



INTEL'S REMOTE MANAGEABILITY SOLUTIONS

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- This device has not been authorized as required by the rules of the Federal Communications Commission.
- This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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

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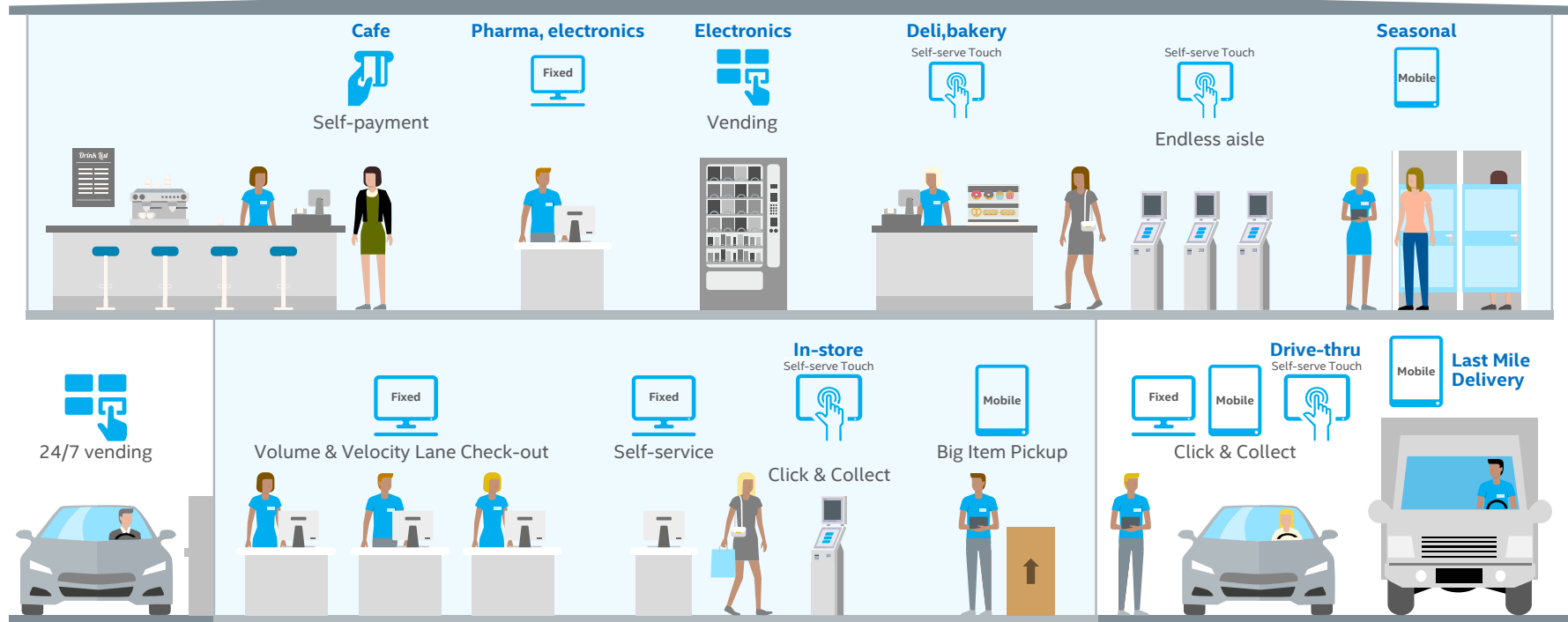
AGENDA



- What is Intel® vPro™ Technology?
- Why and Where is it useful?
- Intel® vPro™ Platform Ingredients
- What is Intel® Active Management Technology (AMT)
- How to enable Intel® AMT
- Intel® vPro™ Environment and Modes
- How to manage remote systems?
- Questions?



This is the Future of Retail Store. Starting Now.



ALL REMOTE MANAGED WITH INTEL® VPRO™ TECHNOLOGY AND HIGHLY SECURE WITH INTEL SECURITY PRODUCTS†

†Available only with Intel® Core™ i5 and Intel® Core™ i7 processors with vPro™ Technology

INTEL VPRO : SECURE, FLEXIBLE AND MANAGEABLE RETAIL SOLUTION

Manageability

Intel®
Active Management Technology (AMT)

Flexibility

Intel®
Virtualization Technology (VT)

Security

Intel®
Trusted Execution Technology (TXT)

Processor



Intel® Core™ processors



Chipset



Intel® Express Chipset



Network



Intel® LAN/WLAN controller

An Intel® vPro™ Platform is the sum of hardware, BIOS extensions and applications that deliver solutions for a robust and reliable retail applications



WHAT MAKES UP A VPRO SYSTEM

Processor



Intel® Core™ Processors

- [6th Gen Core i5 CPU](#)
- [6th Gen Core i7 CPU](#)
- [7th Gen Core i5 CPU](#)
- [7th Gen Core i7 CPU](#)



Chipset



Intel® Express Chipset

Mobile	Desktop
• QM170	• Q87
• QM87	• Q170
• CM236 & CM238	• Q270

Network



Intel® LAN /Wi-Fi Controller

LAN

- [I219LM](#)
- [I218LM](#)
- [I217LM](#)

Required

Wi-Fi

- Optional*
- [Intel® Dual Band Wireless-AC 7260](#)
 - [Intel® Dual Band Wireless-AC 7265](#)
 - [Intel® Dual Band Wireless-AC 8265](#)
 - [Intel® Dual Band Wireless-AC 8260](#)

Note : Only selected SKU of each Ingredient will support vPro

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Visit www.ark.intel.com for more information

10+ Years of Intel vPro



2006



Enterprise Remote Management w/Intel® Active Management Technology

Processor Virtualization HW Support (VT-x)

2007



+ Wireless Remote Management

+ Hardware-strength security

+ I/O Devices Virtualization HW Support (VT-d)

2008



+ Reach & Manage Beyond Firewall



2010-2011



+ HW-KVM Remote Control

+ Host-based Configuration

+ KVM Resolution Enhancements (1920x1200)

+ Intel® Identity Protection Technology with OTP



2012



+ KVM Enhancements (3 displays)

+ Intel® Identity Protection Technology with PKI

2013

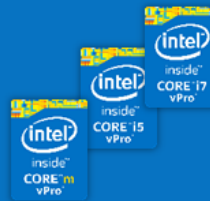


+ KVM Resolution Enhancements (2560x1600)

+ Graceful OS Shutdown



2015



+ Remote provisioning for wireless platforms

+ Remote Screen Blank

+ Microsoft InstantGo* support

2016



+ KVM Resolution Enhancements (4096x2160@8bpp)

+ Intel® Remote Secure Erase with Intel® SSD Pro

+ USB-R Storage Redirection

2017



+ Intel® Manageability Commander

+ Intel® AMT Location for Intel® Authenticate

+ Support for KVM headless devices

+ Web app hosting in Intel® AMT firmware

+ Intel® Data Guard

+ FIPS 140/2 L1 Cert for PKI

A history of continuous improvement & investment on vPro platform

INTEL® VPRO™ TECHNOLOGY ECOSYSTEM



Security



Intel® Active Management Technology

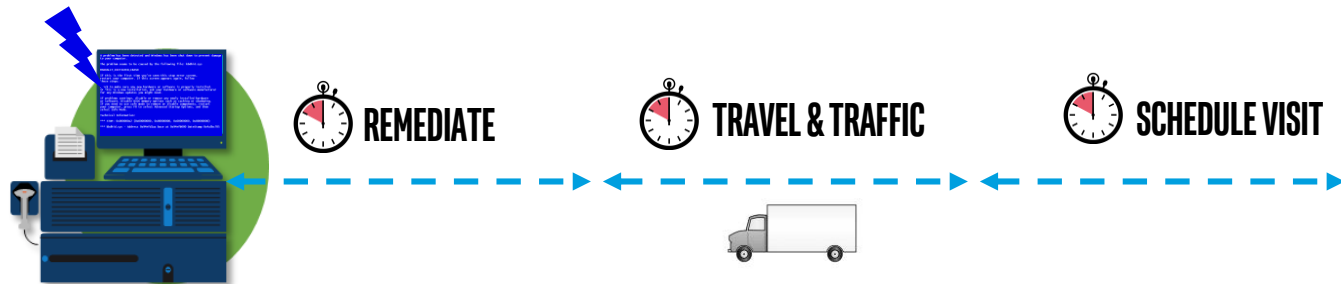


Open Source & Other Tools



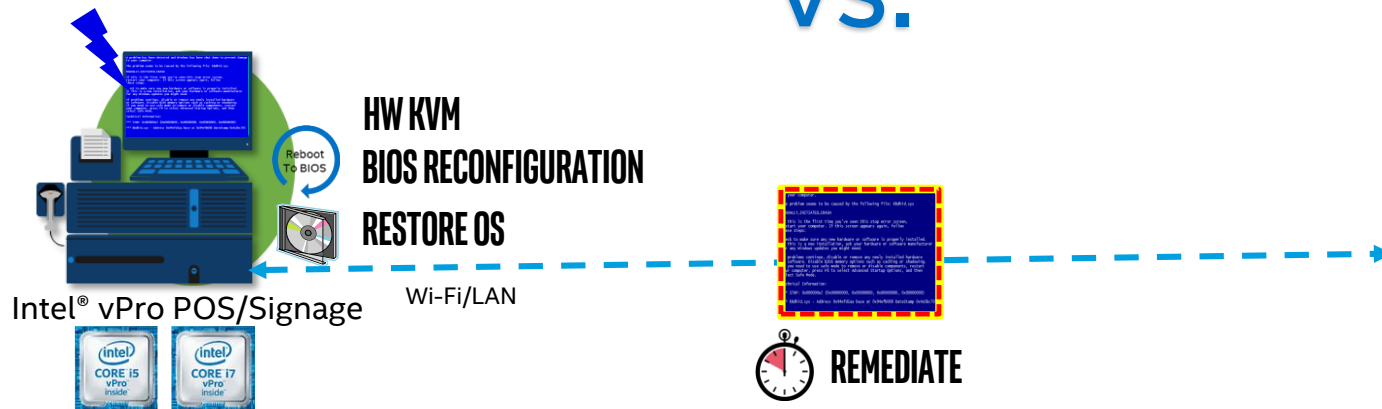
Over 500+ ISVs support Intel® vPro™ Technology with Intel® AMT

MONITOR, REMEDIATE REMOTELY AND REDUCE DOWNTIME



Non-vPro Retail
POS/Signage

VS.



Intel® vPro POS/Signage

Wi-Fi/LAN



Who's Now Using Intel® vPro™ Technology for Retail

Putting Intel® Active Management Technology (Intel® AMT) to work

The logo for METRO, featuring the word "METRO" in bold, yellow, sans-serif capital letters on a dark blue rectangular background.

Bridging the Time Zones

"The best thing about the Intel® vPro™ platform is that it enables unattended operation. Different time zones were a big challenge for us in the past. Now we just need a machine to be connected to the network and we can update it."

- Dieter Hegemann, Senior Consultant,
METRO SYSTEMS

The logo for Bank of New Zealand (bnz), featuring the lowercase letters "bnz" in a bold, dark blue font, with four orange stars of varying sizes arranged in an arc above the "z".

Band Activates Intel® Active Management Technology on its Fleet of NCR SelfServ* ATMs

"Intel's vPro and Active Management technologies are a perfect fit for us. When deployed alongside NCR's Predictive Services and Virtual First Line Maintenance, which we launched earlier this year, the result is a powerful combination of robust, secure, efficient and cost-effective ATM estate management."

- Paul Johnson, Channel Manager ATM & Self Service,
Bank of New Zealand

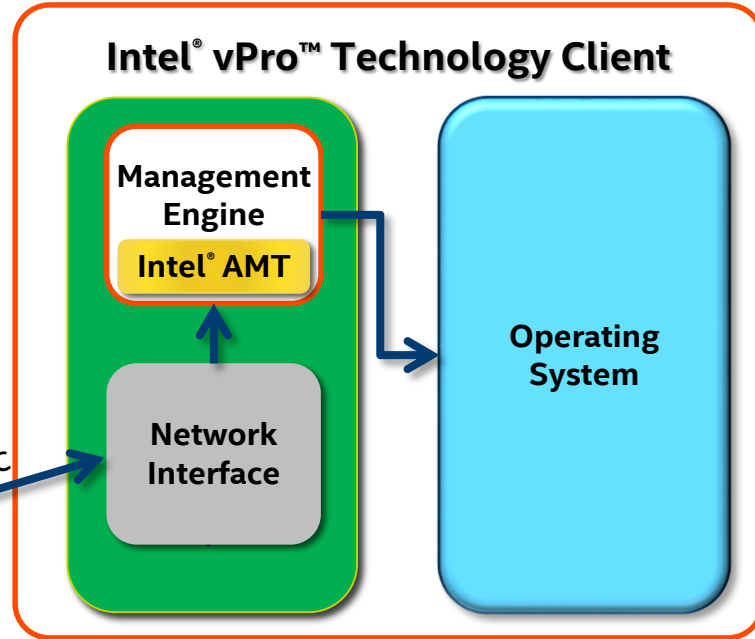
Sources: Intel Corporation, 2016

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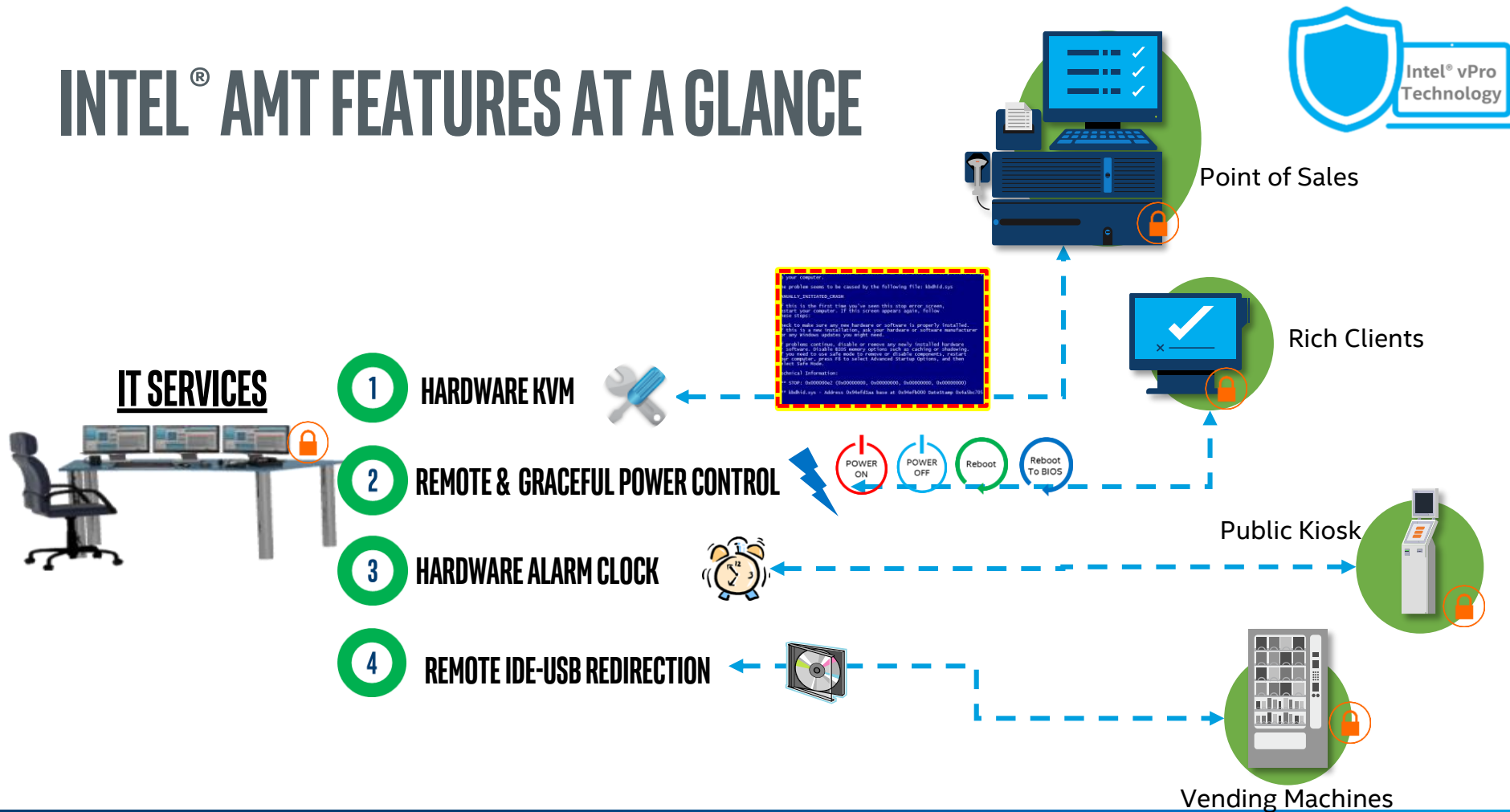
INTEL[®] ACTIVE MANAGEMENT TECHNOLOGY (INTEL[®] AMT)

INTEL® AMT MANAGEMENT PACKET ROUTING

- Management Engine sits between the network interface and the operating system
- Management traffic is handled directly by Intel® AMT Management Engine via the vPro enabled network component
- Management traffic is never seen by the operating system



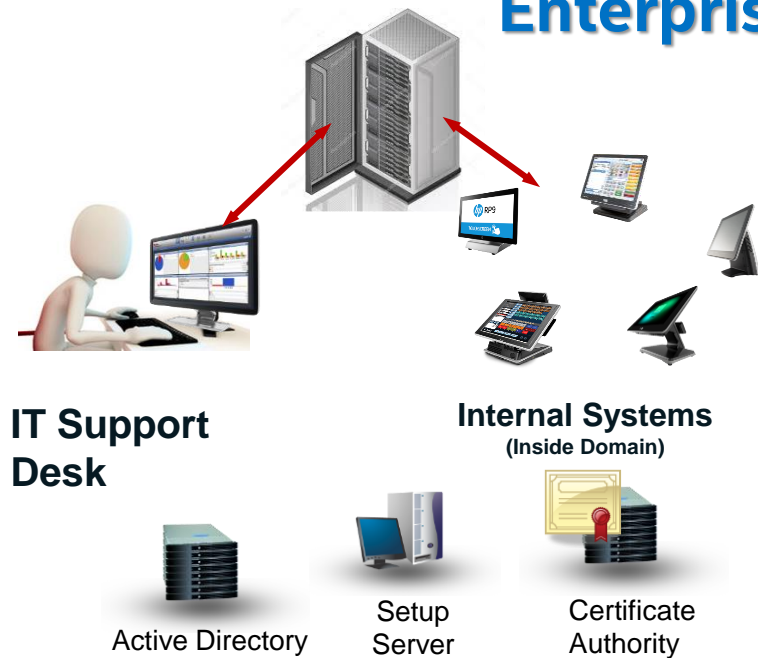
INTEL® AMT FEATURES AT A GLANCE



UNDERSTANDING VPRO ENVIRONMENTS & MODES

VPRO ENVIRONMENTS COME IN TWO FORMS

Enterprise VS Cloud

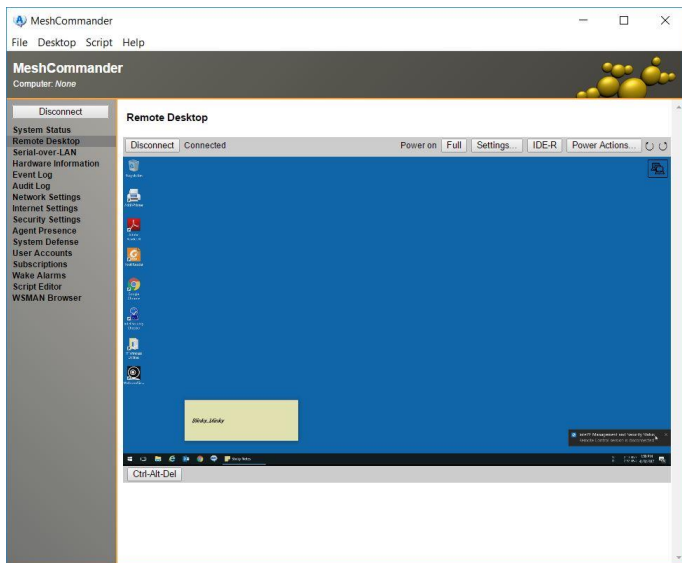


Enterprise Domain – Corporate – Secured – 8021.x

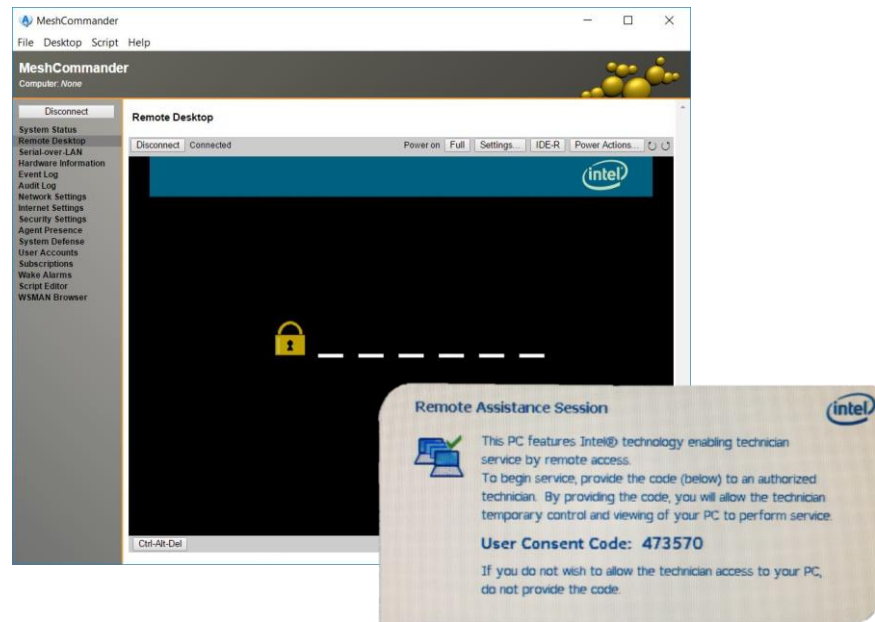


Public Domain – Home like Internet Connections

TWO “MODES” OF VPRO ACTIVATIONS



VS



Admin-mode – No User Consent
(ACM)

Client-mode – User Consent Required
(CCM)

IDENTIFYING VPRO SYSTEMS



WAYS TO IDENTIFY AN AMT CAPABLE SYSTEM

1 CONTACT SYSTEM OR HARDWARE SUPPLIER OR LOOK FOR THE VPRO BADGE



2 REBOOT SYSTEM AND HIT (CTRL+ P) TO SEE IF SYSTEM ENTERS MEBX (ME BIOS) , THE INTEL AMT FIRMWARE VERSION WILL BE DISPLAYED IN THE BIOS IN SOME SYSTEMS

3 THE INTEL SCS SYSTEM DISCOVERY TOOL COLLECTS INFORMATION ABOUT THE INTEL ME (THE INTEL MANAGEMENT ENGINE RUNS THE INTEL AMT FIRMWARE AND OTHER FIRMWARE)

PROVISIONING INTEL® VPRO

INTEL® AMT PROVISIONING OVERVIEW

Manually Configure AMT



When entering MEBx change the following:

1st time login password : "admin" without "" → *change to desired password*

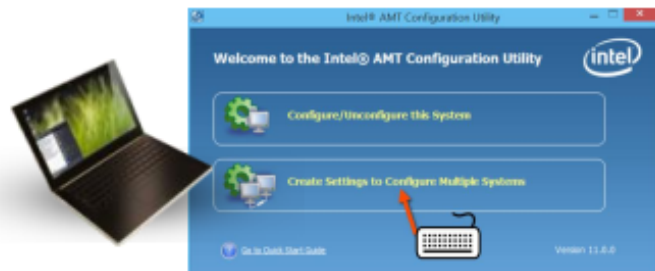
Disable KVM "opt-in"

Disable any "User Consent"

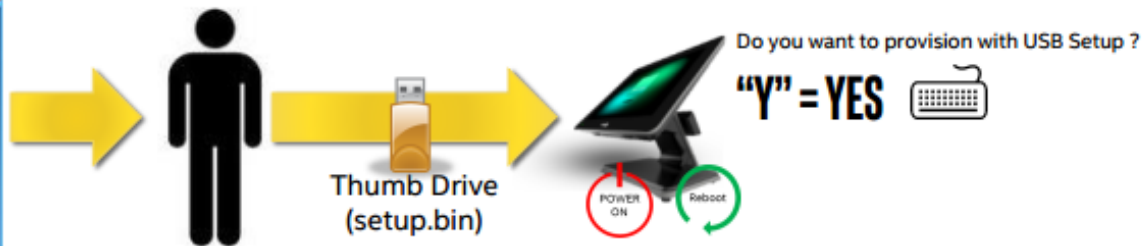
Activate "Network Access" – this enables vPro!

NOTE: Keep MEBx password in Safe place – If lost, must remove CMOS battery to clear or reflash BIOS

Enterprise mode : Setup with USB key



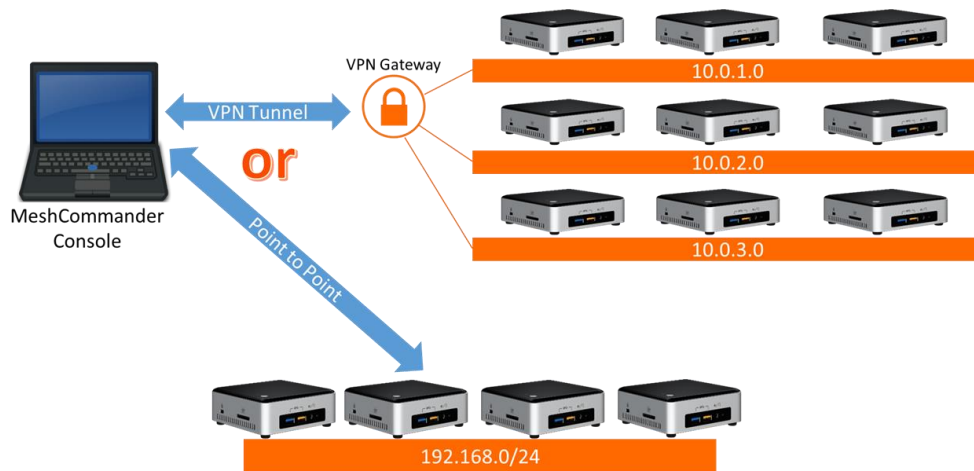
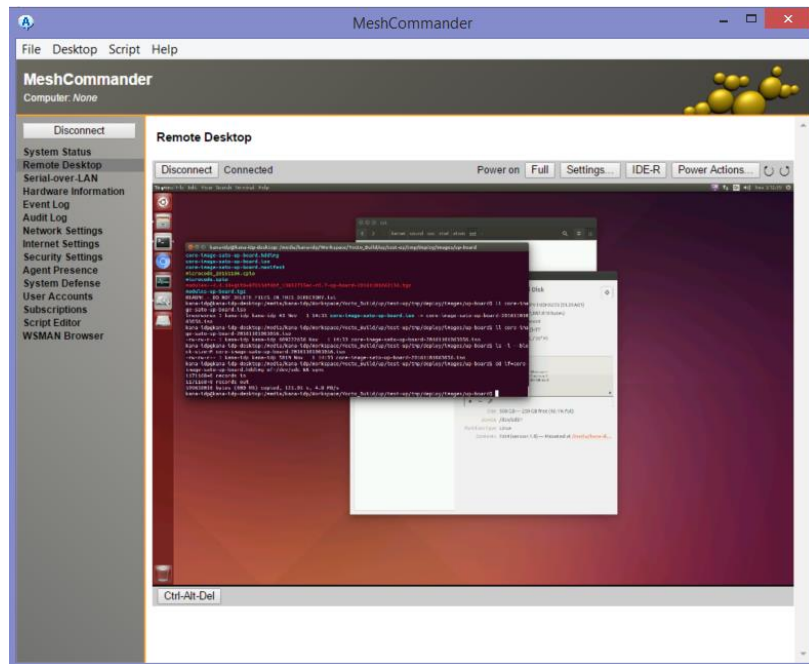
Intel® SCS: Create Provisioning USB Stick



TOOLS FOR MANAGING INTEL® AMT

MESHCOMMANDER

OPEN SOURCE



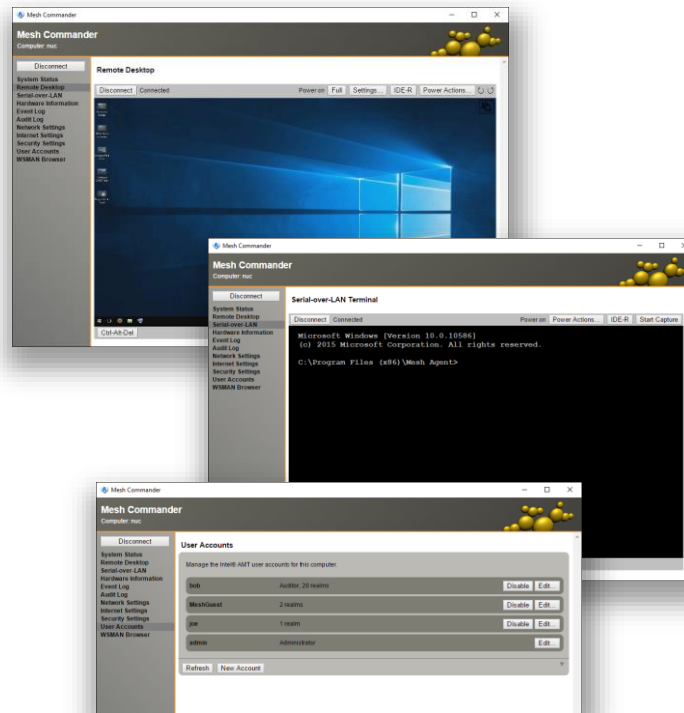
<http://info.meshcentral.com/downloads/mdtk/meshcommander.msi>

MESHCOMMANDER

Supported AMT Features


- **Hardware KVM viewer**
- Serial-over-LAN terminal
- **IDE-R support**
- **Power control**
- Event viewer
- Audit log viewer
- Hardware asset
- Account management
- **Network settings**
- WIFI management
- **System Defense**
- **User consent control**
- Enabled feature control
- Certificate & TLS management
- **CIRA & Environment Detection**
- WSMAN browser
- Alarm Clock

<http://info.meshcentral.com/downloads/mdtk/meshcommander.msi>



MeshCentral (WIN-F S5CD120U6G)

Connect to your home or office devices from anywhere in the world using MeshCentral, the remote monitoring and management web site. Download and install a special management agent on your computers. Once installed, each mesh enabled computer will show up in the MeshCentral web site and will be able to monitor them, power them on and off and take control of them.



Log In

User Name:

Password:

☐ Remember me next time.

Log In

Don't have an account? [Create one.](#)

- Disconnect
- System Status
- Remote Desktop
- Serial-over-LAN
- Hardware Information
- Event Log
- Audit Log
- Network Settings
- Internet Settings
- Security Settings
- Agent Presence
- System Defense
- User Accounts
- Subscriptions
- Script Editor
- WSMAN Browser

Multi-Desktop Viewer

Remote Desktop

[illegible]

Please contact the vPro team for Meshcentral Enabling Guide

QUESTIONS.... ?

THANK YOU



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