



Publishing Enterprise Web Applications to BYOD using a Granular Trust Model

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IT Client Security & Connectivity
May 2013

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Agenda

- IT Risk And Security 'A Balancing Act':
Protect to Enable
- Solution:
 - Access Web applications based on dynamic and granular security controls
 - web applications' mobile friendly UI
 - Seamless OTP Authentication and Single-Sign-On using Kerberos

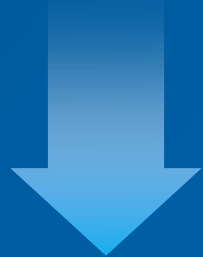


Introducing the **smartphone**
that keeps up with you

IT Risk And Security 'A Balancing Act'

Open Access

Controls increased cost and constrains use of data and systems



How Do We Balance?

- Keeping us legal
- Availability of information
- Protection of information
- Industry influence
- Cost effectiveness of controls



Locked Down

Information assets should be **fully** protected

Our Mission is to Protect to Enable

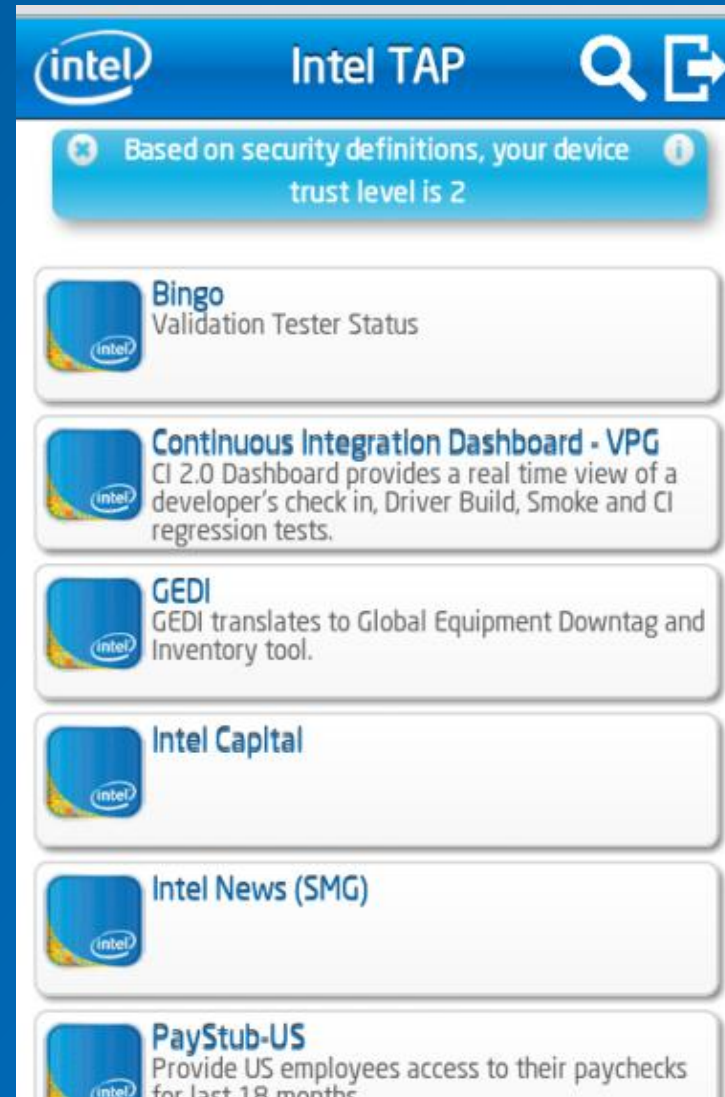
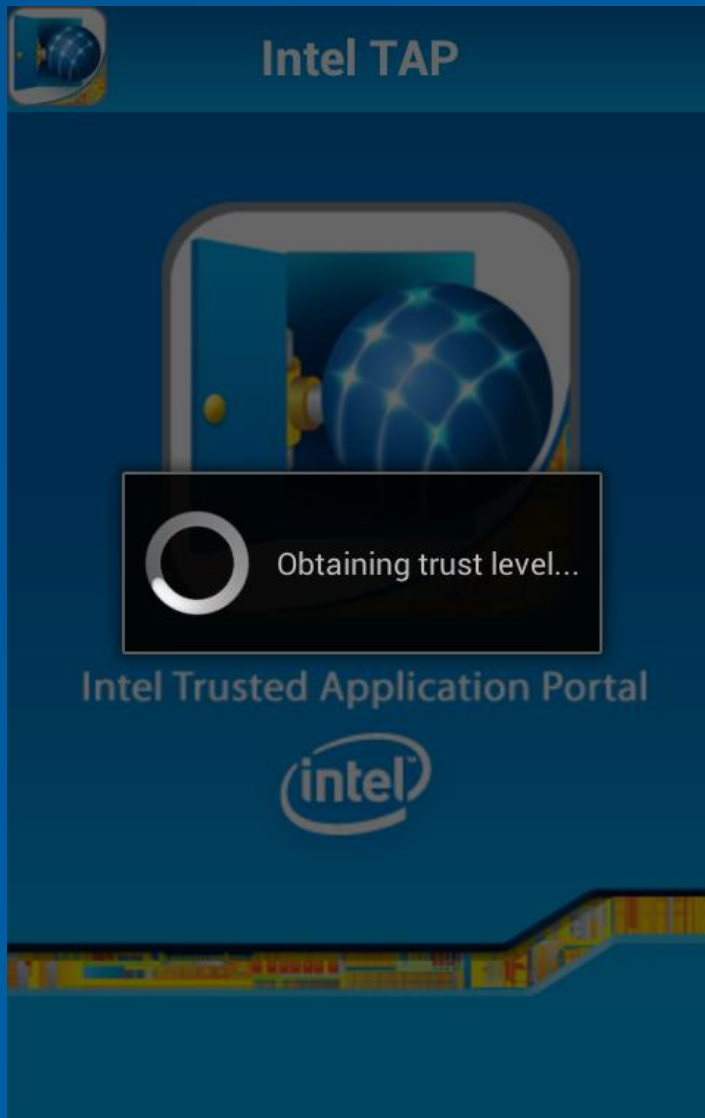
HD



DEMO

Introducing a
smartphone
that thinks as
fast as you do



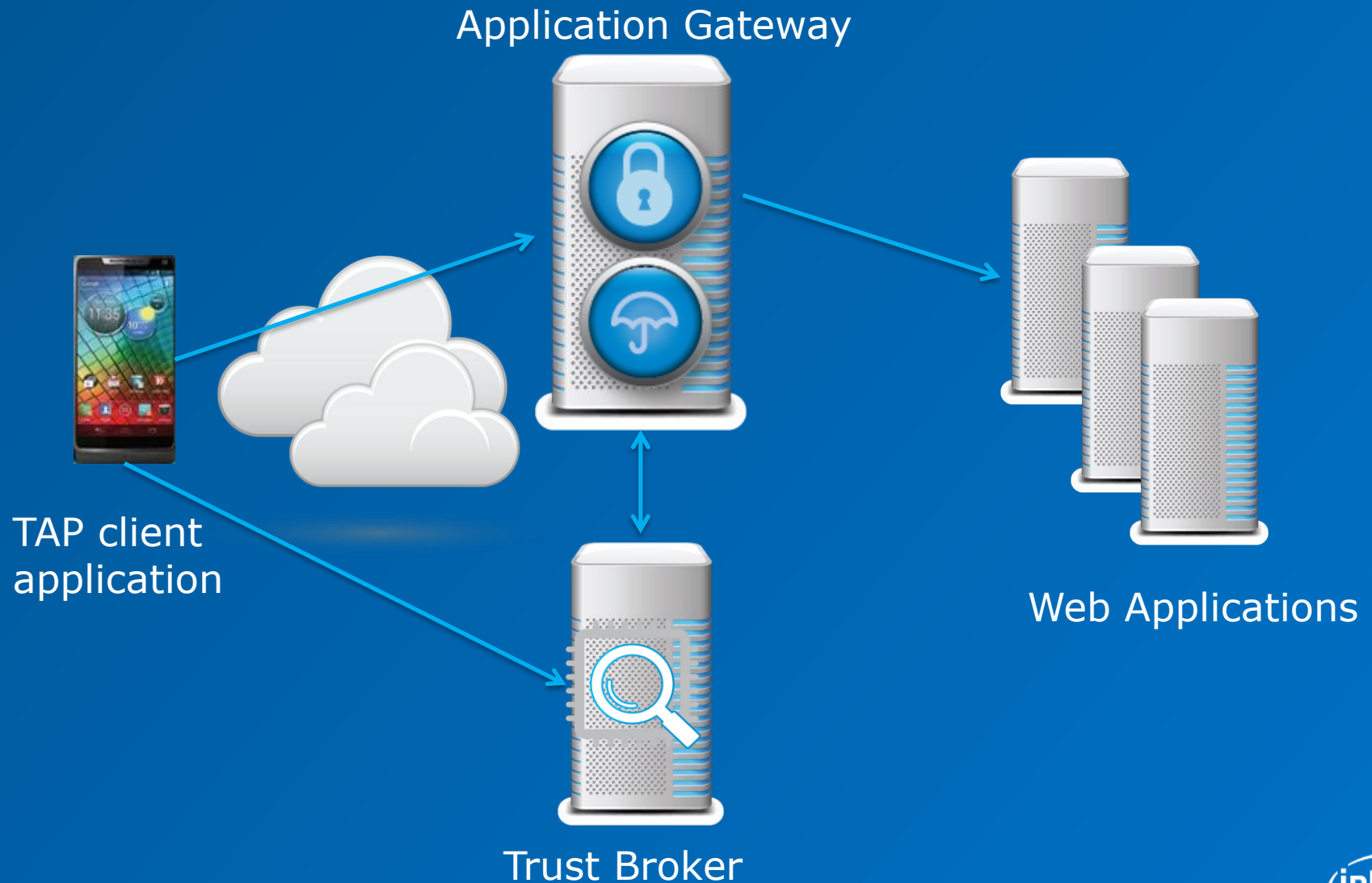


How does it work

- User launches the TAP client application
- TAP client application performs the trust calculation
- TAP client application triggers an API to the McAfee* Pledge OTP
 - User confirms the generation of the OTP
- The One-Time-Password being validated on the Gateway
- Gateway requests Kerberos ticket on user's behalf
- Backend web application is being accessed.



Components

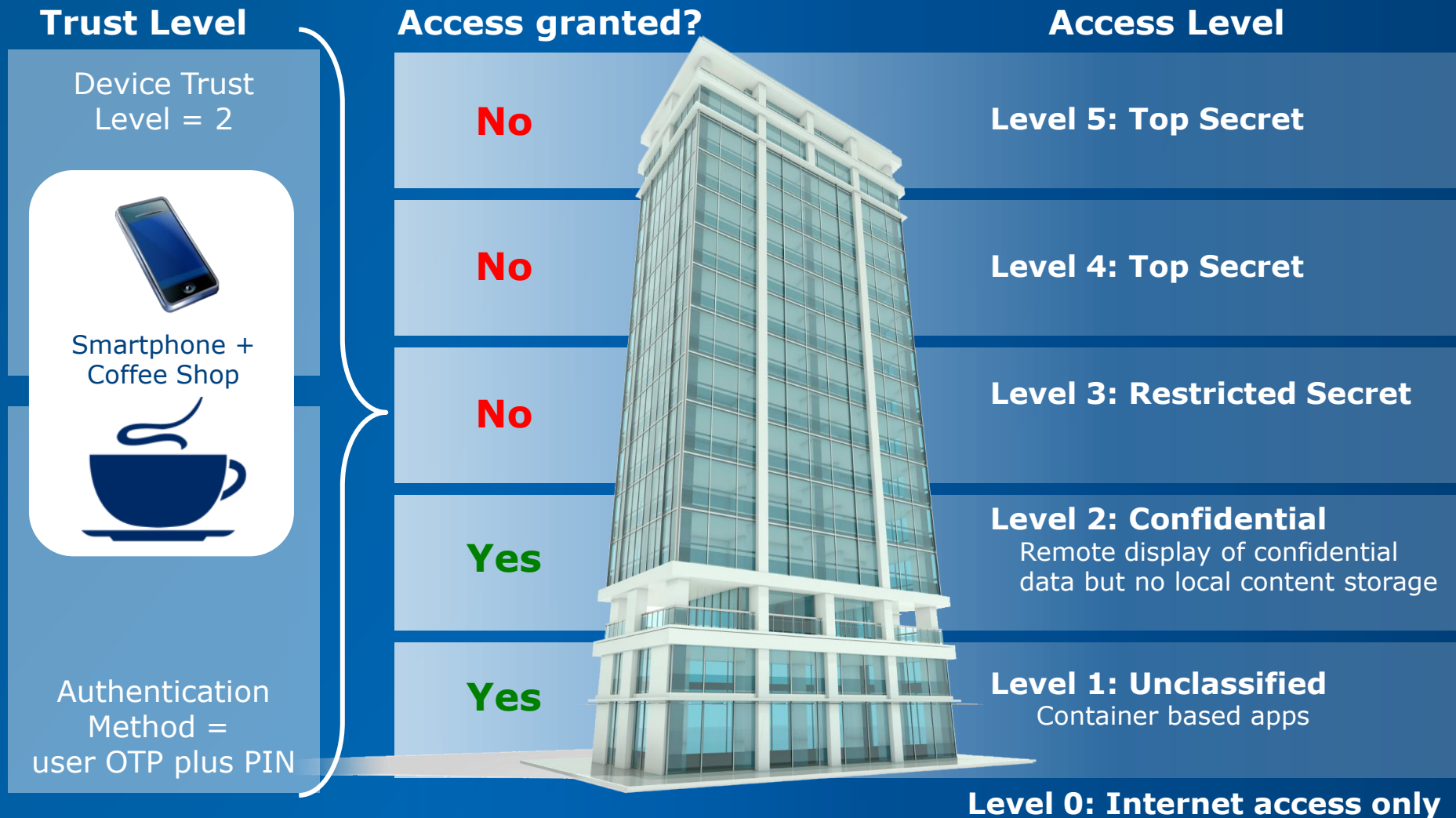


Components – cont.

- TAP client application
 - A lightweight client application
 - Responsible for the client trust calculation
- Application gateway and authentication layer.
 - Resides in the enterprise demilitarized zone (DMZ)
 - provides the layer of enforcement by filtering the access
- Trust broker
 - Calculates and responds with the trust level decision
 - Contains the business logic and the granular trust level

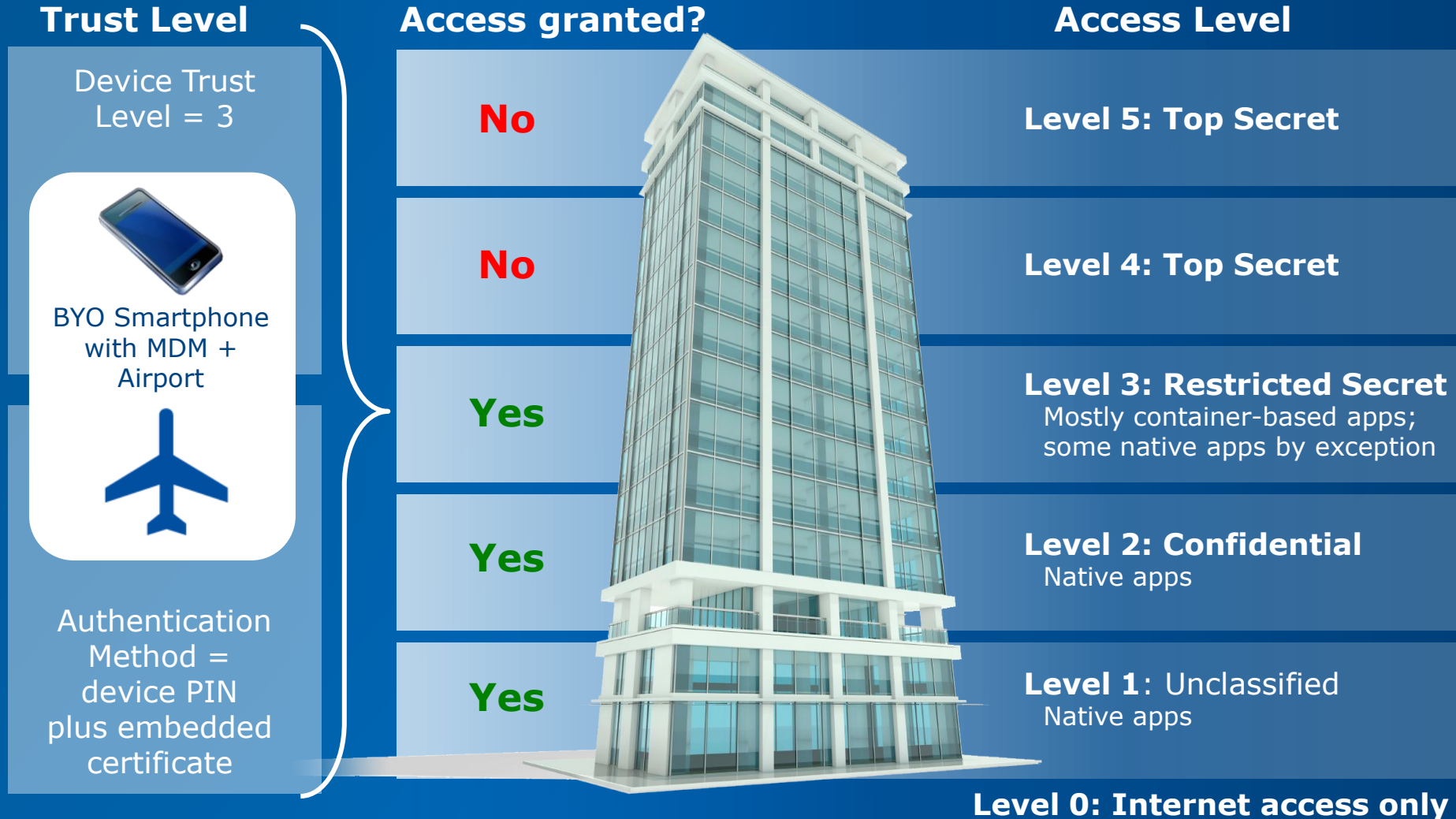
Scenario A: BYO Smartphone

Joe has a personally owned smartphone. He is in a coffee shop.



Scenario B: Intel-managed BYO smartphone

Bob's BYO smartphone has an approved MDM solution installed and is running most current version of OS. OS has "defined" features. Bob is in an airport.



Trust Calculation

- Dynamically determine what information is accessible based on several factors:
 - User identity
 - Type of device
 - Security controls
 - Physical location (on or off site)
- allow access, deny access, or allow limited or mitigated access
 - Can deny change permissions on certain content
 - Allow view-only permissions
 - Block a download



McAfee* Pledge One-Time-Password authentication



- Using McAfee* Pledge One-Time-Password
- API to generate OTP from the client application
- User experience – no need to enter a password

The Motorola RAZR I™
Smartphone with Intel Inside®



Single Sign On using Kerberos

- The Gateway authenticates the user
- The Gateway requests a Kerberos ticket on the user's behalf
- The Gateway presents the Kerberos Ticket to the backend web application

Benefits:

- No passwords being transferred, only the Kerberos ticket
- Removes the need for Active Directory credentials on BYOD
- Single Sign On – login once, access multiple times



User Experience

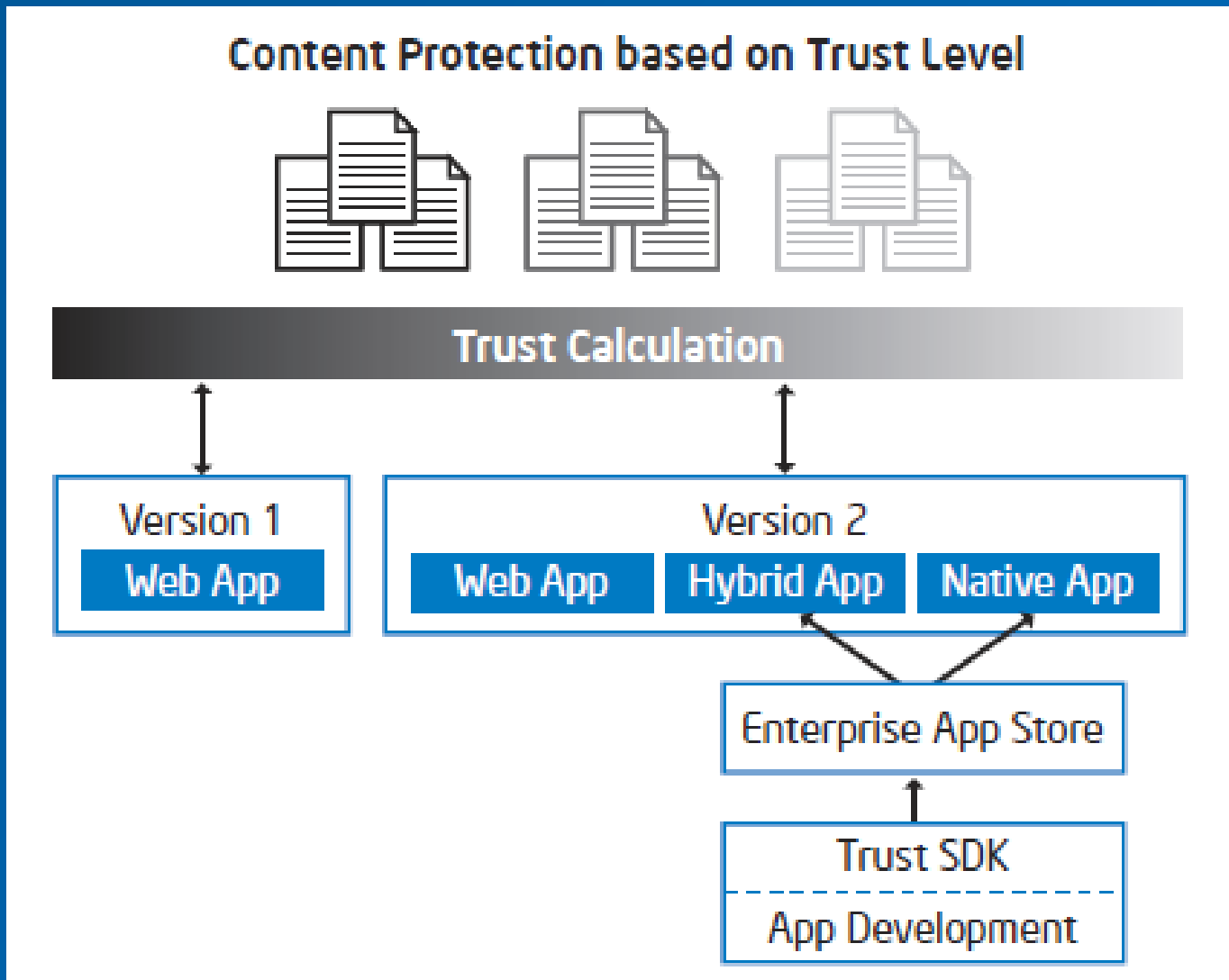
- our Trusted Application Portal (TAP) is customizable using scripts and HTML5 to support most SFF devices.
- adheres to the guidelines and standards for human factors engineering.



Results

- > 25 enterprise web applications,
Smart phones friendly
- > 15 device types, multiple Operating Systems
- > 10,000 installs (35% of BYOD total devices)
- > 12,000 accesses to backend applications per week

Next Steps



Key Messages



Rethink information security in light of new technologies and attack trends



Capitalize on the opportunity to reduce risk while enabling new technologies



No silver bullet – security still requires “defense in depth”



Thank You

Additional Resources

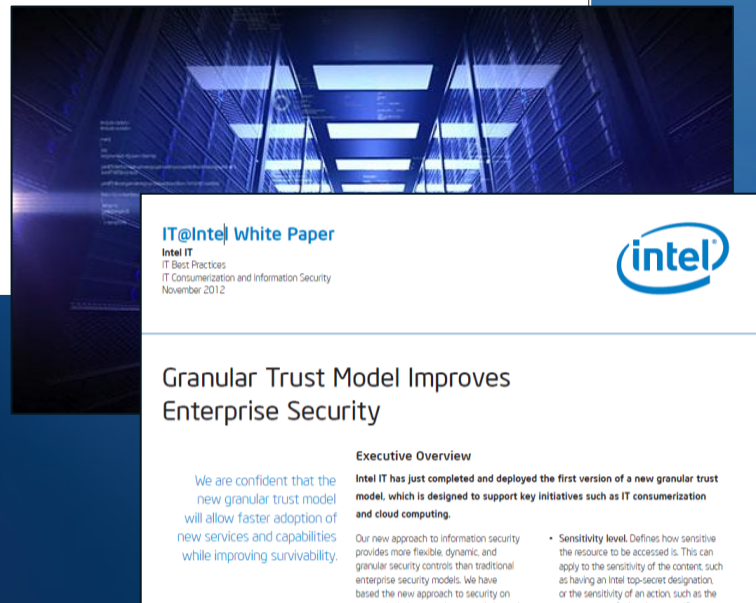


[Information Security Protect to Enable Strategy video](#)

[Rethinking Information Security](#)

[Intel IT's Security Business Intelligence Architecture](#)

[Granular Trust Model Improves Enterprise Security](#)



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Accelerating Business Growth through IT

2012-2013 Intel IT Performance Report



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IT@Intel White Paper
Intel IT
IT Best Practices
Program Productivity and IT Innovation
January 2011

Enabling Global Collaboration with Intel®-based Infrastructure

Executive Overview
To enable a collaborative environment, productivity, build stronger global partners, Intel IT is deploying servers, and an advanced virtualization* processes and technical skills, and values required by its problems us to adopt new culture.

The collaboration tools we support two categories: those that assist in personal productivity, and those that assist in business collaboration. Personal productivity tools include team messaging, video, and collaboration. Business collaboration tools include video conferencing, shared content, repositories, online document, and other tools. Intel IT's internal and external collaboration tools are designed to help us achieve our goals.

Partners
Melissa Jacobson
Collaborative Product Line Manager
Intel IT

Collaborative
Catherine Spence
Regional Director
Intel IT

Collaborative
Daphne Williams
Intel IT



IT@Intel White Paper
Intel Information Technology
Data Center Efficiency
September 2008

Intel IT Data Center Solutions: Strategies to Improve Efficiency

Executive Overview
Over time, Intel IT has evolved our strategies to optimize our data center infrastructure to respond faster to business needs while enhancing the services and value it brings to the business. Our new data center strategies shift the emphasis away from reducing the number of physical data center facilities to, instead, focusing on approaches that leverage the full potential of our data centers worldwide. This helps increase business value across the entire data center infrastructure. We expect our methods to achieve a combined cost savings of about USD 1 billion by 2014.¹

Our approach centers on three strategies: optimization, utilization, and strategic investments. The key elements of these strategies include:

- Accelerating server refresh to take advantage of performance and power efficiency improvements.
- Consolidating and virtualizing our server resources.
- Upgrading facilities to improve facilities density, utilization, and energy efficiency.
- Adding capacity in a modular, scalable way.
- Locating new data centers in aggregation sites where possible.
- Eliminating data centers where not feasible and financially viable.

Partners
Strategy Finance Analyst, Intel IT
Strategy & Vision
Senior Data Center Architect, Intel IT

Strategy
Sharda Kulkarni
Senior Principal Engineer, Intel IT
Sandeep Rungta
Principal Engineer, Intel IT
Arvind Sankar
Project Manager, Intel IT
Arvind Sankar
Project Manager, Intel IT

Footnote
¹The present value of USD 800 to USD 1 billion.

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