

Windows Mobile® 5.0 Primer for Microsoft® Partners



The purpose of this guide is to help Microsoft partners feel comfortable about discussing Windows Mobile 5.0 software with their customers. It provides a basic overview of Windows Mobile to those who are new to the wireless device industry.

What is Windows Mobile?

Windows Mobile is a compact operating system that powers all-in-one mobile devices such as Windows Mobile Pocket PCs. Windows Mobile powered devices fall under a category generally referred to as "Smartphones" or "PDAs." With Windows Mobile, users can make phone calls, check email, access Microsoft® Office documents, browse the Web, and more.

Key Features of Windows Mobile 5.0

Following is a list of the key features available in Windows Mobile 5.0.

Communication

- Access to Hotmail, POP3, IMAP, and Exchange Server email accounts using Microsoft® Office Outlook® Mobile
- Mail reconciliation with Exchange Server (for example, deleting mail on a device also deletes it on the server, and sending mail from a device saves it under Sent Mail folder on the server)
- Direct Push email for delivery of mail to a device as items arrive on server*
- Internet Explorer Mobile for browsing the Web

Personal Information Manager (PIM)

- Synchronization of Contacts, Calendar, Tasks and Notes between Outlook Mobile on the device and Microsoft Outlook on the desktop
- Wireless synchronization of PIM data between device and Exchange Server (no cradling required)
- Over-the-air updates of all PIM information on device as changes are made on server, through Direct Push technology*

Document Access**

- Ability to view and edit spreadsheets and charts with Microsoft® Office Excel® Mobile
- Ability to view and edit Word files with Microsoft® Office Word Mobile, including preservation of rich formatting, such as fonts, spacing, and images
- Ability to view presentation files with Microsoft® Office PowerPoint® Mobile

Security

- Secure sockets layer (SSL) communication when transmitting data over the air
- Password policy management help to enforce security policies*
- Remote device wipe for lost or stolen devices* when device is connected to network

Phone

- Full voice phone capability
- Text messaging using Short Message Service (SMS)
- Easy-to-use contact management, including support for photo caller ID and individualized ring tones for specific callers

Applications

- Wide range of horizontal applications, from global positioning system (GPS) navigation to customer relationship management (CRM) software
- Numerous vertical applications, including real estate, legal, and construction

Multimedia Capabilities

- Windows Media® Player 10 Mobile for playing music and videos
- Built-in camera for taking photos and videos
- Voice recording for taking notes

*Requires Windows Mobile 5.0 with the Messaging and Security Feature Pack (MSFP) and Exchange Server 2003 with Exchange Server Service Pack 2.

**Not all Smartphones support Office document access. Pocket PC Phone Edition devices enable users to view Excel, Word, and PowerPoint documents and edit Excel and Word documents.

Choosing a Windows Mobile® Powered Device

Windows Mobile powered devices come in multiple form factors and are available from a wide range of device makers and wireless service providers. Following are some important factors to consider when choosing a Windows Mobile powered device.

Form Factor

Connected Windows Mobile 5.0 powered devices come in two form factors: Pocket PC Phone Edition (Pocket PC PE) and Smartphone. The table below summarizes the difference between the two.

	POCKET PC PHONE EDITION	SMARTPHONE
SCREEN	Larger screen with touch-screen data input	Smaller screen without touch screen
DEVICE SIZE	Size similar to handheld PDAs	Size similar to regular cell phones
KEYBOARD	Most models have keyboards	Some models have keyboards, but most don't
OFFICE MOBILE SUPPORT	All models support viewing and editing of Word and Excel® documents and viewing of PowerPoint® documents	Some models support viewing of Office documents, some don't
WI-FI	Most have Wi-Fi support	Some have Wi-Fi support
NAVIGATION	Navigation may require use of stylus on certain models	Simple, one-handed navigation is available on all models
COSTS	Generally pricier than Smartphones	Similar to regular cell phone price
APPLICATIONS	Supports wide range of applications built for the Pocket PC platform	Pocket PC applications do not run on Smartphones. Smartphone applications tend to be less powerful and flexible
BEST FOR	Those who need to type long emails Users who need to edit, create and send documents on-the-go Those who prefer a device with a QWERTY keypad	Users for whom voice communication is most important Users comfortable typing without keyboards Those who want power—in a smaller, lighter device

Wireless Service Provider

Also referred to as “mobile operators,” service providers offer wireless voice and data services that enable Windows Mobile powered devices to make phone calls and connect to the Internet.

There are two primary types of wireless networks: Code-Division Multiple Access (CDMA) and Global System for Mobile communications (GSM). Because the two networks are incompatible with one another, devices based on one network will not work on the other. In the U.S., Verizon and Sprint use CDMA, while Cingular and

T-Mobile use GSM. All networks in Europe use GSM, while other parts of the world use a mix of both.

GSM phones use Subscriber Identity Module (SIM) chips that hold a subscriber's account information and contact list. You can transfer your account information and contacts from one GSM phone to another simply by moving the SIM chip to the new phone. However, CDMA phones do not use SIM chips. Transferring an account from one device to another requires assistance from the mobile operator to re-provision the account on their back-end system.

Although most European GSM devices are compatible with one another, GSM and CDMA devices in other areas are usually not. For example, phones from a U.S. CDMA network will not work on another CDMA network, even if both networks are based on the same technology. As a result, it is important to know what service provider a customer wants to use before selecting the device.

Some customers are locked into a contract with a given service provider for a fixed period of time. Others prefer to stay with a specific service provider because they have a better network infrastructure, resulting in broader coverage, superior call quality, or faster data connectivity.

Operating System Version

Over the years, the Windows Mobile operating system has gone through several versions. As of 2006, the latest version is Windows Mobile 5.0. Devices that have been out in the market for a while may be running an older version of Windows Mobile. If a customer is interested in getting the latest technology, it's important to choose a phone running Windows Mobile 5.0.

Note that, unlike PC operating systems, the operating system on a Windows Mobile powered device is usually fixed and cannot be upgraded to a newer version. That is, a phone running Windows Mobile 2003 generally cannot be upgraded to Windows Mobile 5.0—although minor updates are usually possible.

Device Maker

Windows-based PCs are available from many PC manufacturers, such as Dell, Gateway, and HP. Similarly, Windows Mobile powered devices are made by multiple device makers, including Samsung, Motorola, and Palm. Each device maker brings its own unique hardware design, user interface, and brand to the device. However, some devices, manufactured by lesser known companies, are sold under the mobile operator brand without a manufacturer label. Customers may have a preference for brands they are familiar with and trust.

Components of a Windows Mobile® Solution

Windows Mobile 5.0 integrates with Windows Small Business Server 2003 or Exchange Server 2003 to provide a complete messaging solution for businesses. Following are the key components of this solution.

Windows Mobile 5.0 Device

Windows Mobile powered devices are available from a variety of mobile operators and resellers.

PC Server with Windows Small Business Server 2003 or Exchange Server 2003

Windows Small Business Server 2003 and Exchange Server 2003 connects with Windows Mobile powered devices to provide enterprise-level messaging capabilities, such as wireless synchronization and Direct Push email*.

Voice and Data Service Plan

A voice service plan is required for making phone calls, and a data plan is required to wirelessly connect to the Internet. Data service plans differ by mobile operator. On GSM networks, they may be based on technologies such as General Packet Radio Service (GPRS), Enhanced Data GSM Environment (EDGE), and Universal Mobile Telecommunications System/High Speed Downlink Packet Access (UMTS/HSDPA). On CDMA networks, they may be based on Evolution-Data Optimized (EVDO). UMTS/HSDPA and EVDO are considered “3G” (third generation) networks; they are faster than GPRS or EDGE—in fact, close to broadband speed. Check with the mobile operator to see what data services are available at what price and speed.

Applications

Various applications are available for Windows Mobile powered devices, from GPS satellite navigation kits to CRM software. Customers can choose to use the applications they find most useful.

Third-Party Certificates

Third-party certificates may be required to make secure SSL connections when performing ActiveSync. Please check the white paper, “Deploying Windows Mobile 5.0 with Windows SBS 2003,” at <http://go.microsoft.com/fwlink/?LinkId=62797> for more information on certificates.

Learn More About Windows Mobile

The following additional selling and learning resources are available on the Partner Toolkit CD or at <https://partner.microsoft.com/mobilitysolutions>.

RESOURCE	DESCRIPTION
Customer Brochure	A Windows Mobile brochure for customers that partners can leave behind
Windows Mobile Sales Deck	A sales PowerPoint® deck for partners to present to customers
Deployment Guides	Step-by-step guides on how partners can deploy Windows Mobile 5.0 devices with Windows Small Business Server 2003 or Exchange Server 2003
Case Studies	Case studies of companies that have successfully deployed Windows Mobile in their businesses and partners that are successfully selling Windows Mobile powered solutions
Demo Script	A step-by-step script that partners can follow to give customers a demo of the key features and functionalities of a Windows Mobile powered device
Direct Mail and Email Blast Templates	Customizable templates that partners can send out to potential customers with their own contact information and call to action
Paths to Opportunities with Windows Small Business Server 2003: Enabling Mobility, Featuring Windows Mobile	A white paper written by IDC that shows how SBS partners can take advantage of Windows Mobile to improve sales, enhance customer satisfaction, and increase competitiveness

Glossary of Terms

Smartphone vs. Pocket PC Phone Edition

"Smartphone" is a term used generically within the wireless industry to describe phones that have PDA-like functionalities, including PIM, email, and the ability to run applications. However, Microsoft® uses the term "Smartphone" to describe a version of the Windows Mobile® operating system that runs on form factors similar to those of traditional cell phones. Pocket PC Phone Edition is a more powerful version of the Smartphone operating system that runs on larger, PDA-like form factors.

Mobile Operator

Also known as "wireless carriers" or "wireless service providers," mobile operators provide voice and data services to customers. Most mobile operators rely on one of two technologies as a primary communication protocol: CDMA or GSM. All of Europe is standardized under GSM, while the rest of the world uses a mix of both.

GSM

Global System for Mobile (GSM) communications is a digital technology for mobile communication. GSM is supported by all mobile operators in Europe, but is used along with CDMA in other parts of the world. Although European GSM devices are generally compatible with other carriers' networks, devices in other areas are often not. GSM devices also utilize SIM chips that store account information and contacts that can be transferred from one phone to another.

CDMA

Code-Division Multiple Access (CDMA) is a mobile communication technology that competes with GSM. CDMA is used by mobile operators outside of Europe including the U.S., Canada, China, Australia, South Korea and Brazil. CDMA phones do not have SIM chips, and account information must be provisioned individually on each device. Additionally, CDMA phones do not provide a standard mechanism of transferring contacts between devices.

SMS

Short Message Service (SMS), also known as "text messaging," is a technology that allows mobile phones to send and receive alphanumeric text messages. Each short message can contain up to 160 Latin characters or up to 70 non-Latin characters.

SIM

The Subscriber Identity Module (SIM) is a smart card inserted into GSM phones that contains the subscriber's account information and contact list. SIM chips can be plugged into different GSM phones to transfer account and contact information without additional device provisioning. CDMA devices do not use SIM chips and require mobile operator assistance to transfer an account from one phone to another.

3G

3G means "third generation." 3G networks are currently the fastest and most advanced wireless technologies, supporting data speeds similar to those of broadband connections.

GPRS

GPRS (General Packet Radio Service) is a data service that provides data rates in the range of 40 to 50 kbps. Used on GSM phone networks, GPRS is a very popular data connectivity protocol due to its wide availability.

EDGE

EDGE (Enhanced Data GSM Environment), an evolution of GPRS, provides high-speed data services (up to 384 kbps) on GSM networks.

UMTS/HSDPA

UMTS (Universal Mobile Telecommunications System) and HSDPA (High Speed Downlink Packet Access) are the latest 3G protocols that run on GSM networks. They are capable of supporting broadband-level speeds of several megabits per second. The UMTS/HSDPA protocols can be used not only on cell phones, but also on laptops equipped with UMTS/HSDPA network cards.

1xRTT

Short for single carrier (1x) radio transmission technology, 1xRTT is a CDMA-based data protocol similar to GPRS on GSM. It provides data transfer speeds averaging around 70 kbps. 1xRTT is often referred to as "1xRTT CDMA" or just "CDMA."

EVDO

EVDO (Evolution-Data Optimized) is a high-speed wireless data service (300-2000 kbps) that runs on CDMA networks, enabling them to offer wireless broadband services. Currently available from Verizon and Sprint in the U.S., it provides fast wireless access in most major U.S. cities. EVDO can be used not only on cell phones, but also on laptops equipped with EVDO network cards.