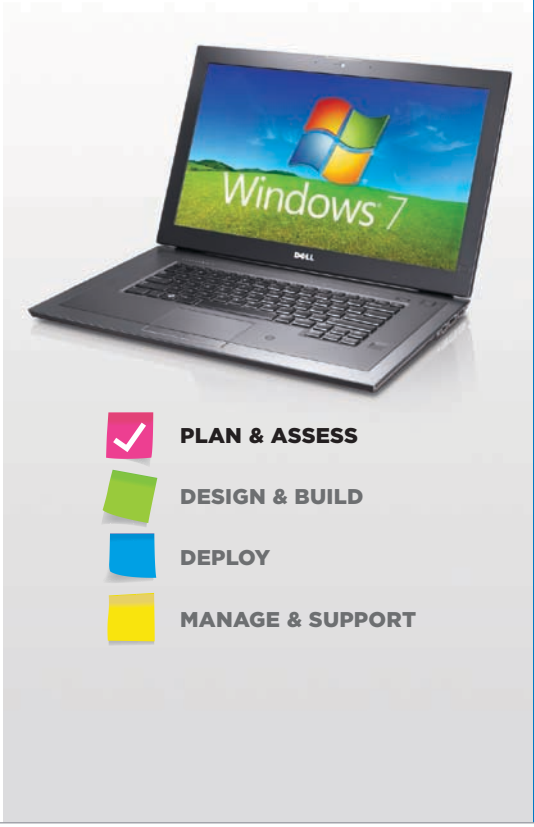
DELL CLIENT SYSTEMS: ALL GEARED UP FOR MICROSOFT WINDOWS 7



An array of Dell™ client systems optimized for the Microsoft® Windows® 7 OS are ready for organizations looking to bolster their infrastructures as they carry out their migrations. Dell OptiPlex™ desktops, Dell Latitude™ laptops, and Dell Precision™ workstations provide the components and configuration options required to capitalize on the comprehensive productivity and efficiency features built into Windows 7.

Microsoft Windows 7 introduces a range of features designed to boost user productivity and advance efficiency. To capitalize on these features, organizations need client systems that have suitable processors and graphics processing units (GPUs) plus sufficient memory capacity and hard drive space. Multiple Dell OptiPlex desktops, Dell Latitude laptops, and Dell Precision workstations are equipped with the required components and offer configuration options that enable organizations to take full advantage of enhancements across the various Windows 7 editions.

BOOSTING USER PRODUCTIVITY

Windows 7 was designed to significantly enhance user productivity by simplifying a range of everyday tasks. For example, enhanced search functions help users find information quickly. The integrated search engine provides a simple interface for locating files and folders on the local system, on networked drives, and even in Microsoft Office SharePoint® workspaces. The addition of Jump Lists provides fast access to recently used files, while the taskbar offers an easy way to get to important applications. Users can also create custom libraries to help them quickly find, share, and organize documents and media within the system and across a network.

Windows 7 also introduces mobility enhancements to help mobile employees get connected and stay connected to networks. In Windows 7, users have one-click access to available networks, including Wi-Fi®, mobile broadband, dial-up, and virtual private networks (VPNs). The VPN Reconnect feature of Windows 7 Enterprise is designed to maintain a persistent VPN connection even when there are network outages, providing workers with consistent VPN connectivity. Windows 7 Enterprise also includes the DirectAccess feature, which is designed to give mobile users seamless access to organizations' internal networks without requiring a VPN. Administrators can grant mobile employees access to file shares, intranet sites, and line-of-business applications while still helping to ensure security using IP version 6 (IPv6) and IP Security (IPsec) encryption.

The introduction of Windows XP Mode, available with Windows 7 Professional and Enterprise editions, enables organizations to retain existing software investments by allowing them to install and run Windows XP–based applications on PCs equipped

The ultra-thin Dell Latitude 13 laptop delivers everyday productivity and versatility

with Windows 7. Windows XP Mode uses the latest Microsoft virtualization technology, Windows Virtual PC (formerly Microsoft Virtual PC), to create a virtual Windows XP environment. Windows XP–based applications are available to users straight from the Windows 7 taskbar or Start menu. Applications can continue to access many of the system's hardware resources, including the DVD drive, hard drive, and USB-compatible peripherals.

ENSURING CLIENT SYSTEMS MEET HARDWARE REQUIREMENTS

Windows 7 is available in multiple editions. Windows 7 Professional can be a useful option for many organizations that want to enhance worker productivity while simplifying desktop management. To help speed the time to mobile productivity, Windows 7 Professional includes Domain Join, which can facilitate fast and secure connections to domains through an easy-to-use wizard. To help protect data, Windows Backup and Restore capabilities let users or administrators schedule regular backups of important documents and system configurations to networked storage; they can then restore systems to a known state if anything goes wrong.

Other organizations may select Windows 7 Enterprise, which is available to volume-licensing organizations that have opted for Microsoft Software Assurance. In addition to helping simplify mobile connectivity with VPN Reconnect and DirectAccess, this edition also incorporates Microsoft BranchCache™ distributed caching, which helps increase network responsiveness and improve the experience of workers accessing content in branch offices. Windows 7 Enterprise also includes technologies such as BitLocker™ drive encryption to help protect sensitive data on client systems and USB storage devices. Optimizations for running a virtual desktop infrastructure help administrators amplify the benefits of desktop virtualization.

Microsoft has provided several minimum technical requirements for client systems running Windows 7 (see Figure 1). For example, Microsoft recommends using processors with frequencies of 1 GHz or higher; the Intel® Core™2 Duo processors used in several Dell client systems easily meet this requirement. To use Windows XP Mode, systems need processors that include hardware virtualization technology such as Intel Virtualization Technology (Intel VT) or AMD Virtualization™ (AMD-V™) technology. Dell OptiPlex, Dell Latitude, and Dell Precision systems offer processors that meet this requirement.

Secure Dell Latitude E6410 (left) and Latitude E6510 laptops help mobile workers stay connected on the road

Workhorse Dell OptiPlex 980 desktops provide advanced features designed for maximum business productivity

Even for basic computing tasks, such as Web browsing or word processing, client systems need to provide adequate memory capacity. Client systems can run the 32-bit version of Windows 7 with 1 GB of RAM, but they need at least 2 GB for the 64-bit version; Dell recommends equipping systems with at least 2 GB of RAM even when running the 32-bit version to provide a more robust user experience. Using Windows XP Mode requires an additional 1 GB of RAM. Several currently available Dell OptiPlex, Dell Latitude, and Dell Precision systems can be equipped with sufficient memory for running the 64-bit version of Windows 7 with Windows XP Mode. Some Dell systems also offer a large memory capacity to enable organizations to take advantage of the 192 GB memory limits of the 64-bit version of Windows 7.

Hard drive capacity is likely a concern only for organizations that plan to upgrade existing systems with Windows 7, which requires 16 GB of available hard drive space for the 32-bit version or 20 GB for the 64-bit version. Dell recommends reserving at least 20 GB of space for either version of the OS. Running Windows XP Mode requires an additional 15 GB of drive space.

Windows 7 also requires a graphics card that supports Microsoft DirectX® 9 technology or later as well as Windows Display Driver Model (WDDM) 1.0 or later.

ASSESSING EXISTING CLIENT SYSTEMS

Some IT organizations may be able to determine on their own whether existing client systems can be migrated to Windows 7. Microsoft offers a complimentary, easy-to-use Windows 7 Upgrade Advisor tool to help with this process.[1] An administrator can simply download and install the Windows 7 Upgrade Advisor onto a client system. Within a few minutes, the software can scan the system; identify potential problems with existing hardware, software, and peripherals; and then recommend changes that might be required before upgrading.

Other organizations can benefit from working with Dell Services to assess the readiness of client systems and the data center, devise a comprehensive plan for migrating systems, and help with implementation.

GETTING READY FOR WINDOWS 7 MIGRATION ON DELL CLIENT SYSTEMS

Although migrating some client systems to Windows 7 may require only additional memory or software updates,

	OS version	Processor	Memory	Hard drive capacity	Graphics support
Microsoft recommendation	32-bit	1 GHz	1 GB	16 GB	Microsoft DirectX 9 or later and Microsoft WDDM 1.0 or later
	64-bit	1 GHz	2 GB	20 GB	
Dell recommendation	32-bit	Intel Core 2 Duo (with Intel VT for Windows XP Mode)	2 GB (3 GB for Windows XP Mode)	20 GB (35 GB for Windows XP Mode)	
	64-bit				

Figure 1. *Minimum Microsoft- and Dell-recommended system requirements for Windows 7*

[1] Available at www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx.

	Client system	Processor	Memory[a]
Dell OptiPlex Premier desktop	Dell OptiPlex 980	Intel Core i7, Intel Core i5, Intel Core i3, or Intel Pentium® G6950	Up to 16 GB
Dell OptiPlex Mainstream desktop	Dell OptiPlex 780	Intel Core 2 Quad (not with ultra-small form factor) or Intel Core 2 Duo, both with Intel VT	Up to 8 GB (up to 4 GB for ultra-small form factor)
Dell OptiPlex Essential desktops	Dell OptiPlex 380[b]	Intel Core 2 Quad or Intel Core 2 Duo	Up to 4 GB
	Dell OptiPlex 360[b]	Intel Core 2 Duo	Up to 4 GB
Dell Latitude E-Family laptops	Dell Latitude E6510	Intel Core i7 or Intel Core i5	Up to 8 GB
	Dell Latitude E6410[b]		
	Dell Latitude E5510[b]		Up to 8 GB
	Dell Latitude E5410[b]		
	Dell Latitude E4310		Up to 8 GB
	Dell Latitude E4200	Intel Core 2 Duo Ultra Low Voltage (ULV)	Up to 5 GB
Dell Latitude Specialty laptops	Dell Latitude 13	Intel Core 2 Duo ULV, Intel Core 2 Solo ULV, or Intel Celeron® ULV	Up to 4 GB
	Dell Latitude Z[b]	Intel Core 2 Duo SU9600 or higher	2 GB and 4 GB options
	Dell Latitude E6400 XFR	Intel Core 2 Duo	Up to 8 GB
	Dell Latitude E6400 ATG		Up to 8 GB[c]
Dell Precision workstations	Dell Precision T7500	Quad-core Intel Xeon processor 5500 series	Up to 192 GB[c] (with two processors installed)
	Dell Precision T5500		Up to 72 GB[c] (with two processors installed)
	Dell Precision T3500	Quad-core Intel Xeon processor 5500 or 3500 series, or dual-core Intel Xeon processor 3500 series	Up to 24 GB
	Dell Precision T1500	Intel Core i7-870 or higher	Up to 16 GB
Dell Precision mobile workstations	Dell Precision M6500	Quad-core Intel Core i7 Extreme Edition or Intel Core i7	Up to 16 GB[d]
	Dell Precision M6400 Covet	Intel Core 2 Extreme, Intel Core 2 Quad, or Intel Core 2 Duo	Up to 16 GB[d]
	Dell Precision M6400	Intel Core 2 Quad or Intel Core 2 Duo	
	Dell Precision M4400	Intel Core 2 Extreme or Intel Core 2 Duo	Up to 8 GB
	Dell Precision M2400	Intel Core 2 Duo	
Dell Precision rack workstation	Dell Precision R5400	Intel Xeon	Up to 32 GB

[a] A 64-bit OS is required for 4 GB of RAM or more.
[b] Supports 32-bit Windows 7 OS only.
[c] Up to 1 GB may not be available with 32-bit operating systems depending on system resource requirements.
[d] Total available memory may be reduced with 32-bit operating systems depending on system configuration.

Figure 2. *Processor and memory options for Windows 7–ready Dell client systems*

Robust Dell Precision M6500 mobile workstations deliver exceptional performance for demanding applications

organizations may decide to refresh other systems with the latest Dell clients as part of the migration process. Dell OptiPlex desktop, Dell Latitude laptop, and Dell Precision workstation product lines include multiple models that can be configured to capitalize on Windows 7 enhancements (see Figure 2). The broad range of Dell client systems available for Windows 7 gives organizations the flexibility to select the appropriate mix of client systems for a comprehensive range of usage scenarios.

Dell OptiPlex: Workhorse desktops

Whether organizations are looking for desktops with high performance in a scalable platform, cost-effective workhorses for mainstream office tasks, or something in between, Dell OptiPlex systems can meet these needs. Available in a range of form factors and configurations, OptiPlex systems provide the versatility for a variety of uses. Several OptiPlex systems can be configured to run Windows 7 Professional and Enterprise editions.

Dell Latitude: Secure laptops

Dell Latitude laptops include a broad array of system designs and configuration options for a variety of mobile environments. Equipped with robust wireless options, Latitude systems can work with Windows 7 connectivity features to help mobile workers get connected and stay connected on the road. Designed for tight security and remote manageability, and backed by world-class service and support, Latitude systems deliver robust mobility. Select Latitude E-Family and Latitude Specialty models can be configured to run Windows 7.

Dell Precision: Robust workstations

Dell Precision workstations are designed to deliver exceptional performance for some of the most demanding applications. Organizations can select desktop models for office workers and mobile workstations to help liberate workers from their desks without compromising performance. These powerful Dell client systems help organizations maximize the productivity capabilities of Windows 7.

ADVANCING EFFICIENCY WITH A WINDOWS 7 MIGRATION

Microsoft Windows 7 is designed to offer important tools for enhancing efficiency, productivity, and business innovation. Dell client systems help organizations capitalize on key Windows 7 features while enabling IT departments to take advantage of advanced technology across a comprehensive range of hardware platforms.

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