

Indexing Sybase Documentation

by Nick Christopher

In my last article I discussed many facets of Digital Librarian under NeXTSTEP 3.0 (DL3.0). This article will focus solely on how to index the documentation provided by Sybase. Under DL2.x indexing the Sybase documentation was straight forward, but DL3.0 introduces some new concepts that will be discussed in this article.

Locating The Documentation

Before any indexing can be done a few things need to be in place. Most important, you must have the Sybase documentation online. In a generic installation the Sybase documentation can be found two places on your system, /usr/sybase/doc and /NextLibrary/Documentation/Sybase. The /usr/sybase/doc files appear to simply be pre-formatted files from the /NextLibrary/Documentation/Sybase sections. I have never verified this, instead I did the following in a shell as root, as root:

```
# cd /NextLibrary/Documentation/Sybase
# ln -s /usr/sybase/doc
```

The above will cause the indexing to work on both areas of documentation. You also will need the Sybase troff macro package. Sybase distributed it as part of their packages, but to check if it is present look in:

```
# ls /usr/lib/tmac/tmac.syb
```

Preparing For ixbuild

Ixbuild is the program that actually performs the indexing for DL3.0. To prepare for the use of ixbuild you must assure that some of the files ixbuild needs are in place. First you must create a file telling ixbuild what types of file should not be indexed, to do this, in a shell as root, type:

```
# cd /NextLibrary/Documentation/Sybase
# cat <<EOF > .index.itype
title
ex
new
u
3
2
eps
EOF
```

You also need to tell ixbuild specific files to ignore and this can be done as shown below. NOTE: The following commands shown at the shell prompt (#) should be typed in a single command line!

```
# cd /NextLibrary/Documentation/Sybase
# find . -type f ! -name \*.\* -exec basename
{} \; | sort -u > .index.iname
```

Preparing the Runtime Environment

To keep DL3.0 happy during retrieval of Sybase documentation two more files must be added, a display script and a Sybase formatting script. The formatting script can be built as follows:

```
# cd /usr/local/bin
# cat <<EOF > syroff
!/bin/csh -f
if ( $1:e == "man" ) then
    cat $1
else
    cd $1:h
    tbl $1 | nroff -msyb -rTl
fi
```

The following will build an appropriate display script shown below. NOTE: The following commands shown at the shell prompt (#) should be typed in a single command line!

```
# cd /NextLibrary/Documentation/Sybase
# echo /usr/local/bin/syroff %s >
.displayCommand
```

But, all the above is of course dependant on where you put syroff.

Building the Index

Once all the above is finished, your ready to index. There are two ways to do the indexing. The first method is the simpler of the two. As root, run DL3.0, drag /NextLibrary/Documentation/Sybase from the file viewer on to a DL3.0 bookshelf. Next, select the Sybase folder and press Command-2 which will bring up the Target Inspector. Finally, press the Set Up button and wait...wait...wait.... It takes a while but you're all done after this.

The second way to perform the indexing is more tricky but generates nicer titles in DL3.0. DL3.0 uses the file name as the title by default, but the following method will attempt to generate intelligent titles. To perform the indexing manually do the following in a shell as root:

```
# cd /NextLibrary/Documentation/Sybase
# ixbuild -lg
```

The ixbuild command, with the -lg option, will attempt to use the files contents to generate the title. An bonus of generating the index this way is that searching the documentation is simpler because the In File Name option becomes very effective for simple queries.

NeXT in the News

by Eric Rosenthal

Nextwire, Shawn Broderick, *BCS Tech*, November 1992, p. 6. The BCS NeXT Group's repository of articles, notices, and reviews.

Compsac Focuses on Objects and Process, Takashi Arano and Yahya Al-Salqan, *IEEE Software*, November 1992, pp. 118-119. "Steve Jobs, NeXT, delivered a very impressive keynote on the reality of object-oriented development. Using a vivid presentation running on a NeXT workstation, Jobs said the bottleneck in the computer industry is the fact that building applications takes more than two years. The 'objective of object-oriented technology,' he said, 'is to allow people to develop software 10 times faster.' He then proceeded to demonstrate in real time how database applications can be built extremely fast on the new version of NeXTSTEP. Jobs also showed a seamless integration facility for applications like electronic mail, document preparation, and networking."

NeXT Emphasizes Importance of Software Solutions (item in Newsfront), *Software Magazine*, November 1992, p. 14. NeXT wants to be thought of as a software supplier.

Wang launches imaging tools, Kim S. Nash, *Computerworld*, November 2, 1992, p. 70. Steve Jobs will give keynote address at Technetron '92, a conference for Wang users.

The NeXT Step (item in Notes From the Field), Robert X. Cringely, *InfoWorld*, November 2, 1992, p. 106. "Even Steve Jobs knows that he has to pay lip service to existing standards in order to push his own vision. That's why the NeXT 88110 machine has reportedly been replaced by a P5 design. The standard that Steve is pushing is, of course, NeXTSTEP. Version 3.0 includes a feature called Distributed Objects that allows processes to be sent to other machines on the network. NeXTSTEP 4.0, coming next summer, adds the smarts to distribute them transparently. Neat."

What is the real cost of system software?, Don Crabb, *MacWEEK*, November 2, 1992, p. 65. "Why shouldn't Apple charge us for system software? Microsoft Corp. does. NeXT Computer Inc. does. IBM Corp. does. Everyone else in the computer industry has been charging for new system software for years now. And it hasn't meant the end of DOS, Windows, OS/2 or Unix."

Alliances At E-mail Gathering, Laurel Nelson-Rowe, Products, *Open Systems Today*, November 2, 1992, p. 8. NeXT will support the Boston Software Works's InterOffice Message Exchange software.

Univel's Success Depends On Going After a Different Unix Customer, Nina Lytton, *Open Systems Today*, November 2, 1992, p. 10. "UnixWare is not a compellingly good value relative to Open Desktop, Solaris or NeXT's NeXTSTEP if you have to get your desktop applications by paying an extra \$500 for Windows compatibility."

Unix's E-mail Net Advantage, Mike Carl, *Open Systems Today*, November 2, 1992, p. 40. "Published protocols ... make it possible for a machine running anything from OS/2 to NeXTSTEP to pull E-mail from a central Unix server."

Insignia to offer DOS and Windows emulators for RS/6000, Paul M. Sherer, *PC Week*, November 2, 1992, p. 57. The NeXT version is listed among Insignia's products.

Lotus to Improv for Windows, Rosemary Cafasso, *Computerworld*, November 9, 1992, p. 8. Lotus Development Corp.'s Improv for Windows is a redesign of the original NeXT version.

NeXTSTEP 3.0 to demo on 486s with DOS, Windows, Cheryl Gerber, *InfoWorld*, November 9, 1992, p. 3. NeXT to demonstrate NeXTSTEP 3.0 on Dell, Compaq, and Epson 486 systems at Comdex, incouding DOS and Windows compatibility.

NeXT knew the next step when it introduced Interface Builder, Stewart Alsop, *InfoWorld*, November 9, 1992, p. 4. "It is time to give Steve Jobs' NeXT Inc. due credit for the notion of con-

struction-kit interfaces for applications development.... Interface Builder ... provided a way to hook up pieces of code visually, design the interface for an application, and test the design iteratively. This was very cool for ... building applications inside companies and addressed the issue of programmer productivity with a new idea for the first time in many years.... Most interesting, though, is that other tool vendors [Microsoft, Digital, and ParcPlace Systems] noticed Interface Builder.... The bottom line is that thanks to NeXT, people who are responsible for making applications work inside companies are beginning to get a new class of tools that will make them substantially more productive.”

Lotus' Improv for Windows to debut, *PC Week*, November 9, 1992, p. 3.

McCaw to replace outsourced hosts with Next-supplied servers, software, Mark Halper, *Computerworld*, November 16, 1992, p. 10. McCaw Cellular Communications will put NeXT on the desktops of 3,000 sales and customer service representatives.

Lotus to show Improv, Rosemary Cafasso, *Computerworld*, November 16, 1992, p. 14. Lotus Development Corp. will show Improv for Windows at Comdex.

Lotus readies 'revolutionary' spreadsheet, Doug Barney, *InfoWorld*, November 16, 1992, p. 12. Lotus Development began Improv on the NeXT, but only promised to evaluate further development for that platform.

Multiprotocol Network Demonstration at Show, Paul Kapustka, *Open Systems Today*, November 16, 1992, p. 4. Network trade association demonstration network at Comdex includes NeXT workstation.

Build A Market And A Consortium, And The Customers Will Follow, Andy Feibus, *Open Systems Today*, November 16, 1992, p. 28. Reader response to comments about "NeXTSTEP's lack of programming standards" leads to comparison of data and application portability.

File Link Between Frame, Ventura, Lee Bruno, *Open Systems Today*, November 16, 1992, p. 58. Frame Technology's Ventura Publisher-to-FrameMaker file conversion filter supports Frame platforms including NeXT.

Problem With Treatment Of Compiler (letter), Robert Brown, *Open Systems Today*, November 16, 1992, p. 96. "Contrary to what you say, [the GNU compiler] is definitely ANSI-compliant, in fact, more so than many other commercial compilers, including Sun's unbundled offering. Soon GNU will be releasing their own Next-compatible Objective C runtime library, so we'll all be able to write Objective C programs on the architectures supported by the GNU compiler. Since the GNU compilers support C++ and C as well as Objective C, most wise NeXT developers have written the core of their application in C or C++ and only rely on NeXT's Interface Builder and Objective C for the application interface." The reviewer responded that his state-

ment was based on the difference in version numbers between NeXT and the Free Software Foundation and NeXT's statement that it was uncertain about the conformance of the compiler.

Improv for Windows helps users with data analysis, Paula Rooney, *PC Week*, November 16, 1992, p. 28. "Improv for Windows, which is slated to be available next quarter, offers analytical capabilities beyond the original version that currently runs on NeXT Computer Inc. workstations, according to Lotus officials in Cambridge, Mass."

Delivery of NeXTSTEP 486 delayed until second quarter, *PC Week*, Amy Cortese, November 16, 1992, p. 73. Although delayed for testing on additional hardware configurations, NeXTSTEP 486 will be demoed at Comdex and displayed by Dell. Insignia Solutions is committed to a version of SoftPC that will let NeXTSTEP 486 run MS-DOS and Microsoft Windows applications.

Mobile Computing Is All American, John Markoff, *The New York Times*, November 23, 1992, pp. D1, D4. American companies led in mobile computing at Comdex. "'The United States computer manufacturers have re-invented themselves and are holding on to the most desirable market in the world,' said Steven P. Jobs."

IBM OS line to get core GUI, microkernel, Amy Cortese, *PC Week*, November 23, 1992, pp. 1, 16. IBM's visual application-development tool for its Workplace family with an object-based environment like NeXTSTEP, will enter beta test next year.

Microphone for Windows' facsimile capabilities, cross-platform support stand out, Quabidur R. Safi, *PC Week*, November 23, 1992, pp. 83, 88. The NeXT version of the product is mentioned.

Snow jobs? (item in Inside Lines), *Computerworld*, November 30, 1992, p. 110. NeXTSTEP 486 and public stock offering delayed.

Coronation Of Sorts For NT: ISVs See Microsoft Dominating Desktop, With OS/2 As Runner-Up, Paul Krill and Lee Bruno, *Open Systems Today*, November 30, 1992, pp. 1, 54. Survey of independent software vendors at Comdex showed NeXTSTEP and UnixWare far behind Windows NT, Solaris 2.0, and Open Desktop.

Trade Group Assists Resellers' Unix Moves, Mike Azzara, *Open Systems Today*, November 30, 1992, p. 4. ABCD The Microcomputer Industry Association business development manager, Jean Alexander, says NeXT has expressed interest in joining the group.

Keynoter Kahn: Jobs Soundalike, Paul Krill, *Open Systems Today*, November 30, 1992, p. 5 "Although the Comdex keynote speech last week was not delivered by Steve Jobs, ... the content sounded like it was. Instead, on stage was Borland's president and chief executive, Philippe Kahn, heralding the arrival of ob-

ject-oriented software as the next wave of computing, much as Jobs has been doing for several years.”

Cabletron Details Plans, Laurel Nelson-Rowe, *Open Systems Today*, November 30, 1992, pp. 6, 8. Cabletron Systems to market adapter boards from Fore Systems supporting NeXT and other workstations.

Some Say There's No Substitute for ODBMS, Mitch Wagner, *Open Systems Today*, November 30, 1992, pp. 25, 28. Mentions Object Design's ObjectStore and Versant Object Technology's Versant ODBMS.

Improv for Windows beta is powerful, complex, Eamonn Sullivan, *PC Week*, November 30, 1992, pp. 1, 16. “We found Improv for Windows 2.0's impressive capabilities easier to take advantage of than they were in version 1.0 on the NeXT.... PC Week Labs was able to create a large worksheet within 30 minutes of installing Improv for the first time; it took hours to figure out Improv on the NeXT the first time we used it.... The program has an interface that can only be described as the result of a collision between the NeXT environment and Ami Pro 3.0.... We also found the Windows version's interface less confusing overall than the NeXT version's interface.”

PC Week Labs Product of the week..., *PC Week*, November 30, 1992, p. 3. Lotus Development's Improv for Windows 2.0.

McNealy: An Industry roadman, Michael McCarthy, *SunWorld*, Fall 1992, pp. 6-7. Interview with Sun Microsystems president and CEO Scott McNealy. “There are three wars: CPU, OS, and Objects.... The coming battle is in the object model: Cairo from Microsoft, Pink from Apple and IBM, and DOE based on the OMG specs. NeXT flames out, as does whatever the others like Borland are doing.”

New in the Resource Center, LuAnn Vitalis, *BCS Update*, December 1992, pp. 15-17. “For the NeXT we have *Improv* from Lotus.... If you use a spreadsheet, you should look at *Improv*, even if you've never seen a NeXT before.”

Objects for End Users, Cary Lu, *BYTE*, December 1992, pp. 142-146, 148, 150, 152. The document-oriented interface (DOI) will make object orientation significant for end users. The developer of MediaView, Dick Phillips said DOI computing will require “intense industry collaboration.”

Brave New Desktop, Peter Wayner, *BYTE*, December 1992, pp. 153-156, 160. Apple, DEC, HP, IBM, Microsoft, NeXT, and Sun Microsystems are the key players in object technology.

Objective-C Programming on NeXT, Nigel Taylor, *The C Users Journal*, December 1992, pp. 35-42. “C++ isn't the only object-oriented extension to C that has earned a serious following.”

Appsoft Image, *New Media*, December 1992, p. 67. Product announcement for Appsoft Inc.'s Appsoft Image.

NeXT 3-D Tools Multiply, Becky Waring, *New Media*, December 1992, p. 21. nPOINT Ltd.'s Frontface and Stone Design's 3D Reality.

Sun and Adobe, Martin L. W. Hall, *SunWorld*, December 1992, p. 53. The alliance between Sun and Adobe is important because Sun has the market share to boost Display PostScript, unlike NeXT.

Publishing & Portability, Jeffrey Bartlet, *UniForum Monthly*, December 1992, pp. 6-9. The first release of Frame Technology's FrameMaker 2.0, in November 1989, brought the product to NeXT.

Buddies? Not! (item in UnixWorld's Core Dump), *UnixWorld*, December 1992, pp. 58-59. Sun's chairman declined to be photographed with Steve Jobs for magazine cover.

Untitled item in Hardware & Software Support, *UnixWorld*, December 1992, p. 147. Brief listing of Ridgeback Solutions's SNMP Agent and Serverwatch.

Speeding development with 32 bits, Thomas Murphy, *Computer Language*, January 1992, pp. 17-18, 20. “As the year progressed, we had sightings of Windows NT, Solaris 2.0, NeXT-STEP 486, and hints from USL and Univel.”

NeXT multilanguage debugger, *Computer Language*, January 1992, p. 91. Product announcement for Absoft's FX debugger.

Stephen Wolfram: Multiparadigm Man, Michael Swaine, *Dr. Dobb's Journal*, January 1992, pp. 109-112. First part of two-part interview with Wolfram Research's founder, Stephen Wolfram, covers Mathematica and programming paradigms. NeXT is mentioned among platforms supported.

Where to Buy a Mac, Andy Ihnatko, *MacUser*, January 1992, pp. 29-30. Enrolling in a night course may give eligibility for student discounts on Mac purchases. “(Inspirational credit—Steve Jobs' one-word reply when asked how nonstudents could buy the original NeXT machine: ‘Enroll.’)”

Market Forecast '93, Frank Hayes and Barbara Deoheny, *UnixWorld*, January 1993, pp. 57-58, 60. NeXTSTEP for Intel listed among operating systems which will appear before Windows NT.

Untitled item in Hardware & Software Support, *UnixWorld*, January 1993, p. 122. Brief listing for Pencom Software's Co-Xist 4.0.

Conventional Wisdom, Michael Burrell, *BCS Tech*, December 1992, pp. 1, 4. “The NeXT community often assumes that it is easier to make money developing for Windows than for NeXT. A peek at current affairs in the PC world stands this assumption on its head.”

Database Confidential, Buzz Hunter, *Data Based Advisor*, December 1992, p. 170. Borland sold Ashton-Tate's NeXT spreadsheet.

DSPs Sow Seeds of New Products, Jeff Bertolucci, *PC World*, December 1992, pp. 70, 72. The original NeXT included a digital signal processor for processing audio.

Soft Lego, Elizabeth Corcoran, *Scientific American*, January 1993, pp. 145-146. Differences in object semantics may prevent linking objects from Microsoft's Cairo to objects from Borland, NeXT Computer, or Taligent.

LAN Lab shows the art of interconnection, Michel Dostert, *Computerworld*, December 7, 1992, pp. 65-66. LAN Lab demo at Comdex connected many platforms, including two NeXT machines.

NeXTSTEP 3.0 crosses multiple platforms, Lee Sherman, *InfoWorld*, December 7, 1992, pp. 101-102, 106-107. Review of NeXTSTEP Release 3.

'Nextification' Of A Mainframe Shop, David Fiedler, *Open Systems Today*, December 7, 1992, pp. 68, 73-74. Detailed report on a consulting firm's conversion from mainframes to NeXT workstations.

NeXT Is As Open As, Er, The NeXT Fellow (letter), Tim Reed, *Open Systems Today*, December 7, 1992, p. 80. "Speaking as a NeXTSTEP developer, I'd say that NeXT's systems are about as open as anything from Sun Microsystems, Silicon Graphics, or any of the other workstation vendors, which translates to 'not much,' but then all things are relative in the open systems arena."

NeXTSTEP's Respect for Standards (letter), David Randall, *Open Systems Today*, December 7, 1992, pp. 93, 80. "NeXTSTEP's openness and standards-conformance are sometimes underappreciated."

Liberty unveils hard drives, Kelley Damore, *InfoWorld*, December 21, 1992, p. 24. Liberty Systems Inc.'s portable hard drives for Macintosh, PC, and NeXT.

Not even 'Buns of Steel' can keep Steve Jobs from being Canonized, Robert X. Cringely, *InfoWorld*, December 21, 1992, p. 78. "The stress level at NeXT Inc., for example, is off the meter. Steve Jobs is driving his kids toward a new hardware generation as the company runs on fumes and on money borrowed from Canon. Bad idea. The Japanese understand Unix and the basics of client/server computing, but they don't know about development environments. NeXTSTEP is the best such environment around and is at least two years ahead of its nearest competitor. This ought to be treated as a strategic technology, but just as Fujitsu sucked up Poqet, Canon is ready to engulf NeXT. Trying to preserve his controlling interest in NeXT, Steve has been borrowing from Canon. But if the new workstations don't make it and the auditors decide NeXT's book value is less than the debt, Canon gets the whole company. With his blind insistence on

building hardware, rather than becoming just a very successful software entrepreneur, Jobs is throwing his company away."

Document manager slated for Windows, *PC Week*, December 21, 1992, pp. 55, 62. Boss Logic Inc. is "hedging its early bet on the NeXT" by developing a Windows version of its document management software.

Caught in the web, Sam Kimery, *SunWorld*, January 1993, pp. 67-68. The World Wide Web has a NeXTSTEP interface.

Resolutions '93, *SunWorld*, January 1993, p. 108. A PowerPC port of NeXTSTEP is under consideration.

1993 NeXTWORLD EXPO!!!!

by Conrad Geiger, International NeXT User Groups

What it is....

The 2nd annual gathering of the world-wide NeXT community!

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About GUN...

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The BULLETin

The GUN BULLETin is produced monthly (more or less) using *FrameMaker* 3.0 on a NeXT computer, with headlines created by Adobe *TouchType*. Text is written directly in *FrameMaker*, with *WordPerfect*, or imported from other platforms (ugh!).

Pulled From The Net

Pulled From The Net is a service designed to provide a synthesis of important NeXT-related Usenet information to those without network access and to those too busy to keep up with Usenet. Usenet, or Net News, is a bulletin board service available free of charge to anyone with Internet access. It includes hundreds of special-interest posting areas (groups), read by hundreds of thousands of people across the planet.

All GUN members receive *Pulled From The Net* with their membership. It is emailed to those capable of reading Next Mail as soon as it is available; ASCII copies are sent to those capable of reading only ASCII mail; paper copies are sent to everyone else, along with the newsletter.

Pulled From The Net tracks the following groups:

comp.sys.next.misc
Miscellaneous NeXT related information
comp.sys.next.announce
NeXT related announcements
comp.sys.next.admin
NeXT administrative information
comp.sys.next.programmer
NeXT programming information

Discounts

Many vendors are willing to give user group members discounts on their hardware and software. GUN does everything possible to ensure that its members have access to these savings. Every month, GUN compiles a list of currently available discounts. If you are interested in an unlisted item, write to discounts@gun.com or call GUN at 718-260-9848 and ask for the person in charge of group discounts. If possible, we will add the item to the list. Vendors are encouraged to contact GUN to participate in this program.

Membership & Sponsorship

Individual Dues

- \$25 per year (tax deductible)
- newsletter
- email alias and inclusion in group email list
- eligible for group discounts (contact Ed Wright)
- eligible for individual UUCP services
- eligible for individual Internet connectivity
- NeXTWORLD discount

Corporate Sponsorship

- \$100 per year (tax deductible)
- newsletter
- email alias and inclusion in group email list
- employees are eligible for group discounts
- eligible for corporate UUCP services
- eligible for corporate Internet connectivity
- employee NeXTWORLD discount
- sponsorship is recognized in every issue of the newsletter

GUN Sponsors

Corporate Benefactors (\$1000 +)

Organizations who have contributed material or equipment:

Athena Design

Mesa

BoxHill Systems Corp.

760 Mb Hard Disk Storage System for GUN Archive Server

Electronic Directions

use of facilities for general meetings

Marble Associates, Inc.

Consulting Services, Marble Teleconnect communication software, Designer Labels labeling software

Stone Design

DataPhile database software, Diagram!, Create, and TextArt

Telebit Corporation

T3000 Modems, NetBlazer Router

Uninet Peripherals, Inc.

SLAT Adapter

Corporate Sponsors (\$100 – 1,000)

Organizations who have contributed \$100 or more this year:

AGS Informations Services, Inc.
American General Information Services, Inc.
Charles River Computers
CS First Boston (Japan) Limited
Custom Word Processing, Inc.
Executive and Technical Recruiters, Ltd.
Frame Technology Corp
Light Printing Co., Inc.
NorthStar Technologies, Inc.
Nova Works Computer Systems, Inc.
Objective Technologies, Inc.

Communications

Individual Email

GUN maintains a list of all members who can be reached via e-mail. All mail sent to `gun-members@gun.com` is redistributed to everyone on the list. In addition, GUN assigns an alias to every member of the list making it possible for that person to be reached by sending mail to `Firstname_Lastname@gun.com`.

- Eligibility:** all dues-paying members
Cost: included in membership
Timetable: available immediately

Individual UUCP

GUN maintains a server connected to the Internet. UUCP service allows members' machines to connect to this host to send and receive email. Mail from the outside can be addressed to `user@gun.com`. Mail you send appears to originate from the `gun.com` domain, and is addressed as if you were on the Internet (i.e., `user@next.com`). Mail volume is not limited. A GUN volunteer will help you set up and maintain the UUCP connection.

Accounts will be given on a first-come, first-served basis. Once our current maximum capacity is reached, we will need to purchase additional lines and modems. This could cause a slight delay in obtaining service.

- Eligibility:** All dues-paying members
Cost: \$10/month
Timetable: 2,400 - 57,600 bps (v.22, v.32, v.32bis-v.42 & v.42bis) – available immediately

Individual Internet Connectivity

The `gun.com` domain is a wide area network (WAN). Machines are connected via the Serial Line IP protocol (SLIP). Any machine on the network can connect to any other as if it lived on the local ethernet, and can share resources, mount each other's file systems, etc. Becoming a member of the GUN WAN gives you unrestricted access to all Internet resources, including mail services, netnews (with thousands of special interest groups), hundreds of archive servers, Archie (a database of software/documents stored on the archives), library card catalogues, the Internet White Pages (X-Windows-based email directory service), and value-added services (AP news feeds, stock market data, vertical market information, etc.). GUN maintains a local archive to mirror the most important NeXT-related sites in the world.

- Eligibility:** All dues-paying members
Cost: \$80/month
Timetable: 2,400 - 57,600 bps (v.22, v.32, v.32bis-v.42 & v.42bis) – available immediately

Corporate Email

Corporations can request either a corporate alias or ten individual aliases. The corporate alias allows an unlimited distribution of GUN mail within the organization. The individual aliases allow individuals to be reached by sending mail to `Firstname_Lastname@gun.com`.

- Eligibility:** corporate sponsors with e-mail access are eligible for this service
Cost: included in sponsorship
Timetable: available immediately

Corporate UUCP

Identical to Individual UUCP. Limited to ten employees.

- Eligibility:** corporate sponsors with e-mail access are eligible for this service
Cost: \$15/month
Timetable: 2,400 - 57,600 bps (v.22, v.32, v.32bis-v.42 & v.42bis) – available immediately

Accounts will be given on a first-come, first-served basis. Once our current maximum capacity is reached, we will need to purchase additional lines and modems. This could cause a slight delay in obtaining service.

Corporate Internet Connectivity

Identical to Individual Internet Connectivity.

- Eligibility:** corporate sponsors with e-mail access are eligible for this service
Cost: \$80/month, \$500 sign-up fee
Timetable: 2,400 - 57,600 bps (v.22, v.32, v.32bis-v.42 & v.42bis) – available immediately

