



**SERS Retirement Board
Technology Committee Meeting
September 21, 2023
12:30 P.M.**

Join Zoom Meeting

<https://ohsers.zoom.us/j/97158839548?pwd=TWI0RFoxSC9lWmZlNGErK2NVNjVFUT09>

Meeting ID: 971 5883 9548 Password: 12345

To join by phone, dial: +1 309 205 3325 and enter the Meeting ID: **971 5883 9548** and Password: **12345** when prompted.

1. Roll call
2. Approval of **July 20, 2023**, Technology Committee Minutes (R)
3. Opening Remarks – *Matt King*
4. Technology and Information Security Comments – *Karen Roggenkamp*
5. Technology Roadmap – Progress Update – *Jay Patel*
 - MVVM Upgrade
6. Information Security Quarterly Update
 - Artificial Intelligence – Progress Update – *Joe Bell*
7. Executive Session pursuant to R.C. 121.22(G)(6) to discuss security matters
8. Upcoming Technology Committee Meetings
 - Future Topics
 - Next Meeting Date(s) – *Matt King*
9. Adjournment

**SERS Technology
Committee Meeting
September 21, 2023**

_____ P.M.

Roll Call:

Matthew King	_____
James Rossler	_____
Frank Weglarz	_____
Daniel Wilson	_____

**APPROVAL OF MINUTES OF THE TECHNOLOGY COMMITTEE MEETING HELD ON
July 20, 2023**

_____ moved and _____ seconded the motion to approve the minutes of the Technology Committee meeting held on **July 20, 2023**.

Upon roll call, the vote was as follows:

<u>ROLL CALL:</u>	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>
Matthew King	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____

School Employees Retirement System	<h1>TECHNOLOGY COMMITTEE MINUTES</h1>		
Preparer	Megan Robertson	Meeting Date:	July 20, 2023
Committee Chair	Matthew King	<p>Committee roll call was as follows: Matthew King, James Rossler, Frank Weglarz, Daniel Wilson</p> <p>Also in Attendance: SERS Staff Members: Joe Bell, Jay Patel, Jeff Davis, Joe Marotta, Richard Stensrud, Karen Roggenkamp, Vatina Gray, and Megan Robertson. Board members: Aimee Russell and Barb Phillips. Representative of the Ohio Attorney General, Lisa Reid. Guests attended virtually on Zoom.</p>	
Agenda	<ol style="list-style-type: none"> 1. Roll call (R) 2. Approval of March 16, 2023, minutes (R) 3. Technology and Information Security Comments 4. Technology Roadmap – Progress Updates <ul style="list-style-type: none"> o SMART o Infrastructure 5. Information Security Quarterly Update 6. Upcoming Technology Committee Meetings <ul style="list-style-type: none"> o Future Topics o Next meeting Date(s) 7. Adjournment 		
Discussion	<p>The SERS Technology Committee meeting began in open session at 1:09 p.m.</p> <p><u>Roll Call</u></p> <p>The SERS regular Technology Committee began with a roll call. The committee roll call was as follows: Present: Matthew King, James Rossler, Frank Weglarz, Daniel Wilson. Also in attendance were SERS Staff Members: Joe Bell, Jay Patel, Jeff Davis, Joe Marotta, Richard Stensrud, Karen Roggenkamp, Vatina Gray, and Megan Robertson. Board members: Aimee Russell and Barb Phillips. Representative of the Ohio Attorney General, Lisa Reid. Guests attended virtually on Zoom.</p> <p><u>Approval of Minutes</u></p> <p>James Rossler moved, and Daniel Wilson seconded the motion to approve the minutes of the Technology Committee meeting held on March 16, 2023. Upon roll call, the vote was as follows: Yea: Matthew King, James Rossler, Frank Weglarz, Daniel Wilson. The motion carried.</p> <p><u>Technology & Information Security Comments</u></p> <p>SERS Deputy Executive Director, Karen Roggenkamp, provided a brief report on Technology and Information Security updates. Ms. Roggenkamp noted the technology and information security initiatives in fiscal year 2023 (FY23) were overall successful, and that the committee would hear more about how the fiscal year concluded, as well as details on the projects slated for fiscal year 2024 (FY24) in today’s meeting.</p> <p><u>Technology Roadmap – Progress Update: SMART and Infrastructure</u></p>		

Jay Patel, SERS Chief Technology Officer, shared an update on SMART system enhancements and infrastructure updates for FY23 and FY24 projects.

Mr. Patel shared FY23 SMART project updates, explaining the Reimagine MSS Portal Registration will be deployed post MVVM upgrade in late Q2 of FY24. The MVVM Upgrade is moving forward after a slight deployment set back at the end of FY23. Deployment was rescheduled for August 2024. Mr. Patel reported that the Member Service and Healthcare Technology roadmap projects for FY23 were completed on time and on budget.

Mr. Patel updated the Committee on several SMART projects planned for FY24. The Committee was provided a thorough timeline showing the projects and their estimated budgets. Mr. Patel explained each project. One larger focus for member services is refunds. Annually approximately 10,000 calls in MST are related to refunds. IT is working on reimaging the refund process to identify optimization opportunities. IT is in the process of forming a team to look at the refund process end to end and provide a straight through process with adequate security. It is anticipated that the initiative to redesign and phase implantation could spear the project into fiscal year 2025 (FY25). Mr. Patel explained they will be working with Legal to meet necessary requirements. Board member, Frank Weglarz, added his concern that refunds be a seamless and safe process for membership. Mr. Patel assured that this matter will be looked at closely. Mr. Patel continued his update, explaining the E-delivery project to reduce mailing cost, improve the service and bring SERS to the member rather than the other way around. The next project presented focused on E-payments and Other System Transfers. The project aims to reduce fraud and improve business service continuity.

Mr. Patel continued with the FY23 infrastructure projects update, sharing that many projects were completed on time and under budget. The Committee received a detailed timeline of all infrastructure FY24 projects including two FY23 projects that will carry into FY24. As reported at the March committee meeting the telecommunication replacement project is being reevaluated and the project team is identifying a path forward. The Network and Wireless Refresh is going smoothly, and continued progress is expected for early Q1 FY24. Mr. Patel reported on further projects for FY24 including replacing Palo Firewalls, updating Cloud-based VPN increasing resiliency and reliability, as well as conducting an annual review of security stack. Our current security stack with CrowdStrike expires January 2024. Mr. Patel shared that IT will continue to work closely with the ERM team on these FY initiatives to protect SERS.

Mr. Patel continued his presentation going over the Technology Roadmap Budget FY24 plan. Mr. Patel reported by the end of FY24 approximately half of the technology roadmap projects will be complete and are expected to be under budget.

Mr. Patel concluded his presentation with a look back on Year One of the Technology Roadmap, including the challenges and learning opportunities. As an organization SERS modernized legacy technology platforms, and created a strong and modest infrastructure, setting SERS up for success for the remaining years of the five-year roadmap. Mr. Patel thanked the Committee and full Board, as well as the staff at SERS for their cooperation and support for the investment in technology.

Mr. Patel opened the floor to questions. The Committee had some discussion regarding the five-year roadmap and budget. SERS Executive Director, Richard Stensrud, thanked the Board and members of the Technology Committee for having this ongoing dialogue about what the technology needs are and engaging with the technological advances taking place at SERS. Mr. Stensrud further illustrated the value in having the Technology Committee when it comes to making decisions about IT upgrades and expenses. Ms.

Roggenkamp added her thanks to the Committee and shared that this lays the foundation for enhancements for the future.

Information Security Update

SERS Chief Risk Officer, Joe Bell, provided an Information Security update, beginning with an update on Cyber Insurance. The ERM team is rating the insurance options and will update the chair when information is received, including details on a renewal proposal and what the organization has done previously. Mr. Bell reports solid numbers are expected in an August timeframe.

Mr. Bell opened the floor to questions and Mr. King brought up the concern with the number of available providers in years past. Mr. Bell explained that providers can be limited in relation to SERS' size and volume. Mr. Bell assured the Committee that SERS collaborates with a broker that works with other pension systems to get a variety of rates and quotes. The experience has been positive with our current providers.

Mr. Bell continued his report by providing the key metrics on Information Security's three lines of defense: Proofpoint, Microsoft, and Staff. SERS continues to use Arctic Wolf which helps quickly respond to anything that looks anomalous. SERS educates employees and makes them aware of security through security awareness training on a monthly basis. Phish reporting and responses are continually tracked and monitored. Regarding Cyber Maturity, as vulnerabilities come in SERS IT is taking quick action to apply patches. Mr. Bell reports that SERS' cyber exposure is slightly lower than industry average, however, planned replacement of aging infrastructure is expected to help address these vulnerabilities.

Mr. Bell provided a quarterly update on Risk Management's FY24 goals. Currently, Risk and Security are focused on supporting IT's 5-year Roadmap through digitizing and streamlining processes. The team is working to get new programs and processes in place to protect against the potential for insider threats and data leaks. Risk Management will coordinate with the internal auditor when establishing an insider threat program, which is expected to be completed this fiscal year. IT will work with security to look at the technical aspects. Mr. Bell continued the FY24 goal update, reporting on the team's goal surrounding artificial intelligence. Initial focus will be on establishing a governance framework, including internal audit, to develop an AI policy, current state assessment, template for business use case evaluation, third-party risk evaluation, monitoring program, and reporting protocols. This is expected to be a multiple year goal.

After several questions and a robust discussion, the Committee thanked Mr. Bell for his presentation.

Upcoming Technology Committee Meetings – Future Topics and Next Meeting Dates

The Committee noted they are pleased with the current format of the updates from IT and ERM at these committee meetings.

Board member, Dan Wilson, requested the committee get a report on the volume of attempted data breaches SERS typically receives.

Board member, Matt King, requested there be a future conversation about insurance premiums.

Mr. Wilson would like to consider ways to communicate to members about the proactive nature of our approach to protect member data against cyber risks.

	<p>The next regular Technology Committee meeting will be held Thursday, September 21, 2023, at 12:30 pm or immediately following the regular SERS Board Meeting.</p> <p>Technology Committee Chair, Matthew King, adjourned the meeting at 2:01 p.m.</p>		
	Action Items	Assigned Person	Due Date
Action Items	n/a		

DRAFT



TECHNOLOGY COMMITTEE

September 21, 2023

Agenda



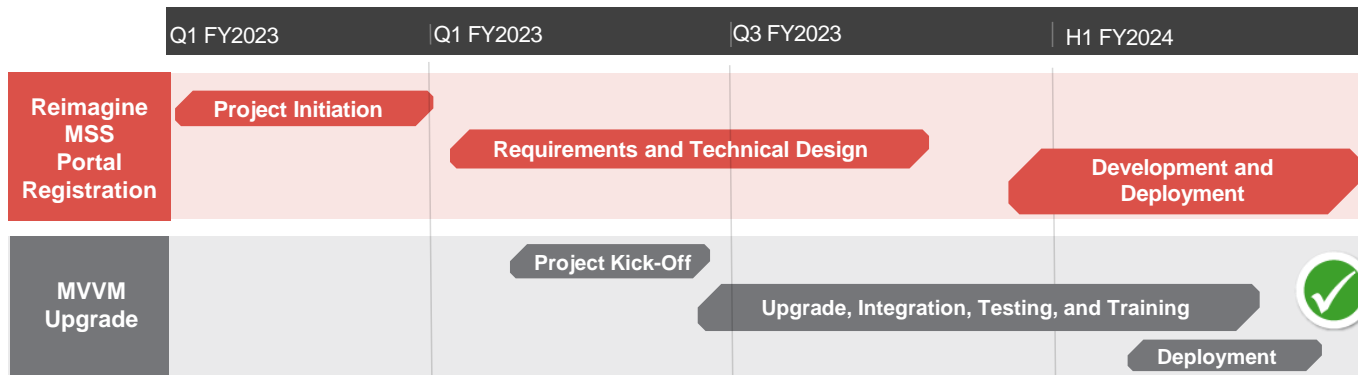
- **Opening Remarks** (Matt)
- **Technology and Information Security Comments** (Karen)
- **Technology Roadmap – Progress Update** (Jay)
 - MVVM Upgrade
- **Artificial Intelligence – Progress Update** (Joe)
- **Quarterly Update – Executive Session** (Jay and Joe)
- **Future Topics** (Committee and Staff)
- **Appendix A – Quarterly Information Security Metrics**



INFORMATION TECHNOLOGY UPDATE

Technology Roadmap

FY2024 SMART Project



- Project kick-off meeting - August 15
 - Requirement analysis started
 - Project deployment is planned for late Q2 FY2024
- Project deployed in production on August 4
 - MSS and eSERS portals now functional with cellphones and tablets
 - Post-production support on-going

FY2024 SMART Project - MVVM



PROJECT MARKERS



Efforts

IT Hours
~2,000

Business Hours
~1,000

Financials

Project Budget
\$350,000

Actual
\$350,000

Software Change

Objects
17,900

Replaced ~6,000

Added ~500

Modified ~1,000

Testing

Test Scenario
~847

UAT Issues
~190

Post Prod
~70

FY2024 SMART Project



Q1 FY2024

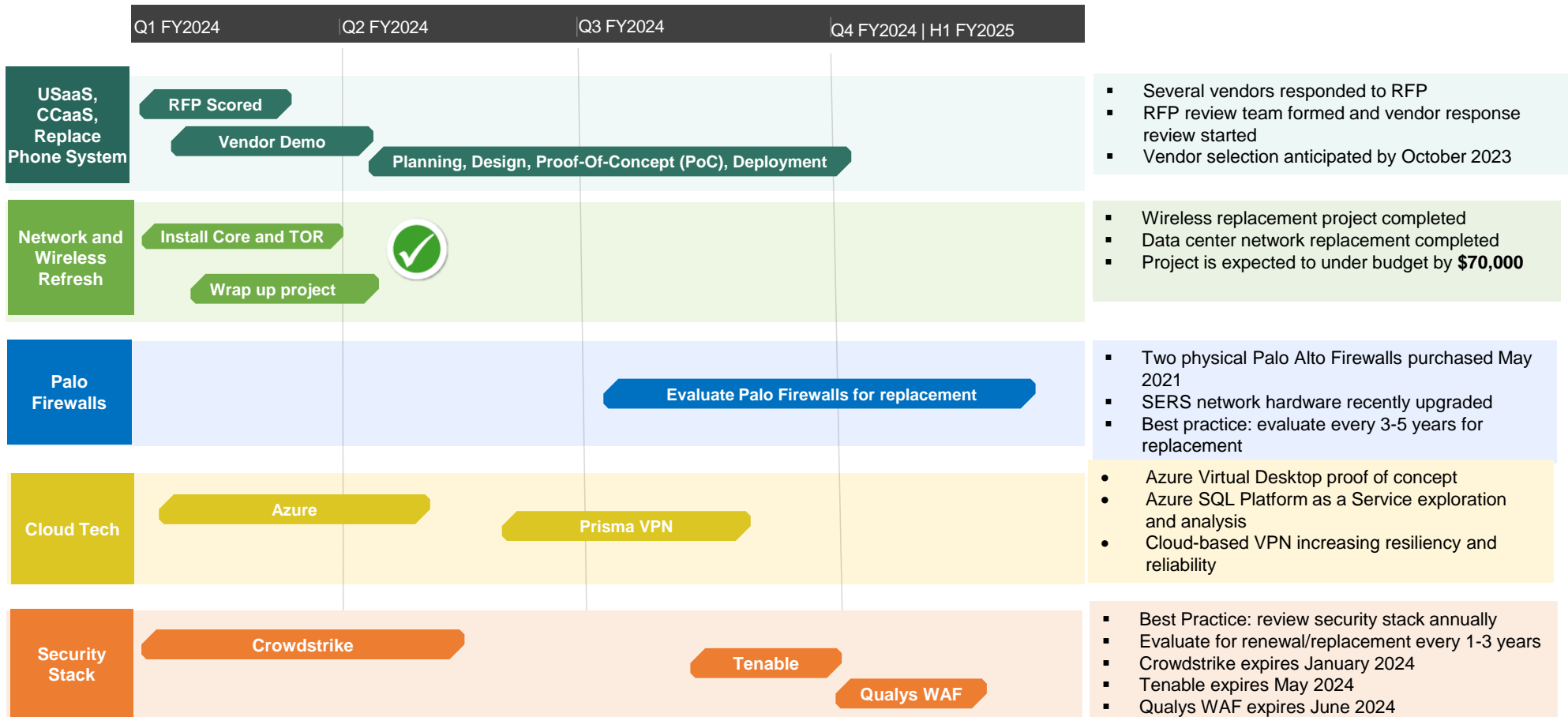
Q2 FY2024

Q3 FY2024

Q4 FY2024

	Q1 FY2024	Q2 FY2024	Q3 FY2024	Q4 FY2024	
Refund Reimagination	Project Initiation	Requirements and Design		Phased Deployment	<ul style="list-style-type: none"> Agile project team formed to analyze current challenges and future state Kick-off meeting held to initiate discovery process
eDelivery	Project Initiation	Requirements and Design Planet-Press SW Upgrade		Phased Deployment	<ul style="list-style-type: none"> Agile project team formed to analyze current challenges and future state Master Agreement and SOW to upgrade Planet Press Software is under review Pitney Bowes will be the vendor
ePayments-Other System Transfer (OST)	Requirements and Design	Deployment			<ul style="list-style-type: none"> Project team formed. Requirements analysis and design is underway Scheduled deployment in December Estimated budget: \$20,312
ePayment – Employer and CSPC	Requirements and Design	Deployment			<ul style="list-style-type: none"> Project team formed. Requirements analysis and design is underway Scheduled deployment in December Estimated budget: \$28,295

FY2024 Infrastructure Projects



Commitment – Delivered (Last Update – December 2022)



Status Update

Accomplishments

- ✓ Commvault cloud storage for backup was procured
- ✓ On-prem backup to cloud storage was configured and activated
This model greatly improves our business resiliency and DR capabilities (I.e., cloud to cloud)
- ✓ On-prem backup to tapes media was suspended.
 - Daily outbound transfer of tapes to the offsite storage vendor (FireProof) was stopped
 - Daily inbound transfer of tapes from FireProof to SERS continued so existing tapes can be recycled
- ✓ IT stopped purchasing additional tapes to replace existing tapes or to support data growth

✓ Given the number of tapes at FireProof, we anticipate by the end of FY23, we will have recycled our complete tape library

Closure

- At the end of FY23, we have received all 1200 tapes from Fireproof and they have been recycled
- It's been ONE YEAR since SERS has done any tape back-ups
- Tape Library Stats:
 - Power on time: 3,838 days, 16 hours, 14 minutes (10.5 years)
 - Odometer: 154,439 (robot action – load/unload tapes)

Memo

To: Retirement Board
From: Richard Stensrud
CC: Karen Roggenkamp, Tracy Valentino, Jay Patel
Date: February 17, 2022
Re: FY2022 Capital Budget Modification

Business resiliency requires robust data protection and recovery strategy and associated technical solution. Information Technology's vision for data recovery is to minimize dependence on the tape media due to the concerns of reliability and recoverability. IT has adopted the industry standard 3-2-1 data backup and recovery principle. The 3-2-1 backup strategy simply states that you should have 3 copies of your data (your production data and 2 backup copies) on two different media with one copy off-site for business continuity and disaster recovery. To accomplish this vision, we will be executing to a two phased approach.

Phase 1: Our immediate need is to acquire Commvault's Software-As-A-Service (SaaS) backup solution for Microsoft 365 products. This will allow the back up of all SERS data in the M365 cloud, SharePoint, Teams, OneDrive, etc. Since this is a SaaS solution, it requires per user license to be renewed on a yearly basis with a cost of approximately \$20K.

Phase 2: The second phase is to acquire Commvault's cloud storage to allow the replication of our production data. This will eventually replace the tape media and get us to our desired end-state. To align with our 3-2-1 backup principle, we will maintain our production data, and additional copy on-prem and off-site backup copy in the Commvault cloud. This requires SaaS cloud storage from Commvault cost of approximately \$20K - \$25K.

In IT's FY22 budget, we have following line-item as a part of the Capital Budget:

- Back up Tape Replacement: \$80K

Since Phase I and Phase II does not require any capital investment but rather, subscription cloud services, we are requesting an approval to move capital budget to the operating budget to accomplish our data protection and recovery strategy.

Technology Roadmap – Budget



Description	Total 5-Year Plan	FY2023 Actual Spend	FY2024 Plan*	FY2024 Spend to Date	Total Roadmap Spend to Date	Remaining Roadmap Amount **
Telecommunications	\$250,000	\$175,848	\$206,491	\$-	\$175,848	\$(132,339)
Security Stack	\$899,600	\$-	\$432,200	\$-	\$-	\$467,400
Network Infrastructure Refresh	\$886,000	\$638,914	\$120,000	\$9,352	\$648,265	\$127,086
Hybrid Technology Replacement	\$419,000	\$121,297	\$10,000	\$-	\$121,297	\$287,703
Server Infrastructure	\$1,216,700	\$-	\$288,100	\$-	\$-	\$928,600
Backup and Recovery	\$532,754	\$140,455	\$117,500	\$-	\$140,455	\$274,799
SMART Portals	\$196,000	\$-	\$196,000	\$26,250	\$26,250	\$-
SMART Framework	\$760,000	\$175,000	\$510,000	\$-	\$175,000	\$75,000
SMART Enhancements	\$2,623,000	\$73,836	\$855,000	\$370	\$74,206	\$1,694,165
SMART Business Tools	\$500,000	\$96,400	\$250,000	\$21,289	\$117,689	\$153,600
SMART total	\$4,079,000	\$345,236	\$1,811,000	\$47,909	\$393,145	\$1,922,765
Infrastructure Total	\$4,204,054	\$1,076,514	\$1,174,291	\$9,352	\$1,085,865	\$4,194,702
Total Budget	\$8,283,054	\$1,421,749	\$2,985,291	\$57,261	\$1,479,010	\$3,876,014
* Two infrastructure projects have been realigned with category descriptions to better reflect their underlying expense. The total FY2024 Plan did not change.						
** Remaining Roadmap is equal the Total 5-Year Plan less FY2023 Actuals and less FY2024 Plan						



INFORMATION SECURITY UPDATE

Information Security – Quarterly Update



Artificial Intelligence (AI)

- Internal discussions on strategy and governance developed
- Consultant to aid SERS with:
 - Strategy – AI culture and organizational change management, best practices
 - Policy – Communicate expectations and acceptable uses
 - Tool / Platform – Recommendations, use case evaluation, IT Roadmap considerations
 - Security – Advise on potential threats, vulnerabilities, and enhancing security posture

Communication on Safeguards Over Sensitive Data

- Draft status: include in quarterly retiree newsletter, website portal account login

Quarterly Metrics

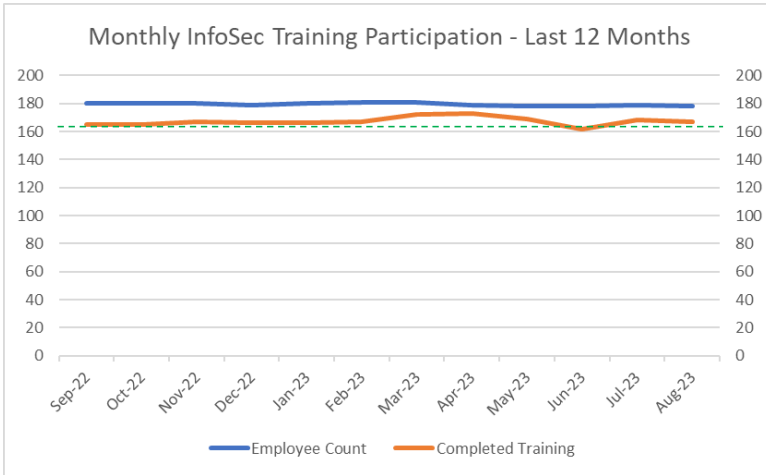
- Key measure benchmarks (See Appendix A) and third-party security monitoring did not identify any security incidents in last three months



Quarterly Information Security Metrics

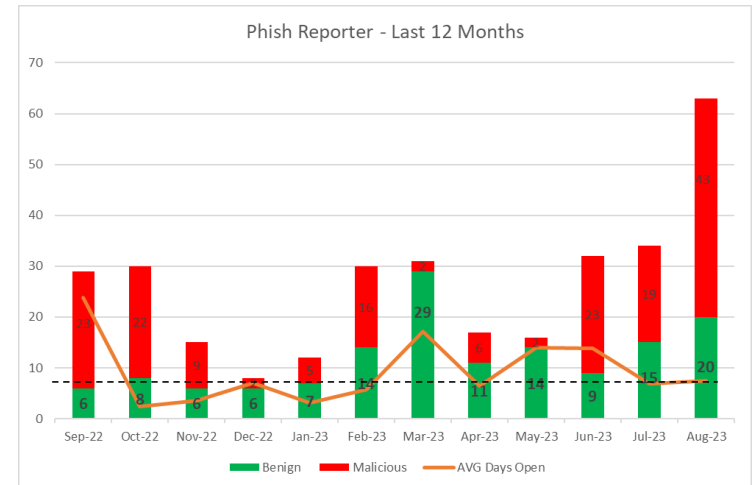
June - August 2023

Information Security – Key Metrics



Three Lines of Defense:

1. Proofpoint
2. Microsoft
3. Staff



Security Awareness Training > 90% Goal - **MET** Phish Reporting & Response By IT / IS < 7-day goal – **PARTIALLY MET**



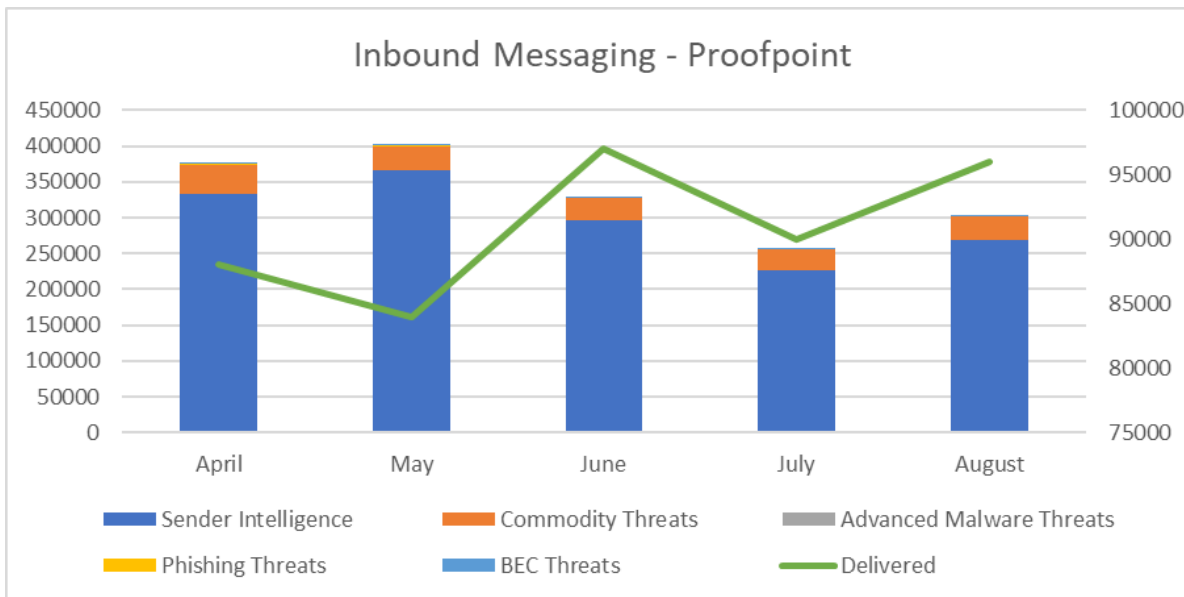
Cyber Maturity > Peer Benchmarks; Cyber Exposure < Peer Benchmarks (vulnerability aging expected to be patched/addressed with remediation plan) – **PARTIALLY MET**

Metrics: Inbound Email & Blocked Messages



Highlights Include:

- Proofpoint data, Microsoft blocked emails later (layered protection)
- Inbound emails: 250,000 – 400,000 / month
- Emails delivered: 85,000 – 95,000 / month



Typical threats:

- ❖ Sender Intelligence (reputation)
- ❖ Commodity (spam, malware)
- ❖ Advanced Malware (targeted attack)
- ❖ Phishing (steal credentials)
- ❖ BEC (business email compromise)



EXECUTIVE SESSION

_____ moved and _____ seconded the motion that the Technology Committee convene in Executive Session pursuant to R.C. 121.22(G)(6) to discuss security matters.

Upon roll call, the vote was as follows:

<u>ROLL CALL:</u>	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>
Matthew King	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____

IN EXECUTIVE SESSION AT _____ A.M./P.M.

RETURN TO OPEN SESSION AT _____ A.M. / P.M.



QUESTIONS

Future Topics

ADJOURNMENT(R)

_____ moved that the Technology Committee adjourn to meet on _____
for the next scheduled meeting.

The meeting adjourned at _____ p.m.

Matthew King, Chair