

**Public Sector** 

# **Table of Contents**

### **Executive Summary**

- 1 Approach & Methodology
- 2 Key Current State Findings

## **Independent Assessment Report**

- 3 IT&T Solution Analysis
- 4 CoSD IT&T Currency
- 5 Pricing/Value by Framework
- 6 IT Agreement Analysis

## **Moving Forward**

- 7 Recommendations
- 8 Roadmap





# IT&T Audit & Assessment: Objectives/Approach

The County of San Diego engaged Avasant to conduct an independent audit of its long-standing outsourcing relationship.

The objective was to assess:

- IT&T technology solutions in production,
- The currency of the County's IT environment,
- The value and cost efficiency of services and alignment with public and private sector best practices under the current agreement, to inform leadership ahead of the 2025 renewal/RFP cycle.
- The alignment of the current outsourcing contract to best practices

Avasant's approach for this deliverable comprised the following steps:

- Leverage & synthesize findings from:
  - 1.2 Data Collection & Interview Summary
  - 1.3 Current State Assessment
  - 1.4 Financial Model
- Evaluate alignment of IT solution trends, IT currency, value by framework, and IT agreement vs. best practices
- 3 Consolidate findings into an executive level view
- Provide recommendations & roadmap



# Scoring Models Overview

We conducted four targeted assessments to evaluate key aspects of IT service delivery—IT&T Solutions, IT Currency, Pricing/Value, and IT Agreement. Each area was scored against established public and private sector best practices to highlight where current approaches are well-aligned and where there may be opportunities for improvement. To aid in interpretation, the subsequent slides include a visual representation of where the County stands using a slider format. These sliders incorporate color-coded indicators and rating levels, as explained below, to help convey the relative alignment of each area in a clear and intuitive way.

### **IT&T Solutions vs. Best Practices IT Currency Assessment Pricing/Value vs. Best Practices Current IT&T Agreement vs. Best Practices Purpose:** Evaluate modernization **Purpose:** Evaluate how CoSD's Purpose: Compare CoSD's Purpose: Assess clarity, IT&T solutions align with public status of assets based on install operational spend by framework enforceability, and governance sector and industry best practices. date and useful life. against peer group benchmarks. strength of contract terms. Scale: Scale: Scale: Scale: Full Alignment **Full Currency** Below Peer Group Range Clear Representation Strong Alignment Strong Currency General Representation Moderate Currency Within Peer Group Range Moderate Alignment Partial Representation Partial Currency **Emerging Alignment** Limited Representation Minimal Alignment **Limited Currency** Above Peer Group Range **Applied to:** Data Center, Network, Applications, Service **Applied to:** Data Center & Cloud, **Applied to:** Data Center, **Applied to:** Financial model Network, Applications, Service Desk, End User, Security, DR, Network, End User assets across IT&T service frameworks Desk, End User Customer Service, Cost Efficiency, Risk & Liability, Innovation

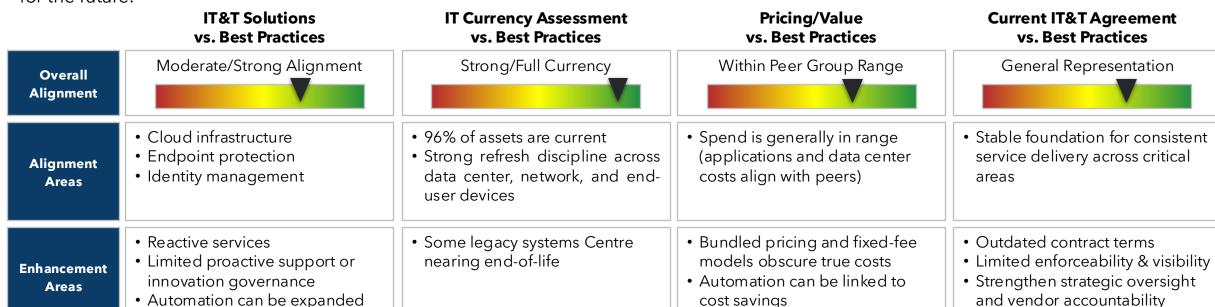


# Key Findings Summary

### Where does the County land against best practices?

- The County's IT services are stable: systems are reliable and there are no recurring outages or failures.
- Most assets are current, with 96% of hardware within support cycles (which is quite high for a County of this size and caliber).
- IT spending is generally aligned with peer benchmarks, and
- The County has made meaningful progress in areas like cloud adoption, identity management, and endpoint protection.

Through these initiatives, the County has a solid foundation for modernization. However, the environment is constrained by an aging contract that limits flexibility and makes it difficult to adapt to new technologies or introduce innovation. Pricing is bundled (hardware and software together in one price) and lacks transparency, which makes it hard to track costs or hold vendors accountable. Service delivery is mostly reactive, and automation is underutilized. To be clear, the County is not behind – it's just operating within a legacy framework that could be limiting its potential to reap the rewards of innovation. A renewed agreement offers the chance to do this: with clearer governance, modular contract structures, and enhanced support for innovation, the County can build on its strengths and ensure its IT services are ready for the future.



# CoSD IT&T Solutions vs. Best Practices Summary

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Data Center & Cloud	Cloud-first, automated, and resilient environments using Infrastructure as Code (IaC), centralized monitoring, and AI	<ul> <li>Well-aligned in AWS cloud adoption, automated patching, and IaC tools</li> <li>Al and centralized operations are emerging areas</li> </ul>	
Network	Software-defined, cloud-secure, and analytics- driven networks with automation and Al-Ops	<ul> <li>Strong in WiFi 6 adoption and next-gen firewalls with IPS/IDS features</li> <li>Automation, analytics, and AI-Ops are limited</li> </ul>	
Applications - M&O	Automated operations with full observability, microservices, and CI/CD pipelines	<ul> <li>Microservices and automation tools are in use for monitoring and task automation</li> <li>Observability and testing are less consistent</li> </ul>	
Applications - Development	Agile/DevOps delivery with automated code reviews, version control, and real-time reporting	<ul> <li>Some DevOps tools in use (GitHub/Azure DevOps)</li> <li>Agile adoption and tool standardization are still developing</li> </ul>	
Service Desk	Al-enabled, omnichannel support with proactive incident management and sentiment tracking	<ul> <li>Strong workflow automation and omnichannel support via ServiceNow and NICE-in-Contact</li> <li>Mostly reactive support</li> </ul>	
End User	Secure, flexible, and experience-driven environments with Zero Trust, DEX, and automation	<ul> <li>Strong in patching, remote access, collaboration tools (Teams/SharePoint), and endpoint protection</li> <li>DEX and VDI scalability can improve</li> </ul>	

# CoSD IT&T Currency vs. Best Practices Summary

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Data Center Services	Refresh servers and storage every 5-7 years and modernize or retire legacy platforms within 5-7 years. Maintaining 90%+ of devices current; automate patching, vulnerability scanning, and lifecycle planning.	<ul> <li>98.4% of physical data center devices are current (1,427 / 1,450)</li> <li>Only 1.5% (23 devices) are beyond end-of-life, demonstrating strong lifecycle management</li> <li>Refresh cycles aligned with best practices</li> <li>Automated patching, but some legacy AS/400 and PBX platform remain</li> </ul>	
Network Devices	Core and distribution devices should be refreshed every 5-7 years, with firewalls and wireless on a 3-5-year cycle to keep pace with evolving security needs. Maintain 85-90%+ currency, with 90-95% for security; leverage automation and Al-Ops for provisioning and monitoring.	<ul> <li>99.7% of network devices are current (3,001 / 3,010)</li> <li>Only 0.3% (9 devices) are out of support, showing exceptional lifecycle discipline</li> <li>Contract cycles: IP phones 4-5 years, Wireless 3 years, 3<sup>rd</sup> Party Access 5 years</li> <li>DX NetOps monitoring is in place but not fully automated, and provisioning still relies on manual steps</li> </ul>	
End User Devices	Desktops, laptops, and tablets should be refreshed every 3-5 years in line with warranty and vendor support. Counties should maintain 95%+ currency, with automated tracking, provisioning, and endpoint security controls (EDR, DLP, GPO)	<ul> <li>97.5% of devices are current (18,604 / 19,090)</li> <li>Only 2.5% beyond EOL</li> <li>Strong alignment to cycle targets, though some HP, Dell, SurfacePro, and printer models are overdue</li> <li>Automated tracking, patching, and endpoint protection are in place</li> </ul>	

# CoSD Pricing/Value by Framework vs. Peer Benchmarks

Operational Annual Spend as % of Total IT Operational Spend FY23-241

Framework	CoSD Spend		Benchmark (	(Average)		CoSD Position vs. Peer Benchmark	Observations
Data Center	\$33.1 M	13%	17%	24%	14%	Within Range	<ul> <li>CoSD is just above the City/County benchmark and well below the Large Orgs benchmark</li> </ul>
		City/County	Government Sector	Large Orgs	CoSD		
Network	\$54.5 M	16%	14%	13%	22%	Above Range	CoSD is significantly above all peer benchmarks - may be opportunities for savings
		City/County	Government Sector	Large Orgs	CoSD		
Applications	\$63.9 M	34%	33%	34%	26%	Below Range	CoSD below average benchmarks for all three peer groups
		City/County	Government Sector	Large Orgs	CoSD		
End User/ Service	\$26.5 M	14.0%	12.0%	12.0%	10.8%	Below Range	<ul> <li>CoSD slightly below all peer benchmarks. There may be opportunities for additional investment in</li> </ul>
Desk		City/County	Government Sector	Large Orgs	CoSD		automation to get greater savings.

<sup>&</sup>lt;sup>1</sup> Excludes DA & Sherriff employees, users, devices, tickets, etc.



# Current IT&T Agreement vs. Best Practices Summary

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practice
Area	industry best Practices	Cosb key Findings	Angiment to best mactice
Data Center	Clearly define hybrid/cloud operations with platform governance, encryption standards, and DR integration	<ul> <li>Hybrid/cloud services are acknowledged, and legacy platforms are included</li> <li>Contract could benefit from clearer platform specifications, encryption standards, and cloud-integrated DR planning</li> </ul>	
Network	Ensure network redundancy, centralized monitoring with Al-Ops, wireless design standards, and clear telecom service definitions	<ul> <li>Dual Point of Presence (PoP) model supports redundancy, monitoring is in place</li> <li>Greater clarity around Al-Ops capabilities, wireless architecture, and telecom product definitions would enhance scalability and oversight</li> </ul>	
Apps	Define development methodologies (Agile, SAFe), tooling (JIRA, GitHub), and clarify database support roles	<ul> <li>Application and database services are scoped</li> <li>Adding specificity around development practices, tooling standards, and lifecycle governance processes would support consistency and quality</li> </ul>	
Service Desk	Include SLAs for incident response, chatbot support for Tier 0, and automated self-service portals	<ul> <li>Basic chat and self-help tools are included</li> <li>Defining incident response SLAs and expanding automation and AI capabilities would improve responsiveness and user experience</li> </ul>	
End User	Price support based on service effort, not device cost. Separate hardware from maintenance and track depreciation.	<ul> <li>RU pricing is detailed and includes hardware, software, and labor</li> <li>Separating hardware from support and incorporating depreciation tracking would improve budgeting equity and cost transparency across departments</li> </ul>	
Disaster Recovery	Ensure 24-hour recovery for critical apps, monthly DR plan updates, and 30-day remediation timelines	<ul> <li>DR plans are updated annually, and remediation timelines are defined</li> <li>Shortening recovering targets &amp; aligning terminology would improve clarity</li> </ul>	
Customer Service	Use structures SLAs, hygiene metrics, and fair performance targets that reflect business impact	<ul> <li>SLAs and performance tracking are in place</li> <li>Moving to a trackable format (e.g., Excel instead of Word) and refining hygiene metrics/queue weightage would improve transparency and fairness</li> </ul>	
Cost Efficiency	Use scalable, usage-based pricing and link automation and innovation to cost savings	<ul> <li>RU and cloud pricing are defined, and a flat 5% markup is applied</li> <li>Enhance value with tiered pricing &amp; mechanisms to share automation savings</li> </ul>	
Risk & Liability	Include enforceable remedies, audit rights, capped indemnities, and clear termination triggers	<ul> <li>Audit rights and high liability caps (\$200M with 130% uplift) are present</li> <li>Strengthened remedy language, breach triggers, and indemnity limits would improve contractual protection</li> </ul>	
Innovation	Lay out clear innovation governance with measurable outcomes (ROI, KPIs), stakeholder input, & IP ownership	<ul> <li>Innovation Officer and fund are defined but lightly structured</li> <li>Formalizing governance, outcome tracking, &amp; IP terms would maximize value</li> </ul>	



## Recommendations Overview

The following recommendations have been developed with careful consideration of the County's current IT&T environment, operational needs, and long-term strategic goals. Each area reflects tailored insights aimed at enhancing efficiency, transparency, and long-term value across County departments:

### **IT&T Solution Analysis**



Focus on expanding automation, proactive monitoring, and innovation governance to improve service delivery and operational efficiency across County IT operations

### **IT&T Currency**



Focus on maintaining hardware currency and refresh accountability to reduce risk and enhance lifecycle planning across County departments

### **Pricing/Value**



Consider restructuring pricing models to improve transparency, align costs with service consumption, and incentivize automation and innovation

### IT&T Agreement



Consider updates to contract structure, governance, and accountability mechanisms to reflect current best practices and support flexibility, performance, and strategic outcomes





# CoSD IT&T Technical Solutions vs. Best Practices - Alignment Methodology

Alignment is based on the consistency and effectiveness of adopting common solution trends best practices in IT service delivery. These are solution elements and themes seen consistently in current IT services models across public and private sectors:

Alignment to Best Practices				
Level 5 - Full Alignment	Solutions across internal teams and service providers are completely aligned with industry best practices across key dimensions. The solution reflects a forward-looking approach that supports continuous improvement to support business outcomes, with minimal need for adjustment.			
Level 4 - Strong Alignment  Solution is well-aligned with recognized best practices and demonstrates thoughtful integration. Minor adjustments may further optimize performance, scalability, or future readiness.				
Level 3 - Moderate Alignment Solution generally reflects best practices, though there are opportunities to strengthen alignment. Revision enhance consistency with prevailing standards or improve integration with newer delivery models.				
Level 2 - Emerging Alignment  Some foundational solutions are considered or implemented in an ad-hoc manner, but there are notable gather that may transfer risk or limit flexibility. These areas could benefit from further refinement to better support operational goals.				
Level 1 - Minimal Alignment	Solution does not currently reflect key elements of public/private sector best practices. This may be due to legacy architecture, strategic constraints, or evolving priorities. Areas identified may benefit from future exploration or enhancement.			

### Additional Notes for Contextual Clarity:

- This analysis is a comparison of CoSD's in-place solutions to **established best practices** in both public and private sectors.
- **Not all IT solution trends are appropriate for every organization.** For example, cloud-native or Al-driven models may not align with the County's current architecture (e.g., lack of Al-Ops and SDN technologies in the design).
- Lack of alignment is not a failure. It may reflect deliberate choices based on security, compliance, or operational needs.
- Technologies such as **AI-Ops, Machine Learning, Generative AI, and Agentic AI** were not fully in scope at the time of the 2016 contract, but any future agreement should require their meaningful adoption, as these capabilities represent the direction of modern services and technology.



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# CoSD IT&T Solutions vs. Best Practices - Data Center & Cloud (1/2) Minimal Emerging Moderate Strong Full

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Virtualized Environments	Most agencies use virtual machines, virtual functions, and cloud services to ensure scalability and flexibility	<ul> <li>Environment is highly virtualized with on-premise VMs and AWS Cloud</li> <li>Actively migrating more workloads to cloud</li> </ul>	
Infrastructure as Code (IaC)	<ul> <li>IaC tools like Terraform and CloudFormation are increasingly used for automated, secure, and repeatable deployments</li> </ul>	Vendor tools and vendor tools are actively used by Peraton to automate the environment	
Service Model	<ul> <li>Operational expenditure (OPEX) models are common</li> <li>Many organizations are looking to consumption-based as-a-service models for more flexible IT services</li> </ul>	<ul> <li>County has fully embraced an OPEX model through the Peraton agreement</li> <li>There are some fixed elements without consumption considerations</li> </ul>	
Patching & Updates	<ul> <li>Automated patching and updates are critical for security &amp; compliance</li> <li>Testing is often at-scale by MSP or driven through an automation tool, and deployment is configured in a platform</li> </ul>	<ul> <li>Almost all patching is completely automated</li> <li>Suggests a very complete model that is responsive for security</li> </ul>	
Automation Tools	<ul> <li>Dedicated robotic process automation (RPA) tools (e.g., Ansible, Terraform, UiPath, BluePrism) are widely adopted for operational efficiency</li> </ul>	<ul> <li>Peraton actively using automation tools for patching and monitoring</li> <li>Key RPA and flexible automation platforms are in place for future optimizations</li> </ul>	

# CoSD IT&T Solutions vs. Best Practices - Data Center & Cloud (2/2) Minimal Emerging Moderate Strong Full

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Monitoring Tools	Centralized monitoring with AIOps tools (e.g., Dynatrace, AppDynamics, LogicMonitor) is emerging but not yet standard in government	<ul> <li>Centralized tools not fully integrated</li> <li>Dedicated Cloud team of 8-10 individuals for all the infraas-code in AWS</li> <li>Other team members do their own group application monitoring</li> <li>Storage and network go back to Peraton teams</li> <li>AWS NetApp FSnX used for file share</li> </ul>	
Hyperconverged Infrastructure (HCI)	<ul> <li>Compute, associated storage, and databases are considered a single logical service ecosystem (hyperconverged infrastructure)</li> </ul>	<ul> <li>HCI is mostly used within the AWS environment</li> <li>On-premise infrastructure is being phased out</li> </ul>	
Operations	Integrated and centralized command/operations centers for handling L1 monitoring and some L2 level support needs	<ul> <li>Operations are not integrated except for AWS</li> <li>Individual teams monitor their own environments – usually more reactive than proactive</li> <li>Missing some monitoring</li> </ul>	
Provisioning	Templatized and automated zero-touch provisioning using tools such as Ansible & Terraform	Provisioning is automated for Cloud team supporting AWS; other areas rely on manual requests	
Al Integration	<ul> <li>Chat features including Agentic AI and knowledge management, pre-built diagnostics / resolver actions is experimental</li> <li>Backend integration is limited but growing</li> </ul>	Al is not yet approved or implemented in backend operations	

# CoSD IT&T Solutions vs. Best Practices - Apps M&O

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Architecture	<ul> <li>Microservices architecture supports modular, scalable service delivery. Applications are broken into independent, loosely coupled services, each responsible for a specific business function.</li> </ul>	County is implementing microservices architectural models to support departmental oriented services	
Monitoring & Alerts	Use automated monitoring tools that generate tickets proactively and support cross-functional visibility	<ul> <li>Automation tools used for monitoring</li> <li>Monitoring is functional but not fully cross-functional</li> </ul>	
Continuous Improvement/ Development	<ul> <li>CI/CD pipelines are used to automate build, test, and deployment processes using tools like Jenkins, GitHub Actions, GitLab CI, or Azure DevOps</li> </ul>	Some DevOps tools in use, especially for low-code application platform (LCAP) and AWS apps	
Testing	<ul> <li>Automated testing (Static Application Security Testing (SAST), Dynamic Application Security Testing (DAST), Interactive Application Security Testing (IAST) is standard for code quality and security assurance</li> </ul>	<ul> <li>Some automated testing in place</li> <li>Varies by application and not consistently applied</li> </ul>	
Observability	<ul> <li>Full-stack observability tools (e.g., OpenTelemetry, Grafana) for monitoring and debugging are increasingly adopted for predictive insights</li> </ul>	<ul><li>Limited to AWS-native UI</li><li>No observability tools or predictive analytics</li></ul>	

# CoSD IT&T Solutions vs. Best Practices - Apps Development

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Methodologies	Agile and DevOps are increasingly adopted for iterative delivery, flexibility, and faster time-to-value	<ul> <li>County is exploring DevOps and Kanban, but most projects still follow Waterfall due to funding and project structure</li> </ul>	
Code Reviews	Automated code reviews help enforce standards and improve quality across distributed teams	Some QA/testing is performed using defined tool stacks	
Version Control	Automated version control (e.g., Git, SVN, Mercurial) to support collaboration and traceability	<ul> <li>Multiple development models in place, which appear to have different tooling components (some include automated versioning)</li> </ul>	
Reporting	Real-time dashboards (e.g., Jira, Azure DevOps, GitLab) provide visibility into progress and bottlenecks	<ul> <li>Some tools via ServiceNow display development progress and status</li> <li>LCAP teams use Azure DevOps</li> <li>Task tracking could be improved</li> </ul>	

# CoSD IT&T Solutions vs. Best Practices - Service Desk (1/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practice
Support Type	Provide omnichannel support (chat, voice, email) with seamless integration across platforms	<ul> <li>Tier 1 support subcontracted to TEKsystems in Texas</li> <li>NICE-in-Contact and ServiceNow allow for omnichannel support</li> <li>Agent-based chat is integrated</li> </ul>	
Workflow	<ul> <li>Automate workflows for approvals and service requests using ITSM platforms</li> </ul>	ServiceNow workflows are well-developed with multi- step approvals	
ITSM	<ul> <li>ITSM function is more strategic, leveraging tools and SIAM models</li> <li>ITSM tool become foundational workflow, but the procedures are cross-supplier and single point of accountability and S/XLA for services</li> </ul>	<ul> <li>Peraton is the prime vendor so when they subcontract out, they own SLAs</li> <li>Recent issue with Avaya borne by Peraton</li> <li>Peraton has always tried to be a good partner, generally support subcontractor and third-party solutions</li> </ul>	
Ticketing	<ul> <li>Automated ticket creation and routing to reduce manual effort and improve resolution speed</li> <li>Some tickets created by a user/agent, but majority of tickets are auto-created by systems</li> </ul>	<ul> <li>Mixed model of manual assignments and automation</li> <li>Tickets being moved to some queues have to be manually re-assigned as needed to the correct teams</li> </ul>	
Self-Service	Extensive self-service portals and Conversational Al chatbot interfaces/integration for Tier 0 support and routine tasks	<ul> <li>Live virtual agent chat is used for SNOW virtual chat, and offloads to agent at TEKsystems as needed</li> <li>Chatbot with basic searches for KM articles</li> <li>No AI chatbot due to cost concerns</li> </ul>	
Analytics & Reporting	Use real-time dashboards and advanced analytics tools (e.g., PowerBI) for performance tracking and insights	<ul> <li>SNOW UI and visual task boards used</li> <li>No real-time analytics or AI-Ops integration</li> <li>5 min daily Ops call Mon-Fri</li> </ul>	
JML Processes	Streamline Join-Move-Leave workflows with integrated ticketing and automation	<ul> <li>Discrete tickets used; shopping cart model available for multi-request handling</li> <li>Some areas also manage state requests, where they create complex request types for third-party and external user requirements</li> </ul>	

# CoSD IT&T Solutions vs. Best Practices - Service Desk (1/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
User Experience	<ul> <li>Track user satisfaction via CSAT, FCR, and sentiment analysis</li> <li>Move toward Experience Level Agreements (XLA)</li> </ul>	<ul> <li>Not taking advantage of sentiment technologies with TEKsystems</li> <li>Measure CSAT, FCR and overall satisfaction surveys covering many typical XLAs, but they are SLAs in contract</li> </ul>	
Prompts/Tools	Use chat-based AI call prompt with Natural Language Processing (NLP) and real-time Agent AI interaction guidance to assist agents and track sentiment	<ul> <li>No visibility of direct agents</li> <li>Basic escalation guides in place</li> <li>No sentiment analysis outside of the CSAT/surveys</li> </ul>	
Incident Management	Proactive incident detection and resolution using dashboards and monitoring tools	<ul> <li>Incident management is reactive</li> <li>Monitoring is in place but lacks proactive escalation</li> </ul>	
Knowledge Base	Al-powered knowledge bases (KBs) that guide agents with contextual prompts and suggestions	<ul> <li>Basic documentation-based KB with some support from the ServiceNow virtual agent chatbot</li> <li>No Al guidance or agent assist features</li> </ul>	

# CoSD IT&T Solutions vs. Best Practices - End User (1/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practice
Software Deployment	Use automated deployment tools with approval workflows to ensure consistency and security	<ul> <li>Deployment is mostly automated</li> <li>SNOW requests require manager approval prior to software deployment team auto-installing</li> </ul>	
Access	Enable device-agnostic access using SSO and web- based services (e.g., M365) to reduce reliance on legacy systems	<ul> <li>SSO and identity management</li> <li>Supports secure access to services</li> </ul>	
Collaboration	Use integrated cloud-passed collaboration platforms (e.g., Teams, SharePoint, Slack) for communication and content sharing	Teams and SharePoint Online are widely adopted across departments	
Remote Access	Implement Zero Trust Network Access (ZTNA) with MFA and SSO for secure, flexible connectivity	<ul> <li>Security tools have replaced the VPN for the remote access - strong Identity Provider (IdP) product with SAML/SSO, zero-trust features and integrated MFA</li> </ul>	
Endpoint Protection	Use advanced endpoint protection tools (e.g., CrowdStrike Falcon) with real-time updates and policy enforcement	<ul> <li>Endpoint Agent is used on all assets for data loss prevention (DLP) - comes with a full breadth of suite tools</li> <li>DLP management in use for endpoint</li> <li>Group Policy Object (GPO) policies applied across assets</li> </ul>	
Package Testing	<ul> <li>Automated software package testing using sandbox or virtual environments using dynamic scripting, configuration-as-code, with automated rollback &amp; version control</li> </ul>	Testing is all automated to the extent possible; mostly hardware-focused with UAT from departments where required	
Patching	Automated patch management across platforms using tools like Microsoft Intune, MECM, and JAMF	<ul><li>Automated patching is actively used</li><li>JAMF under consideration for Apple devices</li></ul>	

# CoSD IT&T Solutions vs. Best Practices - End User (2/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices		
Digital Employee Experience (DEX)	Use DEX tools to monitor user experience, enable self- healing, and gather feedback	<ul> <li>Using ServiceNow as primary DEX tool</li> <li>Extensive investment in SNOW, includes integrated surveys and ITOM module for monitoring services</li> </ul>			
Containerization	Use Corporate-Owned, Personally Enabled (COPE) and Corporate-Owned Business-Only (COBO) models with secure workspace containers and policy enforcement	<ul> <li>Apple Business Manager and Microsoft Intune used</li> <li>No separate containers on device, but County policies are applied and enforced</li> </ul>			
Persona-based Devices	Use pre-defined device templates based on user roles and business needs	Templates are used informally by teams and managers for device provisioning			
Device Delivery	Adopt Just-in-Time Delivery and Device-as-a-Service models to reduce inventory costs and improve agility	<ul><li>County is moving to dropship model</li><li>Staging delays and aging inventory are still challenges</li></ul>			
Virtual Desktop	Use scalable cloud-based VDI platforms to support remote work and reduce dependency on legacy systems	<ul> <li>Citrix and legacy systems in use</li> <li>VDI access dependent on specific departmental needs</li> <li>Cloud AWS/MS pilots faced latency issues</li> </ul>			



# CoSD IT&T Currency vs. Best Practices - Alignment Methodology

Alignment is based on how well an organizations IT assets (hardware, software, infrastructure) are kept "current" - meaning within vendor support, under warranty, and refreshed according to industry and contractual standards. These are currency elements and the mes seen consistently in IT&T currency practices across public and private sectors:

	Alignment to Best Practices						
Level 5 - Full Currency	98-100% of assets are within vendor support and refresh cycles. All critical assts are current; proactive refresh and lifecycle management is in place. No significant backlog of overdue or unsupported devices. Exemplary lifecycle discipline; minimal risk of disruption or security exposure.						
Level 4 - Strong Currency	95-97% of assets are within support/refresh cycles. Most assets are current; minor pockets of overdue or unsupported assets exist but are tracked and scheduled for refresh. Strong lifecycle management; low risk, but some improvement possible.						
Level 3 - Moderate Currency	90-94% of assets are within support/refresh cycles. Majority of assets are current, but there are notable gaps (e.g., legacy servers, network, or end-user devices) that require targeted refresh. Moderate risk; refresh plans should be accelerated for overdue assets.						
Level 2 - Partial Currency	80-89% of assets are within support/refresh cycles. Significant portion of assets are overdue or unsupported; refresh cycles are inconsistently applied or tracked. Elevated risk of outages, security vulnerabilities, or compliance issues.						
Level 1 - Limited Currency	Less than 80% of assets are within support/refresh cycles. Many assets are outdated or unsupported; refresh discipline is lacking or ad hoc. High risk of operational disruption, security incidents, and increased support costs.						

### Additional Notes for Contextual Clarity:

- Contractual refresh periods and lifecycle requirements were taken from the County's IT outsourcing agreements and Schedule 16-1-6 Resource Units with Refresh Provisions
- Assessment reviewed all major IT asset classes: end user devices (desktops, laptops, tablets, printers, scanners), network devices (routers, switches, firewalls, wireless APs, phones), and data center infrastructure (servers, storage, mainframe/AS400). Actual asset status was validated against asset inventories, install dates, support contracts, and refresh schedules as documented in the County's CMDB and asset management reports.



# CoSD IT&T Currency vs. Best Practices Summary

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Data Center Services	Refresh servers and storage every 5-7 years and modernize or retire legacy platforms within 5-7 years. Maintaining 90%+ of devices current; automate patching, vulnerability scanning, and lifecycle planning.	<ul> <li>98.4% of physical data center devices are current (1,427 / 1,450)</li> <li>Only 1.5% (23 devices) are beyond end-of-life, demonstrating strong lifecycle management</li> <li>Refresh cycles aligned with best practices</li> <li>Automated patching, but some legacy AS/400 and PBX platform remain</li> </ul>	
Network Devices	Core and distribution devices should be refreshed every 5-7 years, with firewalls and wireless on a 3-5-year cycle to keep pace with evolving security needs. Maintain 85-90%+ currency, with 90-95% for security; leverage automation and Al-Ops for provisioning and monitoring.	<ul> <li>99.7% of network devices are current (3,001 / 3,010)</li> <li>Only 0.3% (9 devices) are out of support, showing exceptional lifecycle discipline</li> <li>Contract cycles: IP phones 4-5 years, Wireless 3 years, 3<sup>rd</sup> Party Access 5 years</li> <li>DX NetOps monitoring is in place but not fully automated, and provisioning still relies on manual steps</li> </ul>	
End User Devices	Desktops, laptops, and tablets should be refreshed every 3-5 years in line with warranty and vendor support. Counties should maintain 95%+ currency, with automated tracking, provisioning, and endpoint security controls (EDR, DLP, GPO)	<ul> <li>97.5% of devices are current (18,604 / 19,090)</li> <li>Only 2.5% beyond EOL</li> <li>Strong alignment to cycle targets, though some HP, Dell, SurfacePro, and printer models are overdue</li> <li>Automated tracking, patching, and endpoint protection are in place</li> </ul>	

Limited Partial Moderate Strong Full

# CoSD IT&T Currency vs. Best Practices - Data Center Services

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Refresh Cycles	<ul> <li>Typical refresh periods:</li> <li>ERP Support Systems: 5-7 years</li> <li>Mainframe: 5-7 years</li> <li>Servers: 5-7 years (managed via software patching, versioning, and cloud lifecycle tools)</li> <li>Storage: 5-7 years</li> <li>AS/400: 5-7 years</li> </ul>	<ul> <li>Contractual depreciation periods:         <ul> <li>ERP Support Systems: 4 years</li> <li>Mainframe: 7 years</li> <li>Servers: 4-5 years</li> <li>Storage: 7 years</li> <li>AS/400: 7 years</li> </ul> </li> <li>1,427 of 1,450 (98.4%) physical devices current</li> <li>Mainframe and AS/400 platforms are within contractual refresh cycle, but are recognized as legacy</li> <li>Most storage within refresh cycle, some attached storage (e.g., AS/400 chassis) at 5 years</li> </ul>	
Lifecycle Management	<ul> <li>Automated tracking</li> <li>Annual reviews and reporting</li> <li>Extended support contracts for legacy platforms</li> <li>Clear modernization/retirement plans</li> <li>DR/BCP plans cover all critical systems; tested and validated regularly - automated where possible</li> <li>Automated patching and vulnerability management (e.g., Nessus, Tenable)</li> </ul>	<ul> <li>23 of 1,450 (1.5%) physical devices beyond EOL</li> <li>DR/BCP plans in place and tested, but not fully automated</li> <li>Ongoing exercises/tests for critical systems; some manual steps remain</li> <li>Automated patching is in place</li> </ul>	
Virtualization	<ul><li>High degree of virtualization</li><li>Cloud-first strategy</li></ul>	<ul> <li>Highly virtualized environment; ongoing AWS migration</li> <li>Roadmap for full modernization is in progress</li> </ul>	

# CoSD IT&T Currency vs. Best Practices - Data Center Services

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices		
Support	<ul> <li>All physical and virtual assets within vendor support or covered by extended warranty</li> <li>All virtual servers considered current if underlying hosts are current and software is patched</li> <li>Proactive replacement of EOL assets</li> <li>All systems patched within vendor timelines</li> </ul>	<ul> <li>98.4% of physical devices are within support; 1.5% are overdue/EOL</li> <li>Most physical servers are within the 5-7 year cycle, but several HP Gen9/Gen10, Dell, and IBM models are overdue or at EOL</li> <li>All storage within vendor support</li> <li>A few overdue or unsupported storage units identified</li> </ul>			
Legacy Transition	Clear plans for migrating or retiring legacy/EOL systems	<ul> <li>Some legacy servers and systems in place; covered by extended support</li> <li>Transition plans in progress, but some legacy systems remain in production</li> </ul>			

Limited Partial Moderate Strong Full

# CoSD IT&T Currency vs. Best Practices - Network Devices

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Refresh Cycles	<ul> <li>Typical refresh periods:         <ul> <li>Wired/Voice/IP/Virtual Phones: 5-7 years</li> <li>Wireless Access Points: 3-5 years</li> <li>3<sup>rd</sup> Party Network Access: 5-7 years</li> </ul> </li> <li>Virtual &amp; fixed line elements not subject to refresh</li> <li>Virtual access components should be refreshed as per the software currency standards and typically at least annually to n or n-1</li> </ul>	<ul> <li>3,001 of 3,010 (99.7%) devices current</li> <li>Contractual depreciation periods: <ul> <li>Wired/Voice/IP Phones: 4-5 years</li> <li>Wireless Access Points: 3 years</li> <li>3<sup>rd</sup> Party Network Access: 5 years</li> </ul> </li> </ul>	
Lifecycle Management	<ul> <li>Automated inventory and support tracking</li> <li>Annual reviews of management</li> <li>Proactive replacement of EOL assets</li> </ul>	<ul> <li>9 of 3,010 (0.3%) devices out of support</li> <li>Some Cisco routers/switches are approaching or at EOL/EOSL (support to 2025/27)</li> </ul>	
Support	<ul> <li>All network devices within vendor support</li> <li>Minimal legacy/EOL risk</li> <li>WiFi 6 or newer preferred</li> <li>Legacy PBX phased out</li> <li>Automated, policy-based provisioning and configuration</li> <li>Proactive monitoring, predictive analytics, and integrated dashboards</li> </ul>	<ul> <li>99.7% of network devices are within support; only 0.3% overdue</li> <li>Most routers and switches are within the 5-7 year cycle, a few nearing EOL, Avaya legacy support &amp; IP conference phones within 5-7 yr cycle</li> <li>All firewalls are in active support, with support extending to 2029; no overdue or unsupported firewalls identified</li> <li>All Aruba Aps are in active support</li> <li>WiFi 6 deployed; cloud-based controller in use</li> <li>No overdue or unsupported APs identified</li> </ul>	
Automation	<ul> <li>Use of network automation tools (e.g., Ansible, UiPath) for provisioning and configuration</li> </ul>	<ul> <li>Limited automation; DX NetOps used for administration, but not leveraging full automation or AI-Ops</li> <li>Manual provisioning/configuration still common</li> </ul>	
Monitoring & Analytics	<ul> <li>Centralized, real-time monitoring and analytics (Al-Ops)</li> </ul>	<ul> <li>Centralized monitoring is in place (DX NetOps), but not fully integrated or automated</li> <li>No standalone Al-Ops; limited analytics and predictive capabilities</li> </ul>	

# CoSD IT&T Currency vs. Best Practices - End User Devices (1/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Refresh Cycles	<ul> <li>Typical refresh periods:</li> <li>Desktops: 3-5 years</li> <li>Laptops/Tablets: 3-4 years</li> <li>Printers: 4-5 years</li> </ul>	<ul> <li>18,604 of 19,090 (97.5%) devices current</li> <li>Contractual depreciation periods: <ul> <li>Desktops: 3-4 years</li> <li>Laptops/Tablets: 3 years</li> <li>Printers: 4 years</li> </ul> </li> </ul>	
Lifecycle Management	<ul> <li>Automated tracking of install dates, warranty, and support status</li> <li>Annual reviews and reporting</li> <li>Proactive replacement of EOL assets</li> </ul>	<ul> <li>485 (2.5%) devices are beyond end-of-life (EOL)</li> <li>Automated tracking and annual reviews are in place</li> <li>Asset management robust, with only a small percentage of overdue devices</li> </ul>	
Support & Security	<ul> <li>All devices within vendor support</li> <li>Automated and timely software deployment via MDM/endpoint management tools (e.g., Intune, MECM)</li> <li>Automated patching and strong endpoint protection (Endpoint Detection and Response (EDR), Data Loss Prevention (DLP), Group Policy Objects (GPO))</li> </ul>	<ul> <li>97.5% of devices are within support; only 2.5% are overdue/EOL.</li> <li>Software deployment not hardware-based, but process-based - mostly automated via ServiceNow, plus others</li> <li>Most desktops are within the 3-5 year cycle - some overdue due to bulk purchasing and delayed deployment (729/19,090 out of cycle). Overdue models are typically older HP or Dell devices.</li> <li>Majority of laptops are within the 3-4 year cycle - some older Toshiba and HP models are overdue (e.g., 368 ultra-portables, 118 standards, 27 DCSS out of cycle)</li> <li>Most tablets are within the 3-4 year cycle - a few Surface Pro models are overdue (23 Surface Pro, 1 convertible out of cycle)</li> <li>Most printers are within the 4-5 year cycle - some large format and monochrome printers are overdue (15 M806, 13 M712, 7 M609, 13 M612X out of cycle)</li> <li>Security patching and updates are automated</li> <li>Automated patching, strong endpoint protection</li> </ul>	

Limited Partial Moderate Strong Full

# CoSD IT&T Currency vs. Best Practices - End User Devices (2/2)

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Asset Management	<ul> <li>Centralized Configuration Management Database (CMDB)</li> <li>Automated inventory</li> <li>Regular audits</li> </ul>	<ul> <li>Strong asset management, but some overdue devices due to bulk purchasing and delayed deployment</li> <li>Centralized CMDB and automated inventory in place</li> <li>Regular audits and asset reviews</li> <li>Minor overdue assets</li> </ul>	
Persona-Based Provisioning	<ul> <li>Standardized device templates based on user roles</li> <li>Formal person-based provisioning</li> </ul>	Informal templates used for device assignment - no contractual requirement explicitly defined (not fully standardized)	



# CoSD Pricing/Value by Framework vs. Peer Benchmarks - Alignment Methodology

Alignment is based on how well CoSD's operational IT spend by functional framework compares to peer group benchmarks. The scoring reflects not only alignment with industry norms, but also provides a value-based judgment on whether current spending levels are justified, efficient, or potentially excessive.

	Alignment to Peer Benchmarks						
Level 3 - Below Peer Group Range	Operational IT spend is below the lower benchmark percentile, which may reflect operational efficiency or underinvestment. Lower spend may be positive if service levels are maintained but may also signal areas where additional investment could improve performance, automation, or resilience.						
Level 2 - Within Peer Group Range	Operational IT spend falls within the benchmark range, indicating typical alignment with peer organizations. This suggests a balanced investment approach that is generally appropriate for the County's size and complexity.						
Level 1 - Above Peer Group Range	Operational IT spend exceeds the upper benchmark percentile for similar organizations. This may indicate potential overspend or inefficient allocation of resources. While elevated investment may reflect strategic priorities, it should be reviewed to ensure it delivers proportional value and outcomes.						

### Additional Notes for Contextual Clarity:

- This financial benchmarking analysis leverages the IT spend model developed for Deliverable 1.4, which provided a comprehensive breakdown of CoSD's total and operational IT spend across key functional frameworks
- CoSD's operational IT spend was compared against three peer groups: City/County, Government Sector, and Large Organizations
- Based on the size of their IT operational budget, CoSD falls best within the Large Organization category, defined as having an IT operational budget between \$100M and \$500M. The Large Organization peer group includes entities with a median of \$8.1B in annual revenue and 19,500 employees. This group represents the most relevant benchmark for CoSD based on scale, complexity, and spend.
- The analysis begins with a top-down view of total IT spend, followed by a framework-level breakdown of operational annual spend
- Each framework is evaluated as a percentage of total IT operational spend and compared against benchmark ranges for City/County, Government Sector, and Large organizations to provide a multi-dimensional view of CoSD's positioning.
- This approach ensures that CoSD's financial posture is assessed in context-recognizing its unique scale and hybrid service delivery model, while identifying areas of potential overspend, efficiency, or strategic balance.



# Key Benchmark Findings: IT Spending FY23-24<sup>1</sup>

Large Organization Industry Benchmark is based on data collected from 350+ major organizations and corporations including city and with an annual IT spend ranging from \$4.9M to \$247M.

Metric	CoSD	Industry Benchmark	Peer	CoSD Position
Total IT Spending as Percentage of Revenue/Budget	4.09%	1.90% 3.00% <b>4.09%</b> 4.80%	Large Org	
IT Operational Spending as Percentage of Revenue/Budget	3.3%	1.9% 2.8% <b>3.3%</b> 4.3%	Large Org	
IT Capital Budget as Percentage of Total IT Budget	20%	7% 10% <b>20%</b> 22%	Large Org	
Outsourcing as % of IT Budget	78%	21% 15% 18% <b>78%</b>	Large Org	
IT Operational Spending per User	\$12.4 K	<b>\$12.4 K</b> \$6.7 K \$14.9 K \$33.3 K	Large Org	













# Rate Card Benchmark

### **Observations**

- Of the 39 comparable roles assessed approximately 25% are under the benchmark.
  - This means that the majority of roles are priced higher than the benchmark for an equivalent level of experience and regional salary band.
- The highest outliers are the various Curam specialist roles, as well as some more general roles including:
  - Program Manager
  - Project Manager
  - Database Administrator
  - Network Architect
- In addition, there are some niche roles that have extensive skills requirements where the indictors suggest pricing may be higher than market:
  - Innovation Core Team Member
- On the lower side there are notable jobs such as Junior Developer, which is priced at a similar level as Data Entry Clark but is a more complex skill-set that may warrant further price differentiation to encourage quality talent.
- In general Application Developer roles (Associate, Mid-Level, Senior) and Advanced Technology roles seem well priced to market.

L1 L2 L3 L4 L5

ID	Title	L1	L2	L3	L4	L5	C	Order	Percent
20	Intern							N/A	N/A
1	Application Developer L1 (Junior)	\$ 45.50					\$	45.50	
23	Gate Review Coordinator L2		\$ 38.25				\$	38.25	
18	Security Architect L5				\$ 21.50		\$	21.50	
2	Application Developer L2 (Associate)		\$ 19.20				\$	19.20	
19	Project Scheduler L3			\$ 12.65			\$	12.65	-11%
21	Data Entry Clerk L1	\$ 10.54					\$	10.54	-28%
5.2	AppDev. Niche L4 - Adv. Tech.				\$ 3.26		\$	3.26	
26	Web Designer L2		\$ 2.65				\$	2.65	
3	Application Developer L3			\$ 1.31			\$	1.31	-1%
6.2	Business Analyst L3			\$ -2.89			\$	-2.89	2%
4	Application Developer L4 (Senior)				\$ -3.64		\$	-3.64	3%
30	Applications Developer - ERP Principal				\$ -3.91		\$	-3.91	2%
25	Acquisition Manager L3			\$ -5.45			\$	-5.45	4%
9.2	QA Manager L5					\$ -6.58	\$	-6.58	5%
7.2	Solutions Architect L5					\$ -13.29	\$	-13.29	8%
12.2	Network Engineer L3			\$ -13.35			\$	-13.35	13%
10.2	Testing Engineer L3			\$ -13.80			\$	-13.80	16%
30	Desktop Administrator L3			\$ -14.35			\$	-14.35	16%
6.1	Business Analyst L2		\$ -16.59				\$	-16.59	16%
9.1	QA Manager L4				\$ -17.98		\$	-17.98	16%
11.2	Network Architect L5					\$ -18.84	\$	-18.84	12%
5.1	AppDev. Niche L3 - Adv. Tech.			-21.24			\$	-21.24	18%
8	Systems Analyst L3			\$ -26.40			\$	-26.40	28%
10.1	Testing Engineer L2		\$ -26.60				\$	-26.60	36%
12.1	Network Engineer L2		\$ -26.95				\$	-26.95	30%
24	Technology Transition& Adoption Coordinator L4				\$ -27.48		\$	-27.48	10%
15.1	Desktop Administrator L2		\$ -28.05				\$	-28.05	36%
27	Senior Curam Application Developer L4				\$ -31.70		\$	-31.70	18%
17.2	Project Manager L4				\$ -34.66		\$	-34.66	
16.2	Program Manager L5					\$ -35.33	\$	-35.33	21%
22	Innovation Core Team Member L5					\$ -36.07	\$	-36.07	25%
7.1	Solutions Architect L4				\$ -36.39		\$	-36.39	21%
13	Network Engineer L4 (Senior / Lead)				\$ -38.17		\$	-38.17	31%
14	Database Administrator L3			\$ -38.54				-38.54	35%
11.1	Network Architect L4				\$ -39.64			-39.64	
29	Senior Curam Interface Architect L5					\$ -40.60	\$	-40.60	
17.1	Project Manager L3			\$ -46.46			\$	-46.46	39%
16.1	Program Manager L4				\$ -55.93		\$	-55.93	37%
28	Senior Curam Business Analyst L4				\$ -58.60		\$	-58.60	42%
							_		



# CoSD Pricing/Value by Framework vs. Peer Benchmarks

Operational Annual Spend as % of Total IT Operational Spend FY23-241

Framework	CoSD Spend		Benchmark (	CoSD Position vs. Peer Benchmark	Observations		
Data Center	\$33.1 M	13%	17%	24%	14%	Within Range	CoSD is just above the City/County benchmark and well below the Large Orgs benchmark
		City/County	Government Sector	Large Orgs	CoSD		
Network	\$54.5 M	16%	14%	13%	22%	Above Range	CoSD is significantly above all peer benchmarks - may be opportunities for savings
		City/County	Government Sector	Large Orgs	CoSD		
Applications	\$63.9 M	34%	33%	34%	26%	Below Range	CoSD below average benchmarks for all three peer groups
		City/County	Government Sector	Large Orgs	CoSD		
End User/ Service Desk	\$26.5 M	14.0%	12.0%	12.0%	10.8%	Below Range	<ul> <li>CoSD slightly below all peer benchmarks. There may be opportunities for additional investment in</li> </ul>
		City/County	Government Sector	Large Orgs	CoSD	automation to ge savings.	automation to get greater savings.

<sup>&</sup>lt;sup>1</sup> Excludes DA & Sherriff employees, users, devices, tickets, etc.





# CoSD IT Agreement Contractual Terms vs. Best Practices - Alignment Methodology

Alignment is based on how clearly and effectively the contract represents key service expectations, governance structures, and accountability mechanisms. The focus is on how well the agreement reflects best practices in public and private sector IT contracts - not on the actual delivery or quality of services.

Alignment to Best Practices						
Level 4 - Clear Representation		Contract effectively captures best practice expectations in a structured and enforceable manner. Language is clear, comprehensive, and supports accountability, innovation, and strategic alignment. Minor updates may be considered for future optimization, but the foundation is strong.				
Level 3 - General Representation		Most best practices elements are present and reasonably articulated. Some provisions could be enhanced to improve transparency, enforceability, or alignment with evolving standards. These refinements would help ensure the contract remains resilient and adaptable.				
Level 2 - Partial Representation		Contract includes some elements of best practice, but gaps remain that could transfer risk or limit clarity. These areas may benefit from more precise articulation to better support governance and performance management				
Level 1 - Limited Representation		Contract does not clearly outline key service expectations or accountability mechanisms. This may result in ambiguity or reduced enforceability. While services may be delivered effectively, the language does not provide sufficient structure to support oversight or risk mitigation.				

### Additional Notes for Contextual Clarity:

- This assessment is focused **solely on the contract language** how services are described, structured, and governed not on the actual performance or quality of service delivery.
- Strong language in scoring is not a reflection of vendor capability. For example, an area may score lower due to vague contractual language, even if Peraton and the county demonstrate strong service in practice.
- The goal is to identify areas where **contractual clarity and enforceability** could be improved to better support the County's long-term interests.



# Current IT&T Agreement vs. Best Practices Summary

Area	Industry Best Practices	CoSD Key Findings	Alignment to Best Practices
Data Center	Clearly define hybrid/cloud operations with platform governance, encryption standards, and DR integration	<ul> <li>Hybrid/cloud services are acknowledged, and legacy platforms are included</li> <li>Contract could benefit from clearer platform specifications, encryption standards, and cloud-integrated DR planning</li> </ul>	
Network	Ensure network redundancy, centralized monitoring with Al-Ops, wireless design standards, and clear telecom service definitions	<ul> <li>Dual Point of Presence (PoP) model supports redundancy, monitoring is in place</li> <li>Greater clarity around AI-Ops capabilities, wireless architecture, and telecom product definitions would enhance scalability and oversight</li> </ul>	
Apps	Define development methodologies (Agile, SAFe), tooling (JIRA, GitHub), and clarify database support roles	<ul> <li>Application and database services are scoped</li> <li>Adding specificity around development practices, tooling standards, and lifecycle governance processes would support consistency and quality</li> </ul>	
Service Desk	Include SLAs for incident response, chatbot support for Tier 0, and automated self-service portals	<ul> <li>Basic chat and self-help tools are included</li> <li>Defining incident response SLAs and expanding automation and AI capabilities would improve responsiveness and user experience</li> </ul>	
End User	Price support based on service effort, not device cost. Separate hardware from maintenance and track depreciation.	<ul> <li>RU pricing is detailed and includes hardware, software, and labor</li> <li>Separating hardware from support and incorporating depreciation tracking would improve budgeting equity and cost transparency across departments</li> </ul>	
Disaster Recovery	Ensure 24-hour recovery for critical apps, monthly DR plan updates, and 30-day remediation timelines	<ul> <li>DR plans are updated annually, and remediation timelines are defined</li> <li>Shortening recovering targets &amp; aligning terminology would improve clarity</li> </ul>	
Customer Service	Use structures SLAs, hygiene metrics, and fair performance targets that reflect business impact	<ul> <li>SLAs and performance tracking are in place</li> <li>Moving to a trackable format (e.g., Excel instead of Word) and refining hygiene metrics/queue weightage would improve transparency and fairness</li> </ul>	
Cost Efficiency	Use scalable, usage-based pricing and link automation and innovation to cost savings	<ul> <li>RU and cloud pricing are defined, and a flat 5% markup is applied</li> <li>Enhance value with tiered pricing &amp; mechanisms to share automation savings</li> </ul>	
Risk & Liability	Include enforceable remedies, audit rights, capped indemnities, and clear termination triggers	<ul> <li>Audit rights and high liability caps (\$200M with 130% uplift) are present</li> <li>Strengthened remedy language, breach triggers, and indemnity limits would improve contractual protection</li> </ul>	
Innovation	Lay out clear innovation governance with measurable outcomes (ROI, KPIs), stakeholder input, & IP ownership	<ul> <li>Innovation Officer and fund are defined but lightly structured</li> <li>Formalizing governance, outcome tracking, &amp; IP terms would maximize value</li> </ul>	



## Recommendations Overview

The following recommendations have been developed with careful consideration of the County's current IT&T environment, operational needs, and long-term strategic goals. Each area reflects tailored insights aimed at enhancing efficiency, transparency, and long-term value across County departments:

### **IT&T Solution Analysis**



Focus on expanding automation, proactive monitoring, and innovation governance to improve service delivery and operational efficiency across County IT operations

### **IT&T Currency**



Focus on maintaining hardware currency and refresh accountability to reduce risk and enhance lifecycle planning across County departments

### **Pricing/Value**



Consider restructuring pricing models to improve transparency, align costs with service consumption, and incentivize automation and innovation

### **IT&T Agreement**



Consider updates to contract structure, governance, and accountability mechanisms to reflect current best practices and support flexibility, performance, and strategic outcomes



# IT&T Solution Analysis - Recommendations



The County of San Diego has a solid foundation in IT operations, with modern platforms already in place. The Service Desk supports omnichannel communication and has mature workflow automation. However, many capabilities—especially around proactive monitoring, observability, and Alare underutilized, partly as a result of the outcomes focus of the sourcing model. Most support remains reactive, and innovation governance is structured but may not be assessing end-to-end value opportunities effectively.

Compared to other county governments, CoSD is moderately/strongly aligned with best practices. Counties typically operate with constrained budgets and broad service responsibilities, so scalable, cost-effective solutions that improve service delivery and reduce manual effort are key. CoSD is well-positioned to build on its existing tools and move toward more proactive, automated, and user-centered IT operations.

### Quick Wins:

- Ensure all application customizations/integrations are fully documented and designed for portability
- Deploy endpoint analytics to detect & resolve issues proactively
- Mandate annual refresh reviews and reporting, include exceptions
- Require Peraton to provide reporting on cloud migration progress vs. the agreed strategy
- Pilot digital experience monitoring to assess user experience in real-time and generate insights on performance and quality

### **Long-Term Initiatives:**

- Explore using Gen-Al, low-code platforms to improve crossdepartmental agility and to generate greater productivity for AppDev
- Develop detailed roadmap to transition remaining loads to cloud
- Define strategies for retaining, retiring, or rehosting systems that can't be moved to the cloud
- Clarify scope under Applications & DC teams
- Consider direct ownership of key platforms to ensure IP retention and enable foundation for any future multi-sourced opportunities



- Enhanced service quality and user satisfaction
- Reduced operational costs through automation and proactive support
- Safeguard intellectual property and innovation value by formalizing documentation and process ownership
- Improved vendor flexibility and transition readiness
- Stronger governance and accountability across IT operations
- Accelerate cloud modernization and reduce lock-in risk by adopting flexible, competitive, and modular service models.



- Initial investment in automation and observability tools, and supporting dashboards and reporting
- Change management challenges, including staff training and adoption
- Vendor coordination required for documentation and reporting
- Risk of alert fatigue if monitoring is not well-tuned
- Need for ongoing governance to sustain innovation and lifecycle tracking



# IT Currency & Refresh - Recommendations

# **Current State & Recommendations**

# Intended Outcome:

# Potential Drawbacks



The County has done well in maintaining a current IT environment, with 96% of devices within refresh cycles. End-user devices, network infrastructure, and data center assets are largely up to date. However, there are some pockets of aging hardware–particularly end-user devices and servers that are nearing end-of-life.

Compared to other county governments, CoSD is strongly aligned with best practices in hardware currency but has room to grow in refresh governance and strategic planning for legacy systems. Counties typically manage diverse services with limited resources, so predictable refresh cycles, risk reduction, and user experience improvements are key priorities.

### **Quick Wins:**

- Focus on replacing high-risk devices that are past refresh cycle
- Consider smaller more frequent purchasing cycles rather than large stock acquisitions to reduce stockpiled inventory and dating assets
- Have Peraton track and report refresh activities to improve visibility and accountability

### **Long-Term Initiatives:**

- Develop clear transition plans for end-of-life servers and mainframes, including migration, replacement, or retirement
- Automate tracking of hardware lifecycle and reporting
- Establish SLA that focuses on back-end technologies to ensure compliance to refresh policies

### • Improved device lifecycle management and user experience

- Reduced risk of device failure and support tickets
- Predictable budgeting and planning for device refreshes and infrastructure transitions
- Improved network reliability, security, and performance

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- Additional administrative effort for refresh tracking and reporting
- Coordination needed across teams for legacy system transitions

# Pricing/Value - Recommendations

# **Current State & Recommendations**

# Intended Outcomes

# Potential Drawbacks



The County's current IT pricing model is functional but lacks transparency and flexibility in some areas. Costs are bundled across hardware, software, and labor, making it difficult to isolate and optimize specific areas. Cloud services are billed with a flat markup, and the Service Desk operates on a fixed-fee model, which may discourage automation and self-service. Benchmarking and cost segmentation practices are limited, which can hinder strategic cost control. The current model has limited competitive tension with a single sourced solution and limited opportunity for multiple quotes.

Compared to other county governments, CoSD is generally aligned with pricing best practices. Counties often face budget constraints and must balance cost efficiency with service quality. CoSD has an opportunity to evolve its pricing model to better reflect usage, incentivize innovation, and improve visibility into IT spend.

### Quick Wins:

- Include metrics on automation adoption and its impact on service delivery to identify areas for efficiency gains
- Assess value proposition of AT&T network services arrangement & request a modernization roadmap
- Engage Cloud FinOps to analyze costs & reduce waste

### **Long-Term Initiatives:**

- Restructure and simplify decomp structure for cost clarity and analysis
- Shift to consumption-based pricing models for Service Desk
- Ensure that County costs decrease as automation and self-service adoption increase, creating a financial incentive for innovation
- Negotiate tiered discounts for cloud spend
- Introduce cloud pricing benchmark initiatives to ensure competitiveness

### • Improved cost transparency and predictability

- Increased savings through automation and self-service
- Stronger negotiation leverage with vendors
- More equitable and scalable pricing across departments
- Better alignment of IT spend with actual service delivery



- Potential vendor resistance to unbundling and transparency
- Some unit prices may rise even as total costs fall
- Transitioning to new pricing models may require system and process updates

# IT&T Agreement - Recommendations



The County's current IT contract framework has served as a strong foundation for vendor relationships and service delivery. Since its drafting in 2016, however, the technology landscape has evolved significantly. New tools, governance models, and risk management practices have emerged, and many of today's best practices weren't widely adopted at the time.

As a result, several provisions in the contract–such as audit rights, innovation governance, and performance accountability–could benefit from refinement. These updates would help the County align more closely with current public sector standards and better support transparency, flexibility, and strategic outcomes.

### **Quick Wins:**

- Establish clear guidelines for transitioning innovation pilots to steady-state operation and measuring outcomes/benefits to ensure value realization and shared gains
- Review and adjust SLA weightages to better utilize weightages, reflect service priorities and automation-driven efficiencies
- Explore areas (e.g., Application Development, Network Services) where multi-vendor sourcing could enhance flexibility and performance

### **Long-Term Initiatives:**

- Explore multi-vendor capabilities and options
- Formalize innovation governance (e.g., roles, success criteria, tracking)
- Strengthen transition and disentanglement provisions
- Scope Security separately as a Framework with SIEM/SOAR integration, IAM/PAM clarity, & MSSP oversight
- Consider adjustments to SLAs and introduce selective XLAs as needed
- Clarify IP ownership and reuse rights
- Strengthen audit rights and risk protections
- Add dedicated SOW section for cloud operations, including FinOps, Hyperscaler management, cloud security, and monitoring

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- Stronger vendor accountability and enforceability
- Improved risk posture and legal protection
- Enhanced innovation governance and transparency

- Greater continuity and strategic alignment
- Better service quality through enhanced performance metrics
- Avoid vendor lock-in and support reuse of innovative products

- Increased complexity in contract administration and performance tracking
- Vendor resistance to new clauses (e.g., capped indemnities, IP ownership)
- Additional administrative effort for governance and reporting
- Potential delays due to legal review or renegotiation of contract terms





High-Level Roadmap Long Term (15+ months) Short Term (0-6 months): Mid Term (7-15 months): **Contract Renewal Quick Wins Contract Prep** Deploy endpoint analytics and implement live reporting/dashboarding Solution Clarify framework operations with the intent of reducing overlap Develop Application and systems roadmap and documentation Assess areas where county ownership of platforms and tools may create more value Adjust Peraton responsibilities to include cloud reporting, operations, security, & monitoring Pilot GenAl and low-code solutions and pilot digital experience monitoring Refresh high-risk out-of-cycle devices and networks infrastructure Automate lifecycle tracking and vendor-led refresh reporting Institutionalize annual refresh and end-of-life planning and create modernization plans Embed SLAs for tech compliance and refresh enforcement Track automation adoption and link it to efficiency gains and savings Separate Product/Services Resource Units and simplify decomposition structure Negotiate tiered pricing and cost-saving levers Shift pricing model to consumption-based pricing and utilize regular benchmarking Introduce cloud pricing benchmark initiatives Separate out Security and IAM as their own separate towers Formalize innovation governance and pilot transition with benefit tracking Explore multi-vendor capabilities and options Adjustments to SLA/XLA models and align contract value with performance outcomes Reinforce transition, disentanglement, and exit clauses and ensure IP ownership





**Empowering Beyond** 

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