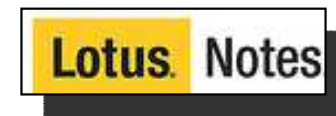


IEM MDM Functionality Overview

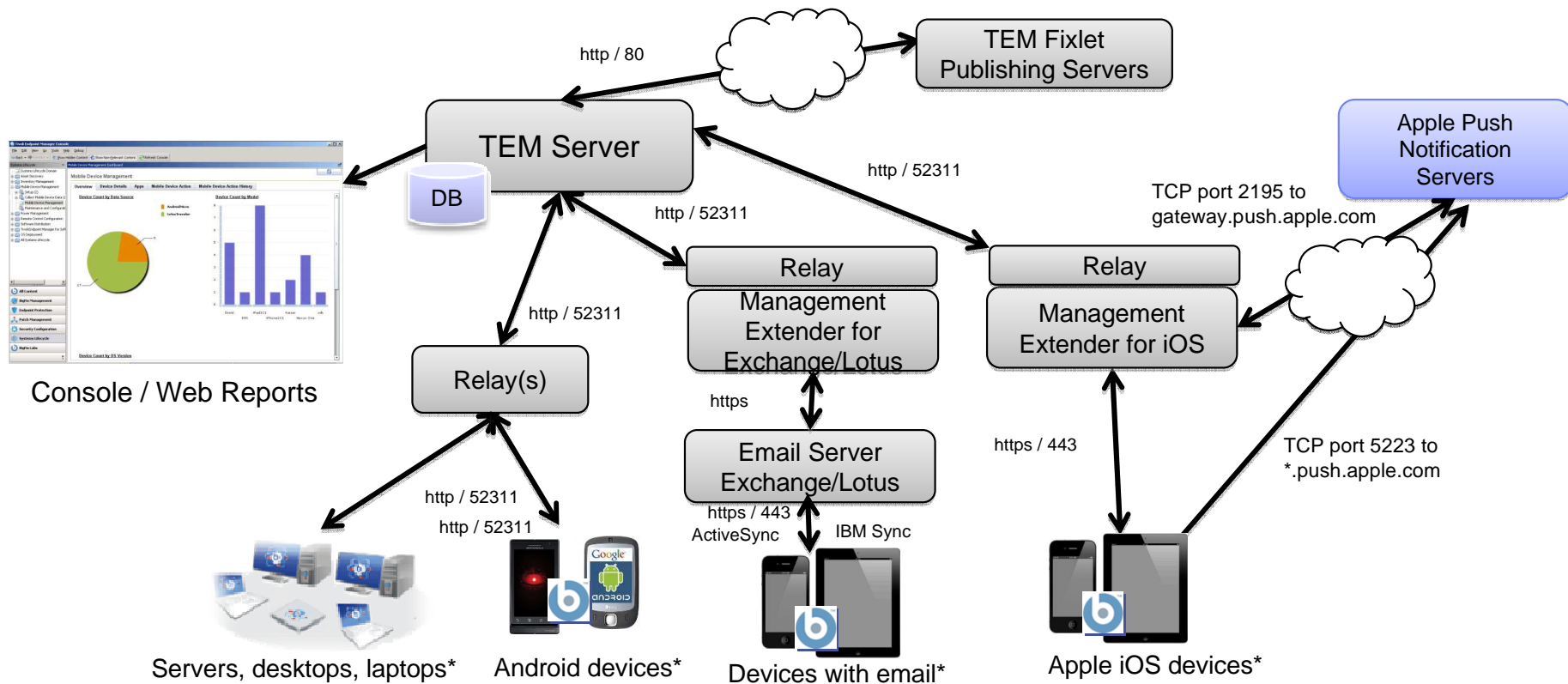
Category	Tivoli Endpoint Manager Capabilities
Platform Support	Apple iOS, Google Android, Nokia Symbian, Windows Phone, Windows Mobile
Device Inventory	Model, manufacturer, carrier, free space, battery details, serial numbers
Management Actions	Selective wipe, full wipe, deny email access, remote lock, user notification
Application Management	Application inventory, enterprise app store, whitelisting, blacklisting
Policy & Security Management	Password policies, device encryption, jailbreak & root detection
Location Services	Track devices and locate on map
Enterprise Access Management	Configuration of Email, VPN, Wi-fi

How does IEM manage mobile devices?

- Agent-based Management
 - Complete set of management functionality
 - Supported OSes
 - Android – Native BigFix Agent (95%+ shared code)
 - Apple iOS – Apple MDM APIs
- Email-based management through Exchange (ActiveSync) and Lotus Traveler (IBMSync)
 - Minimal management functionality (security policies + wipe)
 - Supported OSes
 - iOS
 - Android
 - Windows Phone
 - Symbian



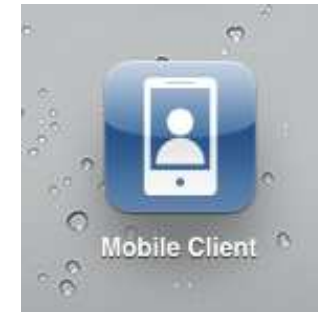
MDM Architecture

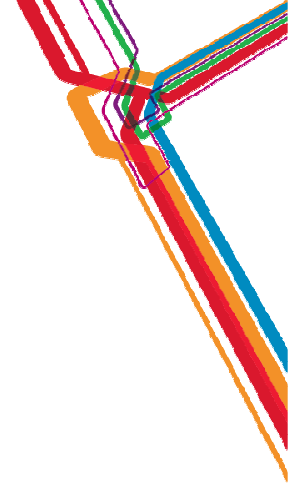


* Managing devices that are not connected to the internal network requires opening the management port to the Internet (HTTP 52311 for Laptops and Android or HTTPS 443 for Apple iOS devices)

MDM Component – Android Agent

- Android agents are built from Linux agent
- Deployed through an App available on Google Play
- They act very similar to any other BigFix Agent (e.g., registering, gathering, evaluating Fixlets, relay selection, etc)
- Android Agent can:
 - Inspect hardware, apps, security policies, network, location, battery
 - Wipe the device
 - Change security policies
 - Detect if device is “rooted”
- Android Agent cannot:
 - Silently install apps (but can “offer” apps)
 - Silently uninstall apps (but can message user with notifications)
 - See or delete other app’s info





MDM Component – Email-based Management

- Almost all devices can be managed by Activesync protocol (or “IBMSync”)
- Email-based management is fairly easy to setup
 - Install mgmt extender and immediately get access to all devices
- Email-based management has limited capabilities
 - Allowed: Wipe, deny email access, password policies
 - Not allowed: device info (hardware, network, manufacturer, location, apps, etc.)
 - Not allowed: “selective wipe”, clear password, “offering apps”

MDM Component – Apple iOS

- Deployed through an App available on the Apple Store
- Apple MDM APIs allow many functions:
 - Advanced inventory (device HW, apps, user, VPN info, email info, etc.)
 - Configuring security policies (passwords, encryption, etc.)
 - Configuring “enterprise access” (wifi, email, vpn)
 - Restrictions (camera, bluetooth, appstore, etc.)
 - “Managed Apps” (associating apps with profile) – new to iOS5
 - Complete device wipe
 - “Enterprise container” / “Selective Wipe” – Grouping & removing calendar / contacts / email / VPN / Wifi / managed apps
- Apple iOS App still needed for full mgmt
 - Jailbreak detection
 - “Recommended Apps”
 - Facilitated enrollment



The screenshot displays a web-based MDM console interface. On the left, there is a list of devices, with one selected. The main area shows detailed information for the selected device, "francesco.censi's iPad".

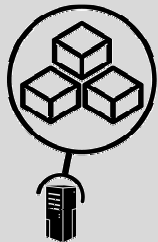
Field	Value
Device Name	francesco.censi's iPad
User Name	francesco.censi@it.ibm.com
Operating System	Apple iOS 5.1
Model	iPad
Location	Location not Supported
Last Report Time	4/10/2012 3:36:09 PM
Manufacturer	Apple
Carrier	Vodafone IT

On the right side of the console, there is a "Device Details" tab. The "Device Details - Android / Apple iOS" section is expanded, showing the following information:

Field	Value
Carrier	Vodafone IT
Last Server Communication	Tue, 10 Apr 2012 15:36:09 +0200
Manufacturer	Apple
Name	Francesco Censi's iPad
UUID / UDID	0636e83659da8be8dc295337cb215114945fdf
Serial Number	V5043E70ETV
Model ID	MC497TY
Phone Number	n/a
Model	iPad
Device Ownership	Organization
GUID / IMEI	01 232600 916765 6

IBM Mobile Platform – Platform for Managing Devices and Apps

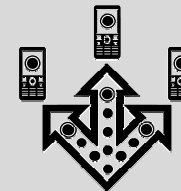
IBM Mobile Platform



Build mobile applications
Connect to, and run backend systems in support of mobile



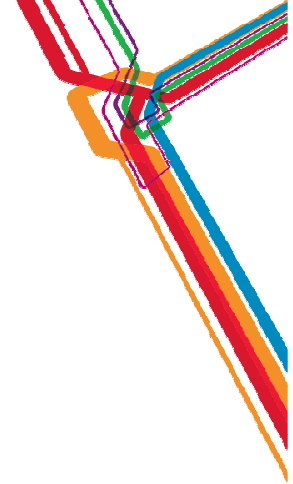
Manage mobile devices and applications
Secure my mobile business



Extend existing business capabilities to mobile devices
Grow the business by creating new opportunities

IBM Endpoint Manager for Mobile Devices

- IBM Mobile Platform brings together Mobile Enterprise Application Platform (Worklight) with Mobile Device Management (BigFix)
- Enterprises can now build, manage, and secure internal enterprise apps and the devices that they run on

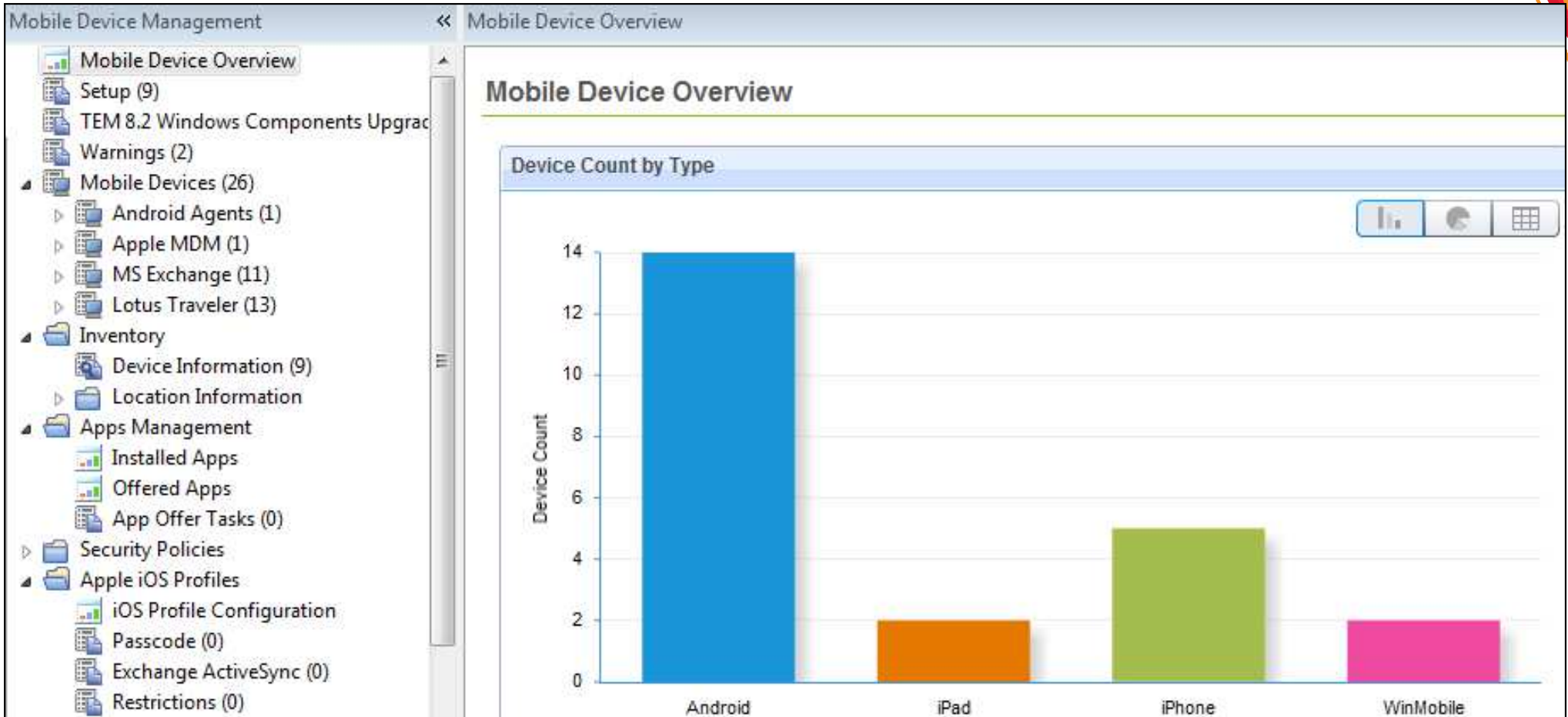


IBM Endpoint Manager for Mobile Devices

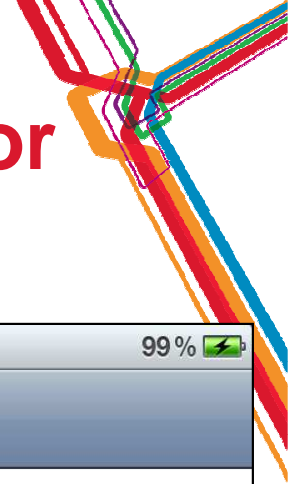
Product Demo

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Endpoint Manager for Mobile Devices Dashboard



An on-device app can be used to distribute enterprise apps and detect whether an iOS or Android device is jailbroken or rooted



Verizon 6:23 PM 99%

Server URL

Work Email Address

Device Ownership

I own this device

My organization owns this device

Enroll

Verizon 6:22 PM 99%

Recommended Apps

- GarageBand**
Apple
- IBM Lotus Symphony Viewer**
IBM Lotus
- IBM Lotus Notes Traveler Companion**
IBM Lotus
- NYTimes**
The New York Times Company
- Pandora Radio**
Pandora Media, Inc.
- Pipe Drop**

Verizon 6:22 PM 99%

Recommended Apps Info

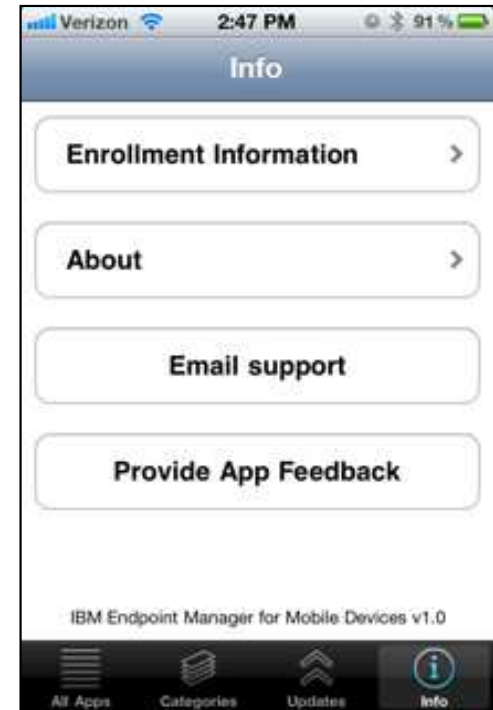
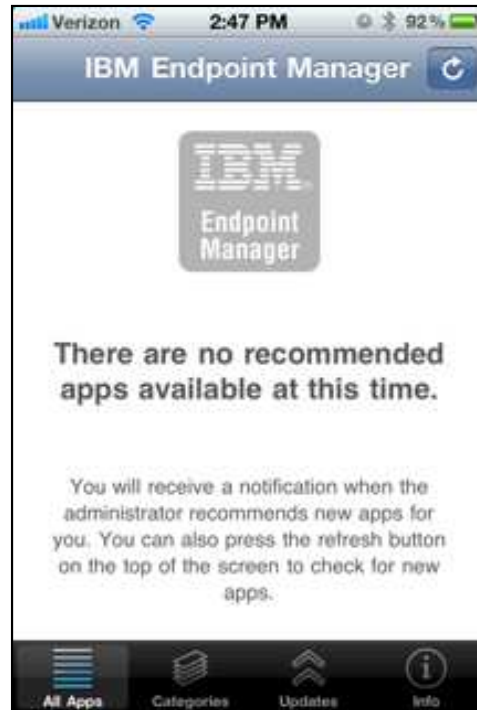
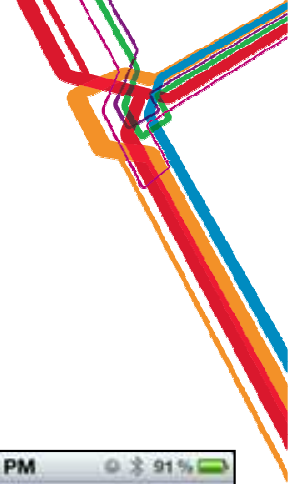
IBM Lotus Notes Traveler
IBM Lotus **Get it**

IBM Lotus Notes Traveler Companion offers IBM Lotus Domino mail extensions for Domino mail. Now, users who synchronize their Domino mail using IBM Lotus Notes Traveler have the additional feature of viewing Domino-encrypted mail on their iPhone!

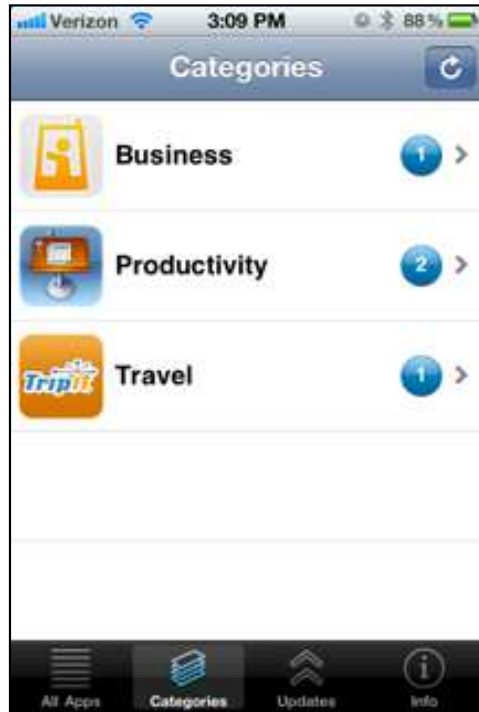
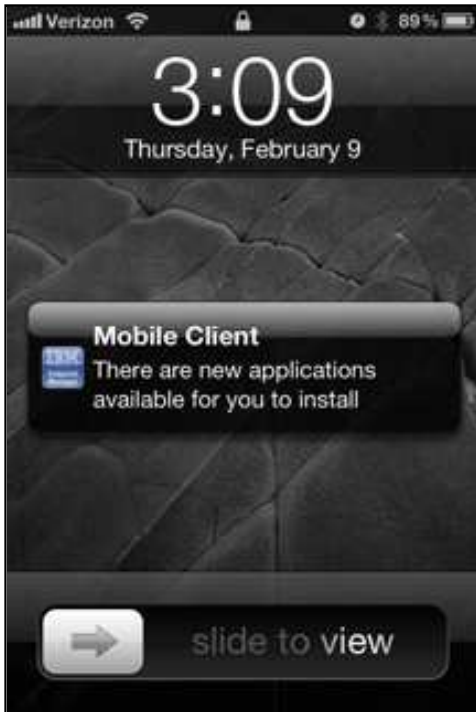
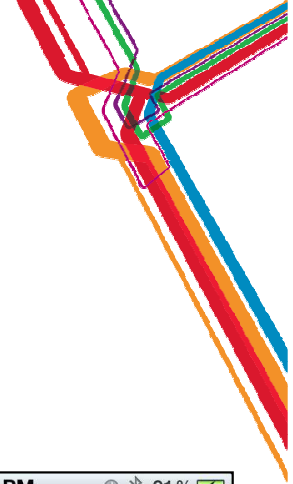
Please note that this application is meant for users who are already using Lotus Notes Traveler.

If you want a mobile alternative to reading Domino-encrypted mail on your laptop, then this is the application for you. Encrypted mail will appear in your Inbox with only a unique, secure link for the Companion application. After entering your Lotus Notes Traveler password, the mail will be displayed on your

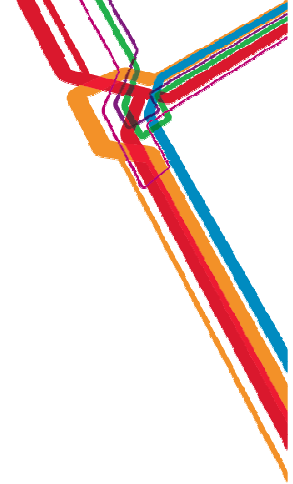
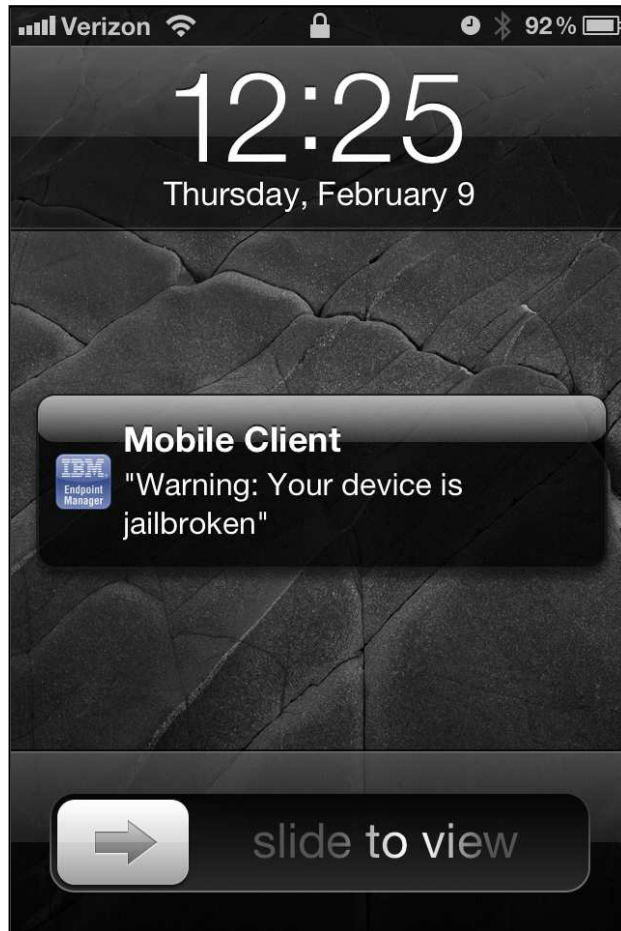
iOS Enrollment



App Management



iOS Jailbreak Notification



A user-friendly iOS Profile Configuration Wizard exposes all of the configuration capabilities exposed by Apple's MDM APIs

Profile Details

Identity **Passcode**

Require passcode on device
Enforce the use of a passcode before using device

Allow simple value
Permit the use of repeating, ascending, and descending character sequences

Require alphanumeric value
Require passcodes to contain at least one letter

4 **Minimum password length**
Smallest number of passcode characters allowed

1 **Minimum number of complex characters**
Smallest number of non-alphanumeric characters allowed

90 **Maximum passcode age (1-730 days, or none)**
Days after which passcode must be changed

1 **Auto-Lock (1-5) minutes, or 0 for none**
Device automatically locks when time period elapses

4 **Passcode history (1-50 passcodes, or 0 for none)**
The number of unique passcodes required before reuse

None **Grace period for device lock**
Amount of time device can be locked without prompting for passcode on unlock

10 **Maximum number of failed attempts**
Number of passcode entry attempts allowed before all data on device will be erased

[Exit New Profile Mode](#) [Save Profile](#)



View installed apps on Android and iOS devices

Apps Management - Installed Apps

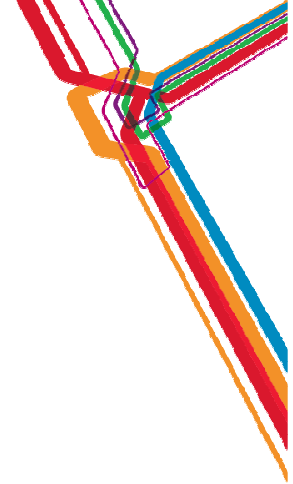
This dashboard reports back the applications that are installed on devices.

Android Apps | **Apple Apps**

Apps List

Tag checked as: ---

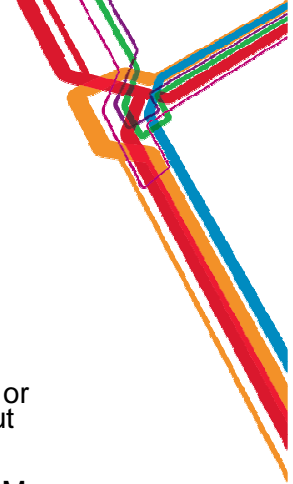
<input type="checkbox"/>	Display Name	Tag	1 ▼ Package Name	Description	API Versions	Computer Count
<input type="checkbox"/>	TEM Agent	Enterprise	com.bigfix.engine	Tivoli Endpoint Manager 8.2	8	1
<input type="checkbox"/>	è°-æ-œ-c%éÿ*è%â...¥æ	Blacklisted	com.android.inputmethod.p		10	1
<input type="checkbox"/>	TTS Service		android.tts		10	1
<input type="checkbox"/>	Contacts		com.android.contacts		10	1
<input type="checkbox"/>	Fallback		com.android.fallback		10	1
<input type="checkbox"/>	Calculator		com.android.calculator2		10	1
<input type="checkbox"/>	Custom Locale		com.android.customlocale		10	1
<input type="checkbox"/>	Settings Storage		com.android.providers.sett		10	1
<input type="checkbox"/>	Search		com.android.quicksearchbo		10	1
<input type="checkbox"/>	HTML Viewer		com.android.htmlviewer		10	1
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<input type="checkbox"/>	OpenWnn		jp.co.omronsoft.openwnn		10	1
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<input type="checkbox"/>	Search Applications Provid		com.android.providers.app		10	1
<input type="checkbox"/>	Package Access Hub		com.android.defragment		10	1



Q & A

Thank You!

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