

WANG

Wang OFFICE

VS OFFICE Administrator's Planning Guide

Release 2.05



Wang OFFICE
VS OFFICE
Administrator's Planning
Guide
Release 2.05

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PREFACE

This guide helps the administrator of a VS system to plan the installation of VS OFFICE software within a Wang Systems Networking (WSN) environment. It does not provide complete information about network planning or installation. The information in this guide focuses on planning a VS OFFICE software installation at the system level. The network planning, installation, and configuration that must precede the installation of Wang OFFICE software are covered in the *WSN VS Network Configuration Guide*.

This guide assumes that the reader has a good general knowledge of the VS, including the concepts of file-protection classes, print modes, print classes, and user defaults. This guide also assumes that the administrator will be working with a Wang representative while planning and installing their system. If you are not familiar with VS administration, consult with the VS security administrator of your VS OFFICE system.

Organization of This Guide

The chapters in this Guide are arranged as follows:

Chapter 1 introduces the VS OFFICE software, describes the networked environment that supports it, and describes the various types of connections supported by VS OFFICE, Release 2.05.

Chapter 2 describes five levels of administrative responsibility in a WSN/Wang OFFICE network and outlines administrative duties to be carried out at each level.

Chapter 3 lists basic hardware and software requirements.

Chapter 4 describes the planning tasks to be completed before installing VS OFFICE software. The worksheets provided in Appendix A correlate with the information in this chapter.

Chapter 5 discusses converting previous releases of VS OFFICE to Release 2.05.

Chapter 6 discusses planning for connections between a VS OFFICE system and OIS, Alliance, and other non-OFFICE systems.

Chapter 7 discusses planning a VS MAILWAY-to-VS OFFICE conversion and planning for MAILWAY/VS OFFICE coexistence.

Chapter 8 discusses installation considerations.

Chapter 9 discusses post-installation considerations for a VS OFFICE site.

Appendix A contains worksheets to use when completing planning tasks discussed in Chapter 4.

Appendix B describes the directory synchronization process, Transmit-Only directories, Multi-Sync, and manually initiated directory synchronization.

Appendix C provides a glossary of terms related to Wang OFFICE.

How to Use This Guide

Before installing VS OFFICE at your site, read this guide to help you understand how to prepare the site. After reading it, you should discuss the suggestions, guidelines, and tasks with your Wang service representative. The guidelines presented should be treated as suggestions and modified to suit each particular installation.

It is important to understand the concepts presented in Chapter 1 of this guide before reading about the planning tasks discussed in later chapters. However, if you are already familiar with Wang OFFICE and Wang Systems Networking concepts, you may prefer to begin with Chapter 2.

The information in the guide covers all currently supported connections to VS OFFICE. If your installation does not support OIS/Alliance or PC/PIC connections, you can skip the sections related to these connections.

Once you have determined what planning tasks you need to complete, use the worksheets in Appendix A to gather or record planning information as needed.

The following documents are referred to in this guide:

Customer Site Planning Guide (700-5978F)

VS System Administrator's Reference (800-1144-02)

WSN VS Network Control and Monitoring Guide (715-0164)

WSN VS Network Configuration Guide (715-0165)

WSN VS Standard Components Software Bulletin, Release 8.21, (715-0542.01)

VS Multi-Station User's Reference (800-1149-01)

VS OFFICE Administrator's Guide, Release 2.05 (715-1164)

VS OFFICE User's Guide, Release 2.05 (715-1163)

Wang OFFICE VS OFFICE Release 2.05 Customer Software Release Notice (715-1168)

VS OFFICE Traveling User's Guide (715-0718A)

VS General Purpose Asynchronous Communications Programmer's Guide (800-1325B)

VS OFFICE Programmer's Guide (715-0529)

PC OFFICE Administrator's Guide (715-0006A)

PC OFFICE User's Guide, Release 2.0 (715-0011A)

OIS/Alliance/WP Plus OFFICE Administrator's Guide, Release 2.0 (715-0232)

Wang OFFICE on OIS/Alliance/WP Plus OFFICE User's Guide, Release 2.0 (715-0168)

VS Application Management Utility (AMU) User's Reference (715-0246)

VS OFFICE API Data Sheet (715-0760)

VS OFFICE Indexer User's Guide (715-0298)

OFFICE Indexer Data Sheet (715-0299A)

VS MemoryBase Data Sheet (715-0488)

VS MemoryBase User's Guide (715-0487)

VS MemoryBase Administrator's Reference (715-0486)

VS MemoryBase Installation Guide (715-0525)

WP Plus Installation Guide (715-0716)

Wang OFFICE/DISOSS GATEWAY Administrative Functions Guide (715-0569B)

Wang OFFICE/PROFS GATEWAY Host Planning and Installation Guide (715-0041A)

Wang OFFICE/PROFS GATEWAY System Administrator's Guide (715-0042A)

Wang OFFICE/PROFS GATEWAY User Guide (715-0043A)

MAILWAY III User's Manual for Extended OIS Distribution Points (700-7012)

MAILWAY Level II User's Manual for Alliance Distribution Points (700-8033)

Wang OFFICE/MAILWAY Bridge Planning Guide (715-1090)

WIIS Programmer's Guide to Image Access Functions (715-1820)

Chapter 1

UNDERSTANDING VS OFFICE AND ITS PLACE IN A NETWORK

INTRODUCTION

VS OFFICE is a software package that enables users to perform many common office tasks electronically. Users can exchange messages, memos, data files, Charter display files, word processing files, Wang Integrated Image Systems (WIIS) display files, and combinations of these as packages with other Wang OFFICE users. Users can also schedule meetings and other events on personal calendars, maintain reminder lists, and create Info Cards (personal phone books), sort mail into folders, and keep track of personal correspondence. They can also receive broadcasts, keep phone logs, control access to their mail and other OFFICE information, and perform other useful office functions.

When systems supporting Wang OFFICE software are linked together in a network, a user on any Wang OFFICE system can exchange information with individuals on any local or remote Wang system in the network (via the Wang OFFICE directory).

WHAT ARE THE COMPONENTS OF VS OFFICE SOFTWARE AND WHAT DO THEY DO?

VS OFFICE Release 2.05 software includes the following features.

Mail

The Mail facility allows users to send and receive mail items or packages across the network. A mail item can be

- Correspondence, such as a memo or an invitation to a meeting.
- A phone message.
- An Integrated Information System (IIS) word processing document, a WP Plus document or a Charter WP Plus display file.
- A WP or WP Plus glossary.
- A voice message from a private telephone exchange (PBX) or a Telephone Message Exchange (TMX).

- A data processing (DP) file. Depending on the optional software you have, a DP file can include a WIIS file (which is an image you can view and print), an MSDOS file, a Professional Application Creation Environment file (PACE)[®], a VS graphics file, or a 20/20™ spreadsheet.

Any of the preceding items can be combined to form a mail package of data, text, images, and audio items that users can view, reply to, or forward to other individuals. Each user is provided with a Mailbox folder where 584 mail items can be received and indexed. Users are alerted when a mail item has arrived, and they can designate as many as ten other users who will receive their alerts. Users can define mail priority (to the maximum level set by the Directory Services administrator) and send it on a certified basis. Mail can also be sent on an urgent basis, which alerts the recipient that the mail item has arrived. Messages can be sent as an emergency priority in which an immediate communications session is established with the destination system if one is not already in progress.

The mail function also provides an Electronic Approval feature that allows a user to

1. Create a Route Package.
2. Send it to the first recipient on a Route List created by the user.
3. Have that recipient vote on the contents of the Route Package by using the Electronic Approval voting options. This process is protected by password security.
4. Forward the Package to the next recipient on the Route List who can vote on the Package's content, and forward it to the next recipient. Recipients can be listed more than once on a Route List, and the Route Package can be directed back to the originator at any point in the routing cycle.

Users can determine whether a mail item is simultaneously distributed to multiple recipients by using distribution lists, or sequentially distributed by using Route Lists and Route Packages. Recipients can be remote users or PC users with 2110 and PC 280/380 terminal emulation, or IBM PC/AT or its clones.

Administrators establish mail delivery parameters for users that include

- Adding the Auto Include feature, if installed, to the administrative menu. Auto Include allows up to 100 designated users, distribution lists, or organizations to receive every piece of mail sent from your VS system.
- Selecting to have mail automatically hardcopied at a designated printer.

In addition to mail, VS OFFICE includes the following components.

Calendar

The Calendar function can be used to create and maintain daily, weekly, or monthly personal calendars with reminder lists. Reminders, displayed with the calendar, help the user to maintain a list of tasks in the order of their importance.

Info Cards

Much like a telephone book, Info Cards store names, addresses, telephone numbers, and other pertinent information.

Schedule a Meeting

Users can schedule meetings with anyone who belongs to their own local system or with users on remote systems by using the Schedule a Meeting facility. Users select participants and preferred times, locations, and equipment for a meeting. The Schedule a Meeting facility, in conjunction with individual calendars, checks calendar databases to find available times, and presents the user with a selection of meeting schedules based on the user-selected criteria. The user selects one of the meeting schedules, and the facility sends invitations to the participants.

Folder Filing

Similar to paper file folders, Folder Filing is used to organize mail items and packages into personally created electronic folders.

Correspondence Log

The Correspondence Log is used to keep track of paper correspondence. Users enter a record of who sent the correspondence, to whom it was forwarded for action, the date by which they need to follow up, and where it was filed.

Bulletin Board

The Bulletin Board facility posts user's notices within a single system. The bulletin board can be organized in logical categories and subcategories for easy review. The VS Administrator establishes read and write access to the Bulletin Board.

WP Plus Integration

This feature sends and receives WP Plus documents through Wang OFFICE mail, regardless of which word processing editor the intended recipients use. VS OFFICE users working in WP Plus are alerted when mail has arrived. Users can call up the VS OFFICE menu and access Mail and Calendar functions while working with a WP Plus at the terminal by pressing the Command and Indent keys. IIS WP users are also alerted when mail has arrived.

Traveling User

By using this feature, a user can log on to VS OFFICE from a remote asynchronous terminal to send and read mail and to access distribution lists, calendar/reminders, and folders.

User Administration

This facility helps users to customize their VS OFFICE environment within the parameters set by the VS OFFICE and directory administrators. Administrators can set user-modifiable values, such as

- Enabling users to customize how their mail is sent and received
- Choosing the options that recipients on a Routing List can have when voting through Electronic Approval
- Choosing how user's printed DP output and WP output is formatted

Users can also allow other users access to their

- Personal calendar
- Reminders

- Mail items
- Info Cards
- Correspondence Log

Users can also select calendar and mailbox display formats and, if authorized, define default values and retention periods for calendars, mail, and folder items. Participants in the automatic scheduling process can view and change their scheduling database.

Administrative Functions

These functions are used by the VS OFFICE administrator to

- Manage bulletin boards and broadcasts
- Activate and deactivate phone message logs
- Create and archive correspondence logs
- Maintain the Audit Trail file
- Define Auto Include recipients
- Control VS OFFICE background tasks, batch scheduling, and link definitions
- Perform Housekeeping tasks
- Manage the Control file, Freeform Addressing, Receiver Tasks, and Traveling Users
- Modify VS OFFICE menus to accommodate program options such as MAILWAY, PROFS, and DISOSS

VS OFFICE administrative functions are often combined with Directory Administration functions.

Directory Administration

These functions enable the Directory Services administrator to create, maintain, and delete user, organization, and applications data in the VS OFFICE directory. Through directory administration, the administrator also controls each user's profile builder. The profile builder is a convenient and consistent means of attaching a user to other products, such as WIOS, and provides a method of specifying parameters for a user's interactions with other program options. Administrator's can add, edit, or delete a user's profile attributes or categories of information associated with a particular software package.

On-Line Help Text

This function supplies additional information about VS OFFICE functions displayed on the screen, supplementing the manuals provided with the VS OFFICE software.

Computer-Based Training

VS OFFICE includes two computer-based training courses, "VS OFFICE" and "VS OFFICE Site Administrator." Designed by education specialists, these courses cover all OFFICE user and administrative features in detail. They are structured in course units to facilitate first-time use and refresher training. The Computer-Based Training courses are packaged with OFFICE.

Menu Modification

With this facility users can tailor VS OFFICE menus to their needs and provide menu security through the Application Management Utility (AMU). The sequence of items on the menus can be changed, application names can be added, and menu items can be added, deleted, or renamed. Users can also design their own menus without programming or recompilation. The administrator must grant users rights to modify menus.

Multi-Station Interactive Windows

Provided in conjunction with the VS Operating System that supports VS OFFICE, Multi-Station functions enable a single workstation screen to display four separate windows. These windows function independently so that the user has access to interactive VS OFFICE and other VS applications simultaneously.

HOW DOES VS OFFICE FIT INTO A NETWORK?

A Wang OFFICE network consists of two or more Wang VS systems linked by means of Wang Systems Networking (WSN) services and transports. The systems linked by WSN services are called *nodes*. With the appropriate network connections, one or more Wang Professional Computers (PCs), Office Information Systems (OIS), or Alliance systems can communicate with the VS systems in a Wang OFFICE network.

The following sections provide a brief overview of the network environment that supports VS OFFICE communications. For detailed information about WSN networks, refer to the *WSN VS Network Configuration Guide*, and the *WSN VS Network Control and Monitoring Guide*.

Building Blocks of the Network: Systems and Areas

A Wang OFFICE network consists of two or more Wang VS systems or one VS system connected to an OIS, Alliance system, or PC. A Wang OFFICE network can be either a local-area or a wide-area network. In a local-area network the systems are usually, but not necessarily, located geographically close to each other (on various floors of an office building, for example) by a fixed physical connection such as a cable. In a wide-area network, systems are usually, but not necessarily, separated geographically by greater distances (in different cities or countries, for example), and use connections other than fixed connections. For example, wide-area networks may use transmissions reflected via satellites as connections to other VS OFFICE systems. Each network is maintained and controlled from the VS system designated as the Network Control Center (NCC).

The network includes one or more *areas*. An area is a logical grouping of systems (also called nodes). A small network may consist of a single area. Larger networks may be divided into two or more areas.

Each area is maintained and controlled from a VS system designated as the Area Control Center (ACC), which is the *administrative system* for the area. Systems networked to an ACC are *end-point systems*. Each area must also have a *distribution system*, a VS system which may receive all mail coming into the area and dispatch it to other systems in the area. The same system can serve as the administrative system and the distribution system.

The actual number of systems in an area will vary (a maximum of 9999 systems can logically be supported). Some considerations that would determine the number of systems in an area are:

- Available physical communications links
- The type of communication links used
- The location of the mail distribution center

Each area has a name and a numerical ID unique within the network. Each system in a network is assigned to an area and has a name and a numerical ID unique to the area. Thus, each system in the network has a unique *network address* composed of its network and area IDs, plus its system ID. The grouping of systems into areas, designation of the Network and Area Control Centers, and the assignment of unique names and IDs to areas and systems constitute the network configuration, termed the *network topology*. The *local view* or local level of the network topology refers to the information relevant to a single VS OFFICE system with its connections to adjacent systems.

The NCC must also be the ACC in its own area, or be the only system in its area. If several systems are linked to an ACC, each system is referred to as an *end-point system*.

Figure 1-1 illustrates a sample wide-area network topology composed of three areas, Boston, New York, and San Francisco. Each area is made up of three VS and/or Wang PC systems.

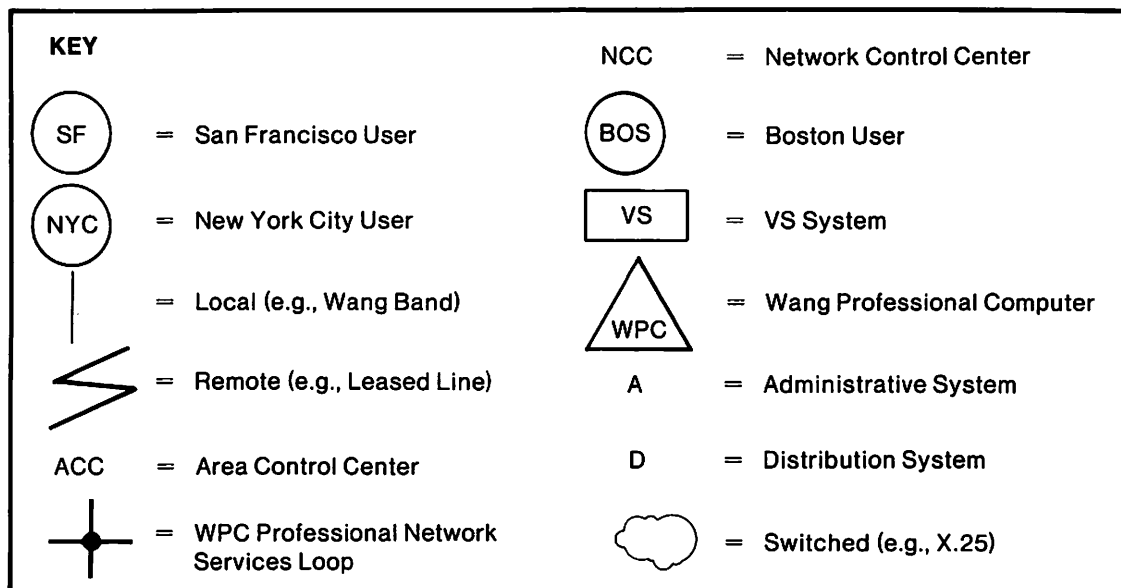
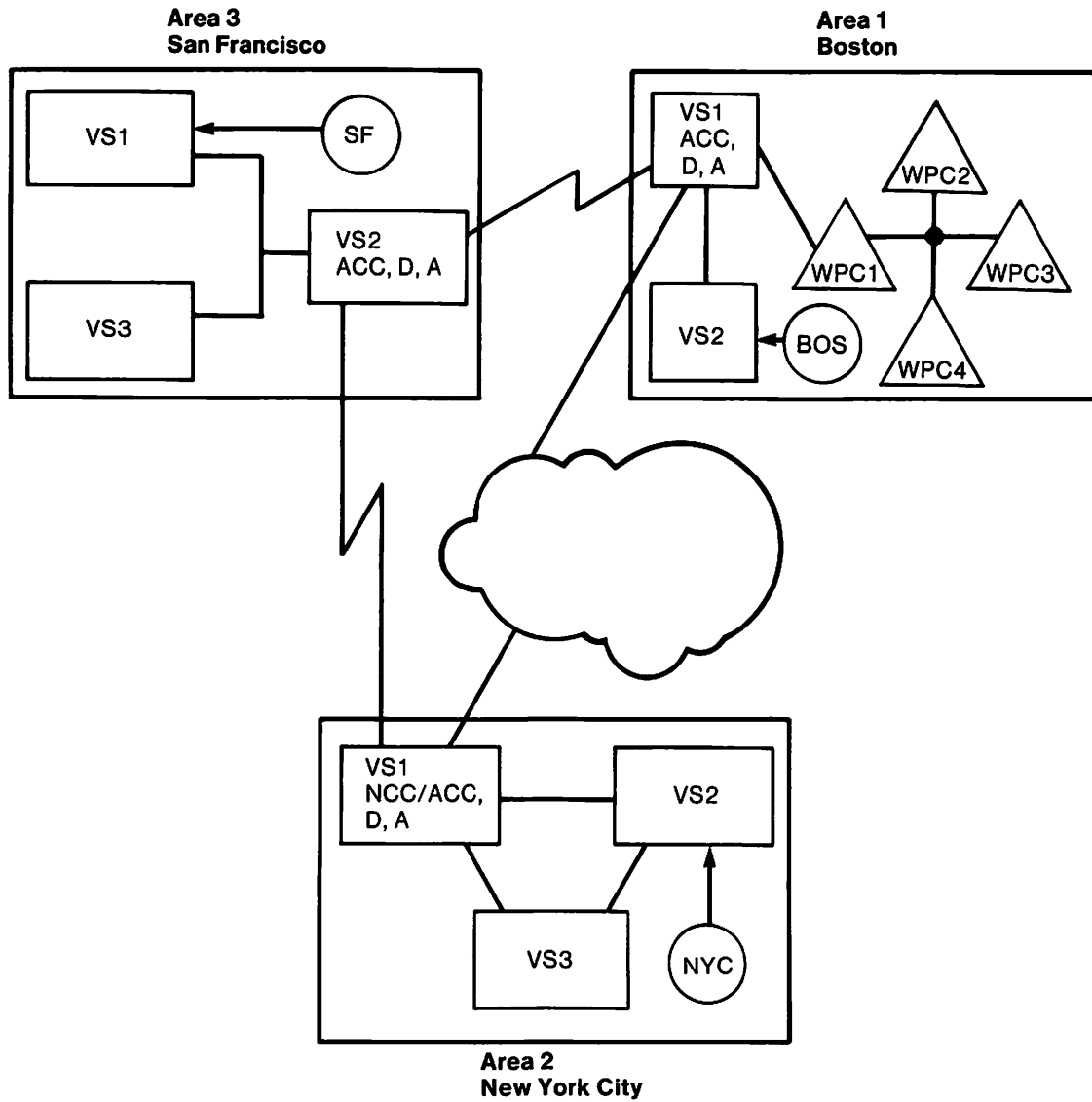


Figure 1-1. A Sample Wide-Area Network Topology

Connecting Systems and Areas

Network transports, such as WSN Point-to-Point or WSN Wang Band, provide system-to-system connections across the physical links of the Wang OFFICE network. These transports include Wang, industry standard, and other widely used protocols.

When designing a network, the network-level administrator determines which transport is appropriate for each system-to-system connection in the network. The network-level administrator often provides a Network Configuration Planner to local network administrators. It contains a diagram of the network topology and planning worksheets that detail the transport(s) to be configured on each local system. Local network administrators use this information to ensure that their systems support the transport(s) required for connections to adjacent systems. Chapter 3 contains detailed information about the transports that support VS OFFICE.

The Role of VS Directory Services

To make the delivery of mail within a network possible, the NCC, each ACC, and each end-point system maintains a *directory* that contains the names and IDs of all areas, systems, and distributed users in the network.

Note: A directory on an end-point system can be either a Full directory or a Transmit-Only directory. A Full directory contains information on all distributed users in the network, while a Transmit-Only directory initially contains information only about the users on its own system. When this manual refers to directories, it is referring to Full directories unless otherwise specified. Detailed information about Transmit-Only directories is found in Chapter 4 of this manual.

The directory is created when WSN network software is installed on the first system in the network, usually the Network Control Center. This directory becomes the master directory for the entire network. This directory is the mechanism by which all VS systems in a Wang OFFICE network keep their own directories current by way of directory synchronization. Refer to Appendix B for details about directory synchronization.

After the directory is created, the network-level administrator uses the WSNEDIT program to define the required *network information* in the directory: the name and ID of each area, together with the names and IDs of all systems in the network. Additional directory information (user names and IDs, organization names and IDs) is defined at the local level by local VS OFFICE administrators.

A directory is created on each VS OFFICE system as WSN network software is installed. In each local directory, network information must be identical to the master directory at the Network Control Center. The network-level administrator often accomplishes this by providing a file, termed a *starter kit*, to local-level network administrators. The starter kit contains the network information needed for the local directory. If no starter kit is available, a local administrator creates the directory manually through the WSNEDIT program or the WSN directory maintenance utility WSNDIRM, using information provided by a network administrator.

Package Distribution Services Store and Forward: Defining When Mail Is Sent

The transmission and delivery of mail within a Wang OFFICE network is accomplished jointly by WSN Package Distribution Services (PDS) Store and Forward software, and WSN VS Netcore (formerly WSN Standard Components) software.

The dispatch of a mail item depends first on its destination. If mail is addressed to a local recipient it is delivered immediately. A local recipient is located on the same system from which the mail item is sent. Mail items addressed to recipients located on other systems in the network are queued for transmission by the WSN Store and Forward software. The dispatch of these items is then determined by the *priority* assigned to them.

A mail item can be assigned one of five priorities: Low, Normal, High, Immediate, or Emergency. When a mail item with an Emergency priority is sent, a communications session with the destination system is requested if one is not in progress. If one is in progress, the Emergency message request interrupts the session to send the Emergency mail item. Emergency mail is available only if the appropriate version of PDS Store and Forward software is installed. (Refer to the *Wang OFFICE VS OFFICE Release 2.05 Customer Software Release Notice*, for the correct version number.) Mail items with Immediate priority are dispatched as soon as they are sent, unless a scheduled connection is due to be made within a certain time (15 minutes, for example) set by the administrator. In these cases, the Store and Forward software will not initiate a separate communications session, but will hold the delivery until the scheduled connection is made. Other items wait in a queue to be dispatched at times specified by *priority windows*, which are defined on the system through WSNEDIT. For example, if a window for low priority mail is defined as 11 PM to 7 AM, a low priority mail item is not dispatched until 11 PM or later, regardless of its time of creation. (This window limits the dispatch of low priority mail to hours when rates are lower or network traffic is lighter.)

Any time a session is established to dispatch mail of a specified priority, mail of a higher priority is dispatched first. For example, high priority mail that is queued will be dispatched along with low priority mail if the low priority window "opens" before a high priority session is scheduled. However, the reverse is not true. Low priority mail cannot go out during a high priority session.

Routing Mail: WSN CNS Software

The means to establish, maintain, and terminate communications sessions for the exchange of mail between VS OFFICE systems is provided by Communications Network Services (CNS), one of the WSN VS Netcore components.

Once a mail item is dispatched, its movement through the network is controlled by CNS software in conjunction with Package Distribution Services software. Mail moves along a path from system to system within the network until it reaches its destination system. It may pass through one or more intermediate systems before it arrives at its destination.

Planning a path through the network resembles planning for an automobile trip. When planning an auto trip you might consider the following questions:

- What are the most direct roads (shortest distance)?

- What are the best roads (fastest flow of traffic, least costly tolls)?
- What are some alternate routes, in case of road construction or heavy traffic?
- What are some stopping points along the way?

In planning paths from each system in the network to all possible destinations in the network, the network-level administrator asks similar questions about a network.

- What are the most direct physical links (system-to-system connections)?
- Which links are the most cost-effective and carry the most traffic?
- What are some alternate connections, in case lines go down, traffic is significantly congested, or a system is down for backups?
- Where is the primary mail distribution point in the area?
- How much disk space is available for storing mail to be forwarded?
- What are the stopping points for mail moving through the system?

A complete path from source system to destination system is planned at the network level. Then, using the information provided by the network administrator, the administrator of each system along the path defines how that system receives mail, temporarily stores it, and moves it to the next system. Refer to the *WSN VS Network Configuration Guide* for more information about defining paths for Wang OFFICE mail.

Figure 1-2 illustrates the path a mail item might take through the wide-area network depicted in Figure 1-1.

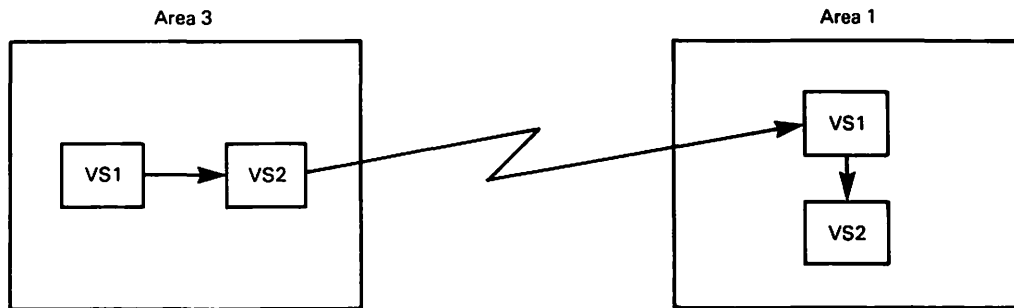


Figure 1-2. A Sample Path for the Routing of Mail

The mail item in this figure was sent by a user on System VS1 in Area 3, and its recipient is located on System VS2 in Area 1. The mail item was first sent from VS1 to VS2 in Area 3. Store and Forward activity may have been involved when sending the mail item. VS2 is the Primary Distribution Center for Area 3, and determines the most efficient path for routing the mail item to VS2 in Area 1. The mail item is then sent to VS1 in Area 1, which is the Primary Distribution Center for that area. Store and Forward activity may have been involved when sending the mail item, depending on the scheduled communications session. The Area 1 Primary Distribution Center acting in

its receiving capacity dispatches all incoming mail for Area 1 to the appropriate systems. The mail item is finally dispatched from VS1 to its destination, VS2. Store and Forward Activity may have been involved.

Other WSN services, such as WSN File Transfer Service, also manage the exchange of information among Wang systems in both local- and wide-area configurations.

Refer to Chapter 3 of this guide for detailed information about the hardware and software needed to configure a Wang OFFICE network.

SENDING AND DELIVERING A WANG OFFICE MAIL ITEM BETWEEN SYSTEMS

The following example illustrates the preparation, sending, transmission, and delivery of a VS OFFICE mail item.

1. A VS OFFICE user prepares a memo and selects as its recipient someone who is located on another system in the network. The sender requests acknowledgement of the memo by the recipient and accepts Normal priority (the default priority assigned to the user by the system unless the user specifies another priority).
2. The sending system checks the recipient's VS OFFICE directory record to obtain a network address (network user ID).
3. The sending system attaches to the mail item information about the sender — name and network address. This information makes it possible for the destination system to identify the sender to the recipient. It also makes it possible for the destination system to return an acknowledgement or a reply to the sender.
4. The sending system also checks the communication configuration file to determine how the mail item should be routed to its destination system.
5. The sending system checks the priority of the mail item against the appropriate priority window. If a normal priority window is "open," a session is established immediately. Otherwise, the item is queued until a time defined by a normal priority window.
6. The mail item is dispatched during the time specified by the priority window, using the path defined for its destination system.
7. If there are intermediate stops at other systems along the path, each system specifies the "next hop" for the mail item.
8. When the mail item arrives at its destination, the receiving system consults its directory to confirm that the recipient of the mail item has a Mailbox on the system.
9. The mail item is delivered to the Mailbox of the specified recipient. The recipient can then view the item and return an acknowledgement to the sender (not necessary if automatic acknowledgement is in effect).

ADDING OTHER WANG SYSTEMS TO THE VS OFFICE NETWORK

VS OFFICE supports several configurations that link non-VS systems to the Wang OFFICE network, allowing users of those systems to exchange mail with VS OFFICE users.

Connecting Wang PC OFFICE Systems

You can add a single PC OFFICE system, or multiple PC OFFICE systems linked together in a local-area network or a wide-area network, to a Wang OFFICE network.

Single PC OFFICE system networked to a VS — A single PC OFFICE system (PC, APC, or PIC™), when networked to a VS OFFICE system maintaining a Full directory, communicates with the VS and with any other VS-OFFICE supported system linked to the VS, permitting VS OFFICE functions like sending and receiving mail, directory synchronization, and queries of the directory for addressing purposes.

PC OFFICE network linked to a VS — Two or more PC OFFICE systems linked in a local-area network or wide-area network by PC Professional Network Services (PNS) can be linked to a VS OFFICE system maintaining a Full directory. The members of the local-area or wide-area network (PCs/APCs/PICs) can then communicate with the entire Wang OFFICE network as well as directly with each other. All communication from the PNS network to the VS passes through a server PC OFFICE system, supporting transactions like sending and receiving mail, directory synchronization, and directory queries.

In PC OFFICE configurations networked to a VS, a group directory is maintained at the PC OFFICE level. When the PC OFFICE administrator initiates synchronization, the PC OFFICE directory is synchronized with the VS OFFICE directory on the host VS. A PC OFFICE system or local-area or wide-area network cannot be linked to a VS OFFICE end-point system that maintains a Transmit-Only directory.

Instructions for planning, installing, and maintaining a PC OFFICE configuration are contained in the *Wang PC OFFICE Administrator's Guide*.

Adding Traveling Users

The traveling VS OFFICE user with a portable terminal and modem can communicate with a home VS OFFICE system by using the Traveling User option. Administrators can add a single traveling user or several traveling users to a Wang OFFICE network.

Traveling users are listed in the VS OFFICE directory. They can dial into their home VS and use features of VS OFFICE from a remote asynchronous terminal by using a General Asynchronous Interface (GAI) connection with a remote password assigned with the Interactive mailbox. The administrator must grant Traveling User access and have defined their personal password.

Refer to "Telecommunications Hardware Requirements" in Chapter 3 for telecommunications details about adding a Traveling User. Refer to the *VS OFFICE Administrator's Guide* for procedural details about adding a Traveling User, and to the *VS OFFICE Traveling User's Guide* for details about how to use the Traveling User.

Adding WIOS Users

You can add Wang Integrated Office Solutions (WIOS) users to a Wang OFFICE network.

WIOS provides integration of the Wang Business Exchange (WBX), an advanced private branch exchange with voice and data capabilities, with a VS network through WBX-to-VS Control Link software. This software links applications that are resident on the VS or WBX.

Through the integration of the VS and WBX, WIOS users have access to VS OFFICE features, such as sending mail, schedule meetings, and maintain an appointment calendar. Other features include a user directory, WP Plus integration, and voice and text messaging.

Adding OIS and Alliance Systems

OIS and Alliance systems can participate in the Wang OFFICE network in four different ways:

- Enhanced Logon
- OIS OFFICE or Alliance OFFICE
- WP Plus OFFICE on OIS and Alliance
- OIS or Alliance MAILWAY Point support

Enhanced Logon

OIS or Alliance users can participate in the Wang OFFICE network through Enhanced Logon. Provided by WSN transports, VS Terminal Emulation (VSTE), and File Transfer Manager (FTM). Enhanced Logon enables the user to log on to the VS and access VS OFFICE functions. When using Enhanced Logon to participate in the network, OIS and Alliance users are added to the network directory by the host VS OFFICE system and maintain an interactive Mailbox at that system.

When Enhanced Logon is used, mail items and documents can be transferred from the OIS to the VS and back by means of FTM. A dedicated 64K terminal on the OIS or Alliance is required in order to run FTM. An OIS or Alliance user who needs to edit a mail item from the VS uses the External Copy function to transfer it to the OIS or Alliance. Once editing is complete, the user logs on to the VS and uses the Remote File via VS FTM option of the Create Package screen to return the document to the VS OFFICE system.

OIS OFFICE and Alliance OFFICE

OIS OFFICE and Alliance OFFICE provide network mail and message services for OIS and Alliance[®] systems. Mail items, including standard word processing documents, can be included in a mail package from the VS and delivered to user in-baskets on the OIS or Alliance system.

Through OIS OFFICE and Alliance OFFICE, a native directory of users is maintained on the OIS or Alliance system. Selected network users (those who frequently receive mail from OIS and Alliance users) can be added to that native directory to expedite mail delivery. All OIS OFFICE and Alliance OFFICE users are added to the VS OFFICE directory by the VS OFFICE administrator on the host VS OFFICE system.

When OIS or Alliance OFFICE is installed, there is no automatic synchronization between the native OIS or Alliance OFFICE directory and the network directory. It is the responsibility of the VS OFFICE administrator on the host VS system to create and maintain records in the VS OFFICE directory for OIS or Alliance OFFICE users.

OIS OFFICE and Alliance OFFICE are packaged with VSTE for Enhanced Logon. Through Enhanced Logon, OIS and Alliance users log on to the host VS OFFICE system and perform a full complement of VS OFFICE functions. Users on an OIS or Alliance OFFICE system must choose between VS resident mailbox or an OIS/Alliance resident mailbox; the same user cannot use both OFFICE mailboxes.

WP Plus OFFICE on OIS or Alliance

WP Plus OFFICE provides network mail and message services for OIS and Alliance systems running WP Plus word processing. Mail items, including WP Plus documents, can be included in a mail package and delivered to user in-baskets on the OIS or Alliance system.

Like OIS or Alliance OFFICE, WP Plus OFFICE creates a native directory of users on the OIS or Alliance system. Selected network users (those who frequently receive mail from OIS and Alliance users) can be added to that native directory to expedite mail delivery. All WP Plus OFFICE users are added to the network directory by the VS OFFICE administrator on the host VS OFFICE system.

When WP Plus OFFICE is installed on either an OIS or an Alliance system, there is no automatic synchronization between the native WP Plus OFFICE directory and the network directory. It is the responsibility of the VS OFFICE administrator on the host VS system to create and maintain records in the VS OFFICE directory for WP Plus OFFICE users. The OIS or Alliance OFFICE administrator is responsible for maintaining the local WP Plus OFFICE directory and for informing the host VS OFFICE administrator of changes to the local directory.

Like OIS OFFICE and Alliance OFFICE, WP Plus OFFICE is packaged with VSTE for Enhanced Logon. Through Enhanced Logon, users log on to the host VS OFFICE system and perform a full complement of VS OFFICE functions. Users on an OIS or Alliance OFFICE system must choose between VS resident mailbox or an OIS/Alliance resident mailbox; the same user cannot use both OFFICE mailboxes.

Figure 1-3 depicts an OIS and Alliance OFFICE configuration.

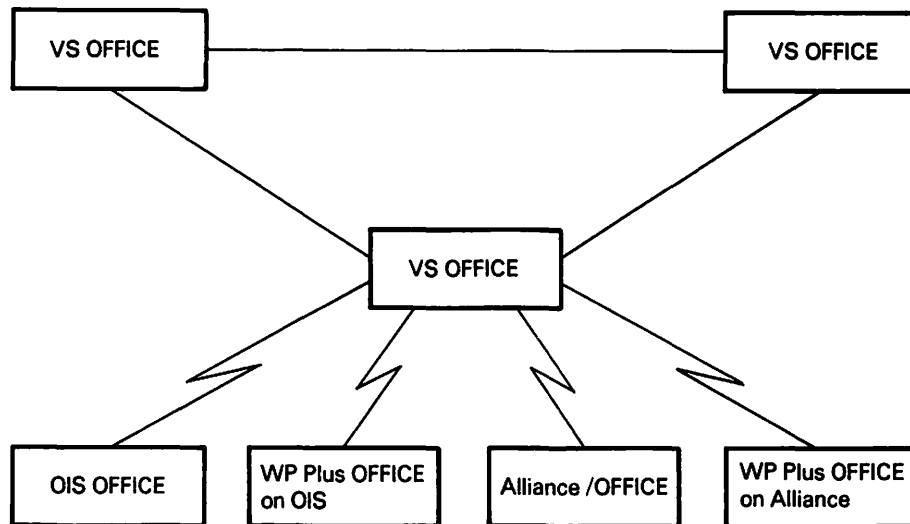


Figure 1-3. OIS and Alliance OFFICE Configuration

OIS or Alliance MAILWAY Point Support

An OIS/Alliance MAILWAY system is linked to a VS OFFICE system that supports the hardware and software for VS OFFICE-to-OIS or Alliance MAILWAY batch telecommunications. VS OFFICE users on the host VS OFFICE system send mail items to MAILWAY recipients on the OIS/Alliance, using standard VS OFFICE procedures. The mail items are delivered to MAILWAY recipients in standard MAILWAY format as WP documents.

When preparing mail for VS OFFICE recipients on the host VS, OIS/Alliance MAILWAY users follow standard MAILWAY procedures. A mail item from the OIS/Alliance MAILWAY system is delivered to a VS OFFICE recipient as a package containing a WP document.

Figure 1-4 illustrates an OIS/Alliance MAILWAY-to-VS OFFICE connection.

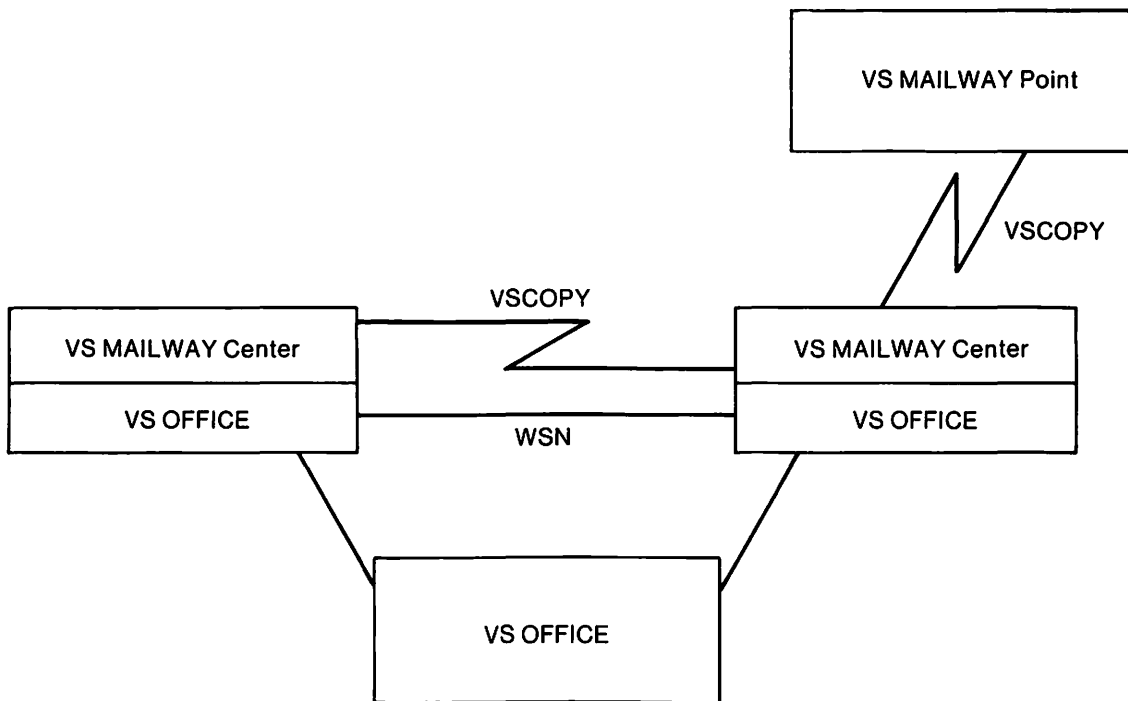


Figure 1-4. OIS/Alliance MAILWAY-to-VS OFFICE Connection

The VS OFFICE administrator on the host VS system defines the physical links and batch schedules that effect the transfer of mail between the host VS OFFICE system and the OIS/Alliance MAILWAY system.

The VS OFFICE administrator also creates records in the VS OFFICE directory for all OIS/Alliance MAILWAY users who can receive mail from a VS OFFICE system.

SUPPORTING VS OFFICE COEXISTENCE WITH VS MAILWAY

VS OFFICE supports the coexistence and concurrent use of VS OFFICE software and VS MAILWAY software on the same system. MAILWAY Coexistence software does not integrate VS OFFICE and MAILWAY. It is intended for VS systems already supporting MAILWAY Centers and adding VS OFFICE.

The necessity for this configuration typically arises under the following circumstances:

- Several VS MAILWAY systems are being converted to a Wang OFFICE network on a system-by-system basis. As each system is converted to VS OFFICE, it needs to maintain communications both with the remaining VS MAILWAY systems and with VS OFFICE systems already in its network.
- A Wang OFFICE network needs to support a communication link with a single VS MAILWAY system under circumstances where it is not possible for the MAILWAY system to be converted to VS OFFICE.

Figure 1-5 illustrates the VS OFFICE/VS MAILWAY Coexistence configuration.

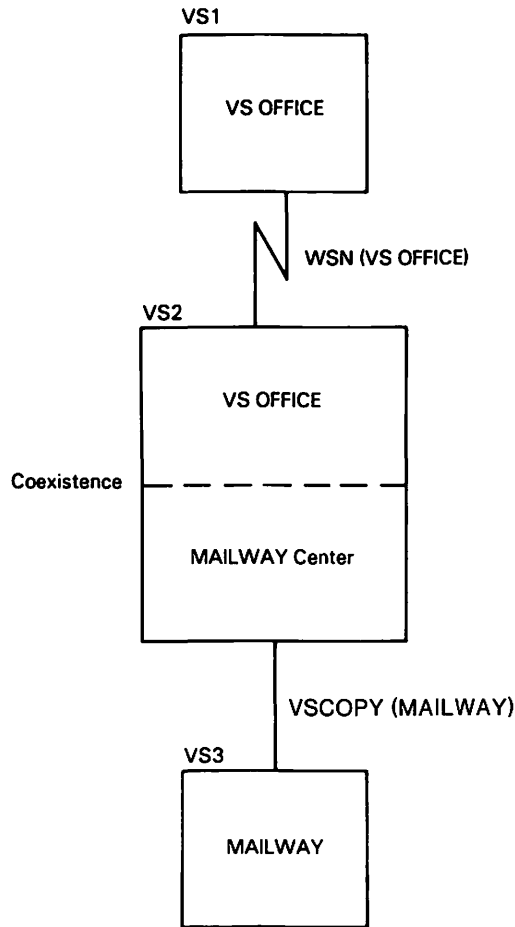


Figure 1-5. VS OFFICE and VS MAILWAY Coexistence

MAILWAY Coexistence software must be installed after VS OFFICE software is installed on a VS MAILWAY Center system. The Coexistence software allows an administrator to add MAILWAY functions to the VS OFFICE Mail menu, and MAILWAY Administrative Services to the VS OFFICE Administrative Functions menu. MAILWAY users and administrators can then run MAILWAY without exiting out of VS OFFICE.

THE OFFICE/MAILWAY BRIDGE

The Wang OFFICE/MAILWAY Bridge software allows a VS MAILWAY network to migrate to VS OFFICE without disrupting electronic mail service to MAILWAY users. The integration of MAILWAY software and VS OFFICE software eases the transition from a MAILWAY network to a Wang OFFICE network.

The Bridge allows a network to consist of Bridge systems, MAILWAY systems, and OFFICE systems with only one communications link between any two systems. Bridge users select recipients from either or both the MAILWAY and OFFICE directories by using the OFFICE Send function. The Bridge delivers mail between MAILWAY users and Bridge users and provides confirmation of delivery.

If the Bridge is required for a conversion, the network must first be converted to Bridge Release 2.0. VS OFFICE, Release 2.05 can then be installed.

Bridge systems communicate to other Bridge systems and OFFICE systems with a Wang Systems Networking (WSN) link. Bridge systems communicate to MAILWAY systems through batch bisynchronous communications. The Bridge software allows users to build a network consisting of the following variety of system types with expanded capabilities:

Bridge Systems – Bridge systems include all OFFICE capabilities and allow communication to a MAILWAY system over a batch bisynchronous communication link and to OFFICE over a WSN communication link.

MAILWAY Systems – MAILWAY systems can communicate with both MAILWAY and Bridge users through Batch Bisynch communications without the loss of any current capabilities.

Wang OFFICE Systems – OFFICE users can communicate with Bridge users but not with MAILWAY users. Consequently, pure OFFICE systems may not be appropriate for all networks during the migration to Wang OFFICE.

OIS and Alliance Systems – OIS and Alliance MAILWAY Distribution Point systems can remain as MAILWAY Distribution Points during the migration and communicate with all MAILWAY and Bridge systems in the network. Once the VS MAILWAY network becomes an OFFICE network, the OIS/Alliance systems can upgrade to OIS OFFICE or Alliance OFFICE or remain as MAILWAY systems.

Chapter 2

UNDERSTANDING THE ADMINISTRATIVE ROLES IN THE NETWORK

DEFINING THE FIVE ADMINISTRATIVE ROLES

In each Wang OFFICE network, administrative responsibilities are assigned according to the specialized needs of the network. In general, administrative duties fall into five categories:

- Network-level administrative responsibilities at the Network Control Center
- Area-level administrative responsibilities at the Area Control Center
- Local-level network administrative responsibilities
- Local-level VS OFFICE administrative responsibilities
- Local-level VS OFFICE directory administrative responsibilities

In many networks, administrative responsibilities may be interchangeable. For example, network- and area-level administrative duties may be assigned to the same person if the network consists of a single area. At many VS OFFICE sites, the work of the local-level (system-level) network administrator is often combined with that of the VS OFFICE administrator. Except in the case of very large systems, the duties of both the directory services and VS OFFICE administrators are combined. Therefore, administrators may have dual responsibilities. Whatever the specific breakdown of responsibilities, it is extremely important for network administrators, area administrators, VS OFFICE administrators, and directory services administrators to cooperate with and support each other throughout the designing, planning, installation, and management phases of a Wang OFFICE network.

The information in this guide focuses on planning a VS OFFICE software installation at the system level, not the planning and configuration of network software. (Refer to the *WSN VS Network Configuration Guide*, and the *WSN VS Network Control and Monitoring Guide* for information about network planning and administration.) However, it is helpful to review briefly the tasks usually performed at each level of the network hierarchy in order to clarify how system-level administrative tasks support network operations.

Network-Level Administration

A network-level administrator provides the following services:

- Plan the entire network topology for present and anticipated needs. This includes partitioning the network and naming its areas, and selecting the physical links, transports, services, and applications used in the network. Also, it should include setting aside area and node IDs for future expansion.

Often the network-level administrator provides local-level administrators with a Network Configuration Planner that contains detailed diagrams of the network topology. A Network Configuration Planner should also include worksheets containing configuration information about the transports used by individual systems.

- Contact and maintain communications with other network-level administrators in your corporation to ensure that your plans and actions are coordinated.
- Plan the routing of mail throughout the network and make copies of the routing plan available to local-level administrators. This routing plan can be included in the Network Configuration Planner document.
- Designate the area administrator(s).
- Coordinate schedules with the area administrator(s) for obtaining and installing equipment and software.
- Oversee the installation of the network hardware for all systems.
- Oversee the installation of the network software for all systems.
- Create the original network directory defining users and organizations.
- Create a directory starter kit for the network and make it available to local-level administrators preparing for installation of network software at the system level.
- Perform regular directory backup procedures.
- Test the data links and the physical links.
- Maintain and troubleshoot all network links.
- Understand services to be used in the network and their requirements.
- Oversee creation of network connections at the area and node levels.
- Designate a backup network-level administrator.

Area-Level Administration

An area administrator has the following responsibilities:

- Understand the relationship of the area to the entire network, including the physical hardware used to connect systems within the area, plus area-to-area connections.
- Coordinate planning tasks with the network and local-level administrators.
- Designate the Wang OFFICE administrator(s) for individual systems.
- Oversee the installation of the network hardware and software on systems in the area.
- Maintain the area links to other areas in the network and between systems in the area.

- Distribute starter kits to new site installations.
- Become a focal point for recording and resolving Communication Network Services (CNS) area problems.
- Select and transfer user and organization information from the ACC to Transmit-Only directories in your area.
- Designate a backup area-level administrator.

Local-Level Network Administration

The local-level network administrator has the following responsibilities:

- Understand the local VS system's relationship to the area and the network.
- Coordinate planning tasks with the area, Wang OFFICE, VS OFFICE, and directory services administrators.
- Prepare for installation of network hardware and software on the system.
- Define network information for the directory and keep the directory administrator informed of changes to this information.
- Implement Store and Forward priority windows as defined by the local Wang OFFICE administrator, area administrator, and network administrator.
- Configure and maintain connections to adjacent systems within the area.
- Configure and maintain local-level information for network-wide mail routes.
- Perform regular directory backup and maintenance procedures.
- Designate a backup administrator.

Local-Level VS OFFICE Administration

The VS OFFICE administrator provides a number of services that facilitate the installation and implementation of VS OFFICE software. A Wang representative will install your software, and you are responsible for ensuring that the site is ready when the representative arrives. Chapter 4 contains a detailed discussion of the preparations that are necessary. The Installation Planning Worksheet (Worksheet 1, Appendix A) is a checklist. Appendix A also contains additional worksheets to aid you in gathering information needed for your installation. The following services are provided by a VS OFFICE administrator.

- Understand the local VS system's relationship to the network.
- Designate a backup VS OFFICE administrator.
- Coordinate planning tasks with the area, local-level network, VS OFFICE, and directory administrators.
- Research and plan the information to be added to the directory at the local level, and give this information to the directory administrator.
- Participate with your Wang representative in the installation of WSN and VS OFFICE software. Note that a Wang representative will install the WSN and VS OFFICE software, but you should be available to observe the installation.

- Grant users administrative rights, as appropriate, to Wang OFFICE mail, Directory Services, and Application Management Utility.
- Plan and maintain security for Wang OFFICE mail and for calendar and reminder-list information.
- Determine the assignment of mail priorities.
- Work with the network administrator to define Store and Forward priority windows for your system.
- Prepare customized VS OFFICE menus, if needed.
- Define link types and schedule batch sessions to send mail to OIS or Alliance systems that have MAILWAY, OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE.
- Produce local or consolidated Audit Trail reports to track your system's usage. Consolidated Audit Trail reports require that Distributed Management Facility software is installed.
- Archive or purge information from the VS OFFICE database on a regular basis through the housekeeping utility.
- Create and maintain broadcasts.
- Create categories and subcategories for bulletin boards.
- Create and maintain connections with asynchronous traveling users.
- Activate or disable and print phone message logs.
- Retrieve user correspondence logs.
- Monitor the transfer of WP documents between VS and OIS/Alliance systems.
- Define Access Control List (ACL) groups and assign numbers to each. You must have an OS, Release 7.20 or greater to support ACLs.
- Monitor background tasks.
- Modify menus to accommodate new menu picks, such as WIOS, or additional programs, such as PROFS and DISOSS.
- Convert a MAILWAY directory to a VS OFFICE directory for users who are converting to VS OFFICE.
- Maintain the system through backup procedures.

The VS OFFICE administrator needs a good general knowledge of the VS system, including the concepts of file management, file-protection classes, print modes, print classes, and user defaults. A Wang OFFICE administrator who is unfamiliar with these concepts should learn them as soon as possible.

Depending on the products and functions that your VS OFFICE system supports, and the area and network products which may necessitate support from your VS system, you may find it necessary to understand or at least become familiar with one or more of the following:

- Wang Business Exchange (WBX)
- Wang Integrated Office Solution (WIOS)
- Wang Integrated Image Systems (WIIS)

- VS IIS (WP)
- WP Plus
- File Transfer
- Distributed Management Facility (DMF)
- MAILWAY Coexistence
- OIS or Alliance MAILWAY Point Support
- OIS/Alliance/WP Plus OFFICE support
- PC OFFICE support
- Shared Subroutine Libraries

Local-Level Directory Administration

The local-level VS OFFICE directory administrator is responsible for the following functions:

- Coordinate planning tasks with the VS OFFICE administrator and the local-level network administrator.
- Work with the VS OFFICE administrator to research and plan the information to be added to the directory at the local level.
- Set default values to simplify other administrative and user tasks.
- Add and delete organizations in the directory.
- Coordinate system organization names with the rest of the network to avoid duplication.
- Add, maintain, and delete user information in the directory.
- Select the User Profile information that can be modified by users.
- Add, edit, and delete Profile Attributes through the Profile Builder.
- Add and delete applications to the directory, and attach and detach application users.
- Perform regular directory backup and maintenance procedures.
- Monitor directory synchronization to be aware of new organizations and users added by directory administrators on other VS OFFICE systems.
- Set up and maintain a system of communication with any OIS or Alliance OFFICE, WP Plus OFFICE on OIS or Alliance, or OIS or Alliance on MAILWAY administrators in your network, so that you can properly maintain the local directory records for users on those systems.
- Maintain remote user information in your directory if you are a Transmit-Only directory administrator.
- Designate a backup directory administrator.

LIST OF GENERAL RECOMMENDATIONS FOR ADMINISTRATORS

To ensure the efficient functioning of networks and their systems, the following recommendations should be noted:

- It is vital that administrators at all levels coordinate and plan their activities with other administrators. This ensures that efforts are not duplicated, that the appropriate tasks are accomplished, and that the correct and most current information is used throughout the network.
- It is highly recommended that administrators receive proper instructions about Wang OFFICE and its related software and hardware before implementing a network.

Chapter 3

BASIC REQUIREMENTS FOR VS OFFICE

INTRODUCTION

When preparing for a VS OFFICE installation, be sure that your VS system supports the required network hardware and software, the required VS OFFICE software, and Wang OFFICE configurations. VS configurations vary greatly from site to site, and VS OFFICE software can be implemented in a variety of configurations. Therefore, it is best to consult a Wang representative when you are planning a Wang OFFICE installation to ensure that your specific VS configuration meets all requirements.

TELECOMMUNICATIONS HARDWARE REQUIREMENTS

In order to use VS OFFICE in a network environment, you must have the required telecommunications hardware installed on your VS system. Some of the factors that determine the telecommunications hardware you need include the

- VS system
- Operating System number
- Extended serial IOP
- TC controller board
- Network connector
- Type of WSN transport

For detailed information about the type of hardware needed, refer to the following documents:

- *WSN VS Network Configuration Guide*
- *Wang OFFICE VS OFFICE Release 2.05 Customer Software Release Notice*

For detailed information about hardware requirements for the VS OFFICE Traveling User, refer to the *VS General Purpose Asynchronous Communications Programmer's Guide*.

SOFTWARE REQUIREMENTS FOR A VS OFFICE NETWORK

You must have the following operating system, network, and application software in order to install VS OFFICE Release 2.05.

- VS Operating System
- A suitable WSN transport
- Each of the following software packages:
 - WSN VS Netcore (WSN Standard Components)
 - VS Directory Services
 - VS OFFICE
 - Package Distribution Services (for a VS OFFICE system in a network)

Refer to the *VS OFFICE Release 2.05 Customer Software Release Notice* for specific release levels of the software packages listed.

The sections that follow contain brief overviews of the software packages listed above. Instructions for using Wang OFFICE applications and administrative functions are provided in the *VS OFFICE User's Guide* and the *VS OFFICE Administrator's Guide*.

WSN Transports

WSN Transports allow system-to-system connections across the network. These transports include Wang, industry-standard, and other widely used protocols. The following are some of the transport types used by a VS OFFICE network.

- Multipoint
- Point-to-Point
- Wang Band
- X.25

The transports you select must be suitable to your particular network and its systems. Your transport selections will be influenced by such considerations as

- The size of your network
- The physical communication lines connecting your system
- The types of links in your system
- Where your Store and Forward distribution center is located
- The amount of space you have available for storage

Evenly balanced traffic helps to ensure good performance from your transports. If your primary transport is overloaded, you can re-route mail from other systems by way of a secondary transport. Although the secondary transport is generally slower than the primary transport, the overall amount of traffic passing through it may be higher because of congested primary transports.

WSN VS Netcore (WSN Standard Components)

The WSN VS Netcore (WSN Standard Components) software supports the initialization, configuration, and maintenance of a WSN network. The WSN VS Network Core software provides

- Initialization of the WSN network directory during installation
- A network configuration utility called WSNEDIT
- Functions that configure, control, and maintain all WSN services and transports
- Ability to create priority windows for remote mail
- Communications Network Services (CNS), which includes the following features:
 - Provides a common network-access method for Wang OFFICE applications, WSN services, and WSN transports
 - Establishes, maintains, and terminates communication sessions between systems within a WSN network
 - Manages routing of data throughout a WSN network

Instructions for using WSN VS Network Core software and maintaining the network are provided in the *WSN VS Network Configuration Guide* and the *VS Network Administrator's Guide*.

VS OFFICE Directory Services

The Directory Services software supports the maintenance and synchronization of the VS OFFICE directory.

The Directory Services software provides the following capabilities:

- Definition, modification, and deletion of information about local users, organizations, and applications in the Wang OFFICE directory
- Synchronization of updated information about local users and organizations with other directories throughout the network
- The setting of access and control parameters for each VS OFFICE user, and the capability for each user to customize the OFFICE environment within those parameters
- Creation and maintenance of current information about gateways to other systems that use VS OFFICE
- Definition of retention parameters for items in users' mail, wastebasket, folders, confirmations, calendars, and correspondence log

Instructions for using Directory Services are provided in the *VS OFFICE Administrator's Guide*.

VS OFFICE

VS OFFICE software provides the user with an electronic means of performing a variety of tasks in the office environment. It also supports the Wang OFFICE administrative functions, including User Management, Information Management, and Systems Management.

VS OFFICE software provides the following capabilities to users:

- Ability to create, send, and receive electronic mail items and packages, including urgent and emergency mail items
- Management of received mail items, with use of electronic mail folders
- Ability to send mail to users who are not listed in your directory by means of freeform addressing
- Ability to create and maintain distribution lists that simultaneously deliver mail items to selected recipients
- Ability to add 100 people, distribution lists, or organizations to be automatically included as a recipient each time a mail item is sent from your system
- Ability to create and maintain Electronic Approval Route Lists that sequentially deliver a mail item to specified recipients and allow recipients their voting privileges on the mail item
- Ability to scan, display, and print WIIS image documents if the proper WIIS software is installed
- Ability to designate ten other users who will receive alerts when a mail item is received in the designator's mailbox
- Creation and maintenance of calendars and reminder lists
- Creation and maintenance of Info Cards, a personal directory of phone numbers, addresses, and other pertinent information on people or companies
- Correspondence Log maintenance, a means of tracking the history of paper mail that may have been forwarded or annotated through many people
- Ability to customize formats of selected screen displays
- Assignment of access rights to personal mail folders, calendars and reminders, Info Cards, and Bulletin Board
- Ability to schedule meetings for selected users within an individual system or any Wang OFFICE 2.05 systems in the network

The VS OFFICE software also provides the following administrative capabilities:

- Management of Directory Services for adding, maintaining, and deleting users, organizations, and applications to the VS OFFICE directory
- Submission and cancellation of background tasks for Wang OFFICE, Directory Services, and PDS Store and Forward
- Management of security for the Wang OFFICE database file (@WOINFO@) that stores information for users' mailboxes, calendars, and reminder lists
- Accounting of OFFICE usage through administrative Audit Trails

- Queuing and dispatch of mail items to an OIS or Alliance system, according to predefined system links and schedules
- Management of the system Control File
- Ability to create and maintain customized menus by using the Application Management Utility (AMU)
- Definition of receiver tasks to accept unsolicited bisynchronous communications from a remote OIS or Alliance MAILWAY system
- Ability to permit the assignment of local Wang OFFICE logon IDs on systems other than the user's home system (for example, if the user works at more than one Wang OFFICE site and needs to send messages while away from the home system)
- Communication with remote asynchronous terminals through VS OFFICE Traveling User software, and definition of an asynchronous password for each traveling user
- Management of tasks, connections, and applications for traveling users through Traveling User administration
- Communication with OIS/Alliance systems through OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE software
- Communication with OIS/Alliance MAILWAY systems (in conjunction with the additional VS and OIS 2780/3780 Batch TC and MAILWAY software)
- Definition and maintenance up to twenty freeform addressing applications
- Assigning mail protection classes to mail items created in Wang OFFICE
- Providing archiving and tracking capabilities through the Correspondence Log
- Management of the Phone Log for maintaining records of phone messages sent
- Maintaining and issuing post and read privileges to the Bulletin Board

SOFTWARE REQUIREMENTS FOR VS OFFICE NETWORKED TO OIS MAILWAY OR ALLIANCE MAILWAY

To support VS OFFICE networked to an OIS MAILWAY or Alliance MAILWAY system, the VS OFFICE host system administrator should confirm that the following software is installed.

VS Requirements

- VS OFFICE
- Batch Telecommunications software (TCCOPY)

OIS or Alliance Requirements

- OIS MAILWAY (either MPOIS-3 or MOIS-3, for OIS only)
- Alliance MAILWAY (for Alliance only)
- Batch Telecommunications software

SOFTWARE REQUIREMENTS FOR VS OFFICE NETWORKED TO OIS OFFICE, ALLIANCE OFFICE, OR WP PLUS OFFICE ON OIS OR ALLIANCE

To support VS OFFICE communications with an OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE on an OIS or Alliance system, the VS OFFICE host system administrator should ensure that the following software is installed.

VS Requirements

- Package Distribution Services
- Netcore (WSN Standard Components)
- VS OFFICE
- COPYPLUS
- A suitable WSN Transport

OIS/Alliance/WP Plus OFFICE Requirements

- OIS OFFICE (for an OIS system only)
- Alliance OFFICE (for an Alliance system only)
- WP Plus OFFICE (for OIS or Alliance only)
- OIS Time Management (for OIS OFFICE only)
- Alliance Time Management (for Alliance OFFICE only)
- OIS File Transfer Manager (for OIS OFFICE only)
- Alliance File Transfer Manager (for Alliance OFFICE only)
- OIS Standard Components (for OIS OFFICE only)
- Alliance Standard Components (for Alliance OFFICE only)
- A suitable WSN Transport

SOFTWARE REQUIREMENTS FOR VS OFFICE COEXISTENCE WITH VS MAILWAY

To support coexistence with VS MAILWAY, the VS system requires the following software.

- MAILWAY Distribution Center software
- MAILWAY Coexistence software

SOFTWARE REQUIREMENTS FOR VS OFFICE NETWORKED TO PC OFFICE

To support single PC OFFICE systems or a local-area network of PC OFFICE systems, the VS OFFICE host system administrator should confirm that the following software is installed in the individual PC OFFICE system or server PC OFFICE system (in an LIO local-area network) to support OFFICE communication.

VS Requirements

To support either an LIO local-area network configuration or a single PC networked to a VS, the VS must have the following software installed.

- Netcore (WSN Standard Components)
- Package Distribution Services
- A suitable transport

LIO Local-Area Network Configuration

Two or more PCs/PICs/APCs with WPC System Software (PC, PIC) or WAPC System Software (APC) including the following:

- MS-DOS
- BIOS
- PIC Core Software (PIC only)
- Professional Networking Services (PNS) software
- WPC WSN Standard Components (stored only on systems designated as PC OFFICE application nodes)

One Server PC, PIC, or APC with WPC System Software (PC, PIC) or WAPC System Software (APC) including the following:

- MS-DOS
- BIOS
- PIC Core Software (PIC only)
- Professional Networking Services (PNS) Software
- WPC WSN Standard Components
- One of the following WPC WSN transports:
 - WPC WSN Point-to-Point Transport
 - WPC WSN Multi-Point Secondary Transport
 - WPC WSN Telenet X.25 Transport
 - WPC WSN Tymnet X.25 Transport
 - WPC WSN WangPac X.25 Transport

- WPC WSN Datex-P X.25 Transport
- WPC WSN Transpac X.25 Transport
- WPC WSN DataPac X.25 Transport
- WPC WSN Datanet-1 X.25 Transport
- WPC WSN Local Communication Transport (LCT)

Single PC Networked to a VS

One PC, PIC, or APC with WPC System Software (PC, PIC) or WAPC System Software (APC) including the following:

- MS-DOS
- BIOS
- PIC Core Software (PIC only)
- WPC WSN Standard Components
- One of the following WPC WSN transports:
 - WPC WSN Point-to-Point Transport
 - WPC WSN Multi-Point Secondary Transport
 - WPC WSN Telenet X.25 Transport
 - WPC WSN Tymnet X.25 Transport
 - WPC WSN WangPac X.25 Transport
 - WPC WSN Datex-P X.25 Transport
 - WPC WSN Transpac X.25 Transport
 - WPC WSN DataPac X.25 Transport
 - WPC WSN Datanet-1 X.25 Transport
 - WPC WSN Local Communication Transport (LCT)

SOFTWARE REQUIREMENTS FOR PC/XMODEM TRANSFER SERVICE USERS

Users who want to transfer data with the VS with PC 2110 terminal emulation through the PC/Xmodem Transfer Service must have 2110/VT100 Terminal Emulation software installed.

MULTI-STATION CAPABILITIES

Although VS OFFICE does not require the use of Multi-Station functions, these functions can enhance the use of Wang OFFICE applications. Multi-Station functions include customization of the keyboard and the simultaneous display of up to four interactive windows (each devoted to a separate task) on the workstation screen.

All VS systems support Multi-Station functions.

The following workstations support Multi-Station functions:

- 2256C
- Wang Professional Computer (PC) running VS Terminal Emulation
- 4230
- 4245
- 4250

The administrator must ensure that the Multi-Station configuration and administrative requirements discussed in Chapter 4 are met. Refer to the *Multi-Station User's Reference* for further information.

WANG OFFICE/DISOSS GATEWAY REQUIREMENTS

The Wang OFFICE/DISOSS Gateway allows Wang OFFICE users (also recognized as IBM DISOSS users) to transfer Wang standard word processing documents to DISOSS libraries and to retrieve documents in DISOSS libraries and return them to the user's Mailbox.

In addition to the standard VS OFFICE software requirements listed in "Software Requirements for VS OFFICE" in this chapter, the VS OFFICE/DISOSS Gateway has the following software requirements:

- Host DISOSS Gateway Standard Components
- Wang-DCA-Translators

with

- IDS
- VS Package Distribution Services (PDS)

or

- LU supporting adjacent nodes only
- VS SNA DISOSS Gateway with the LU software

WANG OFFICE/PROFS GATEWAY REQUIREMENTS

The Wang/PROFS Gateway enables communication between VS OFFICE and an IBM VS host running the IBM Professional Office System (PROFS) software. With the Wang/PROFS option, VS OFFICE users can send Wang documents and Wang OFFICE mail to PROFS users; receive IBM/PROFS documents and notes in their Mailbox; exchange revisable and final-form documents with the IBM/PROFS database; retrieve authorized documents from the IBM/PROFS database.

VS OFFICE requirements specific to the Wang/PROFS Gateway are as follows:

- Wang/PROFS Gateway
- Standard VS BSC or SNA emulator – VS BSC 3271; VS SNA Standard Components; VS SNA 3777
- A standard communications controller

OPTIONAL SOFTWARE FOR A VS OFFICE INSTALLATION

A VS OFFICE installation can support the following optional software components. Each component is briefly described in this section. Refer to the *VS OFFICE Release 2.05 Customer Software Release Notice* for the specific release levels of the software packages listed.

- VS Package Distribution Services (PDS Activity Manager, PDS File Transfer Manager, PDS Store and Forward)
- VS Distributed Management Facility (DMF) (for Audit Trail consolidation support)
- VS Terminal Emulation (VSTE) software
- VS WP Plus (for integrated WP Plus support)
- Application Management Utility (AMU)
- VS General Asynchronous Interface (required only if Traveling User is installed)
- VS OFFICE Traveling User (optional)
- Application Programming Interface (API) (optional)
- OFFICE Indexer

VS Package Distribution Services (PDS)

VS Package Distribution Services (PDS) provides distribution services that allow Wang OFFICE mail exchange between systems. PDS can initiate and implement distribution services for VS OFFICE, OIS, Alliance, and PC systems on a Wang OFFICE network.

PDS consists of the following network software components:

- Activity Manager
- File Transfer Manager (FTM)
- Store and Forward software

Activity Manager

PDS Activity Manager performs three functions in the exchange process.

1. It validates file and document names submitted in transfer requests.
2. It assigns final storage for received mail.
3. It retrieves files and documents for placement on the Store and Forward outbound queue.

It is important to remember that the PDS Activity Manager

- Runs as a background task.
- Is not used by Wang OFFICE. The PDS Activity Manager is installed first, then overlaid by the Wang OFFICE Activity Manager.

File Transfer Manager (FTM)

PDS File Transfer Manager (FTM) controls file transfer between the VS and other systems. FTM queues transfer requests in the order that they are received. FTM software works as a dedicated system task to transfer mail items.

Store and Forward Software

PDS Store and Forward provides distribution services for OFFICE mail packages, individual mail items, and invitations across the entire Wang OFFICE network. In conjunction with WSN, PDS Store and Forward enables network administrators to manage and control the network through Store and Forward service windows and Recovery services.

PDS Store and Forward service windows control the transmission timing of packages sent from the local OFFICE system to the destination node.

PDS Store and Forward Recovery is performed whenever a session is briefly interrupted and then renewed. Through Store and Forward Recovery, the receiving system informs the sending system of how much data was received before the session was interrupted. The sending system then sends only the data that completes the package. It is important to remember that Store and Forward runs as a background task.

VS OFFICE Audit Trails

VS OFFICE Audit Trails tracks the routing of mail messages being sent and received between VS, OIS, and Alliance systems. Audit Trails are supported on a network basis if the Distributed Management Facility (DMF) is installed. DMF provides the support for the consolidation of networked VS OFFICE Audit Trails that track the paths of VS OFFICE mail throughout the network and maintains statistics for PDS. A record of

each mail transaction is logged, and it contains a unique ID associated with each item, the time of day sent, the sender and recipient IDs, the originating and destination system IDs, and the number of data bytes.

Specific audit trail records are consolidated if you select the Wang Office subsystem under DMF. Those records contain information about individual mail items, such as recipient IDs, system names, delivery date and time, priority, author name and ID, item size, creation date and time, and total number of recipients.

Specific audit trail records for PDS are consolidated if you select the Store and Forward subsystem under DMF. Traffic summary information is generated for an inbound/outbound Store and Forward sessions, such as start date and time, end date and time, session status, mail sent and received, transactions sent and received, and systems called are tracked.

This data can be used for mail flow traffic analysis. It can also be used to help control transmission costs identifying where mail congestion occurs so that Store and Forward windows can be adjusted accordingly.

VS Application Management Utility (AMU)

VS Application Management Utility (AMU) provides the Wang OFFICE administrator, programmers, and selected users with powerful facilities for building and customizing menus. AMU also provides extensive security control.

VS General Asynchronous Interface (GAI)

The VS General Asynchronous Interface (GAI) supports logon to the VS from asynchronous scroll-mode terminals. This software is required only for support of the VS OFFICE Traveling User.

VS OFFICE Traveling User

The VS OFFICE Traveling User allows users with an asynchronous scroll-mode terminal to participate in a Wang OFFICE network by way of a GAI connection. These users are allowed to read, reply to, forward, and create mail items and packages and to view their daily calendar and reminders. In addition, traveling users with an intelligent terminal can transfer text and documents (but not graphics) to and from their terminal.

VS Distributed Management Facility (DMF)

VS Distributed Management Facility (DMF) supports network-wide consolidated Wang OFFICE Audit Trails and Traffic Summary reports. Audit Trails monitor OFFICE activity and usage, and VS DMF provides data that the administrator can use to develop a chargeback system for OFFICE usage.

VS OFFICE Indexer

VS OFFICE Indexer is a background task that provides VS OFFICE and other applications with a document indexing facility that is readily accessible from the Create Package screen within OFFICE. This facility allows users to display an index of

standard Word Processing documents or WP Plus documents to identify names or document IDs within the Create Package and Send Package functions. Through its Words In Text function, VS OFFICE Indexer also allows users to build a data base of document information based on specific user-selected criteria.

VS OFFICE Application Program Interface (API)

VS OFFICE Application Program Interface (API) provides a set of subroutines that allow Wang OFFICE users to create their own applications to interface with VS OFFICE facilities. Through API, Wang OFFICE customers can build on the power of Wang OFFICE to meet their unique needs.

SOFTWARE PRODUCT COMPATIBILITY

To ensure compatibility between VS OFFICE and other Wang software products operating on VS systems, it is *highly recommended* that you consult the *VS OFFICE Release 2.05 Customer Software Release Notice* as well as your Wang representative. The notice contains a software matrix listing the Wang software products and their release numbers that are compatible with VS OFFICE, Release 2.05.

Be sure to thoroughly plan for the software products that will require upgrading. In most cases, the minimum software products requiring an upgrade are the operating system, WSN VS Netcore (WSN Standard Components), VS Directory Services, VS OFFICE, and a selection of suitable transports.

RECOMMENDATIONS WHEN CONSIDERING REQUIREMENTS

- Be sure to consult with your Wang representative and the VS OFFICE Customer Software Release Notice, Release 2.05, for the required release numbers of installable software.
- If you have a Series 7 VS Operating System, be sure to allocate a minimum of 1536K of Segment 2 space (MDA - Modifiable Data Area) for each user, and a minimum of 1536K of program code area. VS OFFICE will cancel with a return code of 860 on a system with 8 MB of virtual memory and a modifiable data area greater than 1536K.
- If you have a Series 6 Operating System, be sure to allocate 1024K of MDA for each user.
- If you have both a Series 6 and Series 7 Operating System, be sure to allocate a minimum of 1024K of MDA for interactive tasks.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical tools employed.

3. The third part of the document presents the results of the study, including a comparison of the different methods and a discussion of the factors that influence the outcomes. It also includes a series of graphs and tables to illustrate the data.

4. The fourth part of the document discusses the implications of the findings and provides recommendations for future research. It also includes a conclusion that summarizes the main points of the study.

5. The fifth part of the document is a list of references, which includes a comprehensive list of the sources used in the study.

6. The sixth part of the document is a list of appendices, which includes a detailed list of the materials and equipment used in the study.

7. The seventh part of the document is a list of figures and tables, which includes a detailed list of the data presented in the study.

8. The eighth part of the document is a list of footnotes, which includes a detailed list of the notes and comments on the study.

Chapter 4

PLANNING A VS OFFICE INSTALLATION

LIST OF TASKS TO COMPLETE

This chapter lists the tasks associated with planning a Wang OFFICE software installation and provides guidelines for completing them. There are two important parts of the planning process.

1. Gathering and recording the information needed to complete the worksheets in Appendix A of this guide. This information will be an important part of your directory, and will help you to make administrative decisions about users. Many of the sections in this chapter are keyed to corresponding worksheets found in Appendix A. Refer to the worksheets as you study the chapter.
2. Reviewing the pertinent information about product and software characteristics, such as their space requirements, average installation times, and compatibility with other products before the installation process begins. Familiarizing yourself with these characteristics will save you time and facilitate the installation process. This is detailed in the "Preinstallation or Conversion Considerations" section of this chapter.

The planning responsibilities described apply to a single VS OFFICE system. If you are responsible for more than one system, you will need to execute these responsibilities for each system. If you are tracking more than one system, you can record an area ID, system ID, and system name at the top of each worksheet. Feel free to modify any of the suggestions or worksheets according to your needs.

Before you install your VS OFFICE software, be sure that you

- Coordinate installation planning with your Wang representative and fellow administrators throughout the network.
- Appoint a backup administrator.
- Complete the required Wang OFFICE training for administrators.
- Survey prospective users to determine their needs for Wang OFFICE applications and training.
- Determine whether your site needs to maintain a calendar for one or more conference rooms, pieces of equipment, or other facilities (such as offices or classrooms).
- Analyze the organizational structure at your site to determine if you need to add any new organizations beyond those already defined in the network directory. If you do not know the latest organization names, wait for a synchronization download before adding any organizations to avoid duplicate names.

- Plan and gather all information needed to create user records in the directory. You can use the worksheets in Appendix A for this.

Note: Several worksheets in Appendix A correspond to the screens you will use when you build your directory. This chapter provides information about completing the worksheets. However, you should refer to the VS OFFICE Administrator's Guide for detailed information about the directory and its screens.

- Determine whether your directory should be a Full directory or a Transmit-Only directory. Transmit-Only directories can be located only on endpoint systems connected to an Area Control Center (ACC) running VS OFFICE Release 2.05.
- Determine whether each user should be a distributed user or a local-only user.
- Verify with administrators on other VS OFFICE systems whether you need to assign local logon IDs to remote VS users. If users on your system need local logon IDs on other systems, notify the administrators on those systems.
- If your VS OFFICE system supports Enhanced Logon from OIS, Alliance, or VS through VSTE, determine what directory records you must create to support OIS, Alliance, or VS users of Enhanced Logon.
- If your VS OFFICE system supports a connection to a remote OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE system, determine what directory records you must create to support these users for both OFFICE mail (refer to Chapter 6) and Enhanced Logon (through VSTE).
- If you are preparing for VS OFFICE to coexist with MAILWAY software on your system, determine what tasks must be completed to prepare the MAILWAY Center Point directory for conversion to a Wang OFFICE directory, and to prepare users for the transition.
- Establish standard word processing or WP Plus libraries for remote OIS or Alliance users to use in transferring documents.
- If your VS OFFICE system supports a connection to an OIS or Alliance MAILWAY system, determine what directory records you must create to allow OIS or Alliance MAILWAY users to receive Wang OFFICE mail (refer to Chapter 6).
- If your VS OFFICE system supports a DISOSS or PROFS Gateway interface, determine which users on those systems need a Wang OFFICE user record and which OFFICE users need a DISOSS or PROFS ID.
- Determine users' needs for access to VS OFFICE from asynchronous terminals through VS OFFICE Traveling User software, gather the appropriate information about the specific terminals to be used (refer to Worksheet 15), and define the number of connections needed to support the traveling users. Note the terminal must support TTY protocol.
- Determine users' needs for Multi-Station windows and logons.
- Determine users' needs to access Application Program Interface (API) software for application programming.
- Coordinate AMU security access with the VS administrator to ensure that a unique security class is assigned to the AMUEDIT file to prevent unauthorized access to the AMU menu-customization facility.
- Qualify users who want access to AMU menu customization, confirming that they fully understand AMU operation and its potential impact on OFFICE menus.

- Determine the need to reconfigure the Segment 2 User Modifiable Data Area (MDA) on a Series 7 VS Operating System. VS OFFICE will cancel with more than 1536 KB of MDA if the system has 8 MB of virtual memory.
- Plan the file protection classes, libraries, and volumes you want to use for VS OFFICE software.
- Obtain the documentation you and your users will need.
- Review the preinstallation considerations in this chapter and coordinate preinstallation activities with your appropriate administrators and Wang representative.

Each task is discussed in greater detail in the sections that follow. Worksheet 1 in Appendix A contains a checklist on which you can check off tasks as you complete them.

INSTALLATION PLANNING

All installation planning should be thoroughly coordinated with your Wang representative and your network and system administrators. The following points should be covered:

- Identify and meet with the people who are responsible for the planning and management of your network.
- Review the network topology planned by the network administrator. On the Area Topology Information Worksheet (Worksheet 2), record your network name, your area name and ID, your system name and ID, the administrative systems within your area, and the name and telephone number for the administrator of each system. If possible, obtain a diagram of the network.
- Order, install, and test the hardware and software necessary for network communications (refer to Chapter 3). Obtain configuration information for physical links, network transports, and network services.
- Arrange for any physical site requirements, such as electrical outlets or telephone lines.
- Make sure that your system configuration can support Wang OFFICE software (refer to Chapter 3).
- Determine special needs, such as the support of an OIS, Alliance, or WP Plus OFFICE connection, the conversion of a VS MAILWAY system to VS OFFICE, or support of DISOSS or PROFS Gateway interface (refer to Chapters 6 and 7).
- Determine whether your system is to support the Wang Integrated Imaging System (WIIS).
- Discuss recommended Wang courses you need to take to prepare for Wang OFFICE administration.

BACKUP ADMINISTRATOR

You should assign a backup administrator. The backup administrator should be familiar with VS system administration and the VS BACKUP utility, and if possible should attend Wang OFFICE training. The backup administrator can help you during Wang OFFICE planning and installation. After installation, the backup administrator can assist you with maintenance of the software, help you train users, and fill in for you when you are unavailable.

WANG OFFICE TRAINING FOR ADMINISTRATORS

Participate in Wang OFFICE training for administrators. Wang Field Education Centers provide a course entitled "Wang OFFICE System Management" (WOSM) for training in the fundamentals of managing VS OFFICE. The prerequisite for the course is knowledge of VS administration and operations.

The WOSM course focuses on the management requirements and operations associated with the implementation of Wang OFFICE on a VS system. Topics include software-installation procedures, Wang OFFICE system implementation, interface and integration issues, security requirements, conversion, file transfer, and troubleshooting techniques. Implementation, interface, and integration issues associated with networked OIS, Alliance, PC, and PIC systems are also covered in this course.

Contact your representative or your local Wang Field Education Center for more information.

PROSPECTIVE USER'S INFORMATION

Learn who your prospective Wang OFFICE users are and their needs. You can do this by having each potential user at your site fill out a User Survey Worksheet (Worksheet 3 in Appendix A). From the survey you will learn which users will be new to the system, which users are already VS system users, and what VS applications they frequently use. You can determine whether any of your users need to log on to a VS OFFICE system other than their local system (for example, a user who travels between two sites may need to send mail while working at the remote site).

You will use the information obtained in the user survey to arrange for VS system logon IDs for the new users and, if necessary, notify the administrators at remote sites that certain users need logon IDs. You can also get an idea of the types of training you need to arrange. You can decide whether to plan customized Wang OFFICE menus (defined through AMU) to allow access to frequently used applications such as word processing.

Finally, you will use the information in Section I of the worksheet (General Information) when you are creating user records in the directory.

After the surveys are returned, keep them on file for use throughout the planning process.

YOUR VS OFFICE DIRECTORY

Planning for and creating your VS OFFICE directories is one of the most important functions of the VS OFFICE directory administrator. The directory must be created before VS OFFICE software is installed. Worksheets 4 through 14 will assist you to create the directory.

The directory contains records for users, organizations, and applications. Complete information about creating your Wang OFFICE directory is contained in the *VS OFFICE Administrator's Guide*.

Acquiring and recording the information needed to create these records is an important preinstallation planning task. The information in the following sections should be used in conjunction with Worksheets 4 through 14. These will help you gather and organize information needed to answer the following questions:

- Should your directory be a Full directory or a Transmit-Only directory? A Transmit-Only directory can be located only on an endpoint system connected to an ACC running VS OFFICE Release 2.05.
- What organizations should be defined in the directory? (Organizations provide a basis for the logical grouping of users. You need to know what organizations already exist in the network directory before you can determine what organizations you need to add.)
- What information is needed to identify each user to the network?
- Should each user be a Distributed or Local-Only User?
- What VS usage constants are needed for each VS OFFICE user?
- What menu should be displayed when a user logs on to VS OFFICE?
- Which users should be attached to special applications?
- Which users need to be able to customize VS OFFICE menus?
- What user administration rights, if any, should be granted to different users?
- Which OIS or Alliance users need a VS logon ID to access VS OFFICE through VSTE?
- How and where should each user receive mail? Mail can be displayed in an on-line mailbox, printed at a VS printer, displayed on-line and printed at a VS printer, delivered to an OIS/Alliance or WP Plus OFFICE site, delivered to an OIS or Alliance MAILWAY site, or delivered to other applications (user-defined applications, DISOSS, PROFS, or TELEX).
- Which users need to access VS OFFICE through the VS OFFICE Traveling User software?
- Which users need enhanced logon and PC support?
- What mail-classification defaults should be assigned to each user?
- What standards will you use when entering user information in the directory?

Each of these considerations is discussed in more detail in following sections.

Full and Transmit-Only Directories

Before the Directory Services software installation, decide whether your system will operate with a Full or Transmit-Only directory.

In a VS system configuration, an end-point system is linked to an Area Control Center (ACC). Several end-point systems can be linked to an ACC. Each end-point system has a directory that can be either a Full directory or a Transmit-Only directory. Transmit-Only directories can only be connected to an ACC running VS OFFICE Release 2.05.

Full — A Full directory contains user information that is fully synchronized with the rest of the network. A Full directory transmits and receives its user information to and from other systems on the network. It includes information about all distributed users throughout the network, including OIS or Alliance MAILWAY users and PC users of OFFICE. Most network directories are Full to facilitate administrative tasks and sending mail across the network.

Note: When directories are discussed in this manual, Full directories are assumed unless otherwise specified.

Transmit-Only — A Transmit-Only directory is not fully synchronized with the rest of the network. A Transmit-Only directory transmits its user information to other systems on the network for synchronization, but does not automatically receive user information from other systems on the network. A Transmit-Only directory is designed for a small VS that does not need to contain the entire OFFICE corporate directory, or for security conscious installations that wish to prevent users from seeing other users' names.

Refer to the *VS OFFICE Administrator's Guide* for details about Transmit-Only directories, and to Appendix B in this manual for more information about synchronization.

Organization Information

Wang OFFICE users are grouped in logical categories called organizations. Each user's directory record must designate an organization that is needed in the Wang OFFICE directory. An organization is automatically assigned an area ID and a node ID (system ID). The organization information is synchronized throughout the network.

The organization designation has many uses: for example, to search for logical groups of users when creating distribution lists for mail, to send mail to all members of the organization, and to differentiate between two users who have identical names.

Since organizations belong to the entire network rather than to a specific VS system on the network, organization names for a system are usually administered from one location, such as the Network Control Center (NCC) or the VS system on which your Personnel or Human Resources department is located. This procedure ensures that problems do not arise from duplicate organization names within a network. It also ensures that the correct organization listing is transferred to a newly installed VS OFFICE site. To accomplish this, it is vital that administrators coordinate and plan their activities accordingly. Users should be included in organizations that best fit their roles. Users should be able to assume that if mail is sent to an organization, it would be received by all relevant people.

Note: If you must add new organizations, extreme care should be taken to ensure that a duplicate organization name is not added to the directory. Duplication causes problems in delivering mail and may impart erroneous directory information. Information about users' departments supplied on user survey worksheets will help you determine what organizations you need to add. Use Worksheet 4 to record organization information.

If you *must* add new organizations, keep the following points in mind:

- Each organization *must* be assigned a name that is unique on your network.
- Organization names contain numbers and/or uppercase letters only, with a maximum length of 16 characters.
- The organization record contains a Description field, which allows up to 24 characters (letters or numbers, with no distinction between uppercase and lowercase letters).
- If members of an organization are located on several different systems, the organization name is defined only once; you can add users to an organization defined by another directory administrator.

User Information

A user record in the directory may consist of as many as eleven screens of information.

- User Information screen
- Logon Information 1 screen
- Logon Information 2 screen
- Wang OFFICE Formats screen
- Administrative Information screen
- Wang OFFICE Info 1 screen
- Wang OFFICE Info 2 screen
- Electronic Approval screen
- Wang OFFICE Info 3 screen
- Wang OFFICE Info 4 screen
- Housekeeping Parameters screen

Each of these screens, except the Wang OFFICE Formats screen, is described in the following sections and has a corresponding worksheet in Appendix A. They will help you gather the required information for entry in the directory, and allow you to make informed decisions about users in your directory. The Wang OFFICE Formats screen does not have a corresponding worksheet because the information on this screen is user modifiable only, except when an administrator selects *Yes* for the Traveling User Access field on the Administrative Information screen. Refer to the *VS OFFICE Administrator's Guide Release 2.05* for details on the Wang OFFICE Formats screen and the Electronic Approval/Traveling User password.

Plan user information for the directory with Worksheets 5 through 14.

The User Information Screen

The User Information screen contains the user information that is synchronized throughout the network (full name, user type, organization, location, job description, phone number, network calendar scheduling ability, and network address). Use Worksheet 5 to plan information for the User Information screen.

The types of users in Wang OFFICE are:

- Persons
- Conference rooms
- Equipment

The *facility* user that was supported in previous releases of VS OFFICE is converted to the *person* user when upgrading a system to VS OFFICE, Release 2.05.

When you are setting up your directory, determine whether each user (person, conference room, or equipment) is to be a distributed user or a Local-only user.

Distributed – Distributed users are synchronized with the rest of the network and appear in both their own local directory and remote directories.

Local-only – Local-only users appear only in the directory on their VS system. They are not synchronized with the rest of the network and do not appear in directories on the rest of the VS network. Keep in mind the following information about Local-only users:

- Local-only users have full OFFICE capabilities.
- Local-only users can send mail to remote users and receive replies to that mail.
- You can change the status of Local-only users to Distributed users (by way of the directory's User Information screen), but you cannot change the status of Distributed users to Local-only users.
- Local-only users do not create network overhead.
- Local-only users have less visibility and more security.

Be sure to differentiate between Distributed and Local-only users, and local and remote users.

Local – Local users are users whose records you have entered in your directory and whose records you can modify. You must designate local users to be either Distributed or Local-only.

Remote – Remote users are users of other systems in the network whose records are entered in that VS system's directory by that system's administrator. You cannot modify the records of remote users. Only the administrators on their own system can do that.

You create and maintain records for local users; users added by other directory administrators on other VS OFFICE systems in the network are remote users to you.

The user information required for each type of user varies slightly to meet the needs of that user type. For example, a person requires a first and a last name, while a conference room requires only one name.

Since the system supplies a user's network address (area ID, node ID) when you create the record, you do not need to acquire this information. However, you do need to provide information for the following fields for each Wang OFFICE user's record:

Last Name — Maximum of 24 characters. It is important that this field be filled in completely because the last name is used internally by the directory for searching.

First Name — The directory uses this field for searching.

Display Name — The user's full name, uppercase and lowercase letters, maximum of 24 characters. The display name defines the way the name will appear in the directory. The display name is not used in searches, but is a required entry. The display name *must* include the actual last name to facilitate addressing mail items.

Organization — Uppercase letters only, maximum of 16 characters.

Job Description — Uppercase and lowercase letters, maximum of 16 characters. (Helps differentiate between two users with identical names.)

Location — Uppercase and lowercase letters, maximum of 16 characters. (Identifies a user's building, floor, and/or mailstop; helps differentiate between two users with identical names.)

User Type — Person, conference room, or equipment.

User Information — Local-only or distributed.

Logon IDs — Use the user's VS logon ID(s). If a user can access multiple windows through Multi-Station software and duplicate logons are not used, supply a logon ID for each window. (Five IDs are allowed.) If VS OFFICE is running on an Operating System, Release 7.0 or greater, users can have multiple windows with one logon ID.

Middle Name, Alias, Other — All names are alphanumeric and no longer than 16 characters. It is important to fill in these fields because, when available, they enable a more efficient search of the directory. For example, when duplicate last names occur in the directory, first names will be searched to identify the user more accurately. Information in these fields helps differentiate between users who have identical names. For example, if two users are named Thomas Green, one user can be identified by a middle name (George) or a nickname (Tom).

Telephone 1 and 2 — Maximum of 29 characters.

Note that much of this information is available on the User Survey Worksheet (Worksheet 3). You can simply transfer the information to Worksheet 5.

Multi-Station Windows and Logons

Use Worksheet 3 to plan Multi-Station windows and logons. A Multi-Station workstation is a single physical device that supports four simultaneous logical tasks, or windows. Through GENEDIT, a port and device type must be assigned for the Multi-Station device. Three additional device numbers can be assigned to the port number to provide Multi-Windows.

A user runs more than one task simultaneously by accessing a workstation window for each task to be run. The user can have a separate logon ID for each window. The user can also have the same logon ID for each window if it is designated through the security program and if Operating System Release 7.0 or greater is being used. These logon IDs must be defined in both the VS USERLIST file and the Wang OFFICE directory if the user wants to access OFFICE with each ID.

The *Multi-Station User's Reference* explains how to reconfigure your VS to include windows for each user. Refer to the manual for detailed information.

Use Worksheet 5 to record whether you need to configure Multi-Station windows for a user, indicating the number of windows you plan to configure and the associated logon IDs.

Logon Default Values

Logon default values supply VS usage constants and file-protection classes for each user. The defaults set by these screens remain in effect while the user is logged on to Wang OFFICE and after the user exits from OFFICE. A user who needs to override logon defaults can press HELP and PF2 from the Command Processor. These logon defaults are executed when the user logs on to the VS.

Use Worksheets 6 and 7 to plan logon default values for users. The information on these worksheets corresponds to the default values supplied on the Logon Information 1 and Logon Information 2 screens of a user's directory record. These logon and logoff procedures are executed when the user runs OFFICE and exits from OFFICE, respectively.

Specialized defaults that you should plan for each user include

Start Menu — WOMAIN is the system-supplied default in the Start Menu field. The Wang OFFICE start menu WOMAIN allows a user access to Wang OFFICE Mail, Calendar, Info Cards, Schedule a Meeting, Folders, Correspondence Log, Bulletin Board, Broadcast, and User Administration functions. It also allows a user access to Administrative Functions if you grant the appropriate administrative rights (refer to "Plan Administrative Information" in this chapter). If you create a specialized startup menu for some or all of your Wang OFFICE users, you should replace WOMAIN with the name of the specialized menu in the Start Menu field for those users.

Logon/Logoff Procedures — The file, library, and volume information for any specialized logon/logoff procedure a user needs can be specified as defaults. This is a security feature.

Administrative and Special Rights

Use Worksheet 8 to plan administrative and special rights for users. The selections on Worksheet 8 correspond to the selections on the Administrative Information screen of the directory. These selections define special rights to Wang OFFICE, and whether or not a user is a network administrator, a Wang OFFICE administrator, or a directory administrator. The Administrative Information screen includes the following fields:

Special Rights for Wang OFFICE – These parameters define whether the administrator can customize menus through AMU, define the priority threshold (the maximum priority that the user can assign to mail), query remote systems, specify whether the user can send emergency messages, or have Traveling User access.

Administrative Rights For – You can grant access to one or all of the administrative functions to any user who needs it, although most users do not need administrative functions. You and your backup administrator should have full access rights.

Directory Services – Grants access to administrative functions for the Wang OFFICE directory. These functions include adding, editing, printing, and deleting records for users, organizations, and applications in the directory.

Wang OFFICE – Grants access to administrative functions for Mail. These functions include changing the file-protection class for the @WOINFO@ file, and submitting and terminating Wang OFFICE background tasks.

Network Services – Not implemented in this release.

VS Logon Information for Enhanced Logon Users

Use Worksheet 9 to plan VS logon information for Enhanced Logon users. VS Terminal Emulation (VSTE) software supports Enhanced Logon, which is the ability to log on to the VS OFFICE system from another system to perform VS OFFICE functions. A Wang OFFICE Enhanced Logon user can be one of the following:

- A user at a VS, OIS, Alliance, or PC system that does not have OFFICE software
- An OIS/Alliance MAILWAY user
- An OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE user
- A PC/Xmodem Transfer Service user

Enhanced Logon users are added to the network directory at the host VS and are assigned a valid VS logon ID and password. This makes it possible for them to log on to the host VS and to perform VS OFFICE functions, such as sending and receiving mail, with their home VS system. It also allows these users to log onto their home VS system and mail to and from their host system.

In most cases, Enhanced Logon users are VSTE users on non-VS OFFICE systems. Occasionally, however, users on OIS OFFICE, Alliance OFFICE, WP Plus OFFICE, or PC systems may choose to use VS OFFICE (through VSTE) rather than the native OFFICE facility.

OFFICE Mailbox Type Information

You must define a mailbox type for each OFFICE user in the directory. Use Worksheet 9 to plan OFFICE mailbox type information for users. The information on that worksheet corresponds to the defaults that you supply on the Wang OFFICE Info 1 screen of a user's directory record. The defaults and the default values you supply on Worksheets 9 and 10 determine how a user's mail is managed.

Mailbox Type — Specifies the way a user receives mail. There are five types of Mailboxes:

Interactive — Lets a user display received mail when logged on to the local VS OFFICE system. VS OFFICE traveling users are assigned Interactive Mailboxes.

Printer — Lets a user have mail delivered to and printed on a VS printer. A user with a printer Mailbox cannot display mail at a workstation. If the Spool System field is left blank, mail is printed at a local system printer. If a valid system name is identified in the Spool System field, mail is directed to the specified system automatically.

The printer can be on your local VS system or on a remote VS system identified in the Spool System field. The printer must have a print class defined as part of the system configuration for the local system, or as part of the system configuration of the system identified in the Spool System field.

Interactive and Printer — Lets a user have mail delivered to the local VS interactive mailbox and a VS printer.

Application — Lets the user have all mail delivered to an Application Mailbox (DISOSS, PROFS, or a user-defined application). When mail is delivered to the Mailbox, the user can access it only through that application, not through Wang OFFICE. When an Application Mailbox is selected, you must identify the application. A user ID may be required by DISOSS or PROFS.

OIS/Alliance — Lets an OIS OFFICE, Alliance OFFICE, WP Plus OFFICE, or OIS/Alliance MAILWAY user receive mail sent from Wang OFFICE at their OIS or Alliance system. Refer to Chapter 6 for information about defining this type of Mailbox.

Mail and Calendar Default Values — You must define the mail and calendar scheduling default values for each user in the directory. The selections on Worksheet 10 correspond to the information on the Wang OFFICE Info 2 screen. This screen allows you to define mail and calendar scheduling parameters that are modifiable by a directory administrator, and, at the administrator's discretion, by the user. For each default listed, you must define whether or not the default you select can be modified by the user. The information you gather on this worksheet and Worksheet 9 determine how a user's mail is managed.

Mailbox Options: Automatic Acknowledge — Defines automatic acknowledgement of all mail items read by the user. If you select *Yes*, an acknowledgement is delivered to the sender when a mail item is read for the first time. Select *No* to have the user manually acknowledge by pressing a PF key. This does not apply to invitations or certified mail.

Mail Class Options — Use mail class options to set default values for a user's mail.

Delivery Confirmation — If you specify *No*, the user can request confirmation for specific items on a one-time basis. If you specify *Yes*, system certification is always required. In addition, the user may request acknowledgement for an individual mail item. If *Yes* is selected, you must specify the type of notification as either certified or acknowledged.

Certified mail can be accessed only by the intended recipient; even users who have access to the recipient's Mailbox cannot access a certified mail item. When a recipient "opens" a certified mail item the sender is automatically notified.

Acknowledged mail requests notification when the mail items are received by the recipients. Whether the acknowledgment is automatically or manually sent depends on what was selected in the Automatic Acknowledge field.

Security — Specify a default security level to be assigned to the user's mail items. Only people to whom the recipient has granted corresponding access privileges can view the items in the recipient's Mailbox.

Priority — Specify an outbound priority (Low, Normal, High, or Immediate) to be assigned to the user's mail. A user can change the priority for a single mail item, but cannot select a priority higher than the threshold priority you have defined.

Calendar Options — The Automatic Calendar Update allows you to specify whether the user allows automatic update of the scheduling database each time a change is made to his or her calendar. This is used by the Schedule a Meeting option.

Electronic Approval Default Values

You must plan to set default values for each Electronic Approval user. Worksheet 11 corresponds to the selections available on the Electronic Approval screen of the directory. Each of these values can later be modified by the user creating a Route Package. The user creating the Route Package uses this screen to define the voting and routing options that each Route Package recipient is allowed.

The Electronic Approval screen is used in conjunction with the Route Lists selection from the Wang OFFICE mail menu. They allow a user to create a package and Route List, and have the package sequentially, rather than simultaneously, delivered to the intended recipients on the Route List. The creator of the Route List defines which of the following voting options each recipient is allowed.

- No decision required
- Accept or reject
- Accept or reject or abstain

If the recipient rejects the Route Package, the creator must decide if the recipient should

- Continue routing the package
- Return the package to the originator
- Continue routing the package or return to it to the originator

The creator can also allow recipients to edit the Route List.

Printing and Word Processing Default Information

If users have access to Wang standard word processing or Wang WP Plus word processing, you should plan printing and word processing defaults for all users. For each one of these defaults, you have the option to let the user modify your selection.

Use Worksheet 12 to plan printing and word processing default information for users. The selections on Worksheet 12 corresponds to the selections found on the Wang OFFICE Info 3 screen in the directory.

Options for Printed Output – Lets you set default values for printed output.

Prompt for Output Format – Lets you define whether a default print format is always used or whether the user is prompted to define the print format each time a mail item is sent to be printed.

Default Output Format – Lets you choose VS print file format, WP Plus print format, or standard word processing print format for mail items.

Print Distribution with Mail – Lets you choose whether or not distribution lists are printed when mail items are printed.

Word Processing Output Options/Default Values – Lets you set WP and WP Plus values.

WP Print Disposition – Lets you define where a document goes when printed. The options are: automatically spool to the selected printer without saving the document; spool to the printer and save the document; or simply save the document.

WP Plus Library – Identify the library in which WP Plus documents are created for the user.

WP Plus Print Route – Identify the WP Plus print route to be used for WP Plus documents.

WP Library – Identify the library in which standard word processing documents are created for the user.

WP Volume – Identify a volume on which standard word processing documents are created for the user.

Image Printing Default Values

If your system uses the Wang Integrated Imaging System (WIIS) or the Basic Image Support Package (BISP) you must set image printing default values for users. For each one of these defaults, you have the option to let the user modify your selection. Use Worksheet 12 to plan image printing default values for users. The selections on Worksheet 13 correspond to the selections on the Wang OFFICE Info 4 screen in the directory.

Image Print File Location Information — Lets you specify the library, volume, and system for image print files.

Spool Library — Identify the library where image print files are to be spooled.

Spool Volume — Identify the volume where image print files are to be kept.

Spool System — Identify the system on which image print files are to be spooled.

Printer Information — Lets you specify default values for a user's printer.

Print Mode — Lets you define where an image print file goes when printed. The options are: *Spool* to automatically spool to the selected printer without saving the image; *Keep* to save the image; *Hold* to send the image to the print queue. To actually print the image, you must release it from the print queue. Once it is printed, the image is deleted from the system.

Print Class (A through Z) — Specify the print class of the printer for your image print files. Files are sent to a printer assigned to a class specified here.

Print Form # (000 through 254) — Specify the form number to be used for printing files. Each installation determines its own print form numbers.

Printer # (000 through 999) — Specify the printer number where each print should be sent.

Print Image File Protection Information: — Determine the file protection class to which image print files are assigned, as follows:

Symbol	Meaning
\$	Read-only file
#	Private file
@	Execute only file
Space or blank	Unprotected file
A through Z	One on 26 file classes defined by the administrator

Housekeeping Parameters

Housekeeping lets you decide how often items in a user's mailbox, folders, confirmations, calendars, reminders, and correspondence will be purged. You can specify from 1 to 365 days, or 999 to keep the items indefinitely. For each one of these default values, you have the option to let the user modify your selection. Use Worksheet 14 to plan housekeeping parameters for users. The selections on Worksheet 14 correspond to those on the Housekeeping Information screen in the directory.

Standards For User Information

Your directory will function more efficiently and effectively if you establish standards for entering user information. The following are some recommendations for standards:

- Enter as much information about a user's name as possible in the User Information screen. *Last name*, *first name*, and *display name* are required, but you should enter the *middle name*, *alias*, and *other*, if possible. This will greatly facilitate identifying users, and make mail delivery more efficient.
- Be sure that you do not create duplicate organization names.

VS OFFICE TRAVELING USERS

VS OFFICE Traveling User software allows users to log on to their home VS and access OFFICE from remote asynchronous terminals. Assign each such user a VS logon ID and password and an Interactive Mailbox with the Asynch Password field filled in. Traveling User passwords are assigned on the Wang OFFICE formats screen in the directory. Refer to the *VS OFFICE Administrator's Guide* for details about how to set up passwords for Traveling Users.

Since the VS OFFICE Traveling User supports a wide variety of asynchronous terminals, communication speeds, and character sets, you need to gather specific information from these users. Use Worksheet 15 to pull this information together.

The following is a description of some of the information you must specify for traveling users. Hardware information includes:

- Name and type of terminal
- Model number of modem
- Access task name
- Access task type

GAI tasks can handle six connections. Each Traveling User must have one unique DLP connection. Connection information includes:

DLP — Identifies the address of the data-link processor (DLP) that is to control the session for the node specified.

Baud — Indicates the line speed in bits per second. The value entered here must correspond to the line speed of the asynchronous terminal. The default value of 300 may be replaced by any standard asynchronous rate: 50, 75, 110, 134, 150, 200, 300, 600, 1200, 1800, 2000, 2400, 4800, 7200, 9600, or 19200, depending on your hardware specifications.

Duplex — Indicates the transmission mode. Full-duplex (the default) and half-duplex modes are supported. Some asynchronous modems have a switch to select either half- or full-duplex transmission. If the user's modem has this feature, the modems at both ends of the communications line must use the same transmission mode.

Parity — Transmission parity can be set at Odd, Even, or None (indicating that no parity checking is performed). The parity setting must correspond to the type of parity used by the asynchronous terminal. If GAI is selected as an access task, you must select an option of space, mark, or ignore.

Databits — Indicates the number of data bits per character. This number does not include parity and stop bits. Typical ASCII-character-set communication uses either seven or eight data bits.

Stopbits — Valid values for the number of stop bits per character are 1, 1.5, and 2. The user must make sure that the value specified corresponds to the stop-bit value for the asynchronous terminal.

Echo — Indicates whether the VS OFFICE Traveling User should transmit a duplicate of each character received. Use this option only when full-duplex transmission is used.

Width — Defines the width (in characters) of lines sent to the asynchronous terminal. The default value is 80 characters.

Automatic Line Feed — Defines whether the terminal automatically issues a line feed after each carriage return.

End-of-Line Character — Specifies the character recognized as a carriage return by the asynchronous terminal (for both sending and receiving data).

End-of-File Character — Identifies the character used by the asynchronous terminal to indicate the end of a file (for both sending and receiving data).

Default Character Set — The character set used by the terminal (a list of defaults is supplied and you must select one).

SECURITY FOR APPLICATION MANAGEMENT UTILITY (AMU)

The Application Management Utility (AMU) is a powerful menu-customization tool that adds both flexibility and increased security to Wang OFFICE menus. Since changes made through AMU can affect many OFFICE menu displays, it is important to provide sufficient security to the AMUEDIT file and to qualify potential users of menu customization. Three things can help you provide this security.

1. Secure the AMUEDIT file. You should ask your VS security administrator to assign a unique security class to AMU so that only those users given Menu Customization access through their user profile definition can use AMU.
2. Restrict user access within AMU to prevent damage to or loss of existing OFFICE menus. Refer to the VS OFFICE Administrator's Guide and the *VS Application Management Utility (AMU) User's Reference* for further information about these procedures.
3. Qualify each user who wants access to AMU. These users should read the *VS Application Management Utility (AMU) User's Reference* and must fully understand how to use AMU before they are allowed access to OFFICE menu customization.

LIBRARIES, VOLUMES, AND SECURITY

Use Worksheet 16 to plan your selection of VS volumes for Directory Services, WSN Network Core, VS OFFICE software, AMU software, OFFICE Indexer software, Application Program Interface (API) software, and Computer-Based Training (CBT) software. Keep the following considerations in mind:

- Placement of the WSN Network Core software library is up to the administrator. When you perform an initial program load (IPL) with a communications configuration file after installing WSN Network Core, the volume you choose becomes permanently in use.
- The WSN File Transfer Library should be on the same volume as WSN Network Core.
- Placement of the Directory Services software library is up to the administrator.
- Place VS OFFICE, OFFICE Indexer, AMU, and API software on a secure volume (for example, the Owner Information parameter on the volume must be set to "Secure = Yes").
- The administrator has the option of loading the VS OFFICE Traveling User library (TULIB) onto any volume, but TULIB should *not* be loaded into the system library (@SYSTEM@).
- WP Plus and VS/IIS software must be placed on the SYSTEM volume.
- Allocate adequate space on the selected volumes for files created by users.

Renamed Wang OFFICE and Directory Services Libraries

When installing Directory Services and VS OFFICE software, you have the option of changing the default names for the Directory Services and Wang OFFICE libraries. If you prefer to rename these libraries, you can record the names you plan to use on Worksheet 16.

You can also record the name and volume of your system's configuration file and communication file for easy reference during installation.

Security for the @WOINFO@ File

The security of the VS OFFICE database file @WOINFO@ must be protected through the assignment of an appropriate file-protection class. The class should be one to which Wang OFFICE users do not have write access. You will need to supply this information for the installation procedure. (You can change the class at a later time, if necessary, from the Wang OFFICE Administrative Functions menu.)

AUDIT TRAILS

The following points must be considered if Audit Trail logging is to be supported.

- The Distributed Management Facility (DMF) must be installed on each system to consolidate Audit Trails.
- Audit Trail logging requires increased disk space, especially if your system is a node where Audit Trail records are being consolidated.

DOCUMENTATION

Although documentation needs vary from site to site, you should have at least the following VS OFFICE Release 2.05 documentation available for reference during the planning and installation process.

- *VS OFFICE, Release 2.05 Customer Software Release Notice (715-1168)*
- *VS OFFICE Administrator's Guide, Release 2.05 (715-1164)*
- *VS OFFICE User's Guide, Release 2.05 (715-1163)*
- *VS Application Management Utility (AMU) User's Reference (715-0246)*

In addition, you may find the documents listed in the Preface of this manual useful in determining what documents will be helpful at your site.

PREINSTALLATION OR PRECONVERSION ISSUES

Review the preinstallation or preconversion issues and coordinate activities with your Wang representative and the appropriate administrators and personnel of your system and network. This will enable you to

- Reduce installation or conversion time
- Clarify what is required during the installation or conversion process
- Reduce unnecessary cleanup after the installation or conversion

Note: It is often difficult to separate preinstallation considerations from actual installation specifics since they often function concurrently. Therefore, you may want to refer to this section during your installation or conversion.

Space

It is strongly recommended that space be taken into account when reviewing your basic requirements for VS OFFICE.

- The memory, disks, and IOPs of your present system probably will need to be increased.

- Minimum requirements for OFFICE are 2 MB of physical memory.
- All systems operating networked VS OFFICE require a minimum of two large external disk drives. One disk is needed for the system software and communications files, and the other disk is needed for the VS OFFICE database.
- Paging files should reside on the disks with the least demand rate.
- Code and databases should be spread across the IOPs.
- On a system running operating system 6.xx, the user-modifiable data areas require 1024 KB of Segment 2 space, and background tasks require 1024 KB. On a Series 7 Operating System the user-modifiable data area must use 1536 KB, and must use 1024 KB for background tasks. VS OFFICE will cancel with a return code of 860 on a system with 8 MB of virtual memory and a modifiable data area greater than 1536K.
- If you are installing VS OFFICE Release 2.05 on VS systems with only 75 MB disk drives, extra care should be taken to ensure that enough free space will be available for the software, directories, and other files which are duplicated during the conversion, thus taking up double the amount of space.

System Volume

Only required software should be put on the system volume. The size of the system volume depends on the release of the operating system being used. Refer to your specific operating system's customer software release notice for specific system volume size information. However, whatever release of the Operating System you use, the following information should be taken into account.

- The following software must be loaded on the system volume:
 - VS/IIS
 - AMU
 - Certain OFFICE Indexer files (if it is selected as optional software)
 - Certain PACE runtime routines (if it is selected as optional software)
- If you are converting from Release 2.00 to 2.05 the volume containing the directory must have enough free space to accommodate the following 3 copies of the directory:
 - The original directory
 - The WSNREORG of the original directory
 - A converted (that is, Release 2.05) directory
- There must be adequate space on the volume containing @WOINFO@ for the following two copies of @WOINFO@:
 - The 2.00 @WOINFO@
 - The 2.05 converted @WOINFO@

- During the VS OFFICE conversion, each memo, invitation and package in the ENVLIBs has a second copy, which is converted and copied during the @WOINFO@ conversion. When the @WOINFO@ conversion is complete, the originals are replaced and the extra space is available for use again.
- If you are planning to run COPY with REORG on @WOINFO@, ensure that you have enough space for the work copy of the file during the procedure.

Segment 2 Space/Modifiable Data Area (MDA)

In order to run the VS OFFICE software, reconfigure Segment 2 address space/Modifiable Data Area (MDA) for your system as shown in Table 4-1.

Table 4-1. Segment 2 Space Requirements For Operating Systems 6 and 7

	OS6	OS7
Minimum MDA space	1024K	1536K
Minimum program code space	1024K	1536K
Minimum Non-Interactive Background Task Space	1024K	1024K

Keep the following points in mind when working with Segment 2 space.

- If the system is using Operating System 7 with 8Meg of virtual memory, you cannot have more than 1536K of MDA without having VS OFFICE cancel with a return code of 860.
- A system using Operating System Release 7 requires that each Wang OFFICE user has 1536 KB of Segment 2 space. Operating Systems prior to Release 7 require 1024 KB of Segment 2 space.
- The WSN Store and Forward interactive task requires 1024 KB of Segment 2 space for Operating Systems that precede Release 7, and 1536 KB of Segment 2 space for Release 7 or later.
- The AMU maintenance file AMUEDIT requires 512 KB of Segment 2 space for maintenance.

- VS OFFICE and related background tasks require Segment 2 space as summarized in Table 4-2.

Table 4-2. Segment 2 Requirements for Wang OFFICE Background Tasks

Program	Task	Segment 2 Space Kilobytes
Package Distribution Services	\$FMGR\$	1024 ^a
	\$LOGTSK\$	1024
Directory Services	\$DSMGR\$	1024
	\$DIRSYN\$	1024
	BDSBACK	1024
VS OFFICE	\$WOAMGR\$	1024
	\$FTMDRVR\$	1024
	OISDRIVR	1024
	OISRCVR	1024
	HSKPING	1024
	Printing, External Copy tasks	1024
VS OFFICE Traveling User	\$TUAnnn\$	1024
MAILWAY Coexistence	MWALERT	1204
^a If you think that there may be an unstable network link, the NCC and possibly the ACC may require more memory.		

Refer to the *VS OFFICE Release 2.05 Customer Software Release Notice* for additional information about calculating required space.

Time

Take time into account when reviewing your basic requirements for VS OFFICE. Take the time to plan and coordinate with your Wang representative the schedule for upgrading and installing software components. Whenever possible, upgrade the operating system and components at least a week before the VS OFFICE installation.

Upgrades

Allow sufficient time to upgrade to Release 2.05. Everything will depend on how many packages will be upgraded and the size of the VS OFFICE directory. VS OFFICE directory conversion time depends on the number of records in the directory. Early completion is always preferable to requiring more time than expected.

Conversion time for a directory installation is approximately 140 records a minute.

Table 4-3 lists approximate upgrade times based on average installations. Actual conversion times depend on the size of the database being converted.

Table 4-3. Average Installation Times for Components

Component	Installation Time
Directory Services	30 minutes
VS OFFICE	30 minutes
Traveling User	30 minutes
MAILWAY Coexistence	15 minutes
AMU	10 minutes

VS OFFICE

When planning a VS OFFICE installation, keep in mind the following.

System Backup

Perform a complete system backup before the installation.

Upgrade Previous Releases to 2.05

Only VS OFFICE Release 2.0 systems can be converted to Release 2.05. Any Release 1.60 systems in the network must first be upgraded from 1.60 to 2.0 before the upgrade to 2.05. This can be done on the same day as the upgrade from 2.0 to 2.05. A system cannot be upgraded directly from 1.60 to 2.05. Refer to Chapter 5, "Upgrading Existing Systems to Release 2.05."

Housekeeping

Delete any unnecessary or duplicate memos, phone messages, calendars, distribution lists, menus, and confirmation lists before the installation or conversion.

Directory

You should print a hardcopy version of the current directory for each system to be converted.

Security

Be aware of the following security issues when installing or converting a system.

- Each user must be given at least PRINT-level access to a WP Plus library before the same user in VS OFFICE is allowed to send a WP Plus document from that library by way of VS OFFICE. If the security access level is not set correctly, and the user attempts to send a WP Plus document in a package, the user receives an error message stating that the document addition is not possible. This is significantly different from VS OFFICE Release 2.0, in which a user only needed READ access in WP Plus to send a document by way of VS OFFICE.
- Access Control Lists (ACLs) is a new level of security that allows file owners to control the sharing of their files with specified individuals, specified groups, or both. An ACL-based security system requires an administrator to define these user groups and assign numbers to each group.

Refer to the *VS OFFICE Administrator's Guide, Release 2.05* and the *VS System Administrator's Reference* for details.

AMU

Be aware of the following points about AMU when installing or converting a system.

- Before installation or conversion, review your existing menus. If possible, print copies of the menus and the screen containing the menu name.
- Determine which menus you want to keep, and which you want to delete.
- Remember that PF key-driven menus are not converted.
- If you want to display startup menus other than those that are installed with Release 2.05 of VS OFFICE, it is recommended that you create your own menus and designate them in the Logon Information 1 screen, rather than modify the menus that are initially installed with Release 2.05. By doing this, you will avoid having to deal with any internal upgrade changes that were made from Release 2.0, as well as facilitate upgrades from Release 2.05 to future release of VS OFFICE.

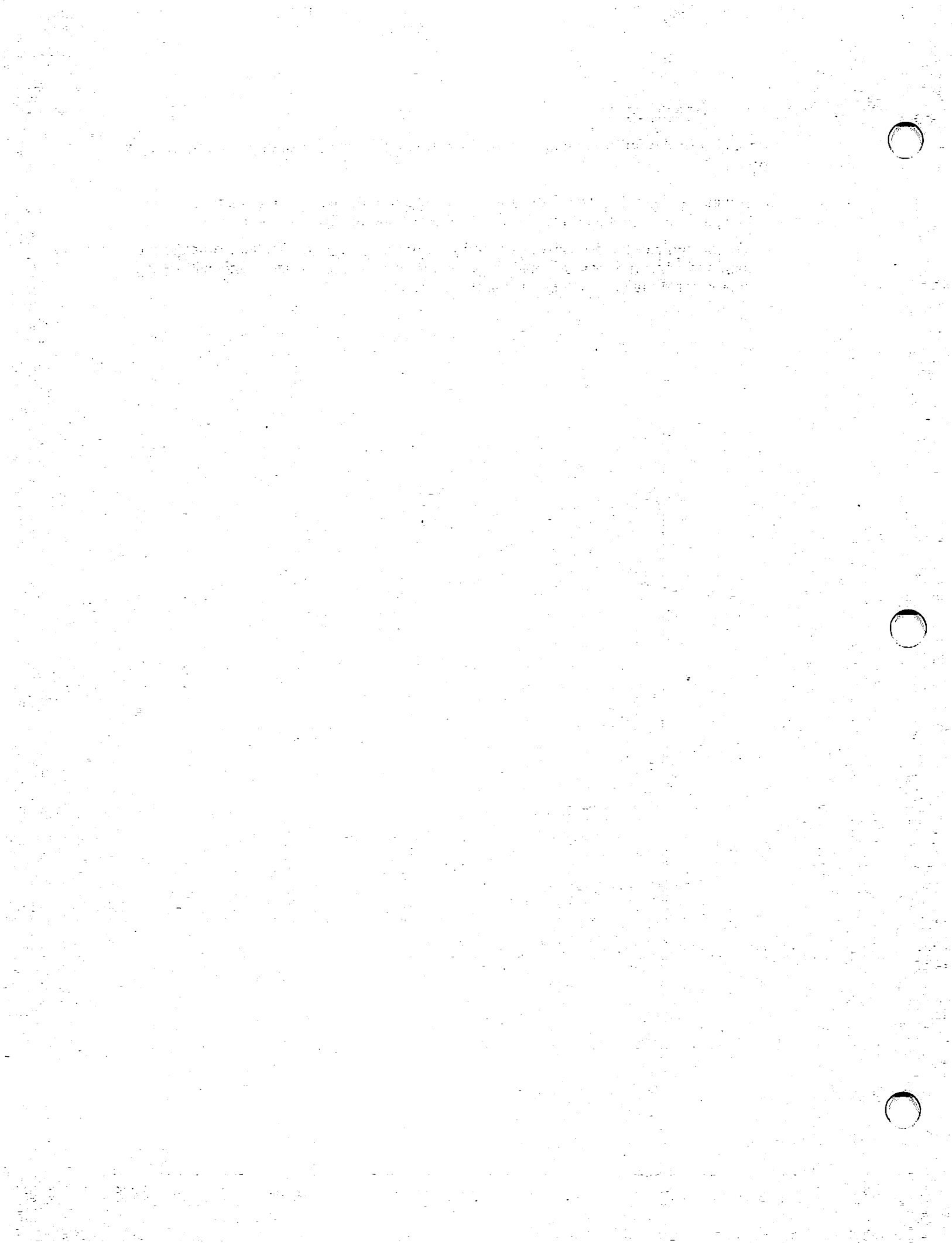
WP Plus

It is extremely important that you give each user at least PRINT-level access to a WP Plus library to allow that user in VS OFFICE to send a WP Plus document from that library by way of VS OFFICE. Refer to "Security" earlier in this chapter for additional information.

Mail and Confirmations

Be aware of the following mail and confirmation points when installing or converting a system.

- If you are upgrading from Release 2.0 to Release 2.05, you should delete all unwanted mail and confirmations to help save time in the conversion.
- You should run the Housekeeping utility before upgrading the system to delete any mail and confirmations that have exceeded their retention periods. This will save a considerable amount of time during the upgrade.



Chapter 5

UPGRADING EXISTING SYSTEMS TO RELEASE 2.05

DIRECT CONVERSION TO RELEASE 2.05

Release 2.0 is the only previous release of VS OFFICE that can be directly converted to Release 2.05. Systems running previous releases of VS OFFICE can exist simultaneously on the same network; however, if your network has Release 1.60 systems and you want them converted to Release 2.05, they must first be converted to Release 2.0.

DIRECTORY SERVICES COMPATIBILITY WITH PREVIOUS RELEASES

Directory Services for VS OFFICE Release 2.05 is compatible with specific previous releases of VS OFFICE. Only specific previous releases of Directory Services can exist simultaneously on a network. These combinations are outlined in the following sections.

Allowable Installations

Directory Services for VS OFFICE Release 2.05 can be installed only on a new site or on a site running Release 1.60.07 or greater.

Sites operating Release 1.60.07 systems must first upgrade to Release 2.00.09. DIRINSTL is the installation program needed for converting Release 1.60.07 systems to Release 2.00.09. INSTALL is the installation program that can then be run to convert Release 2.00.02 or greater to 2.05. VS OFFICE 2.05 can then be installed.

Allowable Releases on Network Systems

To run Directory Services Release 2.05 on a network, only the following combinations of releases of Directory Services can be running on the network's systems.

- All systems are Release 2.05.xx
- All systems are either/or
 - Releases 2.00.00 through 2.00.09
 - Release 2.05.00

- All systems are either/or
 - Release 1.60.07
 - Release 2.00.02 or greater
 - Release 2.05.00 or greater

The only invalid combination of Directory Services releases on the same network is 1.60.07, 2.00.00, and 2.05.00. *If Release 1.60 is running on a network with a 2.05.00 system, the 2.00.xx systems must be running the maintenance Release 2.00.02 or greater.* This occurs because Directory Services 2.00.00 does not translate a string of networked calendar scheduling and mailbox information from Release 2.05.00. Therefore, when directory synchronization occurs between a 2.00.00 system to a 1.60.07 system, the string of characters is disregarded. If synchronization occurs between a 2.05.00 system and a 2.00.00 system, the data will be present and functional when upgraded to Release 2.05.

Note: Transmit-Only directories must have Release 2.05.00 of Directory Services installed, and can communicate only with an ACC using Release 2.05.

Chapter 6

PLANNING CONNECTIONS WITH OIS, ALLIANCE, PC, AND NON-VS OFFICE SYSTEMS

OVERVIEW

With the required hardware and software, a VS OFFICE system can support the following communication links with OIS systems, Alliance systems, and non-VS OFFICE systems.

- Enhanced Logon, provided through VSTE, allows OIS, Alliance, and non-VS OFFICE users to log on to VS OFFICE and perform a full complement of VS OFFICE functions.
- OIS OFFICE and Alliance OFFICE systems use WSN with FTM to deliver Wang OFFICE Mail. Selected network users are added to native OIS and Alliance directories to facilitate mail distribution. All OIS and Alliance users are added to the host VS OFFICE directory.
- WP Plus OFFICE on OIS or Alliance also uses WSN with FTM to deliver Wang OFFICE Mail. WP Plus OFFICE functions much like OIS OFFICE and Alliance OFFICE except that it supports transfer of WP Plus documents in OIS or Alliance OFFICE mail packages. As with OIS OFFICE and Alliance OFFICE, selected network users are added to the native OIS and Alliance OFFICE directories, and all OIS/Alliance users are added to the network directory by the host VS OFFICE directory administrator.
- OIS or Alliance systems with MAILWAY Point and Batch 2780/3780 software can exchange mail with a VS OFFICE system. The VS OFFICE utilities Link Definition and Batch Scheduler facilitate the exchange. Users on MAILWAY Point systems must be added to the VS OFFICE directory by the administrator of the host VS OFFICE system.
- VS MAILWAY systems can coexist with VS OFFICE systems that support MAILWAY Coexistence software.
- PC OFFICE systems participate in a Wang OFFICE network through a link to a host VS OFFICE system. PC OFFICE maintains its own directory that is automatically synchronized with the network directory for accurate mail delivery.
- PC/Xmodem Transfer Service users with PC 2110 terminal emulation can exchange mail with VS OFFICE.

In each case the system is linked to a VS OFFICE system. While PC OFFICE maintains a directory locally, users on OIS, Alliance, or WP Plus OFFICE systems and OIS/Alliance MAILWAY systems are always considered local users on the host VS OFFICE

system. It is the responsibility of the host VS OFFICE directory administrator to create and maintain user records in the VS OFFICE directory for all non-VS OFFICE users in the area. PC OFFICE users are an exception to this. PC OFFICE directories are maintained by the PC OFFICE administrator and are automatically synchronized with the network directory through the directory synchronization process.

The first four configurations are discussed in the sections that follow. Refer to Chapter 7 for information about coexistence of VS OFFICE and VS MAILWAY. Refer to the *PC OFFICE Administrator's Guide* for information on PC OFFICE, the PC/Xmodem Transfer Service, and the VS OFFICE network.

COMMON PLANNING PROCEDURES FOR NON-VS OFFICE SYSTEMS

Some procedures are common when planning connections to non-OFFICE systems. These procedures can be applied when planning connections to the following:

- Alliance OFFICE systems
- OIS OFFICE system
- WP Plus OFFICE systems
- PC OFFICE users
- Enhanced logon users
- PC/Xmodem Transfer Service users

You must complete the following planning tasks to prepare for installation with any of the above connections:

- Verify that the host VS OFFICE system and the non-VS OFFICE system have the required software installed. Refer to Chapter 3 of this guide for information about software requirements.
- Verify that the non-VS OFFICE system is defined in your VS system's network-configuration file. Before any remote system can be added to your area configuration, it must be defined in the network-configuration file. The network-configuration file is defined by the network administrator and delivered to you in your starter kit. See your network administrator to confirm that the appropriate information is identified.
- Identify the users from non-VS OFFICE systems and add them to your VS OFFICE directory. All users on OFFICE systems other than VS OFFICE must be added to the network directory by the host VS OFFICE system's directory administrator. Information about these users can be gathered by using the worksheets in Appendix A. Most users on these systems will be Wang OFFICE Mail users and can be identified as such. These users can send and receive mail through the network, using the OFFICE Mail facility resident at their native system.

ENHANCED LOGON AND PC CONNECTIONS

In addition to the procedures outlined in the earlier section of this chapter, "Common Planning Procedures for Non-VS OFFICE Systems," the following must be considered when planning enhanced logon and PC connections.

Enhanced Logon and PC User Information for the Directory

Enhanced Logon and PC users are added to the VS host system directory as VS OFFICE users with an Interactive Mailbox. Except for considerations noted below, Enhanced Logon and PC users are treated like any other VS OFFICE user. Therefore, you should complete a User Information Survey Worksheet (Worksheet 3) for each of these users. The Information Survey should help you to complete Worksheet 5.

The following list summarizes considerations for adding Enhanced Logon and PC users to your directory.

- Assign a VS logon ID and password and add a record for each user.
- Specify an Interactive Mailbox for the user. If the user is also an OIS/Alliance OFFICE or WP Plus OFFICE user, select OIS/Alliance instead of the Interactive Mailbox selection. (The user then receives mail at his or her native system and performs other VS OFFICE functions through Enhanced Logon.)
- Plan a regular schedule for purging the VS/IIS library.

Refer to the *VS OFFICE Administrator's Guide* for additional information.

TRAVELING USER CONNECTIONS

When planning for Traveling User connections, follow the procedures outlined in the earlier section of this chapter, "Common Planning Procedures for Non-VS OFFICE Systems," and complete Worksheet 15 as outlined in Chapter 4.

OIS/ALLIANCE/WP PLUS OFFICE AND OIS/ALLIANCE MAILWAY CONNECTIONS

Wang OFFICE Mail functions include communication with MAILWAY running on OIS and Alliance systems, and OIS/Alliance/WP Plus systems, using the batch communications utility TCCOPY. All mail is exchanged in the form of word processing documents; therefore, all mail items are converted to WP format before being sent from the host VS OFFICE system.

Two options are available when establishing a communications session between the VS system and the OIS/Alliance MAILWAY system or OIS/Alliance/WP Plus OFFICE system to exchange mail:

- The VS system can initiate a communications session to the OIS/Alliance MAILWAY system or OIS/Alliance/WP Plus OFFICE system,
- or*
- The OIS/Alliance MAILWAY system or OIS/Alliance/WP Plus OFFICE system can initiate a communications session with the VS system.

This differs from VS OFFICE Release 2.0. Release 2.0 allowed only VS OFFICE to establish calls to the OIS/Alliance MAILWAY system.

The VS OFFICE administrator can initiate calls to the OIS/Alliance MAILWAY system or OIS/Alliance/WP Plus OFFICE system based on the defined communications links and batch schedules.

The VS OFFICE administrator also defines OIS/Alliance MAILWAY users for the local VS OFFICE directory. The administrator defines the OIS/Alliance MAILWAY user as having an OIS/Alliance Mailbox and supplies MAILWAY-specific information for the user – system name, personal password, designate's name, designate's password.

If the CONMAIL utility is used to convert the VS MAILWAY directory to OFFICE, the OIS/Alliance MAILWAY users connected to that VS are also converted.

In addition to the procedures outlined in the earlier section of this chapter, "Common Planning Procedures for Non-VS OFFICE Systems," the following must be considered when planning connections to OIS/Alliance/WP Plus OFFICE or OIS/Alliance MAILWAY systems.

Summary of Planning Tasks

In addition to the procedures outlined in the earlier section of this chapter, "Common Planning Procedures for Non-VS OFFICE Systems," the following must be considered when planning a connection to an OIS/Alliance MAILWAY or OIS/Alliance/WP Plus OFFICE system.

- The Wang OFFICE directory must contain a record for each prospective OIS/Alliance MAILWAY or OIS/Alliance/WP Plus OFFICE recipient of Wang OFFICE mail, with the user assigned to an OIS/Alliance-type Mailbox. Although these users are located on systems other than your VS OFFICE system, they are defined in your directory as local users since they are in the local area of the network.
- The physical links that support VS OFFICE batch telecommunications must be defined as
 - A WPS link for a connection with an OIS/Alliance MAILWAY system
 - An FTM link for a connection with an OIS/Alliance/WP Plus OFFICE system

You define these links through the VS OFFICE system's Link Definition function.

- Batch schedules must be defined through the VS OFFICE Batch Schedules function to determine when communications sessions are established between the systems.
- When setting user defaults, consider using system defaults, since most of this information does not apply to the OIS/Alliance/WP Plus OFFICE or OIS/Alliance MAILWAY user.
- Special program privileges must be assigned to
 - The OIS Driver (OISDRIVR) and the OIS Receiver (OISRCVR) for OIS/Alliance MAILWAY connections
 - The FTM Driver (FTMDRIVR) for OIS/Alliance/WP Plus OFFICE connections
- Receiver tasks must be configured to support unsolicited inbound communications from an OIS or Alliance MAILWAY system.

These tasks are discussed in more detail in the sections that follow.

OIS/Alliance/WP Plus OFFICE or OIS/Alliance MAILWAY User Information for the Directory

The OIS/Alliance/WP Plus OFFICE or OIS/Alliance MAILWAY user is known to the VS host system directory as a local user with an OIS/Alliance Mailbox. Except for the considerations noted below, defining the directory record for an OIS/Alliance/WP Plus or OIS/Alliance MAILWAY user is like defining a record for a local VS OFFICE user. Therefore, you should complete a User Information Survey Worksheet (Worksheet 3) to determine each user's needs. This will help you to complete Worksheets 5 through 14. For more information about filling in the information on these worksheets, refer to Chapter 4.

To define an OIS/Alliance Mailbox, you may need to obtain the required information from the administrator of the OIS/Alliance MAILWAY system. Refer to Chapter 4 for additional information about the parameters required on the User Profile and OFFICE Info 1 screens.

Common Planning Procedures for Connections to OIS/Alliance/WP Plus OFFICE Systems and OIS/Alliance MAILWAY Systems

Mailbox Information for Users

Use Worksheet 9 to specify an OIS/Alliance Mailbox for OIS/Alliance/WP Plus OFFICE users or OIS/Alliance MAILWAY users. All mail is delivered at the native OIS or Alliance system. You must specify the following for each user in the directory's OFFICE Info 1 screen:

System – Name of the OIS or Alliance system. It can be eight characters long (letters and/or numbers) and must have a unique and valid system name.

Personal ID and Personal Password – These must be obtained from the OIS or Alliance system administrator.

Designate ID and Designate Password – If a designated user is to receive mail for a group of users, each user must identify the same designate ID and password for the designated user.

Note: This is a function that is related only to OIS or Alliance MAILWAY systems, but the information must be entered for OIS/Alliance/WP Plus OFFICE users as well.

Define Physical Links

The physical link between your VS OFFICE system and an OIS/Alliance/WP Plus OFFICE or OIS/Alliance MAILWAY system must be defined before you schedule batch delivery sessions. You can record the required information on Worksheet 17. You may need to obtain some of the information from either your VS security administrator, your VS local-network administrator, or the OIS/Alliance administrator.

The following information is needed for *all OIS/Alliance connections*:

OIS/Alliance System Name — A unique, user-defined system name for the remote OIS or Alliance distribution point destination system.

Transport Type — Specify FTM for an OIS/Alliance/WP Plus OFFICE system, or WPS for an OIS/Alliance MAILWAY system.

Link Name — Must be a unique name.

The following information is needed *only for connections to OIS/Alliance MAILWAY systems*:

Number of Retries — Specify how many times the TCCOPY utility retries an unsuccessful transmission (maximum of 99).

Wait Between Retries — Specify in minutes and seconds the length of time between retries (the maximum is 59 minutes and 59 seconds).

Port Number — Specify the device number of your VS system.

Type of Line — Specify the physical connection (Dial, Lease, or Null) between the two systems. Obtain this information from the network administrator.

If you specify *Dial* you must enter the type of Automatic Calling Unit (ACU): 801C, 801C 1 1/2, V25, or VADIC. If you specify VADIC, you must also specify a modem address and VADIC address.

If you specify *Null* you must enter the modem speed: 2400, 4800, or 9600.

Batch Schedules

The VS OFFICE system, using schedules defined with the VS OFFICE Batch Schedules function, initiates the queuing of mail items to an OIS/Alliance/WP Plus OFFICE system or OIS/Alliance MAILWAY system for the exchange of mail. The VS OFFICE administrator should coordinate with the local-network administrator and the OIS/Alliance MAILWAY or OIS/Alliance/WP Plus OFFICE administrator to determine schedules that will optimize the use of the VS OFFICE and OIS/Alliance telecommunications facilities.

By using the VS OFFICE Batch Scheduler, you can define a periodic (regular) schedule that will initiate 50 communications sessions per day with a specified system, for any or all days of the week. Each session you schedule is associated with a specific mail priority. You should schedule at least one Administrative session per day to exchange Indexes of Outstanding Mail with OIS/Alliance/WP Plus OFFICE and OIS/Alliance MAILWAY systems. This ensures that the Index of Outstanding Mail will be created. Indexes of Outstanding Mail are sent to OIS/Alliance/WP Plus or OIS/Alliance MAILWAY users who have sent mail that is currently outstanding.

Use Worksheet 18 to record the following information needed to define batch schedules, and Worksheet 19 to assign times and priorities to batch sessions.

Worksheet 18

The following information is needed for *all schedules*:

OIS/Alliance System Name – A unique, user-defined system name for the remote OIS or Alliance distribution point destination system.

System Link – Name of an existing system link.

System Type – Indicates either an OIS or an Alliance system.

Destination – Optional information, such as company, city, or state, about the location of the destination system.

The following information is needed *only for OIS/Alliance/WP Plus OFFICE single or periodic session schedules*:

Indicate which priorities are processed immediately – Specify which of the following priority classes are to be processed immediately instead of waiting for the next regularly scheduled batch session. You *must* indicate Yes or No for *each* priority class.

Priority	Meaning
0	Immediate
1	High
2	Normal
3	Low

The following information is needed *only for OIS/Alliance MAILWAY single or periodic sessions*:

Job Class – Specify a value from A through Z for the VS job class whenever the OISDRIVR task is submitted.

Line Wait – Specify amount of time (maximum of 59 minutes, 59 seconds) to wait between attempts.

Terminal ID — Optional information (for OIS MAILWAY systems) identifying the destination terminal authorized to receive mail. The first two characters must be identical to each other (such as AA or BB).

Maximum Attempts — Specify maximum number of attempts (up to 99) to establish a connection.

Telephone 1 and 2 — If the link type (specified on Worksheet 17) is Dial, you must supply at least one valid telephone number, using valid values (numbers 0-9, :, *, #, and space).

Immediate Scheduling — Select Yes or No to specify if mail with a priority of Immediate should be processed immediately if there is no regularly scheduled batch session within the time defined by the Immediate Window.

Immediate Window — Indicate the maximum amount of time to wait for a regularly scheduled batch session to be submitted. If a session is not scheduled within the time set in this window, mail with a priority of Immediate is sent immediately.

The following information is needed *only for single session schedules* for both OIS/Alliance/WP Plus OFFICE systems and/or OIS/Alliance MAILWAY systems:

Day — The day of the week the session is to occur.

Time — The time of day the session is to occur. Use the 24 hour format.

Priority — The mail priority for the session. Specify as follows:

Priority	Meaning
0	Immediate
1	High
2	Normal
3	Low
4	All (0-3), and creates Indexes of Outstanding Mail
A	Indexes of Outstanding Mail only

Worksheet 19

Use Worksheet 19 to plan as many as 50 batch communication sessions per day of the week for both OIS/Alliance/WP Plus OFFICE systems and OIS/Alliance MAILWAY systems.

Time of Day/Priority — For each session, use the first two blank spaces to specify the time (in 24-hour format), and the third space to specify one of the following mail priorities.

Priority	Meaning
0	Immediate
1	High
2	Normal
3	Low
4	Low and Administrative
A	Administrative

For example, a session for normal-priority mail beginning at 1:00 PM should be recorded as *13 00 2*.

Special Program Privileges

The VS OFFICE installation program assigns special program privileges. To process mail items correctly, the following programs must have WRITE access to the Wang OFFICE file protection class:

For connections to OIS/Alliance/WP Plus OFFICE systems, FTM Driver (FTMDRIVR) must have WRITE access to the Wang OFFICE file protection class.

For connections to OIS/Alliance MAILWAY systems, OIS Driver (OISDRIVR) and OIS Receiver (OISRCVR) must have WRITE access to the Wang OFFICE file protection class.

They may also be assigned with the VS SECURITY utility. Refer to the *VS OFFICE Administrator's Guide* for details.

Receiver Tasks

A receiver task is a background task that allows your VS OFFICE system to support unsolicited, inbound, bisynchronous communications from a remote OIS or Alliance MAILWAY system. Once the task is configured, it monitors a telecommunications port that you specify for a connection to be initiated from a remote OIS/Alliance MAILWAY system. You define one port for each task. When mail is received from the remote system it is delivered in a WP format and queued to TCBUFFER, the communications buffer file, for processing by the OFFICE Activity Manager. Use Worksheet 20 to help you configure these tasks.

Exchanging Mail Between VS OFFICE and OIS/Alliance MAILWAY Users

When the planning activities outlined in this chapter have been completed, VS OFFICE and OIS/Alliance MAILWAY users can exchange mail.

Sending Wang OFFICE Mail to an OIS/Alliance MAILWAY User

When the required administrative procedures have been completed, a VS OFFICE user can send a mail item to an OIS/Alliance MAILWAY recipient, using standard OFFICE Mail procedures. The VS OFFICE directory contains the MAILWAY information required by the MAILWAY system for delivery to the intended OIS/Alliance MAILWAY recipient.

Wang OFFICE mail is delivered to OIS/Alliance MAILWAY recipients according to the following rules:

- General-security mail is delivered to the designate's ID with no password.
- Limited-security mail is delivered to the designate's ID with the designate's password.
- Confidential mail is delivered to the user's ID with the user's password.

Refer to the *VS OFFICE Administrator's Guide* for detailed information about sending Wang OFFICE mail to an OIS/Alliance MAILWAY user.

Sending OIS/Alliance MAILWAY Mail to a VS OFFICE User

OIS/Alliance MAILWAY users can send mail to any VS OFFICE user by following standard addressing conventions when preparing Page 1 (the Distribution Page) of their MAILWAY items. The OIS/Alliance MAILWAY user addresses mail to a VS OFFICE user by name, by unique ID, or by name and ID. The MAILWAY user also supplies sending parameters (author, security, priority, confirmation, reply-by date, partial mail) and a distribution list, that are validated when the mail item reaches the VS OFFICE system. These parameters provide the information required by the VS OFFICE system for delivery to the intended VS OFFICE recipient.

A VS OFFICE administrator can assist OIS/Alliance MAILWAY users in addressing mail by printing a report of all local VS OFFICE users in the directory and sending that report to the OIS/Alliance administrator. The OIS/Alliance administrator can then provide MAILWAY users on that system with the correct names and IDs of Wang OFFICE users.

Chapter 7

PLANNING A MIGRATION FROM VS MAILWAY TO WANG OFFICE

OVERVIEW

This chapter covers planning for a migration from VS MAILWAY to Wang OFFICE. VS MAILWAY networks have three options when planning for this migration. These options are:

Coexistence – The VS MAILWAY Center upgrades to VS OFFICE but plans to maintain concurrent use of MAILWAY.

Conversion – The VS MAILWAY Center and Points upgrade to VS OFFICE and discontinue VS MAILWAY operations.

Bridge – The VS MAILWAY network gradually upgrades to VS OFFICE without disrupting service to the MAILWAY users.

For coexistence or conversion, a VS OFFICE administrator installs Directory Services and VS OFFICE software before using MAILWAY software.

COEXISTENCE

The MAILWAY Coexistence software and CONMAIL utility within VS OFFICE can be used to assist in the migration from a VS MAILWAY network to a VS OFFICE network. MAILWAY Coexistence requires users to

- Manage two distinct mail networks
- Use a significant amount of system resources
- Communicate from two separate environments

Coexistence can be implemented only on VS MAILWAY Center systems and not VS MAILWAY Point systems. Since MAILWAY and OFFICE are not integrated applications, each user has two distinct mailboxes. Users can send and receive mail from each mailbox. All mail sent to MAILWAY users is sent to the MAILWAY application; all mail from MAILWAY users is received from the MAILWAY application. All mail to OFFICE users is sent to the OFFICE application; all mail from OFFICE users is received from the OFFICE application. Coexistence software provides the OFFICE users with notification that a message has arrived in their MAILWAY mailbox.

The CONMAIL utility is used to convert the MAILWAY Center Point directory to a VS OFFICE directory. The MAILWAY Center Point directory includes the names of all local MAILWAY users and all OIS and Alliance MAILWAY users attached to that Center. Therefore, the OIS and Alliance MAILWAY users are also converted to the OFFICE directory. Since OIS and Alliance MAILWAY is supported within the VS OFFICE network, OFFICE users can communicate with OIS and Alliance MAILWAY users through OFFICE.

Implementing Coexistence software typically requires that the following events take place. Refer to the *VS OFFICE Administrator's Guide* for procedural details of these events.

1. MAILWAY Distribution Center Software must be resident on the system, and OFFICE must be installed as another application.
2. After installing MAILWAY and VS OFFICE, the administrator of the VS OFFICE/MAILWAY Center system runs Coexistence software. CONMAIL is a part of Coexistence software that converts the MAILWAY Distribution Center Point Directory to OFFICE. The MAILWAY directory is not deleted, but rather both the MAILWAY and OFFICE directories are still maintained. The VS OFFICE user or administrator can send VS OFFICE mail to any recipient listed in the VS OFFICE directory, or can access MAILWAY from the VS OFFICE menu and send a MAILWAY message to anyone listed in the MAILWAY directory.
3. The VS OFFICE menu can be modified to include a MAILWAY selection on the main OFFICE menu. This is created by means of the Modify Menus option on the Administrative Functions menu.

CONVERSION

When converting a VS MAILWAY system to VS OFFICE, the entire existing MAILWAY network (both Centers and Points) must be brought down, and Wang OFFICE must be installed simultaneously in order to maintain communications across a network. The administrator uses the Coexistence program CONMAIL to convert the existing VS MAILWAY Center Point directory to a VS OFFICE directory. Once the directory conversion is complete and VS OFFICE is functional, the MAILWAY directory can be deleted from the system. VS MAILWAY Points must install OFFICE and enter their local VS OFFICE users into the OFFICE directory. The NCC can then perform a directory synchronization.

Since bringing down an entire network could produce considerable disruption, ordinarily conversion is used only on networks made up of a small number of nodes or on networks with little traffic. A large MAILWAY network may require the Wang OFFICE/MAILWAY Bridge software.

Note the following requirements:

- To run CONMAIL alone you need MAILWAY Center software.
- CONMAIL must be run on a system that is a MAILWAY Center, not a MAILWAY Point.
- CONMAIL must run from the same volume as MAILWAY.

Preparing for the Conversion

As you prepare for a conversion, ensure that the following events have occurred before you run CONMAIL.

- Directory Services software must be installed on your system, and a directory administrator must be listed in the directory.
- VS OFFICE must be installed on your system.
- In the VS OFFICE directory, there must be an organization to which the MAILWAY users will be assigned.
- The MAILWAY and VS OFFICE directories should be reviewed, and all duplicate user records and records of users who are no longer on the system should be deleted.

Refer to the *VS OFFICE Administrator's Guide* for procedural details about conversion.

PLANNING CONVERSION OR COEXISTENCE

The following list summarizes the planning tasks to be completed before conversion:

- Verify that your VS system is a MAILWAY Center, not a MAILWAY Point.
- Verify that you have at least the minimum release numbers of the VS Operating System and MAILWAY Center software needed to support VS OFFICE.
- Review the MAILWAY directory and delete all duplicate user records and records for users no longer on the system. The cleaner the MAILWAY directory is, the cleaner the VS OFFICE directory will be.
- Record the information required for manual creation of records for VS MAILWAY Point users.
- Install Directory Services software Release 2.05 on your system.
- Install VS OFFICE Release 2.05 on your system.
- Create an organization in the VS OFFICE directory to which the MAILWAY users will be assigned. When you run the CONMAIL utility, you are prompted to supply an organization name. All users' records are defined with this organization name during conversion. You can modify organization names in selected records at a later time wherever necessary.
- Make sure that the person installing Coexistence software has Directory Services administrative rights.
- Make sure that MAILWAY Coexistence software is installed in the MAILWAY RUN library.

WANG OFFICE/MAILWAY BRIDGE

The Wang OFFICE/MAILWAY Bridge allows a network to consist of Bridge systems, MAILWAY systems, and OFFICE systems with only one communication link between any two systems. Bridge users can select mail recipients from the MAILWAY directory, OFFICE directory, or both, from the OFFICE Send functions. The Wang OFFICE/MAILWAY Bridge delivers mail between MAILWAY users and Bridge users and provides delivery confirmation. All mail from both OFFICE and MAILWAY users is received in one mailbox (unlike Coexistence users that use two mailboxes). Bridge systems communicate with other Bridge systems over a WSN link, and communicate with MAILWAY systems through batch bisynchronous communications sessions.

Refer to the *Wang OFFICE/MAILWAY Bridge Planning Guide* for detailed information about the Wang OFFICE/MAILWAY Bridge.

Installation

The following facts should be taken into account when considering installing the Wang OFFICE/MAILWAY Bridge:

- MAILWAY cannot be directly converted to Wang OFFICE Release 2.05 using Wang OFFICE/MAILWAY Bridge software. If the Bridge is required for conversion, the network must first be converted to Wang OFFICE/MAILWAY Bridge Release 2.0. After the conversion, Wang OFFICE Release 2.05 can be installed.
- The Wang OFFICE/MAILWAY Bridge can be installed only on a MAILWAY Center system or a system running MAILWAY Coexistence Release 2.0. The system cannot be running MAILWAY Coexistence Release 2.05.
- VS MAILWAY Points must first be upgraded to a VS MAILWAY Center (performed by your Wang representative) and then upgraded to a Bridge system.
- The initial installation of the Bridge system should be performed at the system designated to be the NCC.
- Users defined as local MAILWAY users are automatically added to the OFFICE directory.
- Users who have interactive mailboxes, interactive and printer mailboxes, printer mailboxes, or WP mailboxes are added and assigned OFFICE interactive mailboxes.
- Users who have printer mailboxes are added to the OFFICE directory as printer mailboxes with the default print format being print format.
- Users identified as having a VS library mailbox are not converted.
- Users identified as OIS/Alliance Point users are added to the OFFICE directory and assigned system mailboxes that have the same mailbox name as the OIS/Alliance MAILWAY Point system name.
- If VS OFFICE Release 2.0 coexists with MAILWAY, the directory conversion program compares user names and eliminates the creation of duplicate OFFICE user records. The extent of the comparison depends on the accuracy of the records.

USING THE CONMAIL UTILITY

The CONMAIL utility of the VS OFFICE Coexistence software converts records for all local MAILWAY Center users and all OIS/Alliance users in the MAILWAY Distribution Center Point directory to a VS OFFICE directory.

The MAILWAY Center Point directory is converted to a VS OFFICE directory according to the information in Table 7-1. Values for any fields not listed in the table default to the standard VS OFFICE values.

Table 7-1. CONMAIL Directory Conversion Parameters

MAILWAY Parameters	VS OFFICE Parameters
System Control File Priority (0, 1, 2, 3) Security (1, 2, 3)	Wang OFFICE Info 2 Screen Priority (I, H, N, L) Security (C, L, G)
Point Directory User ID First Name Middle Initial Last Name	User Information Screen Logon ID First Name Middle Name Last Name
First, Middle, Last Name	User Information Screen - Display Name Middle initial may be dropped, and first name may be shortened if space is limited.
Priority Level (0, 1, 2, 3)	Administrative Information Screen Priority Threshold (I, H, N, L)
Authorization Code If 3 If not 3	Grant Rights User is granted complete administrative rights. User is not granted rights.
Mailbox Type Equals 1 Print Class W/N Print Mode W/N Print Form W/N	Wang OFFICE Info I – VS Printer Wide/Narrow Print Class Wide/Narrow Print Mode Wide/Narrow Form No.
Mailbox Type Other	Wang OFFICE Info 1 – Interactive Mailbox type

(continued)

Table 7-1. CONMAIL Directory Conversion Parameters (continued)

MAILWAY Parameters	VS OFFICE Parameters
Mailbox Type Equals 3 Print Class W/N Print Mode W/N Print Form W/N	Wang OFFICE Info 1 – VS Printer and Interactive Mailbox Wide/Narrow Print Class Wide/Narrow Print Mode Wide/Narrow Form No.
Point Address Does Not Equal 0 ^a	OIS or Alliance Mailbox type
System Address Personal Password Designate ID Designate Password	System Name Personal Password Designate's ID Designate's Password
<p>^a An exception is the user with a non-zero Point address <i>who belongs to a VS Point</i> (according to the Connection table). A record for this user <i>is not</i> added to the VS OFFICE directory during the conversion process. You must manually add records to the VS OFFICE directory for users who are located on VS MAILWAY Point systems.</p>	

Chapter 8 INSTALLATION

OVERVIEW

This chapter reviews some software product issues of which you should be aware during the actual installation or upgrade process. For detailed information about these issues, refer to the *Wang OFFICE VS OFFICE Release 2.05 Customer Service Release Notice*.

Keep in mind that installations and conversions of existing releases to Release 2.05 should occur only after consulting your Wang representative and should be coordinated by the appropriate administrators in your network.

INSTALLING COMPONENTS

When installing the operating system and any other components, consult the *Wang OFFICE VS OFFICE Release 2.05 Customer Software Release Notice* and your Wang representative for minimum compatible software release levels for your system.

GENEDIT

If you are installing a networked version of VS OFFICE 2.05, refer to the customer software release notices for the specific products required for a list of GENEDIT changes.

General Asynchronous Interface (GAI)

The GAI must be installed to run the Asynchronous Traveling User.

Netcore

Be aware of the following when Netcore is being installed on your system:

- You must run WSNSTOP to stop network communications before beginning installation procedures. You must also initially perform an Initial Program Load (IPL) without a Communications File.
- Library @SYSCOM@ does not need to reside on the system volume. However, if you are running the Distributed Management Facility (DMF), parts of @SYSCOM@ must reside on the system volume.
- WSNEDIT allows a user to set two priorities for one 15-minute window. The system does not provide a message to the user when this occurs. If it occurs, PDS goes into an endless loop and will not deliver mail when activated.
- If you are upgrading to specific releases of VS Terminal Emulation (VSTE) and/or WSN File Transfer Manager, you may have to perform a load and installation with Netcore (WSN Standard Components). Otherwise, the Netcore installation program must be run three times to install each product. Refer to the customer software release notice for Wang OFFICE VS OFFICE Release 2.05 for the specific applicable release numbers.
- Before WSNEDIT is run on the production COMMMFIG file, install the X.25 code if needed, then run WSNEDIT to convert the COMMMFIG file to the new format.
- If any mail is to be sent between systems, Store and Forward must be set to YES in WSNEDIT.

Directory Services

Be aware of the following when Directory Services is being installed on your system:

- Each user has two separate records, a local and remote record, of 350 bytes each. The network-sensitive record is stored in WISCII. The local record is stored in WASCII. The directory's use of two records makes synchronization more efficient.
- A distributed user's record requires 700 bytes. A remote user requires only 350 bytes. Each additional user logon requires 150 bytes. Organizations require 100 bytes.
- To ensure that everything in your directory was converted, manually spot check the directory, comparing a printout of the local users before the conversion with a printout of local users after the conversion.
- If the system crashes during conversion, the conversion program reads only the user default information in @WOINFO@ to create the new directory. Thus, if the conversion is cancelled, nothing will have been done to WOINFO. Therefore, there is no need to restore @WOINFO@; just start the directory conversion again.
- Verify that the correct amount of space has been allocated for the directory conversion. The converted directory should occupy one extent.
- Only the first screen of information in the user profile is synchronized throughout the network. It does *not* synchronize the local VS OFFICE information.
- If a directory contains duplicate organization names and a system administrator changes the local (duplicate) organization name, all entries under the duplicate organization name (local and remote) will be changed.

Mail

Be aware of the following facts about mail during a conversion or installation:

- Mail within the TCBUFFER during a conversion is delivered once @WOAMGR@ is reactivated.
- New mail package items are created in ENVLIB on the same volume where @WOAMGR@ resides.

Application Management Utility (AMU)

AMU can be installed before or after OFFICE is installed. However, it must be installed before VS OFFICE menus can be created or modified.

Package Distribution Services (PDS)

Be aware of the following when PDS is being installed on your system:

- Store and Forward windows are set in WSNEDIT, not VS OFFICE.
- Install PDS before installing Wang OFFICE Release 2.05. The library @PDSLIB@ on the PDS tape is restored into the VS OFFICE library, and the library @SYSCOM@ on the PDS tape is restored into library @SYSCOM@. @WOAMGR@ is included in both PDS and VS OFFICE software because it is required for both PDS and VS OFFICE. Use the @WOAMGR@ included with VS OFFICE, and not the @WOAMGR@ included with PDS. VS OFFICE can be installed without PDS, and PDS can be installed without VS OFFICE, if PDS is using NTM.

VS OFFICE

Be aware of the following when VS OFFICE is being installed on your system:

- Do not change any of the VS OFFICE volume names because @WOINFO@ points to specific ENVLIBs on specific volumes.
- Do not move any ENVLIB files. They may be on more than one volume.
- VS OFFICE programs in the OFFICE library may be installed on a volume other than the volume where the library currently resides. Normally, the software is restored to the same volume on which it resides. However, with caution, the software can be located elsewhere if needed.
- A VS OFFICE file conversion involves an extensive file cleanup process. VS OFFICE verifies that every piece of mail, calendar, reminder, phonebook, etc., is verified to belong to an active, valid OFFICE user. If an item does not belong to an active user, the data is not converted and is deleted. The processing time varies for this conversion. It depends on the amount of mail and OFFICE activity of the system. File conversion takes approximately five minutes per 1,000 records.
- When @WOINFO@ is converted, it creates the log file CNVLOG1 in library CNVTST. Examine the contents of CNVLOG1 for conversion information. The log identifies items that did not convert, and lists deleted user data that has been removed from the @WOINFO@ file.

- If more than 500 errors are encountered during the conversion of @WOINFO@, the program terminates. The error message “Too many errors” is written to the log file (CNVLOG1).
- The file CNWOFIL contains information from the first conversion and is recreated to contain information from the second conversion. You must manually delete the first copy before trying the conversion again.

PACE/OFFICE Indexer

Be aware of the following information when installing PACE/OFFICE Indexer.

- It is extremely important that you verify that OFFICE Indexer resides *alone* on the tape or disk from which it is installed.
- Pace does not have to be installed to run OFFICE Indexer and MemoryBase. These two products contain the necessary PACE runtime files. The PACE runtime files must reside on the system volume.
- If you install OFFICE Indexer, you must set the DMS/TX option in GENEDIT to YES before installing OFFICE Indexer. Failure to do so produces an error during the installation that ultimately results in OFFICE Indexer’s not working properly. If this occurs, set the DMS/TX option to YES and install again.
- The OFFICE Indexer initial document Words in Text (WIT) takes approximately four to seven seconds per page to create. A system with 2,000 documents with an average of five pages per document will take approximately 14 hours for the initial creation to be completed.

Chapter 9 POST-INSTALLATION

MAINTENANCE

Proper maintenance of your VS OFFICE system should become an important and routine part of your administrative functions. The following is a list of some of those maintenance considerations.

Refer to the *VS OFFICE Administrator's Guide, Release 2.05*, for detailed information about maintenance.

Daily Procedures

The following system maintenance procedures should be performed on a daily basis:

- Perform an Initial Program Load (IPL) with the correct date and time. If this is not done, scheduling, CNS and DMF log files, and the housekeeping purge may be affected.
- Terminate Wang OFFICE Store and Forward and Directory Services background tasks, and then reorganize the Wang OFFICE VS Directory and the Directory Services Synchronization File (WSNREORG). WSNREORG is a standard, Wang-supplied procedure.
- Be aware of any OFFICE broadcast messages received from remote systems.
- Monitor conference rooms and equipment listed in the directory on a daily basis to expedite calendar scheduling.
- Monitor the status of systems for which you are responsible.

You may want to run the housekeeping utility on a daily basis for wastebaskets only. This will help provide additional disk space.

Weekly Procedures

The following system maintenance procedures should be performed on a weekly basis:

- Run OFFICE housekeeping and generate purge reports.
- Perform a complete system backup *at least* once a week. Perform them more frequently if possible.

- Run WSNSTOP, then run COPY with REORG on @WOINFO@. WSNSTOP is a standard, Wang-supplied procedure.

It is strongly suggested that you have a backup of @WOINFO@ and space for the work copy of @WOINFO@ during this procedure.

- Delete or archive the phone log.

Periodic Maintenance Duties

The following system maintenance procedures should be performed on a periodic basis or whenever they seem necessary:

- Confer with the VS security administrator and assign the appropriate mail-protection class for VS OFFICE files.
- Set and follow a housekeeping schedule for purging old records from the database.
- Control background tasks.
- Control receiver tasks.
- Reassign or reorganize library and volume names or locations through the Control File.
- Define Auto Include recipients.
- Manage freeform addressing options.
- Check audit trails for patterns of system usage.
- Add PROFS and DISOSS options to VS OFFICE menus.

Post-Installation Recommendations

The following post-installation recommendations will help your system operate more efficiently. Refer to the *VS OFFICE Administrator's Guide* for detailed information about these recommendations.

- Ensure that AMU is properly installed on the system. Portions of the AMU Runtime system are statically linked to VS OFFICE. You can run OFFICE menus without having AMU on the system, but if you want to modify existing menus or create new ones, the AMU Runtime and Maintenance systems must be installed on your system.
- Until you are thoroughly familiar with AMU menu creation and PF key-driven menus, use the cursor style menus.
- Do not modify the menus supplied with the software. Rather, make copies of these menus and modify the copies.
- A simple way to improve performance on your VS system is to keep disks uncluttered by deleting outdated records. This is easily done through the Housekeeping function of VS OFFICE, in which outdated mail, calendars, confirmations, reminders, and correspondence log files are periodically purged from the database. This ensures that the WOINFO file is free of data not being used.

Appendix A

INSTALLATION PLANNING WORKSHEETS

The worksheets in this section should be used to supplement the information in Chapters 4 and 5. They are designed to aid you in completing planning tasks. Feel free to modify any worksheet to make it more useful for your type of installation.

This appendix contains the following worksheets:

Worksheet 1. Checklist of Installation Planning Tasks

Worksheet 2. Area Topology Information

Worksheet 3. User Survey

Worksheet 4. Directory Information – Organizations

Worksheet 5. Directory Information – Users

Worksheet 6. Directory Information – Logon Information 1

Worksheet 7. Directory Information – Logon Information 2

Worksheet 8. Directory Information – Administrative Information

Worksheet 9. Directory Information – Wang OFFICE Info 1

Worksheet 10. Directory Information – Wang OFFICE Info 2

Worksheet 11. Directory Information – Electronic Approval

Worksheet 12. Directory Information – Wang OFFICE Info 3

Worksheet 13. Directory Information – Wang OFFICE Info 4

Worksheet 14. Directory Information – Housekeeping

Worksheet 15. Asynchronous Traveling User

Worksheet 16. Files, Libraries, and Volumes

Worksheet 17. OIS/Alliance Link Definitions

Worksheet 18. System Information for OIS/Alliance Batch Schedules

Worksheet 19. OIS/Alliance Periodic Batch Schedules

Worksheet 20. OIS/Alliance Receiver Tasks

- Obtain the documentation you and your users will need.
- Identify and meet with the people who are responsible for the planning and management of your network, including a backup administrator whom you appoint.
- Review the network topology planned by the network administrator. Users must obtain a diagram of the network.
- Complete the Area Topology Information Worksheet (Worksheet 2).
- Order and install the hardware and software necessary for network communications. Obtain configuration information for physical links, network transports, and network services.
- Arrange for any physical site requirements, such as electrical outlets or telephone lines.
- Make sure that your system configuration can support Wang OFFICE software.
- Assess the need for support of an OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE connection, an OIS or Alliance MAILWAY connection, conversion of a VS MAILWAY System to Wang OFFICE, coexistence of MAILWAY with VS OFFICE on your system, or remote OIS or Alliance users via VS Terminal Emulation and Enhanced Logon.
- Complete the required Wang OFFICE training for administrators.
- Survey prospective users to determine their need for Wang OFFICE applications and training.
- If your system is an end point system, determine whether its directory is to be a full or Transmit-Only directory.
- Determine whether your site needs to maintain a calendar for conference rooms, pieces of equipment, or other facilities.
- Analyze the organizational structure at your site to determine whether you need to add any new organizations beyond those already defined in the network directory. Organization names are usually and most efficiently administered from a central network site. If you do not know the latest organization names, wait for a synchronization download before adding any organizations to avoid duplicate names.
- Plan and gather information for user records in the directory.
- Determine if any other profile attributes must be added to users' profiles through the Profile Builder.
- Check with administrators about other VS OFFICE systems to determine the need to assign local logon IDs to remote VS OFFICE users. If users on your system need local logon IDs on remote VS OFFICE systems, notify the administrators of those systems.
- If your VS OFFICE system supports Enhanced Logon from an OIS, Alliance, or VS through VS Terminal Emulation, determine what directory records you must create to support OIS, Alliance, or VS users of Enhanced Logon.

(continued)

- If your VS OFFICE system supports a connection to an OIS OFFICE, Alliance OFFICE, or WP Plus OFFICE system, determine what directory records you must create to support these users for both Wang OFFICE Mail and VS Terminal Emulation.
- If your VS OFFICE system supports a connection to an OIS or Alliance MAILWAY system, define receiver tasks to support unsolicited inbound bisynchronous communications.
- If you are converting a VS MAILWAY system to VS OFFICE, determine what tasks must be completed to prepare the MAILWAY Center Point directory for conversion to a Wang OFFICE directory, and to prepare users for the transition.
- If you are preparing for VS OFFICE to coexist with MAILWAY software on your system, determine what tasks must be completed to prepare the MAILWAY directory for conversion, and to prepare users for the coexistence.
- If your VS OFFICE system supports a DISOSS or PROFS Gateway, determine which users on those systems need a Wang OFFICE user record and which OFFICE users need a DISOSS or PROFS ID.
- Determine users' needs for Multi-Station windows and logons.
- Coordinate AMU security access with the VS administrator to ensure that a unique security class is assigned to the AMUEDIT file to prevent unauthorized access to the AMU customization facility.
- Qualify users who want access to AMU menu customization, confirming that they fully understand AMU operation and its potential impact on OFFICE menus.
- Perform a complete system backup before the installation. Refer to the *VS OFFICE Customer Software Release Notice* for minimum requirements.
- Determine whether Auto Include should be installed and added to the Administrative Functions menu through AMU, and define who will be Auto Include recipients.
- Determine users' need to access API software for application programming.
- Determine the need to reconfigure Segment 2 address space.
- Plan file-protection classes, libraries, and volumes for Wang OFFICE software.

Area ID _____ System ID _____ System Name _____

I. General Information

Please print the following information:

Full Name: _____
(First) (Middle) (Last)

Display Name: _____
(Name as it appears in the directory)

Nicknames: _____

Department/
Organization: _____

Location: _____ (Building)
_____ (Floor, Room) _____ (Mailstop)

Telephone: _____ (Phone 1) _____ (Phone 2)

Job Title: _____
Job Description: _____

II. VS Information

Please answer the questions that apply to you.

1. Are you a current VS user? ___ Yes ___ No
2. If you are a current VS user, supply your logon ID and password. (If you have more than one logon and password, please indicate each one here.)

Logon ID	Password
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(continued)

3. If you are *not* a VS user, an administrator will assign you a 3-character logon ID. You also need to select a password. A password can use any uppercase letter from A to Z, or any number between 0 and 9. It can be no longer than eight characters. Please supply a password in the spaces provided.

Password: _ _ _ _ _

4. If you are a current VS user, supply the file constants you are currently using below.

Input Files:	INLIB	_____	INVOL	_____
Output Files:	OUTLIB	_____	OUTVOL	_____
User Programs:	RUNLIB	_____	RUNVOL	_____
Work Files:			WORKVOL	_____
Spooled Print Files	SPOOLLIB	_____	SPOOLVOL	_____

5. If you need a logon ID on any VS system other than your local system, indicate the name and location of the system.

Name _____ Location _____

6. If you need to access VS OFFICE from an asynchronous scroll-mode terminal, indicate the terminal manufacturer and model name (and complete Worksheet 10).

Manufacturer _____ Model _____
Name/Number

7. Will you need access to Multi-Station Windows and Logons? Yes No
Number of Windows

III. Training Information

If you would like training on the VS, please check the type of training you need and the times you are available for training.

Training Needed

VS OFFICE Printers Data Processing
 Word Processing WP Plus

Time Available: Monday Tuesday Wednesday Thursday Friday

9:00 - 10:00	___	___	___	___	___
10:00 - 11:00	___	___	___	___	___
11:00 - 12:00	___	___	___	___	___
1:00 - 2:00	___	___	___	___	___
2:00 - 3:00	___	___	___	___	___
3:00 - 4:00	___	___	___	___	___

DIRECTORY INFORMATION – USERS

Worksheet 5

Area ID _____ System ID _____ System Name _____

Full Name (all caps) _____
(First) (Middle) (Last)

Display Name _____
(Enter name as displayed in the directory.)

Organization (all caps) _____

Location _____

User Information (Check one) Local-Only Distributed

User Type (Check one)

<input type="checkbox"/> Person	Job Description	_____
	First Name	_____
	Middle Name	_____
	Alias	_____
	Other	_____
<input type="checkbox"/> Conference Rm	Location	_____
	Capacity	_____
<input type="checkbox"/> Equipment	Control Number	_____
	Serial Number	_____

Logon IDs _____

Telephone(s) 1. _____ 2. _____

Calendar Scheduling (yes/no)

DIRECTORY INFORMATION – LOGON INFORMATION 1 Worksheet 6

Wang OFFICE Default Values for User _____
(Name)

Wang OFFICE Logon Information:

Start Menu	_____	User Modifiable	(Y/N)? ___
Logon Procedure	File _____	User Modifiable	(Y/N)? ___
	Library _____	User Modifiable	(Y/N)? ___
	Volume _____	User Modifiable	(Y/N)? ___
Logoff Procedure	File _____	User Modifiable	(Y/N)? ___
	Library _____	User Modifiable	(Y/N)? ___
	Volume _____	User Modifiable	(Y/N)? ___

Printer Information:

Print Mode	Spool _____	User Modifiable	(Y/N)? ___
	Hold _____	User Modifiable	(Y/N)? ___
	Keep _____	User Modifiable	(Y/N)? ___
	Online _____	User Modifiable	(Y/N)? ___
Print Class (A through Z)	_____	User Modifiable	(Y/N)? ___
Print Form # (000 through 254)	_____	User Modifiable	(Y/N)? ___
Printer # (000 through 999)	_____	User Modifiable	(Y/N)? ___
Lines Per Printed Page (16 through 255)	_____	User Modifiable	(Y/N)? ___

DIRECTORY INFORMATION – LOGON INFORMATION 2 Worksheet 7

Wang OFFICE File Location Information for User _____
(Name)

File Location Information

Input Files:	INLIB	_____	User Modifiable	(Y/N)? ___
	INVOL	_____	User Modifiable	(Y/N)? ___
Output Files:	OUTLIB	_____	User Modifiable	(Y/N)? ___
	OUTVOL	_____	User Modifiable	(Y/N)? ___
User Programs:	RUNLIB	_____	User Modifiable	(Y/N)? ___
	RUNVOL	_____	User Modifiable	(Y/N)? ___
Work Files:	WORKVOL	_____	User Modifiable	(Y/N)? ___
Spooled Print Files:	SPOOLLIB	_____	User Modifiable	(Y/N)? ___
	SPOOLVOL	_____	User Modifiable	(Y/N)? ___
Remote Spool System:	SPOOLSYS	_____	User Modifiable	(Y/N)? ___

File Protection Information:

Print Files:	___ No	___ Yes	User Modifiable	(Y/N)? ___
			If Yes, (\$, #, @, blank, or A-Z)	
Other Files:	___ No	___ Yes	User Modifiable	(Y/N)? ___
			If Yes, (\$, #, @, blank, or A-Z)	

DIRECTORY INFORMATION – ADMINISTRATIVE INFORMATION

Worksheet 8

Administrative Information for User _____

(Name)

Special Rights for Wang OFFICE:

Menu Customization Yes ___ No ___

VS OFFICE Screens File _____

Priority Threshold Low ___ Normal ___ High ___ Immediate ___

Query Remote Systems Yes ___ No ___

Traveling User Access Yes ___ No ___

Administrative Rights For:

Directory Services Yes ___ No ___

Wang OFFICE Yes ___ No ___

Network Services Yes ___ No ___

DIRECTORY INFORMATION — WANG OFFICE INFO 1 Worksheet 9

Wang Mail Information for User _____ (Name)

MAILBOX TYPE (check one):

Interactive

Printer

Narrow Print Mode Spool Hold Keep
 Narrow Print Class (A through Z)
 Narrow Forms Number (000 through 254)
 Wide Print Mode Spool Hold Keep
 Wide Print Class (A through Z)
 Wide Forms Number (000 through 254)
 Spool System _____
 Print General Limited Confidential

Interactive and Printer

Narrow Print Mode Spool Hold Keep
 Narrow Print Class (A through Z)
 Narrow Forms Number (000 through 254)
 Wide Print Mode Spool Hold Keep
 Wide Print Class (A through Z)
 Wide Forms Number (000 through 254)
 Spool System _____
 Print General Limited Confidential

Application

Application Name _____
 Application User ID _____
 Application Reference Info _____

OIS/Alliance

System Name _____
 Personal ID _____
 Personal Password _____
 Designate ID _____
 Designate Password _____

DIRECTORY INFORMATION — WANG OFFICE INFO 2 Worksheet 10

Wang OFFICE Information for User _____
(Name)

Mailbox Options:

Automatic Acknowledgment Yes No User Modifiable? (Y/N)

Mail Class Options:

Delivery Confirmation Yes No User Modifiable? (Y/N)

If Yes (optional):

 Certify Yes No User Modifiable? (Y/N)

 Acknowledge Yes No User Modifiable? (Y/N)

Security General User Modifiable? (Y/N)

Limited

Confidential

Priority Low User Modifiable? (Y/N)

Normal

High

Immediate

Calendar Options:

Automatic Calendar Update Yes No User Modifiable? (Y/N)

DIRECTORY INFORMATION — ELECTRONIC APPROVAL

Worksheet 11

Electronic Approval Information for User _____
(Name)

Electronic Approval Default Values:

Voting Options (Check one):

No decision required _____

Accept or reject _____

Accept, reject, or abstain _____

If rejected (Check one):

Continue routing _____

Return to originator _____

Allow recipient to continue
or return to originator _____

Allow recipients to edit route list _____ Yes _____ No

Print Information for User _____
(Name)

Options for Printed Output:

Prompt for output format Yes No User Modifiable (Y/N)?

Default output format VS printer file User Modifiable (Y/N)?
 WP Plus
 WP

Print distribution with mail Yes No User Modifiable (Y/N)?

Word Processing Output Options/Default Values

Disposition Spool to Printer User Modifiable (Y/N)?
 Print/Keep
 Keep

WP Plus Library _____ User Modifiable (Y/N)?

WP Plus Print Route _____ User Modifiable (Y/N)?

WP Library _____ User Modifiable (Y/N)?

WP Volume _____ User Modifiable (Y/N)?

DIRECTORY INFORMATION – WANG OFFICE INFO 4 Worksheet 13

Image Print Information for User _____
(Name)

Image Print File Location Information:

Spool Library	_____	User Modifiable	(Y/N)? ___
Spool Volume	_____	User Modifiable	(Y/N)? ___
Spool System	_____	User Modifiable	(Y/N)? ___

Printer Information:

Print Mode	<input type="checkbox"/> Spool <input type="checkbox"/> Hold <input type="checkbox"/> Keep	User Modifiable	(Y/N)? ___
Print Class (A through Z)	_____	User Modifiable	(Y/N)? ___
Print Form # (000 through 254)	_____	User Modifiable	(Y/N)? ___
Printer # (000 through 999)	_____	User Modifiable	(Y/N)? ___
		User Modifiable	(Y/N)? ___

Print Image File Protection Information:

Yes
 If Yes (\$, #, @, blank, A-Z)
 No

Housekeeping Information for User _____
(Name)

Data Retention Periods :

Specify 1 to 365 days, or 999 to keep indefinitely.

Keep Items in Mailbox	___ days.	User Modifiable	(Y/N)? ___
Keep Items in Other Folders	___ days.	User Modifiable	(Y/N)? ___
Keep Confirmations	___ days.	User Modifiable	(Y/N)? ___
Keep Calendars	___ days.	User Modifiable	(Y/N)? ___
Keep Reminders	___ days.	User Modifiable	(Y/N)? ___
Keep Correspondence	___ days.	User Modifiable	(Y/N)? ___

User Name _____

User Organization _____

Logon ID _____

Asynch Password _____

Name and type of terminal _____

Model number of modem _____

Name of task* _____

Job Class _____

Name of connection _____

DLP _____ Baud _____

Duplex _____ Parity _____

Databits _____ Stopbits _____

Echo _____ Width _____

Auto Line Feed (yes or no) _____ Character Set _____

Terminal Expects:

End-of-Line Character _____

End-of-File Character _____

Terminal Sends:

End-of-Line Character _____

End-of-File Character _____

*GAI tasks can handle up to six connections.

Each Traveling User will have one DLP connection (unique).

Area ID _____ System ID _____ System Name _____

Libraries, Volumes, and Security for Installed Software :

<u>Software</u>	<u>Install on Volume</u>	<u>As Library</u>
Directory Services	_____	_____ (default = @SYSDIR@)
WSN Netcore	_____	<u>@SYSCOM@</u>
VS OFFICE	_____	_____
Application Management Utility	_____	_____

Configuration and Communications Files and Volumes :

<u>Type</u>	<u>Volume</u>	<u>File Name</u>
Configuration File	_____	_____
Communications File	_____	_____

Installation Parameters for @WOINFO@ File :

File-Protection Class _____
Record Allocation _____ (default = 1000)

OIS/ALLIANCE LINK DEFINITIONS

Worksheet 17

Wang OFFICE System Name _____ System ID _____ Area ID _____

OIS/Alliance System Name _____

Link Name _____

Transport type _____ WPS _____ FTM

If WPS:

Number of Retries _____

Wait Between Retries _____ min. _____ sec.

Port Number _____

Type of Line

_____ Dial

If Dial:

Automatic Calling Unit:

_____ 801C

_____ 801C 1 1/2

_____ V25

_____ VADIC

If VADIC:

_____ Modem Address

_____ VADIC Address

_____ Lease

_____ Null

If Null,

Speed:

_____ 2400

_____ 4800

_____ 9600

SYSTEM INFORMATION FOR OIS/ALLIANCE BATCH SCHEDULES

Wang OFFICE System Name _____ System ID _____ Area ID _____

For all schedules:

OIS/Alliance System Name _____

System Link _____

System Type ___ OIS
 ___ Alliance

Destination _____

For FTM linked single or periodic session schedules only:

Indicate which priorities are processed immediately:

Immediate	(0)	___ Yes	___ No
High	(1)	___ Yes	___ No
Normal	(2)	___ Yes	___ No
Low	(3)	___ Yes	___ No

For WPS linked single or periodic session schedules only:

Job Class (A-Z) _____
Line Wait _____ (MM SS)
Terminal ID _____
Maximum Attempts _____ (00-00)
Telephone 1 (Dial only) _____
Telephone 2 (Dial only) _____
Immediate Scheduling ___ Yes ___ No
Immediate Window _____ (HH MM)

For FTM or WPS linked single session schedules only:

Day: Monday ___
 Tuesday ___
 Wednesday ___
 Thursday ___
 Friday ___
 Saturday ___
 Sunday ___

Time: ___ ___ (HH MM)

Priority: ___ (0-4 or A)

OIS/ALLIANCE RECEIVER TASKS

Worksheet 20

Wang OFFICE System Name _____ System ID _____ Area ID _____

<u>Port</u>	<u>Job Class</u>	<u>Line Type</u>			
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	
___	(A - Z)	Dial	Leased	Null	

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Appendix B

DIRECTORY SYNCHRONIZATION

INTRODUCTION

The directory synchronization program DIRSYNC updates directory record information on every VS OFFICE system in order to ensure a consistent, accurate, network-wide database for the delivery of Wang OFFICE mail. Any addition of a distributed user or organization record, change to the synchronized information of a record, or deletion of a record constitutes an update to the directory. Such an update sends a request for synchronization to the DIRSYNC program.

The DIRSYNC program checks the following types of information during the synchronization process:

- User information for individual users in the directory — names, logon ID(s), and organizations
- Administrative access rights for individual users

Each system in the network, regardless of whether it is an NCC, an ACC, or an endpoint, defines how frequently it will call a synchronization session. Frequency controls are recognized by the local system only when a synchronization request is made locally.

HOW DIRECTORY SYNCHRONIZATION WORKS

The following steps occur during a synchronization operation started by a request from a local Wang OFFICE system:

1. A directory update triggers a request at the local VS to begin the synchronization process.
2. DIRSYNC checks the system ID and the area ID.
3. DIRSYNC verifies whether the VS is an Area Control Center or a Network Control Center. With these verifications complete, the following processes occur:

Valid Network Control Center — All Area Control Center names and IDs are loaded into a network table for that system (work file). Next, all the system names and IDs within the areas are loaded into the same table.

Valid Area Control Center – The Network Control Center name and ID are loaded into the network table for that system. Next, the system names and IDs within that area are loaded into the same table.

Valid System – The Area Control Center name and ID are loaded into the network table for that system.

4. DIRSYNC issues an “open” request with a wait-for-application flag set to Y to synchronize with each system entered in the network table. Each system is contacted in the order entered on the table, and each system that is successfully contacted is flagged.
5. DIRSYNC automatically purges the flagged systems after each system has been tried in order.
6. DIRSYNC performs Steps 4 and 5 one more time.
7. After the second pass, DIRSYNC detaches from the network automatically, whether or not all systems have been flagged.

The following steps occur when DIRSYNC is started from a remote application:

1. Control information is exchanged: the requesting system identifies itself according to its system’s area and/or system names and IDs; the answering system identifies itself in the same way.
2. The requesting system controls DIRSYNC and sends the first record update.
3. The receiving system updates the record and sends back an acknowledgement.
4. Steps 2 and 3 continue for each record.
5. When all data is received from the sending system, DIRSYNC control is passed to the receiving system.
6. The receiving system sends all updated records back to the requesting system.
7. Once the data has been passed to the requesting system, the two systems disconnect from each other and synchronize with those systems remaining in their network tables.

DIRECTORY SYNCHRONIZATION AND TRANSMIT-ONLY DIRECTORIES

When an endpoint system has a Transmit-Only directory and is engaged in a synchronization session with an ACC, the endpoint can transmit synchronization data to the ACC, but cannot accept synchronization data from the ACC.

Directory synchronization between an ACC and an endpoint requires that

- The endpoint has Wang OFFICE Release 2.05 or greater installed.
- Both the endpoint system and its ACC have DIRSYNC installed. Refer to the *Wang OFFICE VS OFFICE Release 2.05 Customer Software Release Notice* for the appropriate DIRSYNC release number.

The following process occurs when directory synchronization occurs with a system with a Transmit-Only directory.

1. A Transmit-Only endpoint system must initiate a synchronization session with the ACC in order to transmit synchronization data.
2. As the synchronization session is established, the endpoint system indicates to the ACC that it is a Transmit-Only system in the Open Session Accept or Open Session Request mode.
3. The ACC sets the Transmit-Only field in the remote Synchronization Control to Y.
4. The ACC sets the Sidekey field in Synchronization Control for the endpoint to high values (all hexadecimal FF). Consequently, the ACC does not transmit synchronization data to the endpoint until it learns that the endpoint is once again a normal transmit/receive system.
5. The ACC builds its outbound destination table.
6. The Transmit-Only field of the endpoint's Synchronization Control record is set to Y.
7. The Connect Flag field in the endpoint's table entry is set to Y when the table is built. Consequently, no outbound session is attempted with the endpoint. If a SYNCMNT trace is turned ON on the ACC, the table entry for the endpoint notes it as a Transmit-Only endpoint.
8. If a Transmit-Only endpoint receives the first command after a synchronization session is established from an ACC with a DIRSYNC Release level less than Release 2.05.00, the endpoint terminates the session without transmitting any records to the ACC. If the SYNCMNT trace was turned ON on the endpoint when this occurred, the trace contains the message XMIT ONLY REQUIRES ACC 2.05 DS.
9. In an Open Session Request, if the endpoint indicates to the ACC that it is once again in a normal transmit/receive system, the ACC
 - Updates the Transmit Only field to N
 - Sets the Sidekey field for the remote system to the current date and time followed by low values (binary zeroes)
 - Performs a directory download to the endpoint
 - Requests an upload from the endpoint

Transmit-Only Directories and Xmtferry

If a Transmit-Only directory user wants to send mail to a remote user without using the freeform addressing feature, the remote user must be entered in the Transmit-Only directory. Since a Transmit-Only directory synchronizes its user data to the rest of the network, but does not synchronize user data from the rest of the network, the remote user's data has to be transferred from the ACC to the Transmit-Only directory. If the organization to which the remote user belongs is not listed in the Transmit-Only directory, you must enter the organization in the Transmit-Only directory as well. You use the directory Xmtferry tool to enter remote Wang OFFICE users and organizations into a Transmit-Only directory.

The requirements for using the Xmtferry tool are as follows:

- Directory Services Version 2.05.00 or greater must already be installed on both the remote system (ACC) and the Transmit-Only endpoint system.
- Xmtferry must reside in the run library for Directory Services and must be run by a directory administrator.
- The application Xmtferry must be on the Transmit-Only system. When adding the Xmtferry application, the Mail Action selection on the Add Application screen must be set to Initiate, and the Delivery/Acknowledgment Notification selection must be set to No. The application's mailbox will receive the file sent from the ACC that includes all of the network person records to be added to the Transmit-Only system.

Xmtferry Functions and Administrative Responsibilities

The directory maintenance process is a cooperative effort by both the ACC and Transmit-Only system administrators and involves three basic procedures executed by way of the Xmtferry tool:

1. Select users and organizations from the source directory (ACC) who are to be added to, modified, or deleted from the destination (Transmit-Only) directory. This is the responsibility of the source directory administrator.
2. Physically transfer information as an update file from the source system to the destination system. This is the responsibility of the source administrator.
3. Add, modify, or delete the selected users and organizations in the destination directory. This is the responsibility of the destination directory administrator. The destination administrator may review and selectively allow or disallow any of the directory maintenance requests made by the source administrator.

Refer to the *VS OFFICE Administrator's Guide* for detailed procedures about the Xmtferry tool.

MULTI-SYNC

Multi-Sync allows ten DIRSYNC background tasks to run simultaneously on either the NCC or one or more ACCs. Multi-Sync is a Wang analyst's tool and should be used only by an analyst. If you feel you might need Multi-Sync, consult your Wang analyst. The following considerations may help you determine whether you need Multi-Sync.

- Multi-Sync is intended to decrease the total elapsed time necessary to synchronize directory data across systems within the network. If the total current network synchronization time is acceptable, the Multi-Sync feature is not recommended.
- An increase in synchronization time often occurs when an NCC or ACC has a large number of subordinate systems to which they must transmit data. When this is the case, it is recommended that Multi-Sync be implemented on systems with the greatest number of synchronization nodes. That is, if the network consists of only a few ACCs, each with a large number of endpoints, Multi-Sync should be implemented on each ACC rather than on the NCC. Conversely, if the network consists of a large number of ACCs, but each ACC has only a small number of endpoints, Multi-Sync should be implemented on the NCC.

- Synchronizing large amounts of data to a medium number of subordinate nodes may result in a synchronization time increase. Thus, Multi-Sync may be appropriate for systems that transmit or receive consistently large amounts of synchronization data.
- Each additional execution of Directory Synchronization requires a background task. Since it is possible that all Directory Synchronization tasks could be executing simultaneously, the availability of system background tasks, and the desirability of assigning these tasks to synchronization, should be kept in mind when configuring the number of Multi-Syncs.
- The number of Directory Synchronization tasks being executed does not necessarily correspond to a proportional synchronization time decrease. For example, while two simultaneously executing Directory Synchronization tasks may allow a synchronization cycle to complete twice as quickly, three tasks may only allow the cycle to complete 2.5 times as quickly. System performance may even be impacted by an excessive number of multiple Directory Synchronizations.
- Multi-Sync should not be implemented on both the NCC and the ACCs. If both systems have been configured for Multi-Sync, the synchronization session is terminated immediately.
- Multi-Sync requires that SYNCMNT is installed and that DIRSYNC is installed.

MANUALLY INITIATING A DIRECTORY SYNCHRONIZATION SESSION

It may sometimes be necessary to manually initiate a directory synchronization session. This is done by one of the following three procedures.

Procedure 1

Submit the \$SYNDIR\$ procedure to the background. \$SYNDIR\$ is in library @SYSTEM@ on the IPL volume. This does not initiate an immediate Directory Synchronization cycle, but does initiate a synchronization session according to the synchronization frequency set in the Network Directory File.

Procedure 2

Submit the \$SYNDIR\$ to the background through the program SYNCMNT. Doing this immediately initiates a Directory Synchronization cycle, with no verification made of the synchronization frequency set in the Network Directory File.

Procedure 3

Run the DIRSYNC program as a foreground task. DIRSYNC is located in the @SYSDIR@ library. This does not initiate an immediate Directory Synchronization cycle, but initiates a synchronization session according to the synchronization frequency set in the Network Directory File.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific procedures for recording transactions. It details the steps involved in the accounting cycle, from identifying the transaction to posting it to the appropriate ledger account. It also discusses the importance of double-checking entries to ensure accuracy.

3. The third part of the document addresses the role of internal controls in preventing errors and fraud. It describes various control mechanisms, such as segregation of duties, authorization requirements, and regular reconciliations, and explains how they contribute to the overall reliability of the financial reporting process.

4. The fourth part of the document discusses the importance of transparency and communication in financial reporting. It highlights the need for clear and concise reporting, as well as the importance of providing timely information to stakeholders to support their decision-making.

5. The fifth part of the document concludes by summarizing the key points discussed and reiterating the importance of adherence to these principles for the success of any organization's financial operations.

6. The final part of the document provides a list of references and resources for further study on the topics discussed, including textbooks, articles, and online resources.

Appendix C GLOSSARY

Activity Manager

A Package Distribution Services and VS OFFICE component that validates file and document names submitted in mail transfer requests, assigns final storage for received mail, and retrieves files and documents for placement on the Store and Forward outbound queue.

Application Management Utility (AMU)

A facility that allows users to tailor VS OFFICE menus to their needs and provides menu security. The sequence of items on the menus can be changed, application names can be added, and menu items can be added, deleted, or renamed. Users can also design their own menus without programming or recompilation. The administrator must grant users rights to modify menus.

Application Program Interface (API)

A set of subroutines that allows Wang OFFICE users to create their own applications to interface with VS OFFICE facilities.

area

A logical grouping of systems (also called nodes) that is maintained and controlled from an Area Control Center (ACC).

area address

A unique name and numeric ID that identifies an area.

Area Control Center (ACC)

The VS system that controls the area's circulation of synchronization data (directory updates). Only one system per area is designated as the ACC.

audit trails

A function that tracks the routing of mail being sent and received between a network's systems.

Auto Include

A function that allows 100 designated users, distribution lists, or organizations to receive each piece of mail sent from your VS system. Auto-Include must be installed separately and added to the Administrative Functions menu by way of AMU.

Bulletin Board

A facility that allows users to post notices and to read notices from other users within a single system. The Bulletin Board can be organized in logical categories and subcategories. Access to the Bulletin Board is granted by the VS Administrator.

Calendar

The VS OFFICE function used to create and maintain daily, weekly, or monthly personal calendars with reminder lists.

Communications Network Services (CNS)

A part of WSN Netcore software that provides a common network-access service for all OFFICE applications; establishes, maintains, and terminates communication sessions between systems in the network; and manages the routing of data throughout the network.

Computer-Based Training

Two computer-based training courses, "VS OFFICE" and "VS OFFICE Site Administrator," included with VS OFFICE that cover all OFFICE user and administrative features in detail. They are structured in course units to facilitate first-time use and refresher training. The Computer-Based Training courses are packaged with OFFICE.

CONMAIL

A VS OFFICE Coexistence software utility that converts records for all OIS/Alliance users in a MAILWAY Distribution Center Point directory to a VS OFFICE directory.

correspondence log

A feature that allows users to keep track of paper correspondence by entering a record of who sent it, to whom it was forwarded for action, the date by which you need to follow up, and where it was filed.

directory

A list of names of all areas, systems, and distributed users in the network that makes mail delivery possible. A directory can be either a Full or Transmit-Only directory.

directory administration

A group of functions that enable the Directory Services administrator to create, maintain, and delete user, organization, and applications data in the VS OFFICE directory to keep it current and control each user's profile builder.

Directory Synchronization

The process that is designed to ensure that the network directory file on each system in a CNS network remains in a uniform state. This involves circulating directory changes made on one system to the remaining systems.

DIRSYNC

The directory synchronization program that updates directory record information on every VS OFFICE system in a network in order to ensure a consistent, accurate, network-wide database for the delivery of Wang OFFICE mail.

Distributed Management Facility (DMF)

Software that supports network-wide consolidation of Wang OFFICE Audit Trails and Traffic Summary Reports.

distributed user

A user whose directory user records are synchronized with other systems in the network and are displayed in both their own local directory and remote directories.

distribution center

A VS in each area that receives mail from other areas to distribute within its own area, and receives mail from within its own area to distribute to other areas.

electronic approval

A mail function that allows users to deliver a Route Package sequentially to recipients defined on a Route List. Each recipient is allowed specific voting options on the Route Package contents. Once a recipient's vote is cast, the package is delivered to the next recipient on the Route List.

endpoint system

A system that has only one path available to access all nonadjacent systems.

enhanced logon

The facility that provides document exchange with a remote VS and logon to a remote VS through VS Terminal Emulation (VSTE).

File Transfer Manager (FTM)

A Package Distribution Services component that controls file transfer between the VS and other systems.

folder filing

A feature that allows users to organize mail items and packages into personally created electronic folders.

full directory

A directory that transmits and receives its user information to and from other systems in the network through directory synchronization.

General Asynchronous Interface (GAI)

Software that supports logon to the VS from asynchronous scroll-mode terminals. GAI is a requirement for the Traveling User.

home system

The system where the user's user record is created. A user is a local user on the home system and a remote user on all other systems.

host system

A remote system onto which a user logs in order to access the home system.

info cards

A VS OFFICE function that stores names, addresses, telephone numbers, and other pertinent information about the names entered.

local-area network

A network in which systems are usually, but not necessarily, geographically close to one another, and connected by fixed, physical connections, such as cables.

local-only users

Users whose directory user records appear only on their own VS system. They are not synchronized across the rest of the network and do not appear in directories on the rest of the network.

local users

Users whose records have been entered on their own directories by their own system's directory administrator. Local users can be either Distributed or Local-Only. Local user's records can only be changed by their own system's directory administrator.

local view

Information relevant to a single Wang OFFICE system, including its connections to adjoining systems.

Mail

The VS OFFICE component that allows users to send and receive correspondence, phone messages, IIS documents, WP documents, WP Plus documents, and Charter WP Plus display files across the network.

master directory

The directory installed at the Network Control Center and updated by the network administrator.

Multi-Station interactive windows

A function that enables a single workstation screen to display up to four separate windows. These windows function independently of one another, so that the user has access to interactive VS OFFICE and other VS applications simultaneously.

Multi-Sync

A function that allows ten DIRSYNC background tasks to run simultaneously on either the Network Control Center or one or more Area Control Centers.

network address

A unique area name ID, plus system name and ID that identifies a specific system on a network.

network configuration

The grouping of systems into areas, designation of the Network Control Center and Area Control Centers, and the assignment of unique names and IDs to areas and systems.

Network Control Center (NCC)

The VS that controls the circulation of synchronization data (directory updates). Only one system per network is designated as the NCC.

network information in the directory

Refers to network addresses as provided through WSNEDIT. This information is placed in the directory through CNFGAID and can be passed on to other systems, using the start kit as created in CNFGAID.

network transports

The system-to-system connections, such as WSN Point-to-Point or WSN Wang Band, across the physical links of the Wang OFFICE network.

next hop

A system that is an intermediate stop for mail being delivered to another system.

node

Any system in a network.

OFFICE Indexer

A document indexing facility that allows users to display an index of standard Word Processing documents or WP Plus documents to identify names or document IDs within the Create Package and Send Mail functions.

on-line help text

A function that supplies additional information about VS OFFICE functions displayed on the screen, supplementing the manuals provided with the VS OFFICE software.

organization

A logical category that identifies a group of users in the Wang OFFICE directory.

Package Distribution Services (PDS)

Software that provides the means of allowing mail exchange. PDS is made up of the Activity Manager, File Transfer Manager, and Store and Forward software.

PC/Xmodem Transfer Service

A defacto, widely used asynchronous file transfer protocol for use with 2110 terminal emulation.

receiver task

A background task that allows a VS OFFICE system to support unsolicited, inbound, bisynchronous communications from a remote OIS or Alliance MAILWAY system.

reminder lists

Part of the VS OFFICE calendar function that is used to maintain a user-created list of tasks in order of importance.

remote user

Users whose directory user records have been entered in systems other than your own by their system's directory administrator. Remote user records can only be modified by the directory administrator from their own system.

Route List

A distribution list of recipients for Route Packages. The Route List defines the sequential order that a Route Package is delivered to recipients.

Route Package

The mail item that is sequentially delivered to recipients by the order defined in a Route List.

Schedule a Meeting

A facility that schedules time, location, equipment, and participants for meetings. This facility checks calendar databases to find open times and also sends invitations. Administrators can allow users to schedule meetings with users belonging to remote VS OFFICE Release 2.05 systems in the network, as well as their own local system.

starter kit

Created with CNFGAID through WSNDIRM to help the administrator transport the same network information throughout the network.

Store and Forward priority window

A time range that designates the time during which a network communication session is available for mail of a specified priority. The acceptable priority levels are Immediate, High, Normal, and Low.

Store and Forward software

A Package Distribution Services component that receives and transmits mail items addressed to recipients located on other systems, based on the assigned mail priority.

Transmit-Only directory

A directory on an endpoint system that transmits its user information to other systems in the network, but does not receive user information from other systems in the network by way of directory synchronization.

Traveling User

A feature that allows a user to log on to VS OFFICE from a remote asynchronous terminal to send and read mail and to access distribution lists, calendar/reminders, and folders.

user administration

A facility that lets users customize their VS OFFICE environment within the parameters set by the VS OFFICE and directory administrators.

user profile

A directory record containing a name, organization, location, job description, user ID, and address for each user, as well as parameters used by the local system to define user interaction.

VS OFFICE Directory Services software

Software that supports the maintenance and synchronization of the Wang OFFICE directory.

VS OFFICE software

Software that supports the Mail, Calendar, Info Cards, Folders, Correspondence Log, Bulletin Board, User Administration, and Directory Administration applications of VS OFFICE.

Wang OFFICE/DISOSS Gateway

Software that allows Wang OFFICE users who are also recognized as IBM DISOSS users to transfer Wang Standard Word Processing documents to DISOSS libraries and to retrieve documents in DISOSS libraries and return them to the user's mailbox.

Wang OFFICE/PROFS Gateway

Software that enables communications between VS OFFICE and an IBM VS host running IBM Professional OFFICE System (PROFS) software.

wide-area network

A network in which systems are usually, but not necessarily, geographically separate. Connections between areas in the network are usually not fixed, physical connections, such as cables, but other mediums, such as satellite relay transmissions.

@WOINFO@

The principal Wang OFFICE database that contains local users' mail and calendar information, bulletin board records, single page memos, header records for mail items other than one page memos, confirmation records, link definitions, batch schedule records, user access records, and pointers to the ENVLIB files.

WOMAIN

The system-supplied default menu that allows a user to access VS OFFICE functions.

WSNEDIT

WSN software that allows editing of the communications configuration.

WSNMON

A WSN utility for monitoring and control of the network.

WSN Netcore (WSN Standard Components)

Software that supports the initialization, configuration, and maintenance of a WSN network.

WSN Transports

Allow system-to-system connections across the network. Types of available transports include:

Multipoint - A WSN Transport that supports synchronous communication between multiple systems over dedicated telephone lines.

Point-to-Point - A WSN transport that supports wide-area communication between pairs of Wang systems over dedicated or switched communication lines.

Wang Band - A WSN transport that supports local-area communication across the Wang Band multiple access channel of the WangNet broadband cable.

X.25 - A WSN transport that supports full-duplex, logical connections between Wang systems through public packet-switched data networks (PDNs). Examples of X.25 transports include WangPac, Telenet, and Tymnet.

Xmtferry

A tool that allows directory administrators to enter remote Wang OFFICE users and organizations in a Transmit-Only directory.

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