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# Information Technology



# Agenda

- TMRS IT Strategy
  - Software Development Strategy
  - Network Operations Strategy

# TMRS IT Strategy

- Support TMRS' Strategic Plan
- Research, anticipate and plan for TMRS' IT needs over the next 3-5 years
- Partner with other TMRS Departments
- Continuous improvement of the management and governance of TMRS IT infrastructure
- Ensure resilience of TMRS' business operations
- Increase efficiency & reduce cost

# IT Strategy – Software Development

- Provide secure self service for cities, members, & retirees (TMRSDirect – MyTMRS, TMRS City Portal)
- Further automate internal business processes (NextGen MBS)
- Protecting member and city data through regular security-focused NextGen, MyTMRS, & TMRS City Portal software releases

# NextGen MBS – Current Projects

## City Payroll / Contribution Redesign

- More accurate/streamlined processing
- Easier, intuitive way for smaller cities to input payrolls online
- Reduction in data entry & manual processing
- Automation of correction / adjustment processing

### ■ Status

- Late in high-level design phase
- 2017: Detailed design & implementation
- 2018: Rollout

# NextGen MBS – Current Projects

## Beneficiary Updates

- Support of MyTMRS Beneficiary Updates
- Rollout: 1<sup>st</sup> Quarter 2017

# NextGen MBS – Future Projects

- 2017 – Refund application support
- 2018 – Retirement application support
- Beyond 2018
  - User interface redesign
  - HELPS payment automation
  - IRS 415 support automation

# MyTMRS – Overview

## TMRS Direct Program

- September 2015
  - Address Changes
  - Annuity Verification Letter
  - Account Balance Statements
- April 2016: Withholding Updates
- May 2016: Communication Preferences



# MyTMRS – Future Releases

## TMRS Direct Program

- 1<sup>st</sup> Quarter 2017
  - Dual Factor Authentication
  - Beneficiary Updates
- 2<sup>nd</sup> Quarter 2017: Direct Deposit Updates
- 4<sup>th</sup> Quarter 2017: Refund Applications
- 4<sup>th</sup> Quarter 2018: Retirement Applications

# TMRS City Portal

- TMRS Direct Program
  - April 2015: New member enrollments
  - 4<sup>th</sup> Quarter 2017: Refund applications
  - 4<sup>th</sup> Quarter 2018: Retirement applications

# TMRSDirect Stats (2016)

- 10,000 users login each month
- 1,000 Withholding Changes from April (release date) through October
- 6,000 Address Changes from January through October
- 17,000 Phone Number Changes from January through October
- 17,500 New MyTMRS Registrations from January through October
- 176,000 Retirement Estimates run through MyTMRS from January through October

# IT Strategy – Network Operations

- Provide the best security for members, cities, retirees, and staff
- Provide reliable, available, and innovative infrastructure and tools for our users (virtual desktops, telecom, mobile devices)
- Increase the efficiencies of operations/payments

# Network Operations

- Security
- Infrastructure
- Business Continuity / Disaster Recovery
- Other Noteworthy Projects

# Security

- Audits
  - Computer Controls Audit
  - SOC-1 Audit
  - Annual Security Audit
  - Quarterly External Security Testing
  - Internal Audits

# Security – Defense in Depth

- Multiple firewalls
- Intrusion detection/prevention services
- Advanced persistent threat services
- Network segmentation
- Strong security policies
- Multiple antivirus/anti-spam engines

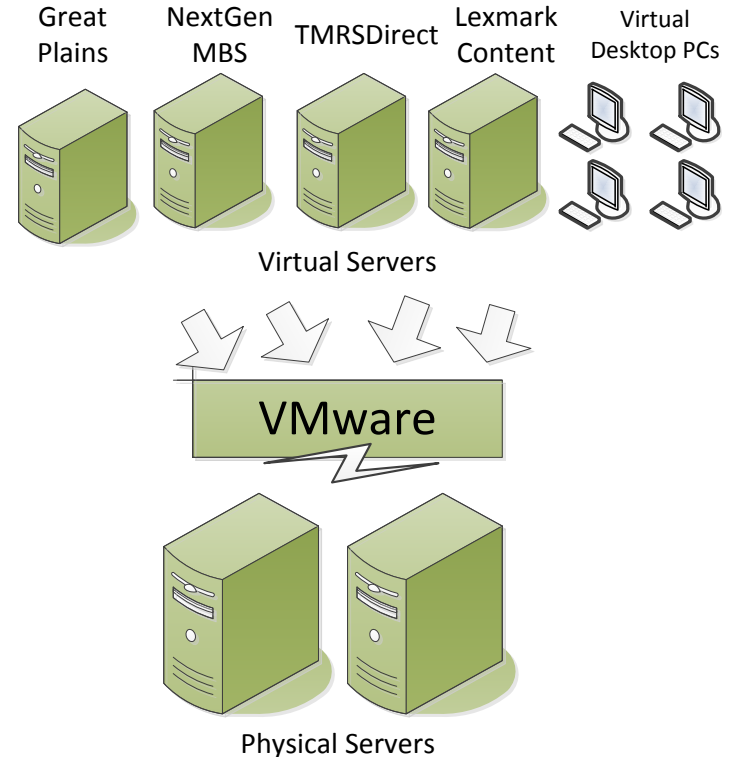
# 2016/2017 Security Projects

- SANS Institute *Securing the Human* – user security training for all employees
- VMware NSX network virtualization – virtual firewall protecting each application
- Oracle Advanced Security – full database encryption



# Infrastructure – Private Cloud

- Private Cloud – virtualization
  - Running multiple virtual servers / desktops on shared hardware
  - 2008 – 40 virtual servers on 6 physical servers
  - Today – 150 servers & 130 virtual desktops on 11 physical servers



# Infrastructure – Virtual Desktops

- 2012 – Replaced Physical PCs
  - Authorized employees have secure access to virtual desktop anywhere, anytime, any device
  - Same look & feel of traditional PC
- Other Benefits
  - Strong security
  - Less downtime
  - Lower labor / Mgmt. costs
  - Simpler Patch Mgmt. / Upgrades
  - Green IT
  - Improved governance
  - Ease of implementation

# Private Cloud – Hardware Update

- Physical servers & storage last replaced in 2012
  - At the age manufacturers recommend replacement
  - Funds requested in 2017 budget
    - 11 Servers
    - SAN (64 Terabytes Storage)

# 2017 Cloud Strategy Project

- Develop long-term cloud strategy
  - Analyze core applications to determine best private/public cloud combination
  - Determine costs/benefits/risks of migrating to public cloud/commercial data center
  - Create cloud-first strategy for future applications
  - 4- to 5-year plan for application migration

# Business Continuity / Disaster Recovery Program

- 1998 – Initial Disaster Recovery Program
- 2013 – Creation of departmental business continuity plans
- 2016 – Improved BC/DR program support
  - Regus Recovery – Alternate Worksite
  - Disaster Recovery as a Service (DRaaS)
  - Emergency Notification Service
- 2017 – Ongoing maintenance & improvements

# Other Noteworthy Projects

- Windows 10 Upgrade
- Office 2016 Upgrade
- Employee Office/Windows Training

# Questions and Answers

# Background Material

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# NextGen MBS

## TMRS' pension administration system since 2005

- City retirement plan options
- Member & Retiree Data
- Payment Processing
  - Refunds
  - Annuity Payments
  - Partial Lump Sum Distributions (PLSDs)
  - Supplemental Death Benefits (SDBs)
- Application of Interest, COLAs, and Updated Service Credit (USC)

# MyTMRS – Overview

- 2001: Read-only snapshot
  - Account Balance & Payment Information
  - Address
  - Beneficiaries
- 2009: Retirement estimates added
- 2014: Interface & content re-engineered
  - New, intuitive user interface
  - More Account Information
  - Support for broader range of browsers & mobile devices

# TMRS City Portal - Overview

- Online in 2010
  - Report generation
  - Member retirement estimates
  - Submit city payroll contribution data
  - View member account data

# Other Systems

- Microsoft GP Dynamics – General Ledger
- Lexmark Content – Electronic document management system & workflow
  - Kofax scanning software upgrade
  - Payroll workflow development
  - Accounts payable workflow development

# Private Cloud - Benefits

- Hardware consolidation
- Cost reduction
- Increased Security
- Improved flexibility & responsiveness
- Green IT
- Less downtime
- Improved business continuity
- Lean IT