MAPI Sample Transport

Overview and release notes, 5/13/95

This document gives a brief overview of the sample transport service provider (SMPXP.DLL) that is part of the MAPI SDK.

Architecture

Peer-to-peer. The sample peer-to-peer transport transmits messages as files and uses network file paths as its e-mail addresses. Each user has an inbound message directory and an outbound message directory; the user's e-mail address is the network path to the inbound directory. The transport creates an outbound message in each recipient's inbound directory (obtained from the recipient's address).

Not peer-to-peer. If peer-to-peer transmission is disabled (this is a configuration option), the transport simply leaves outbound messages in the outbound directory and collects inbound messages from the inbound directory. It does not attempt delivery. This mode can be used as the first of two stages, where the second stage moves messages to and from the network.

Addressing. In peer mode, the network path of the user's inbound directory is the e-mail address. Network paths are normally Universal Naming Convention (UNC) paths, but an MS-DOS drive and directory path can also be used.

Message in TNEF. A small set of message properties, including recipients, subject, and message text, are encoded as text for transmission. Other message properties are encapsulated in a binary file in the Transport Neutral Encapsulation Format (TNEF), using functions supplied in MAPI32.DLL. This division approximates the division of properties that real transports must often make, where those properties understood by non-MAPI clients must be encoded in a transport-specific format and the remainder can be left to the TNEF.

Interface lifetime and cross-referencing. Interfaces created by the transport in response to service provider interface (SPI) calls, including status interfaces, are hooked to the transport logon object and invalidated when MAPI logs off the transport. (The provider INIT object is an exception, as you might expect.)

Address type and UID. The transport handles a single e-mail address type, which is configurable. It does not handle any UIDs, that is, it does not call **SetProviderUID()**.

Per-recipient and per-message option support. The transport supports deferred delivery of messages on a per-recipient basis, as well as on a per-message basis.

Supported features

Basic features. Sending, receiving, and polling for new messages.

Configuration. Interactive and programmatic configuration of 14 parameters. The parameters are listed in the "Configuration" section following.

Status interface. All methods of the **IMAPIStatus** interface, except property setting.

Multithread safety. MAPI carefully limits the exposure of transports to access by multiple threads of execution on Win32 platforms. The sample transport protects itself against concurrency problems in the remaining cases where they might arise (in the status interface, for instance).

Cross-platform support. The sample transport generates executable files for Microsoft Windows 3.*X*, Microsoft Windows 95, and Microsoft Windows NT 3.51 and later from a single set of source files.

Event logging. Event logging to a text file. The file is automatically limited to a specified size. All transport sessions use the same file.

Unsupported features

Asynchronous detection of incoming messages. The transport's design does not lend itself to asynchronous detection because the file system does not notify the transport when new messages arrive.

Configuration

The sample transport has a three-page property sheet interface for interactive configuration, which is accessible through service provider logon, through the **ServiceEntry()** call, and through the **IMAPIStatus::SettingsDialog** method. The configurable parameters appear following. The sample

transport also defines a property tag for each parameter so that parameters may be set programmatically through **ServiceEntry()** calls; see the SMPXP.H header file.

General page

Log Events. If this check box is selected, the transport logs events to the log file specified on the Logging page. Otherwise, logging is disabled.

Peer to Peer Enabled. If this check box is selected, the transport attempts to deliver outbound messages to the directory specified by the e-mail address. Otherwise, outbound messages are simply placed in the user's own outbound directory.

Logon UI Always. If this check box is selected, the transport always brings up this dialog box the first time you log on. If Save Dialog Settings is also selected, the dialog box comes up filled with the previously entered information. If Logon UI Always is not selected, no dialog box appears at logon, and the transport uses saved settings instead.

Save Dialog Settings. If checked, the transport saves the contents of the dialog box in your MAPI profile. Otherwise, the dialog box's contents are used until you log off from MAPI and then discarded.

WGAP Filename. This edit control contains a name which *could* be used by an application to designate resources owned by this user of the peer-to-peer transport. No known application uses it.

WGAP Directory. This edit control contains the path to a directory which *could* be used by an application to store files owned by this user of the peer-to-peer transport. No known application uses it.

Peer to Peer page

Display Name. This edit control contains the user's full name. This item appears in the From field of any messages sent using the peer-to-peer transport.

E-mail Type. This edit control contains the type component of the user's e-mail address. Users who intend to exchange messages with the peer-to-peer transport should agree on a common value for this item. **MSPEER,** which is supported by the the sample address book, is a common choice.

E-mail Address. This edit control contains a network path, preferably a UNC path, to the user's inbound directory. This item is the return address in messages sent from this session.

Inbound Msg Dir. This edit control contains a path, preferably a local path, to the user's inbound directory. This item does not appear in messages; the transport simply uses it as a location to poll for inbound messages.

Outbound Msg Dir. This edit control contains a path, preferably a local path, to the user's outbound directory.

Logging page

Logfile Name. This edit control contains a path to the text file the transport uses for event logging. If Log Events is checked on the General page, the transport writes a line of text to this file for each event.

Log High Water Mark. This edit control contains the maximum size of the log file, in kilobytes. If the log file grows beyond this size it is truncated.

Log Low Water Mark. This edit control contains the size in kilobytes to which the log file is truncated when it grows beyond the high-water mark.

Known problems

Self-relative UNC paths on Microsoft Windows 95 and Microsoft Windows for Workgroups. If the user's inbound directory is shared from the workstation using Microsoft Windows 95 or Microsoft Windows for Workgroups, and the e-mail address is a UNC path, sending messages to oneself from this workstation may not work.