

The PRO-MAIL[®] System
NT 4.0
Software and Hardware Guidelines

The following information should be provided to your local supplier of hardware and software systems or to your network specialist.

These guidelines outline what is **required** to run the PRO-MAIL[®] System on Windows NT.

The configuration recommendations presented in this document, were put together June 2000, reflecting hardware and software products current for this period in time. It is likely, as new hardware and software products come into the marketplace, you will be able to acquire more powerful equipment for a similar investment. It is important to understand that the products you purchase are ***at least*** as powerful as those sited here.

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The PRO-MAIL System NT 4.0

Software and Hardware Guidelines

Introduction

These guidelines provide an overview of software and hardware requirements and recommendations for running **The PRO-MAIL[®] System.**

In order to address the business requirements of the entire PRO-MAIL[®] System user community (which includes large, small and in-between business environments), **these guidelines provide:**

- minimum requirements needed to run The **PRO-MAIL[®]** System; and
- recommended products; and optional add-ons providing additional features.

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Software

NT 4.0 Server Setup

Software Recommendations

The following software is required to run The **PRO-MAIL** System:

- **Windows NT 4.0** with Service Pack 3

NT 4.0 Services

The following should be included when loading NT 4.0 (make sure you include these options while loading NT 4.0).:

- Dynamic Host Configuration Protocol – DHCP
- Remote Access Service – RAS
- Domain Name Service – DNS
- File Transfer Protocol – FTP
- Transmission Control Protocol / Internet Protocol – TCP/IP

NT 4.0 Installation Notes

The NT Network should have a primary domain server to control the network. You can set up the PRO-MAIL server or use your current primary domain controller to control the Network.

- All network clients should be set up to log onto the NT domain
- FTP Services should be enabled

Windows 95/98 Client Setup

Software

- Windows 95/98 is required
- Internet Explorer 4.0 or greater is required

Recommended, but not required:

- Office 97/2000 (which includes the following components)
 - Word
 - Excel
 - Outlook
- Microsoft Exchange Client

Network Protocols

- TCP/IP
- Client for Microsoft Network
- Set up to Log onto NT Domain

Hardware

Server (System Guidelines)

If you currently have an NT Server

Unidata, the database manager The PRO-MAIL System NT 4.0 runs on top of, does not require a large amount of resources. Therefore, *if you currently have an NT server, Unidata should be able to be installed on it successfully.*

The minimum suggested requirement for a Windows NT Server:

- Pentium 233 Processor or better
- 2 gig disk space available for the PRO-MAIL System
- Approximately 64 ram available for your NT Server, plus 2mb per user

Recommendations for new NT Server - If you are planning to buy a new NT Server for the **PRO-MAIL** System, the following list of three choices, in order of expense (least expensive to most expensive), provide recommendations for three different price ranges. The price range starts at approximately \$4500 for a good basic system to approximately \$9000 for a powerful system.

All three recommendations cited here are products from the Dell Corporation. Additional information for these and other Dell products can be found on the Dell web site (www.dell.com).

Sample #1: Dell PowerEdge 1300 with Pentium III Processor

Under \$3300 - *without NT 4.0*

Under \$4,400 - *with Microsoft Windows Server 4.0 with 10 client licenses*

- 550MHz/512K Cache
- 128 MB RAM, 1DIMM
- 2 Hard Drives, each 9GB Ultra-2/LVD SCSI
- Intel Pro 10 Plus Ethernet Combo Network Card
- 3 Year On-Site Next Business Day Warranty (HSB)
- 24/40GB Internal DDS-4 Tape Backup
- Veritas Backup Exec for NT/NW – Single Server

Hardware

Recommendations for new NT Server, continued

Sample #2: Dell PowerEdge 2400 with Pentium III Processor

Under \$6,100 without NT 4.0

Under \$7,100 with Microsoft Windows NT Server 4.0

- 600MHz, w/256K Cache
- 256MB RAM (2 DIMMS)
- 1X6 Hot Pluggable Backplane
- Primary Controller (for internal hard drives)
PERC 2/SI RAID internal, single channel, 64MB cache (NT & NetWare)
- 3 Hard Drives - each with 9GB Ultra-2/LVD SCSI
- Intel Pro 10+ Combo Ethernet
- 3 Year On-Site Next Business day Warranty (HSB)
- 20/40GB Internal DLT-4000 Tape Backup
- Veritas Backup Exec for NT/NW – Single Server
- 15" Dell M570 monitor

Sample #3a: Dell PowerEdge 2400 with Pentium III Processor

- **Approximately \$8,000 without Small Business Server**
- Dual 600MHz processors, w/256K Cache
- 512MB RAM (4 DIMMS)
- 1X6 Hot Pluggable Backplane
- Primary Controller (for internal hard drives)
PERC 2/SI RAID internal, single channel, 64MB cache (NT & NetWare) 3 Hard Drives - each with 9GB Ultra- 2/LVD SCSI 7200 RPM
- Intel Pro 10+ Combo Ethernet
- Microsoft Windows NT Server 4.0
- 3 Year On-Site Next Business day Warranty (HSB)
- 20/40GB Internal DLT-4000 Tape Backup
- Veritas Backup Exec for NT/NW – Single Server
- 15" Dell M570 monitor

Hardware

Recommendations for new NT Server, continued

Sample #3b: Dell PowerEdge 2400 with Pentium III Processor

Approximately \$9,000 with Small Business Server (an integrated copy of Microsoft BackOffice Small Business Server which **includes NT 4.0**)

- Dual 600MHz processors, w/256K Cache
- 512MB RAM (4 DIMMS)
- 1X6 Hot Pluggable Backplane
- Primary Controller (for internal hard drives)
PERC 2/SI RAID internal, single channel, 64MB cache (NT & NetWare) note: This server includes integrated SCSI controllers. This controller choice allows you to add an additional controller for your internal hard drives.
- 3 Hard Drives - each with 9GB Ultra- 2/LVD SCSI 7200 RPM
- Intel Pro 10+ Combo Ethernet
- Business Care 3 Year (1yr on-site & 2yr parts w/DirectLine (HSB))
- 56K Internal Modem for SBS
- 20/40GB Internal DLT 4000 Tape Backup
- Veritas Backup Exec for NT/NW – Single Server
- 15" Dell M570 monitor

Hardware

Minimum Memory Suggestions

- 64 MB of RAM for the Operating System, **plus**
- 2 MB of RAM for **each** UniData User
- plus, a minimum 2 GB disk space available to the **PRO-MAIL®** System
- Additional memory is needed for other products installed on the system. Refer to product manual for memory requirements

Controller Card Suggestions:

- PCI SCSI Controller depending on your system size and needs (Wide, Fast or Fast-Wide)
- Network Card
- SVGA Video Card

SCSI Hardware Peripheral Suggestions:

- Minimum 2GB of hard drive space
- Quad Speed SCSI CD-ROM (or faster)
- Back-up Device such as a 4mm DAT drive or 1/4" Tape Drive or other backup device

Additional Required Hardware:

- 28.8K modem or better (external suggested)
- Dedicated modem for faxing - if applicable
(List of suggested brands attached)

Additional Suggested Hardware

- Multiple port serial card or board (for connecting shipping workstation or serial printers)

Client PC

Suggested Minimums:

- Network Card
- Super VGA Video Card
- Windows NT **or** Windows 95/98 **or** Windows for Workgroups
- 1 GB Hard Disk (minimum)
- 16 mg RAM
(32 mg RAM if running Microsoft Office)
- Keyboard/Mouse/Monitor

Network Hardware Guidelines

Non-Upgradable

Small Network (Less than 24 network connections)

- 10BASE 2 Ethernet cable (bnc connector)
- 10BASE T/10 BASE 2 Ethernet cards (ne2000 clone)

Upgradable

Small Network (Less than 24 network connections)

- 10BASE T Ethernet hub
- 10BASE T Ethernet cards (ne2000 clone)

Medium Network (25-48 network connections)

- 10BASE T Ethernet switch
- 10BASE T Ethernet cards

Large Network (Greater than 48 connections)

- 100BASE T Ethernet switch
- 100BASE T Ethernet cards

Cabling Requirements for Upgradable Networks

- Unshielded wire
- 8 wire twisted pair
- 24 awg
- Category 5 rating

Communications

Required Hardware: 28.8K modem or better (external suggested)

The NT system **must be configured to run Remote Access Server (RAS) and File Transfer Protocol (FTP).**

RAS is needed in order for Software Marketing to dial into your NT system and access the **PRO-MAIL** software as needed. **DHCP** (Dynamic Host Configuration Protocol) must be set-up for use with RAS. This is needed so that the remote computer will be assigned an IP address when it connects to the server. **FTP** is used to allow Software Marketing to transfer files to the **PRO-MAIL** software on your NT server, as updates are needed.

PC Clients/Communication

Communication between the NT server and Client PC's requires TCP/IP Network Protocol.

The employees in your organization that will be accessing the **PRO-MAIL** software on the NT server need to have a network terminal emulation package on their computer. This program will establish a connection between the user's computer and the NT server.

Suggested Network Terminal Emulation Packages

Three software packages that are suggested for use with the **PRO-MAIL** software are:

1. Netterm

Netterm is a shareware program that can be downloaded from the Internet at <http://starbase.neosoft.com/~zkr01/netterm.html>. It comes in both a 16-bit version for Windows for Workgroups and a 32-bit version for Windows 95. We suggest that the emulation be set to VT220 when accessing the **PRO-MAIL** software. With the VT220 setting Netterm will support slave printing. Registration of Netterm can be done from the Internet site <http://starbase.neosoft.com/~zkr01/order1.html>.

2. Procomm Plus

Procomm Plus is a commercial package which can be purchased at most locations that sell software for personal computers. We recommend that you use the VT220 emulation with Procomm Plus when accessing the **PRO-MAIL** System.

3. Tunemul

Tunemul is a commercial package that can be purchased from a software dealer. We recommend using the Ansi driver when accessing **PRO-MAIL**. Tunemul supports slave printing through the **PRO-MAIL** software.

Printers

Recommended Printers:

- **HP Lasers** (Version 4 or better)
For printing pick slips, postage forms, reports and general all-purpose form documents, Skid Tickets
- **Mannesman Tally** (2045)
For printing Pick Slips, Skid Tickets, Bag Tags
- **Mannesman Tally** (600 & 900 Series)
Line Printer - for printing labels

Printers can be attached to the server either of the following ways:

- Connect printer directly to one of the serial or parallel ports on the NT server.
- Connect printer to a print server. This allows the users to be connected to the network which removes the need for separate serial cables.
- Connect printer to a networked PC. This allows for the sharing of a printer on the network.

Back-Up/Tape Devices

The System Administrator must devise a plan for backing up the **PRO-MAIL** System. Back-ups must be done a regular basis to insure that in the event of hardware failure, data is available to be restored.

Tape Devices are needed for back up of your data.

Types of Tape Devices:

- 4mm DAT Drive
- 1/4" Tape Drive

Preparing for Future Releases of PRO-MAIL

The next generation of PRO-MAIL (currently in Beta Test) uses the following software products:

Recommended are the following:

- **Back Office Suite** - This is a Microsoft product that includes:
 - **Windows NT 4.0** (with Service Pack 3)
 - **Microsoft Internet Information Server (IIS) version 4**
 - **Microsoft SQL Server 7**
 - Microsoft Exchange Server
- **Windows NT 4.0 Resource Kit** - Not included with the Back office Suite, but another optional software product that provides a scheduler and some system utilities that are useful
- **Email** - Microsoft Office 97/2000 (specifically Word and Outlook) loaded on NT server