# Overview

2nd Generation Intel® Core™ i5 vPro™ Processor 2nd Generation Intel® Core™ i7 vPro™ Processor



# 2nd Generation Intel® Core™ vPro™ Processor Family





More secure, manageable, and responsive—see the difference a single processor can make

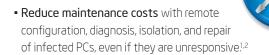
#### PC security is now smarter than ever

- Remotely isolate infected PCs from the network, and still remotely and securely access them to repair the systems.<sup>1,2</sup>
- Disable PCs at the hardware level in the event of loss or theft through optional Intel® Anti-Theft technology.3
- Remotely unlock encrypted drives that require pre-boot authentication, and manage settings even when the PC is off—without compromising strong end-point access control.<sup>1,2</sup>
- Take advantage of hardware-assisted secure, virtual environments to centralize management of operating system and application images, and enable the use of local computing resources for a rich, end-user experience.4

## Visibly smart performance to boost your bottom line

- Up to 2x faster multitasking, encrypt sensitive data up to 4x faster, and run business productivity applications up to 60% faster on a 2nd gen Intel® Core™ i5 vPro™ processor vs. a 3-year-old PC.5,6
- Intel® Turbo Boost Technology 2.0 adapts performance when needed for more demanding tasks, and saves energy when additional performance is not needed.7
- 4-way or greater multitask processing enables the 2nd gen Intel® Core™ vPro™ processor family to work on four or more tasks at the same time-resulting in enhanced multitasking when working among multiple office applications?
- Built-in energy-saving features come standard on these processors and help PCs meet ENERGY STAR\* requirements.9

### Remote management capabilities make PC upkeep easier and more cost effective



- Reduce the need for deskside maintenance visits by up to 56%.10
- Remotely see what your users see, with hardware-based KVM Remote Control with higher screen resolution (up to 1920x1200), through all states, even beyond the firewall.<sup>11</sup>
- Hardware-assisted remote shutdown, wake-up, and update of PCs during off-hours—reduces energy costs and enables up to 56% faster time to patch saturation.<sup>1,10</sup>

#### Broad industry use and support

 Intel® vPro™ technology deployed at businesses of all sizes with great ROI (See msp.intel.com or intel.com/go/vproexpert. Search for "ROI Analysis").



- More than 500 software vendors, including support from most major management and security software solutions (e.g., Microsoft System Center\* 2007, Symantec, LANDesk, HP Software, Cisco, N-able, Absolute, Checkpoint, Citrix, VMware, LogMeln, and many others).
- Offered by leading PC manufacturers.
- Fifth-generation release of Intel vPro technology. More than 55 million shipped since 2006.12



#### Choose the 2nd Generation Intel® Core™ vPro™ Processor that's right for you

Recommended Intel® Core™ processors to meet your business needs	CORE i7 vPro- Intel® Core® i7 vPro® Processor	CORE i5 vPro Intel* Core** i5 vPro** Processor	intel inside CORE i7 Intel® Core™ i7 Processor	CORE i5 Intel* Core** i5 Processor	CORE i3 Intel® Core™ i3 Processor
Hardware-assisted security with Intel® vPro™ technology¹		•	0	0	0
Remote manageability even when the PC is unresponsive with Intel vPro technology <sup>1</sup>	•	•	0	0	0
Top-of-the-line performance		0		0	0
Hardware-based acceleration of encryption and decryption with Intel® AES-NI <sup>6</sup>	•	•	•	•	0
Increased processor speeds when performance is needed with Intel® Turbo Boost Technology 2.07	•	•	•	•	0
Intelligent energy efficiency	•	•	•	•	•
4-way or greater multitask processing <sup>8</sup>		•		•	•
Disable PCs at the hardware level with optional Intel® Anti-Theft technology³	•	•	•	•	•
Stunning visual media experience with built-in visuals <sup>13</sup>	•	•	•	•	•

For more information on the 2nd gen Intel Core vPro processor family, visit www.intel.com/go/vpro101.

For implementation help on managed services offerings for small business, visit msp.intel.com.

- ¹ Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit http://www.intel.com/technology/vpro.
- <sup>2</sup> Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup, and configuration. For more information, visit http://www.intel.com/technology/platform-technology/intel-amt.
- Intel® Anti-Theft Technology (Intel® AT). No system can provide absolute security under all conditions. Requires an enabled chipset, BIOS, firmware and software and a subscription with a capable Service Provider. Consult your system manufacturer and Service Provider for availability and functionality, Intel assumes no liability for lost oblen data and/ or systems or any other damages resulting thereof. For more information, visit http://www.intel.com/go/anti-theft.
- <sup>4</sup> Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM). Functionality, performance or other benefits will vary depending on hardware and software configurations. Software applications may not be compatible with all operating systems. Consult your PC manufacturer. For more information, visit http://www.intel.com/go/virtualization.
- <sup>5</sup> Cross-client claim based on lowest performance data number when comparing desktop and mobile benchmarks. Configurations and performance test as follows:
- Mobile: Comparing pre-production Intel® Core® i5-2520M Processor (2C4T, 2.5 GHz, 3 MB cache), Intel reference board, 4 GB (2x2 GB) PC3-10700 (DDR3-1333)-CL9, Hitachi Travelstar 320 GB hard-disk drive, Intel® HD Graphics 3000, Driver: 2185 (BIOSx-34, Intel v.9.2.0.1009), Microsoft Windows\* T Ultimate 64-bit RTM Intel® Core® 2 Duo Processor T7250 (2M Cache, 2.00 GHz, 800 MHz FSB), Intel reference board, Micron\* 4 GB (2x2 GB) PC3-8500F (DDR3-1066)-400, Hitachi 320 GB hard-disk drive, Mobile Intel 4 Series Express Chipset Family w/ 8.15.10.2182 (BIOS: American Megatrends AMVACRB1.86C.0104.B00.0907270557, 9.1.2.1008).

Desktop: Pre-production Intel® Core™ i5-2400 Processor (4C4T, 3.1GHz, 6 MB cache), Intel reference board, Micron\* 4 GB (2x2 GB) PC3-10700 (DDR3-1333)-CL9, Seagate\* 1 TB, Intel® HD Graphics 2000, Driver: 2185 (BIOSv.35, Intel v.9.2.0.1009), Microsoft Windows\* 7 Ultimate 64-bit RTM Intel® Core™ 2 Duc E6550 (2C2T, 2.33 GHz, 4 MB cache), Intel DG945GCL Motherboard, Micron 2 GB (2x1 GB) DDR2 667 MHz, Seagate 320 GB hard-disk drive, Intel® CMA 950, Driver: 7.14.10.1329, (BIOS:CL94510J.86A.0034, INF: 9.0.0.1011), Microsoft Windows\* 7 Ultimate 64-bit RTM.

Business productivity claims based on SYSmark\* 2007, which is the latest version of the mainstream office productivity and Internet content creation benchmark tool used to characterize the performance of the business client. SYSmark 2007 preview features user-driven workloads and usage models developed by application experts. Multitasking claims based on PCMark Vantage, "a hardware performance benchmark for PCs running Microsoft Windows" 7 or Windows Vista," includes a collection of various single and multi-threaded CPU, Graphics, and HDD test sets with a focus on Windows" application tests. Security workload consists of SiSoftware Sandra" 2010—AES256 CPU Cryptographic subtlest measures CPU performance while executing AES (Advanced Encryption Standard) encryption and decryption algorithm. For more information go to http://www.intel.com/performance.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results

- to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. Configurations: [describe config + what test used + who did testing]. For more information go to http://www.intel.com/performance.
- 6 Intel® Advanced Encryption Standard-New Instructions (Intel® AES-NI) requires a computer system with an AES-NI enabled processor, as well as non-Intel software to execute the instructions in the correct sequence. For availability, consult your reseller or system manufacturer. For more information, see http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni.
- <sup>7</sup> Requires a system with Intel® Turbo Boost Technology capability. Intel Turbo Boost Technology 2.0 is the next generation of Turbo Boost Technology and is only available on 2nd gen Intel Core processors. Consult your PC manufacturer. Performance varies depending on hardware, software and system configuration. For more information, visit http://www.intel.com/technology/turboboost.
- Requires an Intel® Hyper-Threading Technology-enabled system; consult with your PC manufacturer. Performance will vary depending on the specific hardware and software used. Not available on all Intel® Core® processors. For more information including details on which processors support Intel HT Technology, visit http://www.intel.com/info/hyperthreading.
- <sup>9</sup> ENERGY STAR is a system-level energy specification, defined by the Environmental Protection Agency, that relies on all system components, such as processor, chipset, power supply, etc.) For more information, visit http://www.intel.com/ technology/epa/index.htm.
- <sup>10</sup> Results shown are from: the 2007 EDS Case Studies "An Analysis of Early Testing of Intel® vPro® Technology in Large IT Departments," by LeGrand and Salamasick; third-party audit commissioned by Intel, of various enterprise IT environments; and the 2007 Benefits of Intel® vPro® Technology in the Enterprise, Wipro Technology study, commissioned by Intel. The EDS studies compare test environments of Intel® vPro® Technology-based PC environments vs. non-Intel® Core® vPro® processor technology-based PC environments. Tested PCs were in multiple OS and power states to mirror a typical working environment. The Wipro study models projected ROI of deploying Intel® vPro® Technology. Actual results may vary and may not be representative of the results that can be expected for smaller businesses. The study is available at http://www.intel.com/Assets/PDF/casestudies/cs\_eds\_vpro.pdf.
- ¹¹ KVM Remote Control (Keyboard Video Mouse) is only available with Intel® Core™ i5 vPro™ processors and i7 vPro™ processors with active integrated graphics. Discrete graphics are not supported.
- 12 "Intel Developer Forum Opening Keynote by Paul Otellini, President and Chief Executive Officer" September 13, 2010. http://download.intel.com/newsroom/kits/idf/2010\_fall/pdfs/Day1\_IDF\_Keynote\_Transcript\_Otellini.pdf.
- <sup>13</sup> Available on the 2nd gen Intel® Core® processor family, Includes Intel® HD Graphics, Intel® Quick Sync Video, Intel® Clear Video HD Technology, Intel® InTru® 3D Technology, and Intel® Advanced Vector Extensions. Also optionally includes Intel® Wireless Display depending on whether enabled on a given system or not. Whether you will receive the benefits of built-in visuals depends upon the particular design of the PC you choose. Consult your PC manufacturer whether built-in visuals are enabled on your system. Learn more about built-in visuals are enabled on your system. Learn more about built-in visuals are with the public on your system. Learn more about built-in visuals are enabled on your system.

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