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Managing security and privacy risks of personal devices in enterprises

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Job Title：Vice President

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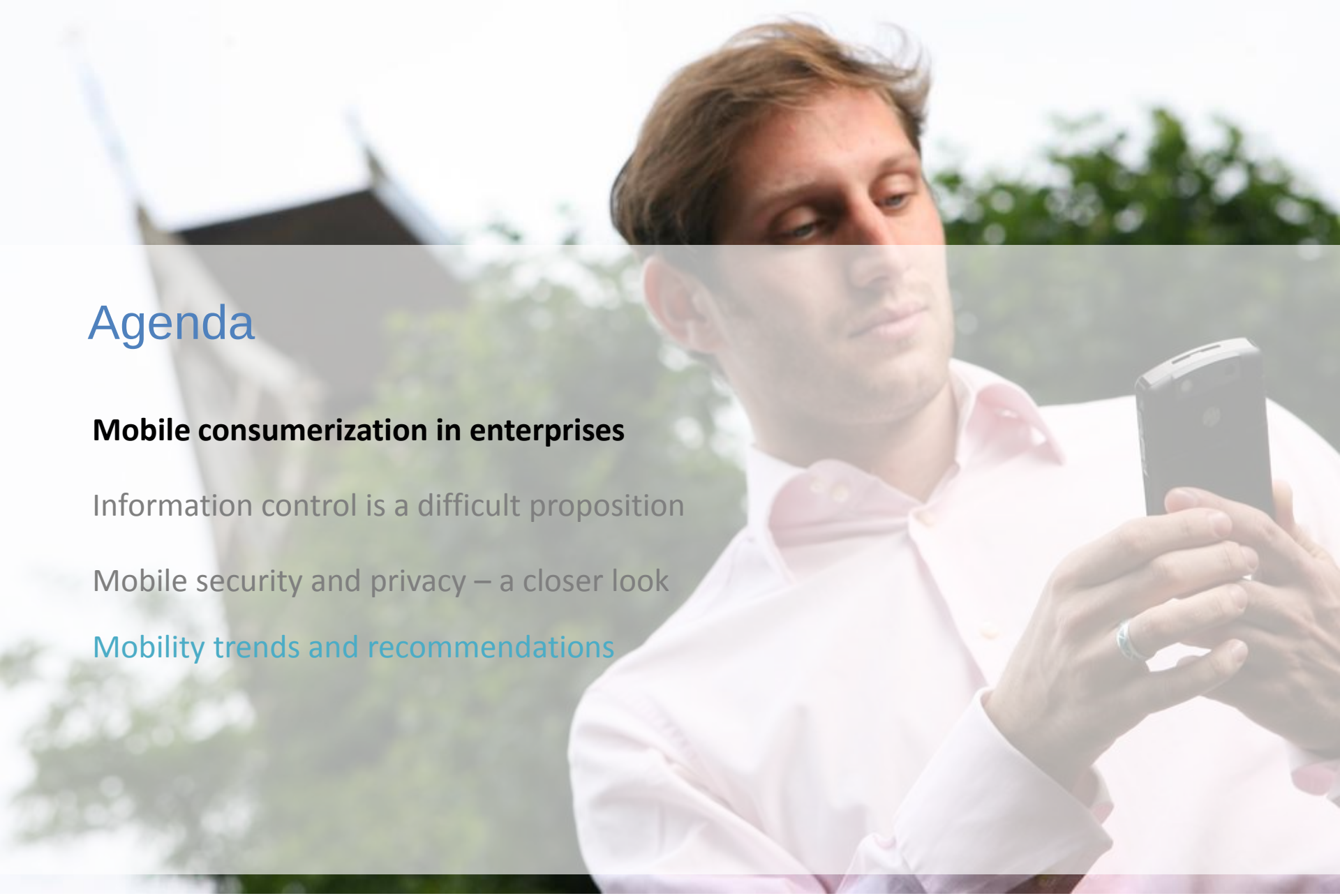


Agenda

Mobile consumerization in enterprises

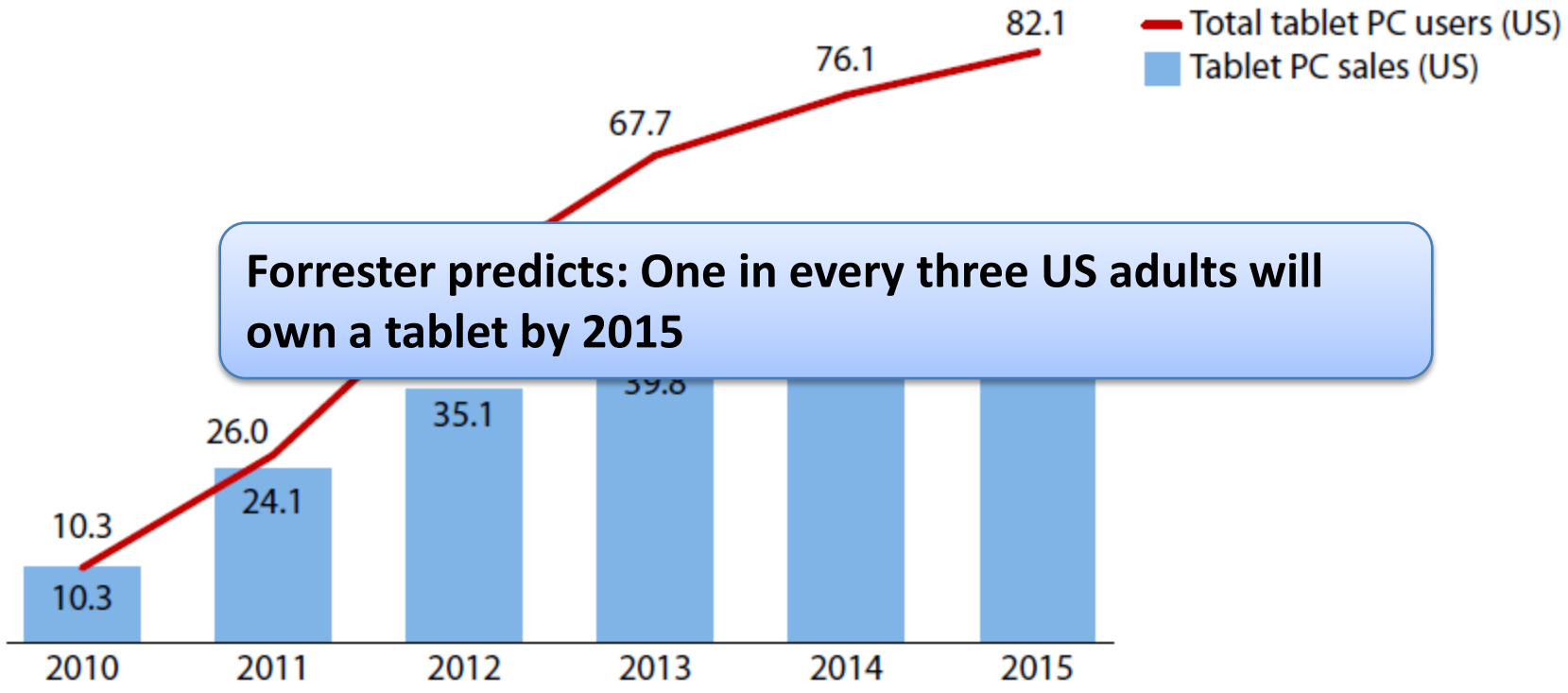
Information control is a difficult proposition

Mobile security and privacy – a closer look

Mobility trends and recommendations

Tablets saw enthusiastic adoption by US consumers

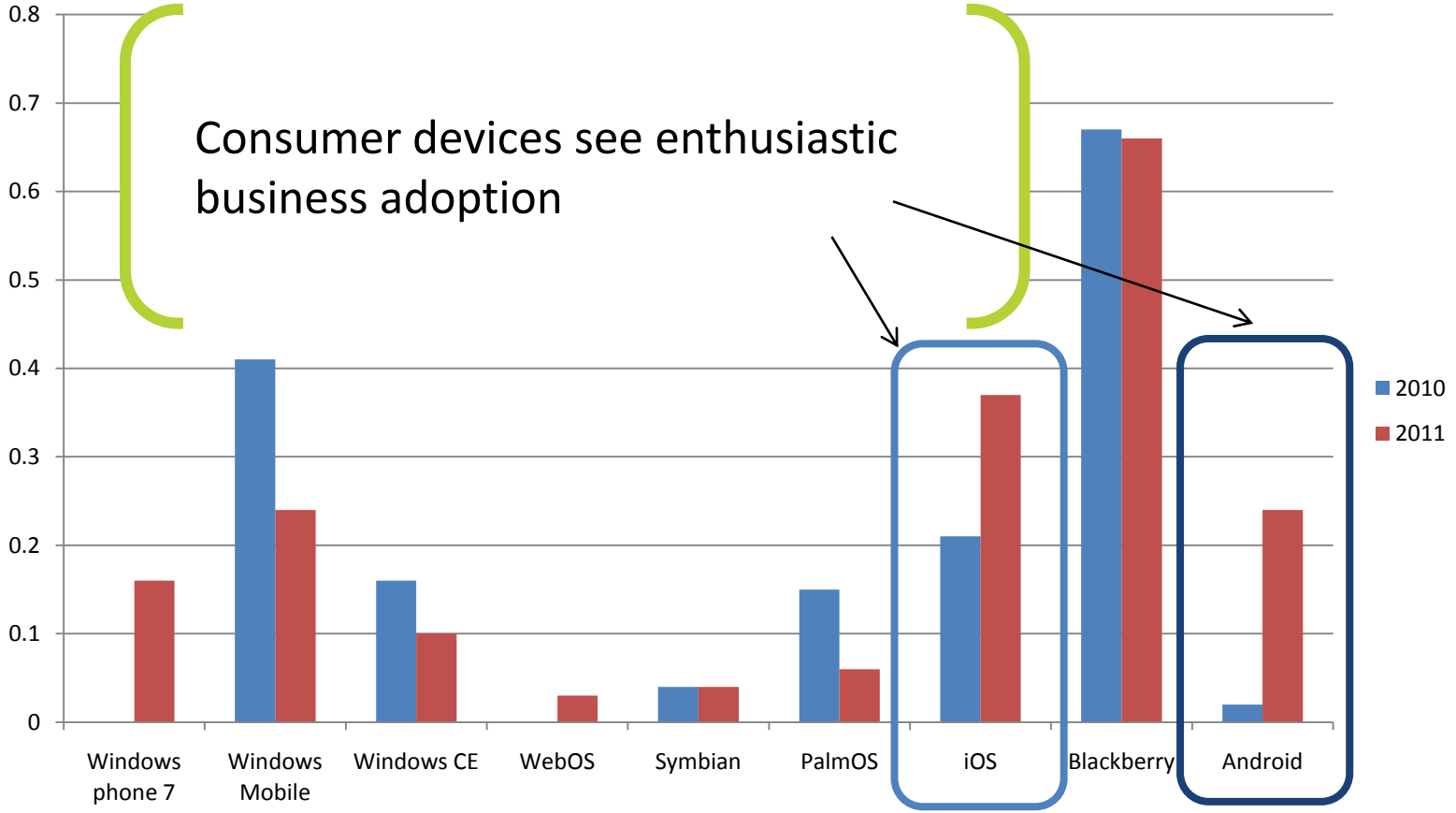
Forrester's US consumer tablet forecast, released Jan. 4, 2011:



Forrester predicts: One in every three US adults will own a tablet by 2015

Source: Forrester Research eReader Forecast, 2010 To 2015 (US)
Note: All numbers in millions of US adults

Consumerization is entrenched in corporations



Source: Sample Size = 1051
Enterprise And SMB Networks And Telecommunications Survey, North America And Europe, Q1 2011

Source: Sample size =908, Enterprise And SMB Networks And Telecommunications Survey, North America And Europe, Q1 2010

BYOD is catching on in a big way…

More than half already support personal devices to some extent

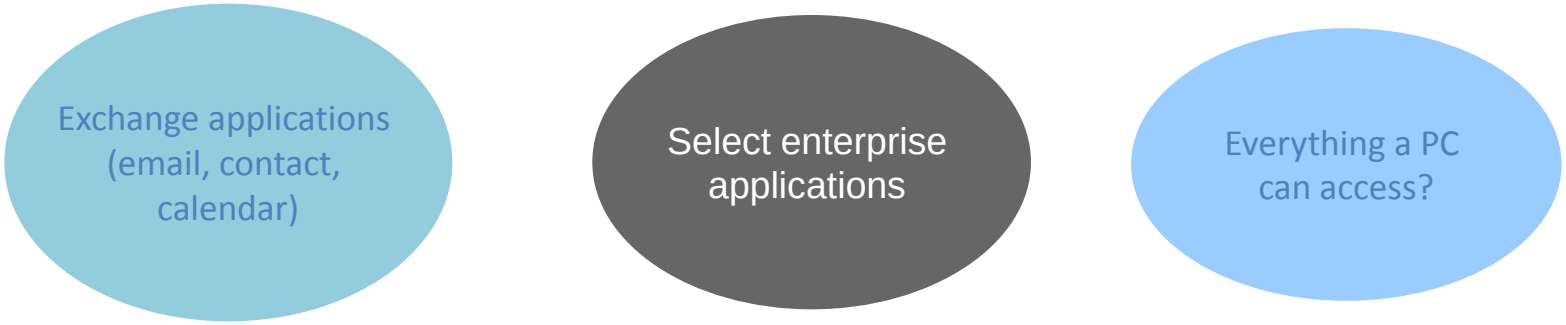
Base: 1,009 mobile technologies and services decision-makers at North American and European companies

Source: Enterprise And SMB Networks And Telecommunications Survey, North America And Europe, Q1 2011

Consumerization complicates enterprise information control

Photo sources:
http://daddytypes.com/archive/apple-iphone-in-hand.jpg
http://www.textonphone.com/img/iphone.png

We see three levels of mobile access…



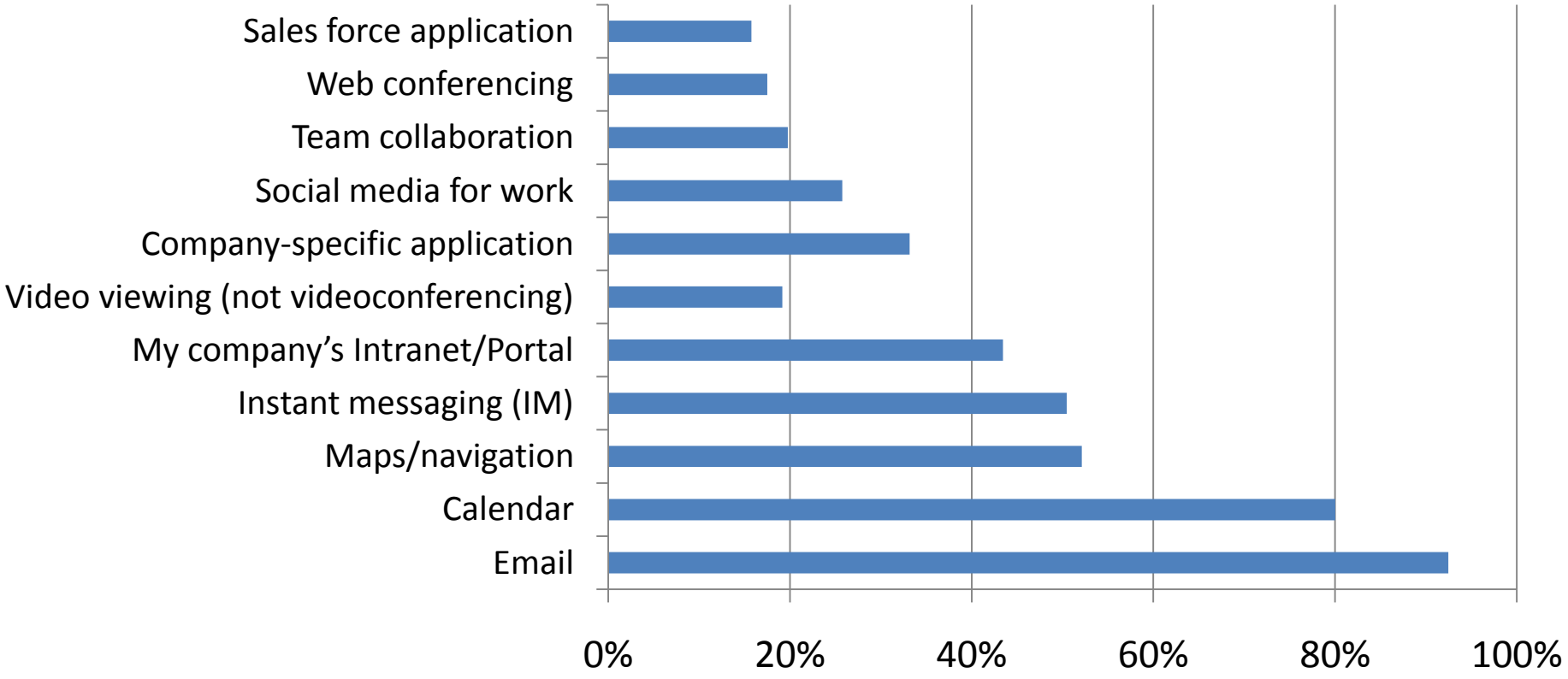
Many

Some

Rare

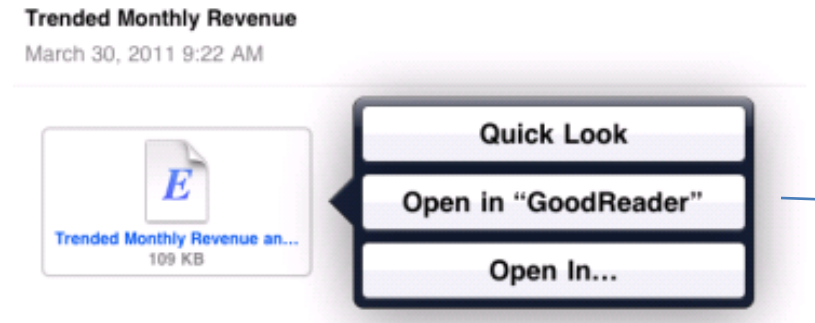
More specifically ….

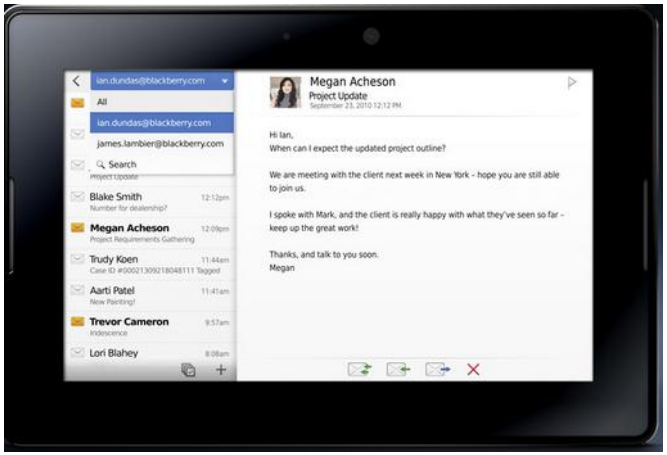
"Which mobile applications do you use on your smartphone for work?"
(Multiple responses accepted)



Sample Size: 971
Source: Workforce Employee Survey, Q3 2010

Data exposure can happen without explicit notice

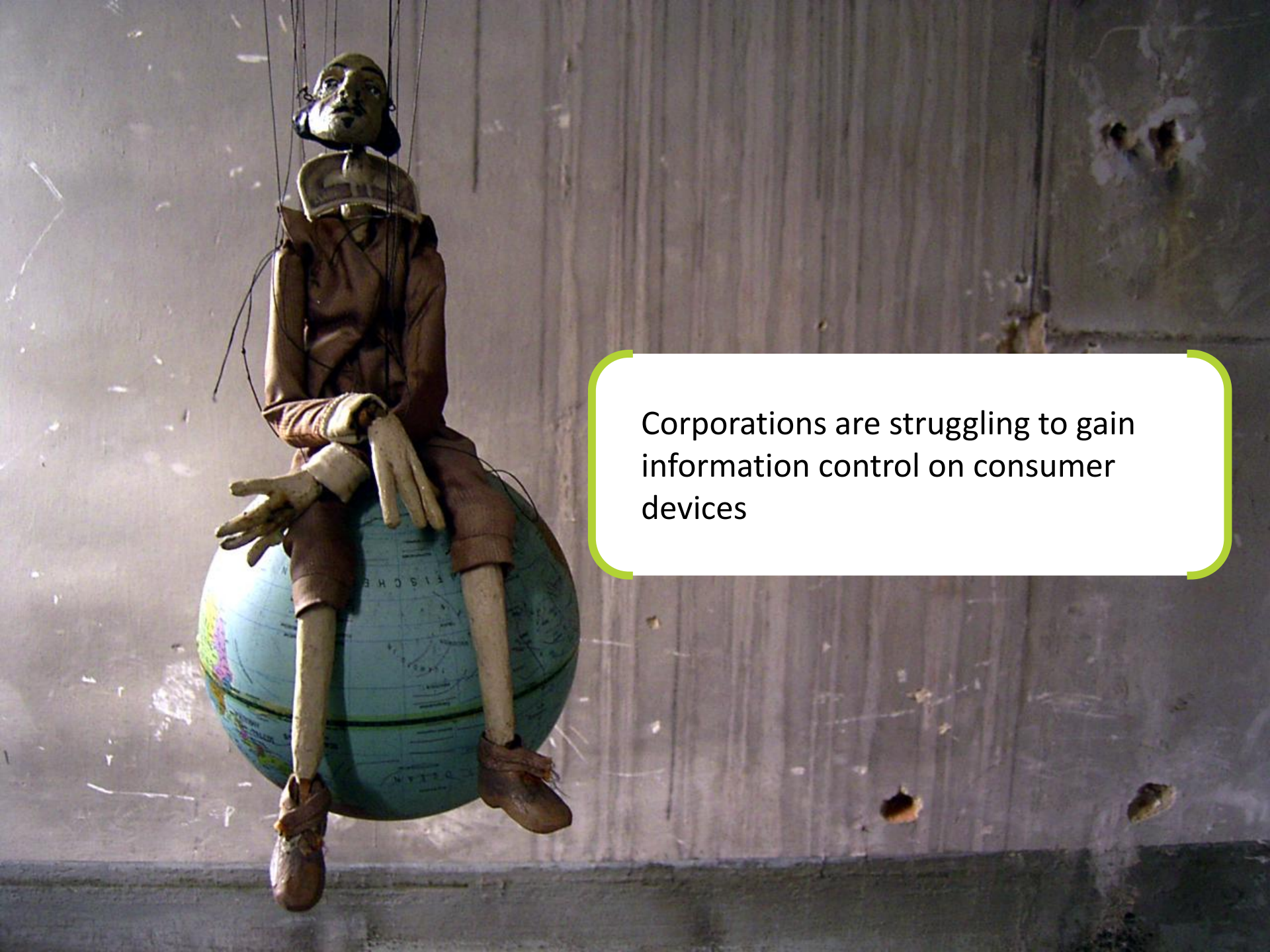




Your corporate data is now in the cloud

Consumer devices complicate enterprise control

	Consumer apps may process corporate data and back up to the cloud
Co-mingle of email accounts	No clear separation of personal and business emails
Privacy concerns	Consumer apps may access private corporate info. Corporate management may compromise user privacy.
Legal concerns	Managing personal devices may conflict with privacy regulations



Corporations are struggling to gain information control on consumer devices

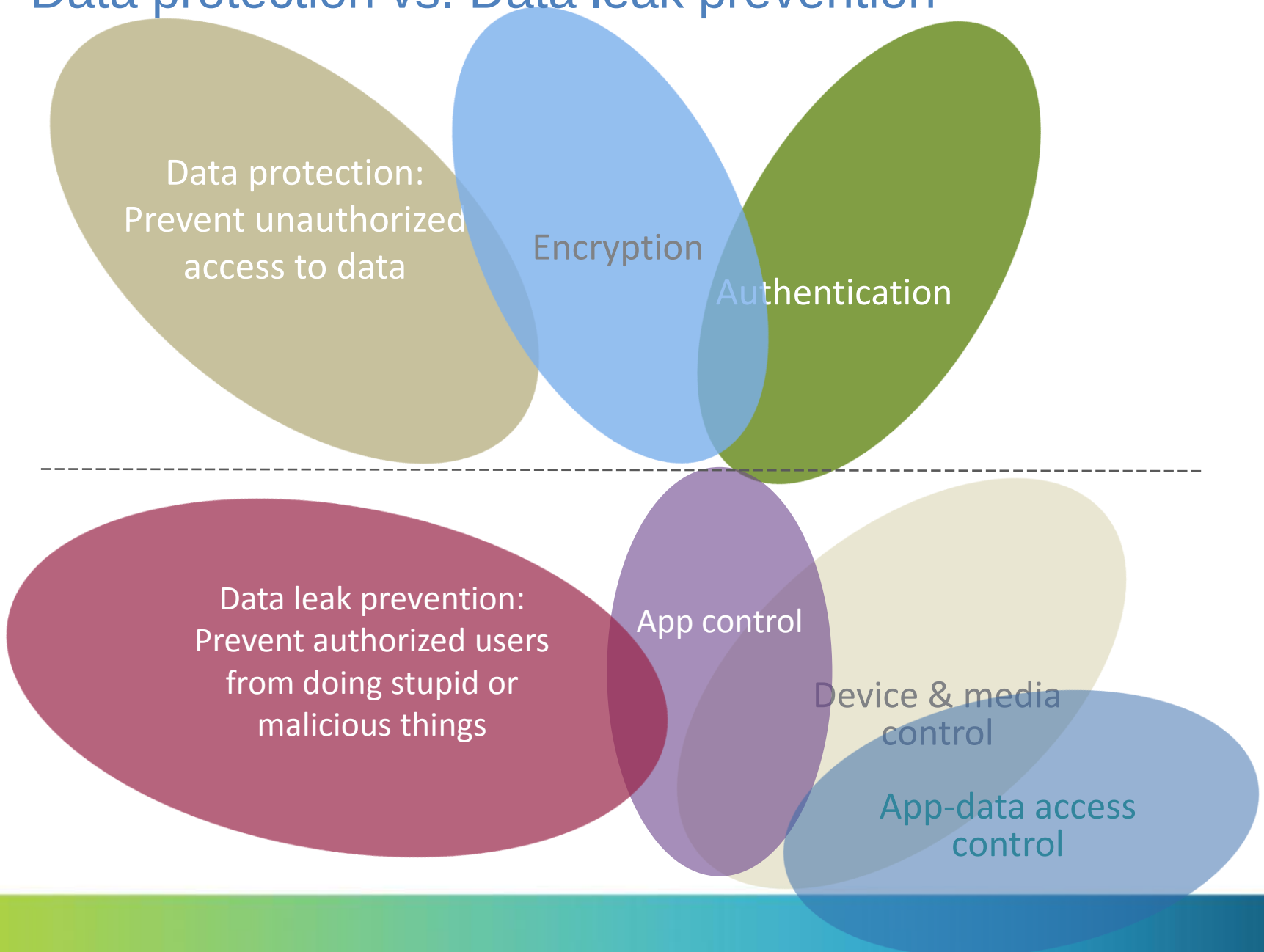
How do traditional endpoint security requirements translate to mobile endpoints?

PCs	Mobile endpoints
Anti-malware	Relevant but less urgent
Data protection (e.g., endpoint encryption)	More important
Data leak prevention	Equally as important
Device compliance	Equally as important
Endpoint management	Usage-driven
Appropriate Internet browsing	Policy compliance while on company premise
Device security (password entry, auto-lock)	More important
Application management	More important

A few mobile-specific requirements

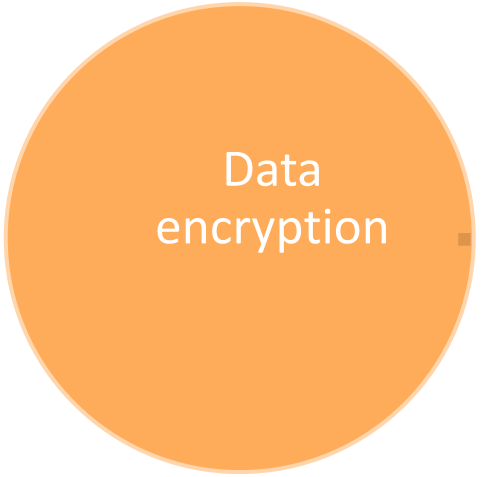
Mobile endpoints	PCs
Device wipe	Less relevant
Device access control	May or may not be relevant
Device seizure for discovery	Not relevant for company-owned PCs

Data protection vs. Data leak prevention



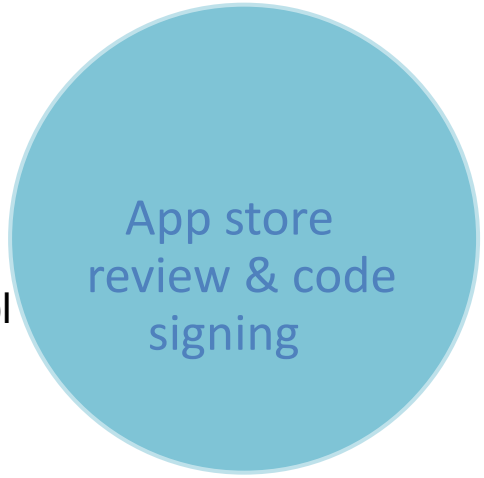
Is native mobile security good enough?

- Prevents casual attacks, but no deterrent to determined or inside attacks



- Not available on all platforms and applications.

- No universal control, not fool proof



- Doesn't provide the controls you need

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Consumerization proliferation in the enterprise

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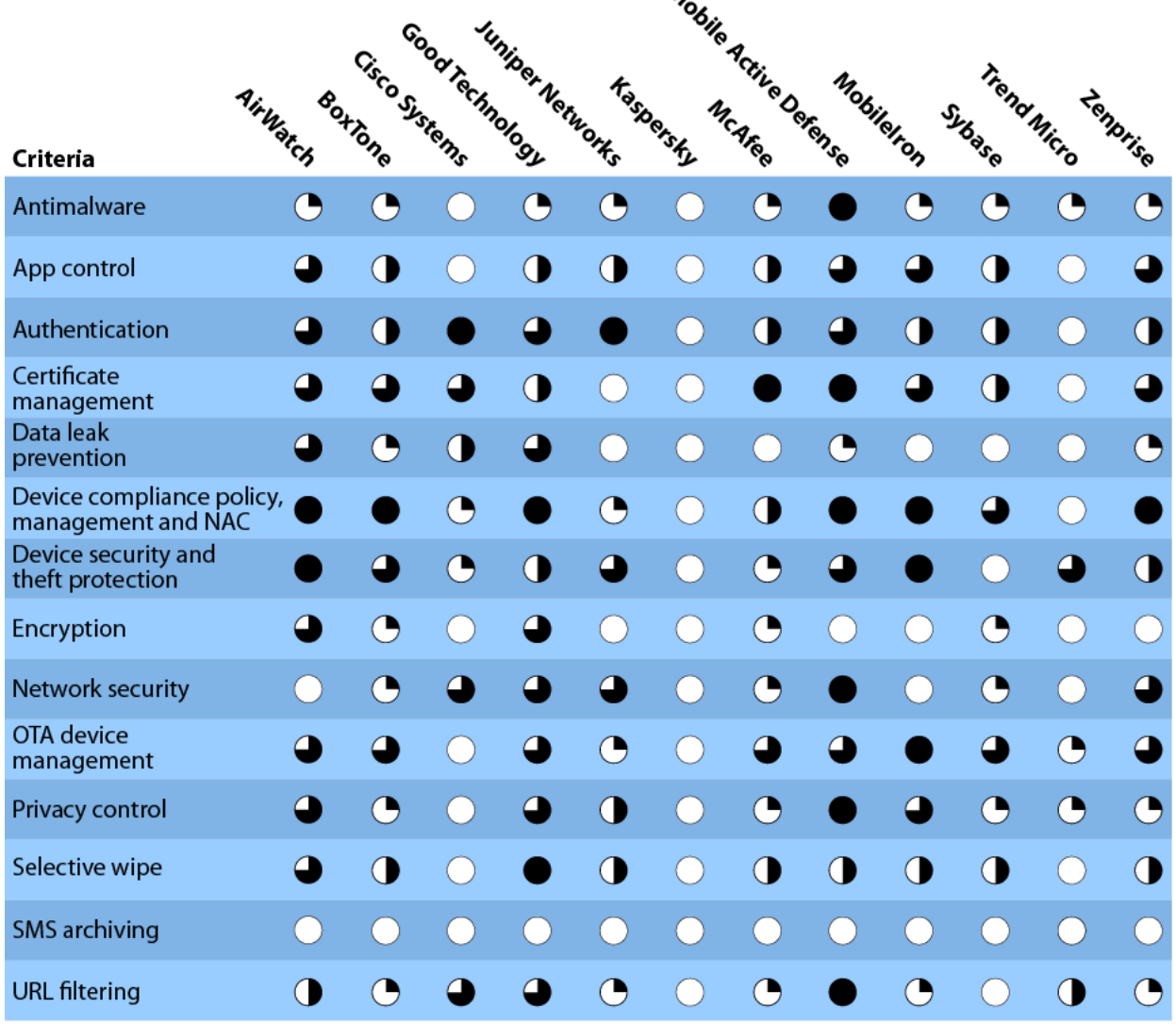
Three schools of thought

- Trust
  - Communicate the policies and trust that your employees will do the right thing
- Trust but verify
  - Communicate the policies
  - Have a monitoring piece to verify that mobile users are doing the right thing
  - Deal with policy violation out of band
- Oversight
  - You do not necessarily trust your employees do the right thing
  - Technologies are used to enforce the right behavior
  - Companies who have DLP requirements are in this camp

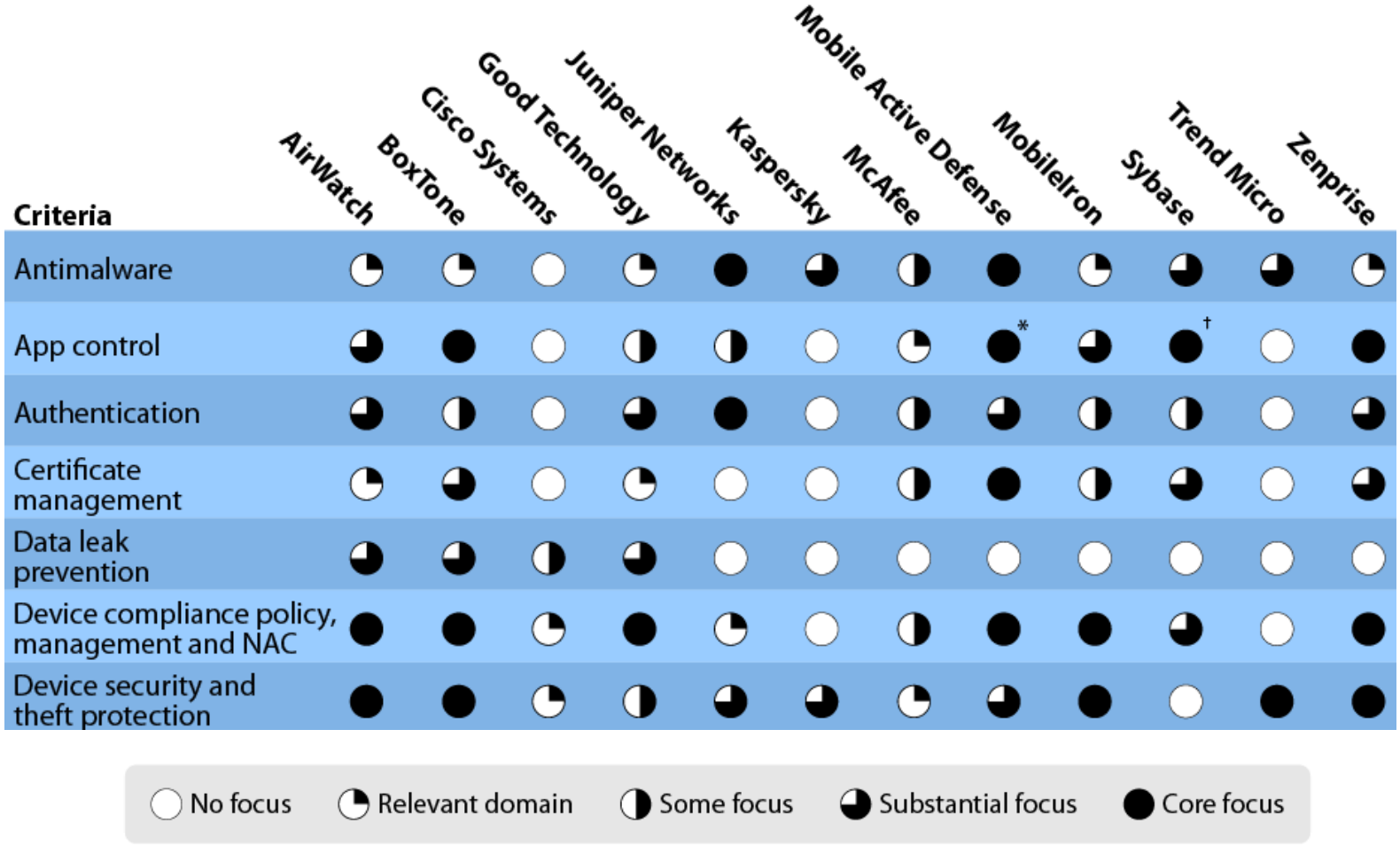
There is a lot of confusion regarding vendor solutions

	Walled garden	MDM	VDI or virtual app publishing
Vendors	Good technologies	MobileIron, AirWatch, McAfee, BoxTone, Tangoe	Citrix
User experience	Impacted	Seamless	Impacted
Management functionality	Narrow to medium	Broad	Narrow
Data protection	Strong	Medium	Strong

They are not the same!


Criteria
AirWatch
BoxTone
Cisco Systems
Good Technology
Juniper Networks
Kaspersky
McAfee
Mobile Active Defense
MobileIron
Sybase
Trend Micro
Zenprise
Antimalware
App control
Authentication
Certificate management
Data leak prevention
Device compliance policy, management and NAC
Device security and theft protection
Encryption
Network security
OTA device management
Privacy control
Selective wipe
SMS archiving
URL filtering
No focus
Relevant domain
Some focus
Substantial focus
Core focus

Security And Management Criteria Evaluation (Android)



*Available for devices with MAD's custom fireware only
†For Samsung Android devices

Security And Management Criteria Evaluation (Android) (Cont.)

Criteria	AirWatch	BoxTone	Cisco Systems	Good Technology	Juniper Networks	Kaspersky	McAfee	Mobile Active Defense	MobileIron	Sybase	Trend Micro	Zenprise
Encryption	◕	●	○	◕	○	○	◔	○	◑	◔	○	◔
Network security	○	◕	◕	◕	○	○	◔	●	○	◔	○	●
OTA device management	◕	◕	○	◕	◔	○	◕	●*	●	◕	◔	◕
Privacy control	◕	◑	○	◕	◑	◔	◔	●	◕	◔	◔	◔
Selective wipe	◕	●	○	●	◔	◔	○	●*	◑	◑	○	●
SMS archiving	○	○	○	○	●	○	○	○	○	○†	○	◕
URL filtering	◔	●	◕	◕	○	◔	○	●	◔	○	◑	◔

○ No focus ◔ Relevant domain ◑ Some focus ◕ Substantial focus ● Core focus

*Available for devices with MAD's custom fireware only
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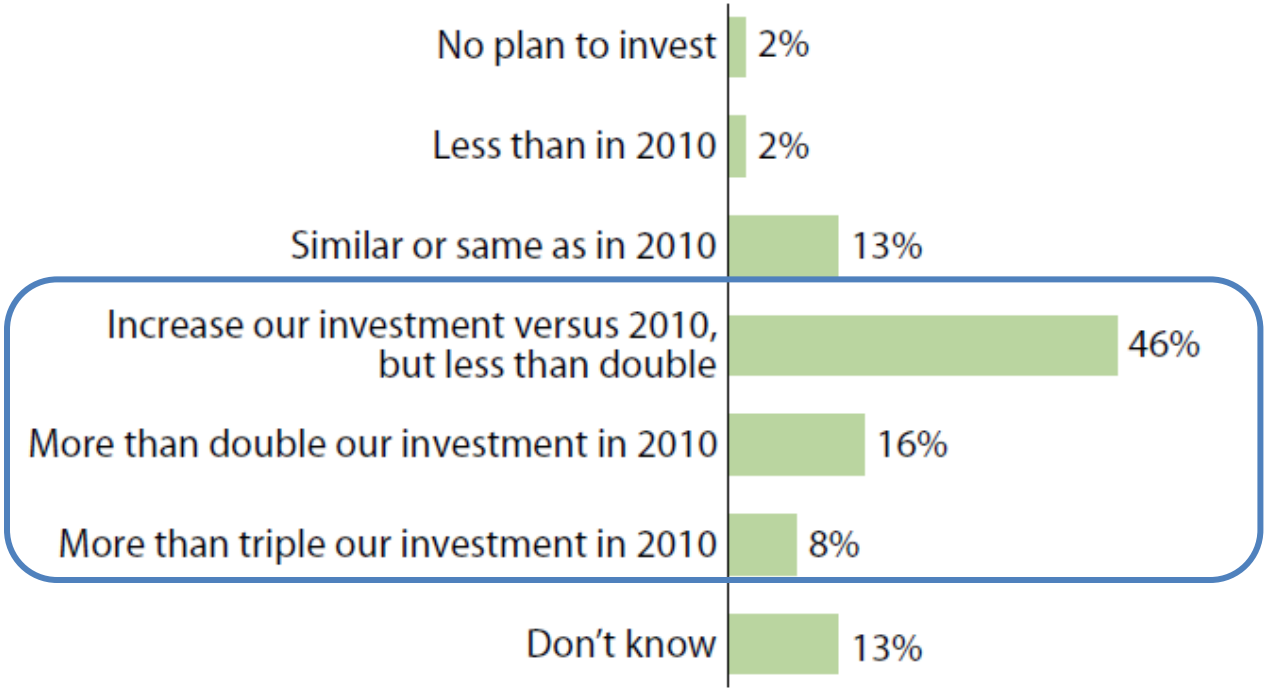
70% firms are increasing mobile investment

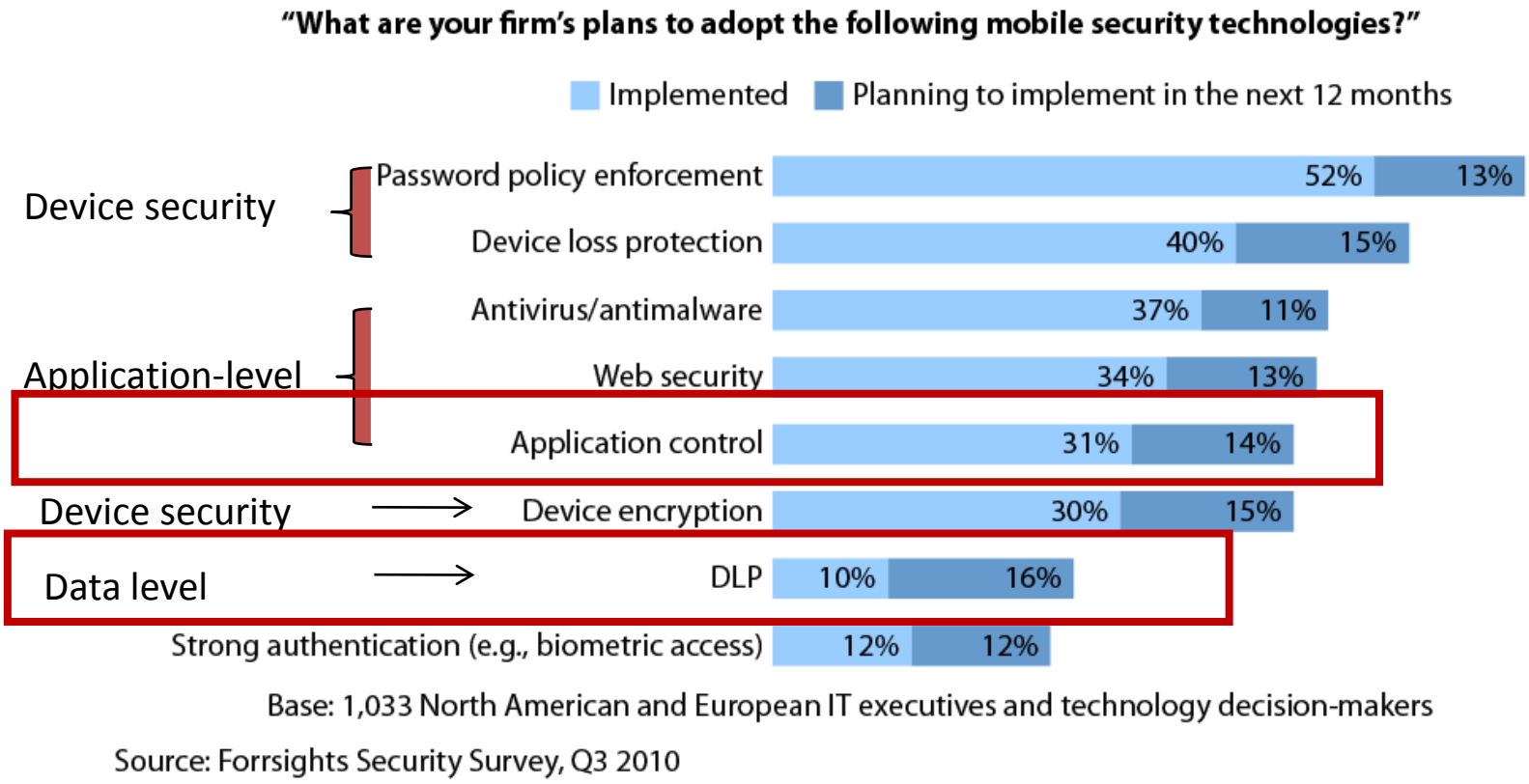
"What kind of investment in mobile do you foresee your company making in 2011?"



Base: 178 respondents

Source: Forrester's Q3 2010 Global Mobile Maturity Online Survey

Firms should increase adoption in app and data level controls



June 2011 **"Tablets Pave Way For Mobile Development: Security Pros Must Get Ahead Of App Dev Wave"**

Security Technologies Commonly Used In Mobile Implementations

No. 1: User experience is paramount

- The native smartphone user experience should be preserved
- Security at the expense of user experience should be avoided

No. 2: Protect against the most prevalent risk, not the corner cases

- Do not demand a security level unachievable on PCs
  - If you are NOT using “walled garden” applications on PCs, why do it on mobile devices?
- Focus on the most prevalent threat
  - Could be device loss
  - Could be the lack of consistent content management
- Risk-based approach should dictate your resource investment

No. 3: Go native first

- iOS data protection capability
  - PIN-based encryption provides file-level encryption
  - Secure messaging is built in
- Android-3LM provides similar functions
  - Manufacturers are filling some of the gaps
- DLP/NAC/App mgmt/Strong Authentication are lacking

No. 4: Cover your bases, but remember to be clever with personal devices

- You may not be able to directly mandate what a user can or cannot do on his own devices
- Set policies for must-haves (e.g., must have certain security features enabled)
- Recommend best practices (e.g., do not go to questionable sources for apps)
- Regulate access to corporate resources based on policy compliance

No. 5: Think enterprise-wide, not mobile specific

- Mobile device security/management should be part of a larger endpoint management strategy
- Data protection should be an enterprise wide initiative
- Choose a technology that integrates well with other tools within your infrastructure and system

Questions?

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