

OARTech Notes for December 11, 1996

Galen called meeting to order at 10:05. People were introduced around the table.

Galen proposed the meeting dates as stated in the agenda be adopted. Moved and seconded. Meeting dates as noted were unanimously approved by voice vote.

Call for new business. Jay: a gentleman came to office from National Coalition for the Protection of Children and Families. This lawyer would like to speak about the legal ramifications for colleges and universities for material downloaded from the Internet. He just attended a conference and has data concerning loss of productivity due to worker distraction and legal impact. How does one lock down an academic site to stay true to the law, but still provide adequate access to research material? There is some concern: is this really a technical discussion or a managerial discussion? Could this really be an OSTEER topic?

Shawnee State has an "Internet cafe" set up by their cafeteria. They're using a product that blocks searching on certain nasty key words. The problem is that the product isn't terribly effective because there are too many alternatives to the known nasty words. The school attorney feels this is a best faith effort. The library and other non-public areas still offer full search capabilities.

Motion to approve minutes. Seconded and approved by unanimous voice vote.

Bill showed off some assorted cable diagnosis equipment. Bill also showed off Erik Vynke's Ethload program for network analysis.

Galen showed off the following DOS programs:

- o Netwatch
- o Ethload 1.09 - a nice net monitoring program
- o Ethdump (Delft University)
- o Netmon
- o Netview
- o Gobbler - a great capture program
- o Net Guardian (University of Lisbon) - is an SNMP tool that works

under windows 95. It has a neat discovery mode and some other nice features.

o SNMPC (a commercial product) that costs about \$700 from Castle Rock. It has very good graphic display that is best suited for a 1024 screen. It can beep employees based on traps, etc. There are now some other competitive packages such as Openview. It runs well on a 486.

Nocal from Vikas

Intermapper for Macintosh from Dartmouth.

Neon has a package called OT Tool for Macintosh; does traceroutes and pings; it is free.

Caravel has a program called Netwatch that monitors around 40 devices on a Macintosh;

has links to alphanumeric pages, etc. It is not free.

Q: John asks if anybody is using fiber channel. It is apparently an alternative to FDDI and ATM.

Somebody's heard of it, but there are no comments. Q: Who's using white boards and other conferencing products.

The February meeting is going to bring.

Lunch break at 12:05

OARnet hosted a very nice lunch with food from Schmidt's with knockwurst and the great Schmidt's cream puffs.

Meeting back in session at 13:00

Cyberkit for Windows 95. This is a really nice small free postcard-ware tool that does traceroutes, pings and forward/reverse name look-ups. It may be downloaded from Devry technical institute at <ftp://devrycols.edu/utls/cyber.zip>

Hewlett-Packard

Hewlett Packard is showing their Openview product family. Note that Openview is actually a set of interlocking products. The most familiar product is Node Manager. In a complex environment, an important task is finding out just what is attached. The first thing Node Manager does is to go to a discovery mode. Node Manager sets up a hierarchical

map that lets you drill down to individual devices through hubs, routers, etc. Node manager speaks SNMP natively. There are add-in products that do accommodate other non-SNMP, but manageable devices. In the future, there is intent to provide support for non-IP devices.

Node manager can be configured to automatically retry to start devices such as printers or spoolers that hang. After a definable interval, a ticket to call center or page to employee may be generated. Openview can also monitor events such as database files filling up.

A companion product called IT manager allows the management environment to be controlled.

A companion product called IT operation allows routers to be managed.

Openview can integrate Cisco Works and Bay Networks Optivity on the display screen.

Openview is an X-window COSE CDE API based product a display station running a MOTIF type window display.

Node manager does automatic dynamic sub-map updating. There have been performance enhancements incorporated in the latest 4.1 release. Scalability has been noticeably improved, especially with collection stations and collection servers. Node manager runs on a low-end to mid-range UNIX workstation. There is an NT version that is just now releasing. The NT version does not have all the UNIX features, but is expected to achieve parity with the UNIX version over the approximately next two years.

Quick Navigation is a screen that allows the end-user to have items that may be accessed without having to drill down through the main map. The Panner is a thumbnail over-view map that allows the end-user to drag a box around a section of the main map to zoom quickly.

Applications for running traps may be installed on pull-down menus. The application is essentially prototyped on the first installed node, then application may be run in like fashion for other nodes. There is also a tool bar for investigating nodes.

Thresholds can be set for SNMP events to trigger various operations. The default is to put an alert in a message window. An option is to issue an action; for instance launch a trouble ticket in a Remedy tech

support database. Notes can be attached to nodes that are in alert so that information can be easily seen by several operators (between shifts, for instance). Hypertext help is included.

Version 4.0 features management consoles. Older versions required workstations to run an X display server. That imposed a network and resource load. Version 4.0 allows the processing of subnet maps to be assigned to specific work stations. The old version supported 4 to 5 X terminals; 4.0 supports up to 15 management consoles.

Version 4.1 adds collection and management stations. The benefit is that remote sites can summarize data from polls before reporting back to the central database via the wide area network. Traffic is substantially reduced. The remote collection nodes are managed under an umbrella license. HP and Sun UNIX platforms are supported. Node Manager requires Solaris (no SunOS) for Sun hardware. The other components, such as ITA, require HP hardware platforms.

The management servers can be either master/slave or peer-to-peer modes. Peer-to-peer is useful at moving the active console to different time zones over the course of a 24-hour day.

Filtering is supported at the map level. The discovery data or the database information may be filtered passing between the machines. The default database is a flat file system. Oracle or Ingress are supported for users who want SQL query capabilities. Some higher level management functions of ITA do require either Oracle or Ingress.

Planning of the management strategy is important. Most complex networks will have some combination of independent, cooperative and hierarchical servers. An interesting feature is the ability to use TIF, JPG, BMP icons in the management console screen. It is possible to make the screen physically resemble the equipment room. There are more than 250 ad-on products to support assorted hardware and call ticket systems. You can get information at www.hp.com/go/openview for the network system management products.

Coming soon:

NT platform

Discovery and layout of non-IP

SMS integration

DMI support

Drag and drop

Continuing improvement of the user interface

SNMP++ api development kit

Example: IT Operations (nee Operations Center) looks at log files and carries out given operations for various events. IT Operations integrates Node Manager with a messages browsers. This works with products such as Ominback 2, for instance, making it easy to determined if a back-up is successful. The interface is fully customizable; it includes industry standard MIBs as well as including easy use of enterprise-specific MIBs without programming. There are agents available for many devices that don't have their own MIBs,

IT Administration is package that handles change administration for doing things like setting up printers, queues, etc. The end-user has to provide her/his own relational database; there is no run-time DB engine included.

Q: are migration tools to NT provided. A: Not yet. Q: are remote management stations provided for NT. A: Not yet; expected in late 1997. Q: Price. A: Software plus one year of support costs \$9,000. If you have less than 100 nodes, there is an "entry level" version of the product. Education users may purchase directly from HP. Questions can be directed to john_brose@hp.com.

Patrick: OARnet is thinking of putting another POP in the Ann Arbor area to get faster access to Power Pages. External ISP access is being discussed. University of Cincinnati is working with an ISP to work out an authentication method for faculty/staff when they are off site. Patrick is against the idea of giving out data to a third party, but UC is supporting it. They are using a script file to find authorization on the Innopac machine. The scheme actually gives an ad hoc physical IP range in an Ohiolink approved block. Skycorp is the company experimenting with this technology at the proof-of-product state. Compuserve is interested in providing ISP out-sourcing, according to Patricia Vendt. Tdowling@ohiolink.edu is the contact person for the Ohiolink web authentication; in fact any web related items at Ohiolink. John brought up the issue with people who use independent ISPs, note that patrons choose ISPs not necessarily on price, but also for accessibility and/or data rate performance. Move that OARTech strongly request a solution independent of medium and service access mode. The motion is seconded. The motion passes all ayes, no noes, some apparent abstentions. Galen will write a letter to Tom at Ohiolink outlining

the problem and asking for a solution.

Ruth: SOMACS update. The current rate is about 60 days for the line installation plus an additional 10 days for OARTech to install the equipment. There have been a number of billing problems with lines that are either not in or not working. Hopefully, and adjustment to all invoices will be forthcoming. Send email to nancy@oar.net or extension 202 until January 2. Also Connie at ext. 200 can answer questions. Ruth was presented with a SOMACS survival kit by some of the OARTech patrons.

Gene: OARnet statistics. Gene Presented a description of the basic OARnet router configuration. They try to keep as simple a configuration as possible. They use an outbound filter to prevent outbound access group and filter definition to prevent IP spoofing. They also have options set to discourage SYN attacks. The statistics package OARnet uses is a series of home brew applications built around NYSERNET's work of the early 1980s. It is very cantankerous and slow; days to run. They aren't happy with the suite, but it is in place. For now, the trouble ticket reporting is not working, due to a change in configuration of the NOC lists. Gene explained how to interpret the peak graphs in the monthly report. A general rule is that T1s are in an appropriate range in 30 to 50 percent. A T1 that is loaded between 50 to 80 percent will perform slowly, especially for web access. OARnet is looking at package called Trend SNMP as a possible replacement some time down the road for the current stats suite. Another thought is to put the statistics into a web page; here OARnet would probably be its own best customer.

Q: Patricia asks about the OARnet line use fee. A: It seems like the use rate is not currently involved. One enrollment, budge and strictly line rate are uses. Galen points out that the presentation doesn't matter as long as the numbers are useful. The over-all network use rate has continued the trend typical for the last year. Gene showed a slide of the current network configuration that is largely unchanged from the previous presentation. The main addition is an OC3 line to Cleveland to support VbNS. MCI is continuing to make incremental improvements. Some additions to Willow Springs have been made recently. A link is being put in between NASA and the Cleveland POP. There is a meeting on January 22 and 23, 1997 where information about Internet II will begin to solidify.

Kevin: Remedy is now up and running. They have contact information in

and they're working on putting in engineering data as the items can be confirmed. They are currently using the system for production. The phrase, "action item," will replace trouble ticket. There is currently no web interface, but that is still planned as a future item. HP Open View will arrive the week of 12/7/96 and installation will proceed soon. The NOC will go 24/7 as of 12/29/97. All contact should go through the standard toll free number. Technical staff will be accessible 24 hours per day.

Motion to adjourn. Galen seconds. Meeting ended at 15:50