Important Information

Avid recommends that you read all the information in this document thoroughly before installing or using any new hardware or software release.

This document describes the steps required to successfully connect an Avid NewsCutter system for the Windows NT® operating system and an Avid AirSPACE video server in a standalone, peer-to-peer workgroup environment or an Avid Unity™ MediaNet workgroup environment.

This document includes an overview of the Avid hardware components in the workgroup environments and contains instructions for the following procedures:

• Cabling Guidelines
• Setting Up the Workgroup
• Installing Application Software
• Troubleshooting

This document also provides product support contacts and technical support information.
Before you use these installation instructions, you must complete the basic installations for each NewsCutter and AirSPACE video server system. Basic installations include connecting the NewsCutter system to the Meridien™ II I/O box and Avid storage enclosures and installing I/O boards in the AirSPACE video server, as well as the other required or optional equipment you might need to install. If you have not yet performed the basic installation for either system, you should complete that process first and then return to these instructions.

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Who Should Use These Instructions

To use these instructions, you must have previous experience with the following:

- NewsCutter operation
- AirSPACE video server operation, including the AirSPACE graphical user interface (GUI)

You also need a basic understanding of the Windows NT and UNIX® operating systems.
Symbols and Conventions

This document uses the following special symbols, conventions, and terminology:

- A note provides important related information, reminders, recommendations, and strong suggestions.

- A caution means that a specific action you take could cause harm to your computer or cause you to lose data.

- A warning means that the specific action must be followed to avoid possible bodily injury with potentially fatal consequences.

In this document, gigabit refers to Ethernet technology that raises transmission speeds to 1 gigabit per second (Gb/s). This document describes the installation of Gigabit Ethernet (GigE) devices and network infrastructure that support data transfer rates of 1 Gb/s (1000 bits per second).

Other terms used in this document include the following:

- 1000BASE-SX — for a GigE network using shortwave laser over fibre cable (SC/multimode shortwave fiber-optic cable).
- 1000BASE-T — for a gigabit Ethernet network using Cat 5/100BASE-T cables. T refers to the twisted-pair cabling standard used in Cat 5 cables.
- 10/100BASE-T — for a common, in-house Ethernet networking standard using Cat 5 cables; also referred to as just 100BASE-T.
- Jumbo frames — for Ethernet packets that are 9000 bytes long. Standard Ethernet packets are 1500 bytes long. The more data per packet, the less often the computer has to be interrupted to handle the data. This reduces demands on CPU utilization and the amount of bandwidth devoted to overhead. Jumbo-frame-capable devices are compatible with standard Ethernet packet sizes, allowing full backward compatibility.
Ethernet Network Installation Instructions

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- ACV board — for audio/compressed video, the main I/O board (up to five are supported) mounted in the AirSPACE video server and responsible for AirSPACE video server operation.
- GigUplink port — for a port on a network hub or switch that is used to connect to other hubs and switches rather than an end station.
- TCP/IP — for Transmission Control Protocol/Internet Protocol, which is a common network protocol used on Ethernet networks. TCP/IP is the underlying protocol for the Internet.

Workgroup Overview

A basic workgroup consists of the following:
- Multiple NewsCutter systems
- One or more AirSPACE video servers
- An Ethernet network

These elements are tightly integrated in an environment that enhances speed and content quality in news editing and news production.

The workgroup environment offers a high degree of flexibility when setting up hardware, which ensures a wide variety of configurations and options.

You can set up two kinds of Avid workgroups:
- Standalone, peer-to-peer workgroup (see Figure 1)
- Avid Unity MediaNet workgroup (see Figure 2)

In a standalone workgroup, the system utilizes the 1000BASE-SX Gigabit Ethernet (GigE) for AirSPACE to AirSPACE video server communications, and for transferring media files between AirSPACE video servers and NewsCutter systems.
In an Avid Unity MediaNet workgroup, transfer of media files between the AirSPACE video servers and NewsCutter systems is carried out over the Ethernet network through the Avid Unity TransferManager server integrated into the MediaNet environment. The TransferManager server also allows media files to be transferred over the Ethernet from one Avid Unity MediaNet workgroup to another Avid Unity MediaNet workgroup.

For the most up-to-date or detailed information on NewsCutter, see the release notes or setup guide that ships with your NewsCutter hardware. For information about configuring and using the AirSPACE video server, see the documentation provided with your AirSPACE video server hardware.

Figure 1 shows a basic standalone, peer-to-peer workgroup. Each NewsCutter system contains a Nortel Networks™ Alteon™ ACEnic Ethernet adapter and connects directly to the Alteon 180 switch for high-speed, optimum bandwidth communications and media file transfers to and from the AirSPACE video servers.

Figure 2 shows a typical Avid Unity MediaNet workgroup configuration, which incorporates a Fibre Channel (F/C) network and associated Avid Unity F/C storage devices.

When the material reaches the NewsCutter system for editing, the F/C storage devices configured in the Avid Unity MediaNet workgroup allow the material to be accessed, edited, and shared between multiple NewsCutter systems. When the story is ready for broadcast, it is transferred (through the Ethernet connection) by the TransferManager server to the AirSPACE video server for playout.

For information about F/C cabling or other information about setting up the hardware in an Avid Unity MediaNet workgroup, see the documentation provided with your Avid Unity MediaNet workgroup hardware, your Avid NewsCutter Setup Guide, Avid Unity Workgroup Setup Guide, and the documentation provided with your AirSPACE video server hardware.
Figure 1  Basic Standalone, Peer-to-Peer Workgroup
NOTE: The GigUplink port connection is not required if you install an Alteon ACEnic Ethernet adapter in each NewsCutter system as described in this document. With the ACEnic Ethernet adapter installed, connect each NewsCutter system to an available port on the Alteon 180 switch.

Figure 2  Sample Avid Unity MediaNet Workgroup Configuration
Equipment List

Table 1 lists the recommended equipment for connecting one or more NewsCutter systems and AirSPACE video servers to a workgroup.

If you are missing any of these items, or to find out how to order additional equipment, contact your Avid Reseller.

Table 1 Workgroup Equipment Description

<table>
<thead>
<tr>
<th>Equipment Needed</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>AirSPACE video server</td>
<td>• GigE network interface card (NIC) installed (provided by Avid); contains a fiber-optic 1000BASE-SX connector for gigabit operation</td>
</tr>
<tr>
<td></td>
<td>• 700-MHz single-board computer (SBC) installed (provided by Avid)</td>
</tr>
<tr>
<td></td>
<td>• 55-MHz motherboard, revision D2 or higher (provided by Avid)</td>
</tr>
<tr>
<td></td>
<td>• AirSPACE digital break-out box, one for each installed ACV board</td>
</tr>
<tr>
<td></td>
<td>• One Windows NT PC platform, (including a monitor, keyboard, and mouse) connected to each AirSPACE chassis configured in the workgroup (provided by customer)</td>
</tr>
<tr>
<td></td>
<td>• SPACEnet Software installation CD; includes AirSPACE Software Release V2.0.9 (or later), which is also referred to as the V2 feature set</td>
</tr>
<tr>
<td>Gigabit Ethernet switch</td>
<td>Alteon Systems ACEswitch 180 (provided by Avid)</td>
</tr>
<tr>
<td>Fibre cable</td>
<td>A 62.5/125-micron or 50/125-micron multimode (MM) SC-SC duplex fibre cable. The 62.5-micron MM cable can be used for lengths up to 260 meters. The 50-micron MM cable can be used for lengths up to 550 meters. These cables can be purchased from many different sources.</td>
</tr>
</tbody>
</table>

*One fibre cable is needed per Alteon ACEnic Ethernet adapter.*
**Table 1 Workgroup Equipment Description (Continued)**

<table>
<thead>
<tr>
<th>Equipment Needed</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewsCutter</td>
<td>• One or more NewsCutter Release 2.0 editing systems (available from Avid)</td>
</tr>
<tr>
<td></td>
<td>• Alteon ACEnic Ethernet adapter (installable option provided by Avid)</td>
</tr>
<tr>
<td></td>
<td>• Local Avid storage enclosures (9 GB or greater)</td>
</tr>
<tr>
<td></td>
<td>• NewsCutter application key (dongle)</td>
</tr>
<tr>
<td>TransferManager server</td>
<td>• PC platform containing Alteon ACEnic Ethernet adapter (available from Avid)</td>
</tr>
</tbody>
</table>

For information about TransferManager server components and configuration guidelines, see “Configuring the TransferManager Server” on page 25.

• Avid Unity TransferManager Release 1.0 software and documentation, including Avid Unity TransferManager Release 1.01 Release Notes and Avid Unity TransferManager User’s Guide
Cabling Guidelines

Fibre cables (SC/multimode shortwave fiber-optic cables) consist of two individual cables — transmit (TX) and receive (RX) — paired together. The TX cable from one device always plugs into the RX port on the other device.

No damage to equipment occurs if you incorrectly swap the cables.

Each client in the workgroup (NewsCutter systems, AirSPACE video servers, or other hardware devices, such as a TransferManager server), should have one fibre cable pair plugged into it.

For example, if you have four AirSPACE video servers and two NewsCutter systems containing Alteon ACEnic Ethernet adapters, you need six fibre cables and at least six ports on a GigE switch such as the Alteon ACEswitch 180.

Additional ports are needed on the GigE switch to connect it to the site’s existing network, along with any devices that need faster access to the AirSPACE video servers, such as NewsCutter systems without Alteon ACEnic Ethernet adapters (and which use the 100BASE-T Ethernet network).

Setting Up the Workgroup

The following sections describe the NewsCutter, AirSPACE video server, and Ethernet network setup and installation:

- Configuring the Alteon 180 Switch
- Configuring the Ethernet Network on the AirSPACE Video Server
- Installing the Alteon ACEnic Ethernet Adapter in the NewsCutter System
- Configuring the TransferManager Platform
Configuring the Alteon 180 Switch

Avid recommends that you install the Alteon 180 switch as the only GigE switch connection between multiple AirSPACE video servers set up as part of a workgroup.

The Alteon 180 switch is capable of fast throughput, supports jumbo frames, and is easily configured. Although it uses a different cabling standard, the protocols, wiring, packet routing, setup, and management procedures for the Alteon 180 GigE switch are very similar to those in a 10/100BASE-T Ethernet network.

If you need to connect the AirSPACE video server to a non-Alteon-180 switch, first determine whether the switch supports 9000-byte jumbo frames. You can configure an Ethernet switch other than an Alteon 180 switch, but it must support jumbo frames to maximize the AirSPACE video server’s bandwidth capabilities.

The Alteon 180 switch is configured at the factory for implementation in a workgroup environment.

If the switch is not configured correctly, you can program the correct parameters. You need a 9-pin serial cable for connection to an RS-232 terminal, or you can use a PC with terminal emulation software installed (such as Windows NT with HyperTerminal).

The documentation provided with the Alteon 180 switch includes a complete pinout and baud rate description (9600, 8 bit, no parity, 1 stop) and also provides the information you need to physically install and cable the switch.

Follow the instructions and guidelines in the documentation provided with the Alteon 180 switch to configure the switch for your network environment. Avid recommends the participation of a network administrator, or an individual who understands the overall network infrastructure.
If you need assistance from Alteon Websystems, use the following contact information:

Alteon Websystems
50 Great Oaks Boulevard
San Jose, CA 95119
(408) 360-5500 (Main)
(408) 360-5501 (Fax)
World Wide Web: http://www.alteonwebsystems.com

Configuring the Ethernet Network on the AirSPACE Video Server

This section describes:

- Turning Off the AirSPACE Video Server
- Connecting the Ethernet Network Fibre Cable
- Configuring Ethernet Network Parameters

You must have a GigE network interface card (NIC) already installed in the AirSPACE video server before you can configure the Ethernet network. Figure 3 shows the location of the GigE NIC in the rear of the AirSPACE video server chassis.

The AirSPACE video server cannot operate with both GigE and 100BASE-T Ethernet connections simultaneously active. Only one of these two network standards can be connected at any one time.
Turning Off the AirSPACE Video Server

Before you connect any cables or configure the Ethernet network on the AirSPACE video server, use the following procedure to turn off the AirSPACE video server.
To turn off the AirSPACE video server:

1. Click the Menu Select button, and choose Shutdown.
   The Shutdown dialog box appears.
2. Select the “Halt entire system” option.
3. When the system indicates that it has halted, turn off both power supplies.

Figure 4    Shutdown Dialog Box

Connecting the Ethernet Network Fibre Cable

To connect the Ethernet network fibre cable:

1. Plug one end of the fibre cable into the 1000BASE-SX fiber-optic port (TX and RX plugs) on the GigE NIC installed in PCI slot 4 in the AirSPACE video server (see Figure 5).
A cable connector that plugs into an RX port at one end must plug into a TX port at the other end, and a cable connector that plugs into a TX port at one end must plug into an RX port at the other end.

2. Plug the other end of the fibre cable into any available fiber-optic port on the Alteon 180 switch.

Configuring Ethernet Network Parameters

The AirSPACE video server network configuration for either a 100BASE-T or GigE network is identical. To configure the AirSPACE video server for the network, you must obtain information about the network parameters from your Ethernet network administrator.

For integration into an Ethernet network, your administrator must provide the IP, Netmask, DNS Server, and Default Router information, which includes any host names.
Before you perform the following procedure, you must have previous experience with AirSPACE operation, the AirSPACE graphical user interface (GUI), and a basic understanding of the UNIX operating system.

To configure the Ethernet network parameters:

1. From the AirSPACE video server GUI, click the Setup button on the lower left side of the screen.

The Setup window appears (see Figure 6).

The details appearing in your Setup window depend on your network configuration and will differ from those appearing in Figure 6.
2. Click the Network Configuration button.

A menu appears for entering the TCP/IP network parameters (see Figure 7).

![TCP Network](image)

### Figure 7  Sample Network Configuration Menu

3. Enable the network by selecting Network Enabled.

4. Enter a host name for the AirSPACE video server (if one isn’t already entered), make a note of the name, and keep it in a secure location.

5. Enter the domain name (if you have one).

6. Enter an IP address for the AirSPACE video server (if one isn’t already entered), make a note of the address, and keep it in a secure location.

   *Do not use an IP address ending in 0 or 255. In a simple network topology, the first three numbers of the IP address should be identical for the Alteon 180 switch and the AirSPACE video server (for example: 206.167.67.1 and 206.167.67.2).*

7. Enter the Netmask of the AirSPACE video server (if one isn’t already entered), make a note of the mask, and keep it in a secure location.
Steps 8 and 9 are optional and might not be required. Consult with your Ethernet network administrator to find out if you need to enter Default Router or DNS Server information.

If you do not need to enter this information, go to step 10.

You must select the Default Router and DNS Server check boxes next to the Default Router and DNS Server fields before you can type their IP addresses. Enable the check boxes based on network requirements.

8. (Option) Enter the Default Router (also known as the Default Gateway) for the AirSPACE video server (if one isn’t already entered). Obtain this information from your Ethernet network administrator. Make a note of the Default Gateway (if used) and keep it in a secure location.

9. (Option) Enter the DNS Server information for the AirSPACE video server (if one isn’t already entered). Obtain this information from your Ethernet network administrator. Make a note of the DNS Server information (if used) and keep it in a secure location.

10. Click Save to save the network configuration for the AirSPACE video server.

11. Simultaneously press the Ctrl, Alt, and F1 keys to open a UNIX shell.

12. At the login prompt, type `maint`.

13. At the password prompt, type `mars`.

14. Change to the etc directory by typing `cd /etc`.

15. If you are using a standard 10/100BASE-T Ethernet connection, type `touch no_gige` to enable the standard Ethernet connection in the AirSPACE video server.

Otherwise, remove the file by typing `rm no_gige` to ensure that the GigE connection is configured in the AirSPACE video server. Avid recommends that you use the GigE network for AirSPACE operations.
16. Type `reboot` to restart the AirSPACE video server, using the new Network Configuration settings.

Alternatively, close the UNIX shell and reboot the AirSPACE video server from the Shutdown dialog box.

a. Click the Menu Select button, and choose Shutdown.

   The Shutdown dialog box appears.

b. Select “Reboot entire system.”

   The network parameters do not take effect until after the AirSPACE video server reboots.

Installing the Alteon ACEnic Ethernet Adapter in the NewsCutter System

Avid recommends that you install the Alteon ACEnic Ethernet adapter in NewsCutter systems configured in a standalone, peer-to-peer workgroup environment. This optional hardware enhances the speed and reliability of media file transfers between the NewsCutter systems and AirSPACE video servers, while addressing possible bandwidth issues.

For board installation procedures, see the peripheral board installation instructions that came with your NewsCutter system. Depending on your NewsCutter system, consult the release notes, upgrade instructions, or setup guide for slot placement guidelines.

⚠️ Be sure to follow all safety guidelines described in the documentation. These guidelines include turning off and unplugging the NewsCutter system from all power sources, and using antistatic procedures for handling I/O boards.
To install the Alteon ACEnic Ethernet adapter:

1. Install the Alteon ACEnic adapter in the required PCI slot in the NewsCutter system.

2. Plug one end of the fibre cable into the 1000BASE-SX fiber-optic port (TX and RX plugs) on the ACEnic adapter installed in the NewsCutter system (see Figure 8).

3. Plug the other end of the fibre cable into any available fiber-optic port on the Alteon 180 switch.

4. Repeat steps 1 through 3 for each NewsCutter system connected in your workgroup.

Figure 8 Connecting the Ethernet Cable to ACEnic Fiber-Optic Port

A cable connector that plugs into an RX port at one end must plug into a TX port at the other end, and a cable connector that plugs into a TX port at one end must plug into an RX port at the other end.

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Setting Up the Workgroup
Installing and Configuring Ethernet Drivers on the NewsCutter System

After you have installed ACEnic Ethernet adapters in each NewsCutter system configured in your workgroup, you must install and configure the Ethernet adapter driver software for the NewsCutter systems.

An ACEnic CD-ROM is supplied with the ACEnic Ethernet adapter hardware. This CD-ROM contains an Adobe® Acrobat® PDF file named INTIAnt_ugx.pdf (where x is the version of the Alteon documentation release) that describes the driver installation and configuration process for the network you are using.

As part of the driver installation and configuration process, make sure to supply your network administrator with the correct network settings for the network topology that you want to implement.

For most configurations, Avid recommends that you use only one Ethernet adapter per NewsCutter system. If you need to have a second Ethernet adapter configured in the NewsCutter system in addition to the Alteon ACEnic Ethernet adapter, make sure that each Ethernet adapter has a unique IP address and subnet.

When installing the Alteon ACEnic Ethernet adapter drivers in the NewsCutter system, you must verify that the settings listed in Table 2 are enabled.
It is possible to have two Ethernet network adapters installed at the same time and use the same IP address as long as you disable one of the Ethernet adapters.

This procedure is useful for testing or as a quick troubleshooting aid, but Avid does not recommended that you implement it for any other purpose. If you are using the Alteon ACEnic Ethernet adapter in NewsCutter, Avid recommends that you disconnect the Cat 5 10/100BASE-T cable from the other Ethernet adapter.

Table 2  Alteon ACEnic Driver Settings for NewsCutter Systems

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link Negotiation Enabled</td>
<td>Select to be IEEE® 802.3z-compliant.</td>
</tr>
<tr>
<td>Jumbo Frames Enabled</td>
<td>Select to derive maximum bandwidth transfers from the NewsCutter systems and from the AirSPACE video servers.</td>
</tr>
<tr>
<td>RX Flow Control Enabled</td>
<td>Select to provide correct flow control (if your Ethernet switch requires it).</td>
</tr>
<tr>
<td>TX Flow Control Enabled</td>
<td>Select to provide correct flow control (if your Ethernet switch requires it).</td>
</tr>
</tbody>
</table>

To disable an Ethernet adapter from a PC running the Windows NT operating system:

1. Click the Start button, point to Settings, and click Control Panel.
   The Control Panel window opens.
2. Double-click the Network icon.
   The Network dialog box appears.
3. Click the Bindings tab.
4. Choose “all adapters” from the Show Bindings pop-up menu.
5. Select the Ethernet adapter that you want to disable.
6. Click Disable.

The Windows NT operating system will now ignore the disabled Ethernet adapter, and you can configure both adapters to use the same IP address.

**Configuring the TransferManager Platform**

To set up the TransferManager platform, you might need to perform the following tasks:

- Modifying the Hosts File
- Configuring the TransferManager Server
- Verifying Additions to the Services File

*Depending on whether your workgroup is a standalone system or part of an Avid Unity MediaNet environment, the TransferManager platform can be either a NewsCutter or a dedicated TransferManager server running the Windows NT operating system. The configuration instructions are the same for both.*

**Modifying the Hosts File**

For the TransferManager platform, AirSPACE video server, and Ethernet switch (or hub) to communicate, the TransferManager platform’s Hosts file must have the TCP/IP addresses added manually.
To add the TCP/IP addresses:

1. Open Notepad on the TransferManager platform.
   a. Click the Start button.
   b. Point to Programs, point to Accessories, and click Notepad.
2. Open the Hosts file located in the following directory:
   C:\Winnt\system32\drivers\etc\Hosts
3. Enter the TCP/IP addresses for AirSPACE video servers.
   Type a new TCP/IP address at the end of the file.
   The entries should look similar to the following example if the
   AirSPACE video server is named Air1.
   243.165.100.20  Air1
4. Save the file.

Repeat this process for each TransferManager platform and AirSPACE video server on the network that you will use for transfers. You can also create one Hosts file and copy it to all the other TransferManager platforms and AirSPACE video servers on the network.

Configuring the TransferManager Server

To configure the TransferManager server for your workgroup:

1. Determine how you will run the TransferManager Server software
   in your workgroup environment. You have these options:
   a. TransferManager Server software running on each
      NewsCutter Release 2.0 editing platform, with no dedicated
      TransferManager server PC platform running the Windows NT operating system
   b. TransferManager Server software running on one NewsCutter
      Release 2.0 editing platform
      This configuration should be used if you do not have a
      dedicated TransferManager server PC platform running the

Windows NT operating system and you have set up an iNEWS™ BCS as a client in the workgroup.

- TransferManager Server software running on a dedicated PC platform running the Windows NT operating system

  This is the best option if more than one NewCutter Release 2.0 editing system is set up in the workgroup.

2. Install TransferManager Server and TransferManager Server Configuration software on the appropriate platforms (for more information, see “Installing Application Software” on page 31).

Before you install the TransferManager Server and TransferManager Configuration software, make sure you install and configure the AirSPACE video server Ethernet network parameters (as described in “Configuring the Ethernet Network on the AirSPACE Video Server” on page 13) and AirSPACE application software (see “Installing Application Software” on page 31).

3. Install the TransferManager Client and TransferManager Client Configuration software on all NewsCutter Release 2.0 editing platforms (for more information, see “Installing Application Software” on page 31).

During the installation, you must enter the name of the platform where you installed the TransferManager Server software. For example, in a standalone, peer-to-peer workgroup, this might be the same NewsCutter system where you are installing the TransferManager Client software.

4. Set the TransferManager options at the TransferManager Server PC platform:

   a. Click the Start button.

   b. Point to Programs, point to Avid, and click TransferManager Configuration.

      The TransferManager Configuration window opens (see Figure 9).
Use Table 3 as a guide for setting the TransferManager Configuration options.

For additional information about selecting the options in the TransferManager Configuration window, see your Avid Unity TransferManager Release Notes.

Figure 9  Sample TransferManager Configuration Window
### Table 3 TransferManager Configuration Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Manager</td>
<td>Select if you are configuring the TransferManager server in an Avid Unity MediaNet workgroup environment.</td>
</tr>
<tr>
<td></td>
<td>In the Hostnames text box, enter the URL for your Avid Unity MediaNet MediaManager server.</td>
</tr>
<tr>
<td>Playback Transfers</td>
<td>Select if you are configuring a workgroup environment that includes an AirSPACE video server configured as a broadcast playback device.</td>
</tr>
<tr>
<td></td>
<td>The recommended Maximum Simultaneous Transfers is 2.</td>
</tr>
<tr>
<td>Ingest Transfers</td>
<td>Select if you are configuring a workgroup environment that includes NewsCutter to NewsCutter transfers, or if you are configuring a workgroup that includes an AirSPACE video server configured as an ingest device.</td>
</tr>
<tr>
<td></td>
<td>The recommended Maximum Simultaneous Transfers is 2.</td>
</tr>
<tr>
<td>Workgroup Transfers</td>
<td>In a standalone, peer-to-peer workgroup, select Enabled Incoming to set up the TransferManager server for Ingest operations.</td>
</tr>
<tr>
<td></td>
<td>In an Avid Unity MediaNet workgroup environment, select Enabled. The TransferManager server performs both incoming and outgoing operations.</td>
</tr>
<tr>
<td>Incoming Transfer Behavior</td>
<td>Select Accept to set up the TransferManager server to accept incoming transfers.</td>
</tr>
<tr>
<td></td>
<td>In a standalone, peer-to-peer workgroup, set the Timeout for the Incoming Transfer Behavior to a value of less than 15 seconds. Avid recommends a timeout value of 10 seconds.</td>
</tr>
<tr>
<td>Total Transfers (All Types)</td>
<td>If you are going to be receiving incoming transfers, set the Maximum Simultaneous Transfers to 2 or higher.</td>
</tr>
<tr>
<td></td>
<td>When you are performing workstation-to-workstation transfer operations between clients, set the value for the Maximum Simultaneous Transfers to 2. When you are performing a workstation-to-workstation operation, there are actually two simultaneous transfer operations occurring.</td>
</tr>
</tbody>
</table>
## Table 3  TransferManager Configuration Options (Continued)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Playback Devices</strong></td>
<td>Click Add to enter the name of the playback device or devices included in your workgroup. If you are configuring an AirSPACE video server as a playback device, enter the name of the TransferManager server and the name of the playback device (for example, TMserver1/AirSPACE).</td>
</tr>
<tr>
<td><strong>Workgroups</strong></td>
<td>This field is for workgroup-to-workgroup transfers in Avid Unity MediaNet environments. Use this field to add, edit, or delete Avid Unity MediaNet workgroup names. Enter the name of each workgroup in the network. The first name in the list indicates the name you give to your workgroup, and the second name in the list refers to the computer name of the TransferManager server in the destination workgroup to which you want to transfer media (not your local TransferManager server).</td>
</tr>
<tr>
<td><strong>Directories</strong></td>
<td>This is the directory where the files that TransferManager receives are placed. Enter the Primary media directory. This directory must be a workspace mapped to Avid Unity. For sites without Avid Unity installed, use the Browse button to navigate to a valid OMFI media directory.</td>
</tr>
</tbody>
</table>
| **Playlist Information** | Used in iNEWS to schedule transfers, select the “Use Newsroom rundown to schedule transfers” option to enable the TransferManager Newsroom rundown scheduling feature.  
- Newsroom Server — The name of the station’s Newsroom Server.  
- User Name — The user name that TransferManager should use to connect to the Newsroom Server.  
- Password — The password TransferManager should use to connect to the Newsroom Server.  
- Schedule File Name — The file name of the schedule file, generated using the Rundown Editor, that TransferManager should use to determine which rundown to use at which time. |
| **Ingest Devices** | Allows you to add ingest devices included in the workgroup. Click Add to enter the name of the ingest device or devices included in your workgroup. |
Verifying Additions to the Services File

The TransferManager Installer adds the TransferManager Playback Protocol to the Services file on the TransferManager platform.

After installing the TransferManager software as described in Avid Unity Transfer Manager Release Notes, you can verify the additions to the Services file.

To verify the additions:

1. Open Notepad on the TransferManager platform.
   a. Click the Start button.
   b. Point to Programs, point to Accessories, and click Notepad.
2. Open the Services file located in the following directory:
   C:\Winnt\system32\drivers\etc\Services
3. Ensure that the Services file contains the following entries:
   - com.avid.mct 6532/tcp
   - com.avid.pbp 6535/tcp
   - com.avid.xmgr 6539/tcp
Installing Application Software

Table 4 provides a chart to use when installing application software on the workgroup components.

For software installation procedures, see the documentation that comes with your NewsCutter system, AirSPACE video server, or Avid Unity MediaNet workgroup hardware.

This documentation includes the following:

- *Avid NewsCutter Release 2.0 Release Notes and Avid NewsCutter Release 2.0 Upgrade Instructions*
- *Avid AirSPACE Configuration Guide and Avid AirSPACE Installation and User's Guide*
- *Avid Unity TransferManager Release 1.0 Release Notes and Avid Unity TransferManager User's Guide*
## Table 4  Software Installation Outline

<table>
<thead>
<tr>
<th>Software</th>
<th>Location</th>
<th>Installed on NewsCutter Editing Platform</th>
<th>Installed on AirSPACE PC Platform Running Windows NT</th>
<th>Installed on TransferManager Server Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewsCutter Release 2.0</td>
<td>Avid NewsCutter Release 2.0 software CD</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TransferManager Client</td>
<td>Avid Unity TransferManager Release 1.0 software CD</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TransferManager Server</td>
<td>Avid Unity TransferManager Release 1.0 software CD</td>
<td>✓ a</td>
<td>✓ b</td>
<td></td>
</tr>
<tr>
<td>MissionControl</td>
<td>SPACENet CD, Release V2.0.9 (or later)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LaunchPad d</td>
<td>SPACENet CD, Release V2.0.9 (or later)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CountDown</td>
<td>SPACENet CD, Release V2.0.9 (or later)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingest</td>
<td>SPACENet CD, Release V2.0.9 (or later)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Install only in a standalone, peer-to-peer workgroup environment.  
b. Install only in an Avid Unity MediaNet workgroup environment.  
c. You can install MissionControl on the NewsCutter editing platform or the AirSPACE PC platform running the Windows NT operating system, depending on how you set up your workgroup hardware.  
d. You can install LaunchPad on the NewsCutter editing platform or the AirSPACE PC platform running the Windows NT operating system, depending on how you set up your workgroup hardware.
Troubleshooting

The following sections provide guidelines for solving problems that might occur during the operation of GigE-based network components in a workgroup environment.

AirSPACE Video Server to Alteon 180 Switch Communication

After you configure the Alteon 180 switch and connect it to an AirSPACE video server, check that they can communicate with each other.

1. Check that the Link lights on the Ethernet switch and GigE adapter are both lit.
   a. If they both aren’t lit, check to see if you incorrectly swapped the TX and RX fibre cables.
   b. If the cables are connected correctly and the Link lights still are not lit, turn off and then turn on the AirSPACE video server.
   c. If the problem persists, try connecting the cables to a different port on the switch.

   If the Link lights remain inactive, this is an indication that your GigE adapter might be defective.

2. Conduct a ping operation between the AirSPACE video server and Alteon 180 switch.
   b. At the login prompt, type `maint`.
   c. For the password, type `mars`.
   d. Type `ping switch IP address` and press Enter.
   e. Following successful transmission of a number of packets, terminate the operation.
You should see ping statistics indicating, for example:

8 packets transmitted, 8 packets received, 0% packet loss

If the ping operation failed, you will not see a message similar to the previous example. Make sure that the IP address for the Ethernet switch is set correctly. In typical network installations, the first three numbers in the Ethernet switch’s IP address and the AirSPACE video server IP address are identical (for example, 206.167.67.1 and 206.168.67.20).

AirSPACE Video Server to AirSPACE Video Server Communication

If you can ping the Ethernet switch from the AirSPACE video server, you should be able to ping from one AirSPACE to another AirSPACE through the Ethernet switch. Repeat step 2 in “AirSPACE Video Server to Alteon 180 Switch Communication” on page 33, but instead of pinging the Ethernet switch’s IP address, use the IP address for the other AirSPACE video server.

AirSPACE to DNS Communication

If you have a Domain Name Server (DNS) on your network, configure the NewsCutter systems, AirSPACE video servers, and PCs on the DNS. This allows you to ping any device using not only the IP address, but also by using the name (specifically, the host name) of the device.

For example, instead of ping 206.168.67.20, you can test whether the DNS server is connected and working by typing ping airspace1 and pressing Enter.

If this doesn’t result in any packet statistics appearing on screen, your DNS server or AirSPACE video server might be configured incorrectly.
To determine if the AirSPACE video server can detect the DNS, try pinging the IP address of the DNS. If this fails, you are either not connected, your gateway address is wrong, or your IP address for the subnet mask is wrong.

**PC or NewsCutter to AirSPACE Communication**

Using their IP addresses, you should be able to ping the AirSPACE video servers from your PC and NewsCutter systems.

If you have a DNS enabled on the PC or if you have edited the Hosts file on the PC, you should also be able to ping AirSPACE video servers by name.

**Alteon ACEnic Ethernet Adapter Communication**

If you suspect that your Alteon ACEnic Ethernet adapter is not working correctly, Alteon ships diagnostic software on its ACEnic Ethernet Server Adapter CD-ROM. For instructions on using the diagnostic software, see the IntIAnt_uqx.pdf file (where x is the release version of the Alteon documentation) on the CD.
Product Support Information

Avid Technology, Inc

Customer Support
2511 55th Street
Boulder, CO 80301
(303) 402-9000 (Main)
(303) 451-9343 (Fax)
World Wide Web: http://www.avid.com
FTP Site: ftp.plutotech.com

Technical Support Information

For Broadcast Sites

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**For Postproduction Sites**

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