Technology Project Manager's Report
August 13th, 2021 – December 10th, 2021

Database Statistics / stats.oplin.org Enhancements

Earlier this year the "American and English Literature Collection" migrated to Biblioboard, which broke our ability to pull stats for the resource. In early September Lyrasis provided connectivity information to pull from their new SUSHI API, which has been integrated into our stats system and is running smoothly.

LinkedIn Learning finally released an updated version of their stats API in late November which can report on video views! Our connector has been built, and the first fully automated pull of stats will occur on December 5th. Thus ends 7 months of watching a mouse macro pull down over 1800 reports from LILL's web admin interface. A welcome change.

ProQuest has a multi-month ongoing issue with being unable to provide accurate stats for HeritageQuest. Such a long lasting problem on what I feel should be an easily corrected issue suggests to me an technical inability on the part of ProQuest. I reached out to them 12/1 looking to explore other avenues of stats delivery.

Northstar indicates that they have no existing API for stats retrieval, but that once I inspect their web admin they suspect I'll be able to reverse engineer a method of pulling the data out. Their developer seems amenable, and I suspect we'll work something out.

SMS Gateway: an Outage and a New Beginning

On Friday 9/10 we had our first major SMS outage in quite a long time. An upstream SMS carrier flagged our number as a spammer, and rejected 95% of all messages. Error level alarms on the SMS gateway notified us of the issue, and we shut down outbound transmission of text messages. All messages which errored out were recovered and re-added to the queue. The gateway continued to accept messages from libraries, but held them until the issue was cleared Monday morning. Though 18,000 texts were delayed, none were lost.

On a more positive note, 11/30 marked the first production text messages from CLC being delivered. Our current monthly load for 160 libraries is ~117k messages. CLC states their 17 member libraries generate roughly the same monthly amount, which would raise our monthly burn rate to ~250k message credits. With 1.5 million credits in our wallet we have at least 6-9 months of credits available. Our last purchase of 5 million credits was $30k, but due to carrier fee increases I'd estimate updated pricing to be closer to $40k. Quotes for service will be gathered Q1 2022.

ARIN Fee Increase in 2022

On 9/15 the American Registry for Internet Numbers (ARIN) announced a fee restructuring which will increase the amount we pay annually for registration of our 66.213.0.0/17 block of ipv4 address space. Previous annual costs were $300, which going forward will be $4,000 as we're identified as a "medium" sized network. Though a substantial increase, it's not particularly burdensome within the scope of running a /17 sized network, and ARIN is a non-profit which handles all IP registrations in North America, so no real action to be taken.

Network Administration / SOCC Co-Location

In the pursuit of vlan stacking to allow private links from libraries to the SOCC co-location space, both Spectrum collectors and the OARNet collector have been converted to high MTU trunks capable of supporting jumbo frames. Front runners on the project are Cincinnati and Parma, both of which are at the point of waiting on the library to deploy a local test device for verification of end to end connectivity. Once in place only a single reconfiguration of the OPLIN core will be required to complete the project, and I have high hopes that this will be the last "in-progress" update on this topic.

Multiple meetings and correspondence with OIT have been held as we onboard a new engineering team in the wake of the departure of Terry Fouts. Progress has been made on cleanup of the management network, consolidating physical inventory of spare hardware, and getting OIT up to speed as a whole as to the intricacies of the OPLIN network.

In preparation for our annual ERate Form 470 a manual inspection of every circuit in the network was completed in early November. As a result we're expecting to upgrade ten library circuits this season, and have corrected six misconfigurations causing diminished service.

The co-location space will soon welcome hardware from Lorain and Medina libraries, which will be utilizing the shared rack and a private connection to CLEVNET for hosting server hardware. Additionally, the OPLIN office network was reconfigured to move its network core to the SOCC co-location space. This will allow us to keep all hardware assets within the safety of the SOCC, while also allowing us to easily extend our staff network into any building we have connectivity to.

JR Clarke completed an 8 month renovation project, allowing us to decommission our connectivity and hardware to their temporary location and reestablish service to the original building.

mask.oplin.org Development

A mechanism is now in place to allow mapping fields like fines and block status into vendor responses upon request. Additionally, support for pinless card validation against SIP2 targets and various logging enhancements have been added. Mask was outlined in an OPLIN webinar on 11/18, and a proposal to "Computers in Libraries" has also been submitted.