

# 6 Things To Think About Before Implementing BYOD

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## Pulse2012

Optimizing the World's Infrastructure



# Mobile Devices: Unique Management & Security Challenges

## Mobile devices are shared more often

- › Personal phones and tablets shared with family
- › Enterprise tablet shared with co-workers
- › Social norms of mobile apps vs. file systems



## Mobile devices have multiple personas

- › Work tool
- › Entertainment device
- › Personal organization
- › Security profile per persona?



## Mobile devices are diverse

- › OS immaturity for enterprise mgmt
- › BYOD dictates multiple OSs
- › Vendor / carrier control dictates multiple OS versions



## Mobile devices are used in more locations

- › A single location could offer public, private, and cell connections
- › Anywhere, anytime
- › Increasing reliance on enterprise WiFi



## Mobile devices prioritize the user

- › Conflicts with user experience not tolerated
- › OS architecture puts the user in control
- › Difficult to enforce policy, app lists



# BYOD Questions to Ask

- Do you have the right policies in place?
- How are you going to manage and secure personal devices?
- Are employees aware of policies, security risks, enterprise capabilities?
- Do you have an enterprise app store?
- What services will you support beyond e-mail / calendar?
- Is your service desk ready?
- How will this impact your wireless networks?

## Client Functional Domain



# A Holistic Approach To Managing & Security The Mobile Environment

## 1 Develop and Communicate Formal Mobile Strategy, Policies



3 Protect devices from malware, data theft

PUBLIC WIFI



INTERNET



MOBILE APPS

5 Test, deliver and manage security-rich apps

WEB SITES



6 Manage users and access to enterprise apps and data



TELECOM PROVIDER

4 Actively manage corporate device purchases, service contracts, usage



SECURITY GATEWAY



PRIVATE WIFI

7 Manage and optimize enterprise wireless networks

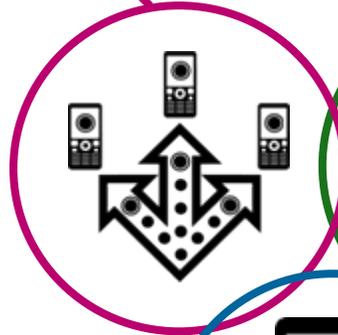
## 8 Deliver an Adaptive Security Posture

# IBM: Addressing Strategic Client Initiatives

## Extend & Transform

*Extend* existing business capabilities to mobile devices

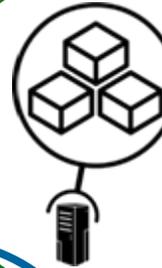
*Transform* the business by creating new opportunities



## Build & Connect

*Build* mobile apps

*Connect* to, and *run* backend systems in support of mobile



## Manage & Secure

*Manage* mobile devices and apps

*Secure* my mobile business

# Thinking About Mobile Differently

## Platforms



## Apps



Business strategy and planning

Process & transaction integrity

Full lifecycle solutions

Open cross-platform development

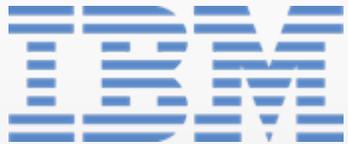
End-to-end security and management

Integration with backend systems, enterprise data and cloud

**Open ■ Governed ■ Integral**

**IBM Mobile Enterprise**

# IBM Office of the CIO



## Extending Corporate Access

*"IBM's BYOD program "really is about supporting employees in the way they want to work. They will find the most appropriate tool to get their job done. I want to make sure I can enable them to do that, but in a way that safeguards the integrity of our business."*

Jeanette Horan, IBM CIO

### Customer Needs

- Support BYOD for a variety of mobile platforms securely for a highly mobile population
- Scale to hundreds of thousands of devices

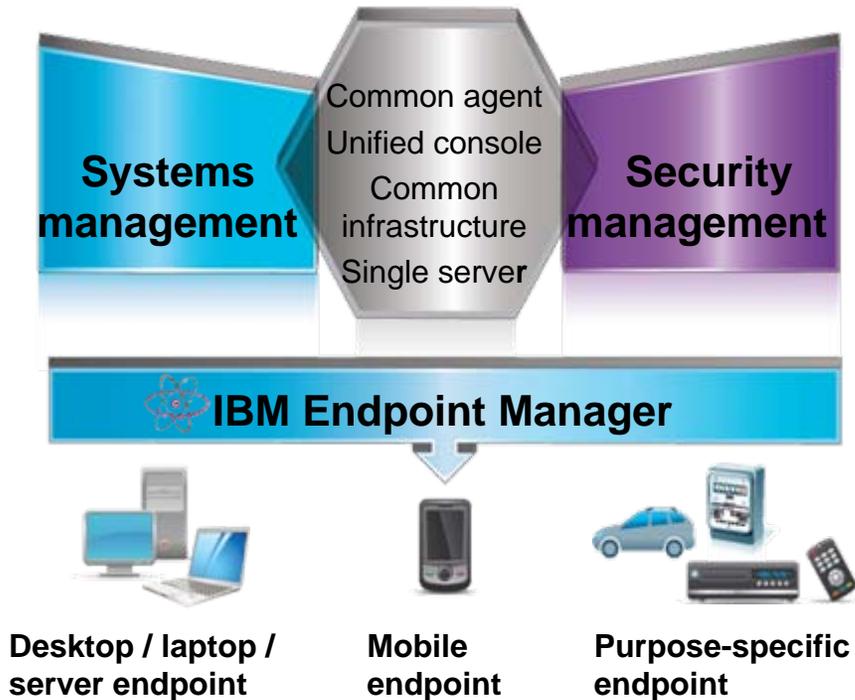
### Key Features & Outcomes

- 120,000 mobile devices, 80,000 personally owned, supported in months
- Integrated Lotus Traveler, IBM Connections, IBM Sametime, and IBM Endpoint Manager

# Device Management, Security

*IBM Endpoint Manager for Mobile Devices: A highly-scalable, unified solution that delivers device management and security across device types and operating systems for superior visibility and control*

## Managed = Secure



### Client Challenge

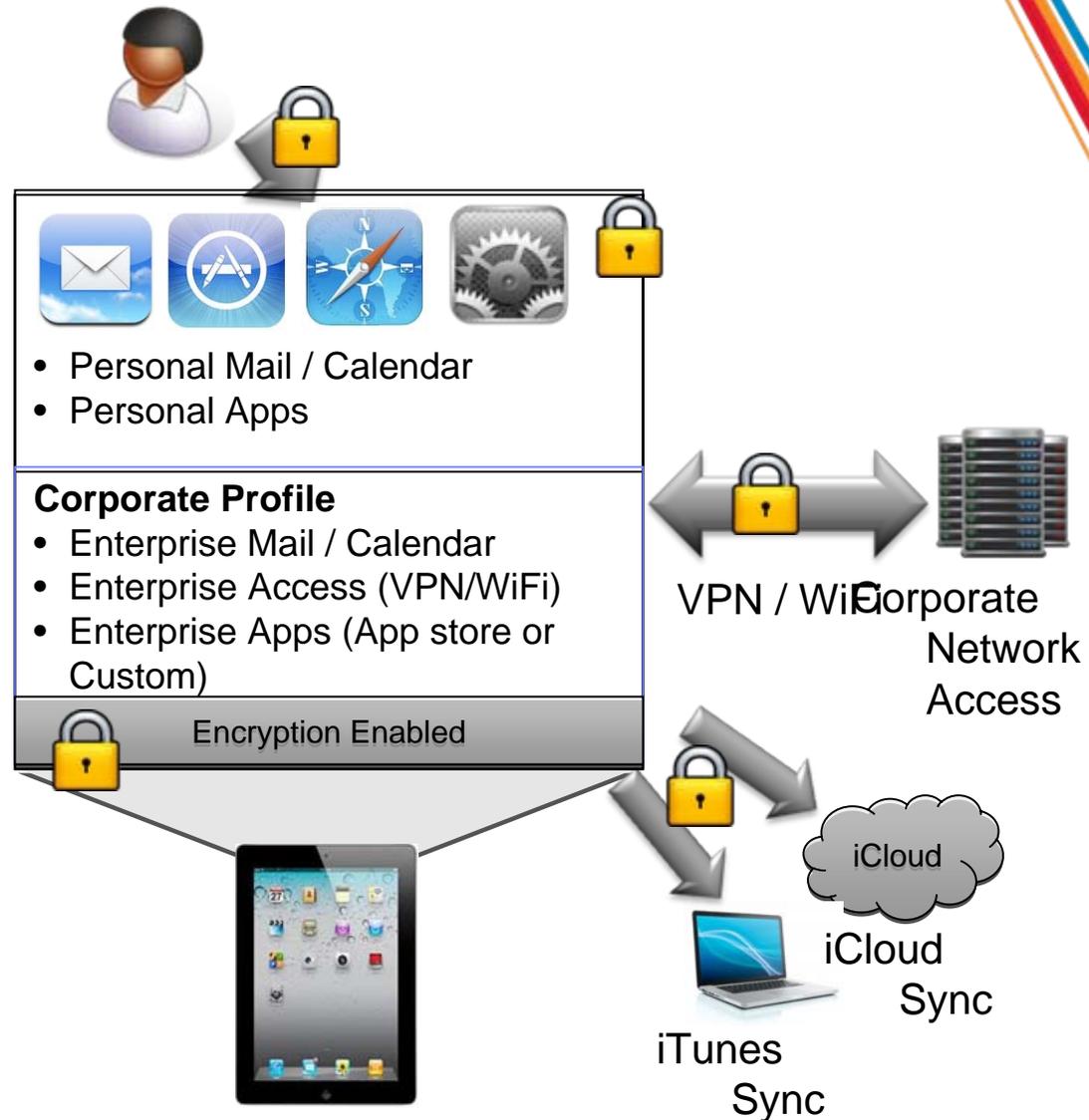
Managing and securing enterprise and BYOD mobile devices without additional resources

### Key Capabilities

- A unified systems and security management solution for all enterprise devices
- Near-instant deployment of new features and reports to customer's environments
- Platform to extend integrations with Service Desk, CMDB, SIEM, and other information-gathering systems to mobile devices
- Advanced mobile device management capabilities for iOS, Android, Symbian, and Windows Mobile, Windows Phone
- Security threat detection and automated remediation

# IBM Endpoint Manager for Mobile Devices

- Enable password policies
- Enable device encryption
- Force encrypted backup
- Disable iCloud sync
- Access to corporate email, apps, VPN, WiFi contingent on policy compliance!
- Selectively wipe corporate data if employee leaves company
- Fully wipe if lost or stolen



# Benefits of a Unified Approach

- “Organizations...would prefer to **use the same tools across PCs, tablets and smartphones**, because it's increasingly the same people who support those device types”  
– Gartner, *PCCLM Magic Quadrant*, January 2011
- Although at some level mobile is unique, **the devices are just another form of endpoints in your infrastructure**. This means whichever technologies you procure should have a road map for integration into your broader endpoint protection strategy.  
– Forrester, *Market Overview: Mobile Security*, Q4, 2011

## Reduces Hardware & Administration Costs

- “Single pane” for mobile devices, laptops, desktops, and servers
- Single Endpoint Manager Server scales to 250,000+ devices
- Unified infrastructure / administration model reduces FTE requirements

## Fast Time-to-Value

- Enterprise-grade APIs enable integration with service desks, CMDBs, etc (Integrated Service Management)
- Cloud-based content delivery model allows for rapid updates with no software upgrade or installation required

# Approaches to Mobile Device Management

- Advanced management on iOS through Apple's MDM AF



- Advanced management on Android through a BigFix agent



- Email-based management through Exchange (ActiveSync) and Lotus Traveler (IBMSync)

- iOS
- Android
- Windows Phone
- Windows Mobile
- Symbian



# Create and Manage Profiles

**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

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

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

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

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

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

**Grace period for device lock**  
Amount of time device can be locked without prompting for passcode on unlock

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

# Single Device Views for User Support

**Device Details** Management Commands Security Info Installed Apps

**Device Name**  
0000000000000000

**User Name**  
<none>

**Operating System**  
Android (2.3.3)

**Model**  
sdk

**This device has been rooted**

**Last Report Time** Dec 01, 2011 12:32:14 PM

**Manufacturer** unknown

**Carrier** generic

**LastSyncTime** n/a

**Phone Number** n/a

**Agent Version** 8.2.867.0

**Data Source** Native

**Device Details** Management Commands Security Info Installed Apps

**Device Name**  
7R049JM0A4S

**Operating System**  
Apple iOS 4.3.5 (iPhone3,1)

**Model**  
iPhone

**Last Report Time** Oct 31, 2011 8:30:10 PM

**Manufacturer** Apple

**Carrier** AT&T

**LastSyncTime** 21 Oct 2011 09:00:52 +0000

**Phone Number** +15106040334

**Agent Version** 0.1.2.0

**Data Source** Apple MDM

**Device Details** Management ... iOS Profiles Security Info Installed Apps

**Device Details - Android / Apple iOS**

**Manufacturer** Apple

**Last Server Communication** 21 Oct 2011 09:00:52 +0000

**Carrier** AT&T

**Model** iPhone

**Name** MDM's iPhone

**Model ID** MC318LL

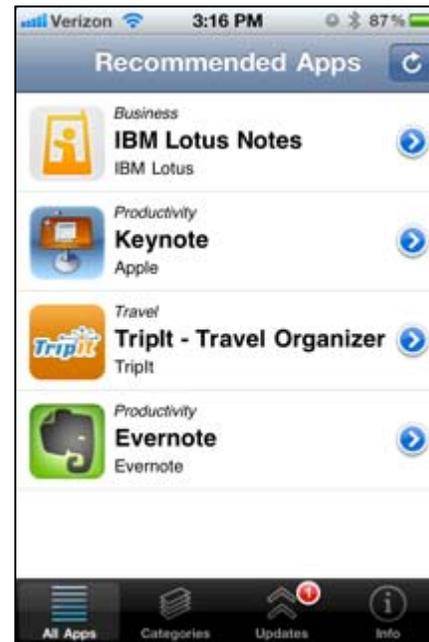
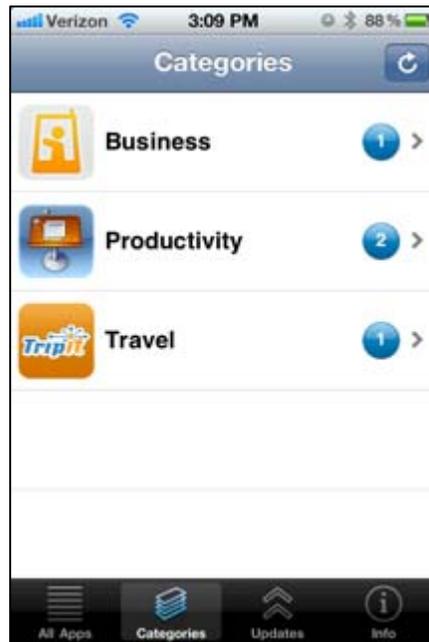
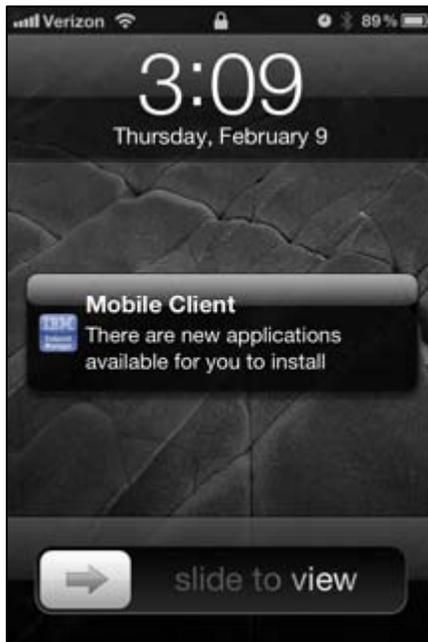
**GUID / IMEI** 01 253500 233561 1

**Phone Number** +15106040334

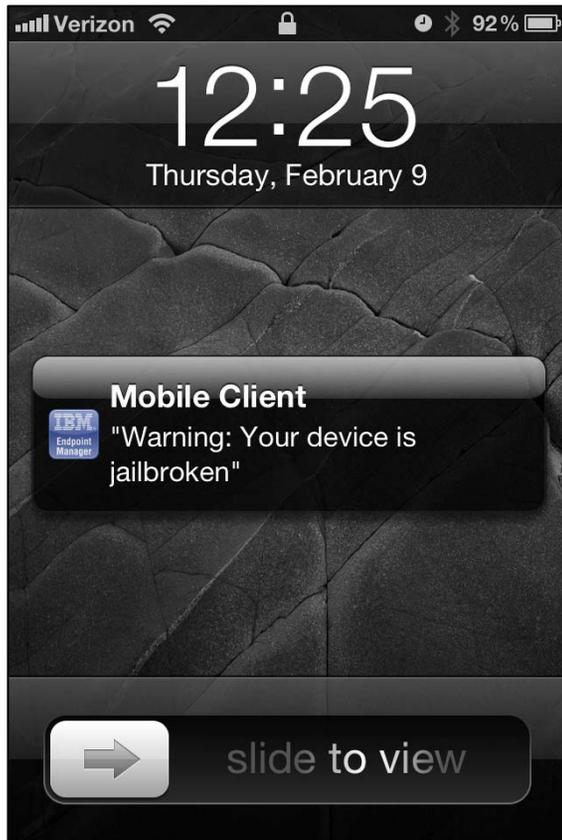
**UUID / UDID** bfeee8da93696e9ed5971470f8338fa0b8e70c5d

**Storage Information**

# App Management – Recommend, Whitelist, Blacklist, Remove



# Jailbreak / Root Detection – Warn Users, Notify Administrators, Take Action



# Endpoint Manager in Action: Utility Provider



## Adding Mobile Devices Without Adding Infrastructure

*Serving 4.5 million customers in the southwestern region of the United States, this electric company of 25,000 employees is a leader in clean energy while exceeding reliability standards and keeping consumer costs below average. They are experiencing a migration from traditional endpoints to mobile devices.*

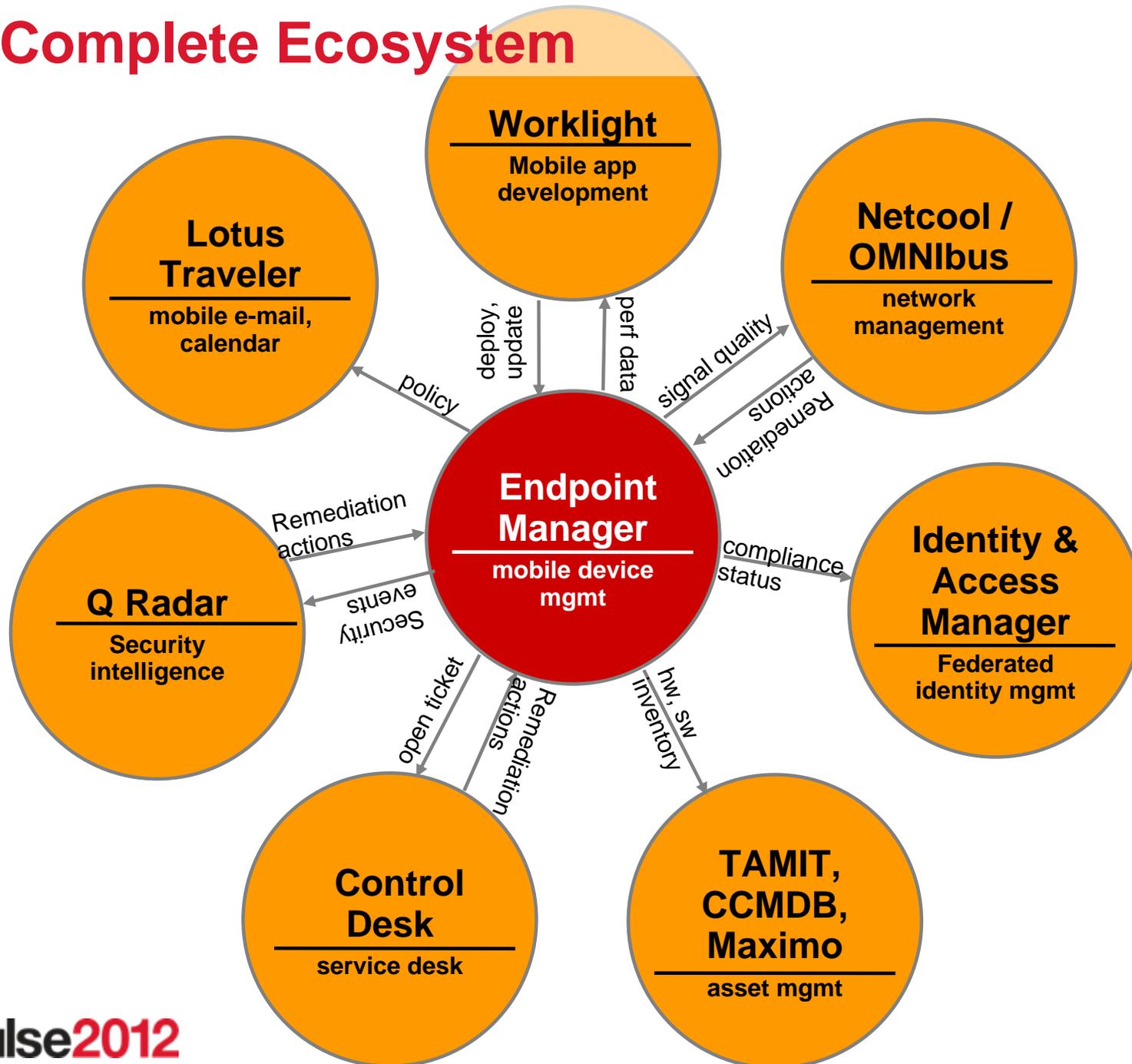
### Customer Needs

- Support 20,000+ mobile devices
- Corporate and employee-owned, many platforms and OS versions
- High availability for certain devices used in the field
- Adherence to Internal security policies, external regulations

### Key Features & Outcomes

- Scalability to 250,000 endpoints provides room to grow
- Added mobile devices to existing IEM deployment in days
- Ability to integrate with Maximo, Remedy
- Responsiveness and agility of product and product team

# The Complete Ecosystem





# Thank You

[www.ibm.com/mobile-enterprise](http://www.ibm.com/mobile-enterprise)

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