#### PROJECT ATHENA TECHNICAL PLAN



# Section J

# Athena Standards and Specifications

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This section provides citations for standards adopted by Project Athena, documents related to those standards, and references for third-party software adopted by Project Athena. The first two subsections are organized in parallel for easy cross-reference between standards and documents related to those standards.

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<sup>&</sup>lt;sup>1</sup>UNIX is a registered trademark of AT&T Bell Laboratories

## 1. Project Athena standards

This subsection provides citations for standards adopted by Project Athena. The next subsection, Related standards and Publications, is organized to be parallel to this section. In many cases, the related standards provide information that is useful in interpreting or understanding the adopted standards.

#### 1.1. UNIX standard

1. UNIX Programmer's Manual, Berkeley System Distribution 4.3, University of California, Berkeley, August, 1986. (Three volumes.)

Provides the fundamental specification for the version of UNIX adopted by Project Athena.

2. UNIX Commands, Functions, and User's Guide, Revision 1.1, M.I.T. Project Athena, March 15, 1984.

An out-of-date copy of item 1, with local modifications interleaved.

3. Academic Information Systems 4.2 for the IBM RT PC, second edition, IBM Corporation, Palo Alto, California, PRPQ #5799-CGZ, September 30, 1986.

Description of the differences between ACIS 4.2A and the Berkeley UNIX 4.2 systems, and installation instructions for the IBM RT PC.

4. Ultrix-32m, Digital Equipment Corporation, 1986.

A complete copy of the material in the Berkeley 4.2 UNIX manual, tailored for the Digital Equipment VAX environment.

#### 1.2. Print stream standard

 PostScript Language Reference Manual, Addison-Wesley, Reading, Massachusetts, 1985.

#### 1.3. Network protocol standards

 Internet Protocol Transition Workbook, SRI International, Menlo Park, California, March 1982.

Contains the protocol specifications for Internet Protocol (IP), User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Remote Login Protocol (Telnet), File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP), Trivial File Transfer Protocol (TFTP), all of which are standard Athena Communication protocols.

- 2. Mockapetris, P., "Domain Names Implementation and Specification," Network Working Group Request for Comments 883, SRI International, Menlo Park, California, November, 1983.
- Mockapetris, P., "Domain System Changes and Observations," Network Working Group Request for Comments 973, SRI International, Menlo Park, California, January, 1986.

This and the previous item together specify the Athena name resolution protocol.

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### 2. Related standards and publications

This subsection lists documents that are related to standards adopted by Project Athena. Some of these documents are related standards, while others provide explanatory, tutorial, or background discussions of the standards themselves. The organization of this section is parallel to that of section 1, which cites only the adopted standards.

#### 2.1. UNIX standard

- 1. System V Interface Definition, American Telephone and Telegraph Company, Indianapolis, Indiana, 1985.
- 2. The 1984 /usr/group Standard, /usr/group, Santa Clara, California, 1984.
- 3. Buck, David L., Reader's Guide to the 1984 /usr/group Standard, /usr/group, Santa Clara, California, December 27, 1984.
- 4. IEEE Trial-Use Standard Portable Operating System for Computer Environments, Draft American National Standard 1003.1, Institute of Electrical and Electronics Engineers, Inc., April 1986.

#### 2.2. Print stream standard

1. PostScript Language Tutorial and Cookbook, Addison-Wesley, Reading, Massachusetts, 1985.

#### 2.3. Network protocol standards

 Mockapetris, P., "Domain Names, Concepts and Facilities," Network Working Group Request for Comments 882, SRI International, Menlo Park, California, November, 1983.

### 3. Athena standard third party software

This subsection lists the names and sources of third party software that Project Athena has adopted as a standard part of its software library.

### 3.1. Spreadsheet

20/20 Integrated Spreadsheet Modeling Program

Access Technology, Incorporated, Ashford, Kent, U.K. and South Natick, Massachusetts.

## 3.2. Numerical algorithm library

NAG Fortran Library

Numerical Algorithms Group, Oxford, U.K. and Downers Grove, Illinois.

### 3.3. Data analysis system

RS/1

Bolt Beranek and Newman Inc., Cambridge, Massachusetts.

### 3.4. Graphics toolkit

BLOX

Rubel Software, Cambridge, Massachusetts.

# 3.5. Graphics library

Visual: GKS

Visual Engineering, San Jose, California.

# 3.6. Graphics chart package

Visual: ProChart and Visual: C-Chart

Visual Engineering, San Jose, California.

#### 3.7. Editor

GNU emacs

Free Software Foundation, Cambridge, Massachusetts.

#### 3.8. Text formatter

Scribe

Unilogic, Ltd., Pittsburgh, Pennsylvania.

### 3.9. Data base management system

Ingres

Relational Technology Incorporated, Alameda, California.

#### 3.10. Algebraic manipulation system

MACSYMA

Symbolics Incorporated, Cambridge, Massachusetts.

#### 3.11. Mail management system

Rand MH Mail handling system (UCI version)

University of California at Irvine, Irvine, California.

### 3.12. Lisp interpreter and compiler

Franz Lisp<sup>2</sup>

Franz, Incorporated, Berkeley, California

<sup>&</sup>lt;sup>2</sup>Temporary standard, to be replaced with a Common Lisp implementation when available.