

Tru64 UNIX Best Practice

Planning a News Server Using Internet Express

March 2002

Product Version: Internet Express Version 5.8

This Best Practice helps you understand the purpose and function of a news server, and how Internet Express (formerly Open Source Internet Solutions) lets you configure a news server on Tru64 UNIX.

Contents

Planning a News Server Using Internet Express

Is This Best Practice Right for You?	1
Before You Begin	2
Understanding the News Server Environment	2
How an Internet News Network Functions	3
Applying the Best Practice	5
Obtain the Internet Express Kit	5
Determine INN Server Configuration Options	5
Criteria for Setting Up Your INN Server as a Fed Site	6
Criteria for Setting Up Your INN Server as a Local	
Bulletin Board	7
Install the INN Server	7
Install the Administration Utility	7
Verifying Success	8
Alternative Practices	8
Comments and Questions	8
Legal Notice	8

Planning a News Server Using Internet Express

A news server is any computer that manages newsfeed services, including connections to external newsfeed configurations and control of client access to newsgroups.

Internet Express, a collection of popular Internet software, gives you the latest version of the InterNetNews (INN) Server that you can configure from the Internet Express Administration utility.

See the Best Practice document, *Configuring a News Server Using Internet Express*, for information on configuring an INN Server using the Administration Utility.

See the *Tru64™* UNIX Best Practices Web page for more information about Best Practices documentation:

http://www.tru64unix.compaq.com/docs/best_practices

Is This Best Practice Right for You?

Not all Best Practices apply to all configurations, so you must be sure that this Best Practice is appropriate for your system and circumstances. To use this Best Practice, you must meet the requirements described in the following table:

Requirement	Description
Operating System	Tru64 UNIX Version 5.0A or higher
Product Version	Internet Express Version 5.8 or higher
System Configuration	High-speed network interface. Consider multiple network interfaces for very high volumes.

If you do not meet the previous requirements, see *Alternative Practices* for information.

Before You Begin

Before you apply the Best Practice for Planning a News Server, you must understand some background information and perform some preliminary tasks.

If you have not already done so, register the IP address and any IP aliases for the system and configure the network. The Internet Express installation procedure will lead you through the network configuration, if necessary.

Understanding the News Server Environment

The **Usenet** is a set of protocols for exchanging messages within a decentralized network of news servers. On the Usenet, news articles are organized into newsgroups, which are further organized into hierarchies (for example, `comp`, `news`, and `talk`). In addition to these hierarchies, every news server can have its own local hierarchy (usually called `local`) that does not leave the news server. Each individual news server locally stores all received articles for a given newsgroup, allowing users quick access. News articles are propagated from the news server where it originated to other news server peers. As a result, there is no central Internet news server.

A **news server** is any computer that manages newsfeed services. The InterNetNews (INN) Server provided with Internet Express is a flexible, configurable Usenet news transport server that provides tools to manage newsfeed services, including connections to external newsfeed configurations and control of client access to newsgroups. The INN Server can be set up to function in the following ways:

- As a fed site that receives articles from an external news server. You join the INN network and make arrangements for an external newsfeed to feed your system.
- As a local bulletin board, where all information is local to your news server and is not propagated to the external news network. Many Internet Service Providers (ISPs) configure news in this manner.
- As an external news server that feeds news to another system in the INN network.

Using the Internet Express Administration utility, you can configure an InterNetNews (INN) Server to function as a fed site or as local bulletin board. See the Best Practice document *Configuring a News Server Using Internet Express* for information on using the Administration utility to perform these configuration tasks.

Note

You cannot use the Internet Express Administration utility to configure your server to be an external newfeed to another system in the INN network. For information on configuring your server in this manner, see the INN Web site at:

<http://www.isc.org/products/INN>

How an Internet News Network Functions

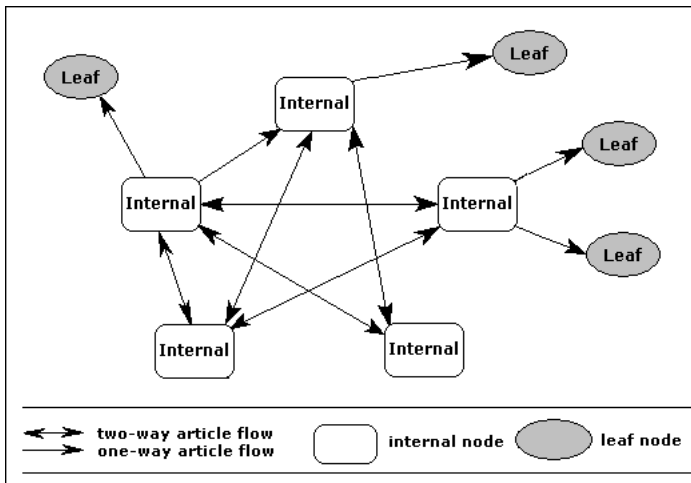
When you first post a news article, it travels to the local company, school, or ISP news server. The local news server then sends copies of the news article to other news servers with which it has agreed to exchange articles. Those servers, in turn, send copies to their peers and so on. Eventually, every server that subscribes to the newsgroup will have a copy of the article. Normally, articles are passed from server to server in the order that they arrive.

A news server can be configured either as a standalone server or as one that is connected to the Usenet.

Standalone servers carry local hierarchies and cannot exchange information with the external news network. This type of news server functions as a local bulletin board and is most appropriate for proprietary corporate news articles. Internet Express allows you to configure the INN Server in this manner through its Administration utility.

News servers can also be connected to the Usenet and exchange articles with one or more external news servers. You can connect to the Usenet in one of the two ways: as an internal node or as a leaf node, as shown in the following illustration:

General Usenet Configuration



Internal nodes propagate news feeds, passing news articles over the Usenet and making sure each member gets a copy. **Leaf** nodes receive high volume newsfeeds but do not pass the articles to other servers in the network. They can, however, send out their own users' postings.

Planning a news server requires that you decide whether your server will function as:

- An internal node that propagates all news articles
- A leaf node that receives news and may send out local postings
- A standalone server that manages a local bulletin board

The Internet Express Administration utility lets you configure your news server as a leaf node that functions as a fed site that receives articles from external news servers, and as a local bulletin board.

When connecting to the Usenet, individual news server administrators must make arrangements with other news server administrators regarding the newsgroups they plan to exchange. The "receiving" server's administrator tells the "sending" server's administrator which newsgroups he or she wants to receive. In response, the sending server's administrator configures his or her server to send only those particular newsgroups.

Usually once a day, each news server removes old articles to make space for new ones. Most servers specify a set number of days that an article can remain on the server, after which the article is removed. Expiration time

varies from server to server and from newsgroup to newsgroup on the same server. Even though an article has expired from your server, it can still be visible on many other servers because the expiration timeframe might be longer (a few days, weeks, or more). Although you may not see the article, it can still be present on your server.

Most news-reading software keeps track of which articles you've read and shows them to you only once. This way, you do not have to repeatedly wade through the same articles. Most news servers also provide a menu option that shows all articles, previously read articles, or unread articles, allowing you to view the articles that have not yet expired from your server.

Applying the Best Practice

Before you apply this best practice, be sure to follow the recommendations in *Before You Begin*.

The Internet Express "Installation and Documentation" CD-ROM contains the INN Server, as well as other Internet software. This Best Practice recommends that you:

1. Obtain the CD-ROM from the Internet Express kit.
2. Decide how your news server will function: as a standalone server (i.e., local bulletin board) or as part of the Usenet.
3. Install the INN Server subset (IAEINN).
4. Install the Internet Express Administration utility subset (IAEADM).

Obtain the Internet Express Kit

Compaq includes the Internet Express CD-ROMs with Tru64 UNIX *AlphaServer*[™] systems. If you need the Internet Express CD-ROMs, you can contact your Compaq representative. The part number for the Internet Express Kit is QB-3NCAA-SA.

Determine INN Server Configuration Options

Using the Internet Express Administration utility, you can configure the INN Server to function:

- As a fed site (leaf node) that receives articles from an external news server. In this configuration, you join the INN network and make arrangements for an external newsfeed to feed your system.

- As a local bulletin board, where all information is local to your news server and is not propagated to the external INN network.

Criteria for Setting Up Your INN Server as a Fed Site

The following checklist provides general criteria that should be established before configuring your server to function as a fed site from the Usenet:

- Information that is received or forwarded is not of proprietary nature and can be widely viewed.
- You have established a relationship for receiving information from at least one other peer outside your facility. This peer can forward your articles to other peers.
- Your network connection has enough bandwidth to receive newsfeeds. The recommended bandwidth is 3 to 4 MBps.
- Your news server has sufficient storage capacity to handle the daily newsfeed volume. Because the size of newsfeeds is continually growing, the following table provides some general storage guidelines:

Number of Peers	Description	Feed Size
Less than 5	Nonbinary feed	Less than 10 GB per day.
5 to 15	Major hierarchy feed	Approximately 30 GB per day.
More than 15	Full external feed	More than 50 GB per day.

Additional newsfeed size considerations should include the level of antispam filters you will use, filtering only your users' postings and including all newsfeeds.

- Your news server usage is determined by the number of readers, usage type, and intensity of usage on a daily basis. The following table provides some general guidelines:

Number of Simultaneous Readers	Usage Type
Less than 500	Reading text, most users connected by a modem
500 to 2000	Reading text, watching binaries, connected by fast modems or ISDN
More than 2000	Reading text, watching binaries, and downloading binaries via ISDN or a fixed line.

User authentication methods (IP-based, local, or external) also impact usage and should be considered.

- Your news server is sufficiently scalable to handle increases in news hierarchies carried, peers interacted with, and simultaneous users. Further, your server can offer an acceptable quality of service at peak usage hours; for example, 30 seconds or less to display an article or (ideally) 10 seconds or less.

If your scalability requirements are heavy, you should consider building a larger system. For light scalability requirements, a small system can generally handle the traffic. Consider the system size definitions in the following table:

Size of System	Recommended RAM and CPU Configuration
Small	128 MB RAM, single CPU
Medium	512 MB RAM, single powerful CPU or dual CPUs
Large	GB RAM with multiple CPUs

Criteria for Setting Up Your INN Server as a Local Bulletin Board

The following checklist provides general criteria that should be established before configuring your server to function as a local bulletin board:

- Information is of a proprietary nature and must be contained within your Intranet environment.
- Sufficient disk space based on the expected number of postings. If the volume of news articles is unknown, start at 5 GB.

Install the INN Server

To install the INN Server subset (IAEINN), follow the instructions in the *Internet Express for Tru64 UNIX Installation Guide*. The Internet Express installation procedure automatically selects the prerequisite subsets for installation.

Install the Administration Utility

To install the Administration utility subset (IAEADM), follow the instructions in the *Internet Express for Tru64 UNIX Installation Guide*. The Internet Express installation procedure automatically selects prerequisite subsets for installation.

Verifying Success

After you apply the Best Practice for Planning a News Server, you can verify whether it was successful:

- You understand the function of a news server and can make decisions on configuring your INN Server environment.
- You successfully installed the INN subset and the Internet Express Administration utility subset.

Alternative Practices

The Internet Software Consortium homepage for the INN Server provides release notes and access to the latest kit. For more information on newsfeeds and the INN Server, visit the following Web site:

<http://www.isc.org/products/INN>

Comments and Questions

We value your comments and questions on the information in this document. Please mail your comments to us at this address:

best_practices@zk3.dec.com

Legal Notice

Compaq, the Compaq logo, AlphaServer, and Tru64 are trademarks of Compaq Information Technologies Group, L.P.

UNIX and The Open Group are trademarks of The Open Group. All other product names mentioned herein may be trademarks of their respective companies.

Confidential computer software. Valid license from Compaq required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Compaq shall not be liable for technical or editorial errors or omissions contained herein. The information is provided "as is" without warranty of any kind and is subject to change without notice. The warranties for Compaq products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.