

# National Rail Employer Training Seminar - Bureau of Information Services RRB Cybersecurity and Online Website Protection

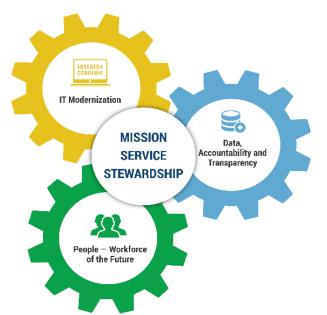
August 8-10, 2018

Ram Murthy, CIO Jerry Gilbert, CISO

### **Our Commitment to You!**

Deliver mission outcomes, Protect customer data, Provide excellent service

The agenda outlines three key drivers of modernizing government for the 21st century:



**Pres** 

March

- 1. **Modern information technology** that helps Government meet customer expectations and keep data and systems secure in the digital age.
- 2. **Data, accountability, and transparency initiatives** that deliver visibly better results to the public, while improving accountability to taxpayers.
- 3. A Workforce for the 21st century that enables senior leaders and front-line managers to nimbly align staff skills with evolving mission needs.

The *President's Management Agenda* lays out a long-term vision for modernizing the Federal Government in key areas that will improve the ability of all agencies to deliver mission outcomes, provide excellent service, and effectively steward taxpayer dollars on behalf of the American people.

### **Our Vision for IT Services**

- Streamlined, secure and sustainable IT operations
- Self service solutions for the railroads, our customers, and the agency users
- Established metrics that are Specific, Measurable, Achievable, Realistic, Timely that repeatedly measure outcomes, savings to the agency, and benefits to the community
- Enhanced Continuity of Operations and fail safe Disaster Recovery capabilities that are routinely tested to assure confidence
- Procure and implement "as-a-service" solutions that allow for rapid deployment with Pay-as-you-Go cost model

# We Manage the risk of critical infrastructure

- Asset Management
  - Provide better visibility of current hardware and software
  - Enrolled in the DHS CDM Continuous Monitoring as a Service (CMaaS)
  - Automatically detect unauthorized hardware and software
- Identity Management
  - Multi-factor authentication
  - Implement credential management for general users
  - Implement privileged access management for system administrators
- Remote Access
  - Deployed managed services for hardware encryption on mobile devices
  - Upgraded Cisco ASA firewalls to strengthen InfoSec controls for VPN
- Network Protection
  - Defense in Depth configuration: Intrusion Prevention System (IPS),
     Network Access Control (NAC), and the Security Information and Event Management (SIEM).

# We Embrace Emerging Technology



https://www.youtube.com/wat ch?v=Z7cq-EuAyps

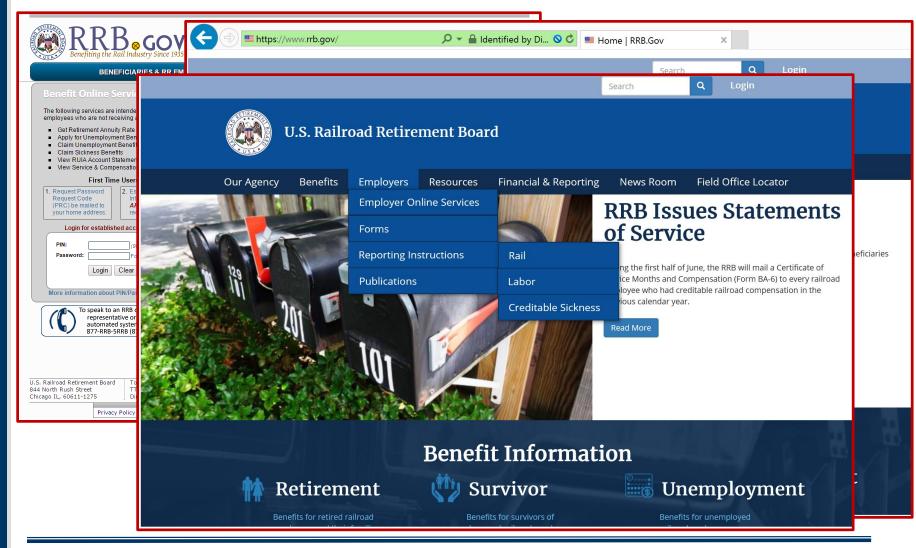
# The first look at the next generation of intelligent business applications.

Use digital intelligence to reimagine what's possible for your business. Dynamics 365 unifies CRM and ERP capabilities into applications that work seamlessly together across sales, customer service, field service, operations, financials, marketing, and project service automation. Start with what you need, add applications as your business grows. Rethink what's possible for your business when you:

- Better engage customers
- Empower employees
- Optimize operations
- Reinvent products and business models

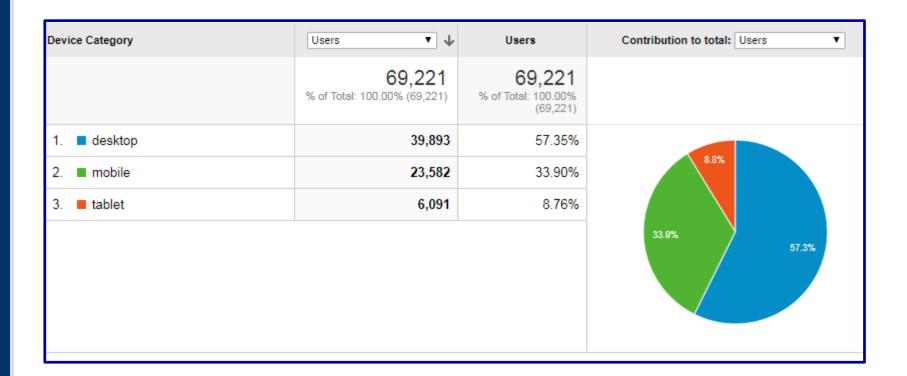
# We enhanced website protection: New and Improved https://www.rrb.gov

Implemented HTTP Strict Transport Security (HSTS)

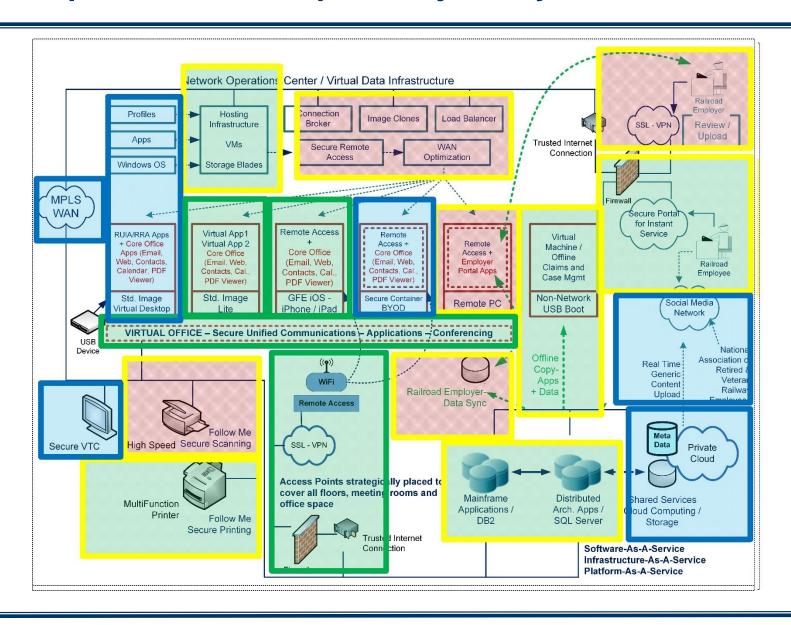


# **Web portals – Digital Analytics**

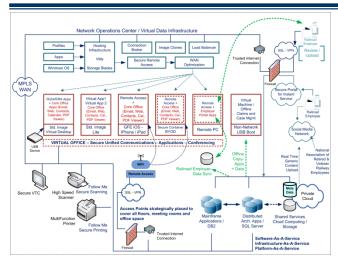
Who is visiting RRB.GOV?



# Enterprise IT Roadmap - Our journey to date

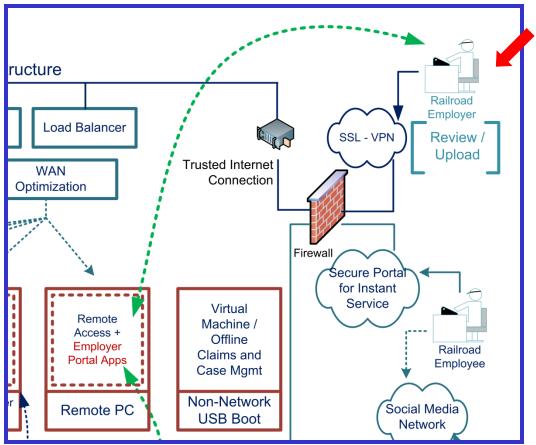


# **Self Service Solutions – Focus on Rail Employer**

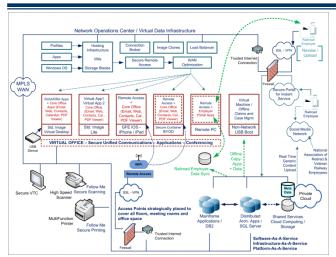


#### <u>SCENARIO 4 – INTEGRATING THE RAILROAD</u> <u>RETIREMENT COMMUNITY</u>

The RRB keeps the railroad community of retired employees and the railroad employers well informed with an exchange of information, whether it is for filing annuity applications, electronic funds transfer or simple change in contact information. Access to the self service portal by railroad employers is transparent and secure using two factor authentication similar to the PIV logon credential. Others can access the self-service portal using one time or limited duration authentication. In a matter of minutes the portal enables the self-registration, validation by the sponsor, as well as implementing the two factor authentication using one-time passwords and SMS text messages to a cell phone. The audit controls and the security features of this social network site have been extended to intake processing as well.



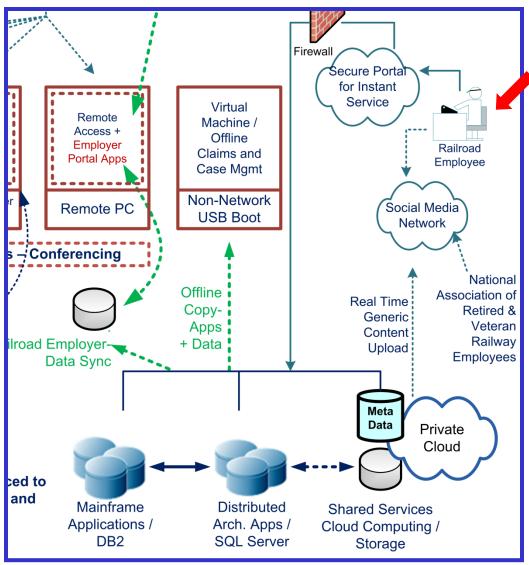
### Self Service Solutions –Focus on Claimant/ Annuitant



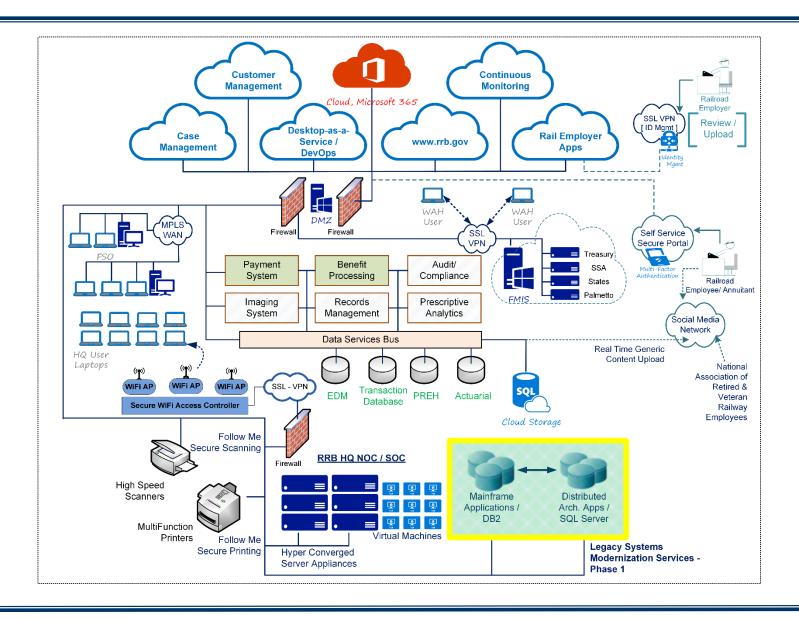
SCENARIO 4 contd. - It was not long ago that Sean, the Public Affairs Manager had to spend several long days working closely with his publishing team to prepare the documents for external consumption. Today the process is seamless, thanks to the enhanced content management platform— the content is authored and approved beforehand with innovative workflows, and publishing is as simple as pressing a button.

.... Using shared services from Google Enterprise, the BIS staff has enabled the railroad employees to be virtually connected to other social groups like the National Association of Retired and Veteran Railway Employees (NARVRE).

..., the IT Staff continues enhancements ... the speech to text translation for online forms, and speech recognition show the value added for the external community.



# **Enterprise IT Roadmap 2.0**



# **Enhanced Identity Management – via Login.gov**





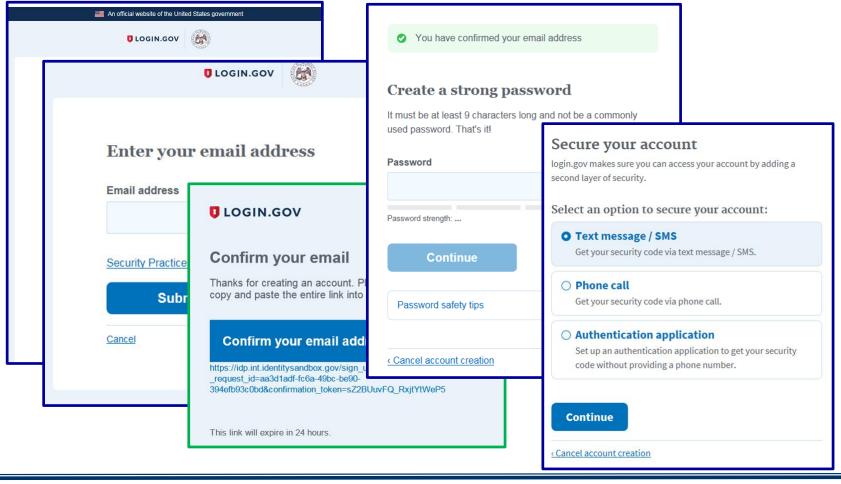
# How login.gov keeps personal information private

login.gov encrypts the personal information of each user separately, using a unique value generated from each user's password. Our encryption method works like a safe deposit box in a bank vault. Only the user has the key. Only the user can open the box to reveal the contents. Only the user knows the password, and only the user can decrypt their information.

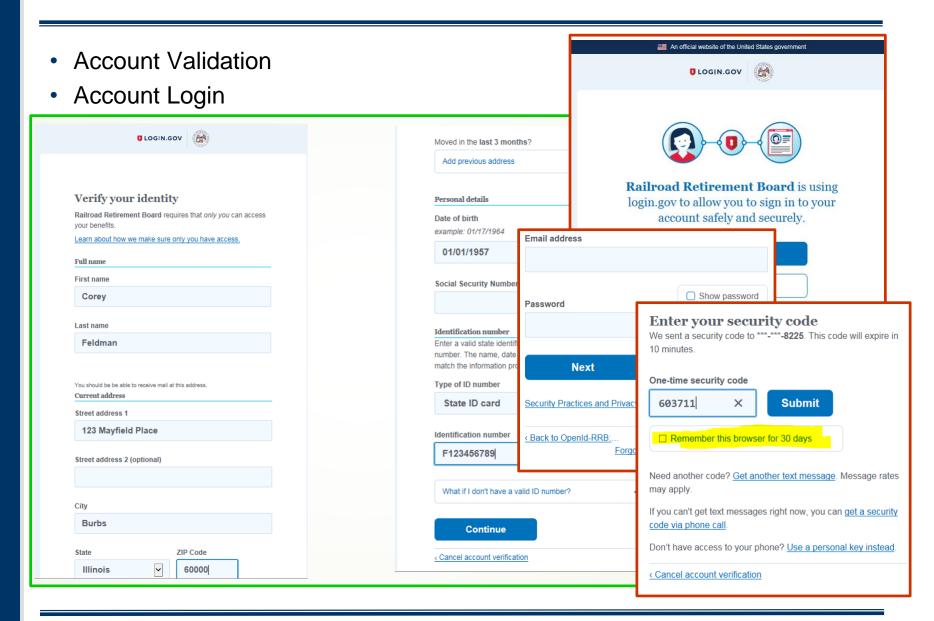


# **Enhanced Identity Proofing & Strong Authentication**

Account Creation

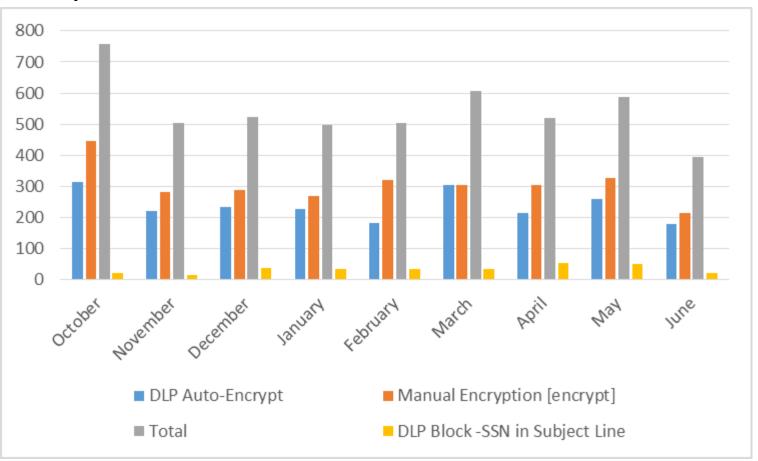


# **Enhanced Identity Proofing & Strong Authentication**

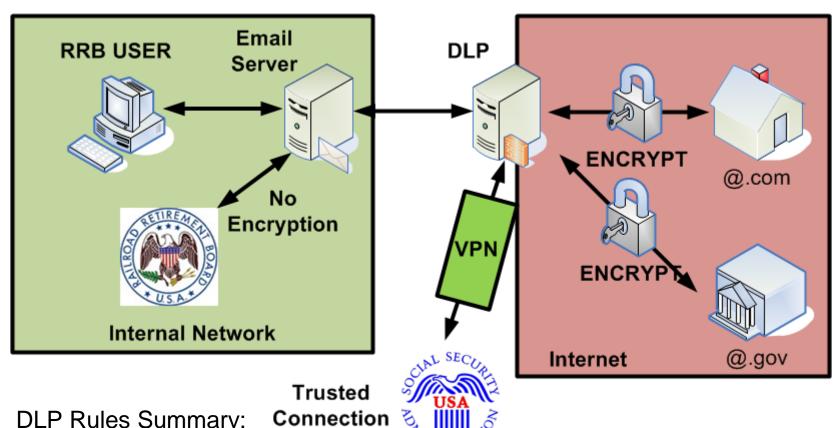


# **Emphasize Data Loss Prevention**

- Protects sensitive information while communicating outside RRB
- YTD: DLP Encrypt = 1,494 ... Manual [encrypt] = 2,394 ... Total = 3,888
- DLP Subject Line = 249



# Data Loss Prevention (DLP) – How it Works



DLP Rules Summary:

PII In Subject Line = REJECT

- To either @rrb.gov or @ssa.gov = Send Unencrypted
- [Encrypt] in Subject Line = Encrypt & Send
- PII Found During Scan = Encrypt & Send

# High Impact initiatives for Enhanced Information Protection and CyberSecurity

- Windows Server 2012 and SQL Server 2016 migration
- Windows 10 migration
- PIV Card Network Logon
- Smart Cards for Temporary Network Access
- HTTP Strict Transport Security (HSTS)
- Upgraded Network Firewalls
- Web Application and Database Firewalls
- Carbon Black End Point Detection and Response (EDR)
- CyberArk Privileged Access Management
- Network Admission Control (NAC)
- Cisco Data Loss Prevention
- Upgraded Websense (Internet Traffic Monitoring)

