



E-ISAC Operations

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Technology and Security Committee Open Meeting
August 17, 2022

TLP:WHITE

RELIABILITY | RESILIENCE | SECURITY





- Collective Defense
- Membership
- Threat Landscape
- Vendor Affiliate Program
- Natural Gas Engagement



- Cross-border cooperation with Canadian industry/government (IESO, Cyber Centre, and Electricity Canada)
- Stand up of the new Energy Threat Analysis Center with U.S. Department of Energy (DOE)
- U.S. Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency Joint Cyber Defense Collaborative
- Increase Cybersecurity Risk Information Sharing Program engagement with partners (Cyber Centre, other ISACs, IESO, DOE, DHS)
- Engage through the Electricity Subsector Coordinating Council



- Canadian Organizations
 - 58 member and 10 partners
 - 31 out of 42 Electricity Canada members
- Member Additions
 - Over 100 new organizations and 1,110 new users joined the E-ISAC community in Q1-2 2022
- Industry Engagement Program
 - Tailored to specific stakeholder groups including Canadian membership



- Russian cyber threat actors are exploring options for potential counterattacks against critical infrastructure
- Preparedness Guidance:
 - Cyber Centre – Guidance for Heightened Threat Environments
 - Joint U.S. and Canadian Alert on weak security controls and practices routinely exploited for initial access
 - E-ISAC ICS ‘SHIELDS- UP’ for electricity released
 - E-ISAC Geopolitical Preparedness Guide

SHIELDS  **UP**



CANADIAN CENTRE FOR
CYBER SECURITY

JULY 2022 | ITSAP.10.101



- **Microsoft - "Defending Ukraine: Early Lessons from the Cyber War"**

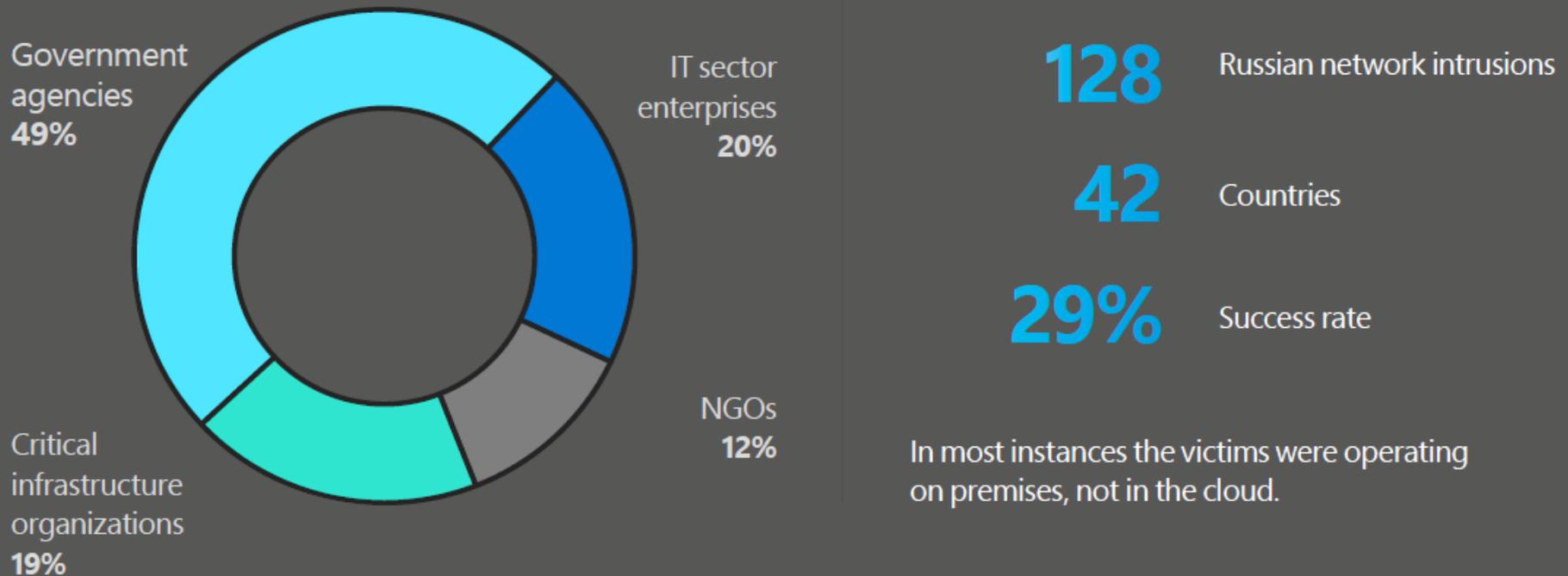
- Increased Russian **network penetration** and **espionage** against Allies
- Russian agencies conducting **global cyber influence operations**
- Need for **collective defense**
- **Disburse** and **distribute** digital operations/assets
- Cyber Threat Intelligence and end-point protection





Recent Russian network penetration and cyber espionage operations outside Ukraine

Russian network intrusion targets



Source: Microsoft, "Defending Ukraine: Early Lessons from the Cyber War"



- **Current activities**

- Dragos threat hunting and intelligence support
- Industrial Control Systems (ICS) Security Bulletins
- Use of Neighborhood Keeper
- Coordination with DOE ETAC on specific OT threats

- **Planned activities**

- Acquiring additional resources with ICS operations and security experience
- NRECA Essence and CRISP Integration
- Long-term: integrating CRISP and OT feeds



- Enhancing sharing operational and security information with government
- Enhancing security coordination between electricity and gas
- Developing legislation that provides incentives to collaborate to improve cyber security for critical infrastructure
- Establishing E-ISAC Vendor Affiliate Program
- Enhancing OT threat response capabilities

A stylized map of North America is shown in the background. The United States and southern Canada are shaded in a light blue, while Mexico is shaded in a light gray. A solid, medium-blue horizontal band runs across the center of the map, behind the main title.

Questions and Answers

A DIVISION OF NERC



E-ISAC

ELECTRICITY
INFORMATION SHARING AND ANALYSIS CENTER

Vendor Affiliate Program

TLP:WHITE

RELIABILITY | RESILIENCE | SECURITY



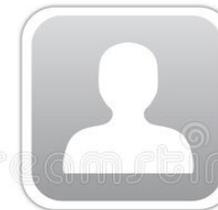


- Increasing complexities and risk in reliance on supply chain software components
- Vendors who supply and manage products and software to industry are getting more engaged to address real world vulnerabilities impacting electricity
- Modeled on best practices and vendor programs across other critical infrastructure sectors

- Fee-for-service program introduces a new membership model
- Three levels of membership
 - Bronze Level (\$10,000 / year)
 - Silver Level (\$25,000 / year)
 - Gold Level (\$40,000 / year)
- Focus on facilitating thought leadership and timely information sharing; no business development allowed
- 2022 “soft launch” with incremental implementation over three years



GOLD
PLAN



SILVER
PLAN



BRONZE
PLAN



Bronze

- 5 Portal user accounts
- Promote one event on Portal calendar
- GSC networking session
- Partnership and brand awareness

Silver

- 15 Portal user accounts
- Present on one webinar
- Promote two events on Portal calendar
- GSC networking session
- Participate in IEP session
- Partnership and brand awareness

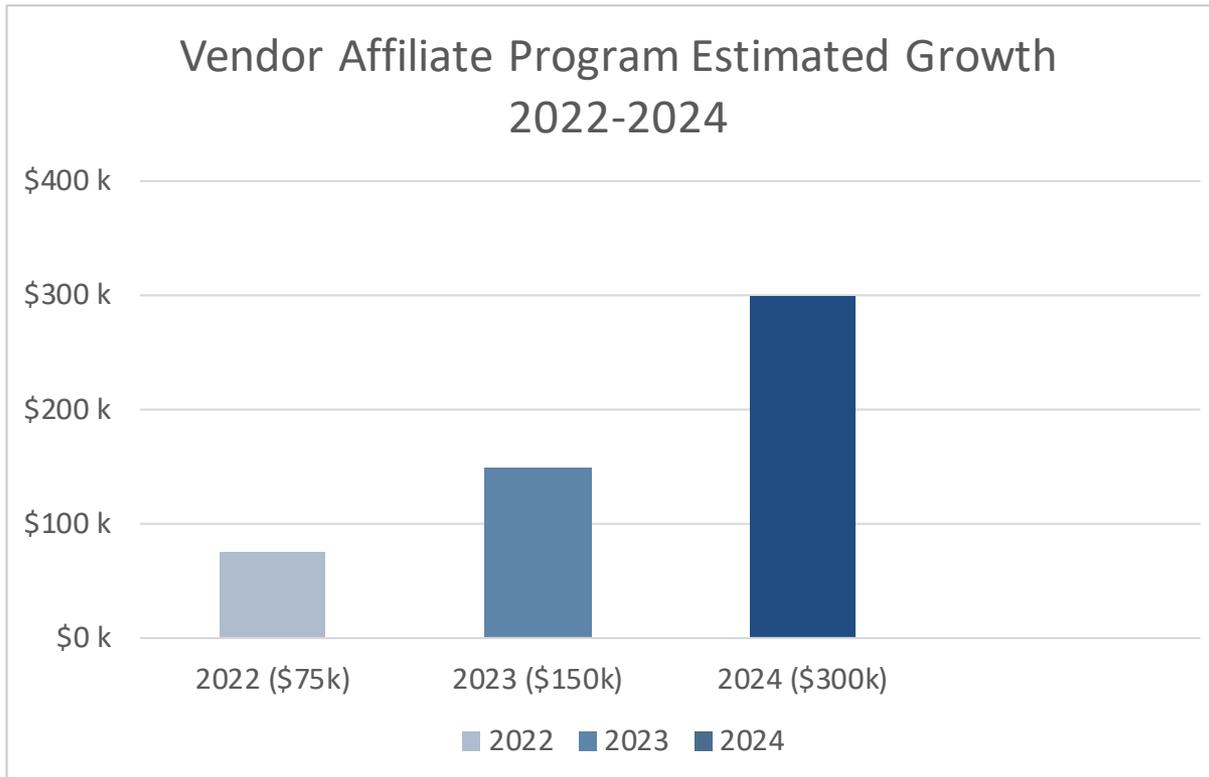
Gold

- Unlimited Portal user accounts
- Present on two webinars
- Promote four events on Portal calendar
- GSC networking session
- GSC panel or training
- Invitation to IEP session
- Partnership and brand awareness





- Onboarding Plan and Cost Analysis Through 2024
 - 2022 – 5 vendors
 - 2023 – 20 vendors
 - 2024 – 30 vendors
 - 1 additional FTE to support vendor program growth





- Finalize Program
 - Identify soft launch participants
 - Finalize marketing content
 - Notify FERC about new cost-model and anticipated revenue
- Soft Launch (July–August)
 - Onboard initial set of five (5) vendors for 2022–2023, pro-rated \$\$
 - Outreach to existing vendors and other interested parties
- Full Launch (September–December)
 - Extend outreach for 2023 participants
- Contact Bluma.Sussman@eisac.com



A stylized map of North America, including the United States, southern Canada, and northern Mexico. The map is rendered in shades of blue and grey. A prominent, solid blue horizontal band crosses the middle of the map, serving as a background for the title text.

Questions and Answers

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ELECTRICITY
INFORMATION SHARING AND ANALYSIS CENTER

Natural Gas Engagement

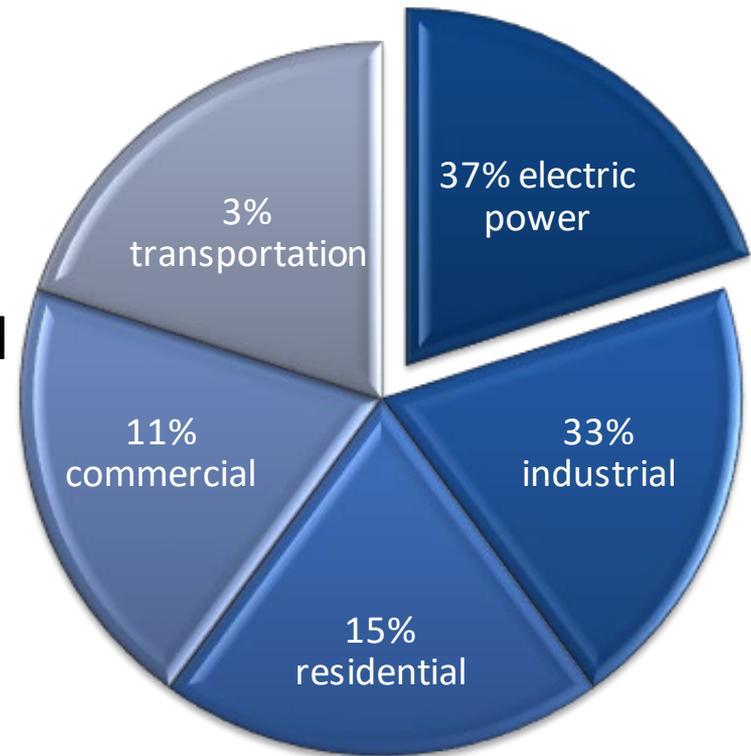
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RELIABILITY | RESILIENCE | SECURITY





- Real world cyber attacks and weather-related events are becoming more frequent
- These challenges highlight the need for greater alignment and coordination
- Natural gas and gas pipeline companies will increase resilience through CRISP and E-ISAC membership; access to cyber and physical threat information and analysis



Natural Gas Consumption by Sector (2021)
Source: www.eia.gov



- **Expand CRISP/E-ISAC Membership**

- **100+** combo companies are E-ISAC members
 - Expand E-ISAC membership by **10% by EOY**
- Build off Natural Gas/Electric combo utilities who are already CRISP members

- **Membership Benefits**

- Access to secure CRISP data, workshops, private, member-only chat channels
- Access to secure E-ISAC Portal information and analysis on physical and cyber threats
- Participation in monthly briefings, IEPs, GSC, and webinars
- Access to government partners and industry vendors



- Early engagement with industry stakeholders and trade associations
- Input from gas/gas combo utilities
- Coordination with partners
- Collaboration across NERC and E-ISAC



Ongoing

- Information sharing
- Analyst-to-analyst exchange
- Joint products
- Membership growth

Q3

- Socialize plan
- Develop communications
- Ready Portal and onboarding materials

Q4

- Internal communications rollout
- CRISP outreach
- Establish regular coordination with trades

A map of North America is shown in a light blue color. A darker blue horizontal band crosses the middle of the map, serving as a background for the title text.

Questions and Answers

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

ERO Enterprise Business Technology Scope and Focus 2023- 2025

Agenda Item 3

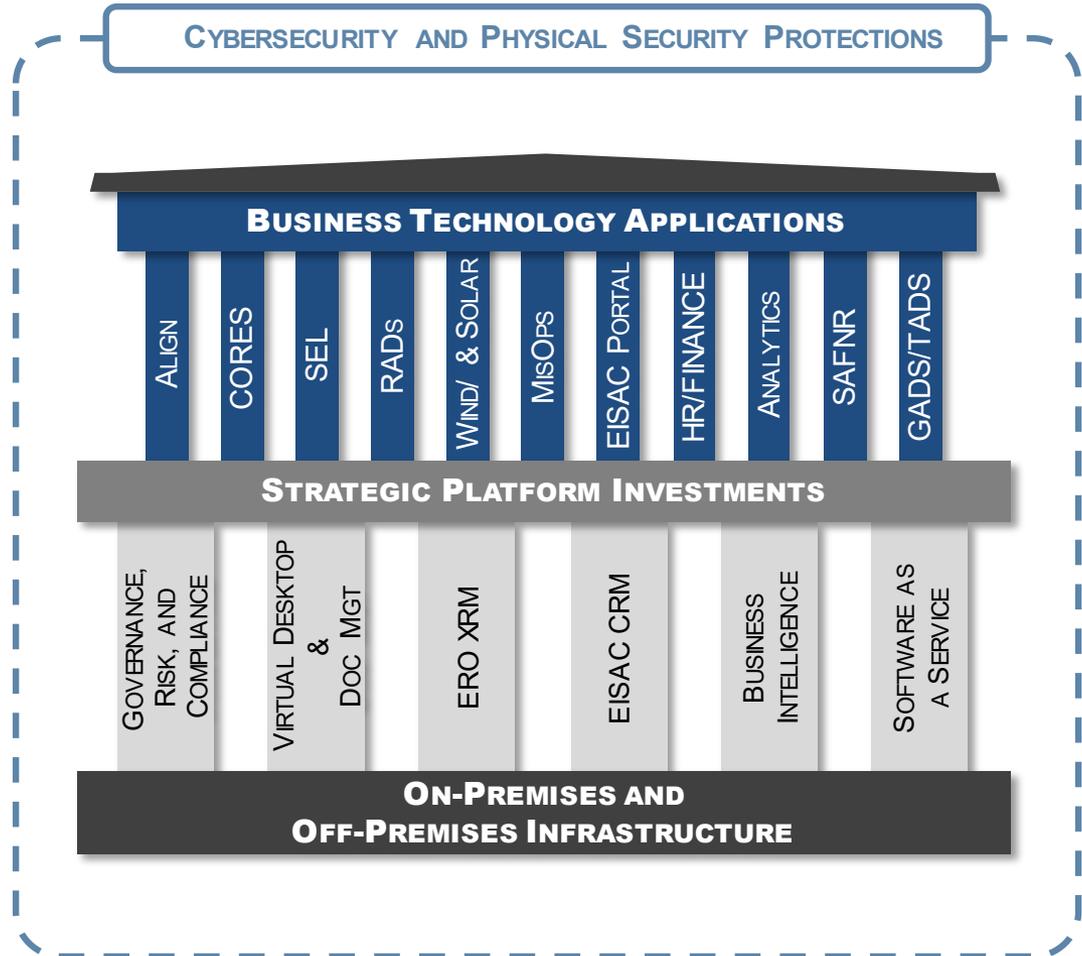
Stan Hoptroff, Vice President, Business Technology
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RELIABILITY | RESILIENCE | SECURITY



- Critical IT Investments
- Critical Skills to Be Acquired and Retained
- NERC and ERO Application Roadmap
- Align Release 4.0 and Release 4.5
- Align Governance
- NERC Business Technology Success Team – Spotlight
- Security Advisory Group (SAG)

- Ensure the protection of our platforms and applications
- Provide foundational infrastructure to support the ERO Enterprise
- Build and provide applications that enable our core mission



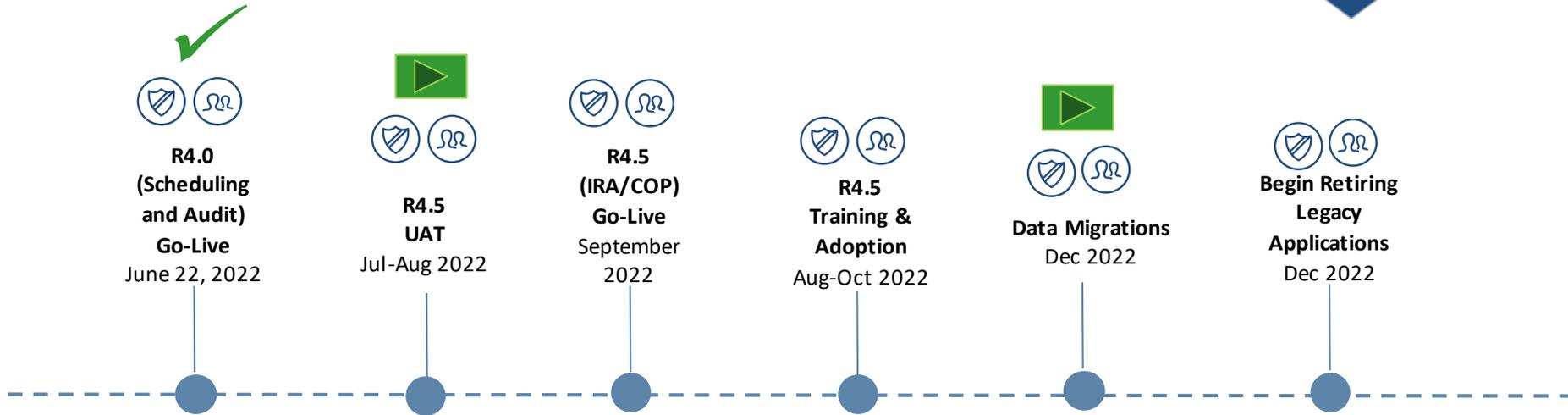
- Cyber Security
- Quality Assurance
- Cloud Computing
- Analytics
- Application Development
- Technology Success Support
- Project and Vendor Management

- Cyber Security
- Platforms
- Application Development and Enhancements
- Acceleration of Cloud Computing
- Foundational Infrastructure and Specialized Infrastructure

- NERC Alerts Upgrade
- Generating Availability Data System (GADS) Wind Submission Site Retirement
- GADS Solar
- Reliability Coordinator Information System Replacement
- Enterprise Data Analytics Center
- Identity and Access Governance
- Security Operations Enhancements

- Bulk Electric System Performance Risk Analysis
- Reliability Assessment Data System
- Resource Adequacy Upgrade
- Corporate Risk Management
- NERC Public Site
- Perimeter Protection Enhancements

- NERC Application Platform upgrade (xRM)
- Master Data Management
- Inadvertent Upgrade
- Central Repository of Curtailments Upgrade
- Automated Testing Framework
- Secure Evidence Locker (SEL) Refresh
- Cloud Security Enhancements



AUDIENCE IMPACT KEY

Registered Entities	ERO Enterprise Staff

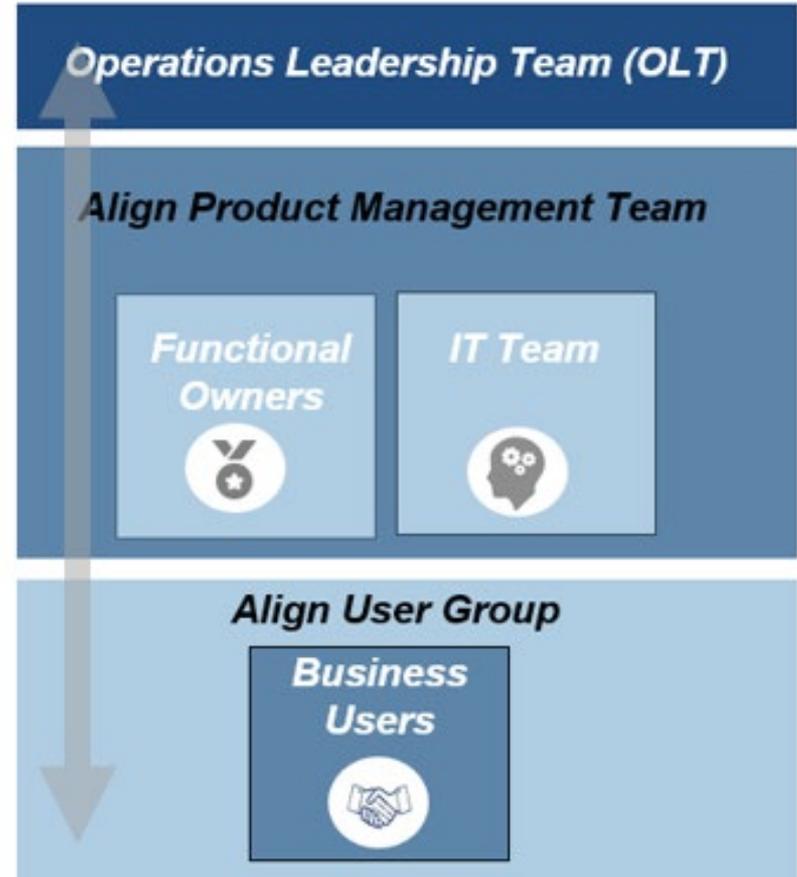
In progress
 Complete

--R4.5 Go Live moved from October to September (soft launch); date is dependent on performance testing results

Operations Leadership Team:
NERC and ERO Enterprise leadership;
Provides vision and executive oversight

Product Management Team:
Comprised of NERC and Regional compliance and enforcement leadership, and NERC IT;
Determines business needs for Align and ERO SEL;
defines and supports project scope and delivery

Align User Group
Represents Region and registered entity end users of Align and ERO SEL; provides input into functionality and business needs; supports project delivery through requirements definition and user acceptance testing



The Business Technology Success All-Star Team

2022

ATL



Jeremy Bryant

 **ERO Enterprise**
Effective. Efficient.
Collaborative.

2022

DC

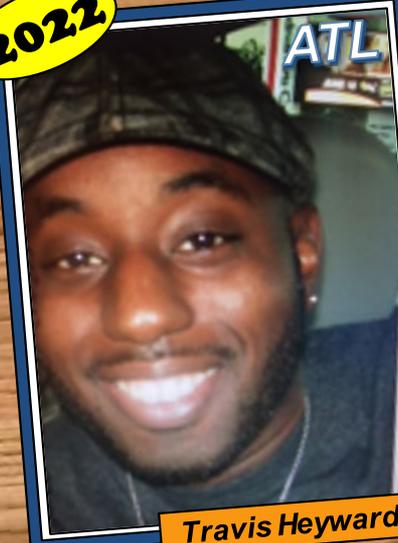


Maria De Souza

Enterprise
Effective.
Efficient.
Collaborative.

2022

ATL



Travis Heyward

 **ERO Enterprise**
Effective. Efficient.
Collaborative.

2022

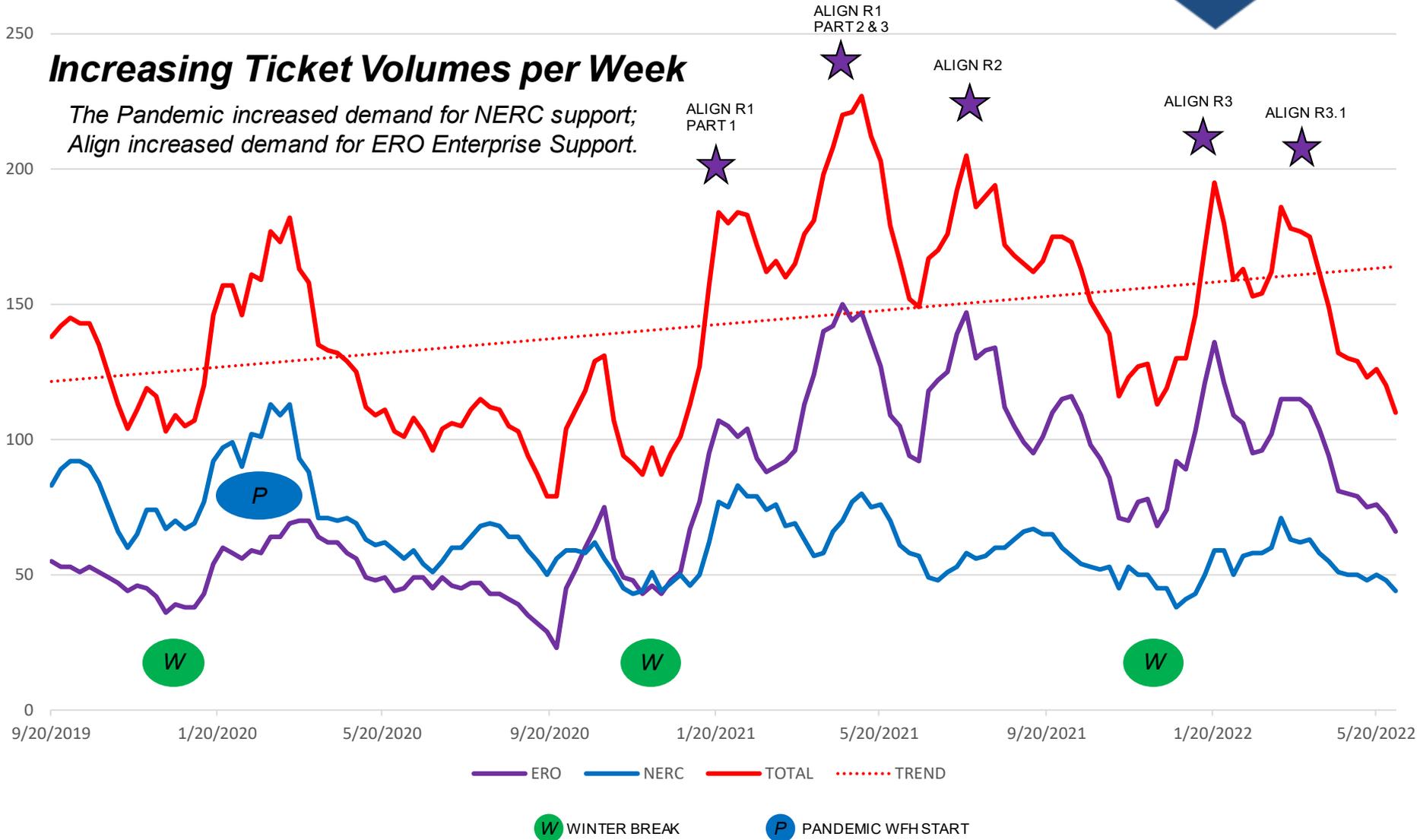
DC



Ravee Broker

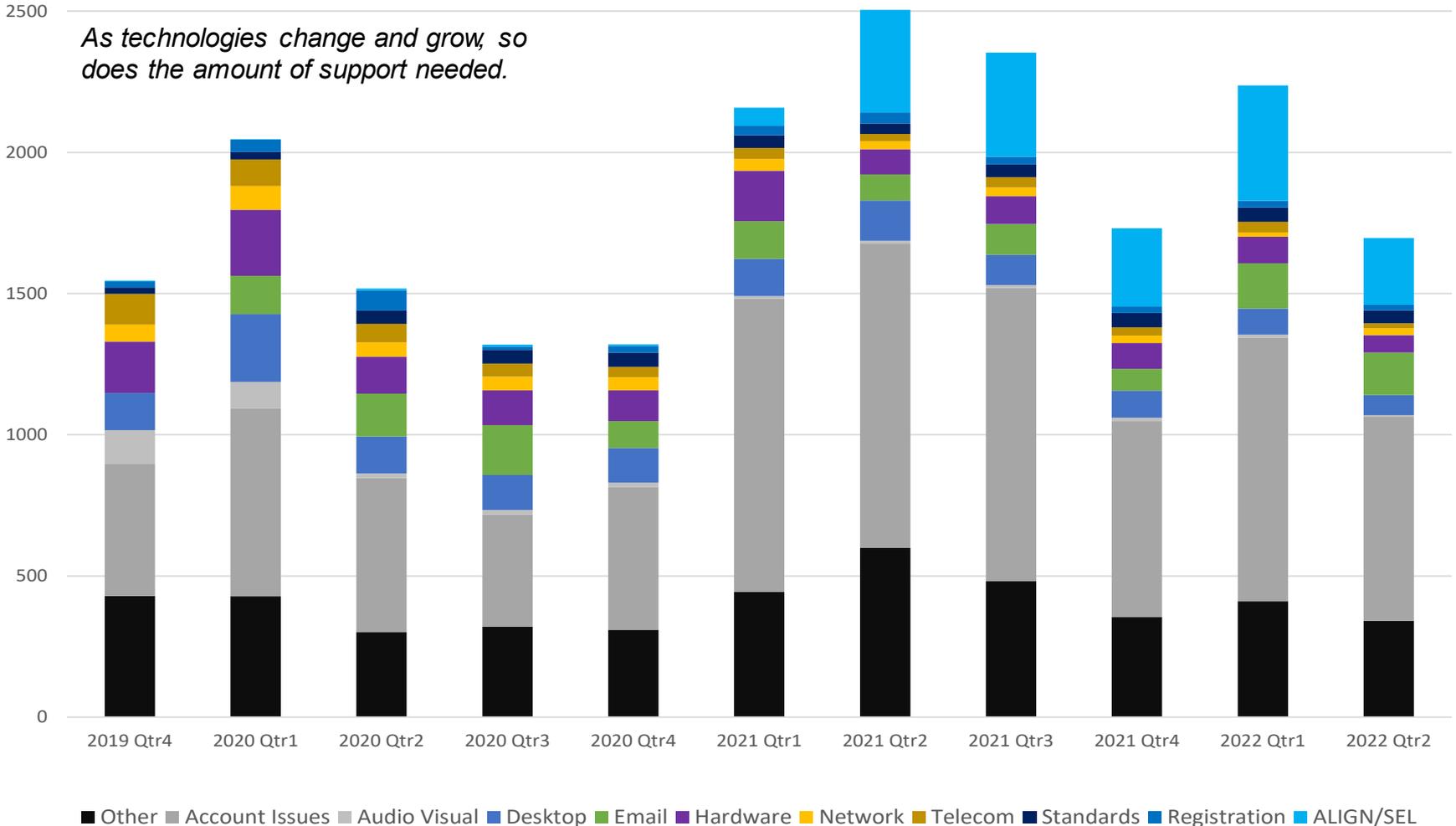
 **ERO Enterprise**
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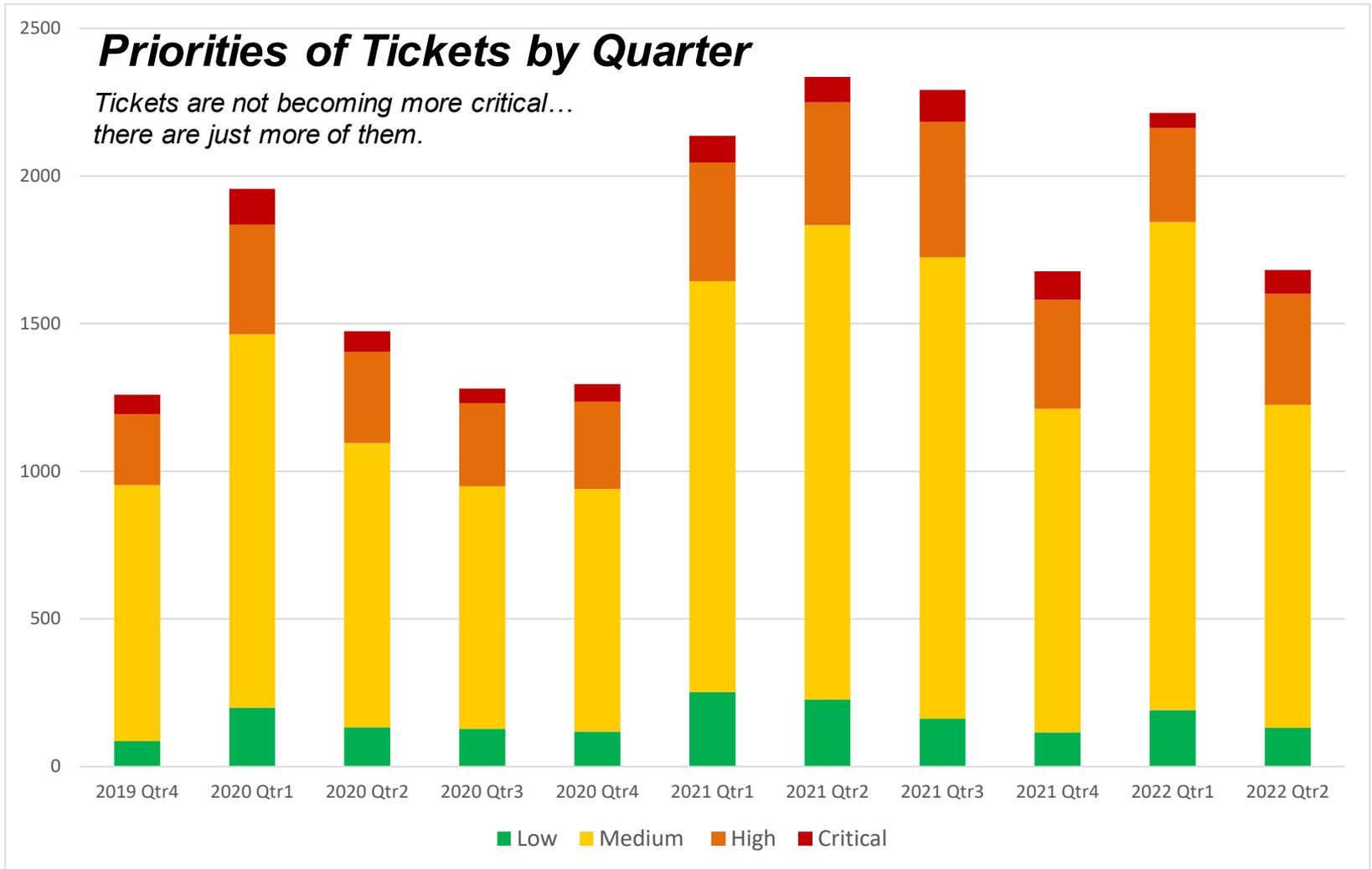
- PCs and peripherals (monitors, docks, etc.)
- Mobile devices (iPhones, iPads)
- Employee and Contractor On-boarding and Off-boarding
- Meeting Support
- Special Projects
- NERC Desktop Support
- ERO Enterprise Account Support
- ERO Enterprise Application Support



General Categories of Tickets by Quarter

As technologies change and grow, so does the amount of support needed.





Submit a new Ticket

Title * Region * Priority *

Service *

File Attachment (if you need to send multiple files, please use a zip file)
Choose File No file chosen

Your Personal Information

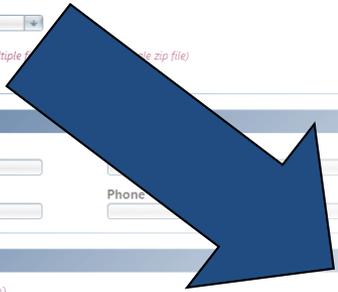
Last Name * Email Address *

User ID Phone Company *

Description

Description * (1000 characters remaining)

Submit



**Improved Data
Collection, Triage,
and Prioritization**

Category Browser x View v

Contains v Search x Q

Shared Services > Business Technology Services

Password Resets

It happens to all of us at some point - you forgot your password. No worries - we'll help without any judgement. Let's get you up and running ASAP.
[Request Service](#)

Assist Me!

Trouble with your laptop? Problems, with VPN, corporate apps (like Concur or UKG), or desktop apps (like Outlook, Word, Excel, or Teams)? Go here.
[Request Service](#)

Hardware Requests

Ready for a new PC? Broken iPhone? Need another monitor? New docking station? This is the place. Let us know what you need and we'll take care of it.
[Request Service](#)

Software Requests

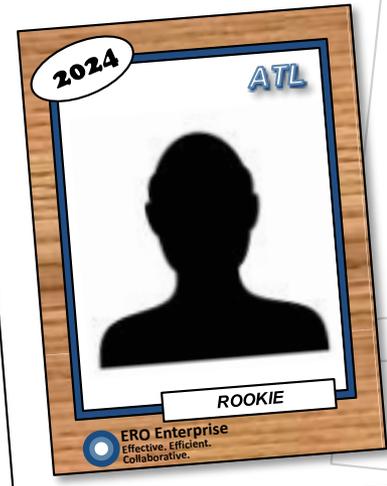
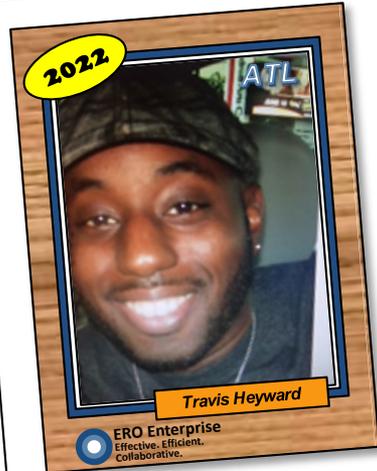
Whether you need Microsoft Project, PSS/e, Power BI, Visio, SAS, or Acrobat Pro, there's a good change we can probably get it. This is the place to ask.
[Request Service](#)

ERO App Support

Problems with your ERO Enterprise Apps, like the ERO Portal, NERC Membership, CORES, Align, the SEL, Standards Balloting, GMD? Go here.
[Request Service](#)

**User Friendly
Look and Feel**

Business Technology Success Supporting the ERO Enterprise



- SAG is comprised of security leadership from the industry for advisement of key NERC Security Initiatives
- Engaged in annual review of SEL
- Will engage on advisement of security plans



Questions and Answers

Background and Reference Material

Enterprise Solutions

- Compliance, Enforcement and Mitigation Align
- Secure Evidence Locker SEL
- Generation Analysis E-GAR
- Reliability Coordinator Information RCIS
- Wind Generation Availability GADS Wind
- Geo-magnetic Disturbances GMD
- Centralized Organizational Registration CORES
- Resource Adequacy RA
- Standards Balloting System SBS
- Bulk Electric Network Exception Tracking BESNet
- Coordinated Functional Registration CFR

Enterprise Solutions

- Misoperations Data System
 - Event Analysis Management
 - User Management and Records
 - External Collaboration
 - Phasor Measurement Unit
 - ERO Registered Entity Portal
 - Joint Registration Organization
 - Curtailment Events
 - Grid Security Technology
 - NERC Membership
 - ERO Training Portal
- MIDAS
- TEAMS
- UMR
- Extranet
- PMU
- ERO Portal
- JRO
- CRC
- GST

Moving to a common platform has provided:

- **A more secure** method of managing and storing Compliance Monitoring and Enforcement Program (CMEP) data
- Alignment of **common business processes**, ensuring consistent practices and data gathering
- A **standardized interface** for registered entities to interact with the ERO Enterprise
- **Real-time access to information**, eliminating delays and manual communications
- **Consistent application** of the CMEP
- **Ease of Access:** Ability to download all standards and requirements for use in other systems

Stakeholder Group

Registered Entities



Release 4 Functionality

- Enhanced Audit and Scheduling functionalities
- Compliance Planning (Inherent Risk Assessment and Compliance Oversight Plan)
- Expand Requests for Interpretation for Compliance Planning