

**AUTOMATED SERVICES COMMITTEE
MINUTES**

February 25, 2003

PRESENT (voting): Tim Burke(APL); Geoffrey Kirkpatrick (BETH); Carol Trager (BRUN); Deb Canzano (COHS); Richard Naylor (COLN); Patricia Nonamaker (EGRN); Barbara Nichols-Randall (GUIL); Judy Felsten (RCSC); Barbara Kubli (STEP); Paul Hicok (TROY); Karen Nuckolls (UHLS); Gail Sacco (VOOR)

(Non-voting): Rawdon Cheng, Sara Dallas, Jonathan Koppel, Peter Kowalski, Marcia Middleton, Carol Reppard, Mary Trev Thomas

9:00 a.m. – Meeting called to order by P. Ritter, Chair.

I. Minutes

Minutes of the January 28, 2003, meeting were accepted as written.

II. Automation Services Department Report - Karen Nuckolls

She reviewed her written report. (See pages 8-10)

Discussion regarding the “freezing” problem that people have encountered when trying to pull up a list of items that a patron has on request. M. Middleton noted that Dynix has discovered that UHLS is a more complex entity than they anticipated and therefore they have to make more changes to the system in order to accommodate us.

K. Nuckolls asked the Committee for a decision regarding a request from several libraries who want to be listed as “closed” in the policy file on the day following a holiday. If they are shown as closed, they will also be shown as closed on the iPac - it’s an all or nothing situation. Consensus to leave them listed as open.

Discussion regarding the continuation of the Implementation Team and the role of the Advisory Councils. G. Sacco noted that there has to be a clearly defined process of communication and decision-making. P. Ritter noted that after review by whatever is determined to be the necessary committees, the ASC is the final decision-making body for automation issues. He noted that the role of the Advisory Councils is to make recommendations for consideration by the ASC.

G. Sacco suggested that the UHLS staff should be allowed to determine the priorities for the automation system and should present these to the ASC.

R. Naylor suggested that the Advisory Councils should make recommendations and the UHLS staff should make whatever changes they feel are necessary; if people aren't happy, the staff will hear about it anyway.

R. Cheng reported that the HorizonL list serv has been created to facilitate communication. People must subscribe to this listserv which will be used to discuss policies, procedures and changes, and will be monitored by the UHLS staff. **MESSAGES SHOULD NO LONGER BE SENT TO uhlanusers. THAT USERNAME WILL BE USED BY UHLS STAFF, ONLY, TO BROADCAST EMERGENCY INFORMATION.** Further discussion regarding the listserv. **CONSENSUS TO ADD EVERYONE TO IT AND ALLOW THEM TO "unsubscribe".**

MOTION: D. Canzano moved the following:

- to disband the Implementation Team,
- to encourage the Advisory Councils to meet more frequently and send recommendations for action to the ASC,
- the Minutes from all Advisory Council meetings should be posted on the Intranet as soon as possible following the meetings,
- all of the Councils and the ASC should agree to be flexible during these early stages of the new automation system and allow time for new things to work. R. Naylor second.

Discussion. M. Middleton noted that the Implementation Team was a small group that was able to act quickly. She does not want to see it disband, instead just meet less frequently as a smaller, responsive group that would help to direct things in the right direction.

P. Nonamaker replied that the work has gone beyond the expertise of the Implementation Team members at this point. R. Naylor agreed.

J. Felsten suggested that there should be another type of ImpTeam with different members.

Discussion regarding the Advisory Councils. It was noted that they can meet more frequently and there is always the possibility of joint meetings among the Councils. They should provide the ASC with their priorities and recommendations.

P. Ritter noted that the establishment of the HorizonL list serv will aid in communication. He noted that the listserv is a mechanism for discussion, not a decision-making group.

The question was called on the motion.

AYES: 10, NAYS: J. Felsten and B. Kubli. MOTION PASSED.

K. Nuckolls continued her report. She noted that the training currently being conducted by Rob Carle is being done on the Production Database (the real thing). R. Cheng questioned whether it is really necessary to use the real database? This can cause some problems if someone makes an inadvertent mistake. He can clone the database and that could be used for training. M. Middleton suggested that it should be left up to the trainer to determine what database to use. R. Naylor strongly encouraged people to use something other than the real database.

D. Canzano noted that in anticipation of a training session, library staff set aside actual items that can be worked on.

III. Technology Services Department Report - Rawdon Cheng

R. Cheng reviewed his written report (pages 11-13) He noted that it takes very little to cause problems in a complicated system - it can be as simple as a wrong cable or plug that can crash a computer- and this happened at several of the libraries. He noted that normal log-in time is 2 minutes or less; *if anyone experiences a longer delay, contact Rawdon, Jonathan or Peter and they can run a check on the connections.* He noted that in the client server system (i.e. the new Dynix system), the connecting speed will be much slower than what many people are used to. The bandwidth is a critical factor in the response time and the smaller the bandwidth, the slower the connection in a client server system because of the quantity of data that is being shifted back and forth over the system.

P. Ritter noted that in the report submitted by Siegfried Widmer (Dynix consultant) there were specific recommendations for various libraries. (see pages). These recommendations included the suggestion that those libraries using a 56K line should upgrade to something greater. In the original discussions with Dynix, UHLS was assured that 56K lines were fine.

P. Kowalski reported on the iPac situation:

1) Stop words not working in Browse searching.

Solution: According to Tim Hyde of Dynix, this is just how iPac works and there is no solution at this time.

2) Change text of Search prompt to 'Select a Search'

Solution: done

3) A page will need to be set up on the DRA page which will inform people of the new Catalog address and forward them.

- Solution:** done
- 4) Limits set up by media type **Solution:** done
- 5) The Request List has a column called Hold Position which shows where in the queue you are on a requested item. It should be deleted.
Solution: done
- 6) Add text that says 'You will be notified when this title is available' to Request conf. Page **Solution:** done
- 7) Add text that says 'Please call your library to verify that this title is on the shelf' to item page **Solution:** done
- 8) Random 'e' characters appear on the screen at the Request confirmation page
Solution: This is a known bug. Nothing can be done at this time.
- 9) An '*' (supposed to represent that an item is owned by the location being searched) appears for every item on a search, even if it is not owned by the location
Solution: done. The * was removed, due to redundancy (ie: if you're searching APLM, APLM owns the item).
- 10) The default sort order of a search should be Author, Publication Date (descending), Title, Media
Solution: Can't be done. Only one sort is allowed. We can't sort by relevancy and another field.
- 11) There should be an email link to send a message/ask questions.
Solution: done.
- 12) Need a 'Search all Libraries' selection on the library selection screen. **Solution:** done
- P. Kowalski reported on the following:
- Patron PINs - PINs did not transfer from DRA, so any PINs which patrons changed from the last 4 digits of the phone number were automatically reset to the last 4 digits of their phone number in Horizon.
 - iPac limits - Consensus that this is an issue for discussion by the Adult Services Advisory Council.
 - Appearance/wording - P. Kowalski has asked the Advisory Councils to develop lists and submit them to the ASC

- Remove calendar/hours from iPac? Consensus to keep them as they are.
- "Searching all libraries" link - consensus to refer to the Adult Services Advisory Council.

R. Cheng continued with his report. Regarding the monthly reports - he will check with the Directors and the Advisory Councils to see what reports are wanted. These requests will then be brought to the ASC for discussion.

The statistics for the second half of January are contained in one report that includes every library. This will be either posted on the Intranet or emailed to all libraries.

UHLS will buy a license for EasyAsk or ReportSmith for any library that wants it. EasyAsk is the easiest to use but still does require some training. When there are enough interested staff member (a minimum of 10 people) a training session will be scheduled. ReportSmith is a more powerful program but requires SQL background.

DRA will be shut down on February 28th.

There is a new web form for reporting software-type problems. If libraries are experiencing a hardware problem, fax or call UHLS and R. Cheng or J. Koppel will come to the library to troubleshoot.

Discussion regarding printing notices. R. Cheng noted that due to the migration, the first set of notices will be huge since the system is cleaning out the DRA information and have not been run for 5 weeks.

Libraries should only use PCReliance when the Dynix system is down - DO NOT use it just because the system is slow. If a library uses PCReliance, they must call UHLS before 5:00 PM to notify us that the information needs to be processed.

IV. Other Business

P. Ritter distributed a letter from Jack Blount, Dynix CEO, apologizing for the difficulties that UHLS has experienced during the migration. (page).

M. Trev Thomas reported on some of the issues discussed by the Adult Services Advisory Council:

1. Look at the Hennepin County Public Library catalog <http://www.hclib.org> to see an excellent example of an online library catalog.

2. The Home/Welcome page (as opposed to the UHLS welcome page) is unnecessary. Most people will search from the initial page, which should be labeled a Search page.
3. There are three welcomes on the screen, which is unnecessary.
4. The initial search list should be: Keyword (any word), Title (starts with), Author (last, first) and subject (starts with). There was discussion about adding Video title, Audiobook title, and juvenile.)
5. The Search Page should be the Home page (see Hennepin). If we use boxes instead of a drop down menu for initial search page, put the word "or" between the choices (Keyword or Title, etc). Remove the word "Series" and replace it with "keyword". What page does that refer to?
6. There should be Basic Search and Advanced Search only.
7. At any point, you should be able to choose All libraries to extend your search.
8. There needs to be a way to get back to the UHLS Catalog Welcome page so that patrons can choose another profile.
9. If the results are not satisfactory, there needs to be an option for the patron, such as "This item may be available at other libraries. Click here to search their catalogs."
10. On the results list page (see Hennepin), there should be icons signifying which items are books, audios, etc.
11. On the item list, have a link to member library information.
12. On the item page, you have to scroll to the left to see everything. It would be better to have the column on the right side rather than on the left.
13. It would be worthwhile to have a meeting with all contingents about the language to be used in the IPAC, so that it is consistent among libraries.

See the Advisory Council's January Minutes at <http://www.uhls.org/intranet/meetings/advisory/adult/2003/0103.cfm>

M. Middleton suggested that these issues should be placed on the HorizonL list serv for more input from anyone interested.

P. Ritter noted that the UHLS staff will also review all of the recommendations.

MOTION: G. Sacco moved to authorize P. Kowalski to change the descriptions so that the initial search list should be: Keyword (any word), Title (starts with), Author (last, first) and subject (starts with). P. Nonamaker second. Unanimous.

R. Naylor asked if the recommendations from each Advisory Council could be posted on the Intranet prior to the monthly ASC meeting. G. Sacco asked if the Department reports could be posted on the Intranet prior to the monthly ASC meeting.

MOTION: P. Nonamaker moved to authorize P. Kowalski to go ahead and ask Dynix to do the custom programming needed to identify the media types on the results page. B. Kubli second. Unanimous.

Discussion regarding local reserves - the ability to have materials limited to particular library patrons. M. Middleton noted that they have developed a compromise at the Albany Branches - library staff do not check in new materials until an on-site patron checks it out for the first time. She noted that this is an uncomfortable issue and would like to see some statistics on tracking an item that has been requested and the number of places to which it has been sent. Can the Resource Sharing Council be asked to work on this?

In the EasyAsk program, there is a Request Re-order Report that tracks the number of requests for an item versus the number of items available.

J. Felsten distributed a brochure created at RCS on using the new UHLAN web catalog.

12:25 PM Meeting adjourned

NEXT MEETING: Tuesday, March 25th at 9:00 AM at UHLS.

Heidi A. Fuge
2/26/03

AUTOMATION SERVICES DEPARTMENT REPORT FEBRUARY 25, 2003

HORIZON IMPLEMENTATION

John Rose's Visit

On Monday afternoon, Feb. 10, I received a call from John Rose, our Dynix (epixtech) sales rep, inquiring how our migration was going. I told him everything that was happening/not happening with the system, and that our libraries were very dissatisfied. I invited him to call during the next day's ImpTeam meeting, and he said he would attend in person. A detailed report of this ImpTeam meeting is attached to this report.

Eric Graham of Merrimack Valley Library Consortium, whom we met during a site visit, will be visiting UHLS to assist us in any way he can with custom programming and other functionality issues. His visit will be paid for by Dynix. Valerie Chase, a Dynix staffmember, will be visiting UHLS this Friday to discuss reports with us—also at Dynix's expense.

Jack Blount's Call

True to his word, John Rose arranged a phone meeting with Jack Blount, the CEO of Dynix, on Feb. 13 at 4 pm. On the phone at the Austin airport, he listened to our concerns and disappointments and problems with the system. The conference call was attended by members of the ImpTeam and John Rose. When we remarked about Patty Pray's sending out a technician on the following Tuesday, he replied that that was too long for what we were going through, and promised he would dispatch a technician the next day. He apologized several times to us and to our libraries during this 20-minute call. I have asked John for an apology in writing from Mr. Blount, and he has promised one.

Sieg Widmer's Visit

Sieg Widmer, the technician from Dynix, arrived on Friday and was at UHLS with Jonathan and George Ramson on Saturday; and with Rawdon on Sunday through Wed. On Tues. Feb. 18 he met with UHLS and discussed his findings up to that point. (*Rawdon's report will have more detail.*)

Security Class

On February 4-5, several ImpTeam members attended a Dynix webex class on security setup in the new system. As a result of the class,

several libraries now have local administration on site who can setup and edit their own usernames: APL; BETH; COLN; EGRN; and GUIL.

Unresolved Issues

Dynix is currently working on several outstanding issues:

PINs – Why are so many patrons unable to use them? (*Grant Pearson is working on this.*)

Price transfer – If an item price was in the DRA item record, it should have transferred over in Horizon. (*Grant Pearson is working on this.*)

Specific patron Btypes – They have all been entered into Horizon. (*Waiting for Grant Pearson to move generic ones into respective specific library Btypes.*)

Various Circulation wierdnesses – These are being worked on as they are reported, either by UHLS or by Dynix. If you have not received an answer to your question/problem, please contact us for an update.

LIBRARY HOURS IN IPAC

Some libraries ask to have their calendar mark them as Closed on the day after a holiday, as they do not prefer items to be due. This was not a problem in DRA; but in Horizon, actual library *hours* are input into the calendar, and library hours are listed on the iPac (in addition to the library website.) Therefore if a library is marked Closed in the calendar (even though open), the library is listed as *Closed* on the iPac.

QUESTION: Can library hours be removed from the iPac?

IMPLEMENTATION TEAM

The Implementation Team has felt that, with the migration past, and with questions/problems dealing with more module-specific issues, the advisory councils should now discuss them and make recommendations to the Directors Association and to the Automated Services Committee.

For example, the Adult Services Advisory Council would work on iPac issues; Database would work on Cataloging issues; and Resource Sharing would work on Circulation and Request issues.

At a later date, the Implementation Team might be brought back with members who would address the Acquisitions and Serials Checkin modules as they are brought into the system.

TRAINING

Horizon Circulation

The Resource Sharing Advisory Council met on Feb.18 to discuss the printing of overdue and request notices. Rawdon will have additional information about the meeting in his report.

Rob has been contacting library directors offering followup training in Circulation, Item Report, Item barcode lookup, and Item Group Editor. The UHLS Horizon (UHLAN) database will be used instead of the training database. *(Please see attached report.)*

Horizon Cataloging

Mary Ellen Bena, our cataloger, visited WTVT and VOOR to train member library staff on adding items in Horizon. On Feb. 20 at a Database Advisory Council meeting, attendees were trained on copying in bib records from the Library of Congress database using Z39.50, and in Item Group Editor.

An announcement was sent out inviting those who could not attend to contact Karen, Mary Ellen or Rob for this training. I am in the process of setting up several dates for additional staff training with BETH, TROY and VOOR for this and next week. Karen is working with Kathy Cunningham is setting up overlay parameters.

NONREQUEST I TYPES

For those libraries who do not wish to pass on their items to those who have requested them, the Nonrequest I types are available for their use. These I types, in various loan periods, make items nonrequestable online or by another library.

Technology Dept Report

Feb 25, 2003

Horizon

Since we went live on Horizon, we had faced a few technical problems. Here are the findings of what went wrong:

Problem: On Day 1, libraries connected thru Internet to UHLS complained sluggish response.
Cause: On the day we went live, there was a virus paralyzing ISP's routers. Initially, we thought the slow down was caused by the heavy traffic on the Internet. Upon further analysis, we found out a hacker got into our iPAC server and used it as a game server. We stopped the service and closed out some unused ports. The response time came down to normal.

Problem: Day 5 and on. Libraries complained that their clients crashed too often. Sometimes it froze and must close out the client and restart.

Cause: as of this time, we still cannot find the cause of this problem. Though we believe it is caused by a combination of multiple factors. A hot fix is available to reduce the number of crashes. In reality test, the application with hot fix applied still crashes often. Siegfried Widmer of Dynix was dispatched here to help us to troubleshoot our problems. The first step he looked at was our networking side. He visited GUIL, COLN, POES, NGRN, APLM, APLD and APLH. He placed a sniffer at COLN, APLM and GUIL and did not find any unusual traffic pattern. The utilization of each site is within normal boundary. To help us to troubleshoot, he asked us to record any problems related to Horizon on a log sheet that should be faxed to UHLS everyday. The following is a brief summary of works he did while he was here:

1. On the server end, the temp db size was not big enough. Each transaction needs temporary space to execute. After the process finishes, the space should be reclaimed but in our situation, it does not. As time goes by, it diminishes the free space, which slows down all users. Eventually the server crashes. Dynix has increased the size of temp db to 10 times of the original setting. It still has not figured out why the temp db did not clear itself;
2. At the central site, the switch which connects the database server, needs to be manually configured. Improper setting causes bottleneck in traffics forwarding;
3. Some libraries have their own networking problem. The data cables used are not designed for high-speed network; the topology of the network design did not meet the standard. Those will compound the problems already facing us. A library has experienced frequent crashes due to its firewall setting. Some libraries continue to experience extreme delays in connecting to the server. UHLS will work with those libraries to find the cause.

Siegfried's full report will be attached to the online version of this report. We are still having sporadic slow down and crashes which we cannot explain. Z39.50 searching has been problematic. We do not the crashes are caused by Horizon Zclient or from the Z39 server from the other sites.

IPAC

During the week of February 10th, we experienced a severe slowdown on the Horizon server. Dynix was notified, and subsequent review of our server showed the problem to be related to browse scoping, which is a function performed on the IPAC.

Browse scoping allows browsing the individual library collections, as opposed to browsing all libraries.

As instructed by Dynix, we turned off browse scoping, and performance improved almost immediately. A file related to this issue was sent to replace a file existing on our IPAC server, written to address, and hopefully fix, this issue. This change was made, and browse scoping turned back on Feb 17 morning.

Once again, on Feb 21, the system displayed a similar slowdown. In an attempt to determine the cause, browse scoping was turned off again later that afternoon. Several libraries were contacted Monday and it was determined that the system had returned to normal speed. Peter will give a more detail report on what has been done on iPAC.

Monthly Reports

UHLS will continue to deliver regular circulation related reports to member libraries thru the intranet. If member libraries wish to create their own reports, UHLS will provide a report writer, either EasyAsk or ReportSmith. Currently, UHLS has purchased 3 licenses of EasyAsk and 6 licenses of ReportSmith. If libraries are interested to have their own report writer, please contact UHLS before March 15. If you have already installed EasyAsk but do not want to use it, please uninstall the application and return the CD to UHLS.

UHLS will schedule trainings on these report writers via iLearn from Dynix. DRA reports are on the intranet and will be there for at least one year.

Eric Graham

Eric Graham of Merrimac Valley Library Consortium will be coming to UHLS to help us to fix problems. Dynix will cover his expense for his visit. To use his time effectively, I am compiling a list of tasks for him to do and will submit to him prior to his visit. Some of the things can be done offsite.

Horizon listserv (inhouse)

We have set up a listserv for UHLS members to discuss any Horizon issues. It is not intended for reporting problems. It is open for any horizon issues. Subscribers can pose their tips and tricks in using the application. Any fixes of major problems will be copied to this list. I hope this will cut down the number of messages posted to uhlanusers.

To subscribe, send an email to imailsrv@uhls.lib.ny.us. In the body of the message, type **subscribe horizonL**

To pose a message, send an email to horizonL@uhls.lib.ny.us

Problem reporting procedure

To be more effective to handle Horizon related problems, we have set up a web-base trouble-reporting form on the intranet. Our staff will answer every single problem you submit. It will also be copied to HorizonL. Depending on the nature of the problem, solution may be posted to the HorizonL.

In the near future, support@uhls.lib.ny.us will be removed. Please use the web form to report problems.

Firewall

The firewall, Checkpoint: the Next Generation, is a new release version and Dynix support team has yet to master this new version. We have been working with them to get ourselves to be familiar with this application. We planned to implement it as soon as possible. We will inform you when it is in production. The impact to users should be none.

It is expected the first few days after the firewall is deployed will create unexpected problems. We will deal with it one at a time. Once the setting is correct, it will continue to work without problems.

Our firewall will shield us (UHLS, T1 or 56k libraries) from outside initiate traffic. If you connect to us via Internet, you are not protected by this firewall. We will block all services except the following: ftp, http, smtp, imap, idap, webmessaging.

To implement the firewall, we will create a DMZ to host our servers. Because of this, you need to change the DNS setup on your workstations to avoid disruption of Internet access.

3-part mailer notices

The procedure of printing notices is very different from it in DRA. Libraries may print the notices to their own printer, if they choose to. At this time, UHLS will print the notices in plain paper. Once we start using Eric Graham's program, we will start using 3-part mailer.

The concept of notice printing is complicated to be explained in words. Once you have done one or two, it will be an easy task. If you want to know how it works, please contact Rawdon.

The Resource AC has met to discuss how to handle the printing of pickup requests and overdue. The group has reached consensus to set the Overdue as auto print and Hold as review. Review can be changed to print, if needed.

UHLS will create and maintain the print layout for libraries printing the notices on 3-part forms. Libraries which do not print notices on 3-part mailers can change the layout themselves if they wish to.

PcReliance

Since we have gone live, there are a number of instances libraries have used PcReliance. We have yet to set up guideline for libraries how to communicate with UHLS staff when they use PcReliance.

Also, we notice in many occasions, library staff has accidentally clicked on the FTP PcReliance icon and upload the data file. We have put a fix on the ftp server to address this issue. The fix will change the name of the script to "Upload PcReliance data". It will also ask user to confirm the upload before it continues. This will reduce the number of false upload.

Other issues

DRA service will be pull down permanently on Mar 1. Users will have no access to the system after that date.

Uhlansers is used by UHLS to broadcast important service related messages. We have noticed some users sending questions to that address. To broadcast non-service related questions, please send your email to appropriate advisory councils (database, tech, adultserv, youthserv or resource).

Things yet to be done:

1. Telecirc
2. Remote Patron Authentication

February 24, 2003

Philip W. Ritter
Executive Director
Upper Hudson Library System
28 Essex Street
Albany, New York 12206

Dear Phil,

On behalf of Dynix I would like to express our apology for the communications and implementation problems that you encountered during your move to Horizon at Upper Hudson Library System. I know that your roll out of Horizon did not go well and we, as your solutions provider, should have responded better to make your roll out problem free. I want you to know that I will continue to track your progress and that if at any point you or your staff feel you are not getting the appropriate support that you please contact me directly.

I also would like to compliment your staff for the tremendous effort they have put into working with us to resolve the problems your library encountered. Rawdon, Karen, Jonathon and Peter all went the extra mile to help us resolve the problems as expeditiously as possible. They were very supportive of Seig Widmer, whom we sent on site to do network analysis, as well as our support staff via phone.

Although we take full responsibility for the failure, Seig Widmer did find that in some of your member libraries, such as Guilderland and Colonie, internal network problems were in fact part of the problem. Dynix will continue to work to resolve these and other problems, but some of the libraries have to take ownership of their internal networks - that clearly falls outside of our contract. We will continue to help them in every way possible and we are very dedicated to making UHLS a happy customer.

While I realize that we cannot give you back the time you have lost addressing these implementation problems, it is our constant desire to achieve customer satisfaction and therefore I want to give you 12 additional hours of iLearn training sessions so that your staff can quickly become Horizon experts and learn more about the flexibility and richness of the Horizon solution you have chosen. Again, on behalf of Dynix, I express my apologies and our commitment to making UHLS a showcase library system. Please feel free to contact me at 801-223-5580 any time you feel I can be of assistance to you.

Sincerely,



Jack Blount
President & CEO

Upper Hudson Library System Finds

Friday, Feb 14th

- ?? Met Johnathan Koppel of Upper Hudson Lib System and Geroge Ramson (their network consultant) to discuss the library sites that are being the most vocal.
- ?? Reviewed and mapped out network topology of the LAN at the location of the Horizon server as WAN links to all library agencies.
- ?? Decided to visit Guilderland Library in the morning. Jonathan and George both feel that they (the library) have inherent LAN problems that have surfaced prior Horizon being installed. A couple days ago George did make some changes to their LAN which we will verify performance improvement tomorrow.
- ?? Scheduled to visit 2 other site (time permitting)
- ?? Monitor and witness errors first hand at library agency
- ?? Leave a error log with library agency to have them log errors.
- ?? **Goods news:** The library is very positive about improvements that were made on the Horizon server today after lunch EST. No reports of errors were reported after changes to the Horizon server were made.
- ?? Double checked the Horizon NIC speed and duplexing. It was set to 100/half (which is what we want), however the Allied Telesyn switch it was plugged in to was set to auto negotiate and was linking up at 100/full causing huge amounts of input and output errors on both sides of the wire. This would definitely have caused some problems with connection speed and reliability. Made the correction on the switch and cleared it's counters. Will monitor the link tomorrow upon my return.

Saturday, Feb 15th

- ?? Visited **Guilderland Public**. This is T1 point to point link back to Upper Hudson (UHLS).
 - Inspected internal LAN wiring. Are using CAT3 wires for some of the PC's connections. Explained the disadvantages of using CAT3 connections. George and library director are aware of this situation. Made sure that the CAT3 PCs are connecting to 10BaseT hub.
 - Too many hubs cascaded into each other. One huge collision domain. We redid some of the wiring.
 - Took several snapshots of the ethernet LAN segment and the WAN link. Both interfaces were found to have little loads. The WAN link was clean (no interface resets, errors, or transitions). Load at peak time was 12-15% utilization of the T1 WAN circuit. The ethernet segment was showing some collisions (less than ½ of 1% of total packets), however that is to be expected due the nature of ethernet and the topology of their LAN. This amount is well below acceptable collision rate based on IEEE standards.

~~///~~ **Suggestions made.**

- ?? Reduce the collision domain by replacing the hubs with switches. Physical location of PC's does not allow library to have one centrally located switch. They will still need to connect the remotely located hubs in to a central switch, but by dropping in switches and reworking the wiring,

collision domain will be reduced. George is working with the library to facilitate the purchase of switches. This library has known LAN issues, and they are taking steps to correct that.

?? Redo the wiring at this site.

?? Tons of collisions, ethernet errors and input errors. Double check this router for reliability.

- **Good News:** During the 4 hours that I was there all seemed to be circulating fine. We did have one glitch as a library card was trying to be entered. The error logs are being sent to Peter at Upper Hudson and he has been forwarding them on to Mark Derrick, Tim Hyde and Scott Landeen in Provo. iPAC still takes forever.
- I have created a log sheet for the library and asked them to keep track off errors and sent them on to Dynix daily.

?? Visited **Colonie Library:** Worked with Judy Lucarelli (super for circulation) We (George and I) took a look at the wiring area. **SPEGGETTI** What a disaster. From what I could see they have the same kind of issue as Guidlerland did as far as wiring goes:

- Hubs cascaded into each other
- Using flat ribbon cable as UTP connections. These wires are CAT3 cables and are not reliable for ethernet connectivity.
- In spite of the messy wiring, when I took a look at the ethernet interface, it showed very little collision or errors, indicating that LAN had low traffic and was pretty clean.
- The serial WAN interface on the router was also clean. Utilization of 357Kbits input (given a T1 of 1534kbits) was low. No errors on the circuit since it counters were reset. I did clear the counters again to get a fresh start on both interfaces.
- We were at this site from 3PM till closing and did not see any circulation problems except a few errors. Again they are logging these errors and I stressed the importance of in getting these errors to our office in Provo daily via UHLS. The performance and reliability of the system was greatly improved over last week. She told us that Friday noon, last week it was better. Left an error log spreadsheet that she will instruct her staff to complete and then send to Peter who will then forward them on to Dynix.
- Will drop in sniffer on Monday.

~~///~~ **Suggestion made:**

?? Clean up wiring. Drop switches in. George is meeting with Joe Nash and/or Richard Naylor to discuss the wiring topology of this site. They are in the process of remodeling and the LAN infrastructure is being addressed. They have hired a professional consultant to do all the wiring for them plus supply with new equipment.

?? Back to **UHLS**

- Double checked the Horizon servers NIC for errors. They did not increment since making the changes on Friday. Took a look at the switch and no errors to report. Looks like the errors have subsided. Noted the number of errors in netstat –in of the Sun box and will make reference to that next time I'm at UHLS.

Sunday Feb 16

?? Guilderland Library

- Installed the sniffer to monitor LAN utilization. Will remove tomorrow AM for analysis.
- Discussed performance and connectivity issues on Saturday with the staff members. They said all was well with no problems to report.
- Returned to UHLS site to check on the auto duplexing issues of the Horizon server's NIC. The switched port it was connected to was not have any incremental errors. The errors that were formerly reported on the Sun's NIC were not incrementing either. This is good since auto negotiation of switches sometime does not work correctly. Setting the duplexing and NIC speed is the best was to ensure proper speed/duplexing.
- Discussed the importance of keeping accurate records with the staff members. Records will be sent daily to UHLS.

Monday Feb 17th

?? Guilderland Library

- Returned to Guilderland and removed sniffer. LAN utilization is very minimal. Both ethernet and WAN connections clean.
- Discussed connectivity issues with staff. Informed me that connection was very good all day yesterday (Sunday). No problems to report at the CIRC desk.

?? Colonie Library

- Installed the sniffer on the LAN.
- Removed the sniffer at the end of the day and found that utilization is very low. It peaked at 15% tops. This could be because the weather was really bad and we had little traffic. Even on a busy day, (like they had yesterday) traffic was low (10-12%). I did sniff between my laptop and a specific Horizon client. With the help of Mike A. we did not find anything that stands out as being an anomaly. LAN utilization is low. Will do another check tomorrow from UHLS.

?? North Greensbrush Library (56K FT1 link to UHLS) additional cable modem via for Road Runner internet only traffic

- This library was closed today, however Daryl McArthy came in on her day off to work with us.
- Although library was closed we did simulate CKI and CKO and we did not have any problems.
- Looked at router logs and WAN and LAN segments were clean with no errors. Both WAN/LAN utilization are low. Of course that is to be

expected since the library was closed. Daryl indicated to me that they really don't have connection issues.

- Reported good response all weekend
- Fixed clock and turn on logging for future analysis. With this turned on we can analyse future anomalies that appear on both LAN and WAN segments.

?? Suggestions Made :

?? Continue to monitor the errors at this site. At this site we really did not see a lot happening due to the fact that this library was closed, however, UHLS has not been getting calls from this site as well. A huge majority of call came from all site prior to Friday, Feb 14th.

?? Poestenkill Library (256K cable modem via Road Runner ISP only)

- Were complaining of timing out after 5 minutes of idle time.
- Set up a continuous ping from a local PC to Horizon box. Response times range from 50-260ms. Average should be 20-50ms. Because this is an internet connection and bandwidth is not indicated and let alone guaranteed, their reliability of the connection is solely dependent upon the internet and what the load on the whole cable network. This is the nature of cable modem. They in a very rural area. She notices a big difference in connection speed between 2:30PM to 3:30PM. (the kids are out of school then and browsing at home)
- After 5 minutes of idle time, staff attempts CKI and CKO got a fatal error
- Duplicated the error again. Eliminated the Sonicwall firewall from the network. Tried to duplicate the error and connection was NOT terminated after 10 minutes. Informed Maggie (director) of problem and talked with Mike (their tech) about the time out issue on their firewall. He is going to address this today. Went to Sonicwall website to point out to Mike where he can find the timeout feature for Sonicwall. He has an older SOHO unit that is a little different than the website documentation shows so I am not sure what he is going to do to fix the timeout issue. It is something that he will need to address.
- This is the problem over at this site. I think there are a couple other sites that are having the same kind of disconnect issues. I will discuss those with Rawden tomorrow.
- Maggie did not have a log error sheet so we left her one. She is going to submit a daily report to UHLS.

?? Suggestions made:

?? Solve the time out issue

?? Continue to monitor connectivity issues and relay them back to Dynix.

?? Try to secure a dedicated connection to UHLS and scarp the free internet server. You get what you pay for

Tuesday Feb 18th

?? **UHLS building:** Meeting with UHLS members. The general consensus is that they are happy with the work that we (Dynix) are doing in trying to resolve performance issues. Conference call with Dynix to express some concerns that UHLS is having. Phil Ritter wanted to know what I have found in my travels to the libraries and I gave him an update. He believes that most of the problems that the libraries are now having is caused by internal LAN issues, whereas before Friday, I believe, as does Phil and the rest of the UHLS team, unreliable connectivity to Horizon was caused by multiple problem. We did have Horizon database issues and we still have LAN issues at some of the sites.

?? **Albany Public Main Site:**

- Set up sniffer on the LAN. Retrieve at the end of the day.
- As in some of the other sites the LAN is one large segment. Suggested to clean up their wiring. Lorie cannot do that until her supervisor Marcia returns from vacation on Monday. Rawden is aware and will ensure changes. They are in the process of upgrading their telco equipment within the next month and while I was there they have already received some Telco of their equipment.
- Discussed some of the branches issues. All of the branches have 56K point to point WAN links, however they are not using them due to it's insufficient bandwidth. These branches also have cable modem connections they use instead of the 56K link. All traffic (including Horizon) comes through this cable modem connection over the internet to UHLS. Neither UHLS nor the library knows the bandwidth of this broadband connection. The libraries reliability of their connection to Horizon is completely dependent upon the internet bandwidth which can fluctuate drastically bases on the cable modem network usage. This can lead to problems.
- The branches are planning to upgrade to a FT1 dedicated circuit. The bandwidth has not yet been decided. This is a definite plus for these sites.
- Talked to several staff and there have not been any problems to report except for some functionality and cosmetic changes.
- The staff did not have a log sheet to record errors. I do not understand why since I sent a log error sheet to Rawden last week before I arrived at UHLS. Gave Lorie (circulation super) a copy and instructed her to have her staff log ALL problems and send them to UHLS at the end of the day.
- Returned and pulled sniffer. No anomalies to report. LAN segment utilization very low.

~~✍~~ **Suggestions made:**

- ?? Upgrade the telecom equipment at the main site (are planning to do that in the next couple weeks)
- ?? Clean up wiring and reduce collision domains
- ?? I believe most of the branch libraries problems will be solve with a reliable dedicated connection to this main site.

?? **UHLS**

- Double checked all the routers for errors. Found some errors on routers. Brought this to Rawden's attention. He will inform the site of the find.
- Some routers at the UHLS have some errors on the LAN segment. Rawden has been in meetings all afternoon and will inform him tomorrow.

~~✍~~ **Suggestion made :**

- ?? Connect to the switch and made sure that auto negotiation is turned off of each corresponding port. Need to nail down the speed and duplexing and not rely on auto negotiation.
- ?? Router 252 is experiencing errors on its e0. Please make sure that the switches speed and duplexing is set to 10/half and not set to auto negotiate.
- ?? Troy public S1 connection is experiencing carrier transitions and CRC and input errors. Keep an eye on it and if problems persist call telco or swap out equipment.
- ?? Hoosick Falls router s0 is having carrier transition and interface resets. I have turned logging on and fixed the clock. Double check that router and frame connections.
- ?? Colonie's router has e0 errors as well. This could be the LAN topology that they are dealing with. If the problems escalate, this issue needs to be addressed.

?? **Cohoes**

- Timeout after 5 mins of inactivity. Same issue as Poestenkill branch. Same network consultant with same equipment. Will need to contact Mike (their network support tech) to give him the info.

~~✍~~ **Suggestion made:**

- ?? Solve the time out issue
- ?? Continue to monitor connectivity issues and relay them back to Dynix.
- ?? Try to secure a dedicated connection to UHLS and scarp the free internet server. You get what you pay for.

Wednesday Feb 19th

?? **Pine Hills** (Branch of Albany Public)

- 14 pc's at this site
- This a 56k point to point link to Albany Public however the branch is not using this connection due to the lack of bandwidth that this library has. They are using there cable modem connection to Horizon via the internet. No bandwidth is known of this free connection.
- They have not been keeping an error log until now.
- They notice the connection is slower between 4-5PM. This could be the fact that kids are home from school and browsing, or downloading MP3s or AVI files from the internet. It is impossible for us to determine what kind of traffic is on the wire without a WAN sniffer. Given the design of cable modem networks.
- Pings took anywhere from 157ms to 500ms to the Horizon server. This is not a good thing. There connection to the internet and hence Horizon connections, seems very busy. Horizon clients take up to 4 minutes to load. We were seeing an average of 40-90 seconds at other sites on the same type of connection.
- Albany Public is providing new links to each one of their branch and this library is slated to get their new dedicated connect with 2 weeks. I recommended no smaller than a 768K link with a minimum CIR of 256K. this will greatly improve reliability.
- Switch is really noisy. Has an audible fan problem Unit could be faulty and could be he cause for LAN slowness. Suggested to swap out the switch for testing purposes.

~~///~~ **Suggestions made:**

- ?? upgrade their circuit from 56K to a FT1 of 768K with a minimum CIR of 256K.
- ?? Once new FT1 link is installed, route all non Horizon traffic over the free cable modem connection.
- ?? Swap out pieces of equipment to help determine slowness problems.
- ?? When the new circuit is installed, route internet traffic over the free cable modem connection leaving the full dedicated FT1 circuit for Horizon traffic.

?? **Howe Library** (Branch of Albany public)

- Same telecom setup as Pine Hills branch.
- 13 pc's at this site.
- Library states that they are slow as well. When I double check the loading time for Horizon it is about 60 seconds to load. I think that is pretty good.
- Tested with ping to the Horizon server and it ranged from 50-175ms return. This is not too great, however the constant ping did not show a consistent return of 175 ms. The cable modem network could be busy

at times. I also saw some “request time out” which tell me that the ping did not come back to me within the 2 sec parameter. Network connection was dropped for that 2 second interval.

~~✍~~ **Suggestions made:**

- ?? upgrade their circuit from 56K to a FT1 of 768K with a minimum CIR of 256K.
- ?? Once new FT1 link is installed, route all non Horizon traffic over the free cable modem connection.
- ?? Swap out pieces of equipment to help determine slowness problems
- ?? When the new circuit is installed, route internet traffic over the free cable modem connection leaving the full dedicated FT1 circuit for Horizon traffic.