Agenda

I  Project Objective
II  Project Approach
III  Results of Analysis
IV  Recommendation & Roadmap
V   Questions/Answers
Project Objective

- Assess the current TMRS Pension Administration System
- Provide gaps & improvements
- Present solution options for TMRS consideration
- Recommend the best option(s) for TMRS to pursue
TMRS PASA Report Deliverables

**Approach**

**Deliverable 1**

**Current Environment Report** - Provides detail on TMRS' current technical and business environments as it relates to use of, maintenance of, and enhancement to the current Pension Administration Systems.

**Deliverable 2**

**Gaps and Improvements Report** - Builds upon first deliverable by offering a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis, recommendations that will be addressed in the Roadmap and provides an assessment of the identified gaps.
**Solution Options Report** - Provides a description and cost benefit comparison of three solution options. This report also addresses other considerations for moving forward with any of the options including CRM and Mobile Applications.

**Recommendation and Roadmap** - Based upon the results of the gap assessment and option comparison, this report provides a recommended solution for TMRS consideration along with a roadmap for implementation. An Executive Summary of all four reports is included.

**TMRS PASA Report Deliverables (Cont.)**
Pension Application: Summary of Findings

- TMRS has built and maintained a solid foundation, with a modern toolset - The NextGen custom pension application at its core.

- The core processing needs of TMRS staff are met with the exception of the City Contribution System, which is on an unsupported platform.

- Deficiencies in the PAS primarily exist in areas where TMRS interacts with its members; however, this could be addressed by implementing outstanding features from the TMRSDirect Project and automating case management features.
Pension Application: Summary of Findings (Cont.)

- TMRS has successfully developed and maintained a list of complex and unique system generated calculations (Annuity Options, Taxes, USC, COLA, Refunds, and Disability) to ensure each member’s benefit is accurate.

- TMRS IR has provided the organization with a well-rounded graphical user interface (GUI) for the user. The IR Department continues to evolve the GUI by working closely with Member Services to capture their ideas and preferences during requirement and design phases.

- The introduction of online update capabilities within MyTMRS has led to less paper, and more account updates by members. The MyTMRS solution is accessible via a mobile device.

- The Current PAS (NextGen), with some improvements, and continued enhancement is a viable alternative for the future.
Technology Infrastructure / Security

- There were no critical findings that need immediate attention.
- TMRS network is configured with multiple security layers and the expected intrusion detection tools and methods in place.
- The appropriate disaster recovery and business continuity procedures are in place.
- There were no findings related to capacity, monitoring procedures/practices, and the appropriate alert systems are in place.
- The expected System Use policies and cyber insurance policy are in place.
- TMRS has integrated or is in the process of integrating MyTMRS with third party tools to improve data and security including facilities for multi-factor implementation and device authentication.
Information Resources Organization

- IR has a mixture of experience levels.
- Average tenure of Software Development staff is 11.2 years.
- Average Software Development staff time in current position is 8.8 years.
- Software Development Team share a balance of experienced staff along with newer, less experienced staff.
- Low degree of turnover at the higher level positions in IR, with a rotation occurring more at the entry Computer Support level.
- IR is able to maintain adequate support of TMRS.
Project Governance

- New in 2019, a formal project governance structure was created:
  - Led by an Executive Project Steering Committee (EPSC);
  - Scheduled to meet quarterly, at a minimum; and
  - Composed of four voting members, advisory (non-voting members) and is supported by the Project Management Office and subject matter experts (SME).

- Senior Project Manager reports to the Executive Office.

- TMRS uses Waterfall software development methodology but is beginning transition to Agile development methodology.
SWOT Analysis

**Strengths**
- Solid Pension Admin Solution Foundation and expandable
  - Staff collaboration, tenure, and management support for improvement
  - Business needs drive technology investment

**Opportunities**
- Advance Security implementation to enable completion of TMRS Direct and alleviate workload
  - Expand/Improve upon existing architecture to promote integration, reusability, and scalability

**Weaknesses**
- Contribution System is outdated / unsupported software
- Staff capacity/allocation to projects without effective project management tools to help remedy
- Inefficient decision making delays implementation

**Threats**
- TMRS culture of risk aversion and sense of ‘uniqueness’ results in delays in decision making
- High dependence on Institutional knowledge (not uncommon)
## Gap Prioritization

<table>
<thead>
<tr>
<th>(Technical Hours)</th>
<th>Relative Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult: 121 hours or more</td>
<td>High</td>
</tr>
<tr>
<td>Moderate: 41 - 120 hours</td>
<td>6</td>
</tr>
<tr>
<td>Simple: 40 hours or less</td>
<td>7</td>
</tr>
<tr>
<td>Difficult</td>
<td>27</td>
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</table>

Total Gaps: 66
Other Findings

<table>
<thead>
<tr>
<th>(Technical Hours)</th>
<th>Relative Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult: 121 hours or more</td>
<td>High</td>
</tr>
<tr>
<td>Moderate: 41 thru 120 hours</td>
<td></td>
</tr>
<tr>
<td>Simple: 40 hours or less</td>
<td></td>
</tr>
</tbody>
</table>

Relative Ease of Implementation

| Simple | 2 | 6 | 12 |
| Moderate | 12 | 11 | 3 |
| Difficult | 13 | 1 | 2 |

Total findings: 62
Gap Grouping

Group 1: Completion of MyTMRS
Group 2: Replacement of City Contribution System with City Portal Expansion
Group 3: Improve Case Management and Correspondence
Group 4: Other High Value Gaps
Solution Options & Considerations

Option 1: Retain and Upgrade
Enhance existing base architecture
Solve for the four groupings of Gaps

Option 2: Replace with full custom solution
Hire a company to do a full re-write of the PAS and related portals

Option 3: Replace with Customizable off-the-Shelf solution
Replace current PAS by buying a COTS product

Other Considerations:
Customer Relationship Management, Mobile App, Hybrid Components (combining core with a COTS), Project Oversight and Consulting
## Solution Option Comparison

### One-Time Implementation Cost (Years 1-4)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assigned Weighting</th>
<th>Option 1 - Retain</th>
<th>Option 2 - Custom</th>
<th>Option 3 - COTS</th>
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<tr>
<td>Strategic Goals</td>
<td>25%</td>
<td>24</td>
<td>17</td>
<td>18</td>
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<tr>
<td>Flexibility</td>
<td>25%</td>
<td>23</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Longevity/Expandability</td>
<td>25%</td>
<td>23</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Cost</td>
<td>15%</td>
<td>15</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Technical Complexity</td>
<td>10%</td>
<td>7</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td></td>
<td><strong>92</strong></td>
<td><strong>77</strong></td>
<td><strong>77</strong></td>
</tr>
</tbody>
</table>

### Post-Implementation PAS Costs (Per Year)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Time Implementation Cost (Years 1-4)</td>
<td>$5,725,550</td>
<td>$24,185,650</td>
<td>$19,640,000</td>
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<tr>
<td>Post-Implementation PAS Costs (Per Year)</td>
<td>$2,793,828</td>
<td>$2,793,828</td>
<td>$2,773,430</td>
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<tr>
<td><strong>Total 10 Year Costs</strong></td>
<td><strong>$22,488,518</strong></td>
<td><strong>$40,948,618</strong></td>
<td><strong>$36,280,581</strong></td>
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</table>

- The dollar values in this table were used to compare options only. None of these numbers represent the final recommended budget.
Recommendation & Roadmap
Create a Single Pension Modernization Program

1. Retain and Upgrade the Current Solution
   - Complete the TMRSDirect projects (MyTMRS)
   - Filling High Value Gaps
   - Refactoring of Current PAS

2. Replace the City Contribution System with a COTS

3. Implement a Commercially Available Customer Relationship Management (CRM) Solution

4. Evaluate the Introduction of a Mobile Application
Overall Pension Modernization Program

EXTERNALLY AVAILABLE SYSTEMS

CITY PORTAL - EMPLOYER PORTAL

MYTMR - MEMBER PORTAL

INTERNALLY AVAILABLE SYSTEMS

CITY CONTRIBUTION SYSTEM

NEXTGEN FA$3 / PERCEPTIVE (ECM)

CUSTOMER RELATIONSHIP MANAGEMENT

BUY

RETAIN / UPGRADE
Preparation for the Pension Modernization Program

**Governance**
- Tailor structure for goals of Program
- Prepare to be nimble with decision making

**Program Management**
- Implement management and tracking tools
- Establish methodology and reporting standards

**Program Staffing**
- Assign Product Owners
- Prepare to supplement with additional staffing

**Select Partners**
- Procure Services for Agile Training, Organizational Change Management, Project Oversight, and City Contribution System
Pension Modernization Program Execution

- Member Services owns this project, not Information Resources

- Define the requirements to close the gaps, and measure program success by completing those requirements

- Alongside implementation of new technologies (e.g. CRM, Contributions System), comes an opportunity to improve processes by removal of low value, high cost steps

- Set measurable goals as a result of the program – in some cases at the process level

  - Increase overall member engagement by X
  - Decrease paper/manual processing by Y
  - Shorten case management by Z
TMRS Pension Modernization Program Roadmap

Q4 – 2019
Modernization Program Preparation and Planning

Q1 – 2020
Direct Deposit (MyTMRS)

Q2 – 2020
Change Management
Agile Training
Selection of OPM
High Value Gaps

Q4 – 2020
Refund/Withdrawal Application (MyTMRS)

Q2 – 2021
Refactoring
HELP Application (MyTMRS)

Q3 – 2022
Retirement Application
(MyTMRS)

Q4 – 2021
City Contribution Replacement

Q4 – 2023
Customer Relationship Management
Mobile App Assessment
## TMRS Pension Modernization Program Schedule

<table>
<thead>
<tr>
<th>Task Name</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<tbody>
<tr>
<td>Board Approval</td>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td>Preparation and Staff Planning</td>
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<td></td>
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<tr>
<td>Organization Change Management</td>
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<tr>
<td>Agile Training</td>
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<tr>
<td>Project Oversight / Independent Verification and Validation (Selection and Onboarding)</td>
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<tr>
<td>NextGen Application Refactoring Effort</td>
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<tr>
<td>Cloud Hosting Assessment</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Implement High Value Gaps</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Contribution System Replacement</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMRSDirect / MyTMRS Completion</td>
<td>0%</td>
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<tr>
<td>Direct Deposit Updates for Retirees (95% complete)</td>
<td>0%</td>
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<tr>
<td>Refund Application (50% Complete) City Portal Refunds City Certification</td>
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<td></td>
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<tr>
<td>HELPS Application</td>
<td>0%</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Retirement Application and City Portal Certification</td>
<td>0%</td>
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<td></td>
<td></td>
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<tr>
<td>Customer Relationship Management (CRM)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Mobile App Needs Assessment</td>
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<td></td>
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9/27
## Preliminary Budget

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Additional Staffing Requirements</th>
<th>Implementation Cost</th>
<th>Post Implementation Cost (Annually)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary (Contract) Full-Time Project Manager (4 years)</td>
<td>1</td>
<td>$680,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Backfilling of Temporary (Contract) Business Staff (3 FTE<em>4 yrs.</em>$55/HR)</td>
<td>3</td>
<td>$1,380,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Temporary (Contract) Development Resource (2 FTE<em>4 yrs.</em>$100/HR)</td>
<td>2</td>
<td>$1,660,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Permanent Quality Assurance / Testing Resource (1 FTE<em>4 yrs.</em>$120,000 per year)</td>
<td>1</td>
<td>$480,000</td>
<td>$120,000</td>
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<tr>
<td>Temporary Developer(s) / Architect - Refactoring of NextGen (12-18 Months only for 4,000 hours)</td>
<td>2</td>
<td>$400,000</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>$4,600,000</strong></td>
<td><strong>$120,000</strong></td>
</tr>
</tbody>
</table>

### Additional Project Staffing

**Consulting, Training, and New Software Costs**

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Implementation Cost</th>
<th>Post Implementation Cost (Annually)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Change Management</td>
<td>$300,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Agile Training (Training Course)</td>
<td>$80,000</td>
<td>TBD</td>
</tr>
<tr>
<td>Oversight Project Management (4 years)</td>
<td>$1,800,000</td>
<td>TBD</td>
</tr>
<tr>
<td>Replacement of the City Contribution System (Software and Implementation Services)</td>
<td>$2,500,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Customer Relationship Management Software (Software-as-a-Service [SaaS]: 100 users*$100-150*12)</td>
<td>$1,200,000</td>
<td>$150,000</td>
</tr>
<tr>
<td>Mobile App Assessment</td>
<td>$150,000</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,030,000</strong></td>
<td><strong>$250,000</strong></td>
</tr>
</tbody>
</table>

| Grand Total                                                             | **$10,630,000**     | **$370,000**                        |
| **Total + ~15% Contingency**                                           | **$12,224,500**     | **$425,500**                        |
Next Steps

- Gain authorization to begin the first stages of implementing the Pension Modernization Program

- Start the Pension Modernization Program by first defining measurable goals and objectives

- TMRS will need to fully embrace the roadmap by
  - Reviewing the priorities of this program to that of the other projects in the portfolio
  - Confirming the projects within this program are prioritized accordingly
  - Making any corresponding changes to the high-level timeline and budget
Questions / Comments