

Thanks for joining –
We'll start at 10am

Mobile Device Management

Learn the basics to build your MDM Strategy



Mobile Device Management

Learn the basics to build your MDM Strategy





Poll Question #1

Mobile Device Management Agenda

- Trends & Challenges
- Building a Mobility Device Management strategy
- Specific Elements of MDM
- Vendor Assessment
- Looking Forward
- More Information

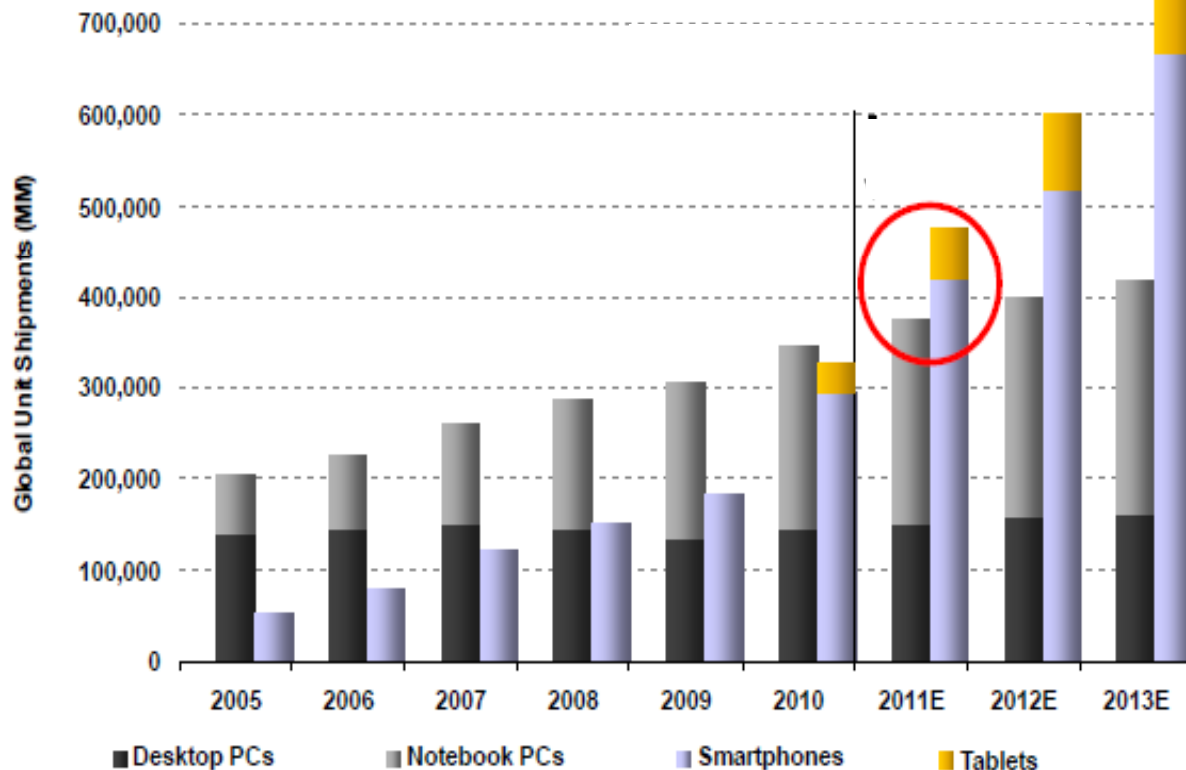


Mobility Trends Device Evolution



Shifting to Mobile Devices

Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones + Tablets, 2005-2013E



Note: Notebook PCs include Netbooks. Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Data and Estimates as of 2/11

“It’s arguable that smartphone capability has evolved faster than any other technology over the past five years.”

“As smartphones continue to develop, it will become possible to use them as primary work devices.”

Forrester’s Mobility Powers The Next Growth for Unified Communications 2010



Poll Question #2

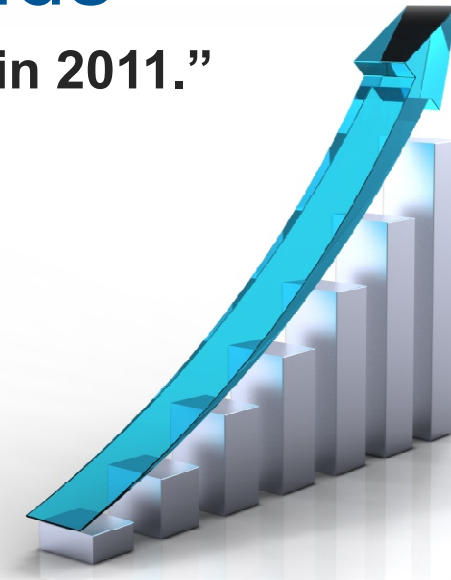
Mobility Trends

“Enterprises will buy 50x as many tablets in 2011.”
- *Canalys Market Research*

“Can I connect my _____ to the network?”

“Can we get _____ for the classroom?”

“I want one!”



Consumer to Enterprise

Top 4 control 89% of the market:



Android
Symbian



Apple

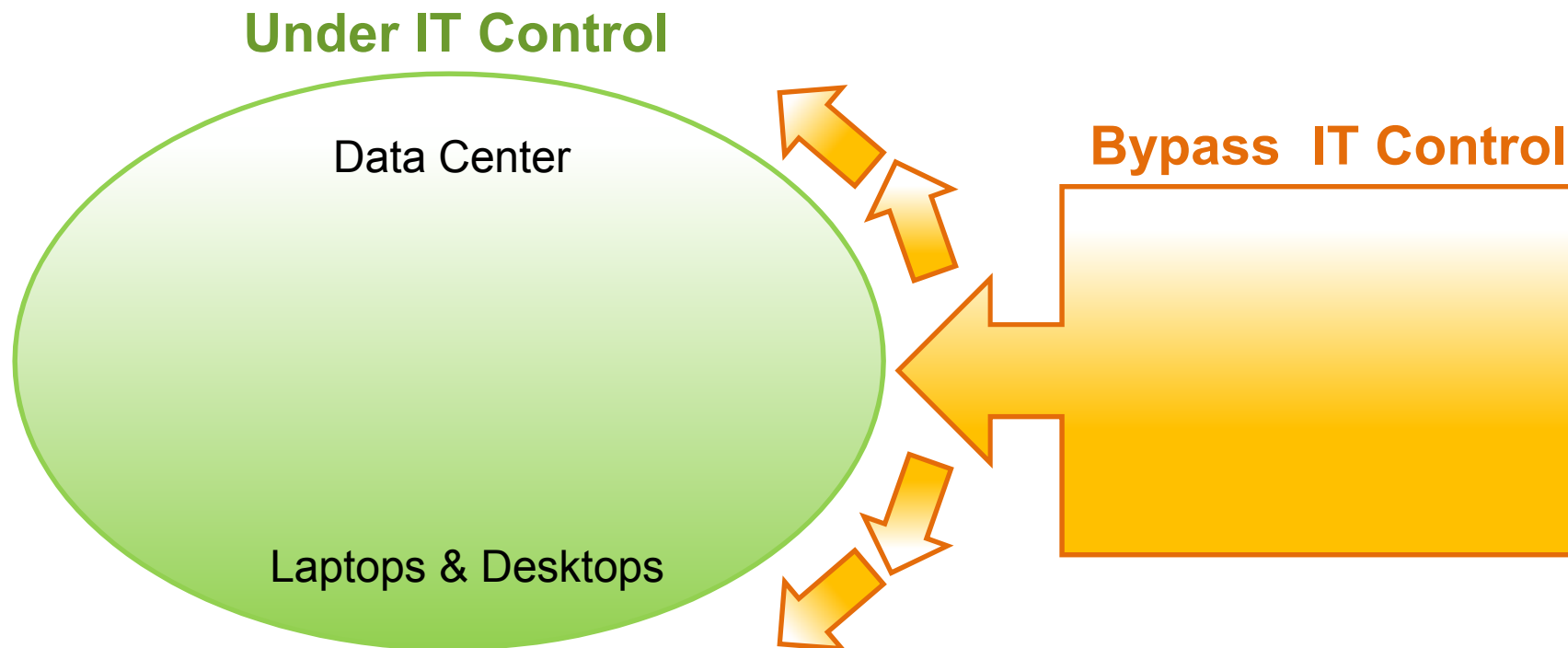


RIM (Blackberry)



Mobile Device Management: Challenges

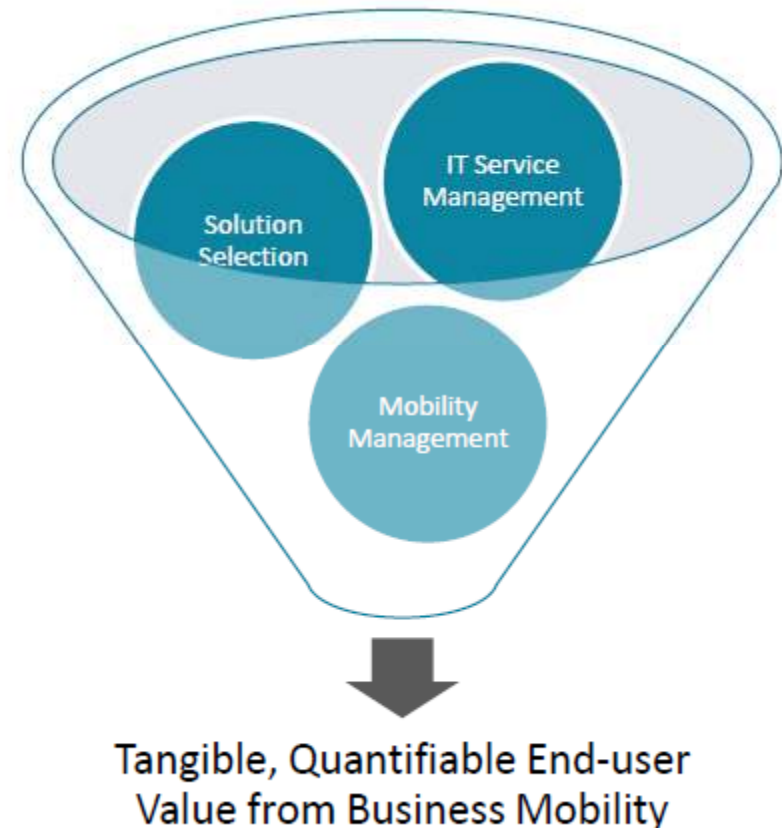
1. Costs
 2. Usability
 3. Maintenance
- Management is not centralized
 - Don't have dedicated people or policies to manage devices
 - Your current software does not manage mobile devices



Building your MDM Strategy

- A holistic mobility strategy:
 - It must encompass both Organizational needs and IT requirements
 - Analysis of the total cost of ownership
 - Strategic plan for managing both the devices and their applications

www.strategyanalytics.com (p4 - diagram)



Vendor Assessment

Figure 1. Magic Quadrant for Mobile Device Management Software



Source: Gartner (April 2011)

- MDM Solutions address and support each platform differently
- Does solution manage multiple device types?
 - Android support is still maturing
 - Blackberry support still needed
- Are Reporting tools included?
- What is the solution key management focus?

Vendor Assessment

- Viability and Longevity of Vendor
- Configuration Complexity
- Learning Curve



Elements of MDM

Security Management

Software Distribution

Policy Management

Inventory Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Elements of MDM

Security Management

Software Distribution

Policy Management

Inventory Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

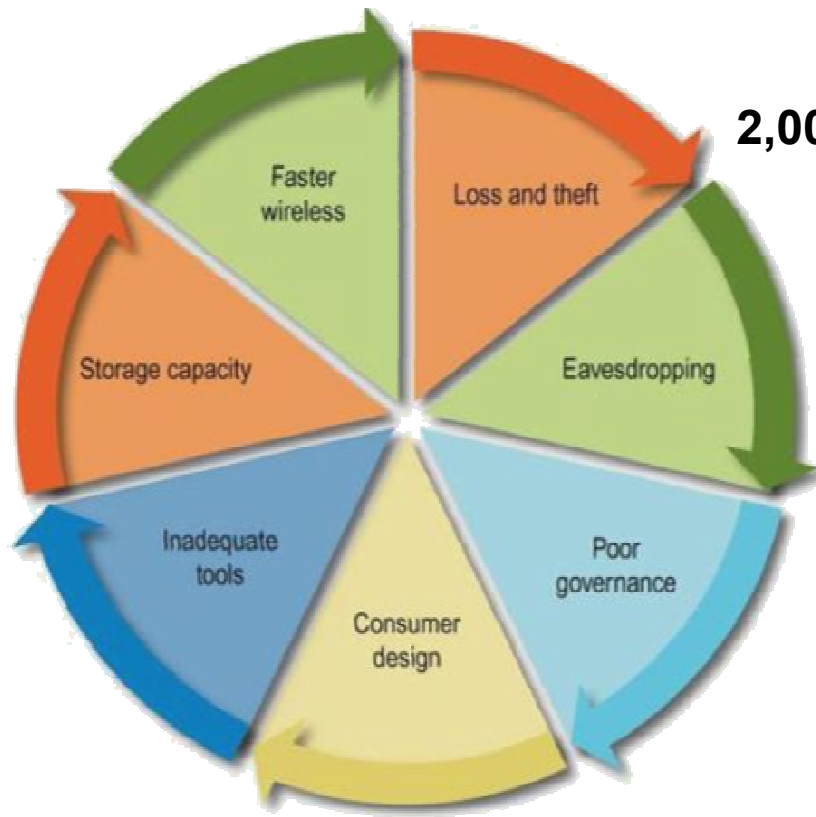
Security Management

Device security, authentication and encryption.

Do you need to?

Real-time protection updated automatically	Scans files received over <u>all</u> network connections
Full control of alerts/logging	Default (high/low) filtering options + customizable
Blacklist filtering (voice/SMS)	Remote alarm/notification and SIM change notification
Automatic denial for unknown or unwanted calls	GPS Locate/Track and Device Backup/Restore
Application inventory and removal	View call log, photos, address book and contacts
Monitor SMS, MMS, email message content	On-demand scans of all memory
Alerts on detection	Automatic Inbound/Outbound Port+IP Filtering

Enterprise Risks from Smartphones



2,000,000 smartphones stolen in US in 2008

- Out of smartphone users,
- 80% store personal information
 - 40% do not have a basic password
 - 25% store bank account details
 - 10% store credit card info

Source: "Smartphone Security: A Modern Day Pandora's Box" – Burton Group, Dec 2009

Mobile Security Management

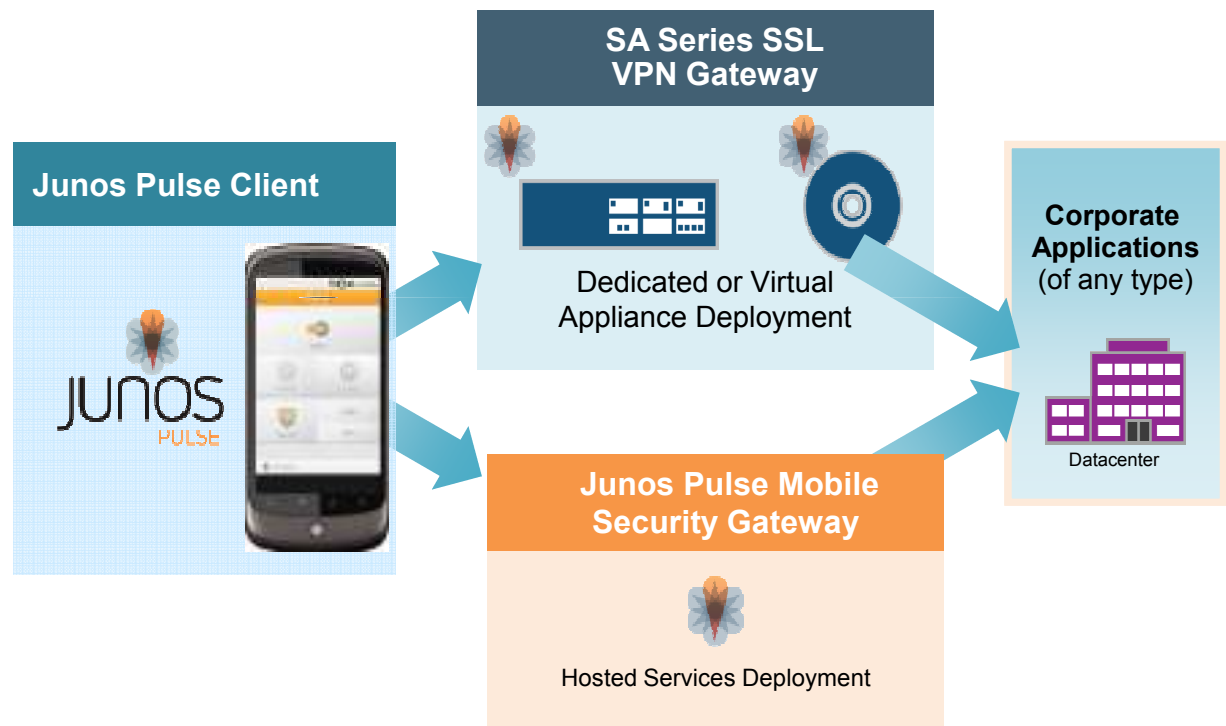
- Device Management
 - Antivirus, Firewall & Anti-Spam
 - Loss/Theft Protection
- Content Control
 - Blocking & Filtering with reporting
 - Supported without VPN / Cloud-based for remote users
 - Integrates with search engines, Active Directory, LDAP and Open Directory
- Access Control
 - Role-based capabilities
 - Integration to Remote Access/VPN



Security Management

Example: Junos Pulse

- Range of app access requirements
- “Data in Transit” Security
- Enterprise-user app portal
- Dynamic role-based app menu
- Provisioned via app stores
- Designed for minimal user interaction
- Autoboot upon device restart



Elements of MDM

Security Management

Software Distribution

Policy Management

Inventory Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Software Distribution

Deploy, install, update, delete or block.

Do you need to?

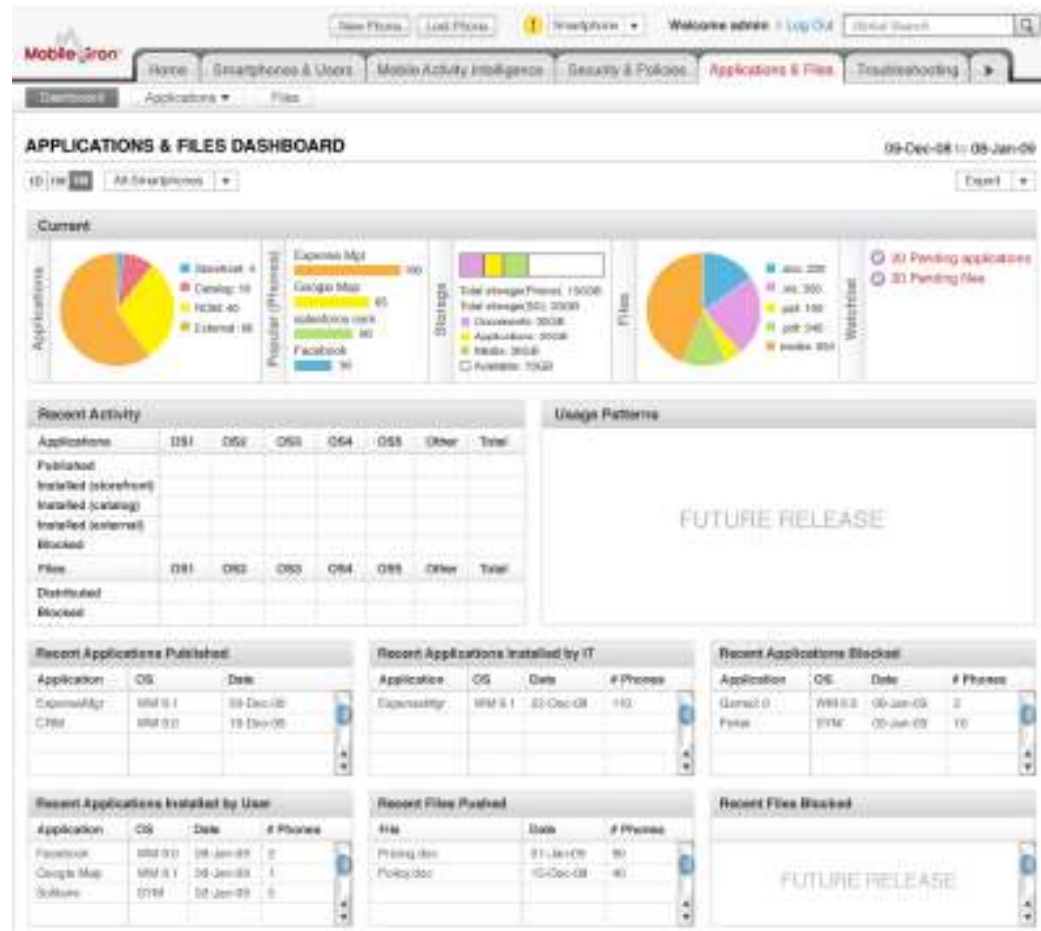
Secure Distribution and update of in-house apps	Recommended App Store apps
Access control for distributed in-house apps	Control unapproved apps
Inventory of installed apps	Reporting on software distribution and versioning
Rogue app protection	Internal App Store *
Mandated presence of mission-critical apps	Track installed apps



Software Distribution

Example: Mobile Iron

- Applications:
 - Published
 - Installed
 - Blocked
- Files:
 - Distributed
 - Blocked
- Recent Apps:
 - Blocked
 - Installed by User
 - Installed by IT



Elements of MDM

Security Management

Software Distribution

Policy Management

Inventory Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Policy Management

Development, control and operations of enterprise mobile policy

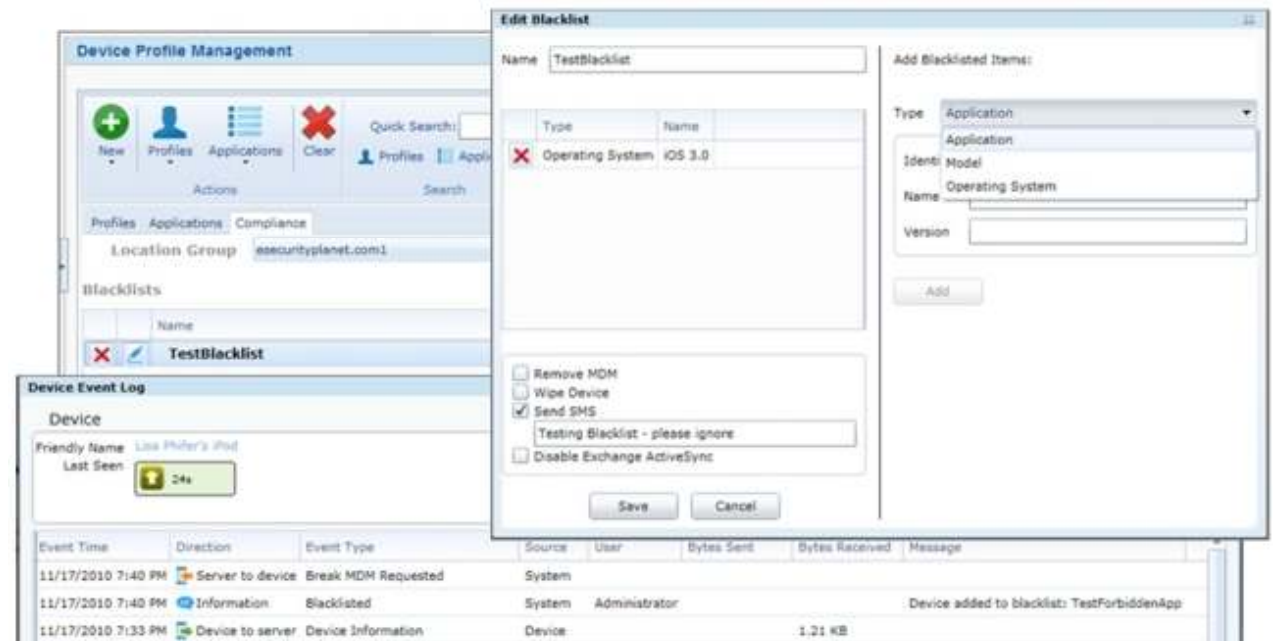
Do you need to?

Require Passcode	Number of failed attempts before wipe
Maximum passcode age	Allowable Applications enforcement
Password complexity requirements	Browser security preferences
Number of unique passcodes before reuse	Automatic sync of mail account when roaming
Grace period for device lock	Allow/Disallow Application installs
Time before auto-lock	Data Roaming setting (on/off)

Policy Management

Example: Air Watch

- Apps Blacklist
- Model Blacklist
- Operating System Blacklist
- Remove MCM
- Wipe Device
- Send SMS
- Disable Exchange ActiveSync



Elements of MDM

Security Management

Software Distribution

Policy Management

Inventory Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Inventory Management

Tracking, Reporting, Dashboards, Analysis

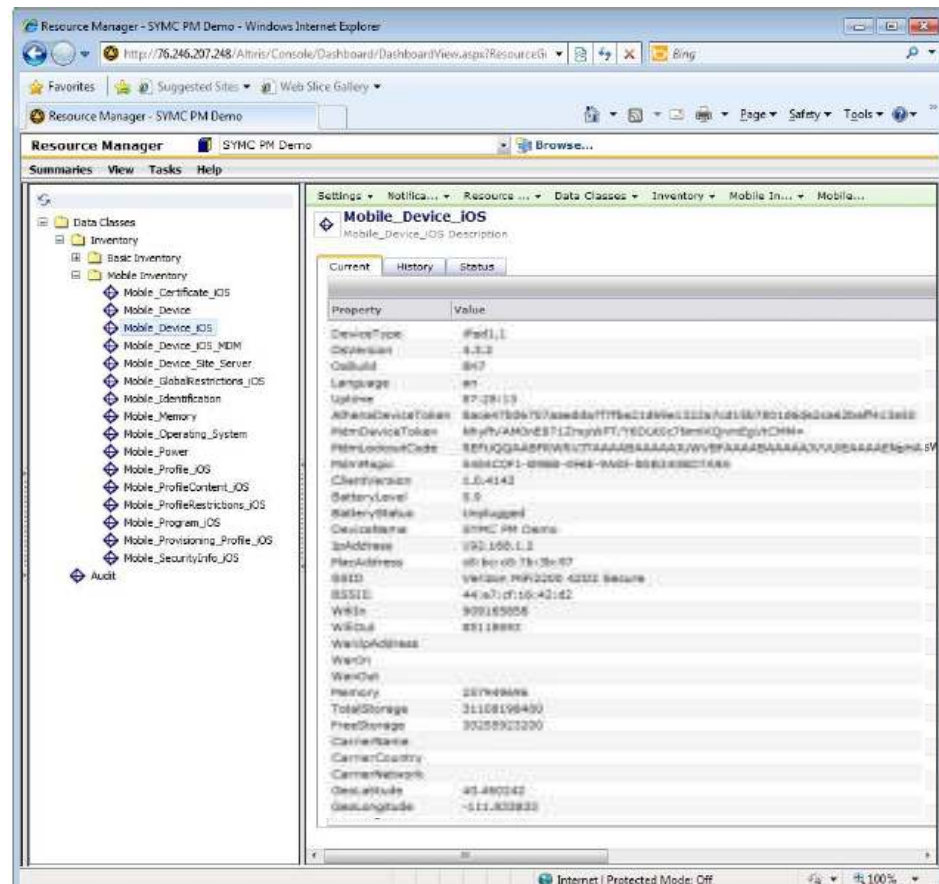
Do you need to?

Detailed reporting of asset information	Serial Numbers
Model Name and Number	Capacity and Space Available
OS Version	Firmware Version
Device Name	Battery Status
Unique Device Identifier	IP Address

Inventory Management

Example: Symantec Mobile Management

- Unique Device Identifier (UDID)
- Device Name
- iOS and build version
- Model name and number
- Serial number
- Capacity and space available
- Firmware version



The screenshot shows a web browser window displaying the Resource Manager - SYMC PM Demo interface. The left sidebar shows a tree view of Data Classes, with 'Mobile_Device_IOS' selected. The main content area displays the details for 'Mobile_Device_IOS', including a table of properties and values.

Property	Value
DeviceType	iPhone1,1
Capacity	4.3.2
OSBuild	8A7
Language	en
Uptime	87:28:53
AlphaDeviceToken	8ace4786757ace8da7776c21d96c12267d115b7801069d2c4626e943e0
ItemDeviceToken	4b474AM0vE87L2ngv8777YEDG007kmKQvmdguyCHH+
ItemLockdownCode	8E7UQGA8FW8777AAAB8AAAZWY8FAAA8AAAAA7VUB8AAAA8NA5V
ItemVersion	888CDF1-0888-0848-9A88-888888881A88
ClientVersion	3.0.4143
BatteryLevel	5.5
BatteryStatus	Unplugged
DeviceName	SYMC PM Demo
IPAddress	192.168.1.3
MacAddress	08:00:00:7b:3e:87
SSID	Verizon_WiFi2200_42332_Secure
BSSID	44:a7:c7:16:42:62
WiFi	909185056
WiFiSub	88118888
WiFiAddress	
WiFiOn	
WiFiOff	28768888
Memory	28768888
TotalStorage	31168198400
FreeStorage	3025932200
CarrierName	
CarrierCountry	
CarrierNetwork	
DeviceLatitude	43.480342
DeviceLongitude	-81.833833

Elements of MDM

Software Distribution

Policy Management

Inventory Management

Security Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Service Management

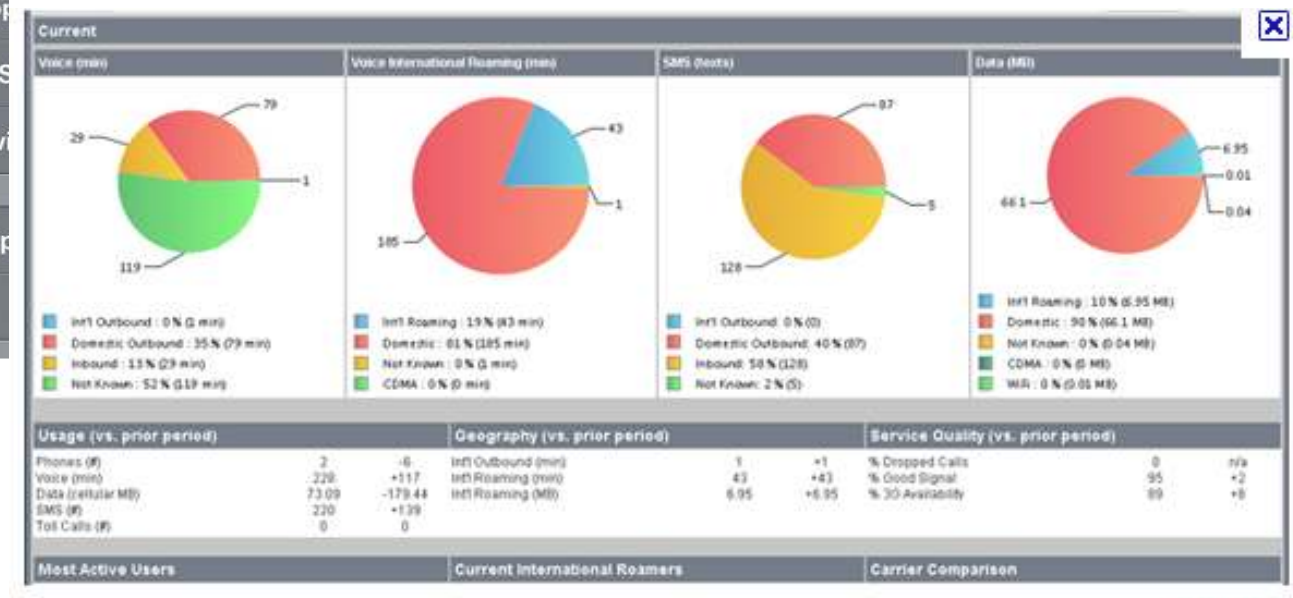
Provider Service Monitoring and Analysis

Do you need to?

Proactive monitoring of outages	Roaming Usage
Monitoring of dropped calls	SMS (Text) Usage
WiFi Speed	Report most Active Users
Cell Data Speed	Report Data Used
GPS Location mapping	Carrier Comparison

Service Management

Example: Mobile Iron



Elements of MDM

Software Distribution

Policy Management

Inventory Management

Security Management

Service Management

Classroom Management

* It takes multiple types of software to address a full solution

Classroom Management

Student/Teacher devices in a learning environment.

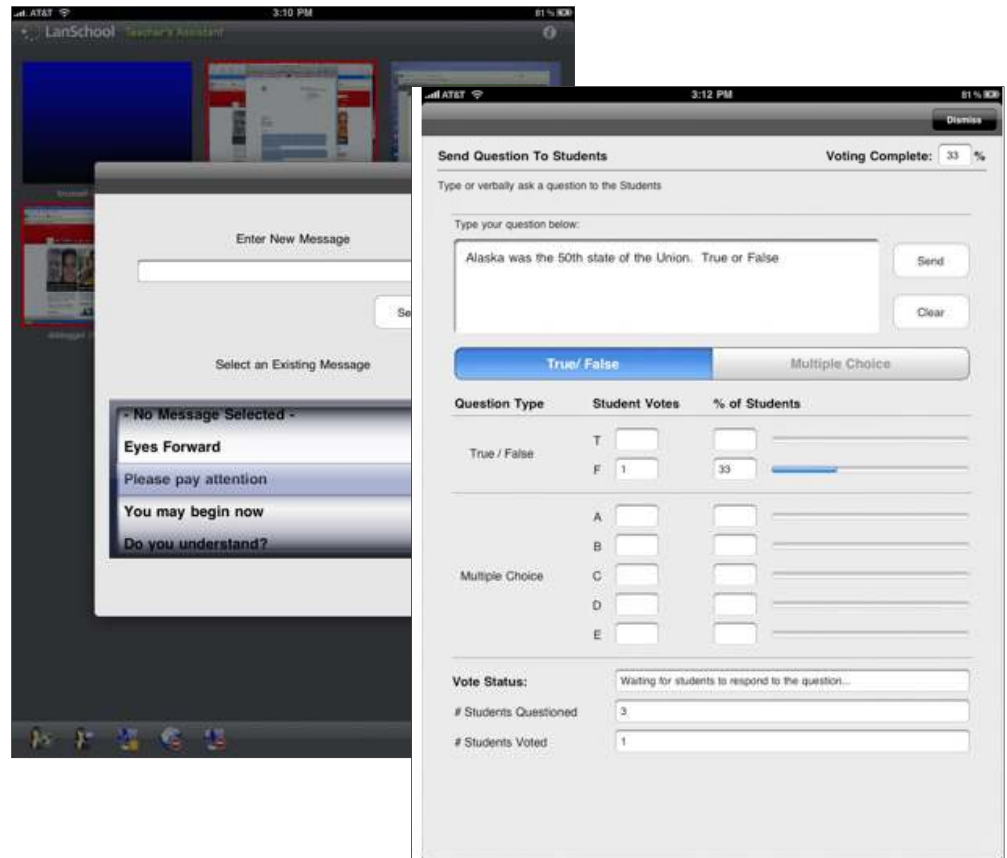
Do you need to?

Chat with Student	Limit Web Browsing
Assess Student Progress with True/False and Multiple-Choice Questions	Real-Time results and announcements
Ability for Student to vote on things	Send Students a message
Assess Student Progress with True/False and Multiple-Choice Questions	Monitor Battery Level
Limit Applications	Monitor Students** (GitHub – iOS Streaminb Browser)

Classroom Management

Example: LANSchool

- Send Student a Message
- Chat with Student
- True/False and Multiple Choice Questions
- Ability for Student to vote



The image displays two screenshots of the LanSchool mobile application interface. The left screenshot shows a 'Send Question To Students' screen with a text input field containing the question 'Alaska was the 50th state of the Union. True or False'. Below the input field are 'Send' and 'Clear' buttons. The right screenshot shows the 'Voting Complete' screen, displaying a table of student votes and a progress bar.

Question Type	Student Votes	% of Students
True / False	T: <input type="checkbox"/>	<input type="checkbox"/>
	F: 1	33
Multiple Choice	A: <input type="checkbox"/>	<input type="checkbox"/>
	B: <input type="checkbox"/>	<input type="checkbox"/>
	C: <input type="checkbox"/>	<input type="checkbox"/>
	D: <input type="checkbox"/>	<input type="checkbox"/>
	E: <input type="checkbox"/>	<input type="checkbox"/>

Vote Status: Waiting for students to respond to the question...

Students Questioned: 3

Students Voted: 1

Classroom Management

Example: github

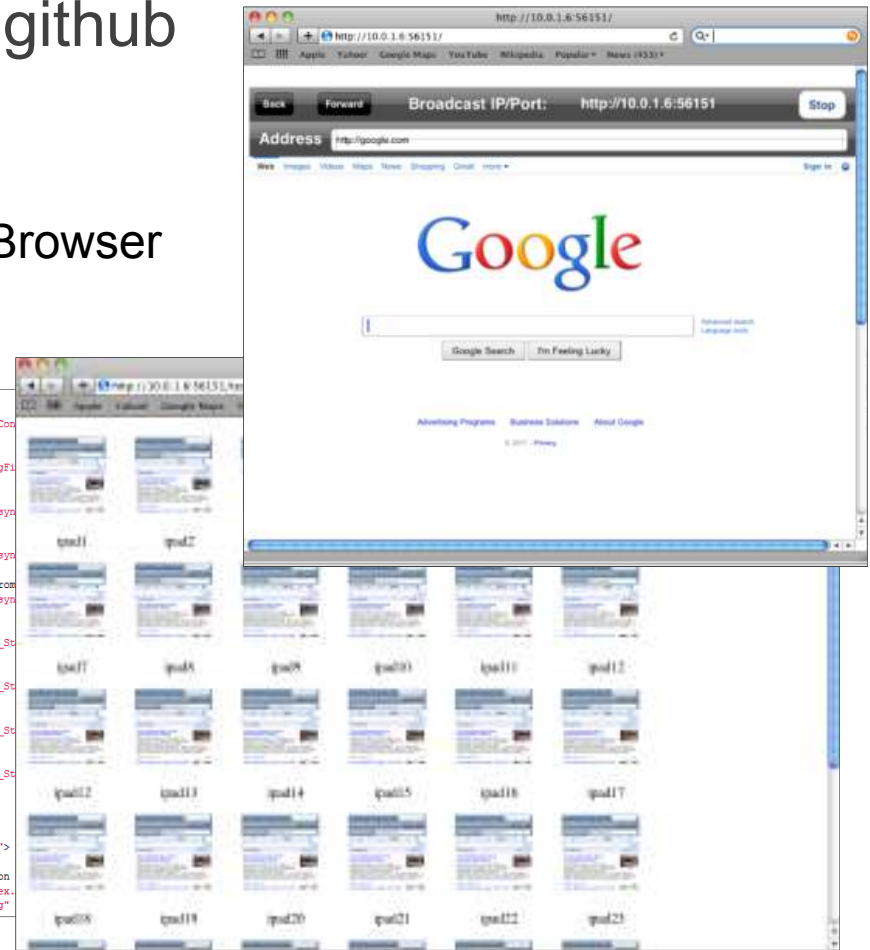
iOS Streaming Browser

- <https://github.com/rubelw/IOS-Streaming-Browser>
- Must be comfortable with Code to install
- Monitor Student Browser Activity
- Application-level filtering



```
</li>
<li>generateNonce
: <a class="el" href="interfaceHTTPCo
</li>
<li>generateShortUUID
: <a class="el" href="interfaceDDLogF
</li>
<li>getDelegate:delegateQueue:
: <a class="el" href="interfaceGCDAsyn
</li>
<li>getHost:port:fromAddress:
: <a class="el" href="interfaceGCDAsyn
</li>
<li>getInterfaceAddress4:address6:from
: <a class="el" href="interfaceGCDAsyn
</li>
<li>goBack:
: <a class="el" href="interfaceIOS_St
</li>
<li>goForward:
: <a class="el" href="interfaceIOS_St
</li>
<li>goHome:
: <a class="el" href="interfaceIOS_St
</li>
<li>gotoAddress:
: <a class="el" href="interfaceIOS_St
</li>
</ul>
</div>
<div id="nav-path" class="navpath">
<ul>
<li class="footer">Generated on
<a href="http://www.doxygen.org/index.
<img class="footer" src="doxygen.png"

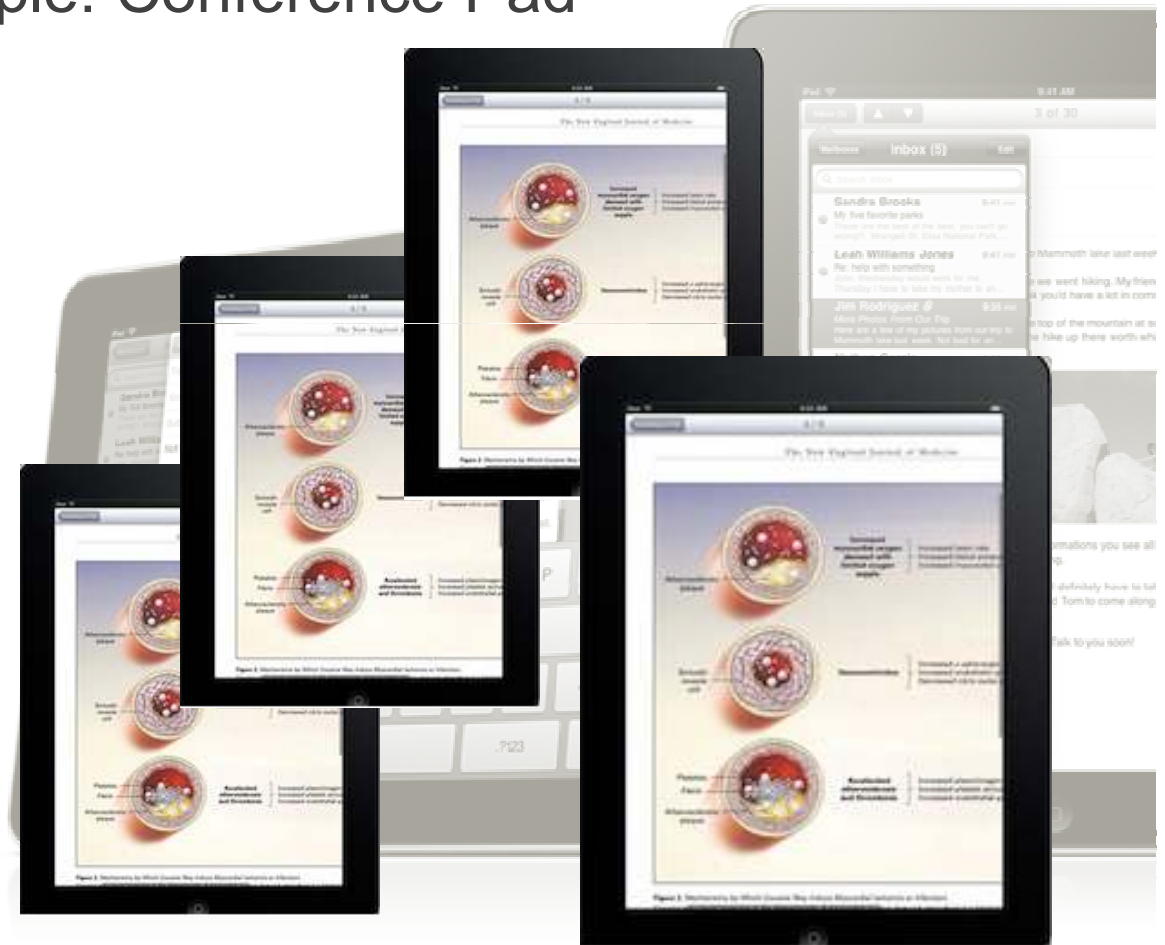
```



Classroom/Meeting Management

Example: Conference Pad

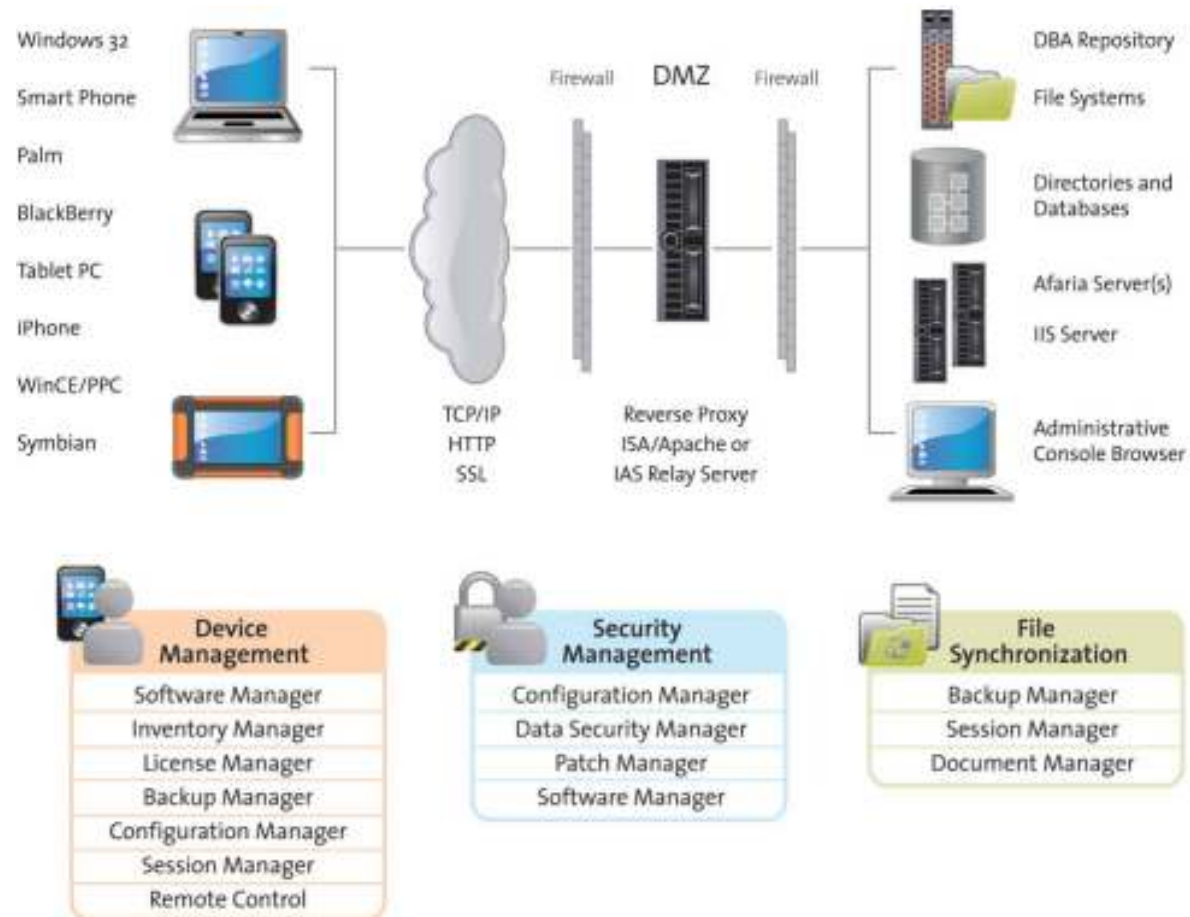
- For iPad
- Display a PDF with up to 15 devices
- Devices sync to page turning, pinch to zoom, “laser pointer”
- Bluetooth and WiFi support
- Send files via app or iTunes File Sharing
- Support for external screens



Device Management

Many Features more Generic

Example:
Sybase



Device Management

Many Features more Generic

Example:
Symantec

Unified and scalable management of all platforms

- Manage all endpoints from a single solution
 - Desktops/laptops
 - Servers
 - Mobile devices

Endpoint Management



Comprehensive management & security for all smartphones

- Embrace consumerisation
- Secure any mobile device on the network

Cross Platform Support



Flexible platform for enterprise integration

- Standardize on a platform that connects your mobile devices to enterprise apps, policies, processes and personnel

Enterprise Grade

- Integrated with SMP
- Role-based Access
- Groups/Org Units
- Alerts/Notifications
- Automated Workflows

Next Steps

- Figure out what you need/your purpose
- How do you want to use them
- What features you want – make a list
- Be aware of your environment
- Understand pros & cons
- Think ‘Big Picture’

More Information

MD, PA, DE - ED, LG

Rick Fairhurst
Account Executive
rfairhurst@datanetworks.com
800-283-6387, ext. 3020

MD, VA – ED, LG

Dave McIntosh
Account Executive
dmcintosh@datanetworks.com
800-283-6387, ext. 3048

MD - State Government

Robert White
Account Executive
rwhite@datanetworks.com
800-283-6387, ext. 3015

NC – Named Accounts

Jennifer Hillesland
Account Executive
jhillesland@datanetworks.com
919-270-0318

NC, SC - ED, SLG

Patrick Flanagan
Account Executive
pflanagan@datanetworks.com
336-317-6861

QUESTIONS?

Kelly Marshall
Marketing Manager
kmarshall@datanetworks.com
800-283-6387 x3058