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USENIX NEWS

USENIX & SAGE

USENIX news

Opportunities for Students

by Bleu Castañeda
Production Editor

<bleu@usenix.org>

USENIX and SAGE offer a variety of opportunities for students. Two of these programs are spotlighted here, the Student SysAdmin Internship program and the USENIX Student Stipend program. For more information about all of our student programs, please see our website at:
<http://www.usenix.org/students/students.html>.

Student SysAdmin Internship Program

Earlier this year, SAGE initiated the Student SysAdmin Internship Program. The purpose of the project is to encourage more students to acquire systems administration skills. University faculty or system administrators may be particularly interested in this program.

The program was born from the observation that many systems administrators have their first systems administration exposure while in college through on-the-job experience, not through coursework that may or may not be related to computer systems.

SAGE launched the program in June by funding four $5,000 pilot projects enabling mentors to hire students to do systems administration tasks. For descriptions of the funded projects, please visit:
<http://www.usenix.org/sage/projects/internship/index.html>.

USENIX Student Stipend Program Report

USENIX offers many opportunities for students to get involved in Association activities. One way is the Student Stipend Program which makes it possible for students to attend USENIX conferences and workshops. This year, USENIX has given student stipend awards totaling $94,830 to 123 students from 69 different institutions in the United States and abroad. Since the program's inception in 1990, USENIX has made 1,069 student stipend awards, totaling $736,229 (an average of $689 per student).

Student stipends cover travel, accommodations and registration fees for full-time students interested in attending USENIX conferences and workshops. The application process is short and easy-to-complete. Instructions, including the application and deadlines for specific events, can be found at:
<http://www.usenix.org/students/stipend.html>.

Bygone Times

by Peter H. Salus

USENIX Historian
<peter@Matrix.Net>

I didn't call this 20 Years Ago, nor 30 Years Ago, largely because coming at the close of 2000 (the end of a millennium in my numerical system), and having just returned from a conference, I am feeling nostalgic.

While I was unpacking my stuff in my new office, I came across some things that added to this feeling. One "document" was Mike Lesk's "Tbl – A Program to Format Tables" [Bell Laboratories Computing Science Technical Report #49, September 1976]. A second was "Software Tools Subsystem User's Guide" [Georgia Tech, GIT-ICS-79/07, September 1979]. The third was "The UNIX System," by Stephen R. Bourne [USENIX tutorial notes, "5/84" – from the Salt Lake City meeting, June 1984].

And then I went away.

I was at the 4th Atlanta Linux Showcase. While there I had several talks with Paul Manno. Paul was one of the Georgia Tech "kids" who were involved with the software tools. I recall meeting him for the first time in June 1986, in the Atlanta Hilton, as Paul was one of the hosts of the Summer 1986 USENIX Conference.

It was a really interesting conference: Mike O'Dell was the program chair; Jon Bentley was the keynote speaker; Peter Langston and Mike Hawley gave music papers; Rick Rashid and the CMU crowd gave the first Mach paper; Amnon Barak gave the first MOSIX paper; etc. And, of course, there was the exhibition of the USENIX synchronized swim team.

Sigh.

On a totally different topic, some of you may recall my discussion of anniversaries. I got a note from Tom Limoncelli at Bell Labs which actually resolves the entire question. He wrote:

> I'm catching up on my *:login;*s and read the June issue where you wondered about the logic behind having the 10th anniversary of USENIX celebrated in 1985 and I didn't see any follow-up in the issues that followed. My theory is that they were using octal and celebrating the name-change to USENIX that was in July 1977 which was, in octal, 10 years prior.
>
> As one of those young whipersnappers who started using computers when hexadecimal had become popular, I'm surprised that I noticed this at all. Maybe it's because I was just dealing with a user who thought it was a bug that "telnet 137.100.050.099" didn't get to the right machine.
>
> I wonder what computers will be like when we celebrate our base64 10-year anniversary in 2041.

You're right, Tom. I'm horrified that I didn't realize it.

Season's greetings and a good new millennium to those of you who can count in decimal.

[We don't often reproduce news releases, but this one seemed too good to pass by. ed.]

BIND 9 Authored by Nominum Development Team Now Available on Internet Software Consortium Site

The Internet Software Consortium (ISC) has announced the release of BIND 9, written by Nominum, Inc. under an ISC outsourcing contract. BIND, an acronym for Berkeley Internet Name Domain, is the most commonly used domain name server on the Internet and implements the Domain Name System (DNS) suite of protocols. DNS enables virtually all internetworking applications such as e-mail, Web browsers and file transfers. Available as Open Source from the

MEMBERSHIP
  Telephone: 510 528 8649
  Email: <office@usenix.org>

PUBLICATIONS/WEB SITE
  <http://www.usenix.org>
  Jane-Ellen Long <jel@usenix.org>
  Telephone: 510 528 8649

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  Syntax, Inc.
  Taos: The Sys Admin Company
  UUNET Technologies, Inc.

Internet Software Consortium, BIND 9 is the world's first DNS implementation to fully support IPv6 and the DNS security enhancements specified by the Internet Engineering Task Force (IETF) standards body in RFC 2535. Russ Mundy, Manager of Network Security Research for NAI Labs, affirms the importance of BIND 9 s security features, "As a leading provider of security solutions, Network Associates is pleased to have contributed to the security-related design and development of BIND 9. The improved security and performance capabilities of BIND 9 help to secure the name system for the Internet. Our researchers at NAI Labs continue to work with the ISC, the Internet Engineering Task Force and key network operators to help bring long-needed security to critical elements of the DNS." Based on a multi-processor scalable, multi-threaded architecture, BIND 9 is a complete rewrite of BIND, which was originally written in 1983 at the University of California at Berkeley. This latest release features modularized code for security auditibility, use of programming by contract development paradigm for internal consistency checking and much greater RFC conformance while maintaining a large degree of backwards compatibility with earlier version of BIND.

David R. Conrad, Executive Director of the Internet Software Consortium, commends the enhancements of the much-anticipated BIND 9 release: "I want to thank all the members of the Open Source community who contributed to this important effort. The newest implementation of BIND has been completely re-architected, with clean interfaces between internal modules and a streamlined architecture that is light-years ahead of previous versions. Nominum's development team took the time to build BIND 9 from the bottom up, and their hard work has really paid off, resulting in extraordinary speed, scalability and security." The development team at

Nominum has been developing BIND and DHCP (Dynamic Host Configuration Protocol) software for the Internet Software Consortium as well as providing support, consulting, training and custom development to a global user base. The ISC is a non-profit organization dedicated to developing and maintaining quality Open Source reference implementations of core Internet protocols. BIND version 9 development was underwritten, in part, by the following organizations:

- Compaq Computer Corporation
- Hewlett Packard
- IBM
- IPWorks, Inc.
- Network Associates, Inc.
- Silicon Graphics, Inc.
- Stichting NLNet
- Sun Microsystems, Inc.
- U.S. Defense Information Systems Agency (DISA)
- USENIX Association
- Verisign, Inc.

"USENIX is always supportive of projects like Bind 9," says Andrew Hume, Vice President of the USENIX Association. "It directly helps our members who are system and network administrators, and facilitates our other members who use the Internet to do their research or to build their products. We also appreciate that Bind 9, like nearly all the software that the USENIX community has historically used, is Open Software."

To download a copy of BIND 9, users should go to *<http://www.isc.org/products/BIND/bind9.html>* and follow the instructions outlined therein. For BIND 9 documentation, including system requirements, configuration references, troubleshooting and security considerations, please visit

<http://www.nominum.com/resources/Bv9ARM-091200.pdf>.