

*Setting the Compass*

# Journey to the Cloud

Strategies, Trends, Best Practices & Lessons Learned

DIR Technology Forum

October 3, 2019

# NEWS AND TRENDS



STATE CLOUD  
READINESS REPORT

State agency IT leaders see cloud computing as a pivotal pathway to improving mission services. But impediments, including acquisition capabilities, remain.

CIA's Cloud is 'Pretty Close' to Invincible, CIO Says

Nextgov

CIA's CIO John Edwards stated:

*"It's the best decision we've ever made."*

*"It's the most innovative thing we've ever done,"* Edwards said in a June 14 speech at AWS' Public Sector Summit. *"It is having a material impact on both the CIA and the IC."*

NAS CIO  
Representing Chief Information Officers of the States

STATE CIO TOP 10 PRIORITIES  
2019 Strategies, Management & Process Solutions

1. Security and Risk Management  
governance; budget and resource requirements; security frameworks; data protection; training and awareness; insider threats; third party security practices as outsourcing increases

2. Cloud Services  
cloud strategy; proper selection of service and deployment models; scalable and elastic IT-enabled capabilities provided "as a service" using internet technologies

Aug 23, 2018

OMB, GSA Get Ready to Upgrade Cloud  
First Into New Cloud Smart Strategy

Gartner.

The worldwide public cloud services market will reach over \$221 billion in 2019, growing 16.0% over 2018 in U.S. dollars (17.8% in constant currency). With software-as-a-service comprising over 40% of revenue, the total market will reach just under \$400 billion in 2023.

Forecast: Public Cloud Services, Worldwide, 2017-2023, 2Q19 Update

Gartner Top Technology Trends for Federal CIO's

- Cloud
- Automation for operational improvements
- Advanced analytics/business intelligence
- Cybersecurity
- Artificial intelligence/machine learning
- Digital product management
- Digital government technology platform

OCT 23 2014 CLOUD

14 Tenets of California's Cloud-First Policy

The new policy requires state agencies to evaluate cloud computing as an alternative investment for all IT projects.

by Nicole Blake Johnson

Nicole is a social media journalist for the CDW family of technology magazines.

# SO, THE CLOUD IS READY BUT ARE YOU?

Where to start: Private, public or hybrid?

**90%**

of organizations will use multiple  
cloud services and platforms by  
2022\*

\*Gartner Forecast Analysis: Public Cloud Services, Worldwide, 2016-2022, 2Q18 Update.

# COULD THIS BE ALL ABOUT MONEY?

In the beginning

Traditional On-Premise IT

Paying for what you **BUY**



- ✓ Dedicated Infrastructure / CapEx
- ✓ Manual provisioning
- ✓ Fixed Capacity
- ✓ Over-engineered Infrastructure
- ✓ In house development work

Cloud early years

Infrastructure-aaS

Paying for what you **USE**



- ✓ Shift to OpEx Infrastructure
- ✓ Frictionless provisioning
- ✓ Unmanaged "meter"
- ✓ Compute and storage centric
- ✓ Software deployed on IaaS

The new normal

Software-aaS,  
Platform-aaS

Paying for what you **NEED**



- ✓ Shift to OpEx as-a-Service
- ✓ Frictionless provisioning
- ✓ Dynamic Capacity
- ✓ Secure Resource Pooling
- ✓ Agile Operations, DevOps

# READY, STEADY, REBOOT

Governance to include the right people, about the right decisions in the right process.





# WHO DECIDES AND HOW DO WE DECIDE?

## Cloud Governance is a part of IT Governance

Set the stage for success (rules, roles and processes)

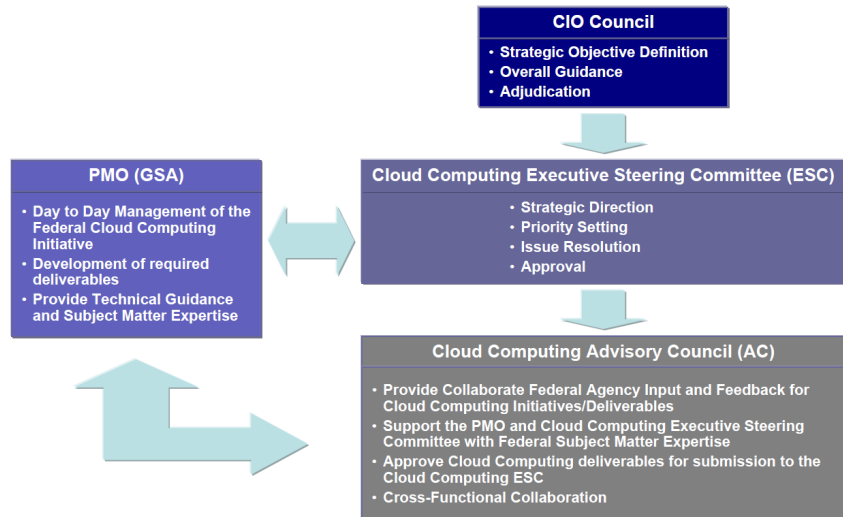
Include business and IT and be agile

Establish business executive, CIO and EA capabilities

Consider financial, operational and technological factors

Draw from leading models and frameworks

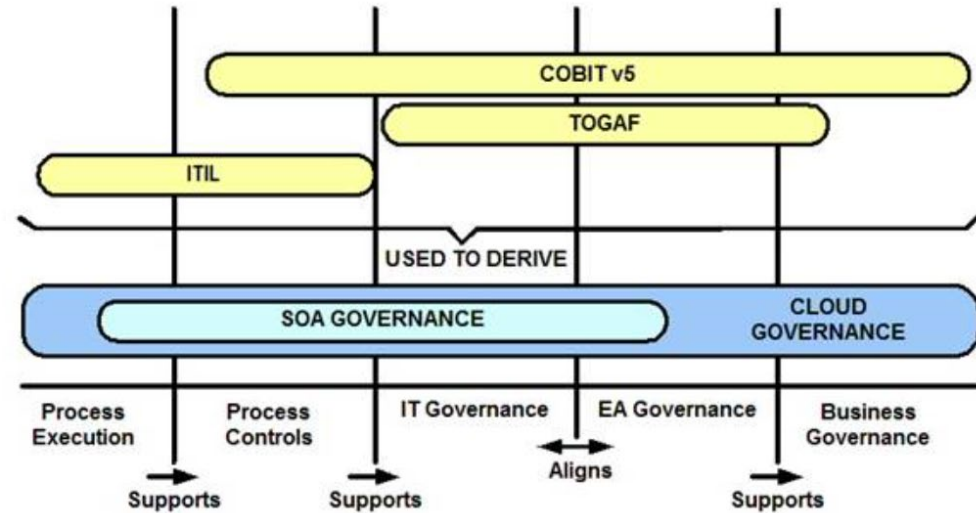
### Federal Cloud Computing Governance Structure



Example of Federal Organizational Structure

### Position of the Cloud Computing Governance Framework in the Landscape

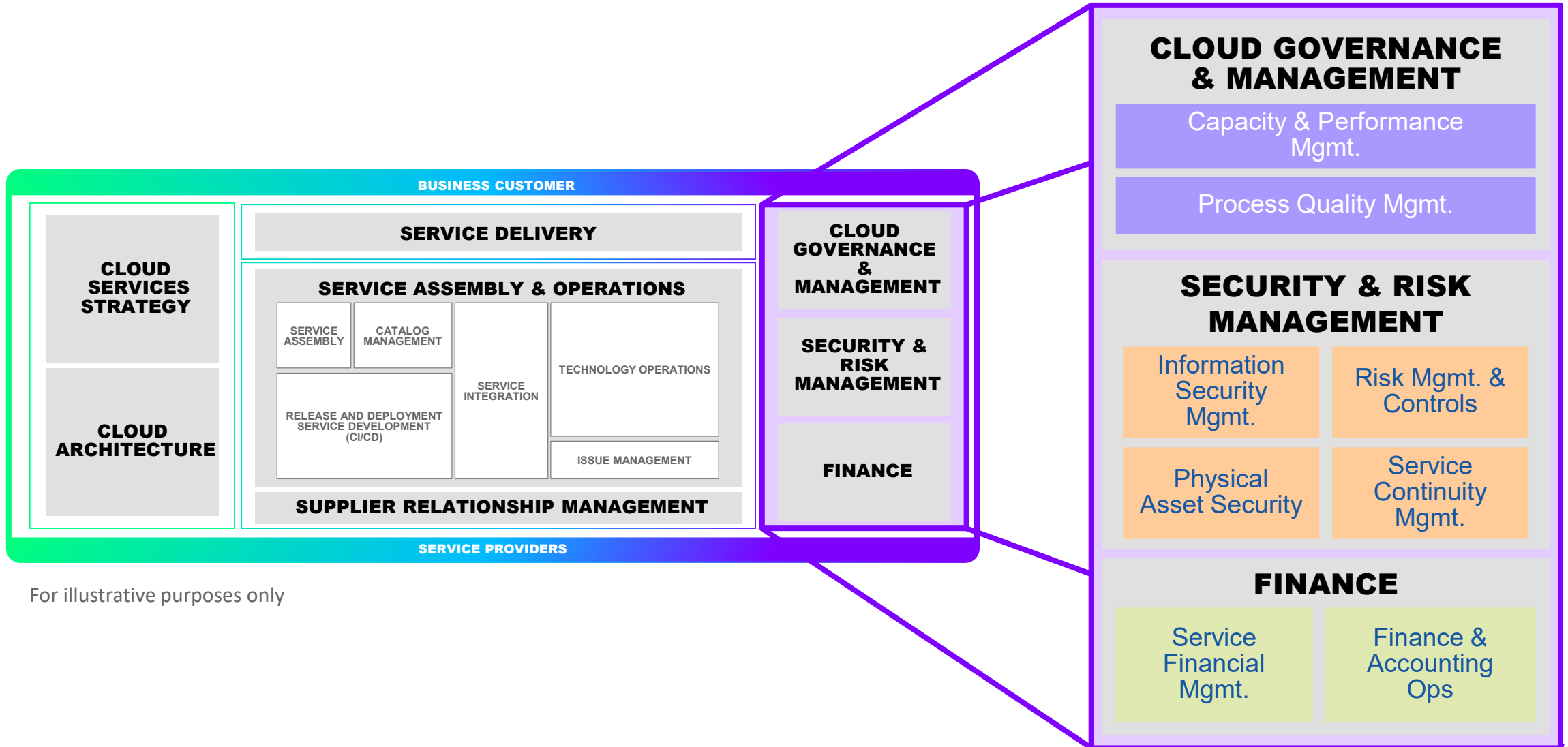
The figure illustrates the scope and relationship of the Cloud Computing Governance Framework with other industry frameworks. It shows the position of the Cloud Computing Governance Framework in relation to other forms of governance within the enterprise.



Example of Operational Structure (OpenGroup)

# CLOUD OPERATING MODEL

## BASIC FRAMEWORK AND FUNCTIONS



# EXAMPLE GOVERNANCE DECISION FACTORS



## BUYING STRATEGY

Benefit from best practices



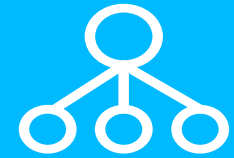
## USAGE STRATEGY

Reduce your total cost of ownership



## TERMS AND CONDITIONS

Capitalize on strategic relationships



## ESTATE GOVERNANCE

Maximize optimization savings



## BROKER SERVICES

Simplify vendor management



## BILLING SERVICES

Utilizing the right processes and controls



## ENTERPRISE SUPPORT

Leverage shared services

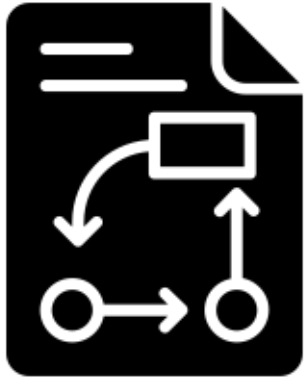


## CLOUD MANAGEMENT SERVICES

Establish service integration and management



# BEST PRACTICES



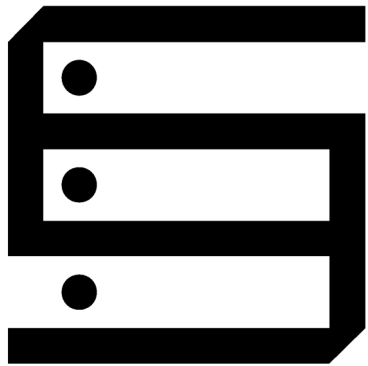
STRATEGIC DECISION



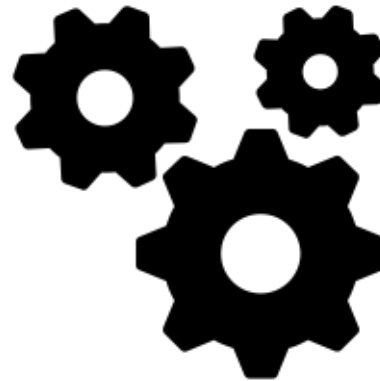
VALUE CASE



SECURITY POLICY



APPLICATION READINESS



OPERATING MODEL



ACTIVE MANAGEMENT

# BEST PRACTICES **STRATEGIC DECISION**

## **BALANCE MORE THAN THE BOOKS**

Strategies for **cloud** should consider on-premise, public cloud and private cloud, incorporating **proper sizing** that balances the levers of cost, performance, security and resilience.



# BEST PRACTICES

## VALUE CASE

# BUILD A SOUND BUSINESS CASE

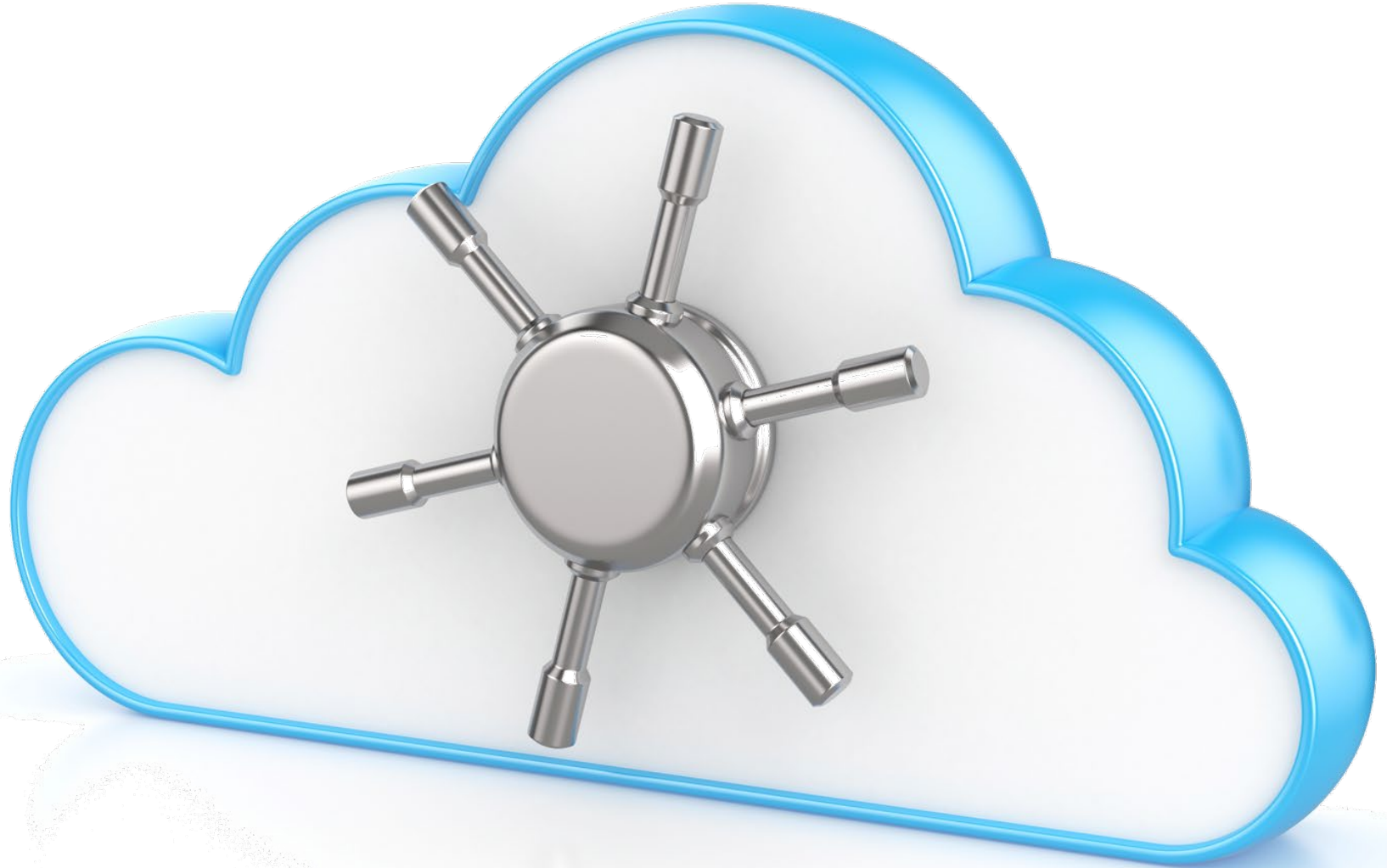
Be prepared to **justify cloud's value**, especially as it relates to existing large investments in legacy systems and infrastructure (such as data centers).



# BEST PRACTICES SECURITY & PRIVACY POLICY

## PLAY IT SAFE

Ensure proper adherence to all legal, **risk and compliance** requirements. **Security operations**, DevOps, and threat modeling should also be addressed and incorporated in cloud governance.



# BEST PRACTICES

## APPLICATION READINESS

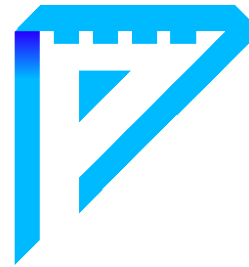
# APPROACH APPLICATIONS THE RIGHT WAY



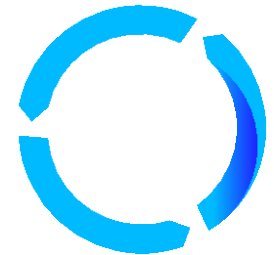
LEGACY  
APPLICATIONS  
DISPOSITION



APPLICATION  
MIGRATION



MODERN APPLICATION  
ARCHITECTURE



NEXT-GEN APPLICATION  
DEVELOPMENT

# BEST PRACTICES OPERATING MODEL

## PREPARE FOR CHANGE

Consider and plan for the impact of any cloud first or enterprise cloud journey on the **people, processes, organization and ecosystem.**



# BEST PRACTICES

## ACTIVE MANAGEMENT

# CONTROL THE BIG PICTURE

A **holistic management approach** is needed to manage multiple cloud environments, various tools and the growing number of services each cloud provider delivers.

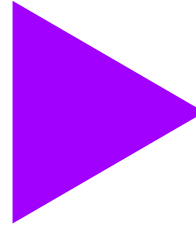


# LESSONS LEARNED

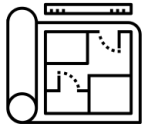
Addressing these three major pitfalls seem critical to ensuring a successful journey to the cloud.



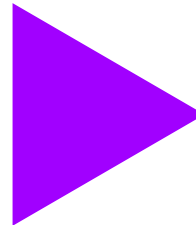
## Lack of Governance



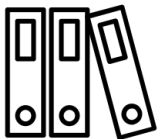
- Inconsistent buy-in, operations, results.
- Lack of accountability.
- Project delays due to slow / poor decision-making.



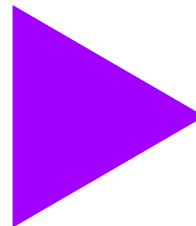
## Incomplete Architectural Direction



- Poor understanding of the goals and roadmaps.
- Potentially developing a broken, incomplete, or ineffective system.

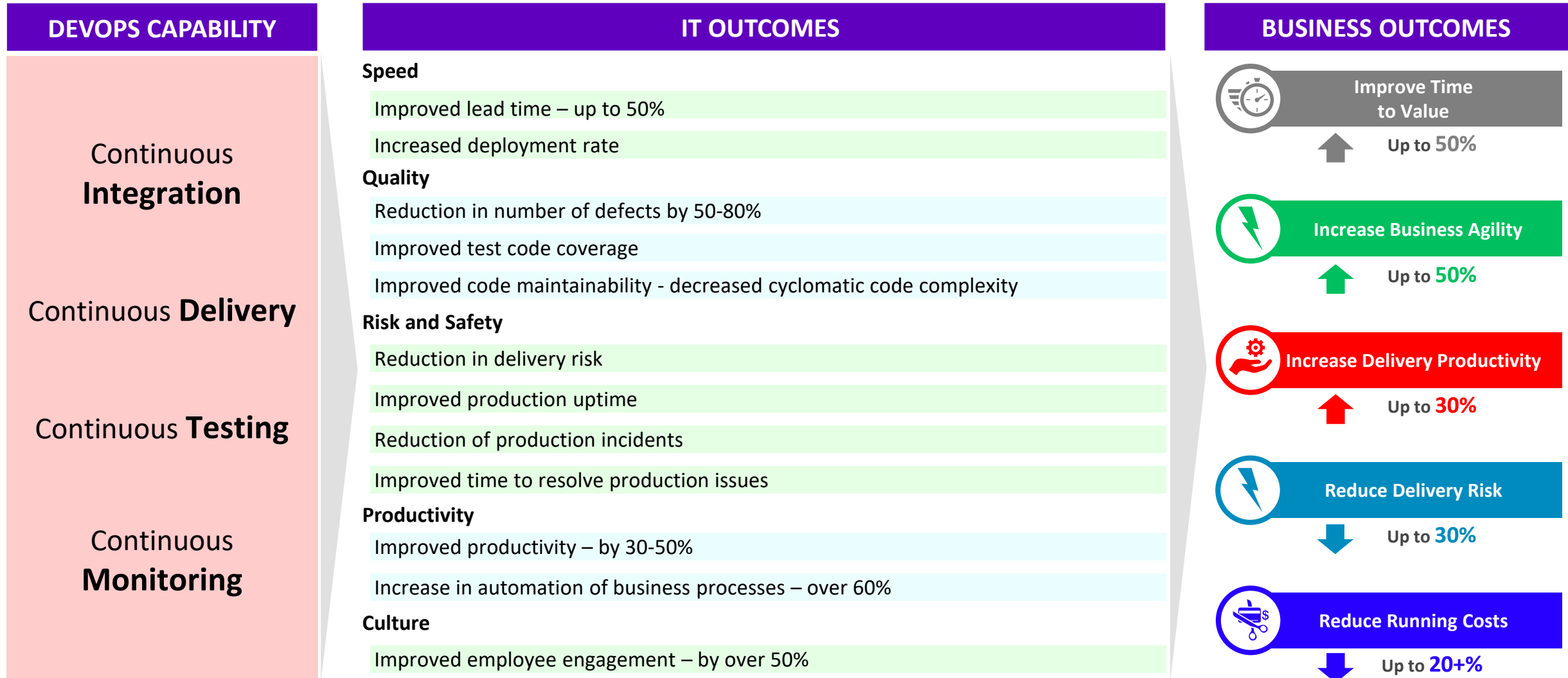


## Difficulty Acquiring New Skills



- New skills required across teams / workstreams.
- Difficulty operationalizing / onboarding additional resources, scaling.

# WHEN COMBINED WITH DEVOPS YOU CAN UNLOCK EVEN MORE VALUE







# THE TEXAS COMPTROLLER

## PANEL DISCUSSION

## A CLOUD SUCCESS STORY





# CAPPS CORE MODULES

## CAPPS Financials

- Accounts Payable
- Asset Management
- General Ledger/  
Commitment Control/  
Cash Receipts
- Purchasing/eProcurement

## CAPPS HR/Payroll

- Core HR
- Payroll
- Position Management
- Time and Labor

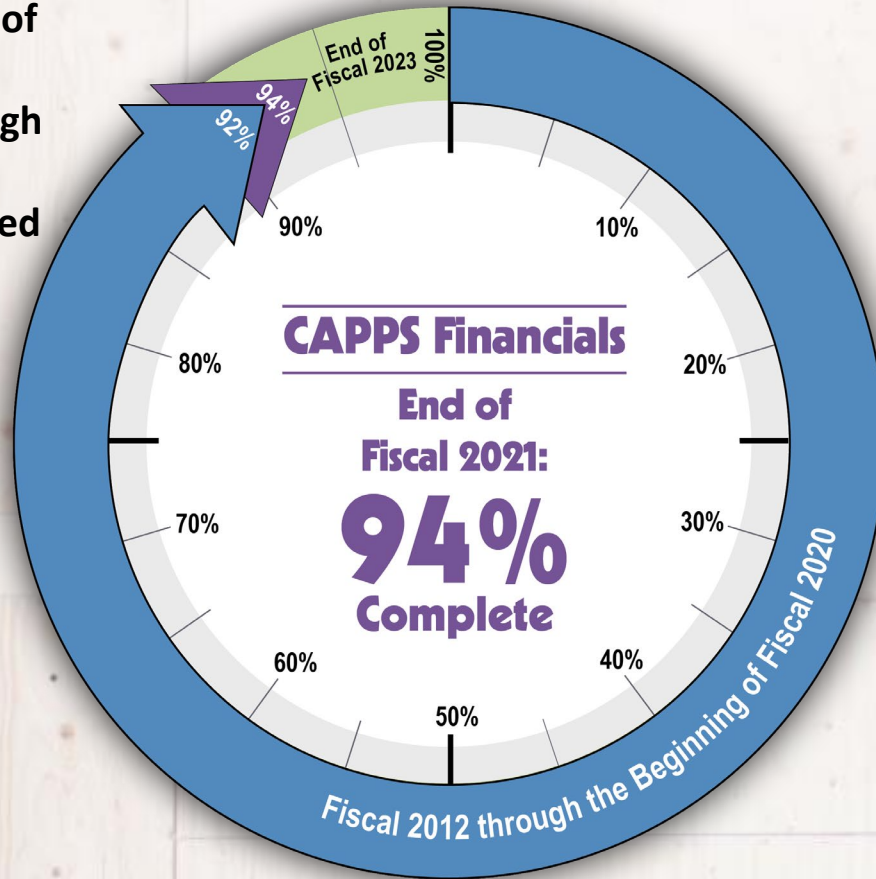
## ADDITIONAL MODULES

- Billing/Accounts Receivable
- Customer Contracts
- Grants
- Inventory
- Project Costing

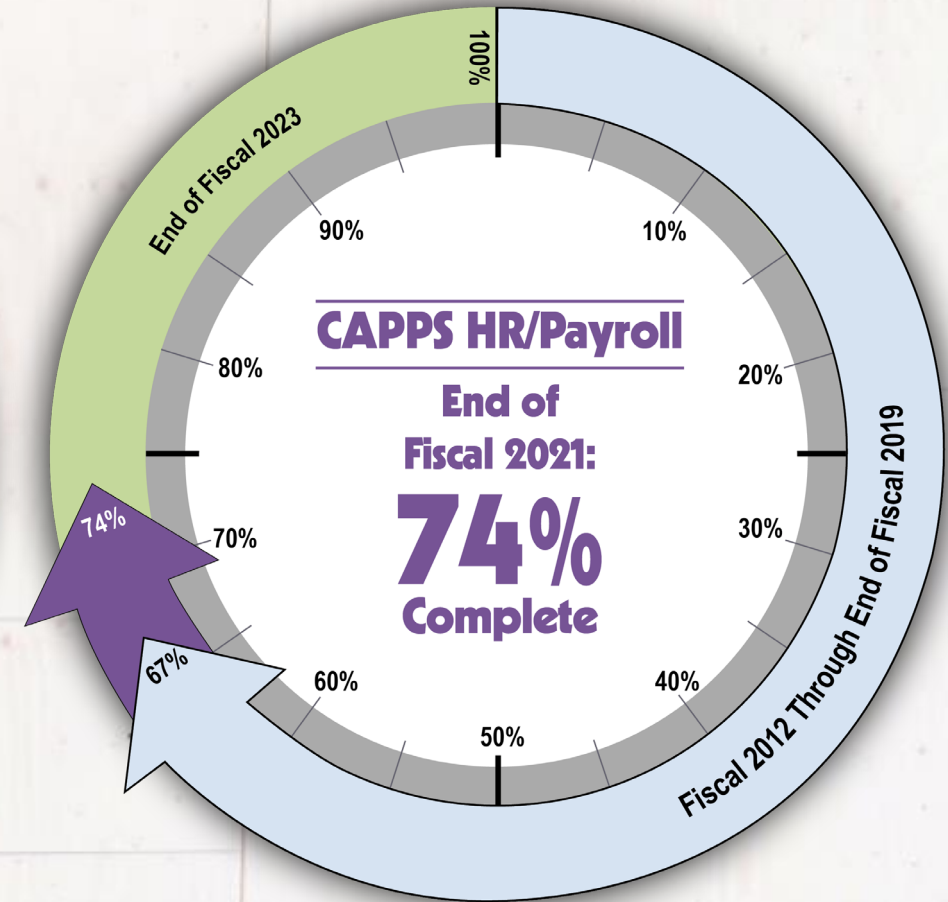
- Recruit
- Learn
- Performance Management

# CAPPS BY THE NUMBERS

- 113 agencies deployed by end of FY2021
- \$92.8 billion in spending through CAPPS
- ~115,000 employees on-boarded



**CAPPS Financials**

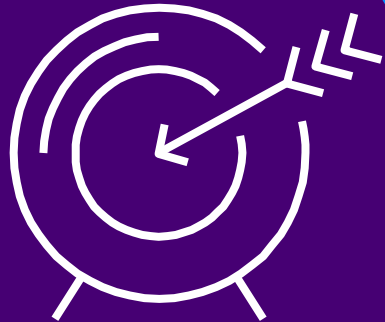


**CAPPS HR/Payroll**



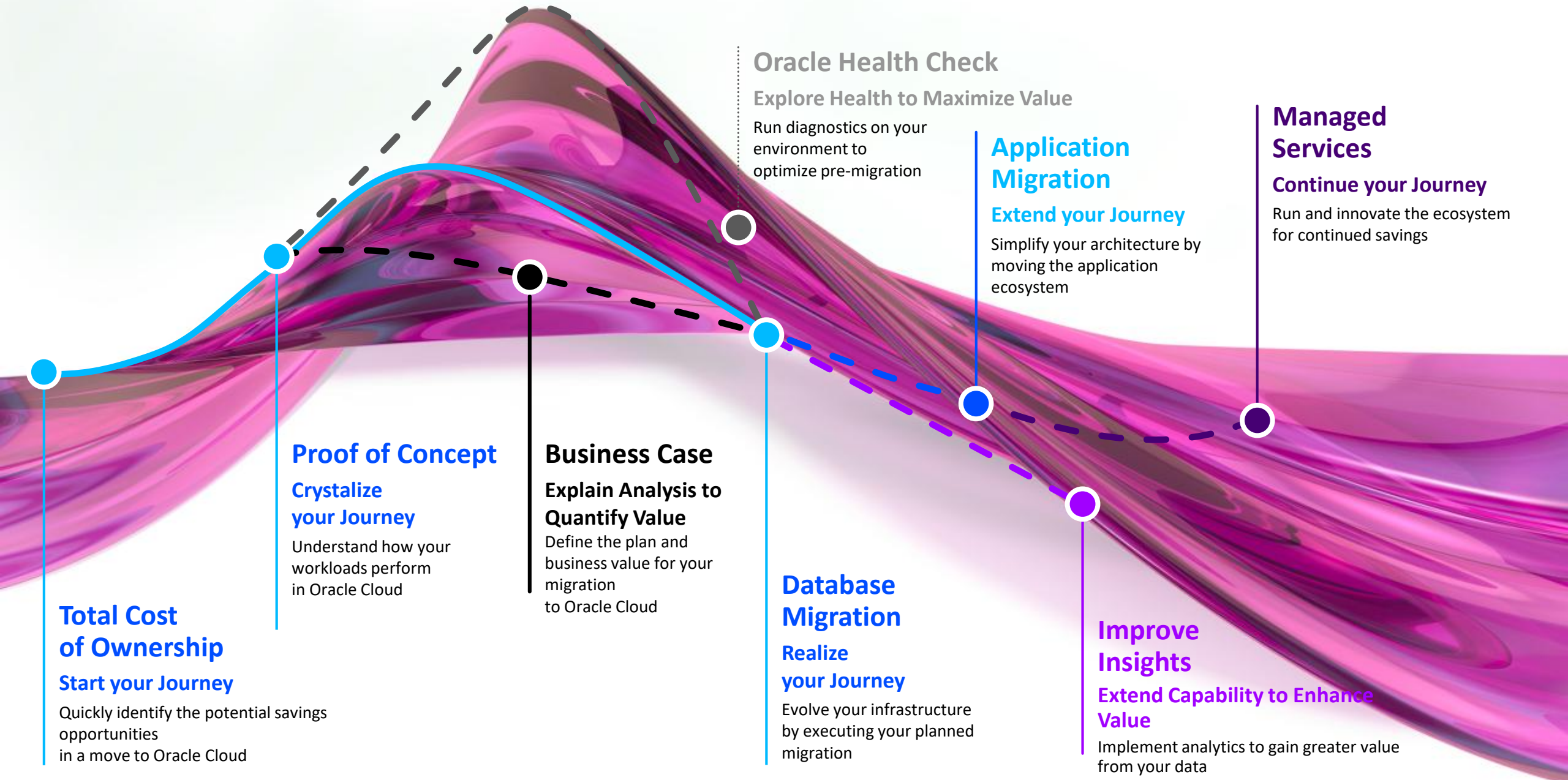
# GOALS OF OCI

**As the measure for success, leaders at the Texas Comptroller of Public Accounts identified four key objectives for the move to Oracle Cloud Infrastructure:**



- *Projected 50 percent cost savings*
- *Improved system performance*
- *A system design that supports high application availability*
- *The ability to add agencies without a major installation effort or architecture change*

# JOURNEY TO ORACLE CLOUD



# OCI BENEFITS & METRICS



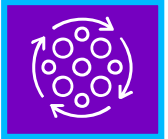
**15%** increase in the number of processes that run in less than 30 seconds (~5k more processes per month run in under 30s in OCI)



**50%** projected cost savings over 5 years



**50%** reduction in PO dispatch run time



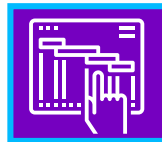
**60%** reduction in PO / AP print run time



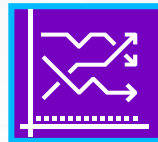
**40%** reduction in production backup run time



**50%** reduction in nightly environment refresh run time



**70%** reduction in pre-release report run time



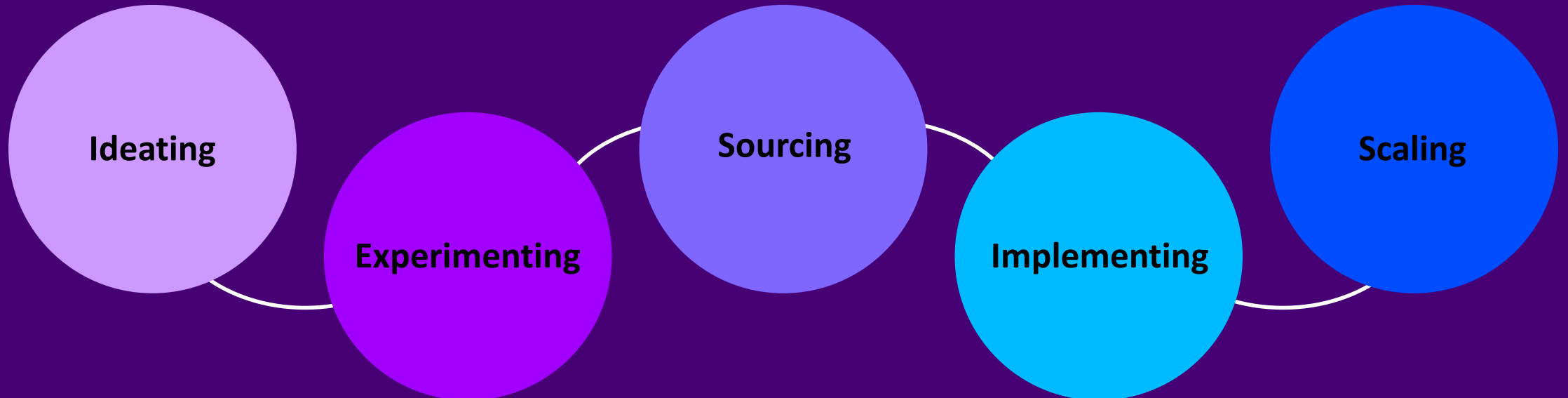
Elimination of downtime during quarterly patching

# WHERE ARE YOU IN YOUR JOURNEY TO THE CLOUD?

SOME GOVERNMENTS ARE STARTING SMALL.

OTHERS ARE TAKING “BIG STEP” APPROACHES, LIKE CLOUD-FIRST.

START WITH THE RIGHT APPROACH FOR YOU.



# THANK YOU

Rob Cohan, Accenture

Sandra Woodruff, Texas Comptroller

Chris Pasternak, Accenture

