



# SWAN Technology Users Group

March 25<sup>th</sup>, 2021

# Agenda

- Welcome and Introductions
  - Uptime Report
  - Project Updates
    - Aspen Discovery
    - Phone notice dialer replacement
    - RAILS server migrations
    - Laptop refresh
    - Upcoming projects
  - How Do We Do That?
  - Microsoft Ignite
  - Microsoft Exchange Exploits
  - RAILS Delivery RFP
  - Open Forum
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# Uptime Report

## WorkFlows/Symphony Server Outage Tracking: September 1<sup>st</sup> through March 22<sup>nd</sup>

Date	Approx Time	Time Elapsed (Min)	System	Planned?	Library Hours?	Reason
10/25/2020	19:05	5	Symphony	Yes	No	Scheduled off-hours patching.
12/5/2020	01:40	1200 (20hr)	Symphony	Yes	Yes	Scheduled offline for database rebuild.

## Enterprise Catalog & Web Services Server Outage Tracking: September 1<sup>st</sup> through March 22<sup>nd</sup>

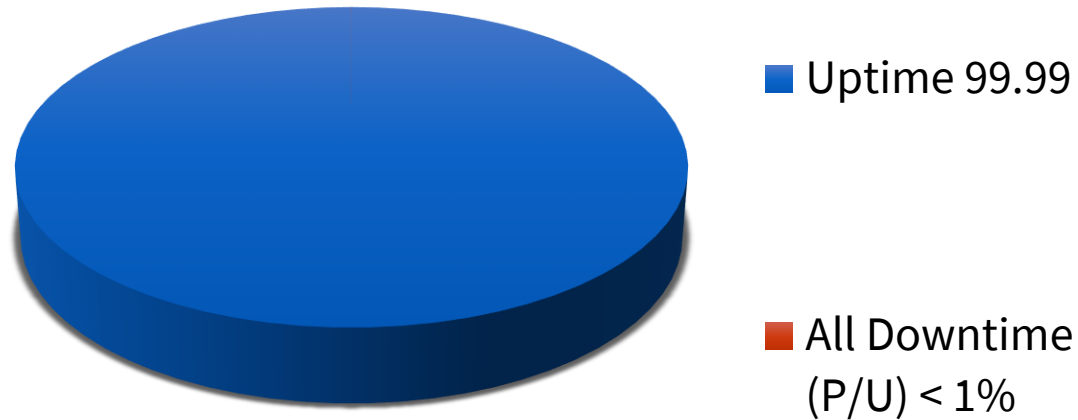
Date	Approx Time	Time Elapsed (Min)	System	Planned?	Library Hours?	Reason
11/5/2020	09:15	75	Web Services	No	Yes	Database log size exceeded allocated storage requiring correction.
11/5/2020	00:05	11	Enterprise	Yes	Yes	Planned upgrade of Web Services impacted Enterprise functions.
12/5/2020	21:05	5	Web Services	Yes	No	WorkFlows/Symphony server planned patching.
12/5/2020	01:40	60	Enterprise	Yes	No	Intermittent Enterprise My Acct. outages during database rebuild.
12/5/2020	23:45	480 (8hr)	Web Services	No	No	Unexpected WS outage during nightly maintenance.
1/21/2021	N/A	Intermittent	Web Services	No	Yes	Brief outages of Web Services caused by search floods originating from NovelList On-The-Shelf service.
1/22/2021	N/A	Intermittent	Web Services	No	Yes	Brief outages of Web Services caused by search floods originating from NovelList On-The-Shelf service.
1/26/2021	N/A	Intermittent	Web Services	No	Yes	Brief outages of Web Services caused by search floods originating from NovelList On-The-Shelf service.
1/27/2021	23:00	5	Enterprise	Yes	No	Planned outage for SaaS server patching.

## Other Notable Outages: September 1<sup>st</sup> through March 22<sup>nd</sup>

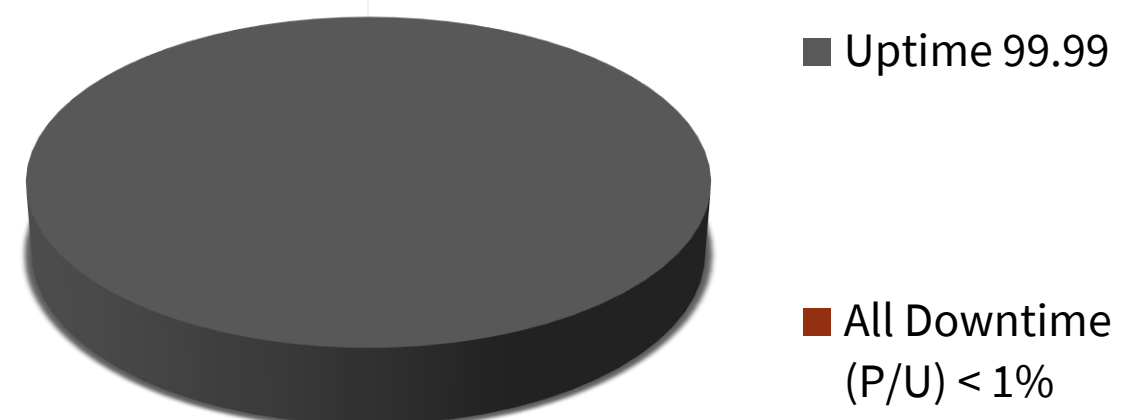
Date	Approx Time	Time Elapsed (Min)	System	Planned?	Library Hours?	Reason
1/15/2021	16:55	2520 (42hr)	SVA Phone Notice System	No	Yes	Outage caused by unexpected corruption of virtualization utility, resolved through reinstallation.
2/21/2021	11:15	15	SWAN VPN Network	No	Yes	Outage of SWAN VPN networks caused by a bug in SWAN's network firewall software.

# Downtime Tracking: September 1<sup>st</sup> through March 22<sup>nd</sup>

## Enterprise OPAC Server



## WorkFlows / Symphony Server

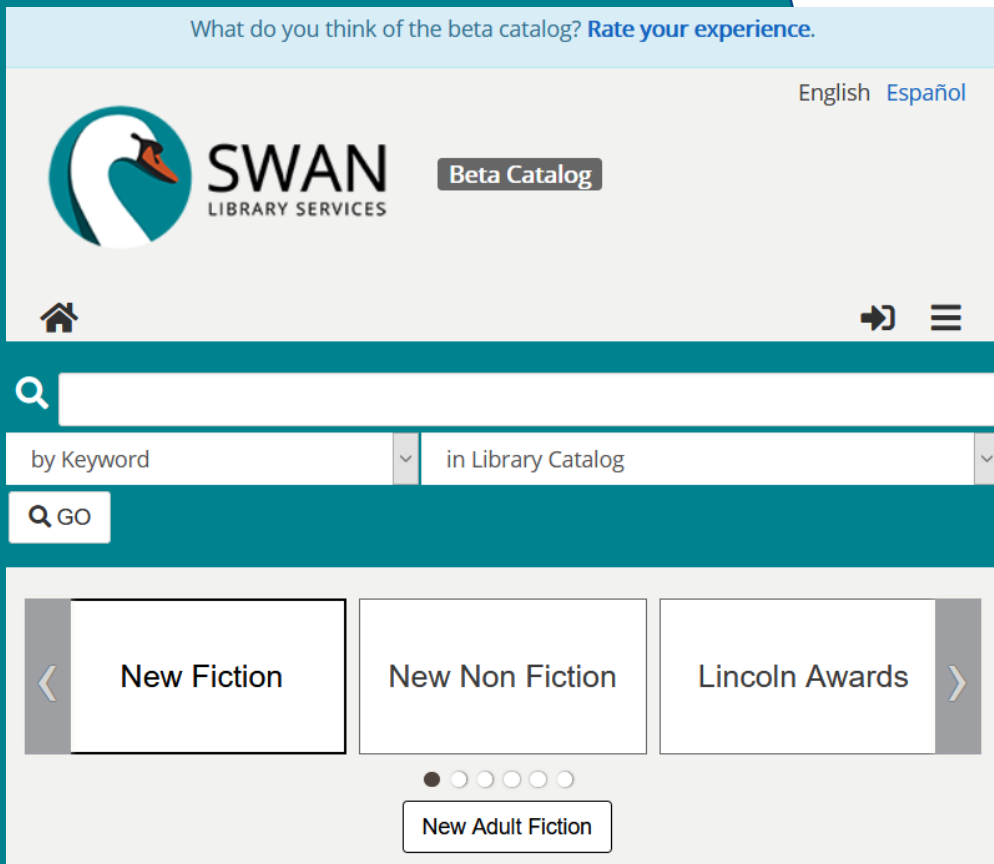


# Project Updates



# Aspen Discovery

catalogbeta.swanlibraries.net



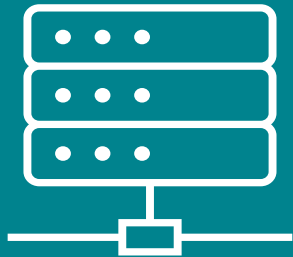
- Current beta/[pilot](#) phase:
  - Chicago Ridge, Downers Grove, Oak Brook, Oak Park, St. Charles, Tinley Park, Villa Park
  - Will continue through Spring (until requested development has concluded)
  - Accessible to all, not all library profiles configured
  - Cohort-based go-live
- Research activities (UX Team):
  - Usability testing analysis
  - Usage stats analysis
  - Surveys
  - Feature backlog
  - Development priorities
- System improvements with ByWater
  - Search performance
    - Database optimization
    - SOLR search index optimization
    - Removal of redundant queries in database calls
  - Patron data encryption
    - Personally identifiable and sensitive patron data fields are encrypted at rest

# Phone Notice Dialer Replacement



- Current pilot phase:
  - Part 1: SWAN internal staff (1-2 weeks)
  - Part 2: Elmwood Park, Eisenhower (2-4 weeks)
- Frequently asked questions:
  - Calls from existing toll-free number
  - CID displays as notice library's name
  - Sends notices for hold pickup, overdue
    - Does not submit notices for courtesy, bills (same as SVA)
  - Uses automated notice scripts specific to each library
  - Will continue to observe calling hours, phone notice preference
  - Does not support dial-in functions
  - Will produce an end-of-day call statistics report delivered to each library for follow-up

# RAILS Server Migrations



- Support site & ticketing system
  - Support site on Drupal
  - Ticketing on OTRS
  - Integrate with L2
  - Expected go-live in May
  - Leveraging Azure PaaS (Platform as a Service) to host database
    - Future development implications
- SWANcom Listserv (via MailMan)
  - Other lists (SWANTech, SWANCirc, SWANCircAdv) have been retired
  - Continued emphasis on Forums

## Laptop Refresh (SWAN Internal Staff)



- Lenovo laptops via Lenovo Government direct
  - ThinkPad T14s (14.0")
  - ThinkPad T15s (15.6")
- Lenovo USB-C docks
- Retention of current Dell monitors
- Removal of Polycom desk phones
- Laptops deployed using SWAN Windows image via FOG
- Leveraging SharePoint and OneDrive for file retention, simplified migration
- Previous laptops to be retained for SWAN lab

# Upcoming Projects



## **SonicWall EOL (End of Life) Upgrades – Delayed**

Coordination of the replacement of out-of-support SonicWall firewalls under SWAN maintenance

Does not affect Self-Maintainer libraries

Projected Q3 2021

We will begin reaching out to affected libraries



## **Annual Patron Database Cleanup, NCOA, Bad Address – Delayed**

Annual cleanup of expired and inactive patron records

Projected Q3, 2021



## **Directory Services**

Investigation of an integrated authentication database utility to handle future BLUEcloud and WorkFlows integration

Projected Q4 2021



## **Symphony 3.7.1**

Currently scheduled for SWAN test server

Includes anticipated bug fixes

# SWAN Securities Initiative

## Identifying and evaluating security/privacy vulnerabilities

- Within our libraries
- Within the ILS
- Internal to SWAN
- Interfacing with 3rd party vendors

## Advocating security and privacy within our libraries

- Use a PIN on self-checkout
- Limit handling and storing of patron data
- Protect personally identifiable information
- For more examples, watch the SWANx Web Series – [Security & Patron Privacy Tips](#)

## Advocating security and privacy with our vendors

- Ensuring 3<sup>rd</sup> parties are transmitting data and authenticating in a secure manner, following current standards and acceptable protocols

## Ensuring our development follows industry standards

- Use of SSL certificates to ensure proper form encryption
- Reducing the "hops" of PII (Personally Identifiable Information)
- Encrypting transmission of this data

# SWAN Library Use Policy

[https://support.swanlibraries.net/  
policy/85218](https://support.swanlibraries.net/policy/85218)

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Clarifies responsibilities of **Member Libraries** and their staff when accessing and maintaining patron data

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Specifies how passwords and credentials to **SWAN** systems should be handled

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Serves to prevent surprises in the form of unwanted access

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Should be read and maintained by library staff and directors

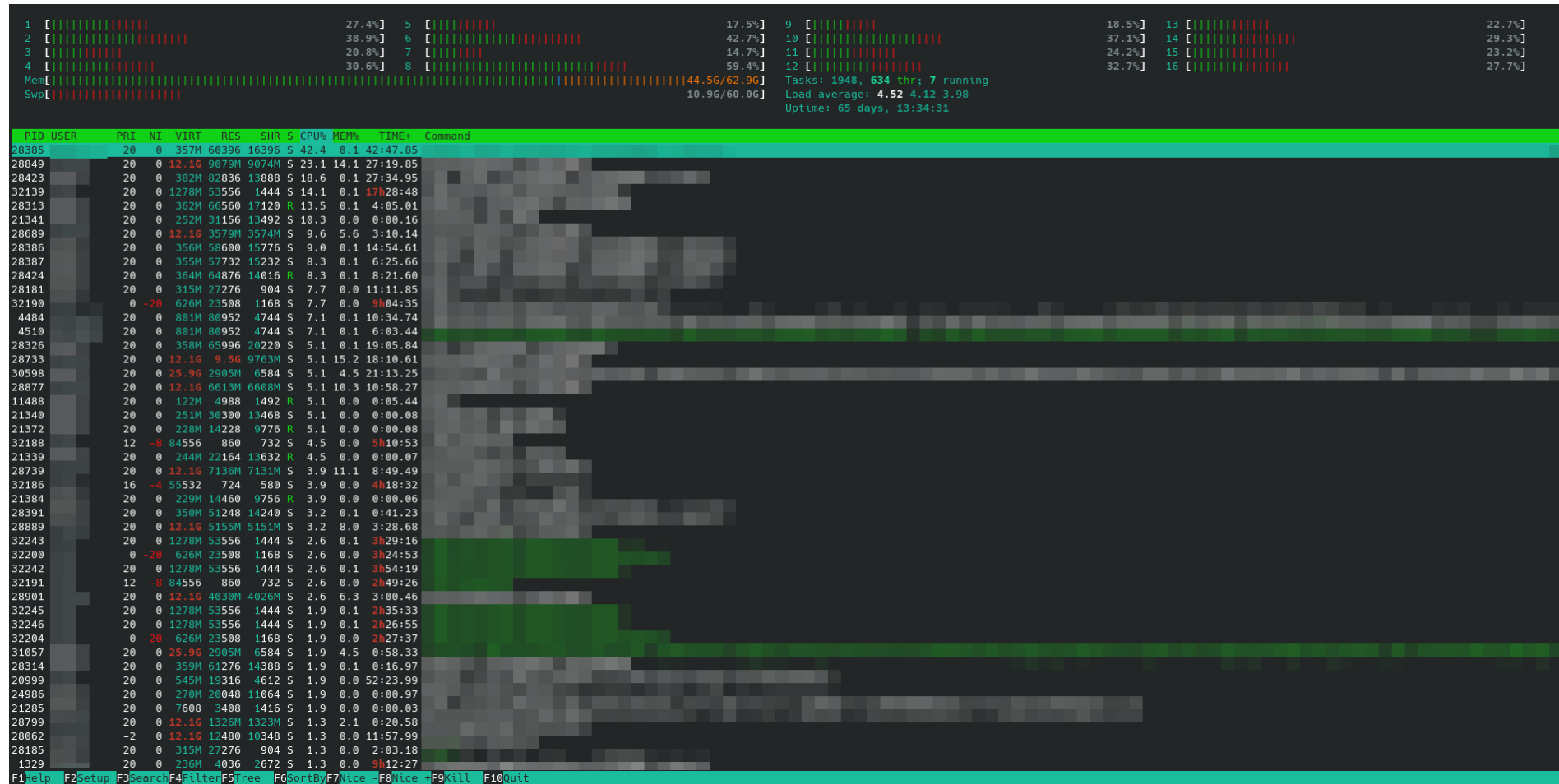
# How Do We Do That?

## Optimizing Server Performance in the Cloud



# Gathering Requirements and Metrics

- Organizational Requirements
- Application Documentation
- Existing Deployment



# Determining Application Architecture



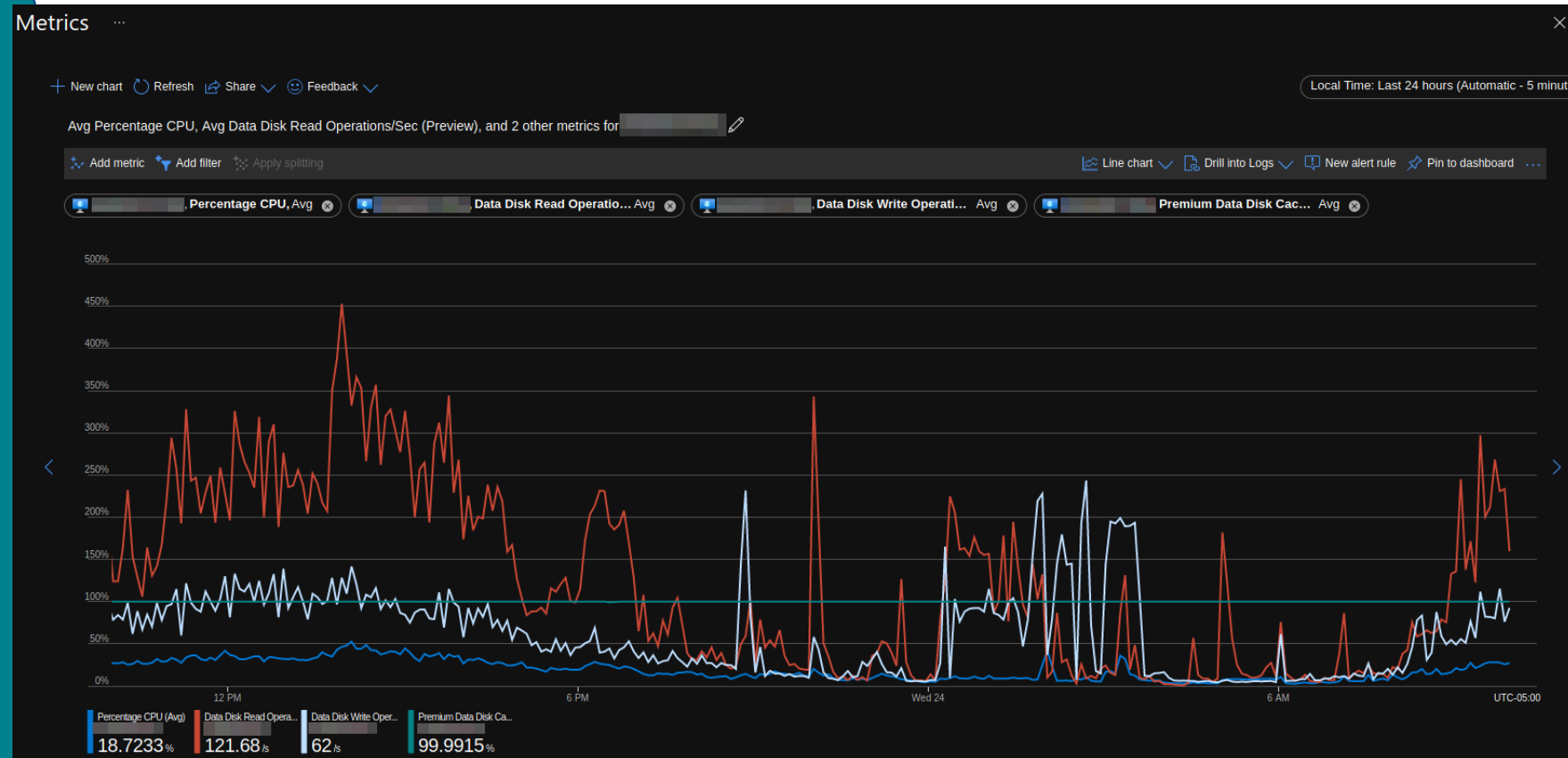
New Deployment or Direct  
Migration?



Leverage Cloud Platform or  
DIY?

# Properly Sizing Resources

- Price vs Performance

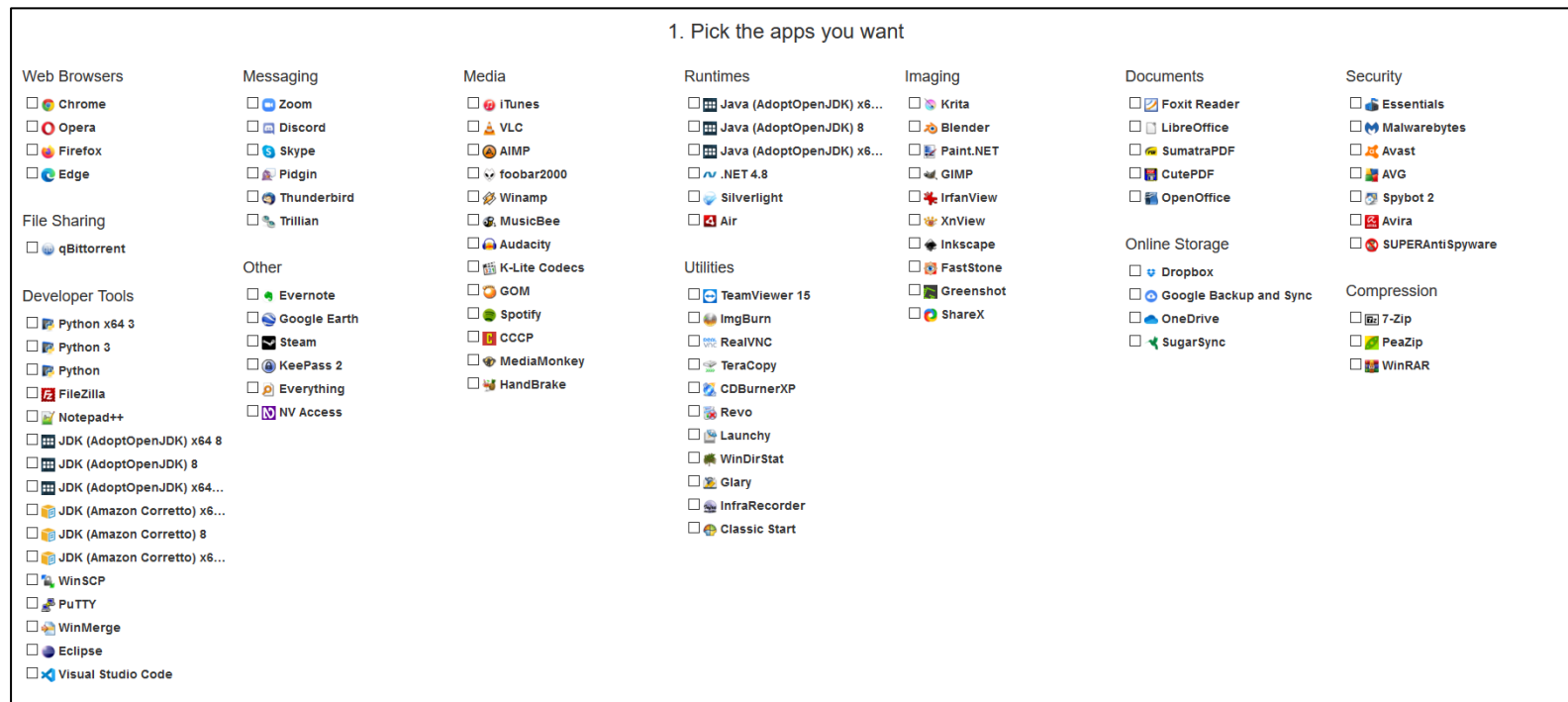


# How Do We Do That?

## Creating and Deploying Staff Workstation Images







# Creating and Deploying Staff Workstation Images

- Creation of base image
  - Devices are formatted and clean installation of Win10 is installed
  - Ninite offers a robust single installer/updater for many common utilities
    - 40% of installed software in 2021 build was installed via Ninite
  - Once workstation is 'ready', DefProf from ForensIT, is a free utility that copies specified settings from specified user profile to Default profile



# Creating and Deploying Staff Workstation Images

- Cloning process
  - FOG is an open source imaging suite run on a local server
  - Images are captured non-destructively in 15-20 minutes
  - Workstation images can be deployed via unicast or multicast
  - Images may be quickly updated by recapturing host workstation
  - Single workstation deployments are often completed within 20 minutes

			Host	Imaged	Task	Assigned Image
	<input type="checkbox"/>		<input type="text" value="Search..."/>	<input type="text" value="Search..."/>		<input type="text" value="Search..."/>
?	<input type="checkbox"/>		0298-T14-XXXX 8c:8c:aa:ea:c8:d3	No Data		03.2021 Lenovo
?	<input type="checkbox"/>		0299-T14-XXXX 8c:8c:aa:ea:cc:ff	No Data		03.2021 Lenovo
?	<input type="checkbox"/>		0300-T15-XXXX 38:f3:ab:06:7d:e2	2021-03-23 15:19:08		03.2021 Lenovo

# Microsoft Ignite

March 2<sup>nd</sup> – 4<sup>th</sup>, 2021

- <https://myignite.microsoft.com>
- Products introduced:
  - [Microsoft Mesh](#)
    - Mixed Reality environment utilizing VR/MR headset tech to reduce hurdles in distance collaboration and information sharing.
  - [Microsoft Viva](#)
    - Employee Experience Platform utilizing Microsoft AI to make knowledge and staff connections more accessible to all organization-internal users.
    - Think of it as a next-generation Knowledge Base leveraging social media and project connections.
  - Microsoft Security Tools
    - [Azure Sentinel](#) – organization-wide security visibility
    - [365 Defender](#) – security for end-users
    - [Azure Defender](#) – security for infrastructure

# Microsoft Exchange Exploits: What You Can Do

- <https://www.zdnet.com/article/microsoft-exchange-server-attacks-theyre-being-hacked-faster-than-we-can-count-says-security-company/>
1. Patch your Exchange servers immediately!
    - An already compromised server may still be vulnerable
    - Use this [GitHub tool](#) to check for indicators of compromise
    - Run the [Microsoft On-Prem Exchange Mitigation Tool](#)
  2. Use firewall rules and firewall security software to prevent intrusion
    - Ensure exchange administration is not publicly accessible (close ports)
    - Ensure that Exchange is configured so that untrusted connections cannot be made over port 443
    - Consider VPN access to Outlook, leverage Webmail for casual mail checking
  3. Change the passwords for your Exchange server admin users and require STRONG passwords
    - Use a password manager and generate complex passwords
    - Use Multi-Factor Authentication (MFA) for sensitive logins
    - Verify users and access permissions on the server
  4. Consider a migration to Microsoft O365 (Cloud Exchange)



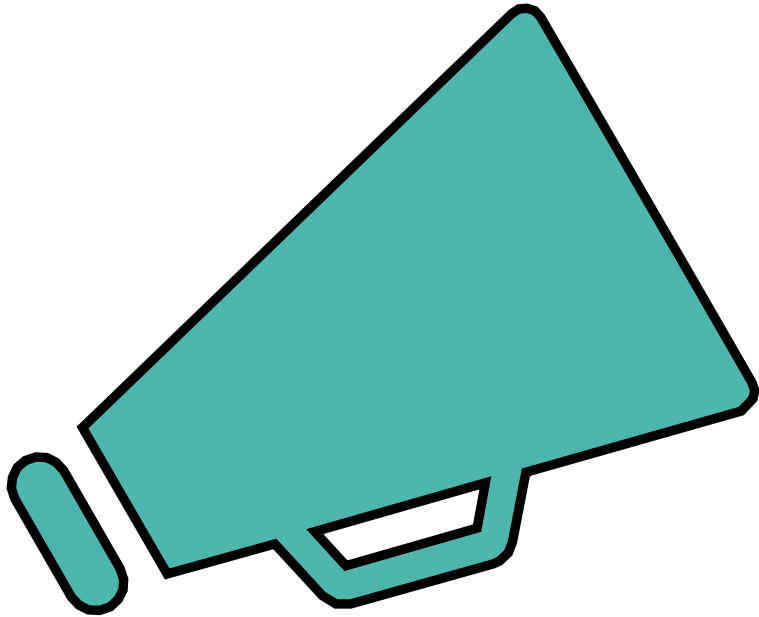
# RAILS Delivery RFP

## [RAILS Request for Proposal \(RFP\) 2021: Providing Library Sorting/Delivery Services](#)

*We seek detailed proposals that apply library and logistics industry standard best practices to enhance library delivery service and the tasks related to it as described above. Excellent and cost-effective customer service for library users and member libraries is our primary goal. Another goal is exploration of options and best practices to consider for efforts in standardizing library delivery throughout Illinois.*

- Implications in RFID, changes to delivery procedures

# Open Forum Discussion



- Future RFID implementations?
- New installations of Self-Checkout or AMH?
- System upgrades?

# Discussion Topic: Future SWAN Technology Updates

- Continue to leverage [SWAN Community Forums / Technology](#)

## Next Meetings

- [SWAN Fireside Chat](#)
  - Tuesday, March 30<sup>th</sup>, 11am
- [SWAN RFID Users Group](#)
  - Thursday, April 22<sup>nd</sup>, 10am
- [SWAN Technology Users Group / Update](#)
  - Thursday, September 23<sup>rd</sup>, 10am

## Questions & Follow-Up

Send questions to our online ticketing system at [help@swanlibraries.net](mailto:help@swanlibraries.net)

Visit the SWAN Support Site for access to recorded sessions.

<https://support.swanlibraries.net>

Submit a request for additional training topics.

Help > Request Forms > Request Training or Consultation