The Future of Enterprise IT

The trends, technologies and usage models that will mold your Enterprise and IT shop moving forward

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IT@Intel
THE TEN MOST HATED JOBS
PROVIDED BY Forbes

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Director of Information Technology
Intel Business Overview

• The world’s largest semiconductor manufacturer
• Leading manufacturer of computer, networking, and communications products
• 164 facilities in 62 countries
• Over USD 54 billion in annual revenues from customers in over 120 countries
• 25 consecutive years of positive net income
• One of the top 10 most valuable brands in the world for 10 consecutive years

Intel’s Mission: Delight our customers, employees, and shareholders by relentlessly delivering the platform and technology advancements that become essential in the way we work and live.
Intel IT Vital Statistics

6,400 IT Employees
54 global sites

91,500 Intel Employees
164 sites, 62 countries

87 Data Centers
~75,000 servers

>142,000 Devices
>109,000 PCs (80+% mobile)
33,000 handhelds

∞ does not include wholly owned subsidiaries that Intel IT does not directly support
Source: Information provided by Intel IT as of Jan 2012.
Increased productivity with personal devices, seamless access

Supporting the increasing speed of the business

Protect to Enable

Deliver real-time insight to drive decisions
End user experience is now the key focus!

**Evolving Security**
- No single model
- Granular trust
- Manage services as well as devices

**Business Intelligence**
- Big Data a key item
- Predictive analytics
- Focus on Information

**Consumerization / Cloud Services**
- BYO, Social Media
- Private, Hybrid, Public cloud
- Data/Content Sync
IT Under Constant Pressure

Rate and Pace of Business is Increasing

IT Budgets are Flat to Slightly Down†

Increasing Requirements for On-demand, Simplified Self-service, Custom Solutions from IT

†Source: Gartner Global CIO Study, 2011
Business Group Expectation of IT

- Self-Service
- Customization
- Velocity
- Resilience
Blended Technology Experience

Traditional work/life balance

New work/life balance

7am

9am

11am

1pm

3pm

5pm

7pm

9pm

11pm

Check e-mail (Smartphone)

Work in conference room

Work at desk

Email via TV

Check e-mail one last time

7am

9am

11am

1pm

3pm

5pm

7pm

9pm

11pm

Work Life

Work/Personal Life

IM with kid’s teacher

IM with wife

Drive, listen to email from IVI

Drive kids to soccer

Family time

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The Changing Workforce – A Younger Generation

Entering an often technology complacent environment

- Many IT shops have stagnant employment bases
- Flat or downward budgets limit IT’s flexibility
- Home usage models not always viewed as viable in corporate space

Can actually help redefine how you work

- Instant messaging as an example
- New forms of collaboration

Can limit productivity as much as enable it

- IM instead of face-to-face conversation
- If it doesn’t show up in an Internet search, does it really exist?
Other Workforce Changes

We are dealing with a user base that feels more entitled than in past
• It’s a “T-Ball” generation of workers
• Telling them “no” means they will try on their own
• They consider IT a dinosaur and obsolete

It’s all about the “Now”
• Text messaging and IM are the norm
• Not willing to wait quarters or years for new items
• Will “stand in line” to have it
The Changing Landscape for IT

Devices Used to Access Business Applications

<table>
<thead>
<tr>
<th>Year</th>
<th>Company-owned</th>
<th>Personally-owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>69.3%</td>
<td>30.7%</td>
</tr>
<tr>
<td>2011</td>
<td>59.3%</td>
<td>40.7%</td>
</tr>
</tbody>
</table>

Which of these statements describes you the best in relation to home and personal technology

- Technology Enthusiast: 55%
- Technology Fanatic: 15%
- Conservative Consumer: 20%
- Progressive Consumer: 6%
- Technology Agnostic: 4%

It’s not just about “a” platform anymore. It’s about the overall experience and services the user wants.

Source (left): IDC information worker custom survey, sponsored by Unisys, May 2011 and May 2010 Q1 (2011); Q4 (2010). Which, if any, of the following devices do you use to access your organization’s business applications such as employee benefits, customer billing, client relationship tools, or productivity tools such as spreadsheets, word processors, etc?

Source (right): The Register – Fall 2011 Consumerization study
Transformation of IT

Embedded IT

- Business Owned
- Business & IT
- Business & IT
- Business & IT

Business Unit Control at High Cost

Centralized IT

- Cost Center/Service Provider
- IT
- Business
- Business
- Business

IT Control at Low Cost

Centralized IT

- Strategic Business Partner
- Business/IT
- Business
- Business
- Business

Shared Control at Optimized Cost

IT controls data integration, security, governance and cost
What Does it Mean for IT?

IT Must Move at the Speed of Business

Understand the Business as well as the Technology

Comprehend the Users’ Needs

Nurture New IT Skill Sets and Roles
5 skilled people in 6 months yields $10M
“By Fall 2013... non-touch devices will be bricks.”
Tablets In The Enterprise
Forces Shaping Client Computing

We are at an inflection point.

**Internet**
- Ubiquitous broadband, anytime/anywhere, flexibility

**Consumerization**
- Many devices per user, BYOD, Gen-Y workforce

**Risk**
- Regulation, threats, security, compliance

**Sustainability**
- Energy, environment

**Virtualization**
- Hypervisors, streaming

**Cloud Computing**
- On-demand, pay as you go, DaaS, SaaS

**Visualization**
- Rich Media applications, 3D Internet

**Connect**
- Collaboration, communication, mobility

**Financial**
- Economic reality, TCO/ROI, licensing, business value

**Client Computing Architecture**
Transforming the ‘Face’ of IT

IT peripheral vending machines – swipe your badge and go!

New service center design – The Way We Work + Technician redesign
Future of Enterprise IT

**IT’s client platform business is becoming more complex and costly to manage**
- Consumerization, multiple OS, multiple vendor influences
- Ratio of devices to users becoming 1:Many

**Business model for enterprise clients is becoming more complex**

**Users will require access to corporate applications and data from multiple devices**
- Not always corporate owned or managed
- IT will require scalable solutions to manage that complexity

**A fundamental shift in the management of the client end point**
- From device-based to container-based model
- Applications or environment will be based on combination of device, bandwidth, usage model, & policy
Evolving IT Environments

Security
• Move away from the single or “one size fits all” security model to more of a multi-layered or ringed security approach. (i.e. file encryption, application tunneling, geo fencing)

IT as a true service provider
• Move away from serving the 80/20 role to a role of providing services that meet the usage model needs
• Right fit/design for the job
• Manage more in the backend versus chasing the mobile front end

Influence scope changes
• Not just about OEM’s and software shops anymore
• End users
• Cloud providers
Summary and Call to Action

IT needs to embrace Consumerization, but cautiously:
- Focus on optimizing user experience across a range of devices
- Support various modes of connectivity & layers of security
- Don’t compromise information security

Develop and support capabilities to:
- Certify isolation of corporate data
- Enable multiple environments to run simultaneously
- Transition workspaces seamlessly from one device to another
- Don’t always try to manage every physical device

IT can prepare for Consumerization by:
- Evolving from delivering the “big bubble” to more of a services company
- Abstract IT data and applications to function in diverse environments
- Move to cloud-based service offerings where it makes sense, both private and public
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