



Intel® vPro™ Technology Usage within Intel's IT Group

Intel IT

IT@Intel

Legal Notices

This presentation is for informational purposes only. INTEL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

BunnyPeople, Celeron, Celeron Inside, Centrino, Centrino logo, Core Inside, FlashFile, i960, InstantIP, Intel, Intel logo, Intel386, Intel486, Intel740, IntelDX2, IntelDX4, IntelSX2, Intel Core, Intel Inside, Intel Inside logo, Intel. Leap ahead., Intel. Leap ahead. logo, Intel NetBurst, Intel NetMerge, Intel NetStructure, Intel SingleDriver, Intel SpeedStep, Intel StrataFlash, Intel Viiv, Intel vPro, Intel XScale, IPLink, Itanium, Itanium Inside, MCS, MMX, Oplus, OverDrive, PDCharm, Pentium, Pentium Inside, skool, Sound Mark, The Journey Inside, VTune, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

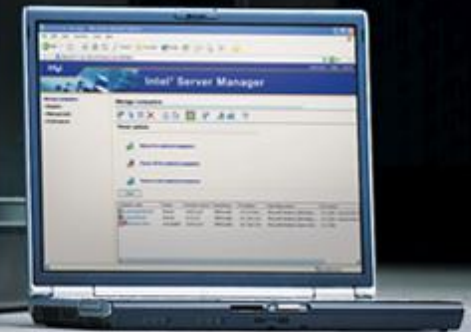
*Other names and brands may be claimed as the property of others.

Copyright © 2010, Intel Corporation. All rights reserved.

Intel Information Technology

As the IT department inside Intel we have a unique access and insight into the world of technology.

Our mission is to utilize IT investment to support Intel's growth and create value for our business.



Employee and Business Needs

Employee

- Compute performance
- Collaboration tools
- Flexibility and freedom
- Access to information/data

Business

- Cost effective IT
- Information security
- Manageability
- Life cycle management



Forces Shaping PC Computing

Security

- 2M laptops/year are reported as stolen and 97% are never found¹
- 70% of all reported security breaches were due to insiders²
- The average cost of a lost laptop is USD 49,246³

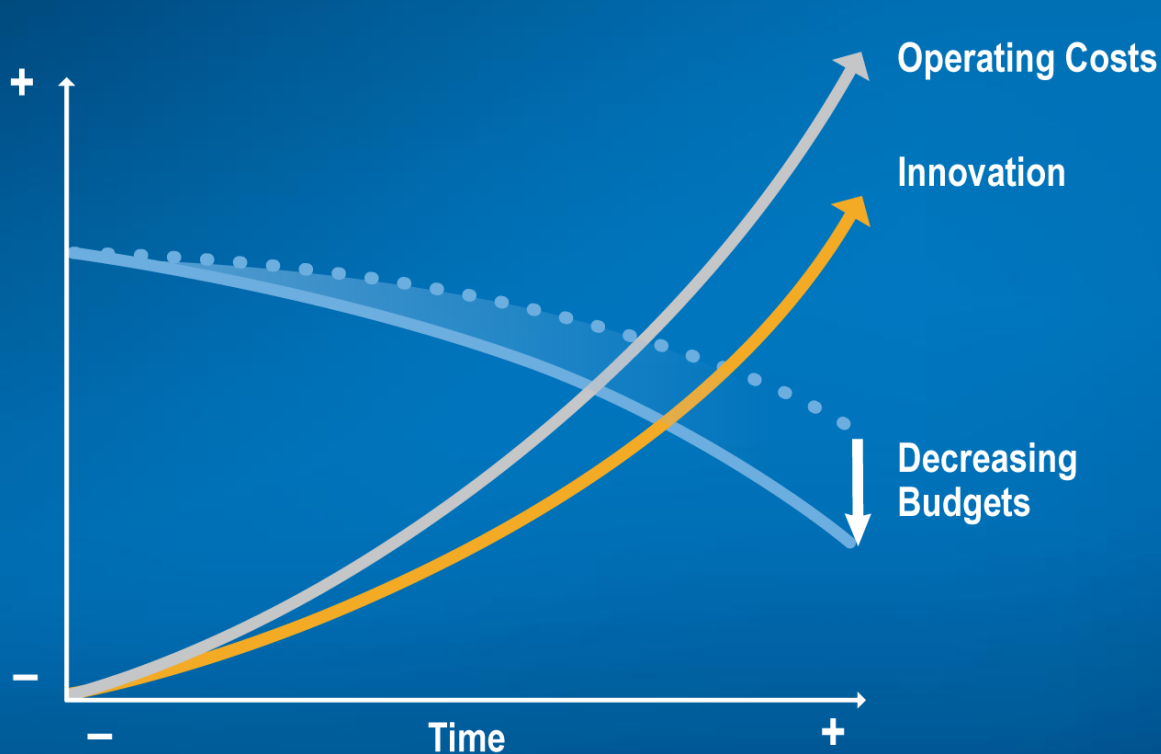
Manageability

- On average, firms deploy a reported 35 scheduled patches and application installs per year for laptops and 51 for desktops⁴
- The failure rate in year four is about 24%, which is twice the rate in year one. An out-of-warranty repair for a failed (laptop) PC is approximately USD 1,425⁵

Energy

- Rising energy costs make power a significant expense

The Inflection Point



- We must do something different or our production support cost will consume our entire budget.
- Our solution delivery will slow.
- Failure to act will affect our future ability to innovate.



2010 Intel IT Standards Initiatives

Focus: Employee Productivity and IT Efficiency



PC Refresh

- Reduces support (run) costs
- Increases user productivity



Solid State Disk Drives

- 90% lower failure rates
- 12° cooler
- 44% productivity gains
- 60-70 min. more battery life



Intel® vPro™ Technology

- About 50% PCs provisioned
- Estimated USD 1M savings by 2011
- Expanding use case roadmap

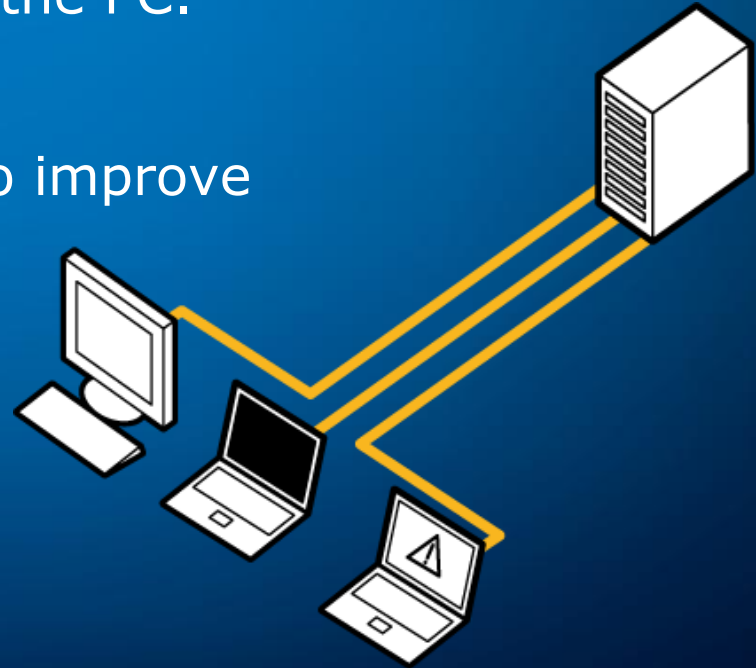


Software Upgrades

- 97% user satisfaction
- Estimated USD 11M savings
- Improved productivity
- Enhanced security

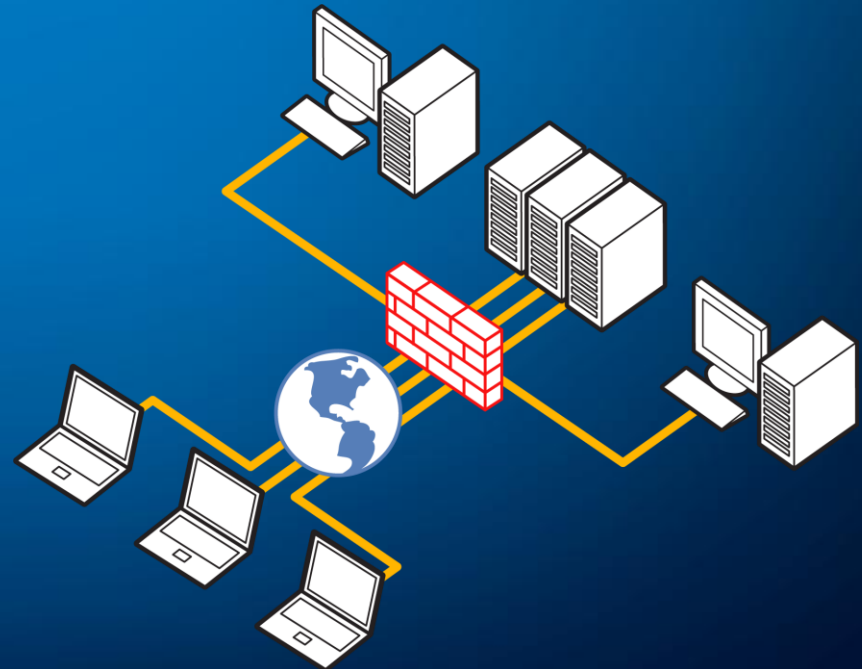
What is Intel® vPro™ Technology?

- Intel® vPro technology is a combination of processor technologies, hardware enhancements, management features, and security technologies that allow remote access to the PC — including monitoring, maintenance, and management — independently of the state of the operating system (OS) or power state of the PC.
- Intel vPro technology is used to improve security, manageability, and energy efficiency in PCs.



What is Intel® AMT™ Technology?

- Intel® Active Management Technology (Intel® AMT) is a technology that is a feature of the Intel® Core™ Vpro™ processor. It serves as an infrastructure for enhancing out of band (OOB) capabilities for network management and security console products.
- Intel® AMT uses a separate management processor that runs independently on the client machine and can be reached through the wired or wireless network.

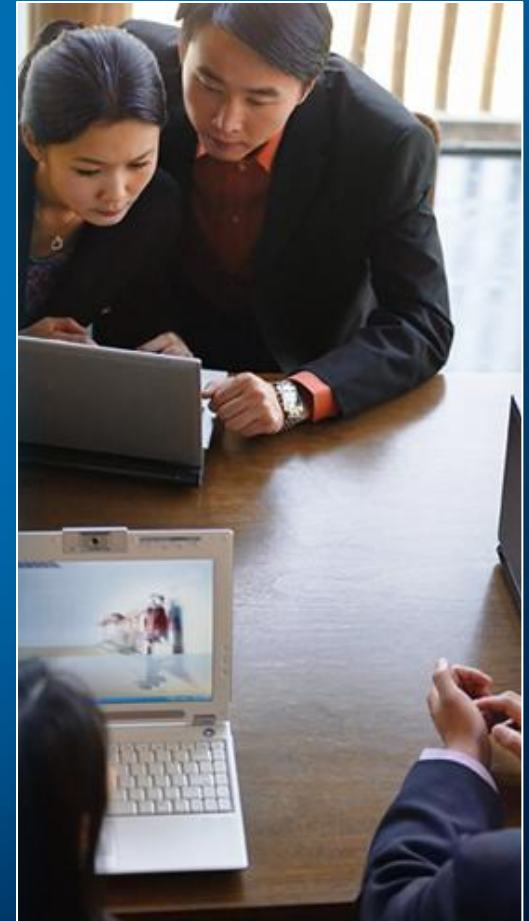


Top Challenges

**Ecosystem
Readiness**

**Platform
Life Cycle**

**Business
Process**

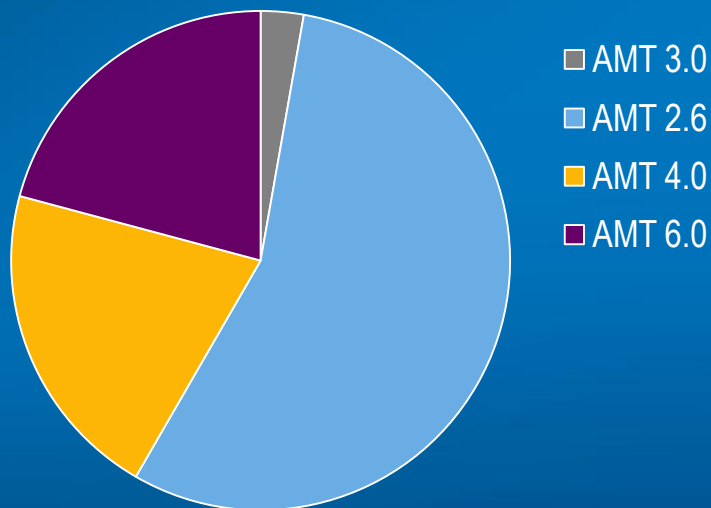


A Look Ahead – Year 2010

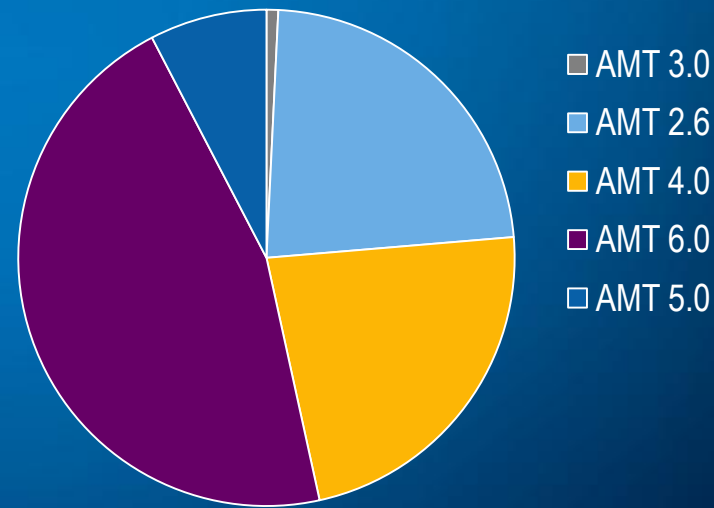
Intel® AMT/PC Landscape Comparison

- Intel IT is investing incrementally
- Simple, reliable, usable use cases

2010 - Q4



2011 - Q4



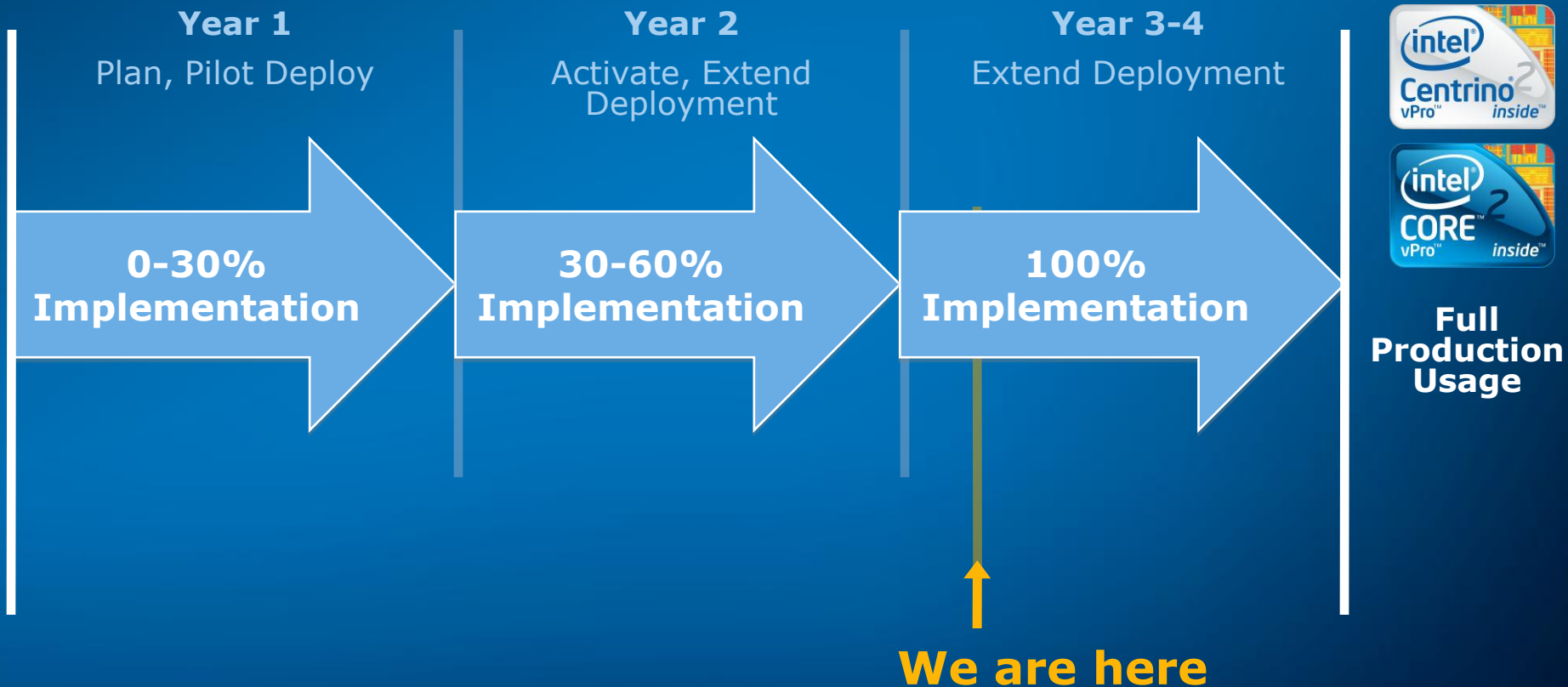
Focus on the future!

Intel® vPro™ Technology – Year 2010

- Activate Intel® Active Management Technology 6.0 provisioning
 - KVM
 - Manageability over wireless
- PGP password encryption reset
- KVM using Microsoft Diagnostics and Recovery Toolset
- Host-based provisioning PoC
- Fast call for help PoC done



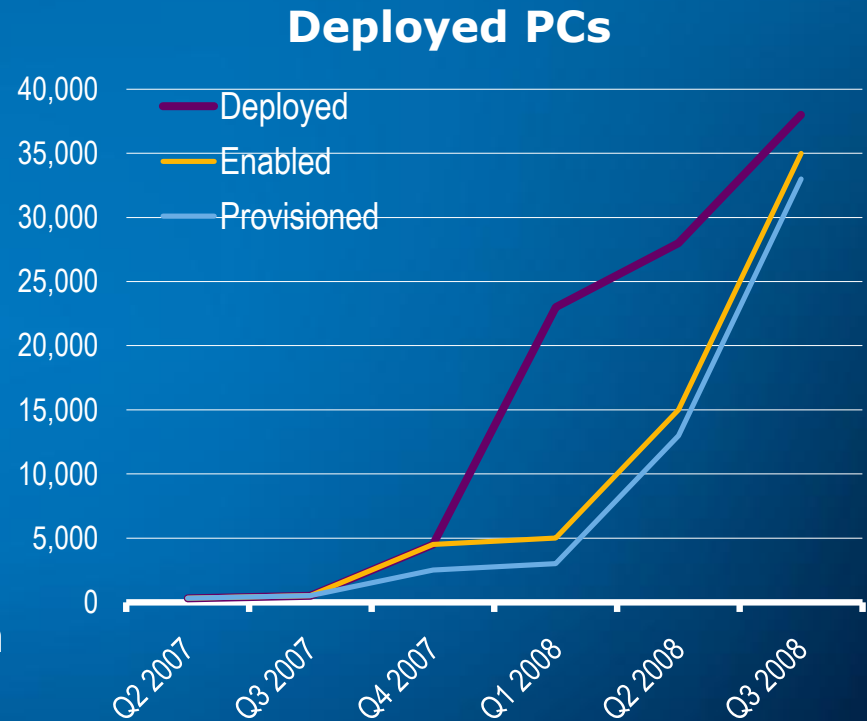
Intel® vPro™ Technology PC Deployment Cycle



Goal: 95% activation by end of 2010

Refining the Provisioning Process

- Previously, we manually provisioned all Intel® vPro™ technology systems
- Mid-2008 we switched to a new and more efficient Remote Provisioning capability
 - Saves time and costs
 - Increases flexibility
 - Increases deployment speed
 - Supports our “guiding principles”
 - Requires Intel® AMT client version that supports remote provisioning



**Remote Intel® AMT provisioning
increases efficiencies**

How Intel IT Uses Intel® vPro Technology Today

Intel® vPro™ technology is part of our standard IT build with over 49,000 PCs provisioned today. Our goal is 95% provisioned by end of 2010.

Use Cases Today

- Remote diagnosis/remote repair
- Remote diagnosis/local repair
- Remote configuration
- IT training room

Future Use Cases

- Security – System defense and agent presence
- Asset management and inventory
- Off-campus remote repair
- Remote keyboard/video/mouse
- encryption

Estimated USD 500K/year savings from remote repair and management

Opportunity to eliminate remaining deskside visits

Core capability for virtualized client usages

Training Room Pilot

We deployed PCs with Intel® vPro™ technology across multiple sites

- 515 systems across 48 rooms
- 14 sites globally

Implement remote power-up capabilities to enable

- Remote systems OS installs
- Remote updates and patching
- Remote application installation
- Remote troubleshooting
- Power saving
- Centralized global support



Training Room Pilot Summary

	Before Pilot	After Pilot
Training Rooms Supported	41	48
Average Hours PCs Turned Off	0	14
Class Type	Limited, Non-Technical	Unlimited
Support Hours	5 Days x 8 AM-5 PM Local Support only	7 Days x 24 Hours Local and Remote
Headcount	5	2.5
Cost Reductions		Remote Repair: 81% OS Setup and Refresh: 75% Application Installs: 75%

**Breakeven point achieved in 1.5 years,
ROI of 150% realized in Year 2**

Key Lessons

Pilot first

- Intel® vPro™ technology fully integrates with computing infrastructure
- Pilot provides a safe zone for learning
- Expand team to include infrastructure owners

“Touch” systems only once

- Deploy with Intel® vPro™ technology activated
- Remote provisioning is recommended
- Provision systems along with scheduled refresh of PCs

Fundamental business process changes

- Keep use cases simple, reliable, and usable
- Involve operations up front

**Without innovation,
support costs consume budgets**

Training Room Results

Reduced Support Costs

- Less downtime with new platforms
- Ability to repair remotely or determine software and/or HW failure (Remote diagnostics)
- Reduced deskside visits
- Supported training rooms grew from 41 to 48
- Headcount reduced by 50%, directly related to the deployment of Intel® vPro™ technology

New Capabilities

- Hi-performance systems
- Centralized remote support
- Functional remote power management
- Remote BIOS and FW update capability
- Remote hardware diagnostics
- Power saving

Summary

Remaining 2010 Goals

- Deploy between remaining Intel® vPro™ technology systems
- Achieve 95% of Intel® vPro™ capable systems with Intel® Active Management Technology enabled and provisioned
- Continue to expand use cases using Intel® vPro™ technology





Q&A

IT@Intel



