

Federal System Modernization

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The Modernization Push

“...should a lot of these agencies be maintaining their own data centers? For many of them, I think the answer is no.”

- Dave Powner, GAO IT Director

Costs too much to maintain

1

Vulnerability to cyberattacks

3

Customer experience needs improving

2

Key Drivers



Action in Congress¹

Hack the DHS Act

Connected Government Act

SECRET Act

FITARA Enhancement Act

MGT Act

Regulations and Funding Enabling Modernization

¹ Congress.gov

² GAO – Federal Agencies’ Need to Address Aging Legacy Systems

GAO Outlook 2016



United States Government Accountability Office

Testimony
Before the Committee on Oversight and
Government Reform, House of
Representatives

For Release on Delivery
Expected at 9:00 a.m. ET
Wednesday, May 25, 2016

INFORMATION TECHNOLOGY

Federal Agencies Need to Address Aging Legacy Systems

David A. Powner, Director, Information Technology
Management Issues

GAO-16-696T

GAO² Reports on Known Trends

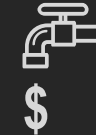
77% agencies *not planning to meet goals* by end of fiscal 2018



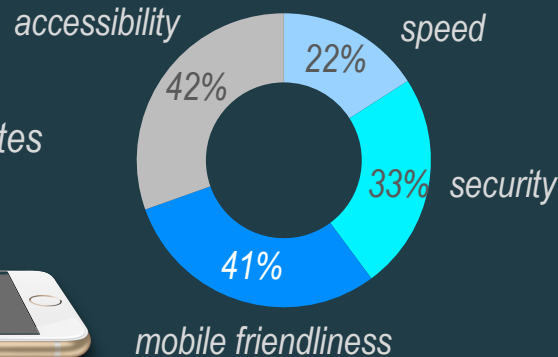
82% *unable to measure server use*



\$2.7B *savings not realized in data center optimization plan*



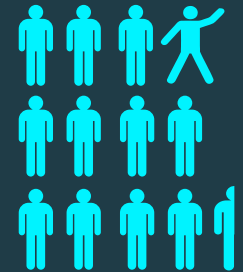
92% of nearly 300 government websites failed mobile test³



44hrs average system outage⁴



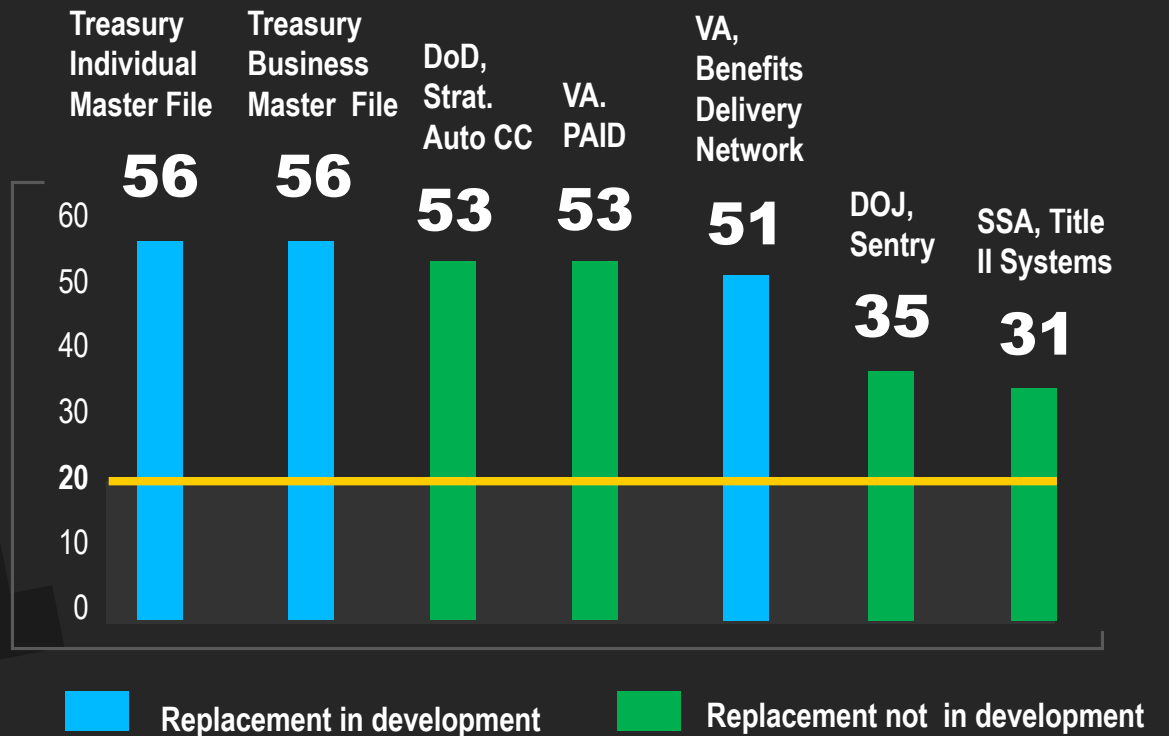
12.5 FTEs needed to bring back on line



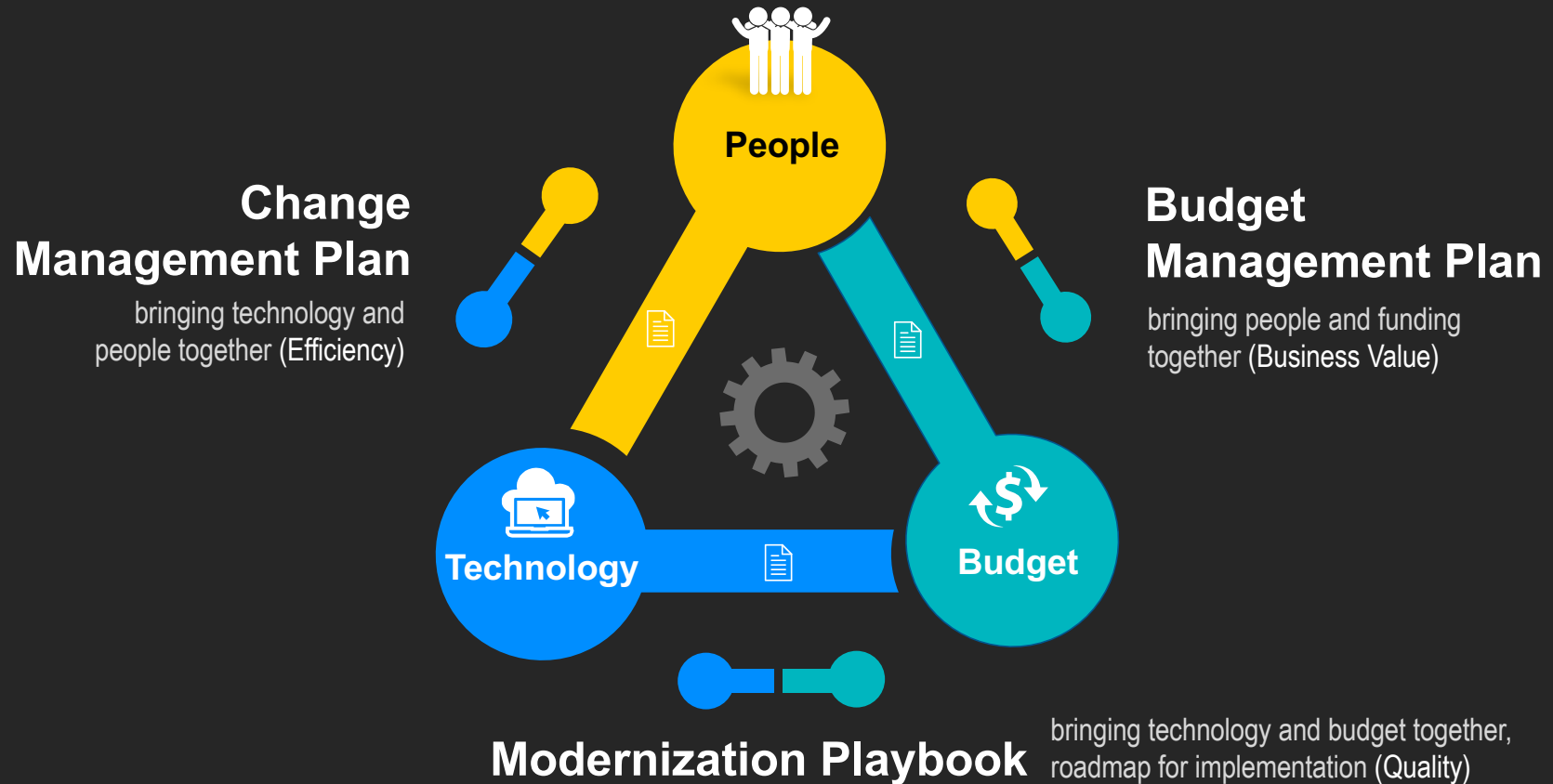
Age of Federal Enterprise Systems

System Age in Years

The **yellow line** indicates the advent of **modern systems** (network-connected, graphically-enabled, data-driven, etc.) and signifies the obsolescence of many critical enterprise systems



The Modernization Triangle



Modernization Playbook



Modernization Playbook

1. Create a **plan** (with change management and MGT payback) and **evangelize** the vision
2. Implement an **agile**-based work management and communication strategy
 - o -----
3. Establish **capacity**
4. **Train** team
 - o -----
5. Assess application **environment**
 - o -----
6. Incorporate **modern architecture** stack and tooling
7. Consider **low code / no code** options
8. Investigate **cloud** options
 - o -----
9. Incorporate **security**
 - o -----
10. Ensure a **data-centric** approach (start with outcomes in mind and focus on data quality)
 - o -----
11. Consider **user experience** including mobility options
 - o -----
12. Construct automated **pipeline**
13. Incorporate comprehensive (largely automated) **testing**
14. Establish a light-weight **governance** model (addressing security, data and process)
 - o -----
15. **Deploy** business value quickly but incrementally
 - o -----
16. **Operationalize** it



security



cloud



governance



Modernization Change Management

IT Shop Upheaval

Design Thinking

Agile Tools and Techniques

Repurpose and Reuse

PaaS and SaaS

39%

of senior agency personnel surveyed who considered skills and experience to be primary factors for their agencies' inability to move to the cloud¹

Agile Use

Projects initiated using agile jumped from 50% in 2016 to 80% in 2017²

95%

of all security incidents had human error as a contributing factor³

Federal Spending on IT O&M and Development, Modernization and Enhancement

Development,
Modernization, and
Enhancement

\$19.2B



Operations and
Maintenance

\$61.2B

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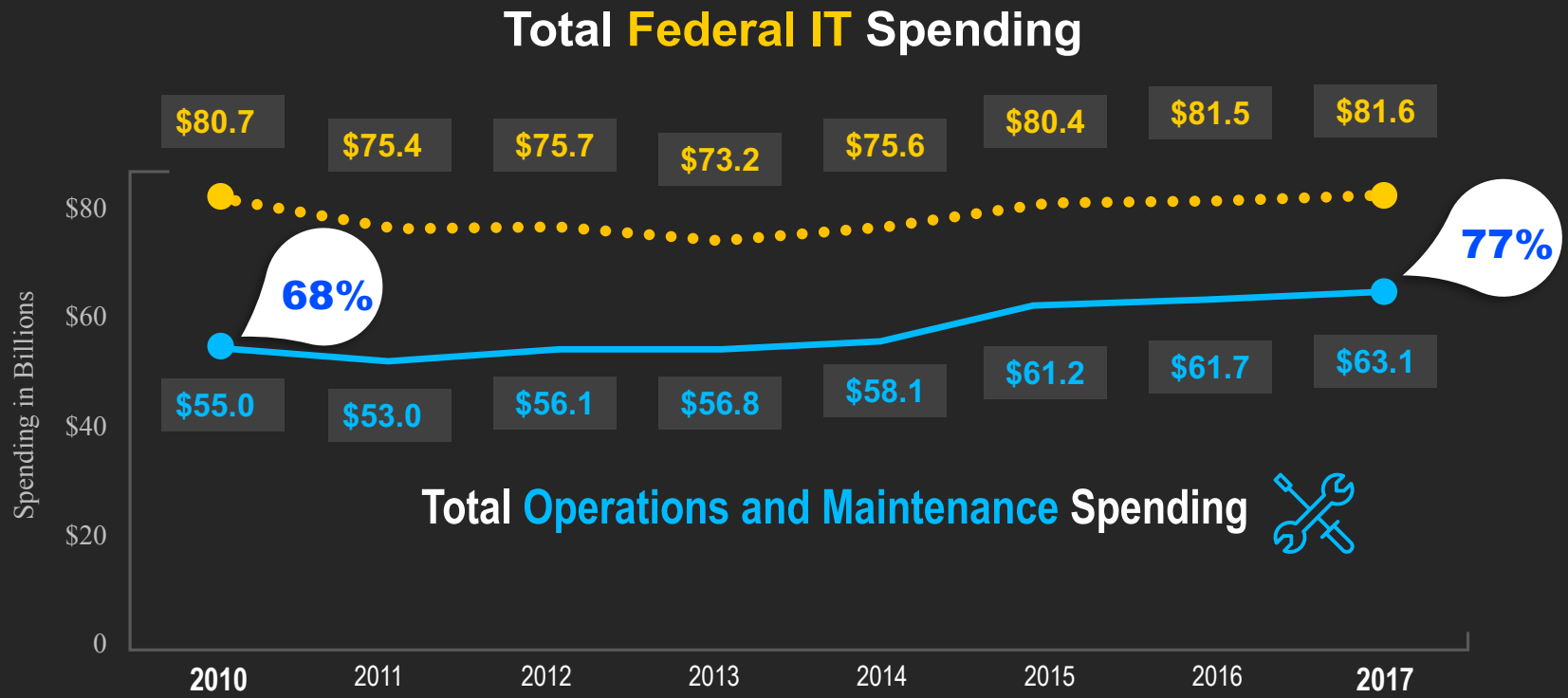


Operations and
Maintenance

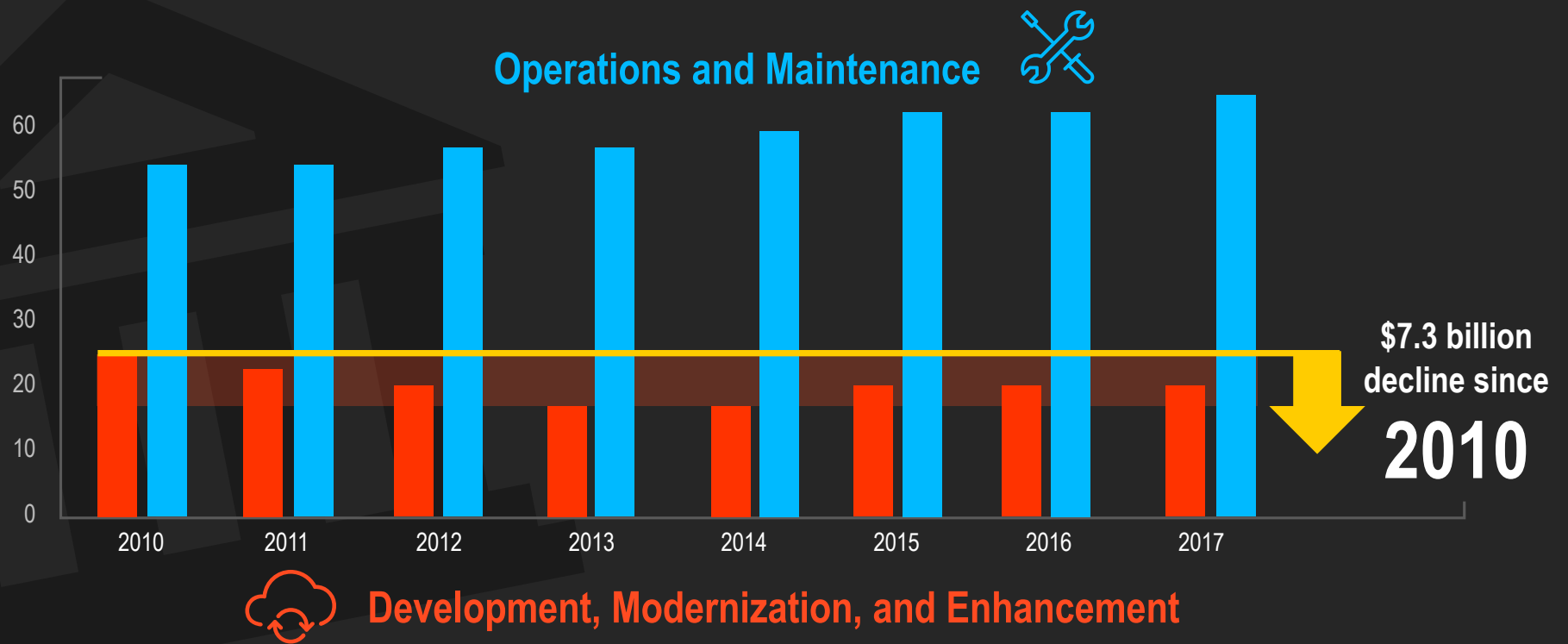
\$61.2B

77% Imbalance

% of IT Spending on O&M From FY 10 to FY 17



Total Federal IT Spending by Type (in Billions)



Modernization Budget Management

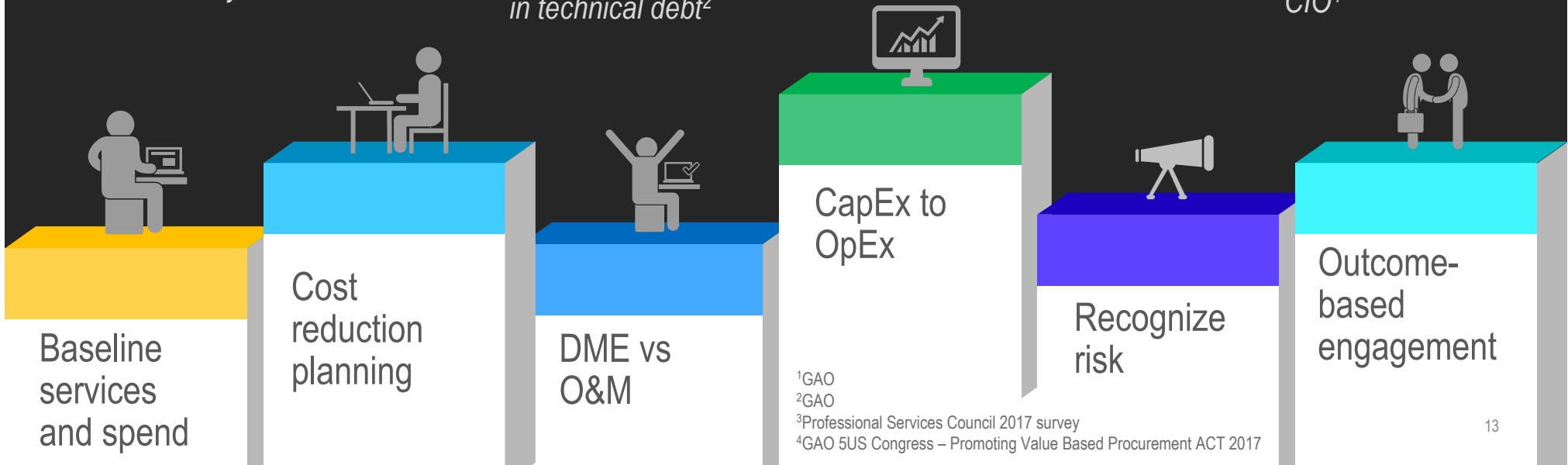
"Innovation can be driven from resource-scarce environments." - Harvard Business Review

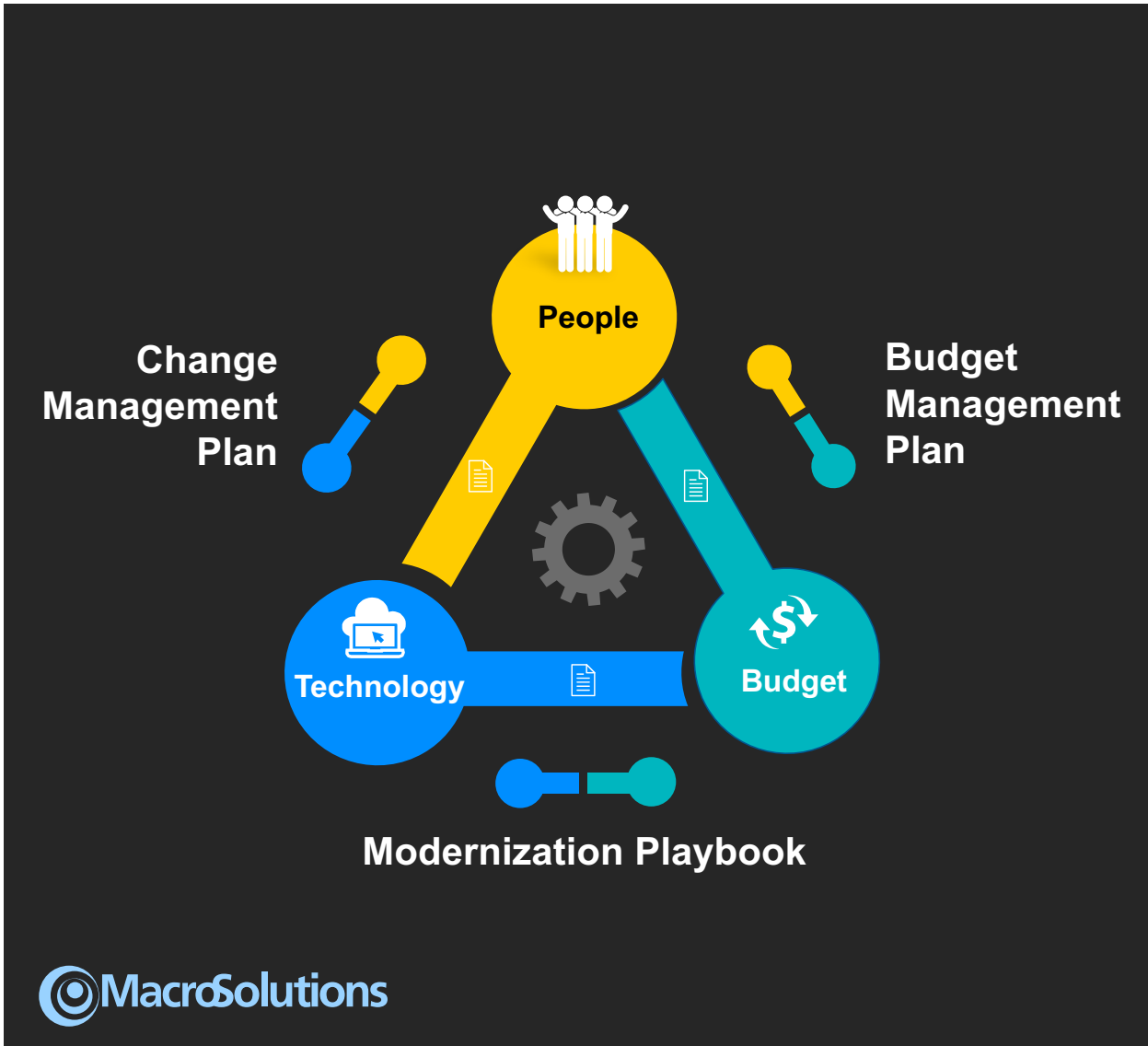
77% of the \$90+B IT budget on operating and maintaining legacy systems¹

Federal IT systems contain **\$7.5B** in technical debt²

72% of Federal CIOs said the majority of applications in their agencies are legacy systems³

50% of agencies lack a permanent CIO⁴





Modernization Business Value

- Improved performance
- Improved customer satisfaction
- Reduced cost of ownership

Modernization Checklist

Fortune favors the brave

- ✓ Get familiar with Management Act
- ✓ Use Modernization Triangle to build case
- ✓ Convert to Agile
- ✓ Keep focus on efficiency and ROI
- ✓ Align staff to new realities
- ✓ Seek advice on roadmap
- ✓ Incorporate PaaS or SaaS
- ✓ Bake in security (DevSecOps)
- ✓ Identify savings through consolidation, simplification and standardization
- ✓ Baseline performance and track actuals to efficiency and ROI targets





Thank you For listening today


Todd Hager


Vice President, Macro Solutions



 Send your message, advice, and suggestions at
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