Enterprise® Messaging Installation Quick Start Guide

Introduction

This *Quick Start Guide* provides a quick overview of the installation procedures for setting up the Inter-Tel® Enterprise® Messaging (EM) system. For detailed installation procedures, refer to the *EM Installation Manual* (document part no. 780.8006) that is located on the EM Software DVD-ROM in PDF format.

Parts

This shipment consists of the following items:

- 1 EM hardware platform with the following items already installed:
  - o An AIC (Audio Interface Card)
  - o Appropriate Natural Microsystems (NMS) Communications™ telephony boards for the configuration that was ordered
  - o Microsoft® Windows® 2000-based Operating System (OS)
  - o Current version of EM software that is shipping
- 1 Mouse
- 1 Keyboard
- 1 H.100 cable
- 1 AIC-to-motherboard watchdog reset cable
- 1 AIC-to-CPU/OPC (Call Processing/Options Card) cable(s)
- 1 USB security key
- EM Software DVD-ROM
- OS Recovery DVD-ROM, which contains an image of WinZip®, pcAnywhere®, AIC drivers, and Windows 2000 Professional (for the Base I unit) or Windows 2000 Server (for the Base II unit)
- Rack mount

Additional Supplies Needed

In addition to the previously listed parts, you will also need the following parts:

- A monitor
- A standard Ethernet patch cord or a crossover if plugging directly into the Call Processing Card (CPC)

Important Safety Information

These instructions provide basic installation information, necessary for the proper and safe functioning of this equipment. Persons installing or maintaining this product must read all of the safety instructions and the parts of system grounding which are applicable to the system being maintained.

Only trained, qualified service personnel shall install or maintain this product.

⚠ WARNING
Failure to follow all instructions may result in improper equipment operation and/or risk of electrical shock.

⚠ CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.

⚠ CAUTION
Changes or modifications not expressly approved by Inter-Tel could void the user's authority to operate the equipment.

NOTE   Read all instructions before attempting to install or use this product.

Scope

These instructions apply to the Inter-Tel Enterprise Messaging system and associated peripherals.

General

The following list provides general safety instructions and guidelines:

- Read all instructions.
- Keep these instructions with the equipment.
- Do not attempt to install or service this equipment unless you are skilled in the installation and maintenance of electronic telecommunications equipment and have successfully completed specific training for this equipment.
- This product must be installed and serviced in accordance with this document and the Technical Installation Manual.
- Follow all procedures outlined in the Technical Installation Manual in the sequence that is given.
- Configure this product with only the assemblies specified and in the locations stated in the Technical Installation Manual.
- Replace all guards, barriers, doors, or fasteners. Close and lock doors when you complete the installation or before you return the equipment to service.
- Install all wiring according to local, state, and federal electrical code requirements.
- Ensure the AC receptacle is installed near the equipment and easily accessible.

Notices

These notices appear on the product and in the technical documentation.

DANGER	Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or damage to the equipment or property.

Symbols

These symbols may appear on the product.

	The lightning flash with arrowhead symbol, within an equilateral triangle, indicates an uninsulated "dangerous voltage" within the product's enclosure that may present a significant risk of electric shock.
	The exclamation point within an equilateral triangle indicates that important operating and maintenance (servicing) instructions are included in the literature accompanying the product.

Installation Summary

AC Power Source	This product operates from an electrical source rated as indicated below. Power each cabinet from a separate branch circuit wired in accordance with local electrical codes. 120-240 Vac 15/13A 60/50 Hz
Equipment Location	Locate this product in a clean and dry environment only, according to the environmental and other installation requirements specified in the Inter-Tel Technical Documentation.
Power Distribution Cables	For a new installation, or to replace a damaged/defective power cord, provide a flexible, three-conductor power cord that: • complies with local electrical codes. • has a voltage and current rating not less than the rating marked on this product. • has a polarized attachment plug with a current rating not less than 125 percent of the rating marked on this product. • has a usage rating for floor-mounted products (a typical example in the US would be an S-rated or SJ-rated cord). • is not longer than 3.0 meters. Refer to the Inter-Tel Technical Documentation for details on the installation of power distribution cables.
Modules/linecards	Refer to the Inter-Tel Technical Documentation for details on the installation of modules.

Fuse and Component Replacement

⚠ WARNING
Unauthorized repair of this product may result in a fire or shock hazard, and/or defective operation, and/or equipment damage. Do not repair or replace components on circuit card assemblies or other parts of this equipment unless there is a specific description of the procedure provided in the Technical Documentation. Return all inoperative assemblies to an authorized Inter-Tel agent for repair.

Refer to the "Troubleshooting" section of the Enterprise Messaging Installation manual for information on the troubleshooting and servicing of this product.

General Grounding

⚠ WARNING
Ground all systems according to these instructions before you connect power leads and telecommunications wiring. Follow grounding instructions explicitly to ensure the safety of personnel.

The system is not suitable for connection to IT power distribution systems and must be connected to a grounded power outlet.

Grounding Conductor

The grounding conductor must be an insulated grounding conductor, sized according to the National Electrical Code (NEC) in the United States (NFPA/ANSI 70 Section 250-95, Exception No. 1, and Section 240-4, Exception No. 1).

The grounding conductor is provided as part of the three-wire, 15-Amp, AC-power cord set included with the equipment. If the power cord must be replaced, use a power cord of the same gauge that has the same insulation, number of conductors, and usage ratings.

The grounding conductor must be:

- Not smaller in size than, and equivalent in insulation material and thickness to, the grounded and ungrounded branch circuit supply conductor.
- An insulated green wire with yellow stripes.
- Part of the circuit that supplies that product or system.
- Connected to ground at the service equipment.

Regulatory Notices

Regulatory notices for U.S., Canada, and Europe are discussed in the sections that follow.

Notice to US Customers

Federal Communications Commission (FCC) Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy; if not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Notice to Canadian Customers

Industry Canada Notice

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Notice to European Customers

The CE marking affixed to this product indicates conformance to the R&TTE Directive 99/05/EC (Radio and Telecommunications Terminal Equipment Directive).

There are no user serviceable parts within this equipment. Refer all servicing to an Inter-Tel authorized repair facility or to Inter-Tel. If you require an Inter-Tel return authorization number, or information on obtaining service or repairs, please contact Inter-Tel at the following telephone number:

(0114)-41162903000

An Inter-Tel return authorization number must be obtained before sending equipment to the Inter-Tel repair facility. The Inter-Tel repair facility is located at the following address:

Mitel Networks Ltd.
Castlegate Business Park
Portskewett, Caldicot
NP26 5YR
UK

⚠ WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Declaration of Conformity

We Inter-Tel Europe, A Mitel company

Castlegate Business Park
Portskewett, Caldicot
NP26 5YR
UK

under our sole responsibility declare that the product:

Enterprise Messaging and all associated peripherals as manufactured by Inter-Tel.

To which this declaration relates is in conformity with the essential requirements specified in Article 3.1 (a) and 3.1 (b) of:

Directive 99/05/EC (Radio Equipment and Telecommunications Terminal Equipment Directive)

For a copy of the Original Signed Declaration (In full conformance with EN45014) please contact the Regulatory Approvals Manager at the above address.

Electricity at Work Regulations 1989

This product, as manufactured by Inter-Tel, is a SYSTEM as defined by the Electricity At Work Regulations 1989. All persons involved in the installation and repair should be aware of their duties and responsibilities under these regulations.

LED Safety

This product uses a Class 1 LED. Refer to the relevant section of this documentation for the precautions to be taken while using the Fibre Interface Module.

A Class 1 LED is defined as an LED which is safe under reasonably foreseeable conditions of use (EN60825-1 Clause 9.2).

SAVE THESE INSTRUCTIONS

Installing the EM System

The following steps outline the EM system installation. For details, refer to the Installation chapter in the *EM Installation Manual* (part number 780.8006).

> ## NOTICE
>
> **Anti-virus software.** Inter-Tel recommends that the EM unit be equipped with anti-virus software. For details, refer to the latest *Anti-Virus Configuration Information* (document part number 835.2751) that is posted on the Online Manuals and Guides page on the Inter-Tel *edGe*® Web site.
>
> **Microsoft Updates.** Inter-Tel Engineering routinely updates its Windows-based house and lab systems with critical updates from Microsoft as they become available. Should Inter-Tel become aware of a problem with any such update, Inter-Tel Engineering will, in a timely manner, instruct the reseller channel to not install the offending critical update. The notification will be e-mailed to all "Inter-Tel Technical Hot List" subscribers and posted on the Tech Central page on the *edGe* Web site.
>
> Inter-Tel encourages all customers to include their Windows-based products in their security umbrella and to update them as they would any other mission critical component on their system. Along this line, some Inter-Tel products are preconfigured to automatically download critical updates once a week, but not to automatically install them as that may require a reboot.
>
> Because Inter-Tel is not given any advance notice regarding Microsoft critical updates, Engineering is unable to test them ahead of time. As with any non-Inter-Tel update, Inter-Tel cannot be responsible if a Microsoft critical update causes an Inter-Tel software application to fail. However, Inter-Tel will respond to the issue in a timely manner.

To install the EM unit:

1. Unpack the box and check the parts list to make sure nothing is missing from the shipment.

2. Connect the monitor, keyboard, and mouse to the EM unit.

3. Attach the software security key to one of the USB ports at the back of the EM chassis.

4. Connect the power cable to the EM unit, and turn on the AC power switch. Wait for about two minutes until the Windows 2000 screen displays on the monitor. This ensures that the EM operating system is functioning properly.

   > **NOTE** If the Windows 2000 screen is not displayed, contact Inter-Tel Customer Support.

5. Connect the EM unit to the communications system chassis.

   To connect an EM unit to the Inter-Tel Axxess® system:

   - *If your system supports 1-8 audio interface ports,* connect the AIC-to-CPU/OPC interface cable from the AIC (Port 1) in the EM unit to the DB15 PCM connector on the CPC in the phone system chassis.

   - *If your system supports 9-32 audio interface ports,* install one OPC in the phone system chassis. Connect the first AIC-to-CPU/OPC interface cable from the AIC (Port 1) in the EM unit to the DB15 PCM connector on the CPC in the phone system chassis. Connect the second AIC-to-CPU/OPC interface cable from the AIC (Port 2) to the DB15 PCM connector on the OPC for the additional 24 (32 total) audio interface ports.

To connect an EM unit to the Inter-Tel CS-5200/5400 system:

a. Before installing the EM unit, disable basic voice mail in Inter-Tel 5000 Database Studio (under Operations\ Voice Processor Operations\ Disable Basic Voice Mail).

b. Install the EM PC in the rack under the Inter-Tel 5000 chassis.

c. Attach the Ethernet cables from both chassis to the LAN.

d. Attach the DB-15 adapter cable (part no. 813.1806) from the Inter-Tel 5000 chassis to the AIC (Port 1) on the EM chassis.

6. Turn the AC power switch on.

7. After the system boots up, type `Administrator` (not case-sensitive) as the username and `itpassw` (case-sensitive) as the password. **To prevent unauthorized access, change the Administrator account password as soon as possible.**

8. Configure the EM unit IP address in the Control Panel – **Network and Dial up Connections** folder. The default IP address is `200.200.200.200`. Your network administrator must provide you with an appropriate IP address.

9. Connect the EM unit to the phone system via the Network Interface Card (NIC) interface. These may be directly connected or both connected to an internal LAN.

10. From the License Management Center, copy the license file that is associated with the installed USB key into the `c:\appplat\bin` directory.

11. Reboot the EM server, and log into the system as administrator.

12. Set the local time zone in the Windows Date and Time Properties dialog (double-click the clock in the taskbar).

> | **NOTE** | If you do not set the local time zone, dates and times will not be played correctly for messages. |

13. Normally, the EM unit is not running at this point but if it is, click the **EM_Stop** icon to shut down the EM unit (the EM icon in the system tray disappears).

14. Start the EM Field Utility (click the **EMFieldUtil** icon) to configure the EM settings.

> | **NOTE** | If the EM unit is running when the EM Field Utility is started, a pop-up window will appear with the message "EM System is running. Shut system down before running **EM Field Util**." Clicking **OK** will exit the utility. |

If all light-emitting diode (LED) indicators in the EM Field Utility dialog box are green, configuration is complete. For details, see the EM Field Utility Configuration Instructions—from the System Menu box in the top, left corner ( ), select **About EMFieldUtil...**.

15. *If you want the EM unit to start automatically,* change the startup type of the State Manager service (in the Control Panel - Administrative Tools - Services folder) to **Automatic**.

16. *If upgrading from a Voice Processing Unit to EM and the Voice Processing Unit was configured with an E-mail Gateway,* refer to the "E-Mail Gateway" section in the Programming chapter in the *EM Installation Manual*. Specifically, the E-MAIL Address and Administrator E-MAIL Address fields may need to be re-programmed with valid e-mail addresses.

17. Do one of the following:

    - Click the **EM_Start** icon to start the EM unit. The EM tray icon is displayed as yellow (**EM**) until the system starts at which time it will turn green.

    - If you have set the EM unit to run automatically as in step 15, reboot the EM PC and log into the system as administrator. The EM unit starts automatically.

NOTE	It is not necessary to login to Windows for the EM unit to run. However, if you do login, log in under the Administrator username.

For EM v1.0 Service Packs (SPs) 1-6: If the EM icon in the system tray turns green, the installation was successful. See below for details.

For EM v1.0 SP8 or later: The Starting Enterprise Messaging dialog shows the status of EM components during startup process. When all of the components become operational, the EM tray icon turns green. See page 10 for details.

Startup Status on EM v1.0 SPs 1-6

After you click the **EM_Start** icon, if the EM icon in the system tray turns green, the installation was successful. If you want to monitor system startup, login via the OAM (Operations, Administration, and Management) telnet interface, and enter the "UseFilter -f COMPONENT" command. This command will send all component state change events to the Event Window so you can see each component go from IDLE to OPERATIONAL (an example of the startup events is shown below). For details about the OAM telnet interface, see the Diagnostics and Troubleshooting chapter in the *EM Installation Manual*.

```
              Example: Maintenance Providers Startup Events
12/20/2004 10:19:39:671 AM U, Desc: State Change
Class: Component, ID: 1, Level: SYSTEM, Assoc: MAINT_PROVIDER
Trans ID: 0, State: Booting, Status: ACTIVE, Info: Stopped

12/20/2004 10:19:39:953 AM U, Desc: State Change
Class: Component, ID: 1, Level: SYSTEM, Assoc: MAINT_PROVIDER
Trans ID: 0, State: Idle, Status: ACTIVE, Info: Booting

12/20/2004 10:19:40:687 AM U, Desc: State Change
Class: Component, ID: 1, Level: SYSTEM, Assoc: MAINT_PROVIDER
Trans ID: 0, State: Starting, Status: ACTIVE, Info: Idle

12/20/2004 10:19:40:703 AM U, Desc: State Change
Class: Component, ID: 1, Level: SYSTEM, Assoc: MAINT_PROVIDER
Trans ID: 0, State: Operational, Status: INACTIVE, Info:
Starting
```
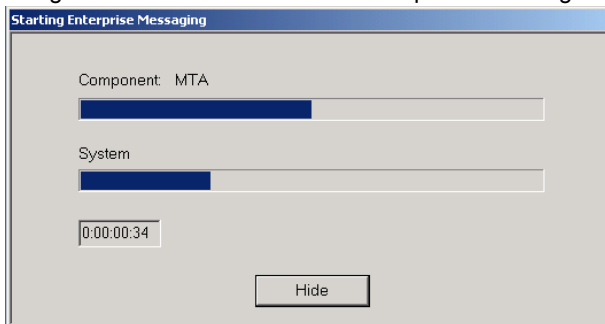
## Startup Status on an EM v1.0 SP8 and Later

After you click the **EM_Start** icon, the Starting Enterprise Messaging dialog box appears, as shown below. This dialog box shows the status of EM components during the startup process.


The dialog box has the following features:

- **Component Progress Bar:** Indicates the current EM component being started and its relative progress in starting. The components that can be monitored are MAINT_PROVIDER, MSGSERVER, MTA, AXXESS_MULTIPLEXER, REPORT_PROVIDER, NETWORKING_PROVIDER, VPOAI, THANDLER, ENGINE, and DB_MANAGER.

- **System Progress Bar:** Indicates the overall EM startup progress.

- **Timer:** Indicates the amount of time (H:MM:SS:MS, where H is hours, MM is minutes, SS is seconds, and MS is milliseconds) since EM was started.

- **Hide Button:** Allows you to hide the startup progress dialog. The dialog can be brought up later by double-clicking the EM tray icon.

When all of the components become operational, the System progress bar should be at full length, and the timer will indicate how long the system has been running since EM was started, as shown on the right.
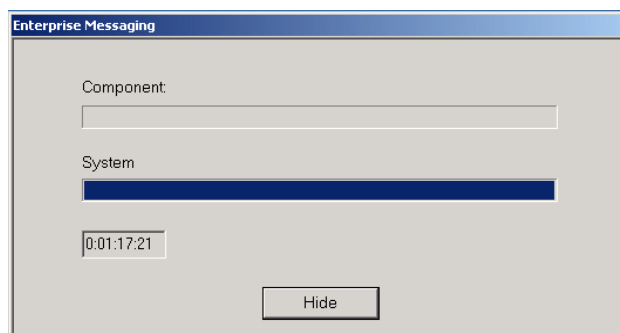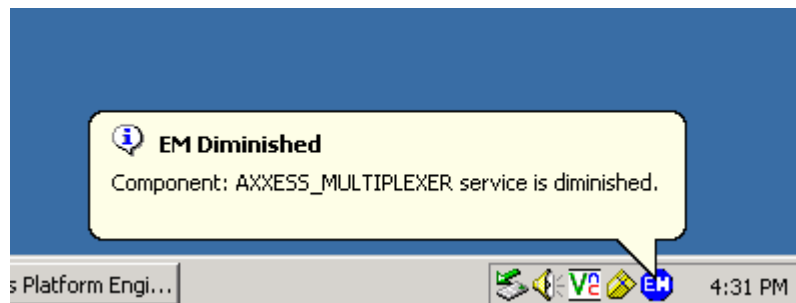

You can also view the component status list by right-clicking the EM tray icon. This view shows each EM component and its current state (see below).
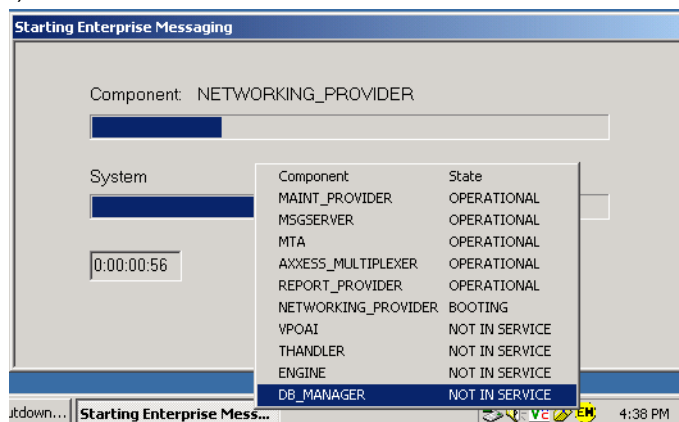

If the EM system does not start, see the Quick Troubleshooting section on for corrective actions. If you still have problems starting up the EM system, contact Technical Support.

Diminished State

If EM goes into a diminished state you will be notified via a Windows status popup and the EM tray icon will turn blue, as shown below.

You can right-click the EM tray icon to view the component status list and view which component has gone into a diminished state or has failed. Additional information can be viewed in the System Admin log or via the OAM System Status Report.
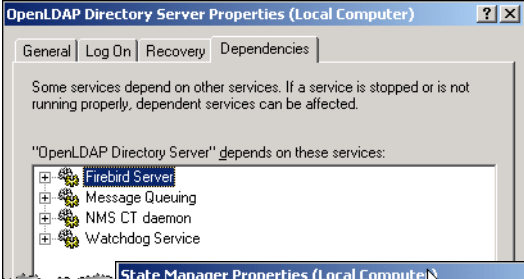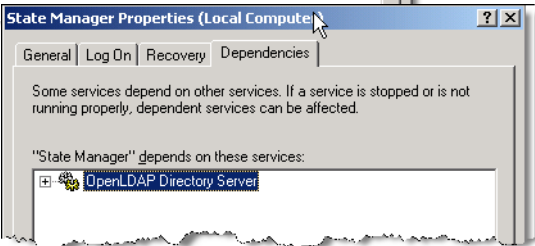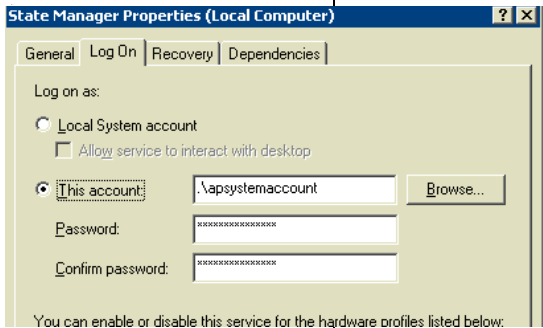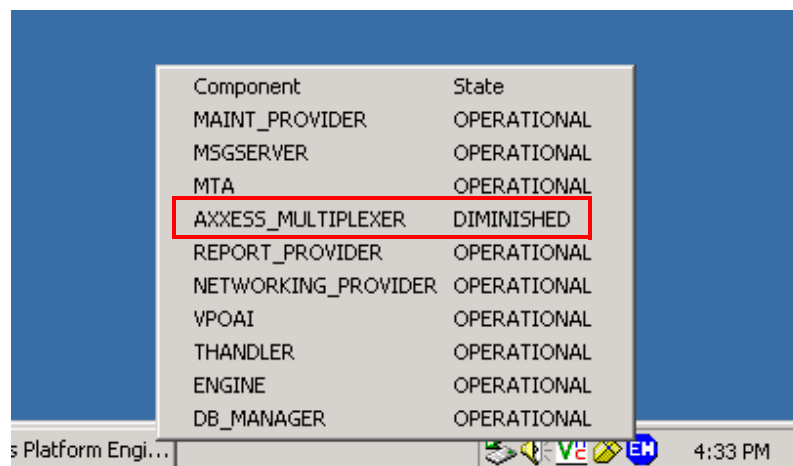
Quick Troubleshooting

Table 1 lists symptoms, probable cause, and corrective actions for EM installation-related issues.

Table 1. *EM Installation-Related Issues*

Symptom	Probable Cause	Corrective Action
The EM icon does not turn green. The EM icon turned red and eventually disappeared. The EM icon is in yellow (in progress), but the EM system has stopped processing.	The EM system failed to start.	Complete the following steps: 1. Double-click the **EM_Stop** icon to stop all of the services that are currently running on the system. 2. Click the **EMFieldUtil** icon and click **Refresh** and **Dismiss**. 3. Verify that all LEDs are green. 4. Click the **EM_Start** icon. **NOTE** If the EM system still does not start, try rebooting the computer before refreshing the EM Field Utility (step 2).
	Hardware is not properly installed.	Verify the following: • The boards are properly seated in the EM platform. • The cables are properly terminated to the EM platform. • The security key is present and properly seated on the USB port. If the key is present, make sure the license reflects the correct serial number. If necessary, transfer the license to the correct serial number (for details, see the "License Transfers" section in the Inter-Tel Axxess Installation and Maintenance Manual, document part no. 550.8000).

Table 1. *EM Installation-Related Issues (Continued)*

Symptom	Probable Cause	Corrective Action
The message, "Start Service State_Manager failed: 1068" appeared in the EM_Start DOS window.	Programming error.	Do the following: 1. End the processes of `EM_Status.exe` and `EM_Start.exe` from the Task Manager. 2. Double-click the **Services** desktop icon on the EM server. The Services window appears. Verify the following: • The State Manager service is dependant upon the OpenLDAP Directory Server. • The OpenLDAP Directory Server is dependant upon the following: Firebird Server, Message Queuing, NMS CT Daemon and WatchdogService. • The Watchdog Service is not dependant upon any other service.

To verify the dependencies, scroll down to the desired service in the Services window and double-click the line or right-click on it and select Properties. Select the Dependencies tab. A dialog box that is similar to the ones on the left appear (these are examples of the Open LDAP Directory Server and State Manager service). Verify that the dependencies are programmed properly. Note that these examples are for an EM unit with SP4 or later.

If the required dependencies are not present, do the following:

a. Select the **Process** tab in the Task Manager, and verify that the services listed in the dialog box above are running.

b. Verify that the following services are configured in the Services window to use the "apsystemaccount" username:
   o Watchdog Service
   o State Manager
   o OpenLDAP Directory Server

c. Run the Field Configuration Utility and reset the services password.

d. Reboot the system. If the State Manager service is not set to automatic you will need to click on **EM_Start.** If the State Manager service is set to automatic then EM should start by itself and you should no longer see the error message in the System Event Log.

3. Select the **Log On** tab in the Properties dialog box, and verify that the State Manager, Watchdog, and OpenLDAP Directory Services are set to log on under the ".\apsystemaccount" account. Also, re-enter the account password (the default password is "Test"). An example of the Log On dialog box is shown at left.

Table 1. *EM Installation-Related Issues (Continued)*

Symptom	Probable Cause	Corrective Action
The message, "**Could not delete queue. Run qclean**." appeared in the EM_Start DOS window.	MSMQ queues that EM depends on are owned by another account and EM can clean up on restart.	Go to directory location `c:\intertel\ap` on the system hard drive and run qclean.