

MONTHLY REPORT

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- In an effort to reduce the number of physical machines that are maintained in our server room, our most powerful server has been configured to host Virtual Machines (VMs). The first system to have been virtualized is the development and test server for our website. It is expected that two more systems will be virtualized and hosted on this server, further reducing electricity and maintenance costs. While we had tried virtualization in the past, I am now using a different virtualization solution, one that is free, open source and has very good performance characteristics.
- The server that previously hosted our dev/test website was completely reinstalled in preparation to be deployed as a replacement for our live web server. After successful testing on our dev/test server, our SSL (Secure Socket Layer) certificate, previously only used to provide secure ecommerce, was installed and configured on the newly installed server. This new web server went live on May 31st. Patrons can now enjoy a greater degree of privacy when browsing our website, as the data sent to and from our web server is now encrypted.
- On Tuesday, May 16th, we experienced a massive slowdown on our internal network such that workstations were frequently timing out while trying to access resources. The problem did not appear to be between our gateways and the internet, but only on the internal network. The IT Department was contacted, but upon checking the status of our network switches, they could see no problems. Gateway servers were rebooted in an effort to correct the situation with no effect. One such server that handles web filtering for children and teens failed to boot up and was replaced within a few hours. During that time, access was diverted through another gateway. The poor network performance continued throughout the day and was finally corrected when our main core network switch was rebooted the following morning. This would indicate that we experienced a “network storm” in which a tremendous amount of traffic flooded the network; however, the precise cause of this remains unknown.
- The Trove selfcheck computer that exhibited intermittent item scanner problems was replaced with a new computer by the vendor, Sentry Technology.
- One of the Galaxy Hall computers was replaced following intermittent problems with it. It is the system that is used to play short films in the Cave and at the Tree Trail.
- The system that plays the closing announcements has been replaced with a much more reliable Linux-based system. It was deployed to the recently reopened 3rd tier.
- Two major malware issues were seen during the month: a Google Docs malware phishing attack and an enormous vulnerability in Microsoft Windows. The Google Docs attack was directed at organizations such as the City that use Gmail as its email platform. It relied on a recipient clicking on what would appear to be a legitimate shared Google Doc link. The link would then launch an actual Google app named *Google Docs* that would then give the hacker access to everything on the recipient’s Google Drive. Google blocked access to the app within hours, but not before some City employees were exposed to the threat. The Microsoft vulnerability was much more dangerous, as it did not rely on any user interaction whatsoever and it allowed an attacker to completely control one’s system. Microsoft issued an emergency security update which we were quick to apply.
- Because of the health and safety risks associated with the use of Virtual Reality (VR) headsets, it was decided that we should require patrons (or parents/guardians) to sign a release form to protect the Library from liability. We have suspended all public use of our VR equipment until we have such a form in place. After researching what other organizations have as their release forms, we came up with a form that is now being reviewed by the City’s Legal Department.