

PART 1



Introducing Live Communications Server

Welcome to Part 1 of *Pro LCS: Live Communications Server 2005 Administration*. In this part of the book, we will introduce you to Live Communications Server 2005 SP1, explain what it is, and explain what it does. We will also cover what instant messaging is and how to use presence to work smarter. We will then explore the underlying protocol that Live Communications Server uses, Session Initiation Protocol (SIP), including what it is and how Live Communications Server uses it. We will then cover the various server roles that are available with Live Communications Server, such as Enterprise Edition, Standard Edition, Access Proxy, and more. We will then look at the clients you can use with Live Communications Server and finally round off this part of the book by examining each of the topologies you can implement with Live Communications Server.



What Is Live Communications Server?

Live Communications Server (LCS) is a Microsoft Office server product that enhances your organization's communications and productivity by providing real-time information about people's presence, availability, and preferred mode of communication.

Organizations must remain competitive by bringing out the best ideas from their employees. Such breakthroughs are best accomplished through teamwork and collaboration. Although collaboration can be accomplished asynchronously such as via email, most of our daily tasks require short bursts of synchronous communications such as asking a question, clarifying a statement, or making a request. Waiting for a response often breaks the momentum in being able to quickly resolve tasks right then and there. Luckily, we have the ability to walk down the hallway if the other person is within physical proximity. We can also use the telephone, but we've all experienced the frustration of not reaching an important individual by phone. This is where Live Communications Server comes into play to further increase the productivity of the information worker (IW).

Live Communications Server is a presence server and platform that allows individuals to publish their presence state to whom they choose, which allows their presence subscribers to quickly and conveniently determine their availability. So, the next time you decide to walk down the hallway to talk to a co-worker, first check their presence state to make sure they're not in a meeting. And before you end up listening to their voicemail greeting, check their presence so you can call at a better time.

Although the primary client for Live Communications Server is Microsoft Office Communicator, users' presence can be displayed in any application, including the applications that make up the Microsoft Office productivity suite. The presence icon, more informally referred to as the *jelly bean*, provides unobtrusive ways to view people's presence availability whether you're working in Outlook, Word, SharePoint, or Excel.

How Business Value Follows Productivity Improvements

It's no longer sufficient to have information at your fingertips. It's necessary to have experts and trusted individuals at your fingertips. Often, with all the information available, we do not

know where to locate the information we need. Once obtained, we need to talk to trusted experts to help us interpret this information. In today's world, as information becomes ubiquitous, the time value of information quickly diminishes from the moment it is released. Therefore, it is important to remain up to date and be able to quickly take action given new information.

Live Communications Server not only helps you locate your experts more expediently, but it also makes it more convenient to communicate in real time with them regardless of location. Using Office Communicator 2005, you can determine when a person you're trying to reach will become available. Based on their presence state, you can initiate a telephone call knowing that you won't be greeted by their voicemail and end up playing "phone tag." If an individual who you need an urgent "yes" or "no" answer from is on a call, you can try a gentle interruption using instant messaging instead of calling and ending up with their voicemail, or you can wait until they are off the phone before you try to call. While in meetings, you can do quick follow-ups via instant messaging to answer questions without disrupting the ongoing discussion. In addition, Office Communicator 2005 is a convenient way to communicate with co-workers across the country or overseas without spending a dime on long-distance toll charges. Information workers on the road can continue to communicate with co-workers in the office in real time from home, their hotel room, or a customer's office.

With Office Communicator Mobile 2005 or Research in Motion's BlackBerry, you can put presence in your pocket wherever you go! Using Communicator Web Access, you can access presence and instant messaging from non-Windows desktops without installing any native client. We're only scratching the surface in terms of scenarios where communication can be faster as well as more cost efficient.

Being able to quickly peek into someone's presence availability is an incredible convenience. You can avoid placing a call if you know they are not available. However, seeing someone else's presence state is predicated on one important criterion: the accuracy of this presence information. Everyone is so busy these days that they don't need yet another application to manage. If people need to manually specify their presence state each time they are on the phone, in a meeting, out to lunch, or out of the office, they will quickly stop keeping this information up to date consistently, if at all. Live Communications Server 2005 goes a step further than just indicating whether a user is signed in. Communicator 2005 uses the user's calendar information available in Outlook to automatically update the user's presence state and display when the person will be available next. If Live Communications Server 2005 is integrated with your organization's phone system, the user's presence state can indicate whether the user is on the phone. All this improves the accuracy of the user's presence state and future availability.

With greater availability comes greater intrusion through interruptions as well as concerns regarding privacy. Similar concerns existed when email and the Internet became widely available. Companies were concerned that employees would spend their days browsing the Internet. Today, people are overwhelmed by email at the office and at home. Most of us spend a good ten minutes every day clearing out spam emails from our inboxes. Others have been trained "à la Pavlov" to immediately interrupt whatever they're doing to respond to the new email that just landed into their inboxes. These are not problems created by email, instant messaging, or telephones. Such technologies only exacerbated poor habits in controlling the interruptions. Removing email, instant messaging, and telephones is not the solution to the problem. Software and systems should empower users to control interruptions, define their privacy preferences, and make intelligent decisions about how and when to interrupt (or not interrupt!) others. Organizations understand the value of email, the Internet, and the telephone in improving their employees' productivity. Instead of removing instant messaging capabilities, organizations should implement

solutions that are designed for business productivity rather than advertising-driven “free” systems that are designed for consumer consumption.

Using Live Communications Server 2005, communication is secure and restricted to internal employees with accounts in their Active Directory forest. The administrator controls this. However, the system can be connected externally as well. For example, your organization can choose to federate with other organizations or connect with consumer networks such as Yahoo!, AOL, and MSN. Live Communications Server 2005 employs the Access Proxy server role to do this safely and securely. This can enable organizations to allow employees to communicate with members of these public network using corporate identities without sacrificing security or compliance. The ability for employees to use their corporate identity instead of a consumer handle such as greathandles@aol.com can mean the difference between making a sale and losing future business. External parties can have higher confidence that they are dealing with an authorized company representative and not a social engineer impersonating a corporate employee (that is, a hacker). This feature is called PIC and is further described in Chapter 14.

Just as Live Communications Server 2005’s integration with the Office suite of applications creates synergy to improve the information worker’s productivity, the tight integration of Live Communications Server 2005 with Active Directory brings that synergy to the administrator’s productivity by leveraging their existing expertise and the tools familiar to them such as the Active Directory Users and Computers MMC and Microsoft Operations Manager (MOM). This helps directly reduce total cost of ownership (TCO).

What Does This Book Cover?

Pro LCS: Live Communications Server 2005 Administration will help you harness the value proposition Live Communications Server offers to increase the adoption of technology within your organization while improving productivity. This book’s chapters are self-contained. If a chapter relies on information already covered in another chapter, you will be invited to visit the other chapter for further information. There is a minimal amount of precedence to the chapters, which reflects the dependencies in the product.

Chapters 1–3 provide an overview of Live Communications Server 2005 SP1, the value of instant messaging, and the SIP protocol on which Live Communications Server is based. These chapters provide a background for those readers who are new to this technology.

Chapters 4–8 provide prerequisite information you need to know before you deploy your first Live Communications Server machine. Chapter 4 covers how you should use the different server roles depending on the scenarios you want to enable. Chapter 5 discusses the different clients available for Live Communications Server 2005 SP1 and what considerations to keep in mind when rolling them out to users. Chapter 6 covers the important topic of topologies. Nothing is more frustrating than starting down a path only to realize after expending a considerable amount of time, effort, and frustration in installing and configuring Live Communications Server 2005 SP1 that it wasn’t intended to be deployed in that manner. Even worse, you might discover your deployment is not supported by Microsoft’s Product Support Services. Please make sure to follow one of the supported topologies. It will help you avoid considerable frustration. Chapter 7 covers a required step before you can deploy the first server within your Active Directory infrastructure. In any medium to very large company with a tiered IT organization, various IT administrators are likely to hold different administrative privileges. You’ll need to work with these key stakeholders to review and approve the schema extensions needed for Live Communications Server 2005 SP1 and other preparatory steps required. We’ve

discovered that this process of preparing your Active Directory takes a considerable amount of time from the moment you begin evaluating the product until you deploy it within your organization.

We recommend you plan this effort early in the project to help reduce the deployment cycle. Because Live Communications Server 2005 SP1 leverages other existing technologies beside Active Directory such as DNS and PKI, Chapter 8 covers important considerations that have caused customers grief and resulted in high support calls for Microsoft.

Chapters 9 and 10 finally get into the step of deploying your Standard Edition Server and Enterprise pool. Instead of documenting the process step by step with screenshots of every wizard's page, we provide you with additional insight that complements the product's available documentation, which already gives step-by-step instructions. By their nature, wizards are intended to walk the user through the configuration process and need little additional instructions.

After deploying your Standard Edition Servers and Enterprise pools, you must configure them for the scenarios you want. Chapters 11–14 cover configuration. Specifically, Chapter 11 covers configuring users for Live Communications; otherwise, they won't be able to use the service. Chapter 12 discusses the Address Book Service. This service permits users to easily search and find other users within your organization similarly to how Outlook works. Chapter 13 talks about configuring your Live Communications Server infrastructure for federation to allow your users to communicate with users from other partner companies. Chapter 14 covers how to enable communications with external users subscribed to AOL's, Yahoo!'s, and MSN's instant messaging services.

Chapters 15–19 cover manageability topics such as backing up and restoring, profiling the server with logging, enabling archiving for compliance, using best practices to troubleshoot the system, and performing ongoing monitoring for high availability.

Chapter 20 introduces you to the Live Communications Server 2005 SP1 software development kit (SDK). Chapter 21 discusses how to configure Live Communications Server 2005 SP1 for Voice over IP (VoIP) so users can leverage Communicator 2005 to enhance their existing telephony experience by using their computer to do remote call control. Chapter 22 covers additional resources.

Finally, the appendix covers deploying Live Communications Server in a multiforest Active Directory environment, with flowchart aids to determine which Active Directory "prep steps" to run and a checklist for deploying a Standard Edition Server and an Enterprise pool.

Summary

Live Communications Server enhances your organization's communications and productivity by providing real-time information about people's presence, availability, and preferred mode of communication. In the upcoming chapters, we'll cover everything you need to know to install and deploy it in your organization.