



# Windows 7 Professional & Enterprise Quick Reference Guide



**Microsoft®**

# Contents

<b>Introduction</b>	<b>1</b>
The key reasons for customers to want Windows 7	2
The new Windows 7 products	3
Home Premium	3
Ultimate	3
Professional	3
Enterprise	3
Choosing the right solution	3
Windows 7 SKUs features and benefits table	4
<b>Windows 7 Professional</b>	<b>5</b>
The Windows 7 operating system	5
The key benefits of Windows 7 Professional	6
Making employees more mobile	6
Security	6
Streamlined PC management	7
<b>Windows 7 Enterprise</b>	<b>9</b>
The key benefits of Windows 7 Enterprise	10
Making employees more mobile	10
Security	11
Streamlined PC management	11
Microsoft Software Assurance	12
Software Assurance benefits diagram	13
Microsoft Desktop Optimization Pack (MDOP)	13
Virtual Enterprise Centralized Desktop (VECD)	15
<b>Licensing</b>	<b>17</b>
Microsoft Volume Licensing Programmes	18
Windows 7 Editions and related products	19
What's new for Windows 7 Volume Licensing	20
Windows 7 Professional Upgrade Licence	21
Upgrade licence conditions	22
Qualifying operating systems table	23
Benefits of Software Assurance	24
Windows 7 Enterprise Licensing	26
Microsoft Desktop Optimization Pack (MDOP)	27
Microsoft Software Assurance for Volume Licensing	28
Prior Windows versions	29
Virtual Enterprise Centralized Desktop (VECD)	30
Recommended Licence by Scenario	32
Volume Activation	33
Get Genuine Windows Agreement	34
<b>Resources and tools</b>	<b>35</b>
General support	35
Other resources and tools	36
Hardware specifications	37
Windows 7 system requirements	37
Additional requirements to use certain features	38

# Our customers talked, we listened

Customers have asked for value and innovation. Windows 7 improves on the fundamentals of Windows Vista®, while delivering the latest in mobility and user experience. It's fast, stable and compatible – both with third-party applications and devices. Customers get an operating system that meets the advanced needs of their businesses, *and* they get to keep working with the applications and devices they use today.

*"With Windows 7 systems are up and running in seconds. It's fantastic time saving!"*

John Henshall, Senior Transport Analyst,  
Elan Public Transport Consultancy

# What are the key reasons for customers to want Windows 7?

- **Make Users Productive Anywhere**

As companies face increasing pressure to enable mobile workers to gain the efficiencies and cost reductions of mobility and to speed up business decisions, Windows 7 enables users to complete their job no matter where they are, and improve productivity.

- **Enhance Security and Control**

Customers are facing more pressure in securing their PCs/laptop devices to prevent losing or risking company data and information. Not only can this disrupt businesses, it can also cost companies money. Windows 7 delivers increased flexibility to help secure computers and data.

- **Streamline PC Management**

Customers benefit from an improved user experience and are less likely to suffer business disruptions, and partners can spend time on deployment and management. Windows 7 delivers solid performance and reliability from day one, while enabling users to leverage the same tools and skills they use with Windows Vista.

*"With a small staff, it can be difficult to accomplish everything each workday. But with Windows 7, we've been able to decrease downtime and, simply put, get more done."*

Luke Mulligan, Microsoft Partner, Mulligan Williams

# The new Windows 7 products

## **Home Premium**

Ideal for home users – gives your consumers and home user customers a great new user interface of Windows 7, and includes features like Media Center and HomeGroup, which allow you to share all your music, picture, video and document libraries across two or more PCs.

## **Ultimate**

If you're either a home user or small business that needs additional security for content on your PC, then Windows 7 Ultimate gives you great protection with BitLocker™ and BitLocker to Go™, which help you safeguard confidential information. You also get all the features available in Windows 7 Home Premium and Windows 7 Professional.

## **Professional**

The ideal product for small businesses, Windows 7 Professional offers an entire PC back-up and restore, with tools such as Shadow Copy which creates point-in-time copies of files as you work, so you can quickly retrieve versions of a document you may have accidentally deleted. If your business relies on a server, then Domain Join quickly and safely joins your PC to workplace networks.

## **Enterprise**

Windows 7 Enterprise is only available to Software Assurance customers, and is ideal for medium and large businesses with more advanced IT needs. It offers the increased security of BitLocker and BitLocker to Go, which help protect data on your PC, hard drive or Flash drive. Other advanced functionality includes DirectAccess, which allows remote users to securely access enterprise shares, websites and applications. With BranchCache™ users can cache content downloaded from company servers, thereby freeing up network bandwidth for other users. AppLocker™ helps to eliminate unwanted or unknown applications in your network. Direct Access and BranchCache are available when used in conjunction with Windows Server 2008 R2.

## **Choosing the Right Solution**

The simplified SKU line up for the Windows 7 operating system makes it easier for you to recommend the best solution for your customers. Each edition builds on the one before, making it easy to recommend features that best fit your customers' needs.

	<b>Windows 7 Home Premium</b>	<b>Windows 7 Ultimate</b>	<b>Windows 7 Professional</b>	<b>Windows 7 Enterprise</b>
<b>Target audience</b>	Home users	Advanced home users and very small businesses	Small to medium businesses	Medium to large businesses
<b>Available licence type</b>	FPP OEM (SA available)	FPP OEM (SA available)	VL, FPP, OEM	VL + SA
<b>Make users productive anywhere</b>				
<b>Remote Media Streaming:</b> send video and audio output from one PC to a network-enabled media player, home stereo, and even other PCs on the network.	●	●	●	●
<b>Bluetooth® Support:</b> wirelessly synchronise files and folders between your Bluetooth-enabled phone and your computer.	●	●	●	●
<b>Fast User Switching:</b> switch between users without having to log in, log out or close any programs.	●	●	●	●
<b>Windows Mobility Center* (with Presentation Mode):</b> put your most frequently used mobile PC settings in a single, easy-to-find location.	●	●	●	●
<b>Domain Join and Group Policy:</b> connect to company networks easily and more securely. Group Policy controls allow businesses to better manage the security and management of multiple PCs.		●	●	●
<b>Location-aware Printing:</b> send your documents to the right printer, whether you're at work or at home.		●	●	●
<b>Remote Desktop Host:</b> access documents and programs on a computer remotely from another computer.		●	●	●
<b>Offline Folders:</b> work offline with the ability to automatically synchronise between your PC and the network content.		●	●	●
<b>DirectAccess:</b> seamlessly connect mobile workers more securely to their network without a virtual private network when used in conjunction with Windows Server 2008 R2.		●		●
<b>BranchCache™:</b> replicate and synchronise files between a central store and branch locations, enabling more productivity for workers in remote offices when used in conjunction with Windows Server 2008 R2.		●		●
<b>Enhance security and control</b>				
<b>Encrypting File System:</b> provides user-level file and folder encryption, ensuring strong data protection and control.		●	●	●
<b>BitLocker™ and BitLocker To Go™ drive encryption:</b> help protect confidential information and stay compliant with business and regulatory policies.		●		●
<b>AppLocker™:</b> specify which applications are available to which end users, reducing the need to modify settings.		●		●
<b>Streamline PC management</b>				
<b>HomeGroup:</b> easily share media, files, printers and devices across multiple PCs.	●	●	●	●
<b>Action Center:</b> fix problems yourself, on your own schedule, with powerful diagnostics and troubleshooting tools.	●	●	●	●
<b>Device Stage™:</b> interact and synchronise with any compatible device connected to your computer.	●	●	●	●
<b>Computer-to-Computer Networking:</b> connect to nearby PCs without a network access device via ad hoc wireless networking.	●	●	●	●
<b>Location and Other Sensors:</b> enables PCs and applications to adapt to their current environment.	●	●	●	●
<b>Live Taskbar Thumbnails:</b> mouse over the taskbar or an application icon, and see a visual list of recently used items.	●	●	●	●
<b>Aero® Glass:</b> see behind application windows with translucent glass-like menu bars.	●	●	●	●
<b>Aero Background:</b> view the contents of the windows that are currently open with taskbar thumbnails.	●	●	●	●
<b>Windows Touch:</b> control a touch-enabled computer by touching the screen, with visual feedback for tap and double tap gestures.	●	●	●	●
<b>Windows XP Mode:**</b> run many older productivity and business programs for Windows XP on Windows 7.		●	●	●
<b>Backup and Restore:</b> schedule a periodic backup to save your data or entire system image to a network location or a local drive.		●	●	●
<b>Advanced Backup and Restore (Network and Group Policy):</b> back up your data to a network location, and have the ability to recover and restore your documents.		●	●	●
<b>Multilingual User Interface Packs:</b> switch the user interface from one language to another via a language pack add-on to the English version.		●		●

FPP – Fully Packaged Product, OEM = Original Equipment Manufacturer, VL = Volume Licence, SA = Software Assurance

\*Windows Mobility Center is visible only on notebook computers.

\*\*Windows XP Mode requires either original equipment manufacturer (OEM) pre-installation or post-purchase installation of Windows XP Mode (which runs on Windows 7 Professional or Windows 7 Ultimate) or a virtualisation technology such as Windows Virtual PC.

# An operating system that works the way your customers want

The Windows 7 operating system provides the fundamentals and the innovation your customers want.

## **A SKU line up that's easy to understand**

The simplified SKU line up is easy for customers to understand and for you to sell.

## **Windows XP mode equals partner opportunities**

Windows XP mode provides your customers with the flexibility to run many older Windows XP applications, which can provide you with new service opportunities.

## **A simple installation process**

The Windows 7 operating system is delivered as a single image; this delivers you the simpler installation and faster customer order fulfilment.

The Windows 7 operating system delivers the latest in mobility and user experience. It's fast, stable and compatible – both with third-party applications and devices.

Customers get an operating system that meets the advanced needs of their businesses, *and* they get to keep working with the applications and devices they use today.

# Windows 7 Professional includes the following key benefits:

## Need to make your employees more mobile?

- **Domain Join and Group Policy**

Easily and more securely add Windows 7 based PCs to a domain network. With Group Policy, customers can better manage the security and costs of multiple PCs.

- **Remote Desktop Host**

Access documents and programs on a computer remotely from another computer.

- **Offline Files**

Work offline and automatically synchronise between PC and network content.

## Concerned about security?

- **Encrypting File System**

Encrypt files and folders to protect confidential information, ranging from customer information to financial data.

- **Advanced Backup**

Schedule a periodic backup to save data or an entire system image to a network location or a local drive.

- **Problem Steps Recorder**

Events leading up to customer problems can be reproduced and sent back to Partner helpdesks – thereby improving diagnosis capabilities and saving time to resolution.

## Need to streamline your PC management?

- **Location-Aware Printing**

Windows detects whether the user is at work or at home and automatically sends the documents to the right printer.

- **Windows XP Mode\***

Provides the flexibility to run many older Windows XP productivity applications in a virtual Windows XP environment. Customers benefit by being able to use the productivity applications they've already invested in, while not having to worry about potential operational downtime as they switch systems. This feature is only available either through OEM pre-installation or post-purchase/installation.

- **Presentation Settings in Windows Mobility Center**

Users can apply options to help ensure optimal PC behaviour during presentations (e.g. automatically turning off instant messages from Windows Live™ Messenger or Microsoft Office Outlook® notifications).

\*New in Windows 7 Professional. Windows XP Mode requires either original equipment manufacturer (OEM) pre-installation or post-purchase installation of Windows XP Mode (which runs on Windows 7 Professional or Windows 7 Ultimate) or a virtualisation technology such as Windows Virtual PC.

*"With Windows 7, everything goes faster – from booting-up to applications, to ticket resolution. Customers love it and we love it."*

Steve Wright, Director and Co-owner,  
BMS Digital Solutions Ltd

# Windows 7 Enterprise

Combine Windows 7 Professional with Software Assurance to get Windows 7 Enterprise.

As well as Software Assurance, Windows Enterprise gives you an additional seven features, specifically designed for mid-market and enterprise organisations that want to make people productive anywhere, enhance security and control, and streamline PC management.

*"Windows 7 fits in perfectly to our network. It was a seamless transition for us – a lot of benefit with not a lot of hassle."*

Harry Bourchier, Director, Coates & Partners

# Customers with Windows 7 Enterprise can take advantage of the following features not available in Windows 7 Professional:

## Need to make your employees more mobile?

- **DirectAccess**

Allows mobile users to simply and more securely access corporate resources when out of the office. Enhances the productivity of mobile workers by connecting them seamlessly and more securely to their corporate network without the need to VPN. Access corporate network file shares, intranet websites and line-of-business applications wherever you have an Internet connection (when used in conjunction with Windows Server 2008 R2).

- **BranchCache**

Increase the network responsiveness of applications, giving users in remote offices an experience more like working in the head office. When accessing content stored on Windows Server 2008 R2, users in a branch office don't need to wait as long to download files from headquarters because data accessed from an intranet website or a file server is cached locally within the branch office. When another user on the same network requests the file, the user gets access to the content almost immediately as it is downloaded from the local cache rather than over a limited bandwidth connection back to headquarters (when used in conjunction with Windows Server 2008 R2).

- **Enterprise Search Scopes**

Find information on network locations including SharePoint sites with a simple user interface. Populate links on the Start menu or in Windows Explorer which then provide simpler access to the most appropriate, complete, authoritative data sources on the network. IT administrators can deploy Enterprise Search scopes on users' machines using a Group Policy.

## Concerned about security?

- **BitLocker and BitLocker To Go**

Help protect data on PCs and removable drives, with manageability to enforce encryption and backup of recovery keys. With Windows Vista, Microsoft introduced BitLocker Drive Encryption to help protect sensitive data from being accessed by unauthorised users who come into possession of lost, stolen or improperly decommissioned computers. With BitLocker To Go Windows 7 extends BitLocker protection to USB storage devices while making the original functionality even easier to use.

- **AppLocker**

A flexible, easy-to-use mechanism which enables IT professionals to specify exactly what is allowed to run on user desktops. Restrict unauthorised software while allowing the applications, installation programs and scripts users need.

## Need to streamline your PC management?

- **Language Packs**

Support up to 36 different languages using a single Windows master image, rather than creating a separate image for each language used in the organisation. Language Packs also enable many people to share the same computer, even if they use different languages.

- **VDI Support**

Improve user experience with Virtual Desktop Infrastructure (VDI) Optimisation, with multimon, microphone and local devices support (such as printers).

# Benefit from Software Assurance advantages with the Microsoft Optimized Desktop and Virtualized Enterprise Centralized Desktop

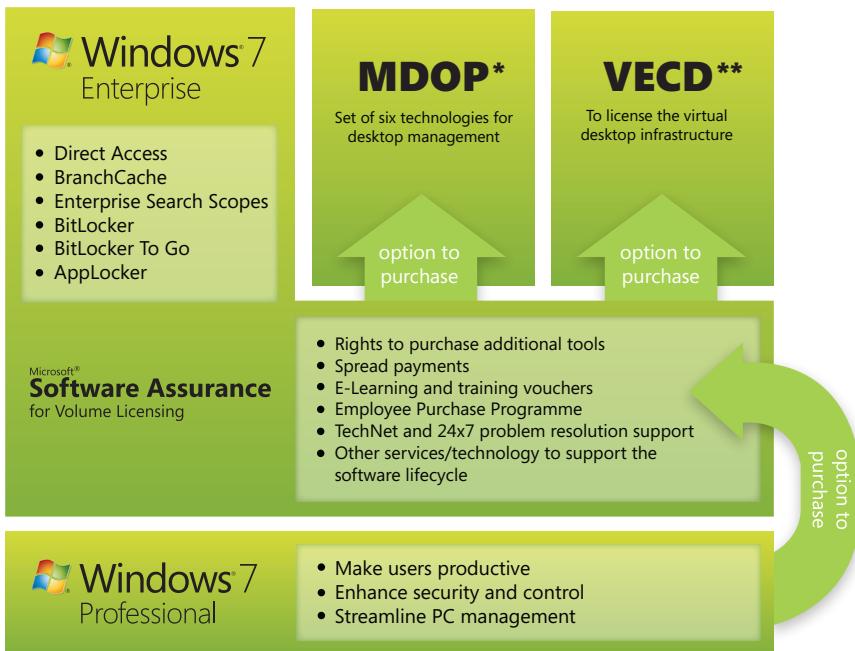
Customers need different services at every stage of the software life cycle. Microsoft Software Assurance (SA) is a maintenance programme aimed at businesses that use Microsoft Windows.

Encourage your customers to activate and use the Software Assurance benefits they already have. Software Assurance can help reduce the time, cost and complexity of deploying the new Windows desktop operating system, while ensuring that they maximise the business value of their software investment. The more benefits customers use, the more likely they are to continue their Software Assurance coverage.

Software Assurance benefits vary according to the Microsoft Volume Licensing programme. Get an at-a-glance view of which benefits your customers are entitled to and help them realise the full value of Software Assurance across their organisations at <https://partner.microsoft.com/softwareassurance>.

# Software Assurance extended benefits

Windows 7 Enterprise: Software Assurance, Microsoft Optimized Desktop (MDOP) and Virtualized Enterprise Centralized Desktop (VECD)



\* MDOP = Microsoft Optimized Desktop

\*\* VECD = Virtualized Enterprise Centralized Desktop

## Microsoft Desktop Optimization Pack (MDOP)

Windows 7 Enterprise is part of the Windows Optimized Desktop, which also includes the Microsoft Desktop Optimization Pack (MDOP) suite of management, deployment and virtualisation tools.

If customers' PCs are covered by Software Assurance when Windows 7 is released, they automatically get the rights to deploy Windows 7 Enterprise to those PCs without an additional licence fee. Other Software Assurance benefits include licence rights to run up to four additional copies of Windows in virtual machines.

Microsoft is committed to delivering continual innovation to mid-market and enterprise customers through Software Assurance, with more regular releases of Windows, additional value in Windows 7 Enterprise Edition, and regular updates of the Microsoft Desktop Optimization Pack (MDOP).

## **MDOP incorporates six Microsoft technologies that can be combined to address key business and technical challenges:**

- Application Virtualisation**

Deploy software applications that are never installed and never require regression testing, yet follow users anywhere, on demand.

- Advanced Group Policy Manager**

Help IT take control of the desktop through effective change management, versioning and resets.

- Asset Inventory Service**

Scan software inventory and transform title data into information that can help administrators make better asset-management decisions.

- Diagnostics and Recovery Toolset**

Quickly repair unbootable or locked-out systems, restore lost data, remove malware from infected systems and diagnose problems.

- Microsoft Enterprise Desktop Virtualization (MED-V)**

Enhance deployment and management of Virtual PC images on a desktop running the Windows operating system. Simultaneously provide a seamless user experience in a virtual PC environment independent of the local desktop configuration and operating system.

- Microsoft System Center Desktop Error Monitoring**

Prevent or reduce the response time for system crashes and freezes with granular error filtering and automated alerts.

## **Virtual Enterprise Centralized Desktop (VECD)**

With desktop virtualisation becoming more widely used, there is a need for a new type of licence. Windows VECD is this new type of licence, designed to help you license virtual copies of Windows. It's a device-based subscription, which means the total number of licences is equal to the total number of devices that access the virtual environment. Additionally, it's an annual subscription, following the Software Assurance model.

### **There are two flavours of VECD:**

- 1** VECD for Software Assurance: designed for PCs already covered under Software Assurance.
- 2** VECD: designed for all other devices (thin clients, PCs without Software Assurance, etc). This flavour of VECD comes bundled with Software Assurance, thereby helping you get more from your licence.

For more information go to:

<https://partner.microsoft.com/UK/productssolutions/windows> and put VECD in the search box, top right of the screen.

*"With Windows 7, we're not as worried about our bottom line because we know we save a lot of time – and time, of course, is money."*

Peter Stokes, Head of Finance, Hall for Cornwall

# Windows 7 in Microsoft Volume Licensing

The Windows 7 operating system (OS) will help business users around the world become more productive and will help IT departments enhance security and control and streamline PC management.

Microsoft Volume Licensing solutions provide the most flexible, cost-effective way to give your organisation access to the latest Windows desktop technologies. Whether your business wants to upgrade to Windows 7, have access to advanced technologies like Windows 7 Enterprise and the Microsoft Desktop Optimization Pack, or deploy emerging virtualisation scenarios, there is a Volume Licensing programme that is right for your organisation.

This document provides an overview of the products available through Volume Licensing, information about the products that are eligible for upgrades, and the key choices you have for using Windows in your organisation.

This document is for descriptive informational purposes only and is not meant to replace or override other licensing documentation such as the Windows 7 End User Licence Agreement, Product Use Rights, Product List or Licensing Briefs that will be available at <http://www.microsoft.com/licensing/>.

# Microsoft Volume Licensing Programmes

Microsoft Volume Licensing offers customised programmes that help organisations buy software licences. Tailored for different organisation types, sizes and purchasing preferences, Microsoft Volume Licensing programmes provide flexible and affordable solutions designed to help you manage your licences with ease. Whether you have five or thousands of desktop PCs, there is a Microsoft Volume Licensing programme for you.

Use the online Microsoft Licence Advisor (<http://www.microsoft.com/licensing/license-advisor.aspx>) to easily find and choose the Microsoft Volume Licensing programme that can best help your organisation simplify licence management, optimise your IT infrastructure, and get the most value for your IT investment.

## Windows Products Available by Volume Licensing Programme

Product	Open Licence	Open Value & Subscription	Select Plus & Select Licence	Enterprise Agreement & Subscription
Windows 7 Professional Upgrade Licence (without Software Assurance)	●		●	
Software Assurance (includes Windows 7 Enterprise)	●	●	●	●
MDOP		●	●	●
VECD		●	●	●

## Systems Product Pool Points

Some Volume Licensing programmes use points to determine the price level and eligibility for volume discounts. Windows 7, MDOP and VECD are all part of the 'Systems' product pool and have the following point values listed in the table below. For example, an organisation that licenses the Windows 7 Professional upgrade licence, with Software Assurance and MDOP for three years, would accumulate seven points per PC.

Licence	Points
Windows 7 Professional Upgrade	2
Software Assurance (1 Year)	1
Microsoft Desktop Optimization Pack	2
Virtual Enterprise Centralized Desktop	2

# Windows 7 Editions and related products

There is a version of Windows 7 designed to meet the needs of every organisation from a small, growing business to a multinational enterprise. The following table lists both consumer and business editions of Windows 7 and related products, and the channels through which they will be available.

## Windows Desktop Products

Full Package Product	Pre-Installed on PC (OEM)	Volume Licensing
 Windows 7 Ultimate	 Windows 7 Ultimate	 Windows 7 Professional
 Windows 7 Professional	 Windows 7 Professional	 Windows 7 Enterprise
 Windows 7 Home Premium	 Windows 7 Home Premium	Microsoft® Desktop Optimization Pack for Software Assurance
	 Windows 7 Starter	 Windows 7 Virtual Enterprise Centralized Desktop

## Windows Desktop Products Available through Volume Licensing

Product	Description
 Windows 7 Professional	Designed for small and medium sized organisations, Windows 7 Professional provides a PC experience you can count on, helps you get more done, and helps safeguard your work. It is available as an upgrade licence through Volume Licensing (Windows 7 Professional is the successor to Windows Vista® Business).
 Windows 7 Enterprise	Designed for enterprises and businesses that want to optimise their desktop IT infrastructure, Windows 7 Enterprise will help make users productive anywhere, enhance security and control, and streamline PC management. It is available with Software Assurance for Windows.
Microsoft® Desktop Optimization Pack for Software Assurance	Microsoft Desktop Optimisation Pack (MDOP) is a suite of six client virtualisation, management and deployment technologies that help reduce the total cost of ownership, increase desktop manageability and improve overall infrastructure satisfaction. Available as a subscription to Software Assurance customers.
 Windows 7 Virtual Enterprise Centralized Desktop	The Windows Virtual Enterprise Centralised Desktop (VECD) licensing option enables the use of business versions of Windows in both centralised and virtualisation scenarios. Available as a subscription licence through Volume Licensing.

# What's new for Windows 7 Volume Licensing

Volume Licensing for Windows 7 is very similar to Windows Vista. The few changes featured in the table below help reduce the number of different licences required and assist customers migrating from earlier versions of Windows.

New in Windows 7 Volume Licensing	Details
DVD Playback Codec and Media Center	Windows 7 Enterprise and Windows 7 Professional include DVD playback capabilities, therefore no additional codec licence is required. Since Windows 7 Enterprise will include all of the features of Windows 7 Ultimate - including Windows Media Center - Windows 7 Ultimate is not available through Volume Licensing. Customers currently entitled to Windows Vista Ultimate will continue to have access to the Windows Vista Ultimate product keys and media.
Four Local Virtual Machines with Software Assurance	A benefit of Software Assurance coverage is the right to run up to four instances of Windows in a local virtual machine (VM). In Windows Vista, these VMs could only run on Windows Vista Enterprise. In Windows 7 these VMs may be run on Windows 7 Enterprise, Professional or any prior version (as specified in the downgrade rights section of this Guide paper). Customers may use Volume Licence media to create and manage VM images.
Windows XP Mode	Windows XP Mode is specifically designed to help small business users run their Windows XP applications on their Windows 7 desktop. Customers using Windows 7 Professional, Enterprise may run one copy of Windows XP Professional in a local virtual machine to aid application compatibility as they migrate to Windows 7. Windows Virtual PC software and the Windows XP Professional environment will be available for download after the general availability of Windows 7.  Note: Windows XP Mode does not have IT management capabilities built in. Microsoft Enterprise Desktop Virtualisation, a component of MDOP, adds important management capabilities to Windows XP Mode for larger businesses.
Downgrade Rights	Volume Licensing customers may downgrade to any prior version of Windows Professional. For a limited time (PCs purchased within 18 months after the general availability of Windows 7 or before the release of a Windows 7 Service Pack, whichever is earlier) the original equipment manufacturer (OEM) End User Licence Agreement includes the right to downgrade to Window XP Professional, Tablet PC or Professional x64.
Windows Virtual Enterprise Centralized Desktop (VECD)	In January 2009 VECD was expanded to include three new scenarios in addition to Virtual Desktop Infrastructure: Virtual Machine on employee-owned PC and VM on contractor-owned PC and moved between PCs on removable media. For Windows 7, VECD will be further expanded to include remote boot rights and device-based access to a physically installed blade PC. This change was designed to simplify the purchasing experience for customers by including all of the flexible computing scenarios in a single licence.
MDOP available in Enterprise Agreement Platform Products	To simplify the purchase process, customers can now get the benefits of MDOP directly in their Enterprise Agreement without the need to purchase an additional product. Two new Enterprise Agreement options will be available with even more value: Enterprise Desktop + MDOP, and Professional Desktop + MDOP.

# Windows 7 Professional Upgrade Licence



Volume Licensing is the most affordable way to upgrade your existing PCs to Windows 7. If your PCs are not already covered by Software Assurance, you can buy upgrade licences through a Volume Licensing programme to get access to Windows 7 Professional.

Windows 7 Professional is designed to run on PCs that meet the recommended hardware requirements of Windows Vista Business, which means that it will run on the majority of business PCs already in use today. Windows 7 Professional upgrade licences can enable you to take advantage of the security, productivity and ease of management of this modern operating system on the PCs you already own.

## **Qualifying Operating Systems for Windows Volume Licensing**

Windows licences available through Volume Licensing are upgrade-only licences. They don't replace buying the initial Windows licences for software that comes pre-installed on new PCs. Each desktop that runs the Windows 7 upgrade must first be licensed to run one of the qualifying operating systems identified below – otherwise the PC will not have a valid, legal Windows licence. If you don't have a pre-existing licence for a genuine, qualifying OS on your PC, see the '[Get genuine options](#)' section of this guide.

## **Each of these conditions must be met in order for a base PC to be eligible for an upgrade licence:**

- Software under the qualifying operating systems licence must already be installed on the device that will be assigned the Volume Licensing upgrade. The chart on the next page shows pre-installed OEM versions that are eligible for upgrade.
- You must remove the existing qualifying operating system from the device in order to deploy the Volume Licensing upgrade licence unless the PC is covered by Software Assurance.
- Customers who wish to install or run more than one licensed operating system at one time (including the qualifying operating system), may either:
  - Acquire Software Assurance for their Volume Licensing upgrade licence
  - Purchase full Windows 7 licences separately

## Operating systems that qualify for a Windows 7 Professional Volume Licensing upgrade licence:

Qualifying Operating Systems	New Enterprise Agreement/ Open Value	Existing Enterprise Agreement/ Open Value	Select Plus/ Select Licence Programme	Open Licence Programme	Academic
Windows 7 (32-bit or 64-bit)	●	●	●	●	●
Enterprise (N, K, KN)*	●	●	●	●	●
Professional (N, K, KN, Diskless)	●	●	●	●	●
Ultimate	●	●	●	●	●
Home Premium					●
Home Basic					●
Starter Edition					●
Windows Vista (32-bit or 64-bit)					
Enterprise (N, K, KN)	●	●	●	●	●
Business (N, K, KN, Blade)	●	●	●	●	●
Ultimate	●	●	●	●	●
Home Premium					●
Home Basic					●
Starter Edition					●
Windows XP (32-bit or 64-bit)					
XP Professional (N, Tablet, Blade)	●	●	●	●	●
XP Home Edition					●
XP Starter Edition					●
Windows 2000 Professional	●		●	●	●
Windows NT Workstation 4.0	●		●	●	●
Windows 98 (including 2nd Edition)	●		●	●	●
Apple Macintosh	●		●	●	●

\*N, K and KN are specialised editions available for certain markets.

# Microsoft Software Assurance

Microsoft®  
**Software Assurance**  
for Volume Licensing

Customers buying Windows 7 Professional licences, either through Volume Licensing upgrades or through an OEM, can also cover those licences with Software Assurance which gives them rights to unique Windows 7 Enterprise benefits such as BitLocker Drive Encryption and Multilingual User Interface Language Packs, as well as access to the Microsoft Desktop Optimization Pack.

## Software Assurance Benefits

Software Assurance for Windows includes access to unique products and licence rights not available through other licensing programmes. Key benefits of Software Assurance for Windows include:

Benefit	Description
Windows 7 Enterprise	The most advanced edition of Windows 7, Windows 7 Enterprise is designed for the needs of enterprise customers with features like BitLocker Drive Encryption and Multilingual User Interface Language Packs.
Microsoft Desktop Optimization Pack	MDOP is an add-on subscription licence that provides innovative technologies to help better control the desktop PC, accelerate and simplify desktop PC deployments and management, and create a dynamic infrastructure by turning software into centrally-managed services.
Windows Virtual Enterprise Centralized Desktop for Software Assurance	Windows VECD is an annual device-based subscription that enables organisations to license virtual copies of Windows 7 (or prior OS versions) in a variety of user scenarios.
Windows Fundamentals for Legacy PCs	Available exclusively to Microsoft Software Assurance customers, this small-footprint, Windows based operating system solution is for customers with legacy computers running early operating systems who are not in a position to purchase new hardware.
Virtual OS Rights	Use up to four instances of Windows in virtual OS environments for each licence that has active Software Assurance coverage.
New Version Rights	Receive new versions of licensed software released during the term of your coverage. If you have Software Assurance coverage for your PCs when Windows 7 is released, you will automatically receive rights to use Windows 7 Enterprise on those PCs.

**Customers with Software Assurance for Windows also have access to the following additional benefits:**

- TechNet benefits through Software Assurance
- Extended Hotfix support
- 24 x 7 problem resolution support
- Enterprise Source Licensing Programme
- Employee Purchase Programme
- eLearning
- Training vouchers
- Spread payments

Eligibility for these benefits may vary depending on the Volume Licensing programme and licence quantity. Learn more about Software Assurance customer benefits at <http://www.microsoft.com/licensing/sa/>.

## Windows 7 Enterprise

# Windows® 7 Enterprise

Windows 7 Enterprise has unique technology designed to address the needs of your enterprise customers. Built on the Windows Vista foundation, Windows 7 Enterprise helps make people productive anywhere, enhances security and control, and streamlines PC management.

Like Windows Vista Enterprise, Windows 7 Enterprise is only available to your customers through Microsoft Software Assurance licensing.

Customers with Windows 7 Enterprise can take advantage of the following features not available in Windows 7 Professional:

Feature	Description
DirectAccess*	Give mobile users seamless access to corporate networks, when they are on the Internet, without a need for them to start a virtual private network (VPN) connection.
BranchCache*	Decrease time branch office users spend waiting to download files from remote servers by caching the previously accessed content locally in a branch's network.
Enterprise Search Scopes	Make content on intranet portals, such as SharePoint sites, more discoverable and accessible to users, by populating links to users Start Menu, pointing them to the most appropriate data sources on the network.
BitLocker and BitLocker To Go	Help protect data on PCs and removable drives with the manageability to enforce encryption and backup of recovery keys.
AppLocker	Specify software that is allowed to run on users' PCs with centrally managed, flexible group policies.
Virtual Desktop Infrastructure (VDI) Optimizations	Improved user experience for VDI with multi-monitor and microphone support. Reuse virtual machine (VHD) images to boot a physical PC.
Multi Lingual User Interface	Create a single OS image for deployment to users worldwide.
Subsystem for UNIX-based applications (SUA)	Run UNIX applications unchanged on a Windows-based PC.

\*Feature is available when used in conjunction with Windows Server 2008 R2

Learn more about Windows 7 Enterprise at

<http://www.microsoft.com/windows/enterprise/products/windows-7.aspx>.

## **Microsoft Desktop Optimization Pack**

Microsoft®

# **Desktop Optimization Pack**

for Software Assurance

Microsoft Desktop Optimization Pack (MDOP) for Software Assurance is a dynamic desktop solution. It's refreshed regularly with updates that employ innovative technologies to increase desktop manageability, reduce the total cost of ownership, and improve overall infrastructure satisfaction.

MDOP is available to Software Assurance customers as an additional subscription licence. Customers can access MDOP and any additions for as long as their MDOP subscription is active.

### **MDOP is a suite of six technologies:**

<b>Technology</b>	<b>Description</b>
Microsoft Application Virtualization	Turns applications into centrally managed services that are never installed, never in conflict, and are streamed on-demand.
Microsoft Enterprise Desktop Virtualization	Provides enterprise deployment and management of Virtual PC images on a Windows desktop while also providing a seamless user experience in a virtual PC environment, independent of the local desktop configuration and OS.
Microsoft Asset Inventory Service	Translates software service into business intelligence with this service providing IT managers with an inventory of installed user software across an organisation.
Microsoft Diagnostics and Recovery Toolset	Reduces downtime and accelerates desktop repair, recovery and troubleshooting of unbootable, Windows-based systems.
Microsoft Advanced Group Policy Management	Provides governance and control over group policy through robust change management and role-based administration tools.
Microsoft System Center Desktop Error Monitoring	Enables proactive problem management by analysing and reporting on application and system crashes.

Learn more about the Microsoft Desktop Optimisation Pack at  
<http://www.microsoft.com/windows/enterprise/products/mdop.aspx>.

## **Acquiring Software Assurance**

There are several ways to cover your Windows 7 Professional licences with Software Assurance:

### **When purchasing a Volume Licensing upgrade licence you may also get Software Assurance for that licence.**

- Through a programme that has Software Assurance as an included benefit, such as Enterprise Agreement, Enterprise Subscription Agreement, Open Value and Open Value Subscription.
- A Windows 7 Professional licence bought on a new PC can be enrolled in Software Assurance through the Open Licence or Select Licence programme within 90 days of the PC purchase.

When you cover a licence with Software Assurance, the benefits for that PC are available for the term of the Software Assurance coverage only, with one exception: A Windows 7 Enterprise licence – only available when bought with Software Assurance – generally becomes perpetual once Software Assurance coverage ends, so that the customer is able to keep using the product.

# Use of prior Windows versions

The downgrade options grant the right to use prior versions of Microsoft software in place of the purchased version.

## Volume Licensing Programmes

Microsoft Volume Licensing programmes provide the flexibility to downgrade to any prior version of Windows 7 Professional or Windows 7 Enterprise.

Licensed Operating System	Volume Licence Downgrade Options
Windows 7 Professional	Windows Vista Business, Windows XP Professional (including Windows XP Tablet PC, and Windows XP x64), Windows 2000 Professional, Windows NT® 4.0, Windows NT 3.51, Windows 98 and Windows 95.
Windows 7 Enterprise (requires Software Assurance)	Windows Vista Enterprise, Windows Vista Business, Windows XP Professional (including Windows XP Tablet PC, Windows XP x64 and Multilingual User Interface Packs), Windows 2000 Professional, Windows NT® 4.0, Windows NT 3.51, Windows 98 and Windows 95.

## OEM End User Licence Agreement

Limited end user downgrade rights are specified in the OEM End User Licence Agreement included with a PC purchased with licences for Windows 7 Professional or Windows 7 Ultimate.

Licensed Operating System	End User Downgrade Options
Windows 7 Professional	Windows Vista Business For PCs purchased for a limited time (18 months after the general availability of Windows 7 from OEMs, or until the release of a Windows 7 service pack, whichever is earlier) the OEM End User Licence Agreement will include rights to downgrade to Window XP Professional, Tablet PC or Professional x64.
Windows 7 Ultimate	Windows Vista Ultimate For PCs purchased for a limited time (18 months after the general availability of Windows 7 from OEMs, or until the release of a Windows 7 service pack, whichever is earlier) the OEM End User Licence Agreement will include rights to downgrade to Window XP Professional, Tablet PC or Professional x64.

# Windows Virtual Enterprise Centralized Desktop



Windows Virtual Enterprise Centralized Desktop (VECD) is licensing to use business versions of Windows in both centralised and virtualisation scenarios. These options are uniquely available with the VECD licences.

## **VECD Licensing Options**

VECD licences can be obtained for both PCs and thin-clients. There are two versions of VECD available:

- **Windows Virtual Enterprise Centralized Desktop for Software Assurance:** An annual subscription for PCs covered by Software Assurance.
- **Windows Virtual Enterprise Centralized Desktop:** An annual subscription which includes Software Assurance intended for thin-clients and scenarios where the PC is not covered by Software Assurance.

**Note:** To run desktop applications (such as Microsoft Office 2007) via the licensed device, each accessing device must be licensed for the application. VECD does not include application licences.

## **VECD Usage Scenarios**

The VECD licence enables the following flexible usage scenarios:

- **Virtual Desktop Infrastructure (VDI):** VDI allows users to remotely access (e.g. from home) their personalised desktops running in a data centre using protocols such as RDP. In this use case, the corporate device (which could either be a rich client or a thin client) that is used to access the virtual copy of Windows needs to be licensed through a VECD licence, and the employee-owned PC use right is included.

- **VM on an employee-owned PC:** A non-corporate PC that is owned by the employee can run a local virtual copy of Windows provided by their employer as long as the non-corporate PC is licensed through VECD and is already running at least a *home* version of Windows.
- **VM on a contractor-owned PC:** An organisation can provide a contractor with a virtual copy of Windows to run locally on the contractor's non-managed PC, if the contractor's virtual copy of Windows is licensed for VECD and the contractor's PC is already running a licensed copy of a *business* version of Windows.
- **VM moved between PCs on removable media:** The primary user of a VECD-licensed device can use a virtual copy of Windows that is copied on portable media such as a USB Flash drive or DVD, and execute the software on another PC covered with VECD or use it on their qualifying home PC licensed for Windows. A qualified home PC is licensed for Windows (see the Product List at <http://www.microsoft.com/licensing/> for details).
- **Remote boot from storage device:** Create and store a Windows image on a storage device, such as a network server, which may be run over an internal network locally in physical or virtual operating system environments on any device covered by VECD.
- **Blade PC accessed by non-primary user (per device):** Multiple users can access a blade PC with a single copy of Windows physically installed on it. Access for the primary user is included in the base Windows 7 Professional licence; however, access for additional users is licensed per device through VECD.

*"Windows 7 is enough to kill Linux on the desktop."*

The Inquirer

## Recommended Licence by Scenario

The table below illustrates the recommended VECD licence for each VECD usage scenario:

	VECD for Software Assurance	VECD
Estimated Price	<b>£13.80/PC per Device per Year*</b> In addition to Software Assurance	<b>£66/PC per Device per Year*</b> Includes Software Assurance
Virtual Desktop Infrastructure	●	●
VM on Employee-owned PC		●
VM on Contractor-owned PC		●
VM Moved Between PCs on Removable Media	●	●
Remote Boot from Storage Device	●	●
Blade PC Accessed by Non-Primary User (per device)	●	●

● = Recommended Licence

● = Valid Licence

\* Exchange rate used: US \$1 : GBR £0.60

# Volume Activation

Windows product activation is a set of technologies enabling customers to confirm that their copy of Windows is properly licensed. Product activation is required for all editions of Windows 7.

Volume Activation allows enterprise customers to automate the activation process and make it transparent to users. Volume Activation applies to computers that are covered under a Volume Licensing programme, and for customers using Volume Licensing media that were first introduced with Windows Vista and have now been enhanced in Windows 7. It is used strictly as a tool for activation, and it is not tied to license invoicing or billing.

Volume Activation provides two models for completing activations: Key Management Service (KMS) and Multiple Activation Key (MAK). KMS allows organisations to activate computers within a customer environment through an internally hosted service (KMS), and MAK activates computers on a one-time basis by using the hosted activation services provided by Microsoft. Customers can use either or both key types to activate computers in their environments.

For more information about Volume Activation and the improvements in Windows 7 please visit <http://www.technet.com/volumeactivation>.

# Get genuine options

Microsoft Windows upgrades are designed to upgrade previously acquired, qualified licences. The best and most cost-effective way to acquire full Windows licences is through pre-installed licences on a new PC. However, if you discover counterfeit or pirated software or a non-qualified operating system on your computers that may cause you to be out of licence compliance, there are solutions available through Volume Licensing that can help you remedy this situation.

To buy the correct Windows licences through Volume Licensing, the Get Genuine Windows Agreement (GGWA) has two options: GGWA for Small and Medium Organisations, and GGWA for Large Organisations.

	<b>GGWA for Small and Medium Organisations</b>	<b>GGWA for Large Organisations</b>
Target Audience	Customers with five or more PCs needing Windows licensing	Customers with a large installed base of PCs needing Windows licensing
Order Quantity	Minimum five licences (reorders allowed through the agreement term of two years)	Minimum five licences
Details	<ul style="list-style-type: none"><li>• Sold through Microsoft Resellers</li><li>• Non-signed commitment to buy legal going forward</li><li>• Generally no transferability of licence, except as allowed by agreement</li><li>• Downgrade rights available</li><li>• Software Assurance can be purchased within 90 days</li><li>• Support is available for purchase from a Microsoft Reseller</li></ul>	<ul style="list-style-type: none"><li>• Sold through Microsoft Large Account Reseller or direct from Microsoft</li><li>• Pre-signed agreement that includes an audit clause</li><li>• Commitment that future Windows software acquisitions will contain legal software</li><li>• Placement of a one-time only order</li><li>• Non-transferability of GGWA licences</li><li>• A Master Business and Services Agreement must be in place or one must be set-up</li><li>• Software Assurance can be purchased within 90 days</li><li>• Support is available for purchase from either Microsoft or Microsoft Large Account Resellers</li></ul>

More information is available at <http://www.microsoft.com/piracy/knowthefacts/LegalizationSolutions.aspx>.

# 1. Resources and tools

## **General support**

Use the following links for more specific information, guidance and support:

### **Windows 7**

<http://www.microsoft.com/windows/windows>

### **Windows Server 2008 R2**

<http://www.microsoft.com/windowsserver2008/en/us/r2.aspx>

### **Microsoft Partner Programme portal**

<http://partner.microsoft.com/windows7>

### **Small and medium-sized businesses**

<http://www.windows.com/business>

### **Windows Compatibility Centre**

<http://www.microsoft.com/windows/compatibility>

### **Microsoft Desktop Optimisation Pack (MDOP)**

<http://www.microsoft.com/windows/enterprise/technologies/mdop.aspx>

### **Volume Activation**

<https://partner.microsoft.com/global/licensing/licpostsalessupport/pssvolumelicensekeys>

### **Product keys and licensing support**

<https://www.microsoft.com/licensing/servicecenter/home.aspx?1033>

### **Promotion pages on the portal**

<https://www.microsoft.com/UK?salesmarketingsection/offerspromos>

## Other resources and tools

### Partner readiness training

Update your Windows 7 skills or acquire new ones with role-based training and readiness resources.

<https://partner.microsoft.com/windows7>

Ready your customers and help them strengthen business opportunities.

<https://partner.microsoft.com/40091612>

### TechNet Springboard

Guidance for IT professionals with tailored support and resources.

<http://technet.microsoft.com/en-gb/windows/dd361745.aspx>

### Aids to work with your customers

Solution Accelerator provides a suite of automated tools and guides to help your customers address key concerns like infrastructure management, communications, collaboration, security and regulatory compliance.

<https://partner.com/solutionaccelerator>

### Windows 7 resources by type of business:

Find customised information for the following audiences.

ISV/Software developers: <https://partner.microsoft.com/UK/40103819>

Service partners: <https://partner.microsoft.com/UK/40103797>

Value Added Resellers (VAR): <https://partner.microsoft.com/UK/40103868>

Large Account Resellers (LAR): <https://partner.microsoft.com/UK/40103860>

System builders: <http://oem.microsoft.com/Windows7>

### Windows 7 resources for customers:

General information: <http://www.microsoft.com/windows/windows-7/>

Mid-market information: <http://www.microsoft.com/uk/business/default.mspx>

Small businesses: <http://www.microsoft.com/uk/smallbusiness/default.aspx>

## 2. Hardware specifications

### **Windows 7 system requirements:**

- 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
- 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
- 16 gigabytes (GB) available disk space (32-bit) or 20 GB (64-bit)
- Microsoft DirectX® 9 graphics processor with Windows Display Driver Model 1.0 or higher driver

Product functionality and graphics may vary based on your customers' system configuration. Some features may require advanced or additional hardware; visit <http://partner.microsoft.com/windows7> for more information.

## **Additional requirements to use certain features:**

- Internet access
- Depending on resolution, video playback may require additional memory and advanced graphics hardware
- For some Windows Media Center functionality, a TV tuner and additional hardware may be required
- Windows Touch and Windows Tablet require specific hardware
- HomeGroup requires a network and PCs with Windows 7
- DVD or CD authoring requires a compatible optical drive
- BitLocker requires Trusted Platform Module 1.2; BitLocker To Go™ requires a USB flash drive
- Music and sound require audio output
- Windows XP Mode requires:
  - Additional 1 GB RAM
  - Additional 15 GB available disk space
  - Processor capable of hardware virtualisation, with Intel VT or AMD-V turned on

Windows 7 Upgrade Advisor can help you determine whether your customer's current PC is ready for an update to Windows 7. For more information, visit <http://www.microsoft.com/windows/windows-7/upgrade-advisor.aspx>.

© 2009 Microsoft Corporation. All rights reserved.