ShareIt FTP User Guide

Includes setup, configuration and administrative information.

How To Use This Guide

ShareIt FTP Pro vs ShareIt FTP Lite

ShareIt FTP is available in two different versions: ShareIt FTP Pro and ShareIt FTP Lite. The professional version of the software is geared towards enterprise and industrial applications and includes SSL/TLS support. ShareIt FTP Lite is designed for SOHO and individual users and does not include the SSL/TLS features and tools found in the professional version. Both products are referred to as 'ShareIt FTP' in this guide.

What's Included In This Guide

This guide describes the procedures to install and configure ShareIt FTP, monitor servers and do any other day-to-day administrative tasks.

- Chapter 1, "ShareIt FTP Overview," highlights the major features of ShareIt FTP.
- Chapter 2, "System Requirements," details the minimum hardware specifications necessary to run ShareIt FTP.
- Chapter 3, "Installing ShareIt FTP," describes the processes of installing and uninstalling ShareIt FTP.

- Chapter 4, "Configuring ShareIt FTP," covers set up and customizing of ShareIt FTP, including user accounts, security features and registration information.

- Chapter 5, "Running ShareIt FTP," tells you how to start and stop the FTP service.

- Chapter 6, "Technical Notes," details the protocol and command support in ShareIt FTP.

Using This Guide

Review the first chapter to acquaint yourself with the features that ShareIt FTP provides.

Then read any chapter that's about configuration or management functions that you are unfamiliar with. Each chapter includes an overview of how the components work, what it can do for you, strategies for using it, how to set it up and how to administer it over time.

Some chapters end with a section called "Where To Find More Information." This section points you to the Web sites and other reference material containing more information about the component.

Getting Additional Information

In addition to this document, you will find information about ShareIt FTP in:

- The product and support pages at http://www.nsctech.com.
- READ ME files in the ShareIt FTP distribution.
- On screen help within the FTP Console application.

ShareIt FTP Overview

ShareIt FTP enables computers to transfer files over your network or the Internet. It supports the latest File Transfer Protocol (FTP) features found in most web browsers and FTP client applications and provides security extensions to protect your information. The software is suited to transferring large database, medical, archive, scientific and multimedia files.

SSL/TLS Support (Pro version)

ShareIt FTP uses the same security technology that is found in e-commerce websites to protect confidential documents. Secure Sockets Layer (SSL) and Transport Layer Security (TLS) lets you send encrypted, authenticated information across the Internet.

Embedded and Wireless FTP Server

ShareIt FTP was designed from the ground up for stability, performance and interoperability. The software runs in the "background" on your device and

employs proprietary networking technology that allows up to 64 connections without degrading system performance.

Enhanced Server Security

ShareIt FTP is equipped with features to detect and prevent well known network attacks. The software includes user privileges, time-delays, random port assignments and more.

Real-time Monitoring

You can view user, download and network statistics of your FTP server in real-time.

Boost Your Bandwidth With 'MODE Z'

Get more files, faster. ShareIt FTP supports deflate transmission mode (also known as MODE Z) which is designed to increase network throughput and decrease transfer times by compressing file and system data. This feature benefits users and organizations who pay for connection time or bandwidth usage.

Manage Users and Access Rights

ShareIt FTP lets you add up to 256 users, so you can configure who may access your device and how they can use it.

Error Recovery And Restart Features

To help users cope with unreliable network enviornments, ShareIt FTP supports restartable file transfer operations. This feature saves the time and money involved in resending files.

Firewall Friendly

Firewalls restrict access to your network and impose many restrictions on the web services behind them. ShareIt FTP lets you to configure the protocol and the TCP/IP operation of your FTP server.

Easy Configuration

No complicated scripts or programming required. Just "point and tap" to set up your FTP server.

Where To Find More Information

Request for Comments (RFC) documents provide an overview of a protocol or service and details about how the protocol should work. If you are a new system administrator, you will probably find some of the background information in an RFC helpful. Experienced administrators can find the technical details of a protocol in these documents. You can search for RFC documents by number at this Web site:

http://www.faqs.org/rfc

For details about FTP, see RFC 959.

System Requirements

The minimum requirements your device needs to run ShareIt FTP are:

- A 200Mhz ARM or XScale processor.
- 16MB RAM (256KB per FTP client).
- 1MB of storage; 8MB or more recommended.
- Microsoft Pocket PC 2000/2002/2003 operating system.
- A TCP/IP network connection.
- External storage devices and memory cards are supported.

CHAPTER 3 *Installing ShareIt FTP*

This chapter describes the procedures to install and uninstall ShareIt FTP.

NOTE: If you have purchased ShareIt FTP from an on-line distributor, print out your receipt and make a back-up copy of the software.

Installing

Perform the following steps to install ShareIt FTP:

1. Open Microsoft Windows Explorer (**Start > Programs > Accessories > Windows Explorer**) on your desktop computer.
2. Double-click the **Setup.exe** icon located in the ShareIt FTP folder.
3. Click **Install**.
4. Read the license agreement carefully. If you agree to the terms, click **Accept** to launch Microsoft ActiveSync.
5. Follow the on-screen instructions.

You can also install ShareIt FTP on your device:

1. Copy or download the ShareItFTP.PPC3_ARM.CAB file to your device.
1. Open Microsoft File Explorer (**Start > Programs > File Explorer**).
2. Locate and tap the ShareIt FTP .CAB file (specified above).

3. Follow the on-screen instructions.

Uninstalling

Perform the following steps to uninstall ShareIt FTP:

1. If ShareIt FTP is running on your device, exit the server (see "Running ShareIt FTP" section).
2. Open Microsoft ActiveSync on your desktop computer.
3. Select the **Add/Remove Programs** options in the **Tools** menu.
4. Select **Noisette Software ShareIt FTP** in the application list.
5. Click the **Remove** button.
6. Follow the on-screen instructions.

Configuring ShareIt FTP

Before You Start

Consider the type of information you need to share and who your users are. For example, guest (anonymous) users pose a security risk because you open your server to people you do not know. The access and privileges you set for the files and folders on your FTP server are the most important way you can keep information safe.

Configuring Secure Communications (Pro version)

SSL/TLS Background

The Secure Sockets Layer (SSL) protocol is designed to secure and authenticate communications over the Internet. It uses a public-and-private key encryption system, which involves the use of a digital certificate from a "trusted" source. SSL has recently been succeeded by the Transport Layer Security (TLS) protocol, which is based on SSL. TLS uses the same cryptographic methods as SSL but supports stronger (168-bit 3DES vs 128-bit) algorithms.

The most important part of SSL is the digital certificate, a piece of data that includes a public key and other interesting information, such as the owner of the certificate, it's expiration date, and the fully qualified domain name associated with the server. It is up to the client to either accept or reject the server's certificate. In the case of FTP, many client applications will simply prompt you to read and accept the certificate, others may use an elaborate verification process. If the client rejects the certificate, secure communications cannot take place.

Configuring Your Firewall

If you are going to use ShareIt FTP with a firewall, you should consult your network administrator and decide on your FTP policies. This includes:

- Select the internal IP address for your FTP server.
- Choose a FTP service port (default 21).
- Note the data port range (fixed 1500 to 2000) for incoming connections.

The firewall rules will have to be updated to reflect the network configuration you agree on.

ShareIt FTP includes a compatibility feature called "Fix IP Address" which you should be familiar with. Many firewall and routing devices do not examine the FTP commands and remap the internal/external network addresses. To resolve the addressing problem, ShareIt FTP lets you specify an external IP address which will be used in FTP commands.

Configuring Your FTP Server
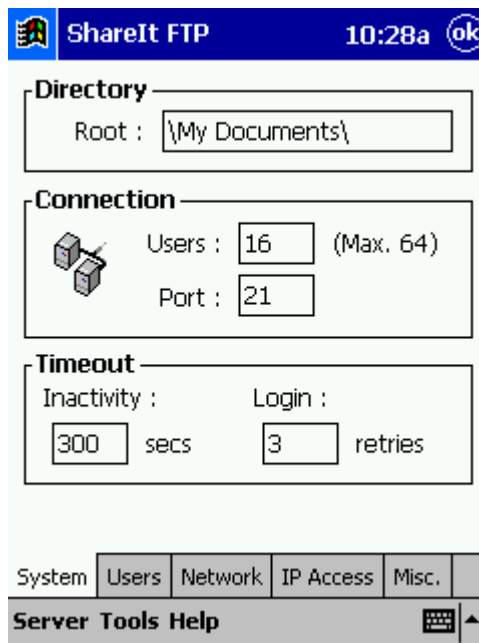
To configure your FTP server:

1. Start ShareIt FTP (**Start > Programs > ShareItFTP**). The application will launch and dock in the system tray (small gray computer icon).
2. Open the status screen (**Start >Today > System Tray > ShareItFTP**).
3. Shutdown the FTP service by choosing the **Stop** option in the **Server** menu.
4. Select the **Settings** option in the **Tools** menu.

Step 1: Configure System Settings

The System settings page lets you specify your FTP server's network address, maximum number of connections and login restrictions.

1. **Root directory**. Enter the "root" folder for your FTP server. This location will appear as the top ('/') folder to FTP clients; and any new files and folders will be stored here.

2. **Maximum number of users**. Enter the maximum number of FTP connections (up to 64).

3. **TCP Port**. Enter a port (default 21) between 1 and 65,535. Note that ports under 1,024 are reserved for other Internet and system services. Your FTP server may fail to start if it is conflicting with another application.

4. **Inactivity timeout**. Enter the maximum amount of time a connection can remain idle before the FTP server closes it. The recommended minimum value is 300 seconds.

5. **Maximum login attempts**. Enter the number of invalid login attempts before the FTP server closes the connection. The recommended value is 3.

Step 2: Configure User Settings
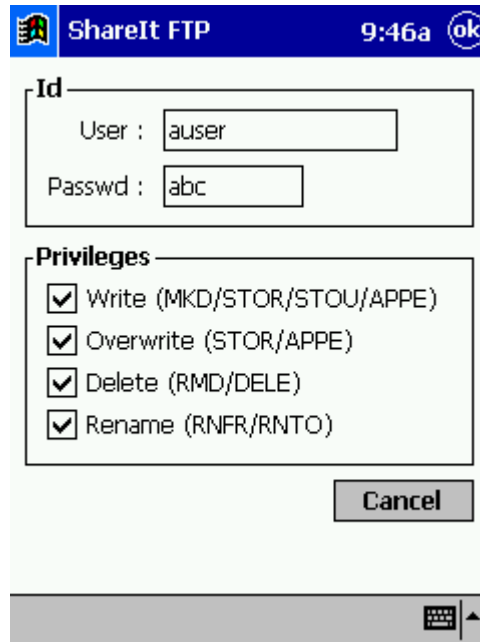
The Users settings let you create FTP user accounts and configure anonymous FTP access.

How To Create A New FTP User

1. Tap the **New** button.

2. **Edit the user profile**. Enter the username, password and permissions.

3. Tap the **OK** button to save your changes.

How To Delete A FTP User

1. Select the user profile you want to delete.
2. Tap the **Delete** button.

How To Edit A FTP User

1. Select the user profile you want to edit.
2. Tap the **Edit** button.
3. Update the username, password and permissions. (See image in "How To Create A New FTP User").
4. Tap the **OK** button to save your changes.

Configure Anonymous Users

1. **Allow anonymous user**. Check this option if you want to allow guest users.
2. **Enable permissions**. If you have enabled anonymous FTP access, check the write, overwrite, delete and rename permissions. These options let you control how guest users can use your FTP server.

Step 3: Configure Network Settings

The Network settings lets you configure firewall options.
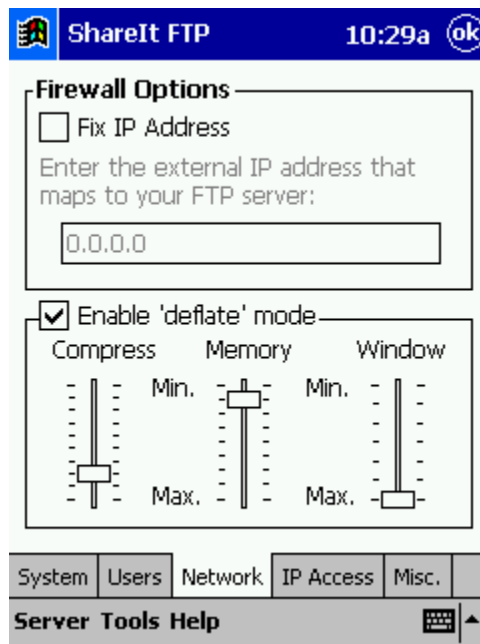
1. **Fix IP address**. Check this option if you want your FTP server to be accessible from an external network. For example, if your server is part of a private network (ie. 192.168.XXX.XXX or 10.100.XXX.XXX) you need to enter a routable IP address that can be forwarded to your computer.
2. **External IP address**. If you have enabled the fix IP option, enter the external IP address (firewall or router) for your FTP server. The external IP address will be used for FTP commands like PASV.

Configure Transmission Mode Settings

The transmission mode settings lets you configure support for the FTP 'deflate' extension (MODE Z) that can be used to compress system (for example, LIST and other commands) and file data.

Deflate transmission mode is a proposed standard, developed by NSC and other Internet Engineering Task Force (IETF) FTP Working Group members, designed to increase network throughput and decrease transfer times using the same compression technology found in ZIP utilities. The specification is currently described in an Internet Draft and should become a standard feature in FTP software over the next few years.

The new transmission mode offers several benefits to users and administrators:

• Significant network savings can be found in common file formats and system data (see the chart below).

DEFLATE TRANSMISSION MODE (MODE Z)
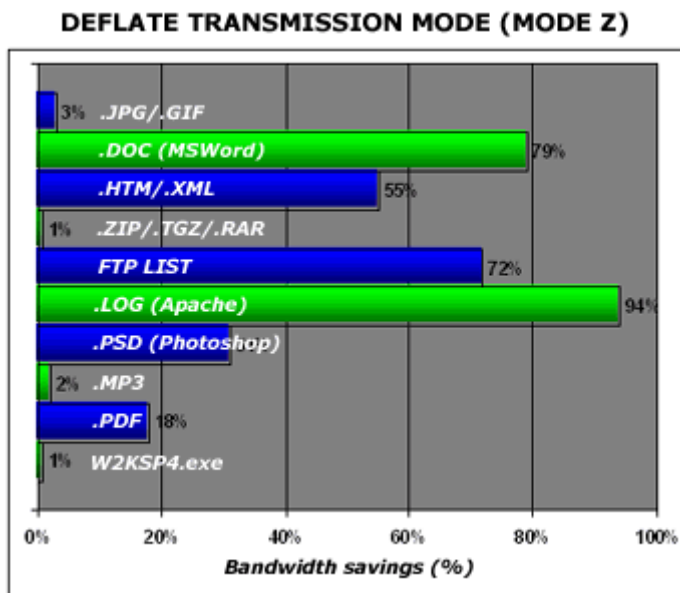
• Users and specialized FTP installations do not have to rely on external compression utilities to reduce application data.
• In secure FTP sessions, the load on the client and server is reduced because less data has to be encrypted/decrypted and fewer secure renegotiations are required.

- Users and organizations who have limited network resources or pay for connection time/bandwidth usage can save money on their Internet costs.

ShareIt FTP lets you tune the compression parameters so you can balance the network, processor and memory demands on your FTP server. It is recommended that you use this feature with the bandwidth throttle (see "Configure Advanced Network Settings") to distribute the load across all FTP connections.

1. **Deflate mode**. Check this option if you want to enable compressed data transfers.
2. **Compression level**. Set the compression level that balances the following processor and data requirements:

LEVEL	DESCRIPTION	CPU REQ.
None	No compression. Input data is copied into blocks, but includes integrity checks.	Low
Fast	Best speed with compression.	Medium
Maximum	Best compression.	High

3. **Memory level**. This parameter specifies how much memory should be allocated for internal compression operations. Set the level that balances your memory and speed requirements:

LEVEL	DESCRIPTION	MEM REQ.
Minimum	Uses minimum memory but is slow and reduces the compression ratio.	Low
Medium	Average memory and speed.	Medium
Maximum	Uses maximum memory (approximately 300K per connection) for optimal speed.	High

4. **Window size**. This parameter controls the size of the "history buffer." Larger values result in better compression at the expense of memory usage. Select a value that fits your compression requirements:

LEVEL	DESCRIPTION	MEM REQ.
Small	Minimum compression.	Low
Medium	Medium compression.	Medium
Large	Best compression.	High

Step 4: Configure IP Access Settings

The IP Access settings let you control access to your FTP server by filtering network addresses. When a computer connects to your server, ShareIt FTP will scan the the Access Control List (ACL) and accept or reject the connection.

The IP Access feature is ideal for academic and small (or home) business, but other organizations should invest in a firewall package to exercise a finer degree of control over their servers.

Configure IP Rules
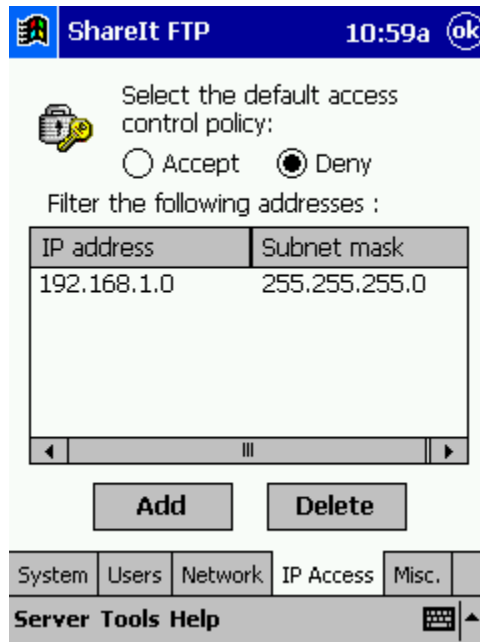
1. **Access control policy**. Select the default access control policy for your FTP server. If you are already behind a firewall, you will probably want to leave this option as 'Accept' and move onto the next section.
2. **Add rule**. Click the Add button to create a new Access Control List entry. Enter the address or range and subnet mask.
3. **Delete rule**. Select the rule you want to discard and click the Delete button.

Examples

Suppose you want to deny all connections except those from your internal company network (192.168.1.XXX):

• Set 'Deny' as your default Access Control Policy.

• Click the Add button and enter 192.168.1.0 as the IP address and 255.255.255.0 as the Subnet mask.

Now only computers with a network address in the range of 192.168.1.1 to 192.168.1.255 will have access to your FTP server.

In the next example, suppose you want to allow all connections except one from a hostile user (24.64.112.240):

• Set 'Accept' as your default Access Control Policy.
• Click the Add button and enter 24.64.112.240 as the IP address and 255.255.255.255 as the Subnet mask.

Now you have banned exactly one IP address.

Step 5: Configure Security Settings (Pro version)

The Security settings lets you create certificates and configure the SSL/TLS system.
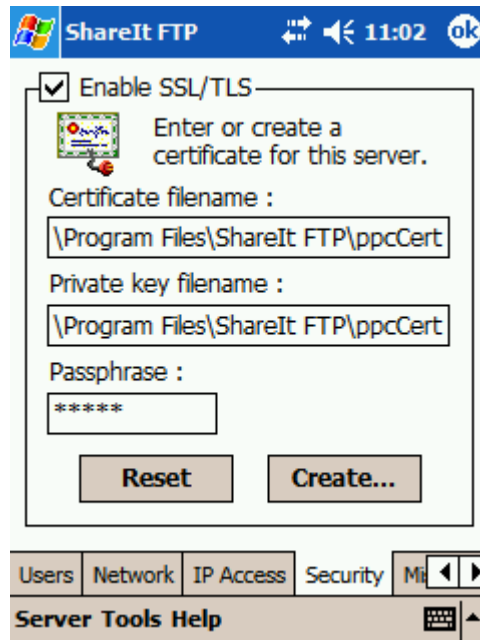
1. **Enable SSL/TLS**. Tap this option if you want to use SSL and TLS security on your FTP server. If you have disabled this feature, you can skip the remaining steps and move on to the "Configure Miscellaneous Settings" section.

If you do not have a certificate, ShareIt FTP can generate a "self-signed" certificate for you. See the "Generating A Self-Signed Certificate" and "Obtaining An SSL Certificate From A Certificate Authority" sections below.

2. **Certificate filename**. Enter the name and location of your server certificate file (.crt).
3. **Private key filename**. Enter the name and location of your server's private key file (.key).
4. **Passphrase**. Enter the passphrase associated with your private key.
5. **Reset**. Tap this button to reset the certificate, key and passphrase fields.
6. **Create**. Tap this button to create a "self-signed" certificate.

Generating A "Self-Signed" Certificate

1. **Name**. Enter a name for your certificate files. These items will be stored in your ShareIt FTP folder (ie. \My Device\Program Files\ShareIt FTP).

2. **Passphrase**. Enter the passphrase for your certificate. We suggest using a combination of 8 (minimum) letters and numbers which are non-obvious.

3. **Expiry date**. Enter the number of days (minimum 30 recommended) you want the certificate to remain valid. Note that many FTP clients will reject expired certificates.

4. **Next**. Tap the Next button to continue the certificate creation process.

5. **Organization**. Enter the organization to which your domain name is registered.

6. **Organization unit**. Enter the name of your department or division.

7. **Common name**. Your FTP server's DNS name, such as ftp.mycompany.com.

8. **Email address**. The email address of the certificate's contact person.

9. **State or province**. The locality of your organization.

10. **City**. The city in which your organization is located.

11. **Country**. The two letter country code for your organization.

12. Tap the **Finished** button to generate the certificate and continue configuring ShareIt FTP.

Obtaining An SSL Certificate From A Certificate Authority

ShareIt FTP includes the capability to generate a "self-signed" certificate which can be used to secure communications, but many organizations require certificates to come from a Certificate Authority (CA) like Verisign (http://www.verisign.com).

Commercial CAs

For more information about commercial CAs have a look at the following locations:
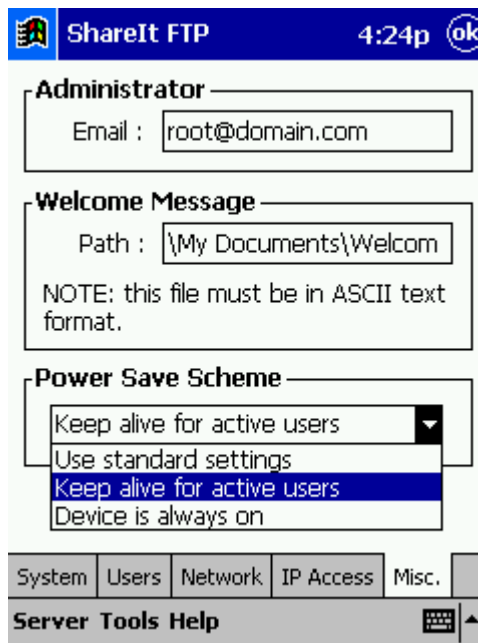
- Verisign, http://www.verisign.com
- Thawte, http://www.thawte.com
- CertiSign Certificadora Digital Ltda., http://www.certisign.com.br
- IKS GmbH, http://www.iks-jena.de
- Uptime Commerce Ltd., http://www.uptimecommerce.com
- BelSign NV/SA, http://www.belsign.be

NOTE: Most CA's do not give explicit details about how to generate a certificate request (CSR) for FTP servers. Fortunately, ShareIt FTP uses the highly regarded OpenSSL package and is compatible with the Apache (web server software) mod_ssl procedures. If you are having problems obtaining a certificate from a CA, contact support@nsctech.com.

Step 6: Configure Miscellaneous Settings

The Miscellaneous settings let you enter administrator and welcome message infor-
mation.

1. **Administrator email address**. Enter the contact email address for your server.
   This information is displayed in the STAT command.
2. **Enter welcome banner filename**. If you want to display a welcome message to
   FTP users, enter the name of a plain text file. Leave this field blank if you do not
   want to use this option.
3. **Select power save scheme**. This feature helps battery powered devices provide
   better FTP service by bypassing device power saving options. Select an option
   that suits your needs.

How To Automatically Start ShareIt FTP

To configure ShareIt FTP to automatically start when your device is powered on:

1. Open **File Explorer** (**Start > Programs**).
2. Navigate to the **Programs** folder (**My Device > Windows > Start Menu**).
3. Bring up the keyboard (lower right on your device).
4. Tap the **Ctl** button.
5. Locate and select the **ShareIt FTP** icon/shortcut.
6. Tap the **Ctl** button, followed by the **c** key. This is the Copy sequence.
7. Navigate to the **StartUp** folder (**My Device > Windows**).
8. Tap the **Ctl** button, followed by the **v** key. This is the Paste command.
9. Restart your device.

Where To Find More Information

If you require more information about secure network communications, there is a variety of books available from O'Reilly & Associates. See the *Network Security With OpenSSL* book (ISBN 0-596-00270-X) for an in-depth discussion on the benefits of using a CA.

For more information on administering and configuring web services, see *Running Microsoft Internet Information Server* (ISBN 1-57231-585-7) from Microsoft Press.

The latest SSL 3.0 specification, an Internet Draft dated November 1996, can be viewed at: http://wp.netscape.com/eng/ssl3/draft302.txt.

Running ShareIt FTP

In this next section, we will examine how to manually control the FTP service so that you can perform routine maintenance on your device.

Starting The FTP Service
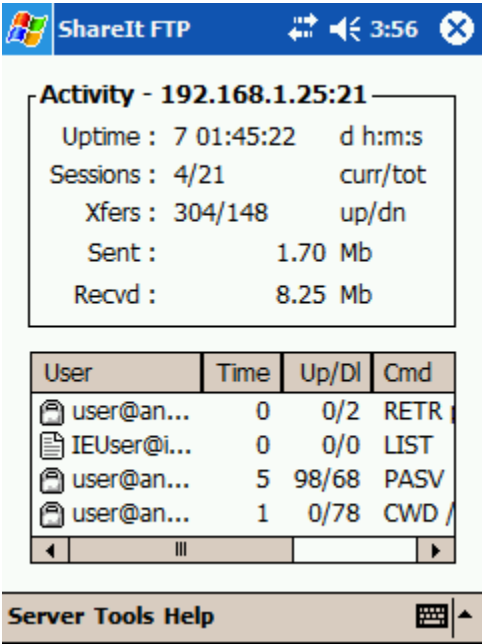
1. Start ShareIt FTP (**Start > Programs > ShareItFTP**). The application will launch and dock in the system tray. If you want to view FTP activity, see the next section.

If the FTP service is stopped, you can manually start/resume by:

2. Selecting the **Start** option in the **Server** menu.

Viewing FTP Service Activity

You can view server statistics and user activity through the ShareIt FTP status screen:

1. Open the Microsoft **Today** application (**Start > Today**).

2. Tap the ShareIt FTP icon in the system tray. See screenshot (below).
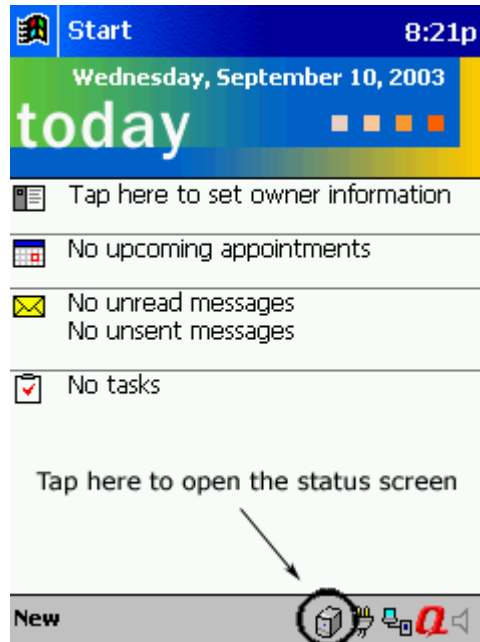
3. If you want to hide the ShareIt FTP status screen, select the **Hide Window** option in the **Server** menu.

Stopping The FTP Service

ShareIt FTP can be manually stopped by performing one of the following operations:

1. Selecting the **Stop** option in the **Server** menu.

2. Choosing the **Exit** option in the **Server** menu.

To restart the FTP service, use one of the start FTP service options (above).

Technical Notes

This section contains advanced system and protocol details for ShareIt FTP.

File Modification Time (MDTM) Command

ShareIt FTP implements the MDTM command as specified in the draft-ietf-ftpext-mlst-16 document. However, the server also supports the widely accepted "set" time option:

MDTM <sp> timeval <sp> pathname <CRLF>

The server-PI will respond to the MDTM command with a 213 reply giving the new modification time of the file. 550 represents an error in the timeval, pathname or access to the file; 553 is returned when the user does not have write permissions.

ASCII Representation Type

When the user-PI sets ASCII representation type (TYPE A), ShareIt FTP will translate the newline characters (LF = '\n') to the correct CRLF sequence. The benefit of

this feature is that ShareIt FTP can be used to convert text files from other operating systems (for example, UNIX) to the native Windows format. However, users and administrators should note that the size of the file on the destination system will be larger than that of the source.

NOTE: The server will not alter existing CRLF formatting. For more information, see RFC 959 section 3.1.1.1.

Telnet Protocol Notes

ShareIt FTP emulates the Synch signal behavior specified in RFC 854 (page 7). The software ignores the TCP Urgent flag and scans the incoming data for the DM (Data Mark) flag. When the flag is seen, only "interesting" control functions will be executed and TELNET data up to the DM is ignored. See description below for more detail on the TCP Urgent flag:

> [Winsock documentation] 2.2.3 Out-of-band data
> *Note: The following discussion of out-of-band data, also referred to as TCP Urgent data, follows the model used in the Berkeley software distribution. Users and implementors should be aware of the fact that there are at present two conflicting interpretations of RFC 793 (in which the concept is introduced), and that the implementation of out-of-band data in the Berkeley Software Distribution does not conform to the Host Requirements laid down in RFC 1122. To minimize interoperability problems, applications writers are advised not to use out-of-band data unless this is required in order to interoperate with an existing service. Windows Sockets suppliers are urged to document the out-of-band semantics (BSD or RFC 1122) which their product implements. It is beyond the scope of this specification to mandate a particular set of semantics for out-of-band data handling...*

Port Range

ShareIt FTP uses the TCP ports between 1500 and 2000 for data connections. If your FTP server is behind a firewall, you should update the network rules to allow incoming traffic in this range.

Error Timeout

If a user sends an invalid or unsupported command, ShareIt FTP will wait 3 seconds before it will process the next request. The purpose of this feature is to slow down certain types of network attacks.

Maximum Connections From Same IP

ShareIt FTP imposes a four (4) connection limit from the same TCP/IP address.

OpenSSL (Pro version)

ShareIt FTP employs the OpenSSL suite to implement Secure Sockets Layer (SSL v2/v3) and Transport Layer Security (TLS v1) functionality. This software is a comphrensive 'open source' solution that meets the security requirements of CERT and other international organizations. For more information, see the OpenSSL website: http://www.openssl.org.

MD5 Command

MD5 (Message Digest Algorithm #5) is a secure hashing function that converts an arbitrarily long data stream into a digital signature (or checksum). No two streams produce the same value which makes this technique ideal for comparing file information. If the checksums of two files match, the data has not been altered and the contents can be trusted.

ShareIt FTP provides a method for calculating MD5 checksums with the following [extended] command:

    SITE <sp> MD5 <sp> filename <CRLF>

The server-PI will respond to the request with a 200 reply giving the MD5 checksum. 5XX errors are returned when the file does not exist, is the incorrect type or permission is denied.

The representation type (ASCII/binary) set during the FTP session influences the result of this command. CRLF mapping is performed in ASCII mode (see the "ASCII Representation Type" section in this chapter).

The MD5 feature requires the user's FTP client software to support custom requests. Each package accomplishes this task in a different manner and some applications do not support this function.

FTP Commands

Standard Commands

COMMAND	DESCRIPTION/SYNTAX	RFC
LIST	List file information in current/specified directory. Usage: LIST [<sp> pathname] <CRLF>	959
NLIST	List file names. Usage: NLIST [<sp> pathname] <CRLF>	959
CWD/XCWD	Change working directory. Usage: CWD/XCWD <sp> directory <CRLF>	959
CDUP/XCUP	Change to parent directory. Usage: CDUP/XCUP <CRLF>	959
PORT	Specify remote IP address for data transfer (server to client). Usage: PORT <sp> b0, b1, b2, b3, b4, b5 <CRLF>	959
PASV	Passive data transfer (client to server). Usage: PASV <CRLF>	959

COMMAND	DESCRIPTION/SYNTAX	RFC
TYPE	Set representation type. Usage: TYPE <sp> [A | I | L 8 | N | T | AN | AT] <CRLF>	959
ALLO	Allocate storage space (ignored). Usage: ALLO <sp> filesize <CRLF>	959
STOR	Store (upload) file. Usage: STOR <sp> filename <CRLF>	959
STOU	Store unique file. *The server will generate and return a file-name in the reply.* STOU <CRLF>	959
APPE	Append file. Usage: APPE <sp> filename <CRLF>	959
RETR	Retrieve (download) file. Usage: RETR <sp> filename <CRLF>	959
PWD/XPWD	Print working directory. Usage: PWD/XPWD <CRLF>	959
ABOR	Stop current operation. Usage: ABOR <CRLF>	959
USER	Set username. Usage: USER <sp> username <CRLF>	959
PASS	Set password. Usage: PASS <sp> password <CRLF>	959
ACCT	Set account (ignored). Usage: ACCT <sp> account-info <CRLF>	959
DELE	Delete file. Usage: DELE <sp> filename <CRLF>	959
RMD/XRMD	Remove directory. Usage: RMD/XRMD <sp> directory <CRLF>	959
MKD/XMKD	Create directory. Usage: MKD/XMKD <sp> directory <CRLF>	959

COMMAND	DESCRIPTION/SYNTAX	RFC
RNFR	Rename from. *Must be followed by RNTO command.* Usage: RNFR <sp> filename <CRLF>	959
RNTO	Rename to. Usage: RNTO <sp> filename <CRLF>	959
SYST	System command. Return host operating system information. Usage: SYST <CRLF>	959
MODE	Set transmission mode. Usage: MODE <sp> [S | Z] <CRLF>	959
STRU	Set file structure. Usage: STRU <sp> [F | R] <CRLF>	959
STAT	Status. Return information about the current operation. Usage: STAT [<sp> pathname] <CRLF>	959
REIN	Reinitialize. This command terminates a user, flushing all IO. Usage: REIN <CRLF>	959/ EXT
MDTM	Set/get file modification time. Usage: MDTM <sp> pathname <CRLF> and MDTM <sp> timevalue <sp> pathname <CRLF>	EXT
SIZE	Return the size of a file (using current representation type). Usage: SIZE <sp> pathname <CRLF>	EXT
AUTH	Set authentication/security mechanism. Usage: AUTH <sp> [SSL | TLS] <CRLF>	2228
PBSZ	Set protection buffer size. Usage: PBSZ <sp> size <CRLF>	2228
PROT	Set data channel protection level. Usage: PROT <sp> [C | P] <CRLF>	2228

COMMAND	DESCRIPTION/SYNTAX	RFC
CCC	Clear command channel. Usage: CCC <CRLF>	2228
FEAT	Feature command. Show server capabilities. Usage: FEAT <CRLF>	2389
OPTS	Options command. Allows the client to set command behavior. Usage: OPTS <sp> command [<sp> options] <CRLF>	2389
SITE	Site command. Access custom server features. Usage: SITE <sp> command [<sp> options] <CRLF>	959
HELP	Display command and syntax information. Usage: HELP [<sp> command] <CRLF>	959
NOOP	No operation. Usage: NOOP <CRLF>	959
EPRT	Extended PORT command. Usage: EPRT <sp> <d><net-prt><d><net-addr><d><tcp-port><d>	2428
EPSV	Extended PASV command. Usage: EPSV [<sp> ALL] <CRLF>	2428
QUIT	Logout. Usage: QUIT <CRLF>	959

Extended Commands

The following commands are unqiue to ShareIt FTP and require the FTP client to send custom requests to the server (with the SITE feature).

COMMAND	DESCRIPTION/SYNTAX
MD5	Calculate a MD5 checksum for a file. Usage: SITE \<sp\> MD5 \<sp\> filename \<CRLF\> *NOTE: Representation type (ASCII/binary mode) influences the result of this command.*

CHAPTER 8 *Revision Notes*

Version 1.7

- ShareIt FTP now available in two formats: Pro and Lite
- Added SSL/TLS and RFC2228 (AUTH, PBSZ, PROT, CCC, etc.) support.
- Added 'Security' configuration page; contains certificate and passphrase information. (*Pro version*)
- Added certificate creation pages (*Pro version*)
- Added UTF8 support.
- Added MD5 extension.
- Updated STAT command to display the security mechanism.
- Updated PROT command: PROT without corresponding PBSZ is accepted after login.
- Updated MODE Z to include header and CRC information. This change is reflected in http://www.ietf.org/internet-drafts/draft-preston-ftpext-deflate-02.txt.
- Changed 'About' dialog to display version (Pro vs Lite) information.

Version 1.62

- Fixed bug in STOR command that allowed users to upload to root folder. Files would not be visible or accessible.

- Updated STAT command. Do not display administrator email address if the field is blank.

- Fixed bug in deflate settings. Starting/stopping the server and changing the MODE Z settings caused a crash.

Version 1.61

- Added power save options. These options help administrators configure the device to balance FTP availability and battery conservation.

- Updated FTP server settings option; the system will prompt the administrator to stop the server before editing.

Version 1.6

- Added deflate transmission mode.

- Update network config settings pages.

- Updated version number and welcome message to 1.6.

- Added new IP access settings pages.

- Added access control list (ACL) functionality for security configuration.

- Updated system setting pages; new icon and layout.

- Updated user setting pages; new icon and layout.

- Fixed timeout bug; prevents no data network attack.

- Network and performance improvements.

- Root folder is now accessed through the "pub" folder. This change is part of an initiative to add FTP share points to the Pocket PC version of ShareIt FTP.

- Updated rename/move functionality. ShareIt FTP will return an error when the user attempts to rename and move files.

- New RNTO reply. The server will reply to error code 550 if the folder is protected (ie. "pub").
- Updated installer. Fixed PPC 2003 installation.