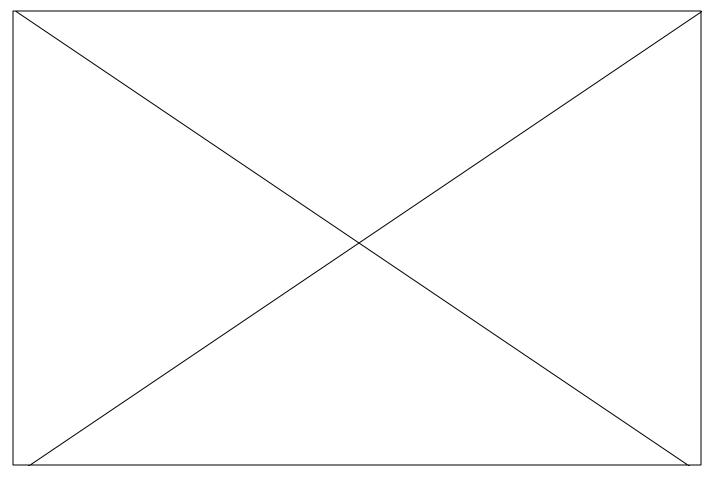# Macintosh to VAX Integration Toolkit

Overview

The Macintosh® to VAX® Integration Toolkit is a set of software components, application programming interfaces (API), and documentation for commercial developers interested in building distributed applications between Macintosh and VAX computers. The Toolkit includes VMS-based software consisting of AppleTalk® for VMS® (version 3.0) and the AppleTalk/DECnet Transport Gateway. In addition, the Toolkit provides Macintosh-based software consisting of the ADSP driver and the Macintosh Communications Toolbox (which includes the ADSP and AppleTalk-DECnet connection tools).

These components are the connectivity foundation for products developed under the Apple Computer and Digital Equipment Corporation joint development agreement, and are consistent with the architecture defined and supported by both companies. This Toolkit also provides programmer documentation, including documentation for all of the exposed APIs. Developers interested in redistributing the Toolkit with their application need to obtain a license from Apple® Software Licensing.

Features	Benefits
· Kernel implementation	· The kernel implementation of the AppleTalk protocol stack is tightly coupled with VMS, leading to greatly enhanced performance.
· Full support for AppleTalk Phase 2	· AppleTalk for VMS (version 3.0) conforms to the AppleTalk Phase 2 architecture, allowing users to take advantage of Phase 2 features like expanded addressing capabilities, reduced broadcasting, and others.
· AppleTalk routing	· Users can configure the VMS system to act as an AppleTalk router. This router also supports half-routing of AppleTalk protocols through DECnet* logical links (a technique called *DECnet tunneling*).
· AppleTalk/DECnet Transport Gateway	· The software module that allows translation between AppleTalk and DECnet protocols makes it possible for Macintosh applications using AppleTalk to connect to DECnet-based servers.
· Powerful management utility	· AppleTalk for VMS comes with a powerful management and configuration utility that uses an NCP-like syntax. This utility controls the protocol stack, the router, and the AppleTalk/DECnet Transport Gateway.
· Fully documented APIs	· The AppleTalk for VMS protocol stack and the AppleTalk/DECnet Gateway come with public and fully documented APIs that can be used by software developers to build distributed Macintosh-to-VAX applications.
· Connection tools for the Macintosh Communications Toolbox	· To make it even easier to develop applications, this package includes two connection tools for the Macintosh Communications Toolbox: the ADSP and AppleTalk-DECnet tools. By using these tools, the software development cycle on the Macintosh is greatly reduced.

Product Details

Components of the Macintosh to VAX Integration Toolkit
· Software on the VAX computer
–AppleTalk for VMS (version 3.0), which consists of a protocol stack, router, and configuration and management utility (ATK$MANAGER)
–AppleTalk/DECnet Transport Gateway
–Installation procedure
· Software on the Macintosh computer
–ADSP driver
–Macintosh Communications Toolbox Software
–ADSP Connection Tool for the Macintosh Communications Toolbox
–AppleTalk-DECnet Connection Tool for the Macintosh Communications Toolbox
· Documentation
–Planning and Installation Guide
–System Administrator's Guide
–System Administrator's Reference
–Macintosh to VAX Integration Toolkit Programmer's Guide
–Macintosh to VAX Integration Toolkit Programmer's Reference
–Macintosh Communications Toolbox Reference

AppleTalk for VMS (version 3.0)
· AppleTalk for VMS is Apple networking software that implements the AppleTalk protocol architecture on Digital's VMS operating system. It lets VMS systems participate in an AppleTalk internet. This implementation of the AppleTalk protocols offers significant enhancements over previous versions of AppleTalk for VMS, such as support of the AppleTalk Phase 2 protocols, a more versatile API, and easier system configuration and management.
· The AppleTalk for VMS protocol stack includes support for the following protocols:
–AELAP
–AART
–DDP
–EP
–NBP
–ZIP
–RTMP (full set)
–ATP
–ASP (server only)
–PAP (client and server)
· The ASP client protocol and the AFP protocol are not implemented in the protocol stack.

AppleTalk for VMS Router
· Another feature of AppleTalk for VMS (version 3.0) is the implementation of a fully functional AppleTalk router. The router provides internet routing, zone management, routing table maintenance, and handling of name-binding broadcast requests.
· The router operates over any combination of Ethernet local area networks and over DECnet wide area networks. Routing through DECnet networks (called *tunneling*) allows a DECnet wide area network to connect two or more geographically separate AppleTalk internets.

AppleTalk/DECnet Transport Gateway
· The gateway is software residing on a VAX computer that provides bidirectional conversion between AppleTalk ADSP and DECnet NSP protocols, making it possible for a Macintosh computer running on AppleTalk to connect to a DECnet-based server running on a VAX computer.

AppleTalk for VMS Manager (ATK$MANAGER)
· The AppleTalk for VMS Manager is the software component that system administrators use to manage and maintain AppleTalk for VMS, the AppleTalk router, and the AppleTalk/DECnet Transport Gateway.

Macintosh to VAX Integration Toolkit

System Requirements

Equipment and Software: VAX Computers

To use AppleTalk for VMS, you need:
· Any VAX running VMS Version 5.3 or later (except asymmetric multiprocessors such as the VAX 11/782)
· Disk space: A minimum of 24,000 blocks is recommended to install the software

· A VAX Ethernet board and an associated driver
· To use the gateway or to use the tunneling capabilities, you need in addition, a DECnet license for the VAX computer on which the gateway resides.

Equipment and Software: Macintosh Computers

To use AppleTalk for VMS, you need:
· Any Macintosh computer

· System software version 6.0.4 or later
· A network connection (LocalTalk® or Ethernet connection, or both)
· A minimum of 1 megabyte of RAM

Ordering Information

Macintosh to VAX Integration Toolkit (Single User Evaluation Kit)
Order No. M0942LL/A

To order the Macintosh to VAX Integration Toolkit (Single User Evalua-tion Kit) contact:
Apple Programmers and Developers Association (APDA®)
Apple Computer, Inc.
20525 Mariani Avenue, MS 33G
Cupertino, CA 95014-6299
(800) 282-2732

With your order, you receive:
· AppleTalk for VMS (version 3.0)
· AppleTalk/DECnet Transport Gateway
· VAX-based configuration utility (ATK$MANAGER)
· ADSP driver
· Macintosh Communications Toolbox, which includes the ADSP and AppleTalk-DECnet connection tools
· *Planning and Installation Guide*
· *System Administrator's Guide*

· *System Administrator's Reference*
· *Macintosh to VAX Integration Toolkit Programmer's Guide*
· *Macintosh to VAX Integration Toolkit Programmer's Reference*
· *Macintosh Communications Toolbox Reference*

Licensing Information

For information about licensing, contact:
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