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Open Transport 1.1: Future Directions Q & A (3/96)

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TOPIC ---

This article is the Reference Q & A (questions and answers) on future directions
for Open Transport.

DISCUSSION --

Question: What is the next planned release of Open Transport?

Answer: Open Transport v1.1.1 is anticipated as a "rapid response" release to
follow up quickly to priority issues, if any, that surface after the release of
Open Transport 1.1.

The next features driven release planned for Open Transport is under the working
title of OT 1.5, is planned for availability sometime in Q4 1996. More
information about the features, availability, and distribution of this update
will be released as it becomes available.

Question: What additional network interface options are planned to be available
for Open Transport?

Answer: Modem and ISDN support are to be available following the introduction of
the next generation of Apple Remote Access products (incorporating Open
Transport/PPP and Open Transport v1.1).

Question: Will Open Transport/TCP offer multihoming and multinode capabilities
in a future release? Will users be able to configure general multihoming and
multinode operation in the future?

Answer: In a future release of Open Transport, multinode and multihoming
capabilities for both AppleTalk and TCP/IP are planned as configurable options

for network administrators and advanced users.

Question: What about MacSNMP? When will it be revised to work with PCI and Open Transport?

Answer: MacSNMP v1.5 is planned to be available in 1996. This release is designed to include support for MIB II statistics from the Open Transport/TCP stack, transport of SNMP data over Open Transport/TCP, and to add support in the Macintosh System MIB for both NuBus and PCI interface cards.

MacSNMP and the Mac System Agent are supported through Open Transport's backward compatibility services.

Question: What about the Apple Internet Router? Will it be revised for Open Transport?

Answer: Apple is not announcing future plans regarding this product at this time.

Question: Will Apple or Novell deliver an Open Transport-ready Mac OS client that uses IPX protocols?

Answer: Novell currently offers the NetWare Client for Mac OS v5.1, providing access to file, print, and NetWare Directory Services (NDS) using NCP/IPX protocols.

An Open Transport-ready implementation of NetWare protocols and client services is currently under investigation. The two companies are not ready to announce product details or availability at this time.

Question: Will Apple or Microsoft deliver an Open Transport-ready Mac OS client that uses NetBIOS/TCP protocols?

Answer: Windows NT AS currently includes strong Mac OS connectivity solutions based on AppleTalk protocols. Other protocol options are under investigation at Apple, Microsoft, and with third parties. No additional details are available at this time.

Question: Will Apple provide a PowerPC native standards based SLIP or PPP solution for Open Transport?

Answer: Apple is developing an implementation of PPP for Open Transport as a part of the next generation of Apple Remote Access products. Dial-up access to AppleTalk and TCP/IP networks will be based on the following RFCs:

- RFC 1661 - PPP
- RFC 1662 - PPP in HDLC-like framing
- RFC 1570 - PPP LCP extensions

- RFC 1334 - PPP Authentication protocols
- RFC 1663 - PPP Reliable transmission
- RFC 1378 - ATCP AppleTalk Control Protocol
- RFC 1332 - IPCP Internet Protocol Control Protocol

Question: What about IP version 6 (IPv6) support in Open Transport?

Answer: IPv6 is an proposed update of the current Internet Protocol (IPv4), part of the TCP/IP suite of protocols used to allow computers to communicate with each other over the Internet. The Internet Engineering Task Force (IETF) is in the process of specifying the standards for IPv6.

IPv6 is being designed to respond to the limitations of IPv4 - including an upcoming shortage of new IP addresses - to allow for the continued expansion of the Internet and deployment on corporate networks. IPv6 also incorporates new functionality to provide security, multimedia support, and plug and play capabilities, features necessary to usher the Internet into the twenty-first century.

At the October 1995 Networld+InterOp trade show, Apple and Mentat demonstrated a prototype of Internet Protocol Version 6 running on Open Transport. The demonstration showed the flexibility of the Open Transport environment - with current IPv4 applications such as Fetch, Netscape, and Web*Star running unmodified with IPv6 support - and showed the benefits of Open Transport's underlying standards based architecture - facilitating code portability. The demonstration also included basic interoperability testing with IPv6 prototype implementations from DEC and HP, using standard IP utilities such as Ping and Telnet.

Apple and Mentat will continue to work together to ensure timely availability of IPv6 for Mac OS once the standard has been completed.

Question: Will Open Transport v2.0, for the Copland release of the Mac OS, offer any new capabilities?

Answer: Yes. Open Transport v2.0 is being designed to take full advantage of the new microkernel services available in the Copland OS. As a result, Open Transport networking on Copland is planned as a set of multithreaded, preemptively scheduled tasks running in protected memory.

To a user, this will mean that networking will be even more robust and higher performance. To a developer, this will mean that a rogue application running in another memory space will not be able to corrupt system level networking task.

In addition, Open Transport v2.0 is expected to incorporate a second generation update to the human interface introduced with Open Transport v1.0.

Current plans call for this release to include support for features such as:

- Configuration selection will be integrated with system level workspaces and the location assistance toolbox;

• Advanced end-users and network administrators will be able to configure a protocol stack for simultaneous support of multiple network connections (multihoming);

• Administrators will find additional trouble-shooting tools (such as Ping, traceroute, local ARP cache, access to local routing tables, and others) integrated with the configuration utilities;

• Support for AppleScript; and

• Desktop aliases for network configurations to allow double-click reconfiguration of services.

Open Transport 2.0 is also planned to include integrated support for NetWare/IPX, X.25, ATM, and ISDN.

Article Change History:
26 Mar 1996 - Updated to 2.1 version of Future Directions Q & A.
08 Mar 1996 - Changed distribution status.

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