

# State of Alaska

December 18, 2019

ALVAREZ & MARSAL

*Alaska Administrative Productivity and Excellence Project*

Information Technology  
Current State Assessment



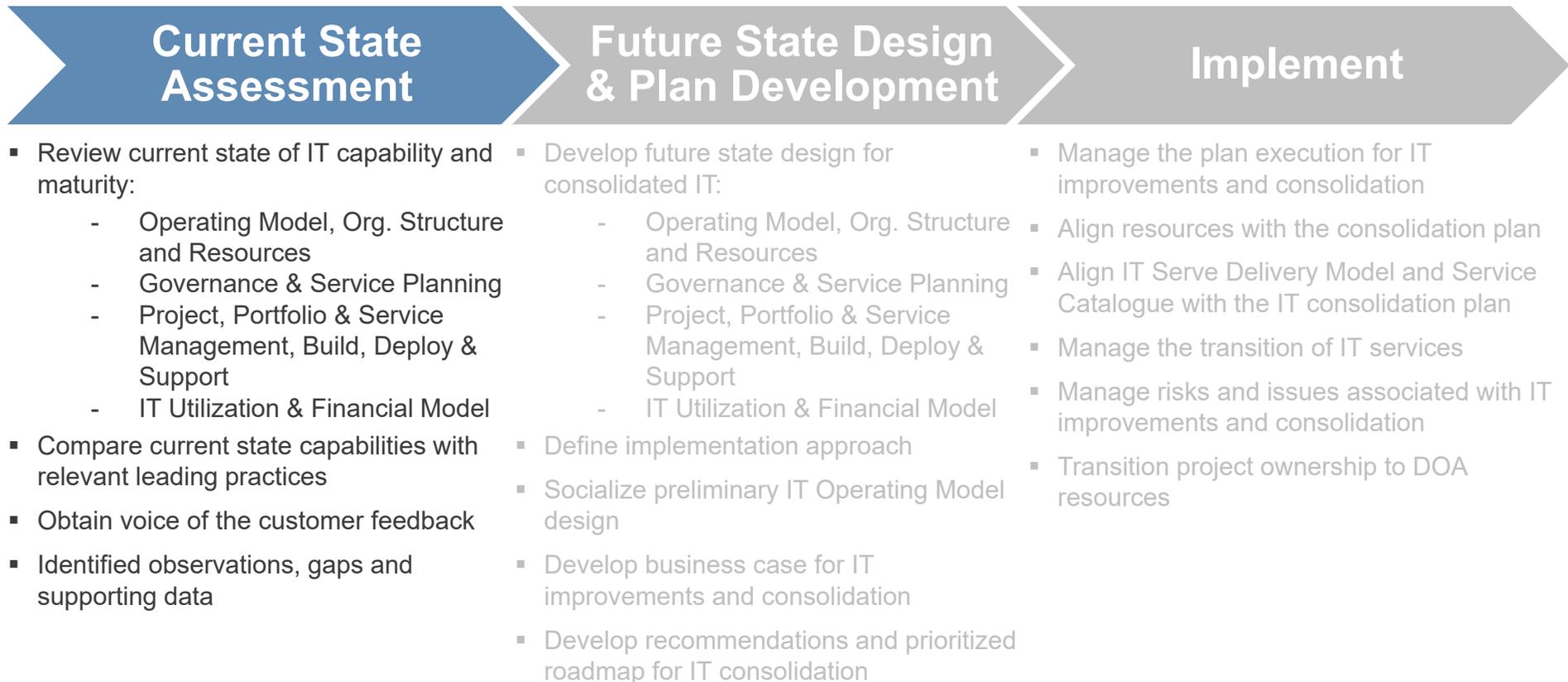
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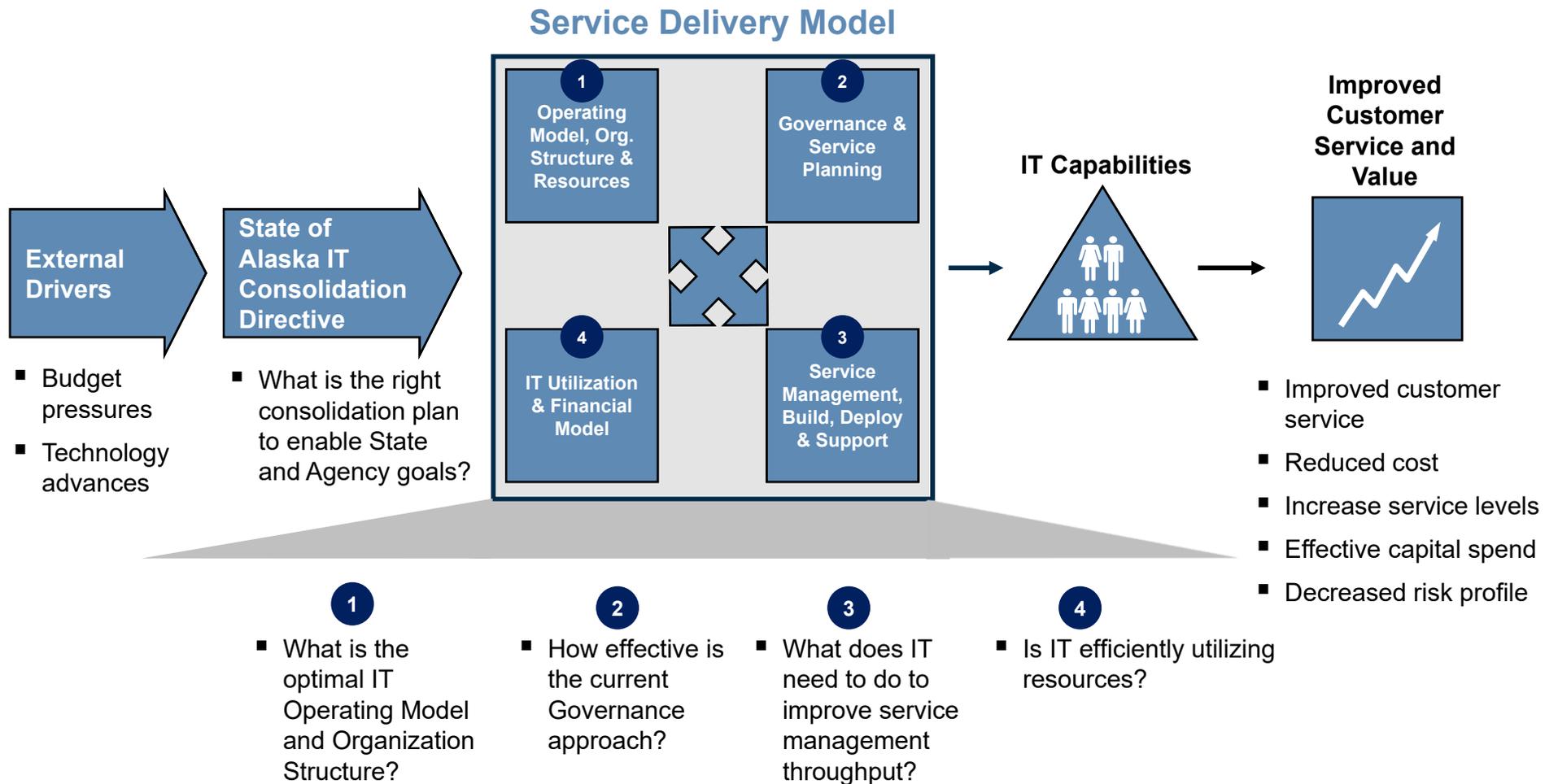
# Project Approach

The AAPEX project will perform the following phases of analysis, design, recommendations and implementation to improve State of Alaska IT capabilities



# Assessment Framework

Evaluation of current state IT capabilities was performed through utilizing the following assessment framework



# Focus Interviews Across OIT and State Agencies

A&M interviewed 27 IT stakeholders across 14 agencies

<b>Administration (9)</b>	<b>Law (1)</b>	<b>Health &amp; Social Services (2)</b>	<b>Motor Vehicles (1)</b>	<b>Public Safety (1)</b>
<ul style="list-style-type: none"> <li>▪ CIO</li> <li>▪ Chief Finance &amp; Workforce Officer</li> <li>▪ ASD</li> <li>▪ DTO</li> <li>▪ CTO, Portfolio Planning &amp; Policy</li> <li>▪ CTO, Telecom</li> <li>▪ CTO, Data Centers</li> <li>▪ CTO, Strategic Partner Services</li> <li>▪ Chief Information Security Officer</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ ASD</li> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>
	<b>Revenue (2)</b>	<b>Labor (1)</b>	<b>Natural Resources (2)</b>	<b>Environmental Conservation (1)</b>
	<ul style="list-style-type: none"> <li>▪ DTO</li> <li>▪ ASD</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ ASD</li> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>
<b>Transportation (2)</b>	<b>Education (1)</b>	<b>Comm, Comm &amp; Econ. Development (1)</b>	<b>Fish &amp; Game (2)</b>	<b>Corrections (2)</b>
<ul style="list-style-type: none"> <li>▪ ASD</li> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ ASD</li> <li>▪ DTO</li> </ul>	<ul style="list-style-type: none"> <li>▪ ASD</li> <li>▪ DTO</li> </ul>

# Voice of the Customer IT Survey Results in Generally Positive Responses

**Voice of the Customer feedback on IT performance across OIT and State Agencies was generally positive from 336 respondents from across all 15 agencies**

- Voice of the Customer respondents indicated that all State of Alaska IT services included in the survey were both high in importance to the State of Alaska and high in IT performance of those activities on a 0-5 scale
  
- The highest performing IT activities include:
  - We have been trained in policies and procedures regarding phishing and other forms of cyber attacks (4.19)
  - We are notified with timely communications regarding upcoming impacts to system availability (3.92)
  - We have a one-stops shop help desk that manages and resolves all my requests (3.65)
  
- The lowest performing IT activities indicating potential areas for improvement include:
  - We have reliable wireless access in all office locations across the state (2.21)
  - Information technology projects for my agency / department are delivered on time, on budget with minimal software bugs or issues (2.31)
  - Information technology projects delivered for my agency / department achieve the expected results (2.42)

# Evaluated IT Capabilities Against COBIT Standard

Evaluation of current state IT capabilities was performed utilizing the following COBIT framework. COBIT brings together five principles that enable IT effectiveness

## Processes for Governance of Enterprise IT

### Evaluate, Direct and Monitor

<b>EDM01</b> Ensure Governance Framework Setting & Maintenance	<b>EDM02</b> Ensure Benefits Delivery	<b>EDM03</b> Ensure Risk Optimization	<b>EDM04</b> Ensure Resource Optimization	<b>EDM05</b> Ensure Stakeholder Transparency
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## Processes for Management of Enterprise IT

### Align, Plan and Organize

<b>APO01</b> Manage the IT Mgmt Framework	<b>APO02</b> Manage Strategy	<b>APO03</b> Manage Enterprise Architecture	<b>APO04</b> Manage Innovation	<b>APO05</b> Manage Portfolio	<b>APO06</b> Manage Budget & Costs	<b>APO07</b> Manage Human Resources
<b>APO08</b> Manage Relationships	<b>APO09</b> Manage Service Agreements	<b>APO10</b> Manage Suppliers	<b>APO11</b> Manage Quality	<b>APO12</b> Manage Risk	<b>APO13</b> Manage Security	

### Build, Acquire and Implement

<b>BAI01</b> Manage Programs & Projects	<b>BAI02</b> Manage Requirements Definition	<b>BAI03</b> Manage Solutions Identification & Build	<b>BAI04</b> Manage Availability & Capacity	<b>BAI05</b> Manage Organizational Change Enablement	<b>BAI06</b> Manage Changes	<b>BAI07</b> Manage Change Acceptance & Transitioning
<b>BAI08</b> Manage Knowledge	<b>BAI09</b> Manage Assets	<b>BAI10</b> Manage Configuration				

### Deliver, Service and Support

<b>DSS01</b> Manage Operations	<b>DSS02</b> Manage Service Requests and Incidents	<b>DSS03</b> Manage Problems	<b>DSS04</b> Manage Continuity	<b>DSS05</b> Manage Security Services	<b>DSS06</b> Manage Business Process Control
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### Monitor, Evaluate and Assess

<b>MEA01</b> Monitor, Evaluate & Assess Performance & Conformance
<b>MEA02</b> Monitor, Evaluate & Assess the System of Internal Control
<b>MEA03</b> Monitor, Evaluate & Assess Compliance with External Requirement



# Process Maturity Assessment Approach

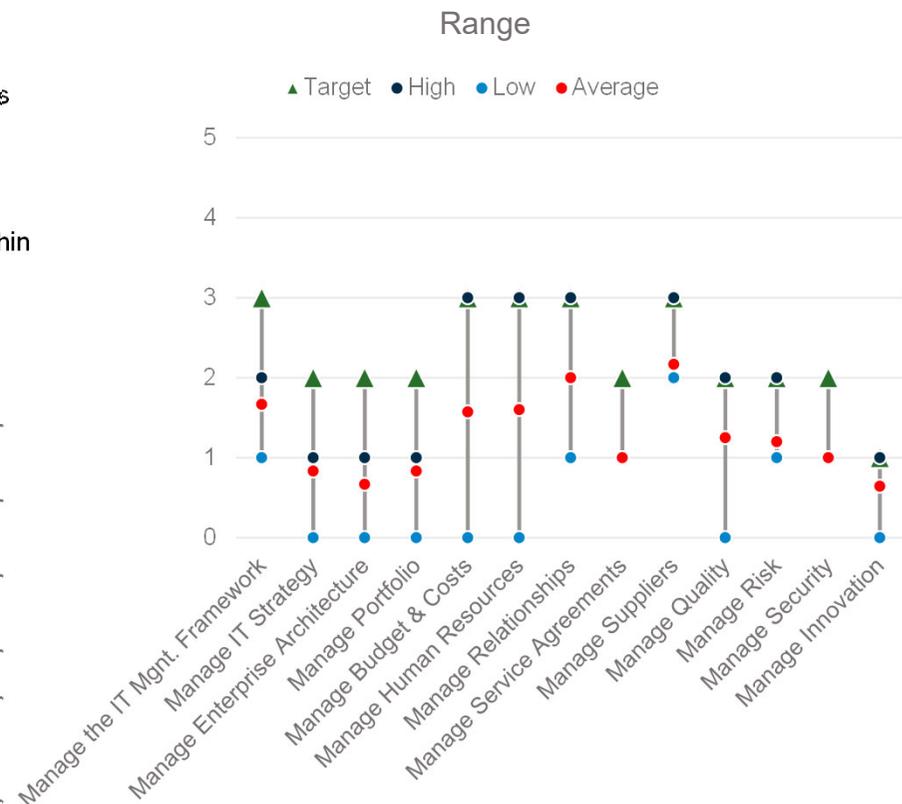
COBIT process evaluation scores were averaged to create a baseline - A&M assigned a performance improvement target for each process

## How the Assessment is measured

- Each OIT participant was asked to rank each process on a 0-5 scale (see below)
- Participant scores were captured, resulting in a range of responses – high (highest score), low (lowest score) and average (calculated average across all participants). See chart.
- In some cases there was a consensus across all OIT participants scores resulting in a single average score
- A&M assigned a “target” maturity goal for each process to be achieved within the next 12 months
- Closing these process maturity gaps is the basis for improvements

Score	Definition
0 – Absence	There is absolutely no evidence of any activities supporting the process
1 – Initiated	There are ad-hoc activities present, but we are not aware of how they relate to each other within a single process
2 - Awareness	We are aware of the process but some activities are still incomplete, inconsistent and with out controls
3 – Control	The process is well defined, understood, and implemented
4 – Integrated	Input from this process comes from other well controlled processes; outputs from this process go to other well controlled processes
5 - Optimized	This process drives quality improvements, has evidence of innovation, quality management, and continuous improvement

Summary Align, Plan, and Organize IT Processes

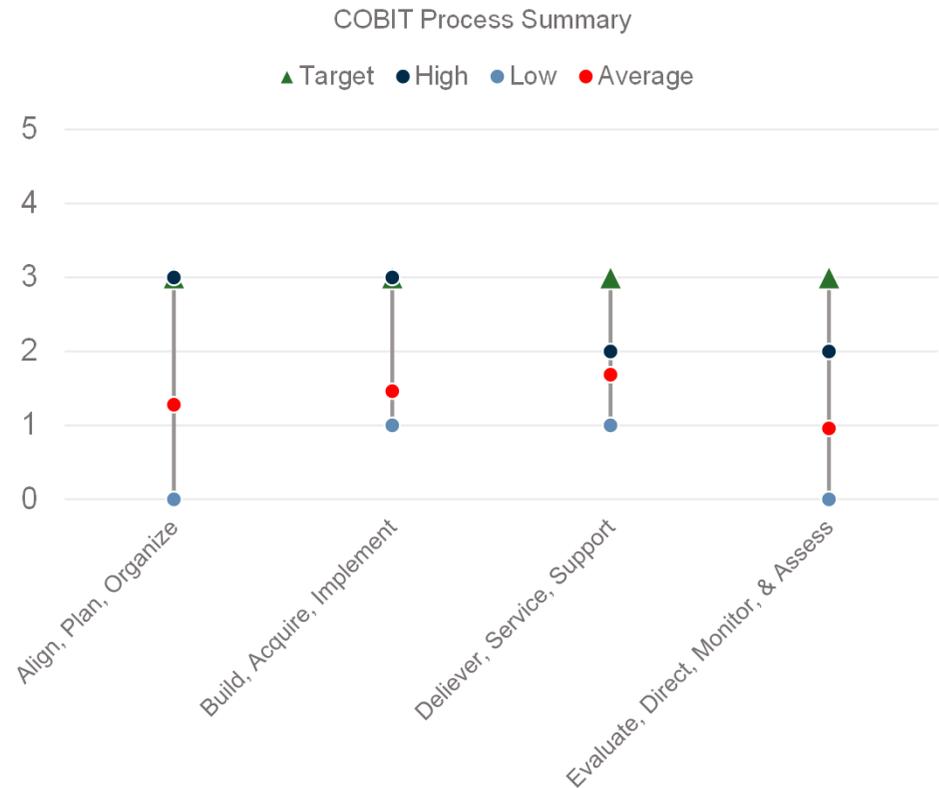


# Current State of Process Maturity – Summary View

37 processes were evaluated and zero were rated above average

## Summary

- There are supporting activities that exist across processes
- All processes rated require attention and focus to move up the maturity curve
- The highest rated processes are operations and service incident management (average of 1.7)
- Processes identified as a priority for improvement fall into the following areas:
  - Governance and service planning
  - Portfolio and project management
  - Service management
  - Build, Deploy and Support processes



# Statewide IT Process Capability Survey Results Generally Aligned with OIT Leadership Scores; Agency IT Resistance to AO 284 is Evident

IT survey scores align with OIT Leadership workshop results; centralization appears to not be well defined and communicated; challenges exist with agency adoption

## Approach

### Survey Facts

- Survey sent to 531 statewide IT employees with 178 responses (33.5%)
- The Combined Survey Distribution is OIT (44%) and Non-OIT (56%)
- The survey collected demographic data on participants including; Agency / Department, years of service with the state IT experience level, what services does the individual support and what agencies do they serve
- The survey asked each participant to score the maturity of each process capability using a maturity scale of 0 to 5 (see scoring)
- The survey also included four open ended questions on the benefits, challenges and opportunities of centralization

### Scoring

Score	Definition
0 – Absence	There is absolutely no evidence of any activities supporting the process
1 – Initiated	There are ad-hoc activities present, but we are not aware of how they relate to each other within a single process
2 - Awareness	We are aware of the process but some activities are still incomplete, inconsistent and with out controls
3 – Control	The process is well defined, understood, and implemented
4 – Integrated	Input from this process comes from well controlled processes;
5 - Optimized	This process drives quality improvements, has evidence of innovation, quality management, and continuous improvement

## Key Findings

### Survey Summary

#### Common themes for scoring results

- 37 IT processes were evaluated through workshop & survey techniques
- 91% IT survey responses from the statewide IT community are generally in alignment with OIT leadership scores

#### Common themes for the IT Survey Questions

- Most respondents believe AO 284 has not been well defined or communicated
- Agency adoption is the greatest challenge to centralization

# The Combined Survey Distribution is OIT (44%) and Non-OIT (56%)

Of 178 total responses, 44% came from OIT with the remainder from various other departments

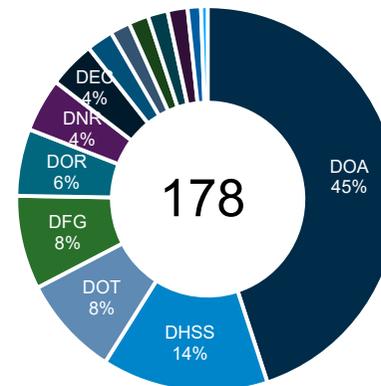
## Demographics

### Observations

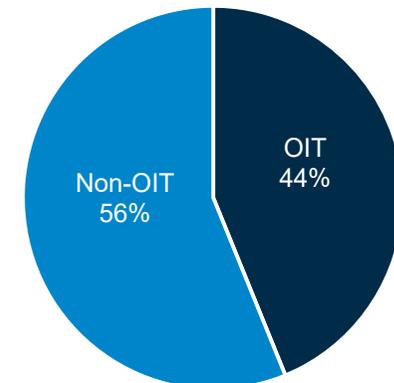
- Of 531 surveys sent, 33.5% responded
- DOA, DHSS, DOT, DFG, and DOR account for 81% of total responses
- There is no correlation between participant's tenure and average maturity rating
- DCCED, DHSS, and DEC scored the highest average maturity rating, while Law, DOT, and DOR scored the lowest
- The top 10 services supported account for 55% of all services supported

### Fact Basis

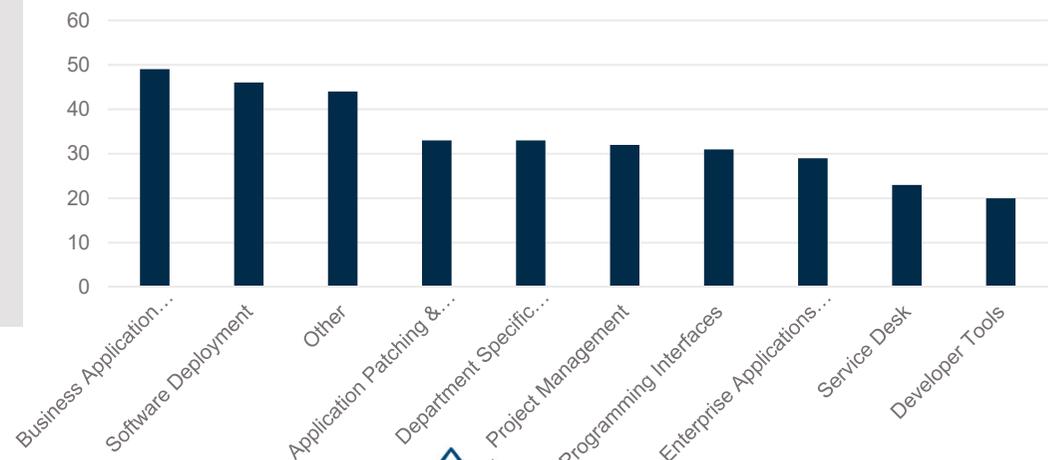
Responses by Department



OIT vs Non-OIT Responses



Top 10 Services Supported by Number of Respondents



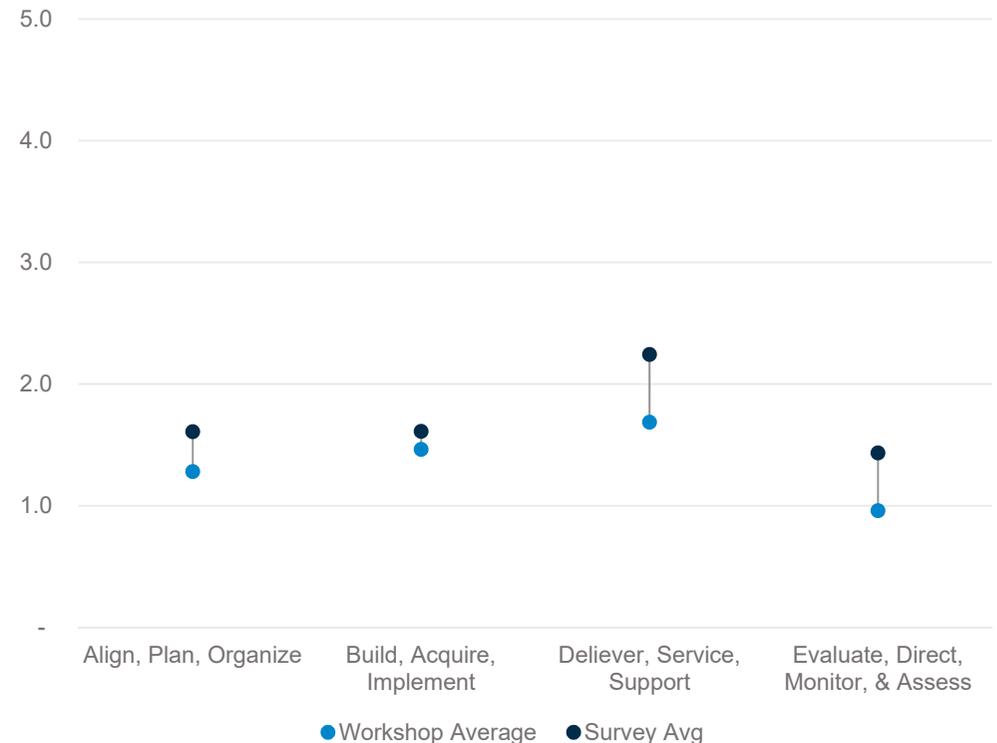
# General Alignment Between OIT Leadership and Broader IT community on Process Maturity; All Process Capabilities Scored Below 3

37 IT processes were evaluated through OIT leadership workshops and the IT survey; workshop and survey results are generally in alignment but certain processes show a variance in ratings that should be investigated

## Summary

- 50% of IT survey capability responses on average fall within a .5 range of the workshop scores
- 42% of IT survey capability responses averaged higher variance (between .5 and 1.0 difference)
- 8% of IT survey capabilities averaged variance greater than 1
- 81% of processes were rated higher on average from the survey versus workshops

COBIT Ratings (Process Group): IT Survey vs. OIT Workshops



# What We Heard

- “The IT consolidation has lacked planning, analysis, resources and prioritization”
- “We need to understand what it is really going to cost to consolidate, and if the state is willing to pay”
- “There has been no stable leadership within OIT... this has caused trust issues and prevented particular direction...”
- “It would be nice to know what the vision for OIT is”
- “[Leadership] needs to know that there could be efficiencies with consolidation, but acknowledge that departments will have individual needs”
- “OIT needs to be more transparent with billings and what they bill for.”
- “Unclear understanding of why we have various IT groups and what their functions are.”
- “Declare and define what success means with the OIT consolidation effort.”



- “Communication is key to making things better”
- “Commissioner has been doing a good job with the town halls...”
- “[OIT] is making progress, Deputy gave a presentation to ASDs to present rates”
- “I am optimistic that [the information flow from OIT] will resume as the leadership situation settles down
- “Help desk is timely at getting back to me about issues and helping me through fixing the problems.”
- “I would give OIT more staff and more support.”
- [Dept. or OIT] folks are always solutions oriented and good to work with.”
- “Treat IT as a business partner rather than a cost center...in order to reduce overall costs of govt. activities.”
- “It would be useful to have regular opportunity to work with OIT and dept. staff in planning and development of effective use of systems and tools.”

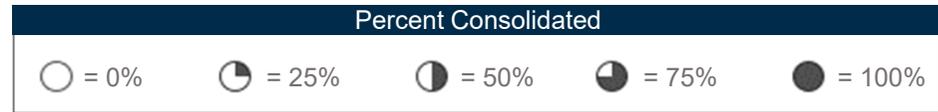
## Consolidation Approach

State of Alaska embarked on an IT Consolidation project with the goal to improve statewide IT efficiency and lower IT costs

- The most recent consolidation effort moved 153 employees from 15 State Agencies to OIT across two waves of people movement
- Consolidation approach focused on delivery of standardized IT infrastructure and help desk services
  - Established technology standards for desktop and data center
  - Implemented unified ticketing system for service requests and incidents
- Established seven OIT Departments to manage the new consolidated IT services:
  - Strategic Partners Manager
  - Data Center
  - Telecommunications
  - Security
  - Portfolio, Planning, and Policy (P3)
  - Business Office
  - Strategic Partner Services

Implemented centralized IT services with no dedicated project team and utilizing the same resources required to deliver IT services resulting in IT service declines.

# Consolidation Progress



Adoption of IT consolidation services has been inconsistent across State Agencies. Chart based on interview results and estimates for percent complete. Chart is not a measure for customer satisfaction

State Agency	Desktop Support	Network Services	OIT Data Center	Standard Service Mgmt.	Security Standards
Administration	●	●	◐	●	●
Commerce, Community and Econ Dev.	◐	◐	○	◐	●
Corrections	◐	◐	○	◐	◐
Education and Early Development	◐	●	◐	◐	◐
Environmental Conservation	●	◐	◐	●	●
Fish and Game	●	●	○	●	●
Health and Social Services (HSS)	◐	●	○	◐	○
Labor	◐	◐	○	◐	◐
Law	●	◐	○	●	◐
Natural Resources	●	●	◐	●	●
Public Safety	●	◐	◐	◐	◐
Revenue	●	●	●	●	●
Transportation/Public Facilities	●	●	○	●	●
Military and Veteran's Affairs	●	◐	○	◐	◐

Significant backlog of work required to complete implementation of OIT services across state agencies. Effort required to complete implementation has not been estimated.

## Barriers for Adopting Standard IT Services

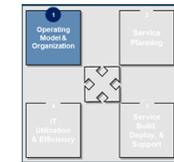
**Conflicting priorities between statewide efficiency vs. agency priorities has delayed the adoption and implementation of standard technology and process**

- Voice of the Customer and focus interviews identified the following issues that have prevented the adoption of technology standards and support processes:
  - Statewide IT does not have the resources to both support legacy IT Services while building, implementing and operating the new centralized IT services
  - Implementation of statewide standard services and technology standards are not complete and there is no plan for completion of the current implementation
  - Limited communication between the agencies, agency IT and OIT in defining requirements for new services, establishing technology standards and service level agreements results in misaligned delivery expectations
  - Compliance requirements have also been identified as a barrier for adoption (e.g. HIPAA, CJIS) resulting in resistance by certain agencies to embrace the centralization initiative
  - IT consolidation goals, roles and responsibilities have not been defined

**Substantial backlog of work that has not been estimated but is required to complete the implementation of the desktop support, data center, network and security services.**

# Current State Assessment

- Capability Maturity Assessment
  - Operating Model, Org. Structure & Resources
  - Governance & Service Planning
  - Project, Portfolio, Service Management, Build, Deploy & Support
  - IT Utilization & Financial Model
- Voice of the Customer



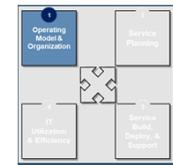
# Operating Model, Organization Structure, and Resources

The current statewide IT operating model does not reflect the intent of Order 284, nor does the organization structure, resource deployment or process capabilities enable efficient consolidation adoption

	Operating Model	Organization Structure & Resources
Approach	<ul style="list-style-type: none"> <li>Reviewed current statewide operating model for OIT and State Agencies               <ul style="list-style-type: none"> <li>Governance practices</li> <li>Organization structures</li> <li>Enterprise architecture</li> </ul> </li> <li>Conducted benchmark analysis of other states IT operating models</li> </ul>	<ul style="list-style-type: none"> <li>Reviewed organization charts for OIT &amp; Agencies</li> <li>Conducted Interviews with OIT leadership &amp; DTOs</li> <li>Analyzed statewide headcount data</li> <li>Assessed IT Job definitions, staffing fulfillment and skills alignment</li> <li>Evaluated demand loading for processing service requests handling</li> <li>Utilized VOC survey &amp; COBIT workshop results to compliment observations</li> </ul>
Key Findings	<ul style="list-style-type: none"> <li>Despite consolidation efforts current IT operating model is a diversification model with low process standardization and integration across the state</li> <li>No common understanding for the desired level of end state technology and process standardization across the state</li> </ul>	<ul style="list-style-type: none"> <li>Statewide IT is understaffed to budget<sup>(1)</sup> by ~20%; while demand for services remains unchecked</li> <li>Organizational complexity is a contributing factor to underperformance across all IT</li> <li>Demand handling processes (i.e.: tickets &amp; projects) are immature, requiring a higher degree of skill needed to meet performance expectations; those in certain job roles do not have the skills to compensate for ad-hoc processes</li> </ul>

(1) Statewide IT positions: 700 budgeted, 548 excluding vacancies. Data per IT Family Survey dated November 11, 2019.

# Statewide IT is Understaffed by ~20% to Budget – While Agency Demand Remains Unchanged



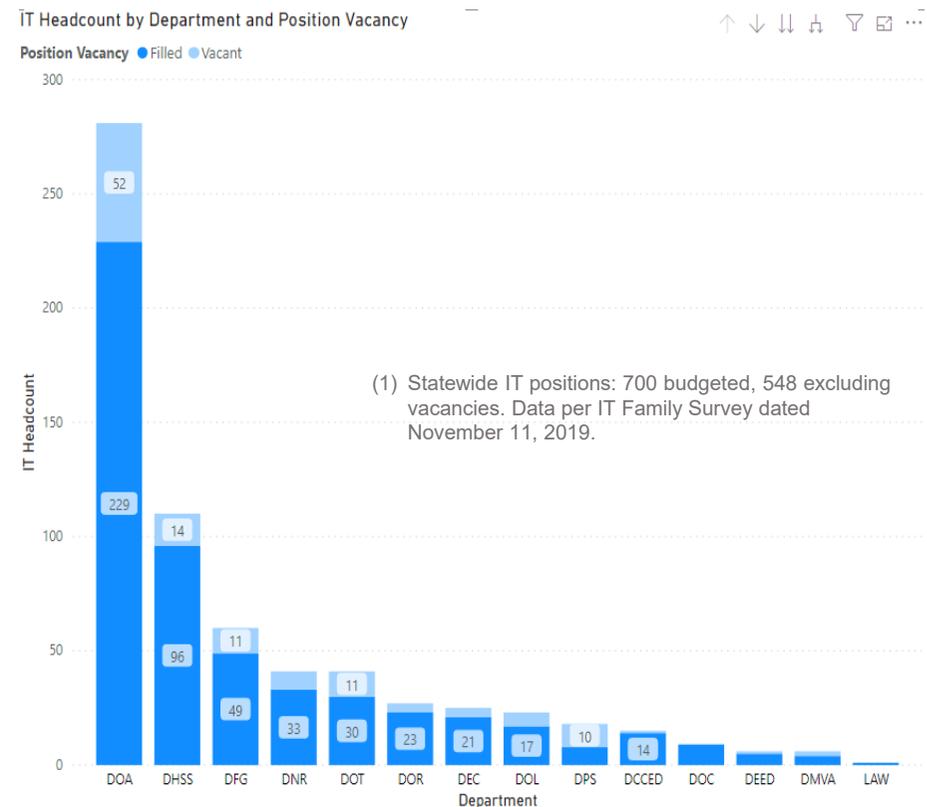
There are currently 152 (~20%) statewide IT open positions; this resource deficiency combined with the organizational complexities associated with staffing changes, unconstrained demand and constant leadership turnover have resulted in the underperformance of IT statewide

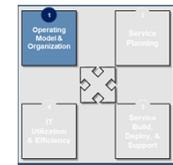
## Organization Structure – Resource & Staffing

### Observations

- Statewide IT is understaffed to budget<sup>(1)</sup> by ~20% across all agencies; OIT alone has 20% (52) unfilled positions
- The Portfolio, planning and policy (P3) charter describes a wide range of services but do not have the staff to cover all their responsibilities
- There are no defined resource optimization processes in place. There is no standard way to match, or forecast resource capacity with demand, and there are no service definitions to meter demand placed on statewide IT.
- OIT data center services are not keeping pace with server maintenance (patching is out of date for some platforms). This is impacted by both resource availability and skills required to manage these environments
- Resource capacity constraints are limiting the ability to develop long-term plans; daily / hourly demands on statewide IT resources limit the time spent on planning
- IT resources have difficulty understanding the business implications of certain technology decisions
- There is apprehension to move application developers from the agencies to OIT based on potential conflicting utilization priorities

### Fact Basis





# Dysfunctional IT Organization Structures Across the State Contributes to Overall Underperformance

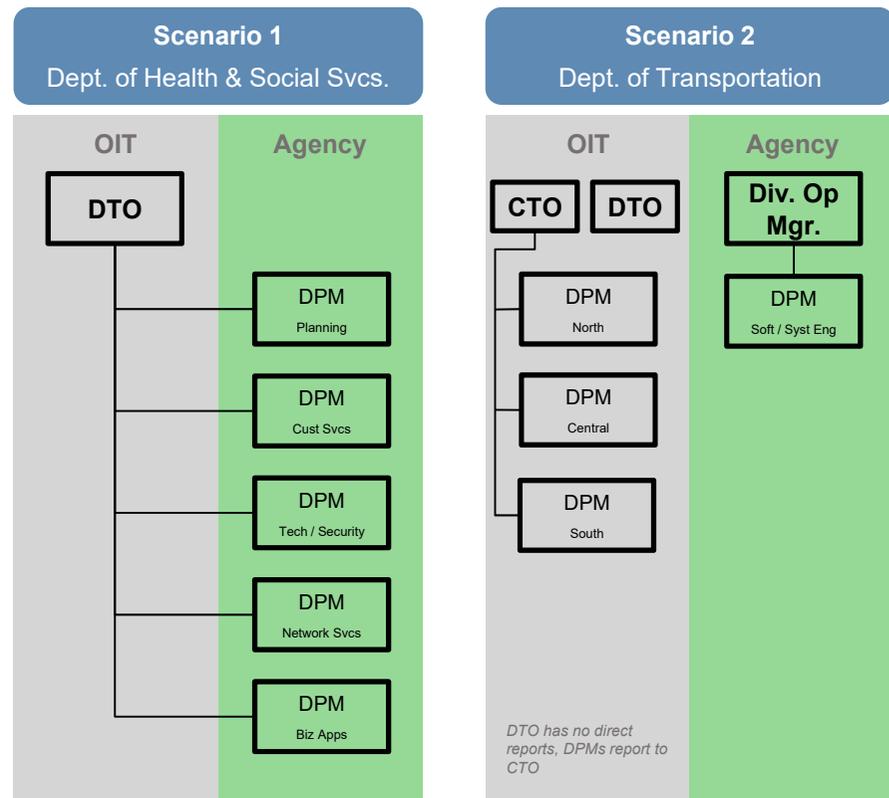
Structure drives behavior; in many cases, the reporting relationships within the agencies and the DTO's, and the Agencies with OIT vary from agency to agency often resulting in miscommunications, assignment confusion and a growing backlog outstanding tasks

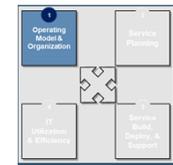
## Organization Structure - Reporting

### Observations

- The 153 resources that moved to OIT in Waves 1&2 continue to support their agency priorities while also performing consolidation responsibilities. These resources are stretched and performing two jobs with multiple managers
- IT resources have difficulty understanding the business implications of certain technology decisions
- Agency technology leadership (DTOs) are not included in OIT governance and thus have no say in how work is prioritized
- There is apprehension to move additional resources from the agencies to OIT based on potential conflicting utilization priorities
- The Unified Ticketing System (UTS) does not have skills based routing logic embedded in the work flow. As a result, tickets are pushed on a round robin basis to the next available technician without regard to that techs ability to handle the issues – resulting in a high degree of escalations and lead time in ticket closure

### Illustrative Example





# IT Job Titles Are Not Uniformly Skilled, Contributing to Poor Performance, While Impacting the States Ability to Fill Open Slots with Qualified Candidates

There are 68 distinct job titles used across the state – yet there is no consistency across OIT and the agencies in terms of actual skills, job functions and responsibilities matching the job title of an individual. This complicates movement of resources to cover resource gaps

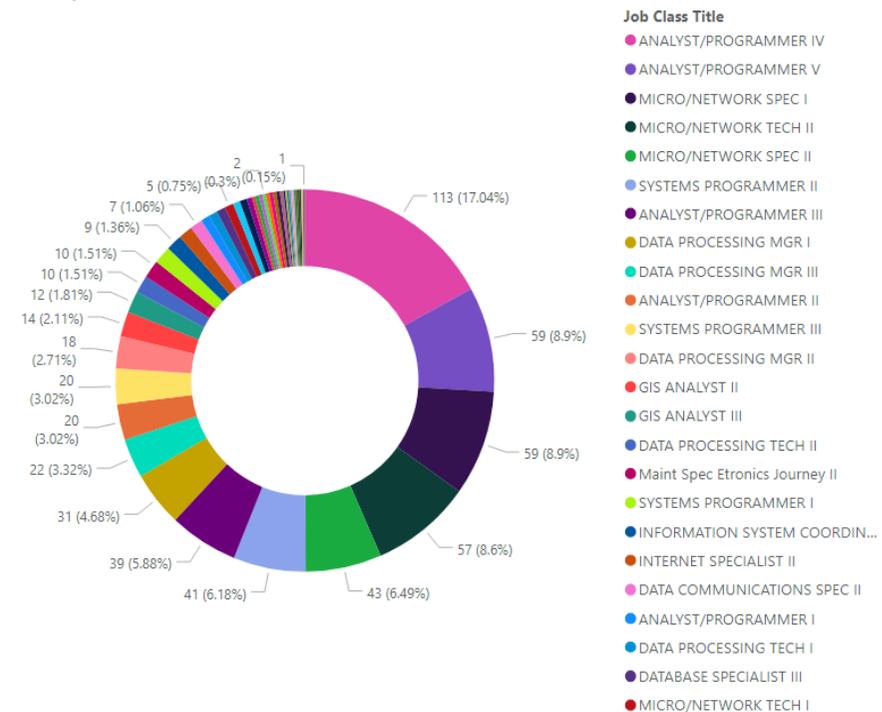
## Organization Structure – Roles & Responsibilities

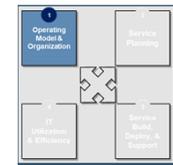
### Observations

- There are 68 distinct IT job titles in use statewide; while job titles may be similar across OIT and all agencies, the actual skills and roles performed are not standard
- The job filling process (job posting vs. career planning / promotions) limits the states ability to place qualified candidates into roles with the appropriate skills and qualifications
- The DTOs do not have a clear roles and responsibilities charter, resulting in communications, service delivery and demand loading issues

### Fact Basis

Count of by Job Class Title





# Geographic Dislocation, Agency Alignment and Cultural Norms are Powerful Barriers to Establishing a Statewide IT Community of Practice

Statewide IT is physically split between Anchorage (48%) and Juneau (40%) – however there are an additional 13 locations across the state that house IT professionals. This has an impact on identity, culture and management style

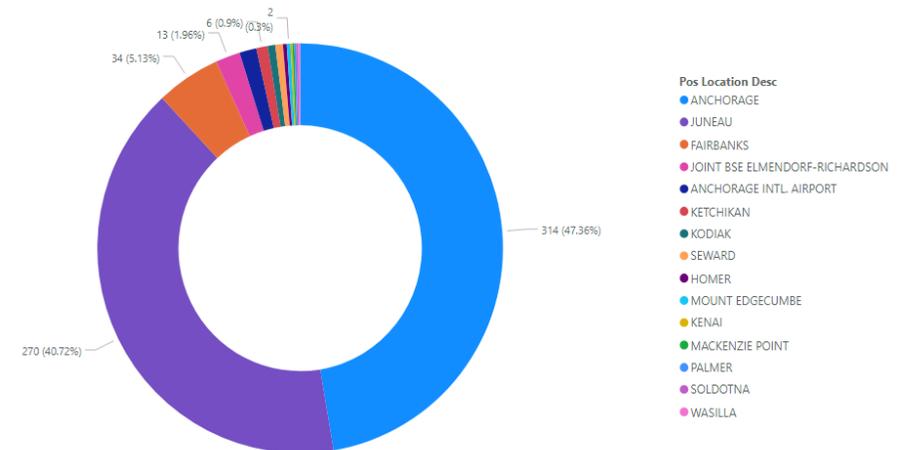
## Organization Structure - Culture

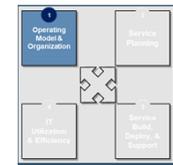
### Observations

- 48% of IT is based in Anchorage; 38% in Juneau; 5% in Fairbanks and the remaining 7% are spread across 13 other locations; this geographic distribution impacts culture, community and consistency of service delivery across the state
- 153 IT professionals were organizationally transferred into OIT, yet remain physically and culturally aligned to their agencies – and have not fully embraced their new organization structure
- Agency IT staff are aligned to their departments mission as evidenced by the ~1,400+ unique applications and ~3,000+ data bases etc. and do not view their roles part of an interconnected statewide IT community
- Participation in the IT process capability assessment survey is low by comparison between the agency IT professionals (10%) vs OIT (90%)

### Fact Basis

Count of Job Class Title by Pos Location Desc

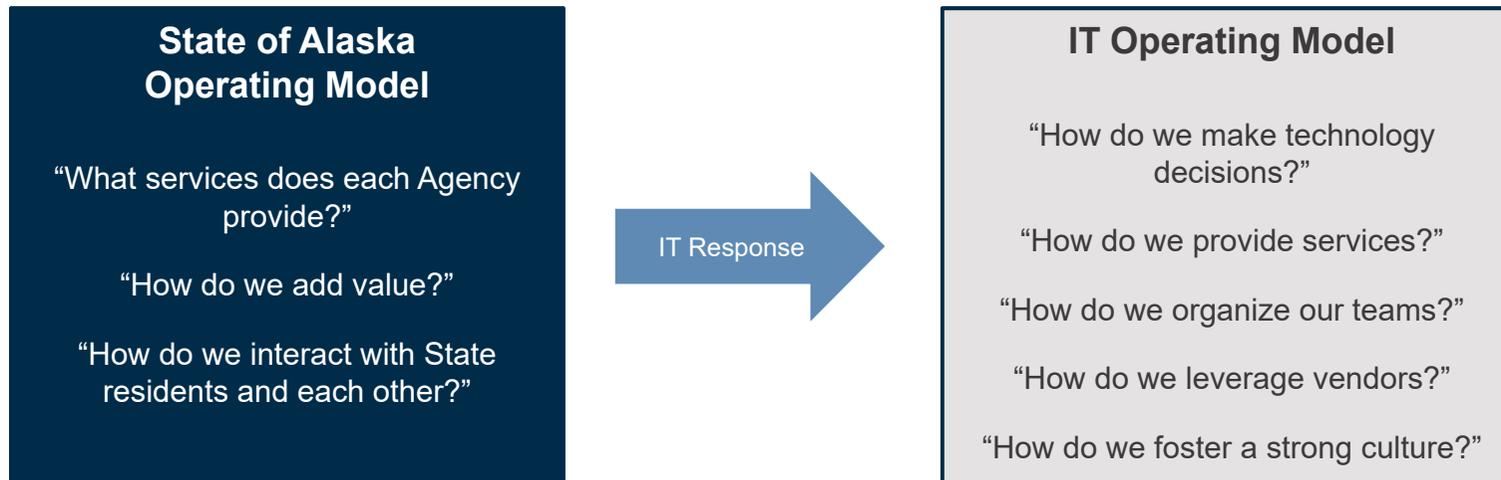




# Business and IT Operating Models

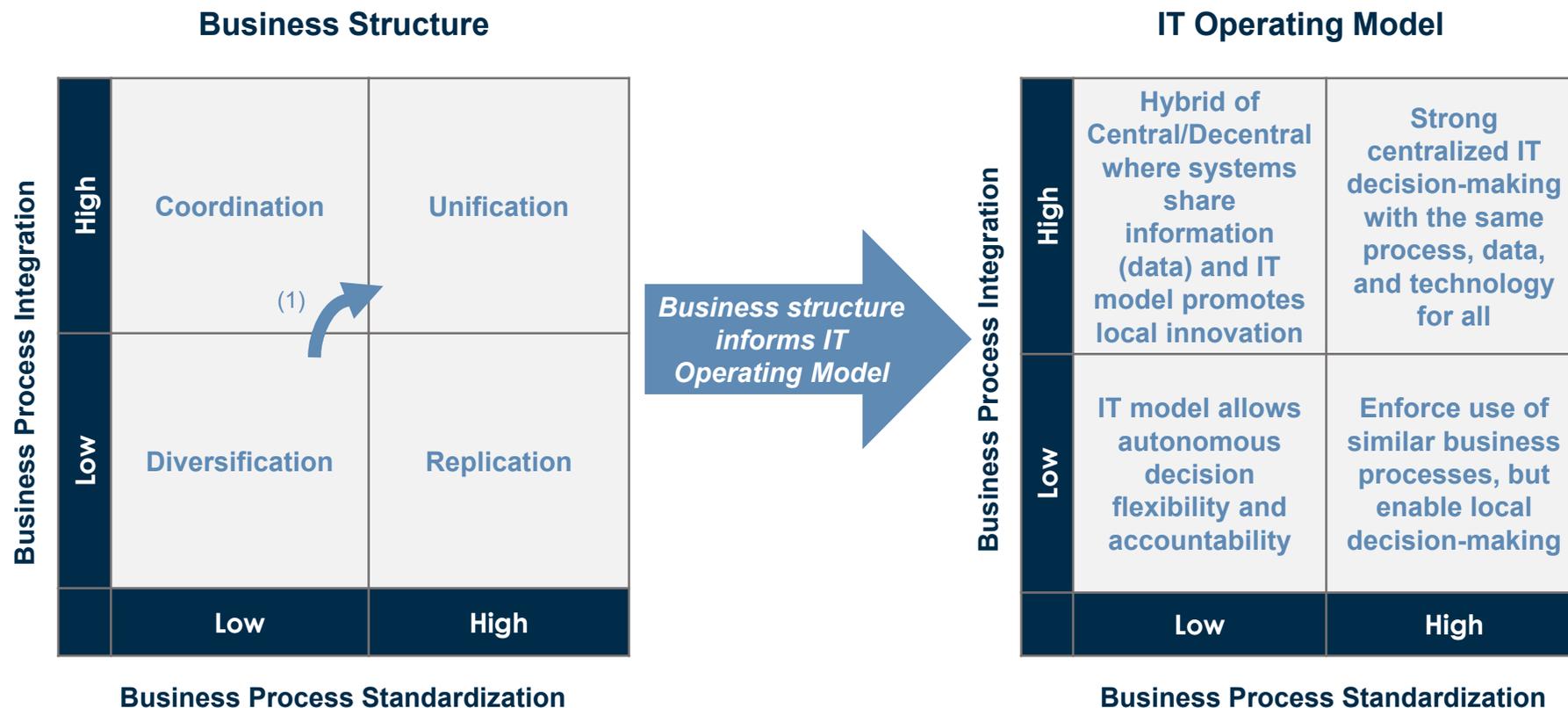
The IT counterpart to the business operating model sets an IT organization apart and determines how IT adds value

- The IT operating model defines how the State of Alaska IT capabilities will operate and be organized to enable the State of Alaska to achieve its goals
- The IT operating model communicates the interplay of governance, sourcing, processes and organizational structure that facilitate the delivery of technology services to internal and external technology service consumers



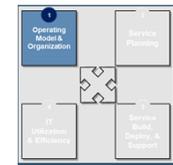
# Process Integration and Standardization Influence IT Operating Model Effectiveness

There are four business models that enable business strategies. IT must respond differently to each business model both in the services it provides and its organizational structure



**Source:** “Enterprise Architecture As Strategy: Creating a Foundation for Business Execution” Jeanne W. Ross, Peter Weill, David C. Robertson

(1) Path to unification goes through coordination



# Defining the IT Operating Model

At the center of IT effectiveness is an IT Operating Model

## IT Operating Model

<b>Business Process Integration</b>	<b>High</b>	Hybrid of Central/Decentral where systems share information (data) and IT model promotes local innovation	Strong centralized IT decision-making with the same process, data and technology for all
	<b>Low</b>	IT model allows autonomous decision flexibility and accountability	Enforce use of similar business processes, but enable local decision-making
		<b>Low</b>	<b>High</b>
		<b>Business Process Standardization</b>	

**IT should do two things well: integrating systems and standardizing business processes.** The IT Operating Model defines what should be integrated, what should be standardized and what should be centralized or decentralized

**IT Operating Model:** An operating model also defines “how” the organization is structured to best support the Agencies and State of Alaska strategic goals. This defines the desired level of business **process integration** and **process standardization** for delivering goods and services to customers

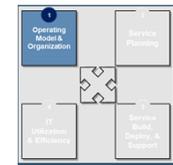
**IT Organization Structure.** IT Departments have:

Common Technology Areas:

- Applications (e.g., IRIS)
- Infrastructure (e.g., desktop, server configuration, network)
- Data (e.g., shared data between Public Safety and Corrections)

Dedicated Teams:

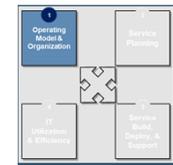
- “Running IT” (e.g., Help desk, data center, architecture, IT planning)
- Finance



# Relationship Between Business Structure and the IT Operating Model

Business structure will drive required IT capabilities

Business Process Integration	<p><b>High</b></p> <p><u>Coordination</u> <i>(Sony Inc., PepsiAmericas)</i></p> <ul style="list-style-type: none"> <li>▪ <b>Business Structure:</b> Unique business units with a need to know each other's transactions</li> <li>▪ <b>Key IT Approach:</b> Provide access to shared data via standard technology interfaces between systems</li> <li>▪ <b>IT Organization:</b> Centralized data services, infrastructure and architecture with some centralized applications and PMO</li> </ul>	<p><b>High</b></p> <p><u>Unification</u> <i>(Swiss Re, Delta Air Lines)</i></p> <ul style="list-style-type: none"> <li>▪ <b>Business Structure:</b> Single business with global process standards and global data access</li> <li>▪ <b>Key IT Approach:</b> Provide standard systems forcing standard processes and common information</li> <li>▪ <b>IT Organization:</b> Highly centralized IT investments and project priorities set across business entities</li> </ul>
	<p><b>Low</b></p> <p><u>Diversification</u> <i>(Johnson and Johnson, Proctor and Gamble)</i></p> <ul style="list-style-type: none"> <li>▪ <b>Business Structure:</b> Independent business units with different customers and expertise</li> <li>▪ <b>Key IT Approach:</b> Provide economies of scale without limiting independence</li> <li>▪ <b>IT Organization:</b> Highly decentralized decision-making at business unit level; centralized infrastructure &amp; architecture only</li> </ul>	<p><b>Low</b></p> <p><u>Replication</u> <i>(Holiday Inn Inc., GAP)</i></p> <ul style="list-style-type: none"> <li>• <b>Business Structure:</b> Independent but similar business units</li> <li>• <b>Key IT Approach:</b> Provide standard infrastructure and systems for global or enterprise efficiencies</li> <li>• <b>IT Organization:</b> Centralized applications and infrastructure; decision-making at the business unit level using standard systems</li> </ul>
	<b>Low</b>	<b>High</b>
	<b>Business Process Standardization</b>	



# IT Operating Model – Selected Business Examples

IT Operating Models vary based on management objectives and each provide different value



**Swiss Re: Unification**

Provides reinsurance solutions for Properties and Casualties, in 30 countries

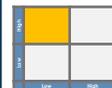
- **Management Objective:** Global Operating Model with global risk management
- **Key IT Approach:**
  - Single global systems that enforces standardized business processes
  - Entire company uses same information for decisions
  - Common business systems now cover 80 percent of core processes
- **Value:** Ability to compare profitability across businesses and geography in real time, allowing the company to underwrite more profitably



**Proctor & Gamble: Diversification**

\$80 billion in revenue; 180 countries; five billion customers; 250 brands

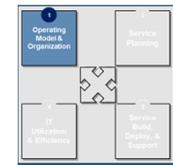
- **Management Objective:** Balance innovation and customer responsiveness from autonomous business units with business efficiencies
- **Key IT Approach:**
  - Centralized infrastructure and purchasing (e.g., phones and computers)
  - Other systems are autonomous to their business units
  - Advisory capacity for supply chain
- **Value:** Guaranteed savings for using common services over pursuing solutions independently. Enables business carve-outs and divestitures



**PepsiAmericas: Coordination**

\$4.5 billion in revenue; world's second largest manufacturer and distributor of PepsiCo

- **Management Objective:** Business moved from trucks carrying 40 products, to trucks carrying 200 products. Business changed from a scale business to one that demands pinpoint inventory management
- **Key IT Approach:**
  - Shared customer information across Departments
  - Centralized infrastructure with local systems
- **Value:** Allowed company to restructure sales and delivery organization around key customer segments and channels. Drove warehouse efficiency and profitability



# IT Operating Model – Directional State Examples

Reviewed several state IT strategies and/or third party reports; all states have consolidated some IT services, and reflect long term journeys towards selective process integration



**State of Washington: Diversification**

13<sup>th</sup> most populous state; 66,400 state employees

- Operating Model Insights:** Consolidated infrastructure services to reduce costs and improve security. Struggled to achieve costs savings during first five years.
- Key IT Approach:**
  - Centralized – Data center, network, security, desktop applications and telecommunications.
  - State Agencies – Each agency has CIO that manages IT capabilities including business applications, architecture and operations.
- Value:** Centralized IT strategy focused on enabling service transitions to Private Cloud, SaaS and IaaS providers. Expanding role to provide statewide governance for enterprise technology.



**State of Ohio: Coordination**

7<sup>th</sup> most populous state; 51,400 state employees

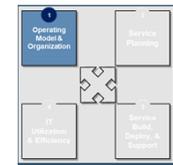
- Operating Model Insights:** Consolidated infrastructure starting in 2011, followed by the implementation of IT shared services for common applications e.g. grants management and time keeping.
- Key IT Approach:**
  - Centralized – Enterprise Architecture, Investment Management, Program Management, Infrastructure Services and IT Shared Service for common applications.
  - State Agencies Twenty six agency CIO's that collaborate with Centralized IT service organization.
- Value:** Centralized IT strategy has reduced infrastructure costs while creating IT shared services for common applications.



**State of North Dakota: Coordination/Unification**

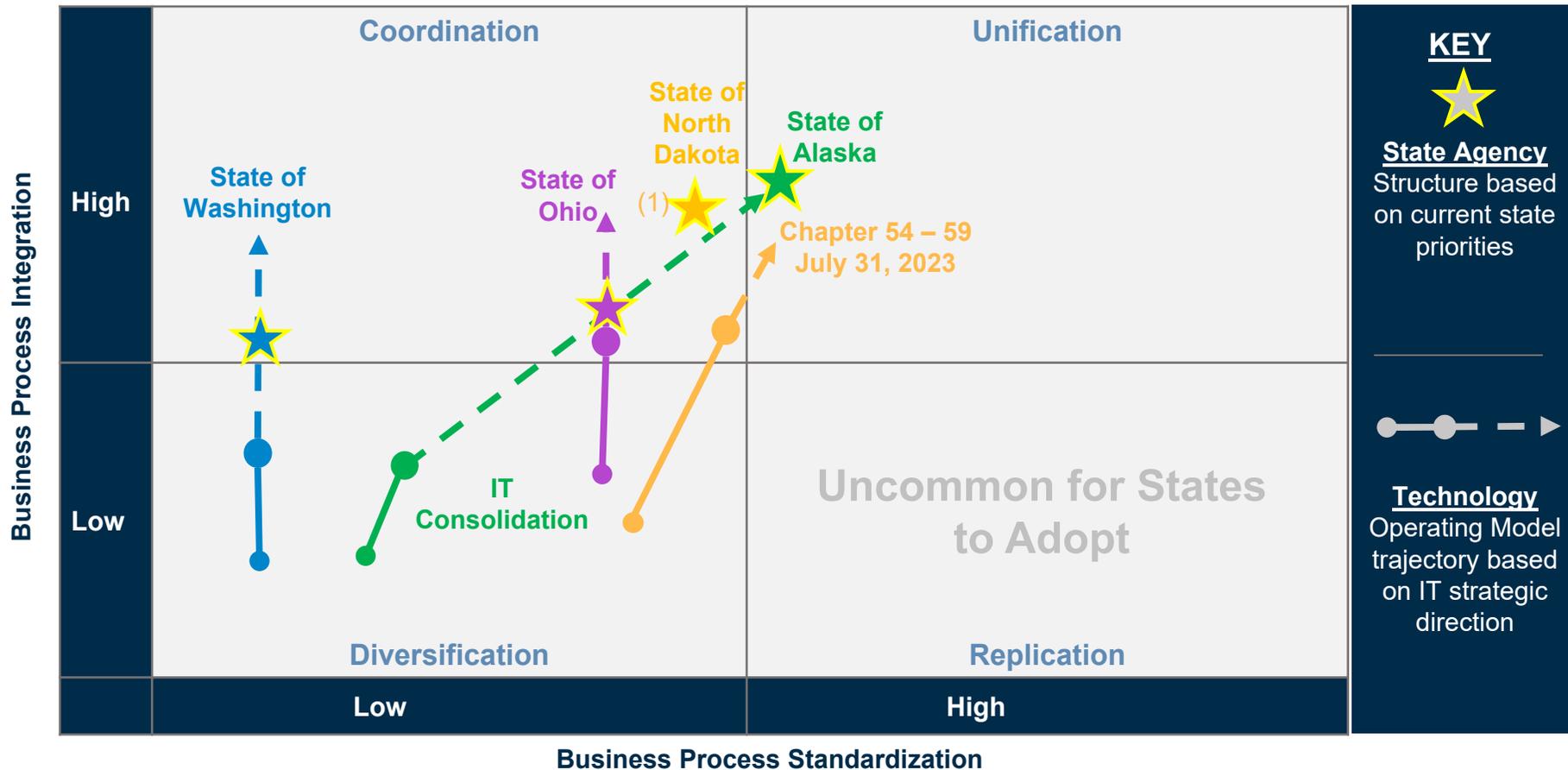
4<sup>th</sup> smallest state by population; 14,600 state employees

- Operating Model Insights:** CIO is cabinet level position. Established a chief data officer and multi-year plan to move towards Unification.
- Key IT Approach:**
  - Centralized – Data center, security, data management and enterprise applications.
  - Department – Agency system managers remain for line of business specific technology.
- Value:** Align IT investments with State and Agency priorities. Improve efficiency and quality of IT services. IT maturity of centralized services is still low with ongoing improvement initiatives.

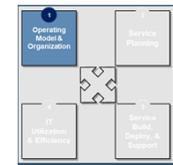


# Defining the IT Operating Model for the State of Alaska

IT Operating Model misaligned with the State’s operating structure is suboptimal; operating model direction of Order 284 is not aligned with the State of Alaska operating structure



(1) Process integration is a Governor priority with reinventing government and “working as one” as top 5 Governor priority



# The Impact of IT Operating Model on IT Services

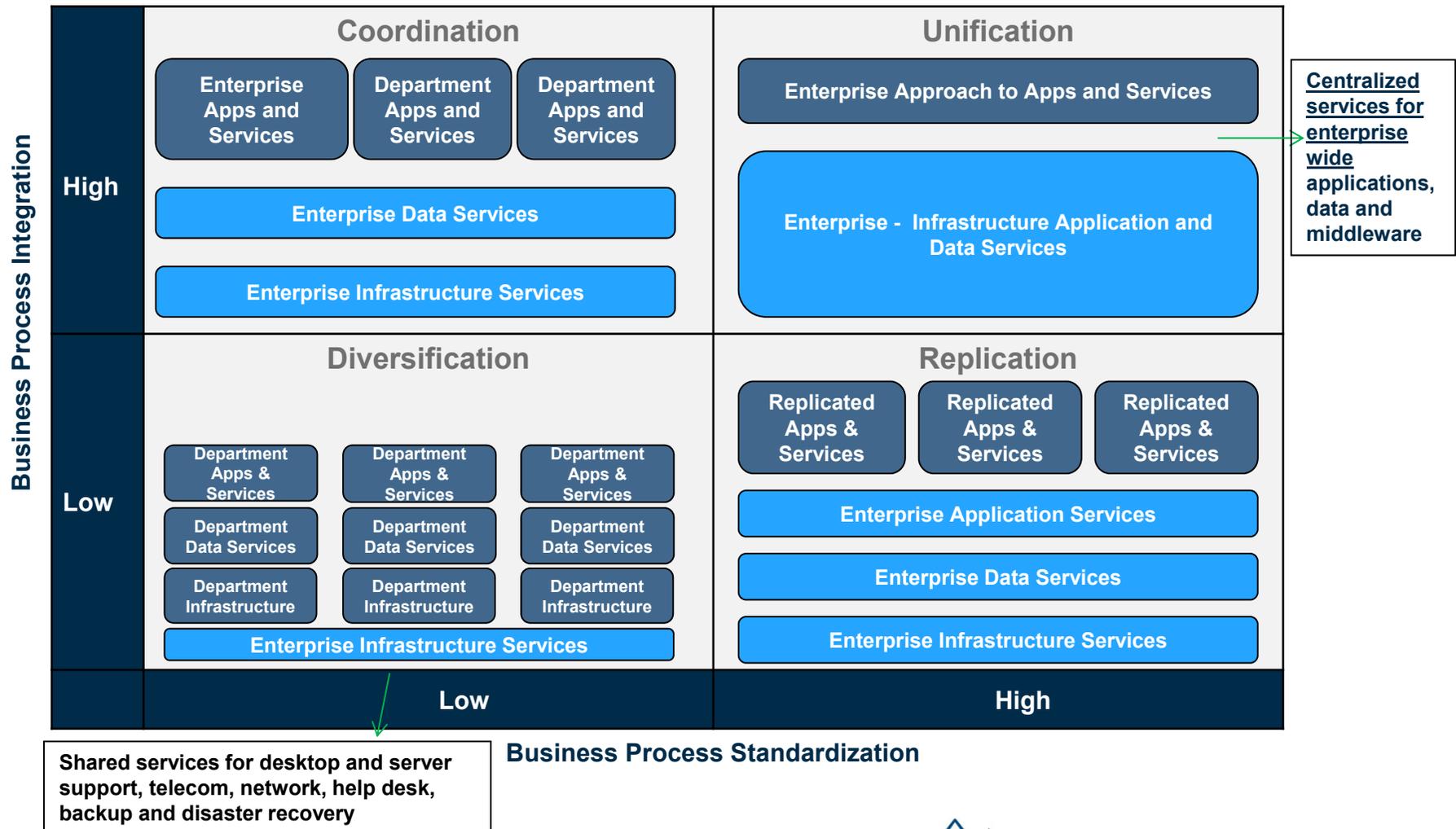
The operating structure should inform the IT organization structure and service delivery model

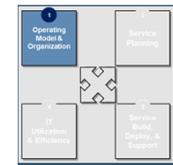
**Department Apps & Services are:**  
Line of business applications, data and architecture

**Enterprise App and Services are:**  
common apps and architecture

**Enterprise Data Services are:**  
common data and middleware

**Enterprise Infrastructure Services are:**  
common technology (e.g., compute, storage network and others)





# Coordination is the Predominant IT Operating Model for State Government

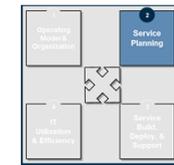
Over the past ten years, all states have tried to move away from the Diversification operating model with varying degrees of success

- There is no statewide IT operating model today guiding process standardization and integration
- Most states reviewed either have plans to move towards or are currently operating in a variation of the Coordination model. The current IT consolidation efforts still have the State of Alaska IT operating model in the Diversification operating model
- The adoption of the wrong model has implications on governance, IT organization structure and technology strategies
- A Coordination model by definition is a “Hybrid” Operating model combining decentralized and centralized elements. Hybrid models use matrixed processes and decision-making which are more complex to adopt

Operating Model Differences			
Activity	Unification	Diversification	Coordinated - Hybrid
<b>Governance</b>	Strong top-down decision process	Departments primary decision	Statewide platforms along with department specific priorities and influence
<b>IT Organization</b>	Single enterprise teams	Individual IT teams by Department	Mix of Shared/Enterprise with Department teams
<b>Technology Emphasis</b>	Same technology for all	Each Department has its own technology	Some shared/enterprise systems, common data and integration

# Current State Assessment

- Capability Maturity Assessment
  - Operating Model, Org. Structure & Resources
  - Governance & Service Planning
  - Project, Portfolio, & Service Management, Build, Deploy & Support
  - IT Utilization & Financial Model
- Voice of the Customer



# Governance and Service Planning Summary

**Governance practices are unable to define statewide technology priorities. Management practices do not align statewide demand for IT services with IT capabilities**

## Approach

- Conducted COBIT review for all OIT processes
- Conducted IT capability survey across OIT and State Agency IT resources
- Conducted focus interviews with Department Technology Officers (DTO), Administrative Services Directors (ASD) and Data Processing Managers

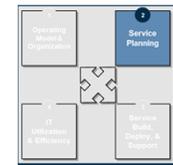
### IT Governance

- Overall governance practices that integrate and align OIT and state agency priorities with demand for IT Services does not exist
  - Statewide IT priorities are not defined
  - No method to align the statewide demand for IT services against available IT capacity
- State Agencies have no role in the current OIT governance practices
- State Agency governance of IT resources and spend are inconsistent and not aligned with a statewide technology plan

### Service Planning

- There is no evidence of a statewide multi-year strategic plan and annual IT Operating Plan
  - Statewide IT resources and spend are likely not focused on the highest priority activities and projects
  - OMB approves technology capital project without a long-term technology plan or roadmap

## Key Findings



# Statewide IT Governance Practices are Nascent

No statewide approach for defining technology priorities and managing demand for IT projects and services. Limited collaboration on technology priorities across state agencies

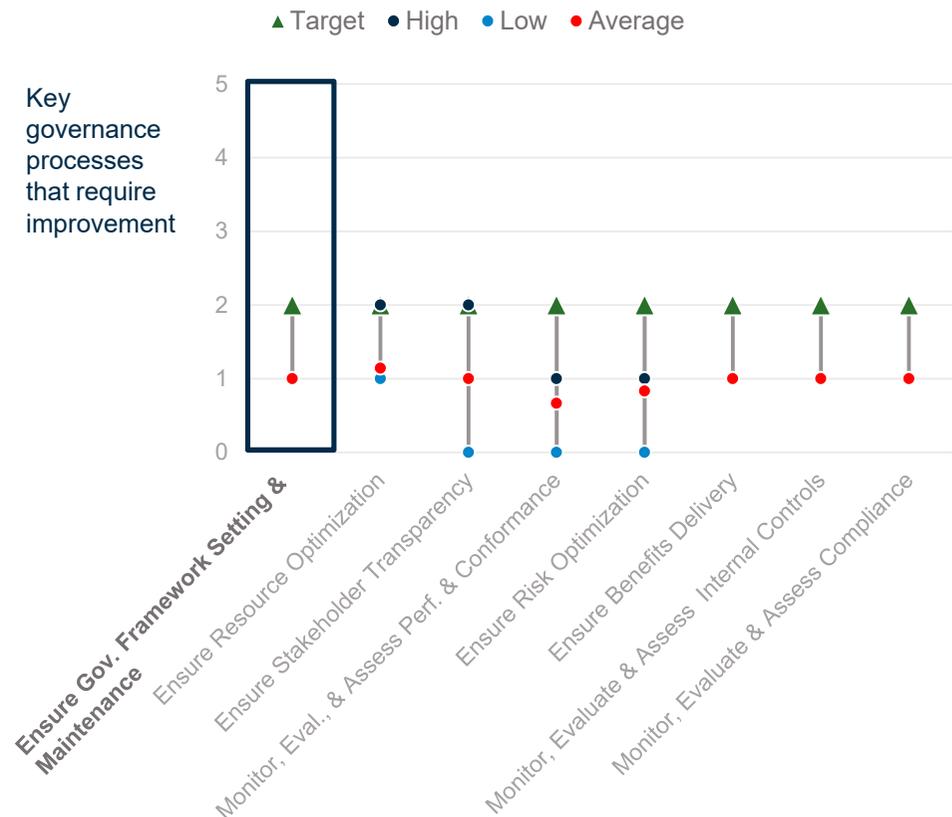
## Evaluate, Direct, Monitor and Assess

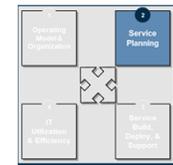
### Observations

- No defined governance process or set of principles to define State of Alaska priorities and manage statewide IT resources and technology spend
- Investment Review Board (IRB) decision process lacks transparency
- Frequent OIT leadership changes has prevented the definition and communication of an IT direction while also contributing to trust and credibility issues with State Agencies
- No defined architecture function and technology standards
  - No defined process for identifying, selecting and integrating new technology or systems
  - IT governance practices are inconsistently performed across state agencies. For example, DoT operates a Data Governance Board to review software applications
- No innovation process for identifying new technology
- Standard security policies are partially implemented with limited authority to enforce across all state agencies

### COBIT Ratings

Evaluate, Direct, Monitor, and Assess Process Maturity Range





# Resource and Skills Management Processes are Undefined and Inconsistent

No statewide processes for managing IT resources and skills. No ability to schedule or track actual labor hours incurred on specific IT projects or activities

## Evaluate, Direct, Monitor and Assess

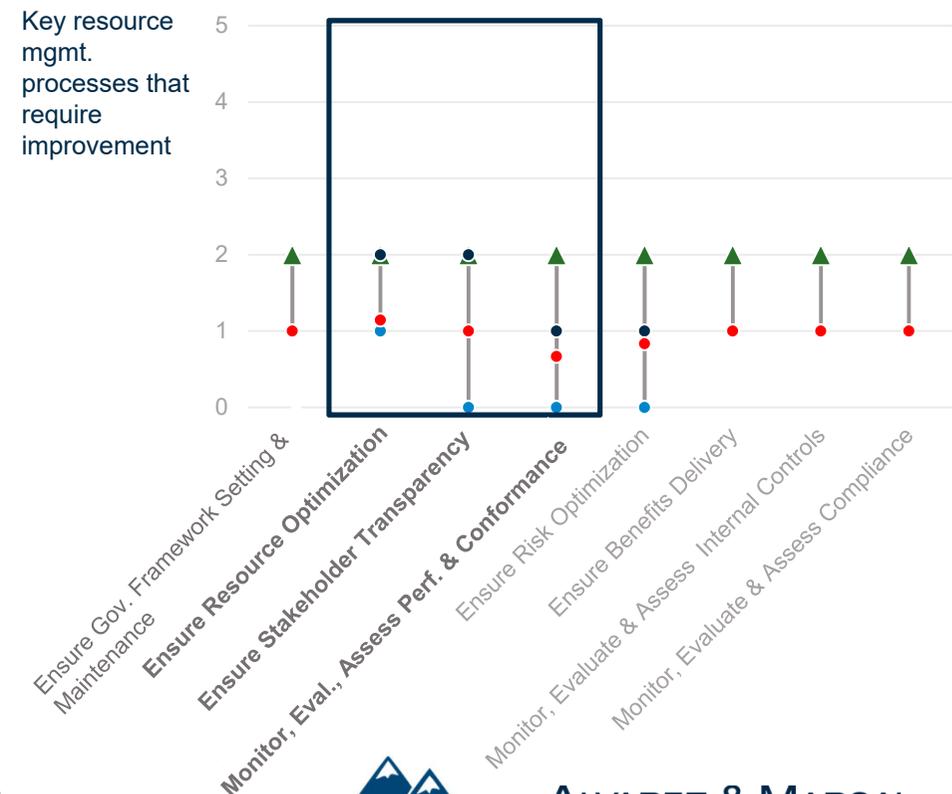
### Observations

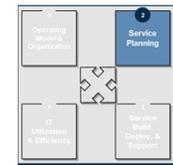
- No defined process for matching resource capacity with operational demand
- No standard process or tools for capturing labor costs and expenses
- No post project reviews to capture feedback on delivery of project benefits and provide shareholder feedback
- No defined metrics dashboard for OIT to monitor and report on operational results
- Project cost estimation methods are inconsistent across agencies and OIT.
- Project cost estimation does not include the cost for internal labor
- An OIT Metrics performance dashboard is drafted but not adopted

### COBIT Ratings

Evaluate, Direct, Monitor, and Assess Process Maturity Range

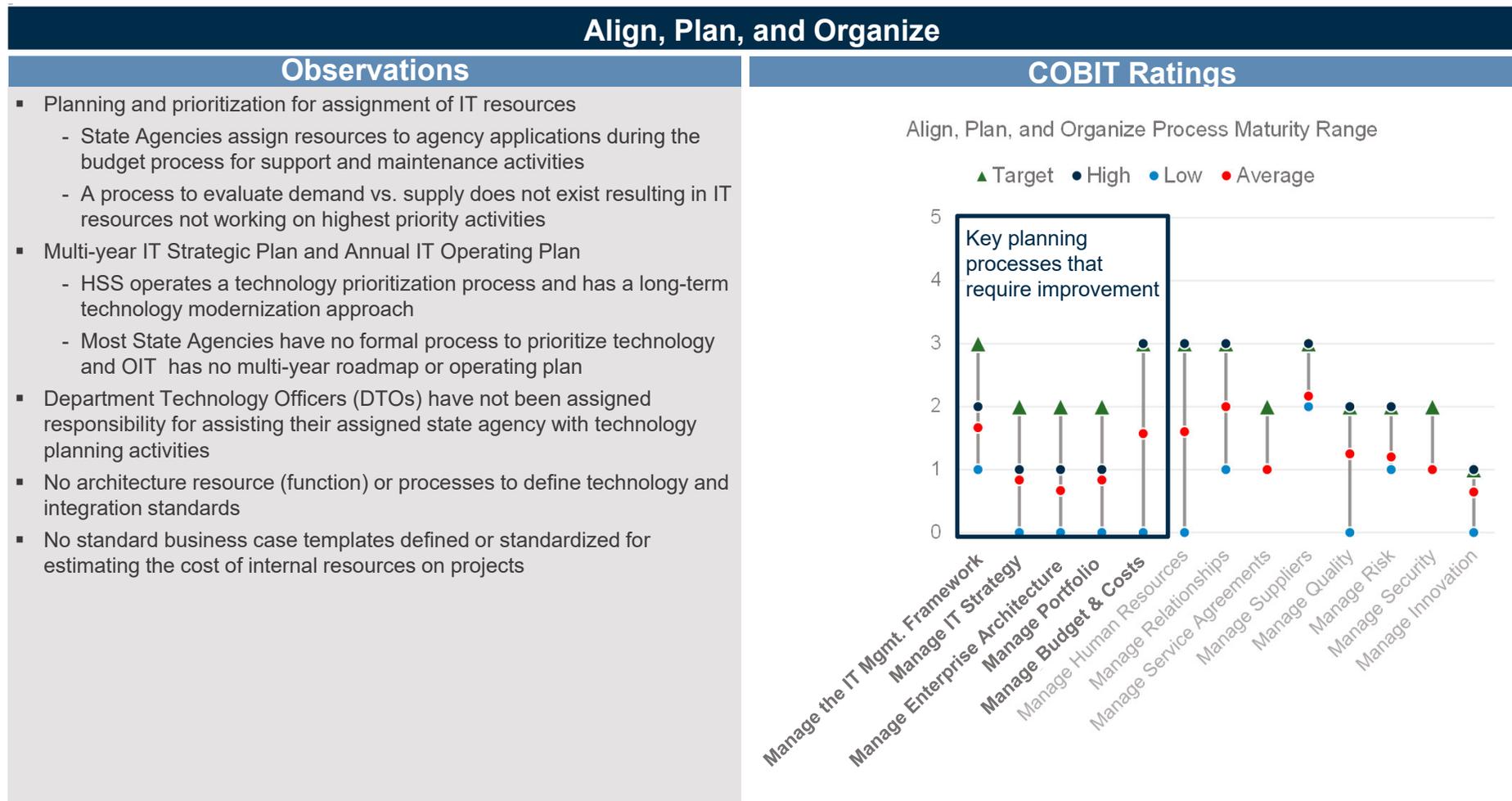
▲ Target ● High ● Low ● Average

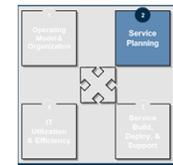




# Technology & Service Planning Processes Need Improvement

Technology planning processes are absent; organizational responsibilities are not clearly assigned; there is no method to align IT resources (capacity) with priorities (demand)





# Service Definitions and Service Levels are not Defined

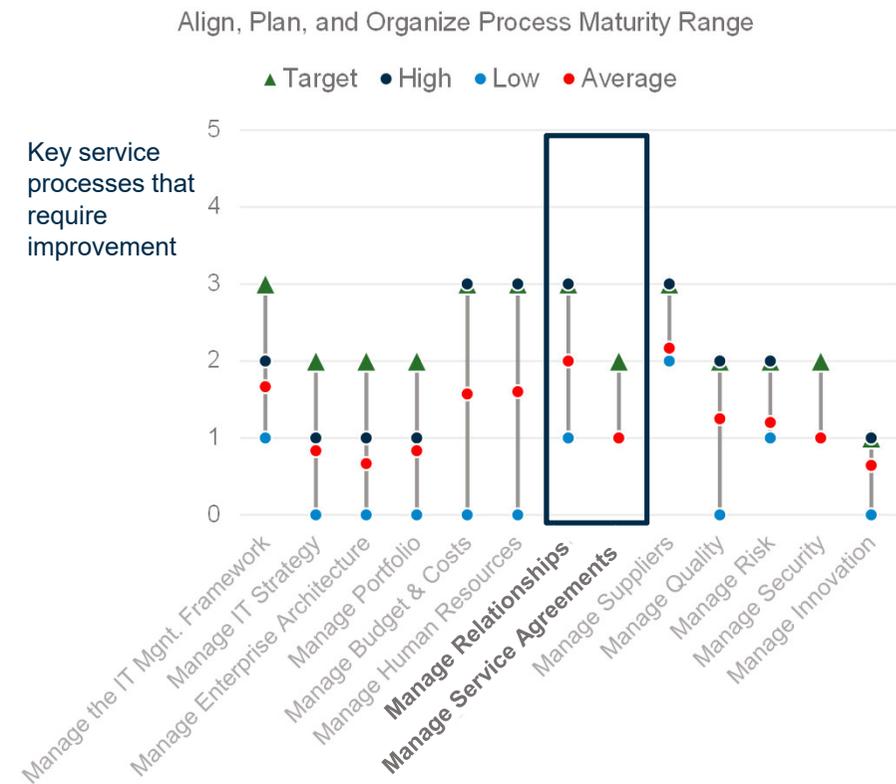
Service catalogue with service definitions has not been finalized and communicated to state agencies. There is no formal vendor evaluation process that includes stakeholder input

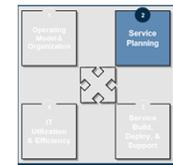
## Align, Plan, and Organize

### Observations

- OIT Service Catalogue and service definitions have not been finalized and shared with State Agencies
- Service Level Agreements (SLA's) for OIT services has not been communicated to State Agencies; resulting in:
  - Confusion regarding the OIT services included in the “core” service charge
  - Resistance and delays in adoption of OIT services
- Current OIT governance practices do not engage state agencies to incorporate their priorities in the management of resources and spend

### COBIT Ratings





# Supplier and Quality Management Processes are not Defined

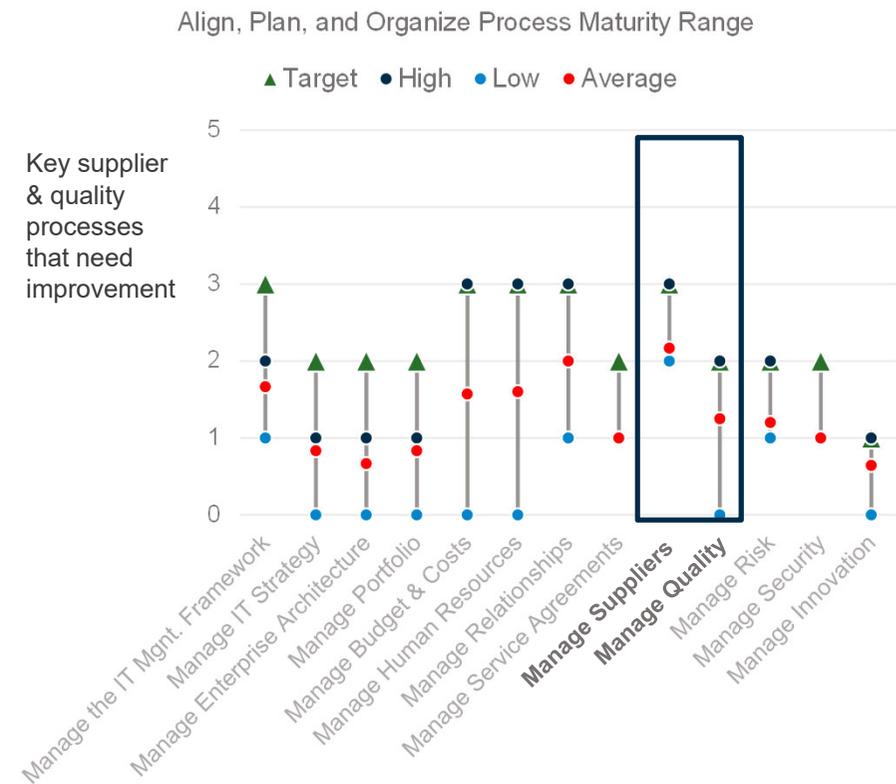
Supplier and Quality management processes are absent; organizational responsibilities have not been assigned; no formal vendor selection guidelines or quality standards exist

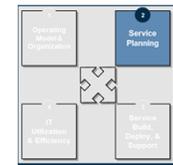
## Align, Plan, and Organize

### Observations

- No formal supplier selection method or guidelines
- No process for leveraging vendor contracts and relationships
- Vendor and quality standards do not exist
- Monitoring of vendor performance and benefits is not formal process
- A formal process for gathering functional and technical requirements for creation of RFP's does not exist
- There is no formal vendor selection process calling out functional, technical and business requirements

### COBIT Ratings





# Statewide IT Demand is not Aligned with IT Capacity

There is no defined work intake process and project portfolio management capability; there is no method to sequence projects based on dependencies, skill sets, and priorities

## Align, Plan, and Organize

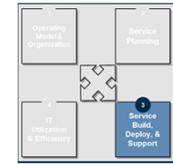
Observations
<ul style="list-style-type: none"> <li>No defined process for initiation of OIT projects</li> <li>No defined project portfolio management capability within OIT</li> <li>Current OIT project portfolio management gaps include:                             <ul style="list-style-type: none"> <li>Project status reports</li> <li>Project oversight including project Steering Committee</li> <li>Program management of dependencies across projects</li> </ul> </li> <li>There is no standard method for project cost estimation</li> <li>IT capabilities to initiate and plan IT projects are immature across State Agencies with a variety of agency or agency division specific practices and methods utilized</li> <li>Capital project requests are submitted and approved/disapproved by the OMB without a technology roadmap or defined statewide priorities</li> </ul>

## COBIT Ratings



# Current State Assessment

- Capability Maturity Assessment
  - Operating Model, Org. Structure & Resources
  - Governance & Service Planning
  - Project, Portfolio, & Service Management, Build, Deploy & Support
  - IT Utilization & Financial Model
- Voice of the Customer



# Project, Service Management & Operations Summary

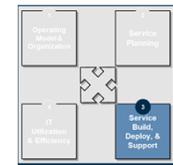
Portfolio, program and change processes are not defined or aligned to service capacity. Service support processes and platforms are not standardized or scalable. Processes for acquiring and deploying technology are not formalized or measured

## Approach

- Conducted COBIT review for all OIT processes
- Conducted IT capability survey across OIT and State Agency IT resources
- Conducted focus interviews with Department Technology Officers (DTO), Administrative Services Directors (ASD) and Data Processing Managers

## Key Findings

Project & Portfolio Mgmt.	Service Management	Build, Deploy and Support
<ul style="list-style-type: none"> <li>Portfolio management processes are not defined                             <ul style="list-style-type: none"> <li>Statewide intake process does not exist</li> <li>Missing alignment of demand and capacity</li> </ul> </li> <li>Program and project management processes &amp; resources are nascent                             <ul style="list-style-type: none"> <li>No formal project management methodology</li> <li>Missing standards &amp; tools</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Statewide change control process is not standardized                             <ul style="list-style-type: none"> <li>Inconsistent approvals</li> <li>Missing defined roles responsibilities</li> </ul> </li> <li>No common Help desk platform                             <ul style="list-style-type: none"> <li>UTS not designed for statewide use</li> <li>Help Desk platforms not standardized</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Applications siloed across departments significantly increases complexity and costs</li> <li>A process for managing business and IT platform architecture is not formalized</li> <li>No statewide process for selection, procurement &amp; implementation of solutions</li> <li>A process for managing and standardizing data &amp; databases does not exist</li> <li>Limited standardization across desktop and server assets</li> </ul>



# Program and Project Management Processes are Inconsistently Applied

Statewide program and project management lifecycle management processes are inconsistent and organizational responsibilities are not assigned

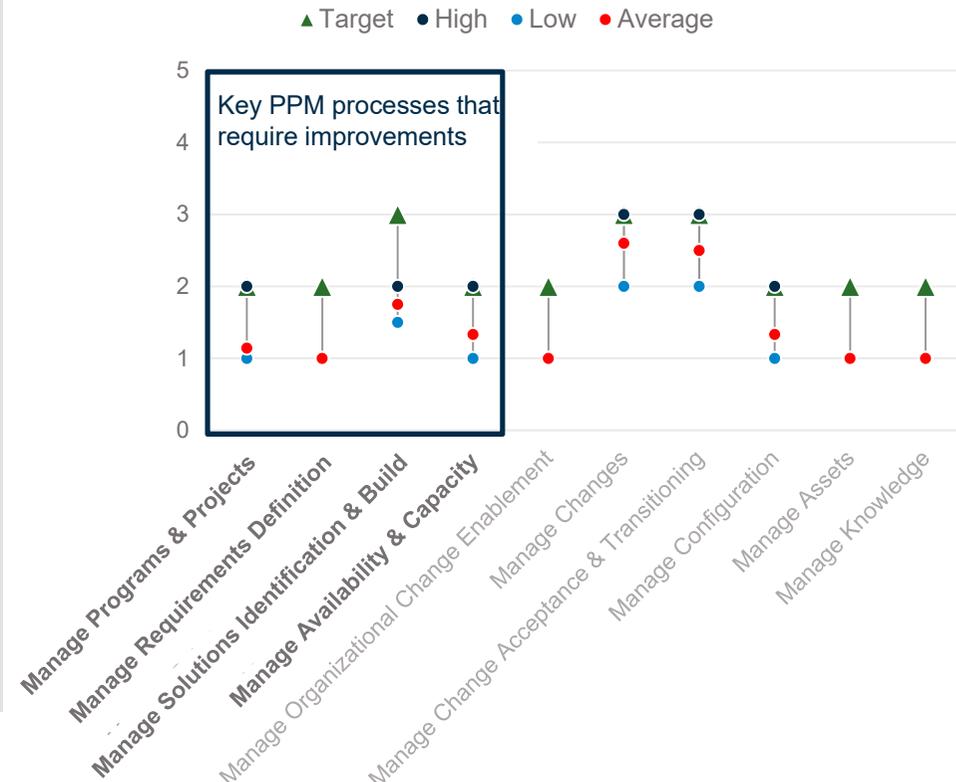
## Build, Acquire, and Implement

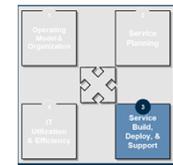
### Observations

- A defined project management lifecycle methodology process including design, solutioning, building, testing and release does not exist
- Standardized process to scope and develop project or program requirements is not formalized
- A process does not exist for a standard approach to project definition, work analysis and solutioning
- Resource management tool and process is missing for identifying skills and sourcing talent for project work

### COBIT Ratings

Build, Acquire, and Implement Process Maturity Range





# Statewide Change Control Processes are not Defined or Consistently Implemented

Organization and IT change processes are inconsistent and organizational responsibilities have are not assigned. No formal change control lifecycle method or standards

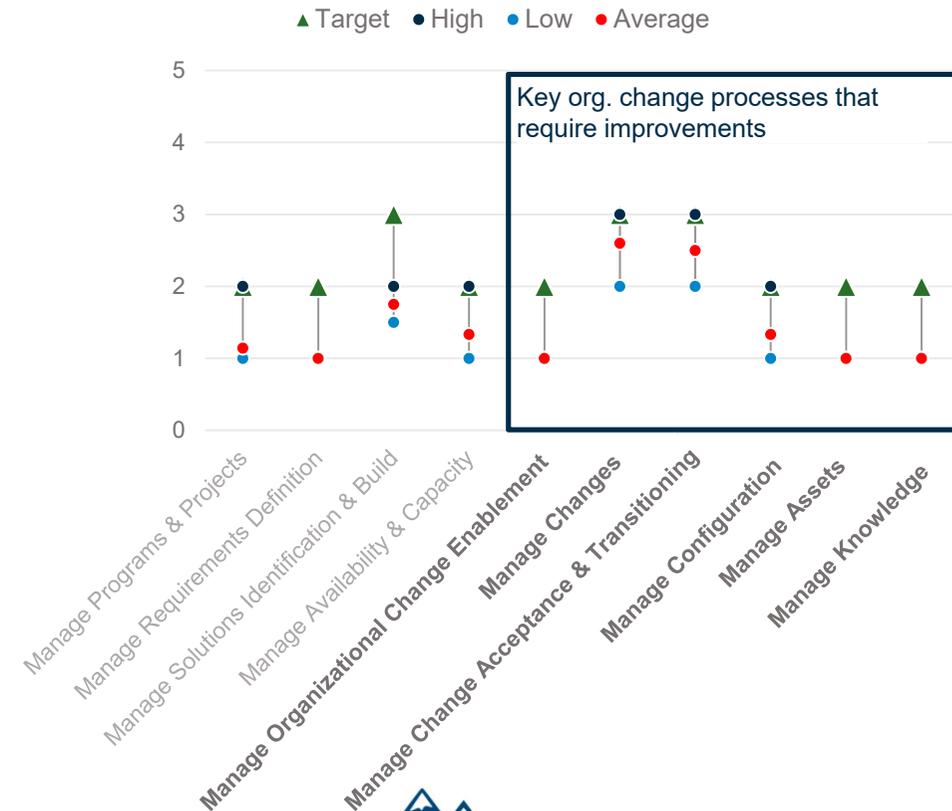
## Build, Acquire, and Implement

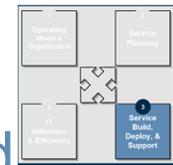
### Observations

- Processes and resources are not defined or assigned to support organization level change and communications
- No standardized change control process across departments
- Existing change control board operates with limited authority to approve changes
- Knowledge management process and tool do not exist for sharing learnings
- There is no statewide asset management process for tracking and managing assets.
- No defined or standardized configuration management process

### COBIT Ratings

Build, Acquire, and Implement Process Maturity Range





# There is no Common Help Desk Platform, UTS Not Designed for Statewide Use

UTS was configured without a requirements and design phase, resulting in capabilities that do not meet statewide needs. The current configuration does not track a Request vs an Incident, which is a basic capability. In addition, many of the departments are still using other help desk platforms

## Deliver, Service, and Support

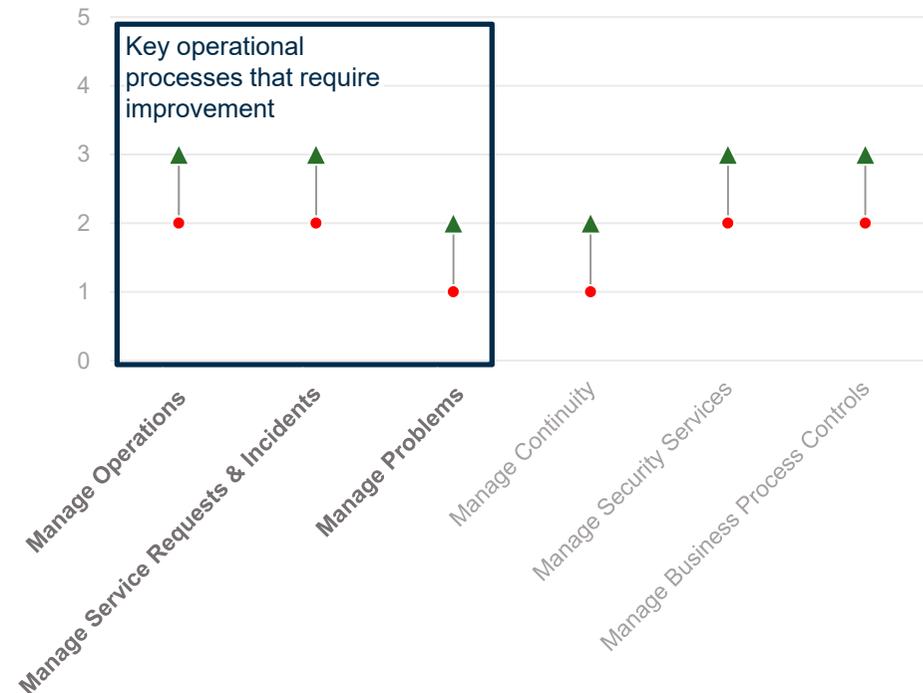
### Observations

- Help desk pilot in progress to improve data processes, collection and prioritization of tickets but not standardized
- Standard operating procedures and monitoring activities are inconsistently defined
- Help desk tickets consolidation requirements are not well defined prior to consolidation leading to reduced capability
- No standard process for problem identification and resolution. Root cause analysis not consistently performed
- Perimeter security program and tools defined but missing internal security focus
- Partially defined and integrated access control management process but lacking a statewide approach to access management

### COBIT Ratings

Deliver, Service, and Support Process Maturity

▲ Target ● High ● Low ● Average



# Transportation Generates the Highest Volume of Tickets

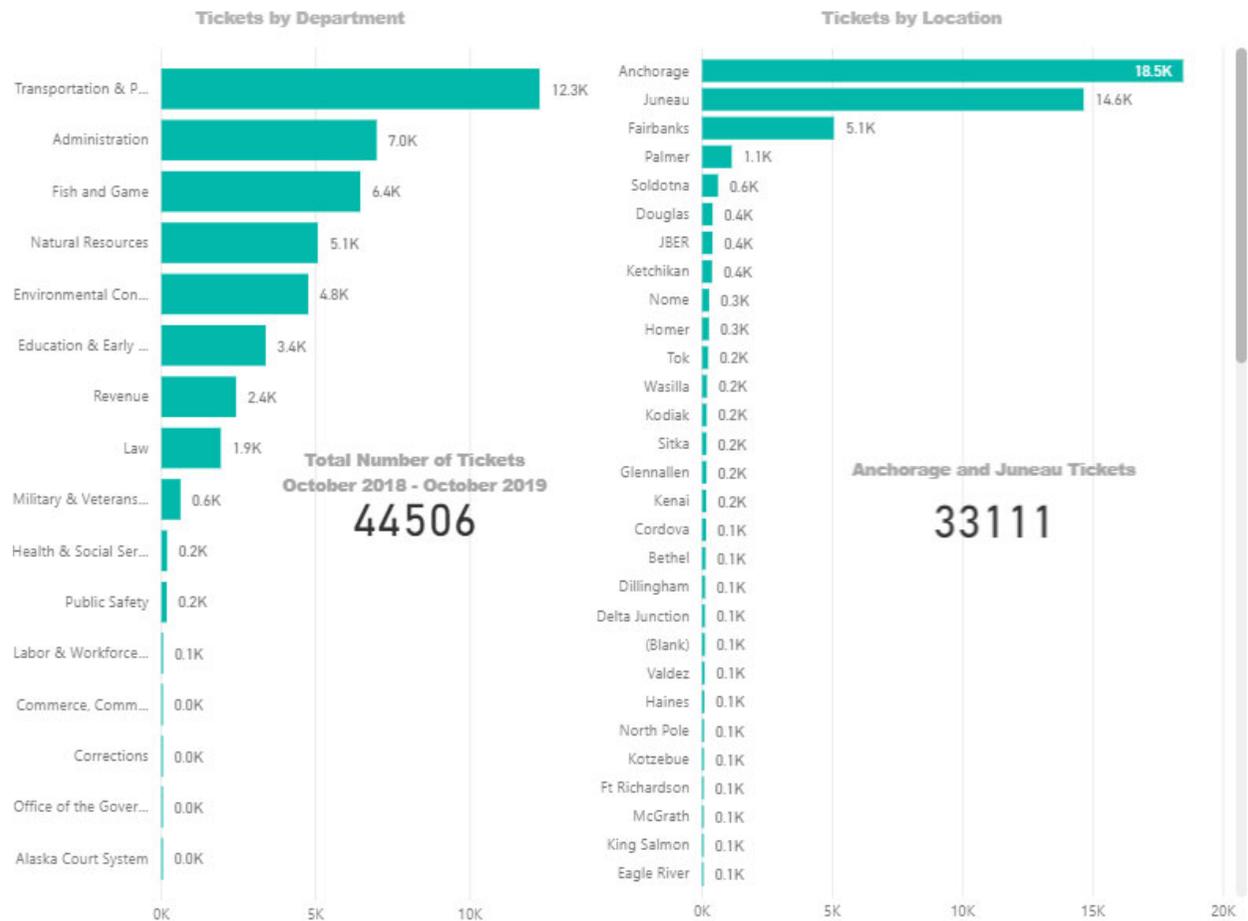
74% of tickets are created for Anchorage and Juneau

## Service Tickets by Department and Location

### Observations

- 28% of the Service Tickets are generated by Transportation
- 78 locations generate tickets

### Fact Basis



# Service Ticket First Response and Open Times are Trending down

Open time and response time have gone down each month since July 2019

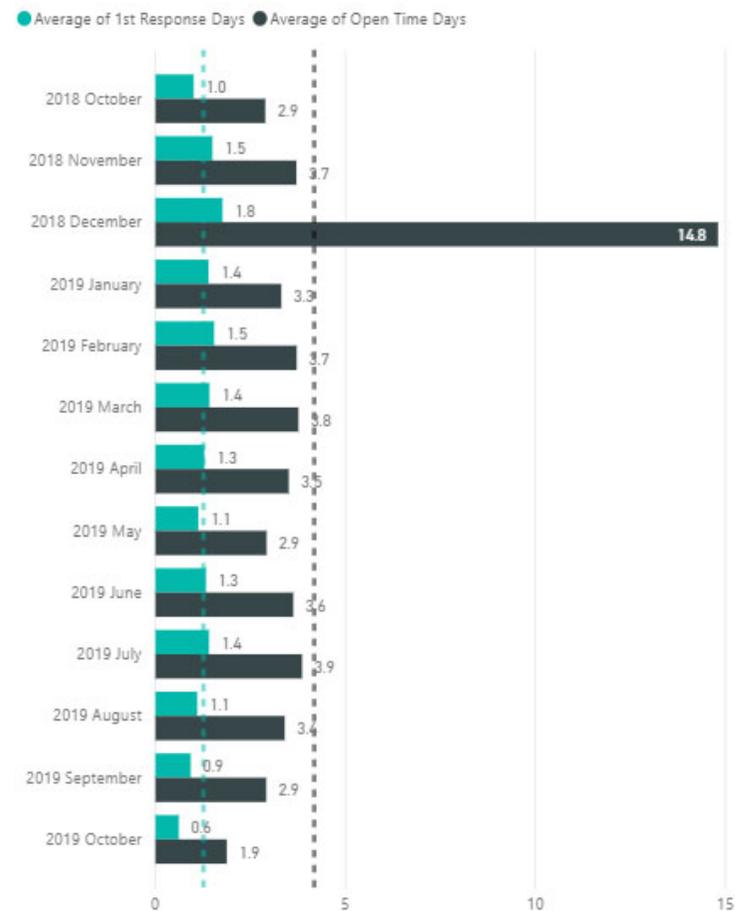
## Service Ticket First Response and Open Times

### Observations

- Spike in December 2018 Average of Open Days was due to ineffective ticket close process for a number of request types including a high volume of Deprecated - End User Services tickets

### Fact Basis

Average of First Response Days and Open Days by Year and Month



# Three Departments Have Higher Tickets Per Employee

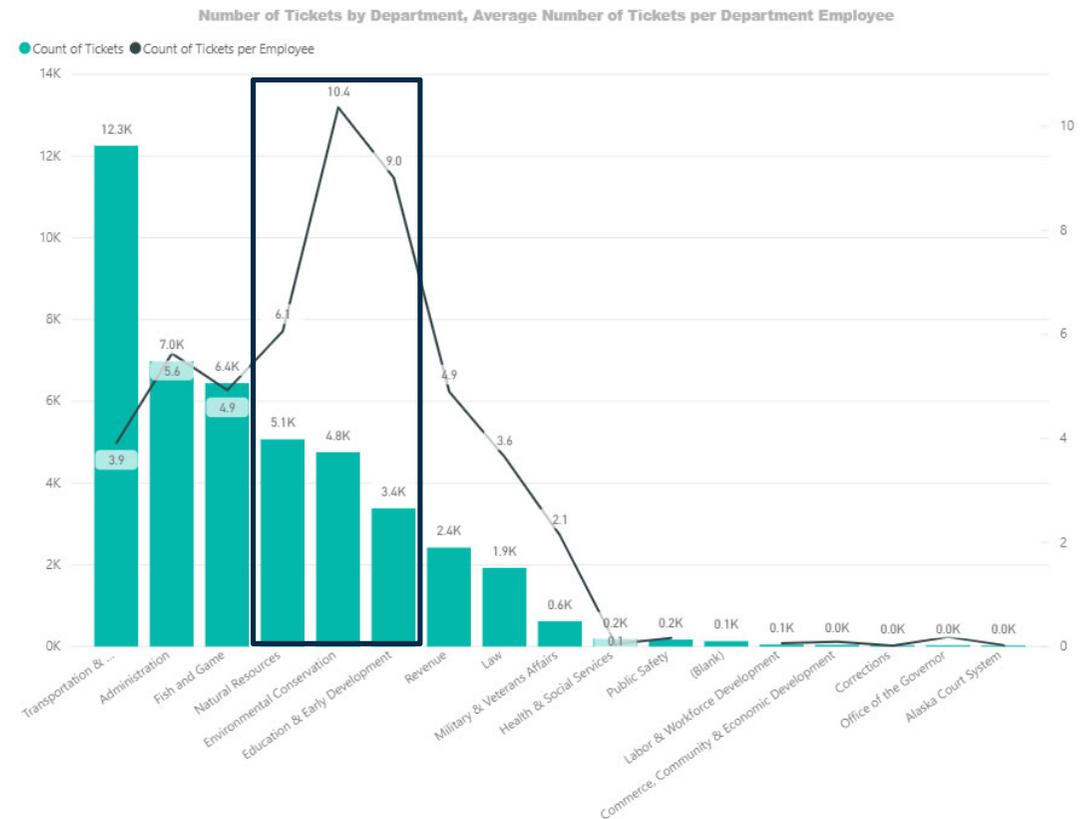
Transportation's 3.9 tickets per employee aligns with lower ticket volume departments

## Service Tickets per Department Employee

### Observations

- 6.3 tickets per employee for Natural Resources
- 9.0 tickets per employee for Education & Early Development
- 10.4 tickets per employee for Environmental Conservation

### Fact Basis



# SolarWinds not Configured to Support Statewide Ticket Handling

## Request type contains multiple types of data

### Service Tickets by Request Type

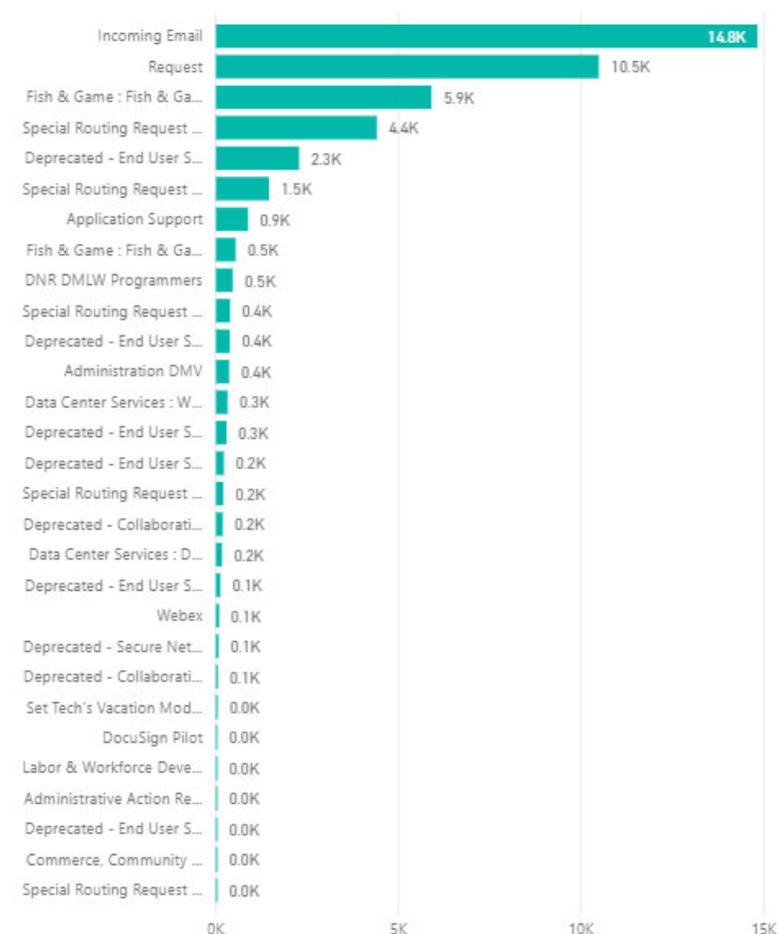
#### Observations

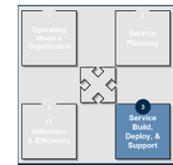
##### Configuration of SolarWinds:

- Does not identify Requests vs Incidents
- "Request Type" is a combination of ticket channels (Incoming Email), type of request (Request) and legacy departmental processes (Fish & Game: Fish & Game No Round Robin)
- Requirements and design of UTS (SolarWinds) was not performed from a statewide perspective

#### Fact Basis

Tickets by Request Type





# Applications are Siloed across Departments Increasing Complexity and Costs

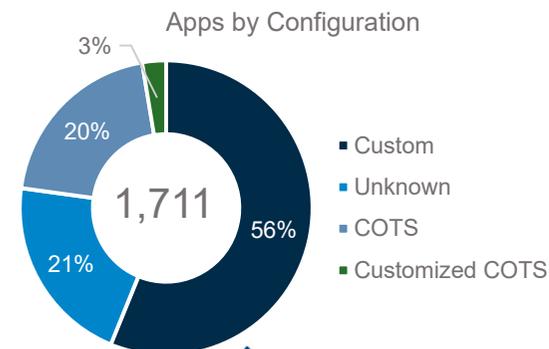
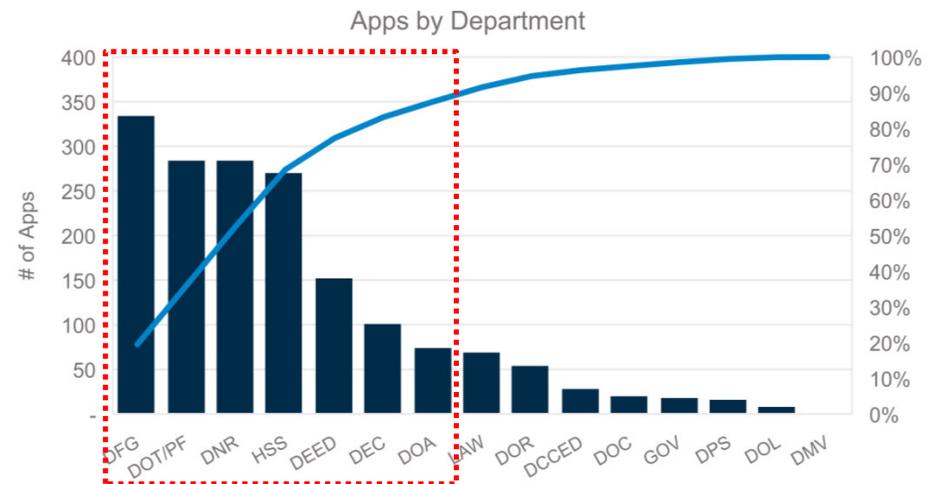
No architecture standards exist to drive application rationalization. 961 applications are custom

## Deliver, Service, and Support

### Observations

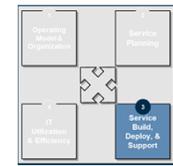
- No statewide process or function for managing applications and infrastructure architecture consistency, standards, or exceptions
- Proliferation of custom applications and development platforms across the state
- No application rationalization process in place to consolidate applications or platforms (88% of all applications originate from 7 departments)
- No process in place for managing mainframe program of applications and integrations (11 custom applications integrate with the mainframe)

### Fact Basis



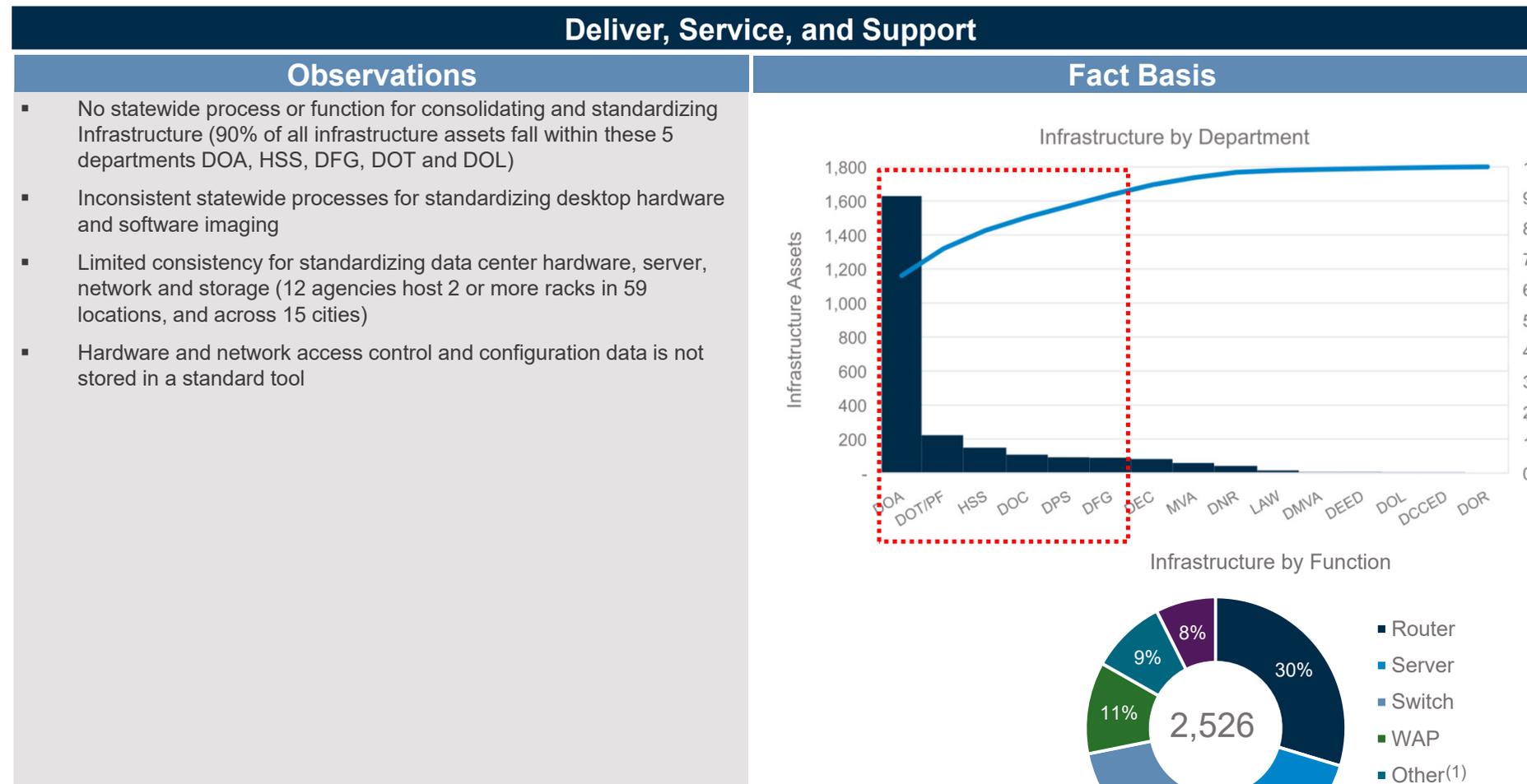
(1) DOT/PF and DNR represent 67% of all unknown configurations  
AAPEX Project | IT Centralization Current State Assessment



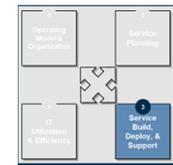


# Decentralized Structure Creates Challenges for Establishing Common Standards

There is no central control and ownership for infrastructure assets. Limited standardization over desktop and server assets



(1) Other includes VoIP, Firewall, and Wired assets



# There is No Statewide Standard for Databases and Data Management

Limited control over the proliferation of databases (90% of all databases spread across 7 departments). Data management processes are not defined to implement standard data formats and data structures

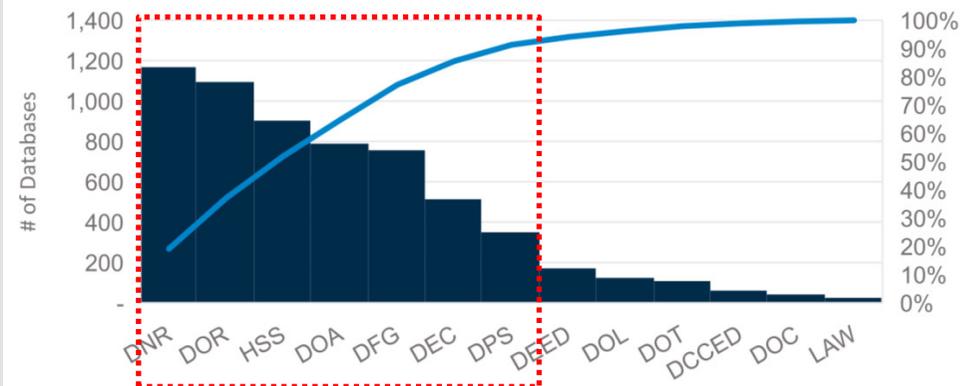
## Deliver, Service, and Support

### Observations

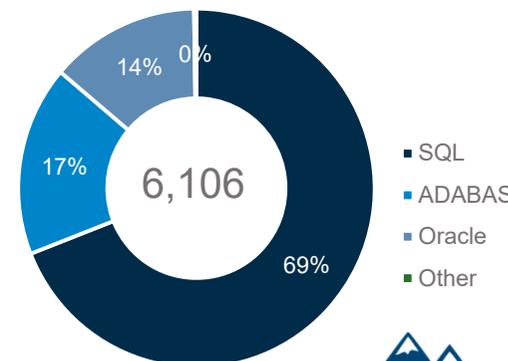
- No statewide architecture control over data base software and data
- Agencies do not formally standardize on a database type for consistency (DOR uses multiple Windows, Linux, and others)
- Asset configurations are not standardized or captured except for limited core network and servers
- Inconsistent statewide standards for virtualization of applications
- Limited database administration resources
- 29% (1,770) are production data bases
- 23% (1,404) are Unknown; not classified as either production, development, test or training databases

### Fact Basis

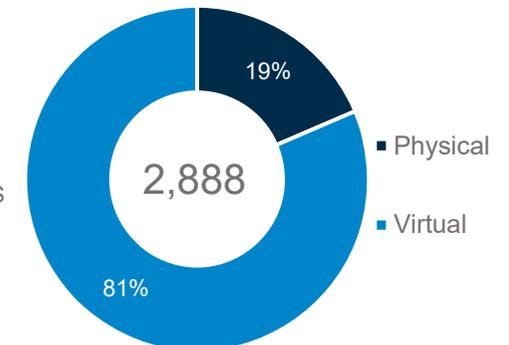
Databases by Department



Databases by Type



Physical vs. Virtual Servers



# Current State Assessment

- Capability Maturity Assessment
  - Operating Model, Org. Structure & Resources
  - Governance & Service Planning
  - Project, Portfolio, & Service Management, Build, Deploy & Support
  - IT Utilization & Financial Model
- Voice of the Customer



# IT Utilization & Financial Model – Summary

**Current statewide IT spend is unclear due to unreliable data. The OIT chargeback model is not understood by agencies**

	Statewide IT Spend	Chargeback Model
<p><b>Approach</b></p>	<ul style="list-style-type: none"> <li>Reviewed 2017 statewide IT spend study conducted by SoA</li> <li>Worked with OIT to scrub cost data to capture statewide spend</li> <li>Identified pockets of IT cost that are unreliable</li> </ul>	<ul style="list-style-type: none"> <li>Reviewed 2020 chargeback rate calculation files</li> <li>Attended ASD rate communication meetings</li> <li>Interviewed OIT and agency stakeholders to gather feedback on the model</li> <li>Mapped rate calculation timeline</li> </ul>
<p><b>Key Findings</b></p>	<ul style="list-style-type: none"> <li>IT spending is not regularly tracked on a consolidated basis</li> <li>Multiple sources and intimate knowledge of the chart of accounts are required to calculate statewide IT spend</li> <li>A detailed cost study is required to quantify 2019 IT costs</li> </ul>	<ul style="list-style-type: none"> <li>Agencies do not understand the chargeback model</li> <li>Rate calculation timing leaves agencies without visibility as they go through their budgeting process</li> <li>OIT is under-billing for services, drawing the difference from the Internal Services Fund</li> </ul>



# Cost Study is Required to Quantify Total IT Spend

Statewide IT spend is not consistently tracked. A 2017 study identified \$237M in total IT spend. Due to unreliable data, an A&M / OIT refresh did not conclusively identify 2019 spend

Statewide IT Spend

Observations	Fact Basis																																																															
<ul style="list-style-type: none"> <li>Statewide IT spend is not consistently tracked on a consolidated basis and requires multiple sources to calculate</li> <li>OIT undertook a statewide IT spend study in 2017, calculating total statewide IT spend of ~\$237M (including capital expenditures)                             <ul style="list-style-type: none"> <li>- \$50M of the total is identified as “Possible IT Expenses”</li> </ul> </li> <li>Intimate knowledge of the chart of accounts is required to identify other “Possible IT Expenses”</li> <li>A detailed cost study is required to quantify 2019 statewide IT costs</li> </ul>	<div style="text-align: center; font-weight: bold; margin-bottom: 10px;">2017 Statewide IT Spend Exercise</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; margin: 0;">State of Alaska IT Spend</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th rowspan="2">IT Spend Categories</th> <th>FY15</th> <th>FY16</th> <th>FY17</th> <th>Difference (\$)</th> <th>Difference (%)</th> </tr> <tr> <th>FY15</th> <th>FY16</th> <th>FY17</th> <th>FY16-15</th> <th>FY17-16</th> </tr> </thead> <tbody> <tr> <td>Personnel Services</td> <td>\$ 90,127,561</td> <td>\$ 93,907,056</td> <td>\$ 93,271,701</td> <td>\$ 38,785,495</td> <td>43%</td> </tr> <tr> <td>Travel</td> <td>\$ 955,431</td> <td>\$ 968,314</td> <td>\$ 500,952</td> <td>\$ (454,482)</td> <td>-47%</td> </tr> <tr> <td>Operating Total</td> <td>\$ 87,892,490</td> <td>\$ 98,313,402</td> <td>\$ 75,789,514</td> <td>\$ 110,421,892</td> <td>14%</td> </tr> <tr> <td>Capital Total</td> <td>\$ 37,989,766</td> <td>\$ 24,111,912</td> <td>\$ 27,267,549</td> <td>\$ 109,076,200</td> <td>27%</td> </tr> <tr> <td>Possible IT Expense Not Specified as IT</td> <td>\$ 30,988,841</td> <td>\$ 32,715,370</td> <td>\$ 15,452,755</td> <td>\$ 19,463,514</td> <td>63%</td> </tr> <tr> <td>Grand Total</td> <td>\$ 247,617,881</td> <td>\$ 257,879,488</td> <td>\$ 237,642,388</td> <td>\$ 19,975,590</td> <td>8%</td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="font-weight: bold; text-align: center;">2017 IT Spend Summary</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>Personnel &amp; Travel</td><td style="text-align: right;">\$83.8M</td></tr> <tr><td>Services</td><td style="text-align: right;">38.3</td></tr> <tr><td>Supplies</td><td style="text-align: right;">5.8</td></tr> <tr><td>Equipment</td><td style="text-align: right;">1.5</td></tr> <tr><td>Telecom</td><td style="text-align: right;">29.6</td></tr> <tr><td>Capital</td><td style="text-align: right;">27.6</td></tr> <tr style="border: 2px solid blue;"><td>Possible IT Not Specified</td><td style="text-align: right;">50.5</td></tr> <tr><td><b>Total</b></td><td style="text-align: right;"><b>\$236.9M</b></td></tr> </tbody> </table> </div> <div style="border: 2px solid blue; padding: 5px; margin-top: 10px; width: fit-content;"> <p>“Possible” IT spend represented ~20% of the total IT spend in 2017</p> <p>Possible IT spend items include IT costs that are tagged in non-IT object codes</p> </div>	IT Spend Categories	FY15	FY16	FY17	Difference (\$)	Difference (%)	FY15	FY16	FY17	FY16-15	FY17-16	Personnel Services	\$ 90,127,561	\$ 93,907,056	\$ 93,271,701	\$ 38,785,495	43%	Travel	\$ 955,431	\$ 968,314	\$ 500,952	\$ (454,482)	-47%	Operating Total	\$ 87,892,490	\$ 98,313,402	\$ 75,789,514	\$ 110,421,892	14%	Capital Total	\$ 37,989,766	\$ 24,111,912	\$ 27,267,549	\$ 109,076,200	27%	Possible IT Expense Not Specified as IT	\$ 30,988,841	\$ 32,715,370	\$ 15,452,755	\$ 19,463,514	63%	Grand Total	\$ 247,617,881	\$ 257,879,488	\$ 237,642,388	\$ 19,975,590	8%	Personnel & Travel	\$83.8M	Services	38.3	Supplies	5.8	Equipment	1.5	Telecom	29.6	Capital	27.6	Possible IT Not Specified	50.5	<b>Total</b>	<b>\$236.9M</b>
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# OIT Chargeback Model is Finalized After Agency Budgeting, Leaving Agencies with Limited Visibility

Agencies do not understand the IT chargeback model. Timing of rate development leaves agencies with limited visibility into forward year OIT charges as they prepare budgets

Chargeback Model			
Observations	Fact Basis		
<ul style="list-style-type: none"> <li>OIT met with ASDs in November to communicate 2020 rates</li> <li>Agencies do not understand the chargeback model</li> <li>Agencies believe the OIT chargeback rates are too expensive</li> <li>Rates are communicated to agencies after the budgeting cycle has been completed</li> <li>Delays in rate calculation lead to a six-month bill in December</li> <li>Historical rather than projected financials are used for rate planning purposes</li> <li>OIT is under-billing for services provided, drawing the difference from the Internal Service Fund</li> <li>The “Core” charge is 70% of total chargebacks and calculated on a per-PCN basis</li> <li>True-ups are limited in scope and may lead to over/under billing of departments for IT services</li> </ul>	Chargeback Calendar		
	<u>January</u>	<u>February</u>	<u>March</u>
	DOA receives budget appropriation		
	<u>April</u>	<u>May</u>	<u>June</u>
	Commissioner / OMB decide OIT budget		
	<u>July</u>	<u>August</u> *	<u>September</u> *
	Prior year budget sent to Maximus for chargeback allocation		
	July 1 <sup>st</sup> fiscal year begins	Trim historical budget allocations to match future year budget	
	<u>October</u>	<u>November</u>	<u>December</u>
	Chargeback communicated to ASDs / Q&A process		OIT begins billing departments

\* “Heads-up” meeting between departments and OMB to present draft of next year’s budget



# Agencies Believe OIT Rates are too Expensive

Agency stakeholders believe OIT is too expensive. In FY20, agencies will pay \$3,026<sup>(1)</sup> per PCN for the “Core” charge. Core represents nearly 70% of total chargebacks

(\$ in M) Category	Chargebacks		% of Total	
	FY19	FY20	FY19	FY20
Core	\$35.0	\$38.0	65.6%	67.8%
MICS (Mainframe)	6.2	4.8	11.6%	8.5%
Phone	4.6	4.9	8.7%	8.7%
Server Hosting & Storage	5.4	5.0	10.2%	9.0%
SQL	0.7	0.9	1.3%	1.5%
Oracle	-	1.0	0.0%	1.8%
LoB	1.4	1.5	2.6%	2.6%
<b>Total</b>	<b>\$53.3</b>	<b>\$56.0</b>		

- Enterprise Apps**– O365, Adobe, SOA websites, enterprise app support, dev tools and programming interfaces
- Communication & Collaboration**– Email services, audio / video collaboration, internet services, LAN/WAN, VPN and fax services
- End User Services**– Device deployment / demobilization, Service desk, account provisioning, application patching/maintenance, printing, miscellaneous
- Information Security**– Security operations, security engineering, security incident response, security governance / compliance
- Policy & Governance**– Investment review board, IT standards, OIT services portfolio, recruitment review

(1) Per November 2019 Chargeback model.  
Source: Chargeback model as of November 2019.

# Current State Assessment

- Capability Maturity Assessment
  - Operating Model, Org. Structure & Resources
  - Governance & Service Planning
  - Project, Portfolio, & Service Management, Build, Deploy & Support
  - IT Utilization & Financial Model
- Voice of the Customer

# Voice of the Customer – Summary

Survey results are generally positive, cyber security awareness program has been effective, opportunities around wireless access and on time, on budget project delivery that achieves expected result

Approach	Survey Facts	Scoring		
	<ul style="list-style-type: none"> <li>Survey sent to 2,616 state employees, as of December 10, 2019, 315 (12%) surveys were received across 15 Departments</li> <li>The survey collected Agency / Department, Division, experience level and years of service with the state</li> <li>For each question, who provides the service (e.g. OIT, Department IT), how well the services are performed and the importance of the service were scored</li> <li>The survey included three open ended questions on the benefits, challenges and opportunities from IT services</li> </ul>	<b>Score</b>  0 1 2 3 4 5	<b>How well is the service performed?</b>  Not Performed/Don't Know Unsatisfactory Poor Fair Good Excellent	<b>How important is this service?</b>  Don't Know Not Important Low Importance Important Very Important Critical
Key Findings	Comment Common Themes	Scoring		
	<p><u>Common themes for “Benefits Received from Technology”:</u></p> <ul style="list-style-type: none"> <li>Systems allow for communication and collaboration across the state</li> <li>Available, fast friendly response from IT in general and the help desk, especially when onsite</li> <li>Fast and reliable Internet and good system reliability</li> </ul> <p><u>Common themes for “If you could make one change” and “Challenges”:</u></p> <ul style="list-style-type: none"> <li>Improved training, communications and systems (ARIES, IRIS, ALDER)</li> <li>Improved support by knowledgeable IT resources</li> <li>Upgraded equipment and software</li> </ul>	<ul style="list-style-type: none"> <li>Summarized scores were in the top right quadrant, above 2.5 on both Performance and Importance</li> <li>For “Service Provide By”, Departmental IT had the highest Performance scores, followed by Both (Department IT and OIT), OIT and Don't Know</li> <li>The highest scoring department for Importance was the Department of Environmental Conservation, the lowest was the Department of Public Safety</li> <li>The highest scoring questions was “We have been trained in policies and procedures regarding phishing and other forms of cyber attacks”, the lowest scoring questions was “We have reliable wireless access in all office locations across the state”</li> </ul>		

# Overall Scores in High Importance, High Performance Quadrant

The overall Importance score is 3.81, the overall Performance score is 3.19

## Voice of the Customer

### Observations

#### Department Responses

The three highest scoring Departments for Performance are:

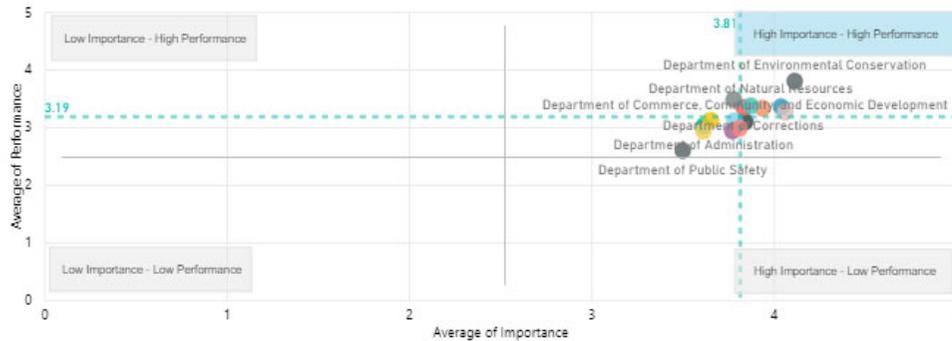
- Department of Environmental Conservation 3.72
- Office of the Governor 3.49
- Department of Health and Social Services 3.29

The three lowest scoring Departments for Performance are:

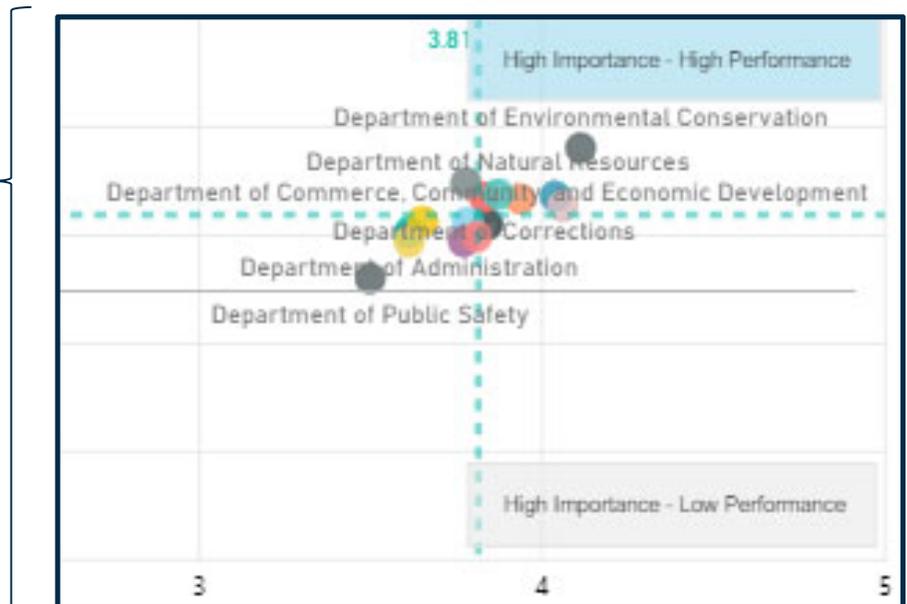
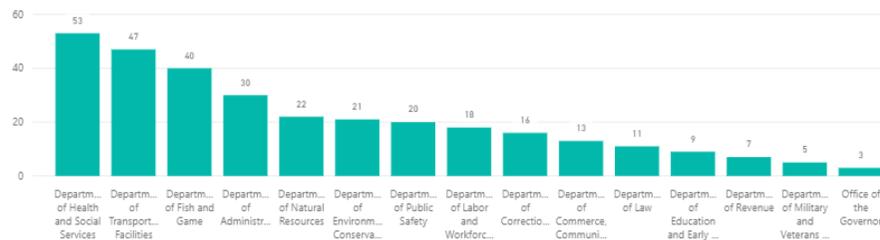
- Department of Public Safety 2.55
- Department of Transportation/Public Facilities 2.86
- Department of Labor and Workforce Development 2.88

### Fact Basis

Average of Importance and Average of Performance by Agency / Department



Number of Agency / Department Responses



# In 43% of Survey Responses the End User Didn't Know Who Provided the Service

Departmental IT has the highest Performance scores, OIT Performance score is .41 lower than Departmental IT

## Voice of the Customer

### Observations

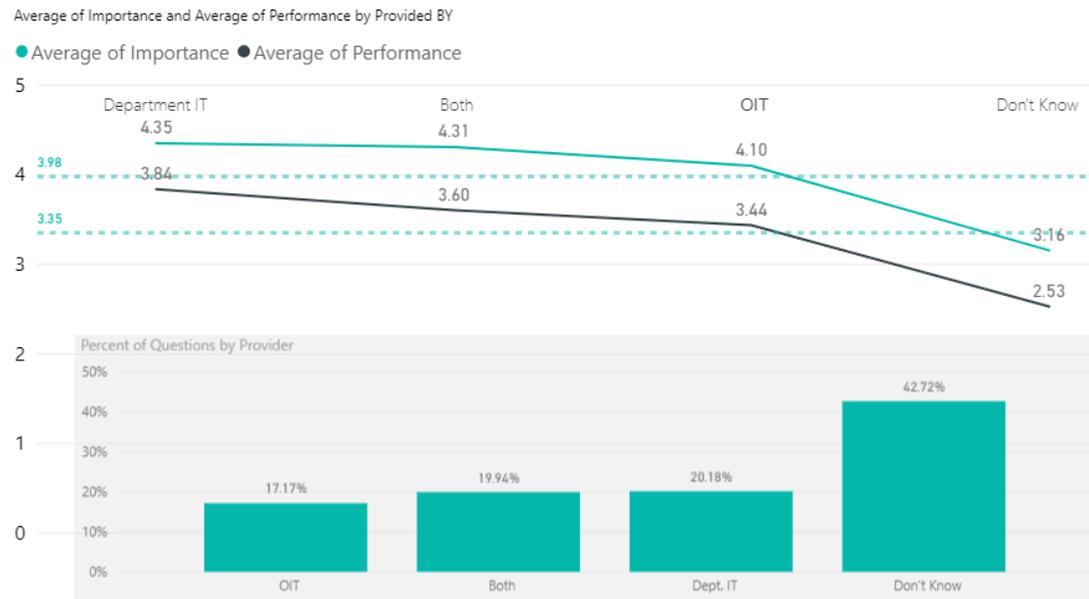
#### All Providers

- The overall Performance score is 3.35
- The overall Importance score is 3.98

#### By Provider

- Departmental IT Performance score 3.85
- Both (OIT & Departmental IT) Performance score 3.60
- OIT Performance score 3.44
- Don't Know Performance score 2.53

### Fact Basis



# Cyberattack Education Program was Effective

Overall scores on help desk were high, comments indicate there are challenges on non routine help desk requests

## Voice of the Customer

### Observations

#### The Questions with the highest Performance scores

- We have been trained in policies and procedures regarding phishing and other forms of cyber attacks 4.19
- We are notified with timely communications regarding upcoming impacts to system availability 3.92
- We have a one-stops shop help desk that manages and resolves all my requests 3.65

### Fact Basis

Average of Importance and Average of Performance by Question



# Reliable Wireless and Project Delivery Received Lowest Scores

Ability to deliver projects on time, on budget with the expected benefits received low scores

## Voice of the Customer

### Observations

#### The Questions with the lowest Performance scores

- We have reliable wireless access in all office locations across the state 2.21
- Information technology projects for my agency / department are delivered on time, on budget with minimal software bugs or issues 2.31
- Information technology projects delivered for my agency / department achieve the expected results 2.42

### Fact Basis

Average of Importance and Average of Performance by Question





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