

Department of IT

Update for Public Works & Infrastructure Council Committee

Viggo Forde, Director and CIO, Department of Information Technology
Council Briefing Q3 2023

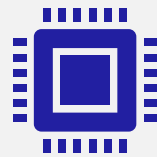


Snohomish County

Agenda



General IT update



Enterprise Resource Planning
(ERP) Review



Discussion and Q&A

Mission

Our mission is to meet opportunities and needs of Snohomish County's residents efficiently, equitably, creatively, and collaboratively.

- As a provider, we are easy to work with and deliver efficient, quality services.
- As a collaborator, we work with regional partners to expand our effectiveness.
- As a steward, we support natural conservation and economic prosperity through innovation.

Vision

- Safe, prosperous, and resilient communities
- Economic sustainability through innovation
- Healthy and preserved natural areas, forests, and waters
- County government that is accessible and serves everyone equitably
- A model for communities everywhere

Values

- Excellent service
- Efficient, common-sense government
- Diversity, equity, and inclusion
- Innovative solutions
- Healthy forests, green spaces, agricultural lands, and waters

We do our work with honesty, transparency, respect, empathy, and teamwork.

IT Vision and Mission

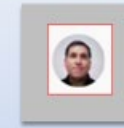


Simplify the life of Snohomish County residents and employees through technology.



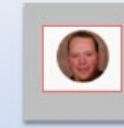
Perfect every time to provide direct customer value by establishing a core set of priorities that align with customer and county needs.

2023 Division High-Level Update



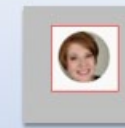
Infrastructure & Security

2,428 Tickets
174 Project load average
44 Projects complete
4,547 email accounts
3,379 phone lines
1.5 Petabytes data managed
486 terabytes of data backed up daily
83 networked facilities
698,304 malicious emails blocked
2,408 malware emails blocked



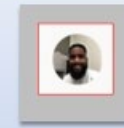
Digital Experience & Innovation

2,331 Tickets
161 Project load average
52 Projects complete
4.8 Terabytes of aerial imagery
10 gigabytes of GIS map layer data
43,441 views associated with 2022 GIS content
611 SQL data instances
165 line of business applications
33 enterprise applications



Business Operations & Support

17,128 Tickets
98 Projects load average
28 Projects complete
124 of contracts and ILAs renewed, or re-negotiated
7,335 service desk calls with an avg. wait of 17.3 seconds
67.6% of calls resolved on first contact
3,801 workstations supported
51% complete with replacing workstations, and network gear across the county and two external customers (TRP)
202 IT contracts managed



Enterprise Data Management

513 Tickets
43 Project load average
7 Projects complete
767 print shop ordered delivered
1,047,2847 pages digitized
280,385 processed outgoing mail
1.1 petabytes of data to develop a structure for
123 terabytes of data on legal hold
243 terabytes of production data
1,942 records center requested and delivered



Office of the CIO & Business Office

43 Tickets
40 Project load average
7 Projects complete
4.45 out 5 post ticket survey rating
76% increase of IT project demand
83 service delivery sites including Lake Stevens Sewer District and City of Stanwood

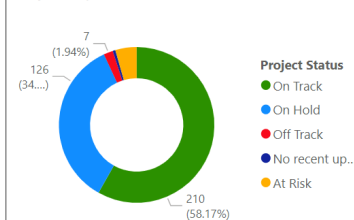
IT Project Status

Customer
All

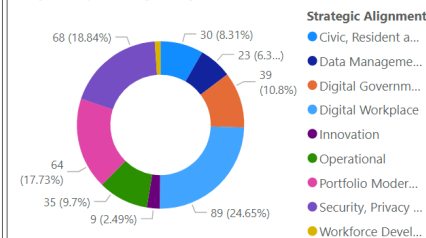
Total Projects
282



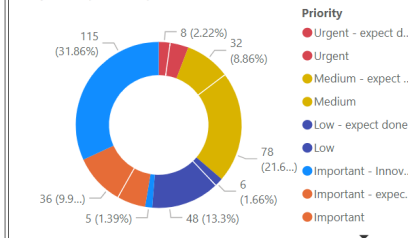
Projects by Status



Projects by Strategic Alignment

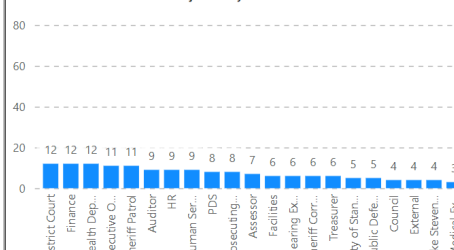


Projects by Priority



Customer	Project Name	Latest Status Update	Current Status
Airport	Scheduling & Timekeeping Software for Fire Team	Contract/SOW Status contract to County PA for as to form review	Medium
Airport	Cartegraph Performance Troubleshooting	Implementation Status Engineer Update Project placed into "On Hold" status per customer request.	Backlog
Airport	Kronos Timekeeping for Airport	Implementation status PW is still in the middle of their implementation. Vendor will not engage until that is complete. ETA is unclear	Backlog
Airport	Cartegraph Internal Requests Interface	Status	Backlog
Airport	Equipment Decommissioning	Status 6/1/23 - Not started	Backlog
Airport	TSA Cybersecurity Requirements	Status	Backlog

Projects by Customer



2023

DIGITAL COUNTIES SURVEY

Department of IT Wins 5th Place

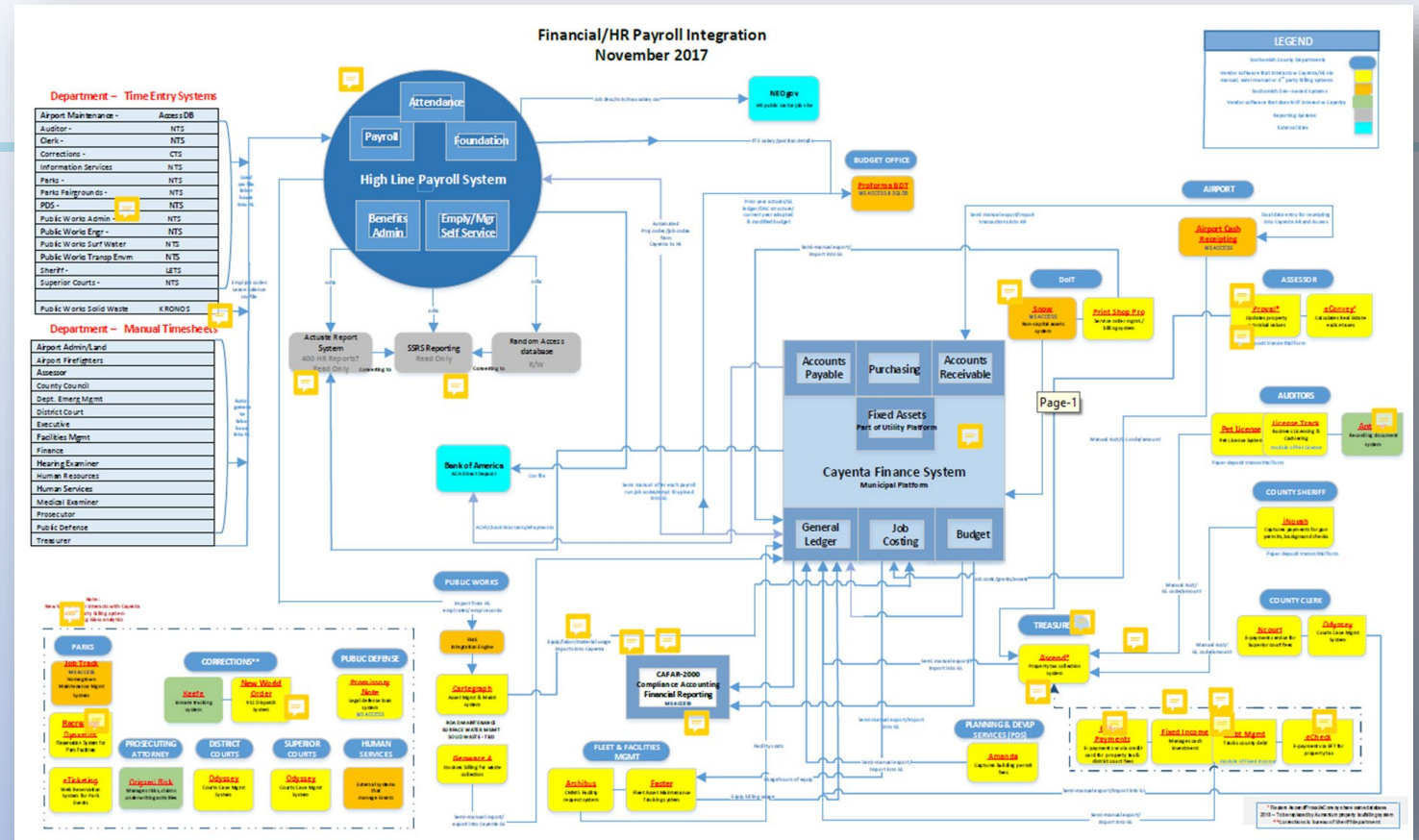
Core Systems and impact to operations

- **Technology is changing** ([A.I.](#), Workplace digitization, move to the Cloud, etc)
- Many **core systems have** a high degree of **technical debt** (*)
- **Modernizing** core systems **is critical** to enhance operations and reduce risk
- An **ERP** (Enterprise Resource Management) systems is arguably the most **critical enterprise application**
- Our current state puts county **operations at risk** across many areas, including data security, systems integration, resource management, as well as having significant work-flow inefficiencies

(*) **Technical debt** is the implied cost of future reworking required when choosing an easy but limited solution instead of a better approach that could take more time. Analogous with monetary debt, if technical debt is not repaid, it can accumulate "interest", making it harder to implement changes. Unaddressed technical debt increases software entropy and cost of further rework.

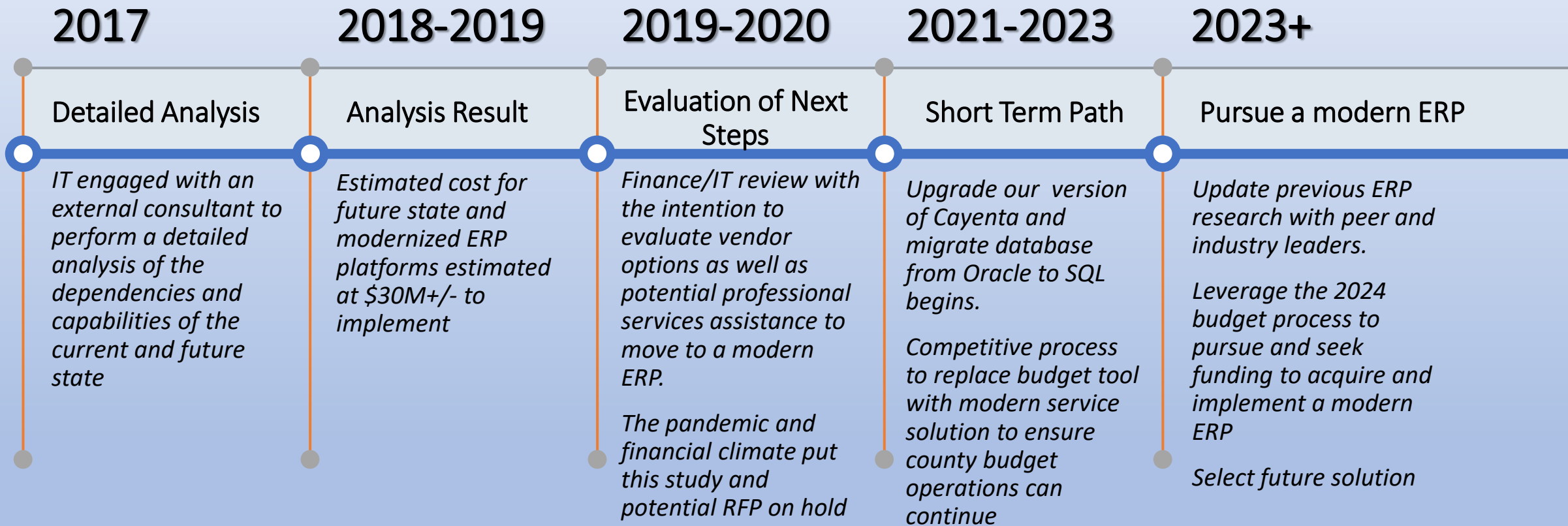
Modern ERP vs Our Situation Today

- An ERP (Enterprise Resource Planning) system is a core element of a modern organization promoting the ability to drive continuous improvement, business efficiencies, and cost management.
- Modern ERPs also have the potential to integrate numerous other capabilities such as payroll, people management, grant management, and other functions into the ERP system.



Snohomish County's IT Portfolio covering ERP functions today consists of over 50 financial, payroll, and HR systems that are outdated in their capabilities, and that provide both technical and business process challenges

History of ERP Discussions in the County



Background Research conducted by IT

This work has been done by others before us; we are adopting a “learn from past experiences” to this effort

- We **conducted research** by engaging with [Gartner](#), a technology agnostic organization that delivers actionable and objective insight, to get cost-estimates based on their extensive research, experience and insight
- Talked to **two local counties** who have implemented or are in the process of implementing an ERP

Four Categories of Cost Drivers



1 Service and
Solution
Requirements



2 Project Team
Structure



3 Implementation
Strategy



4 Commercial
Components

Source: Gartner

Source: Gartner

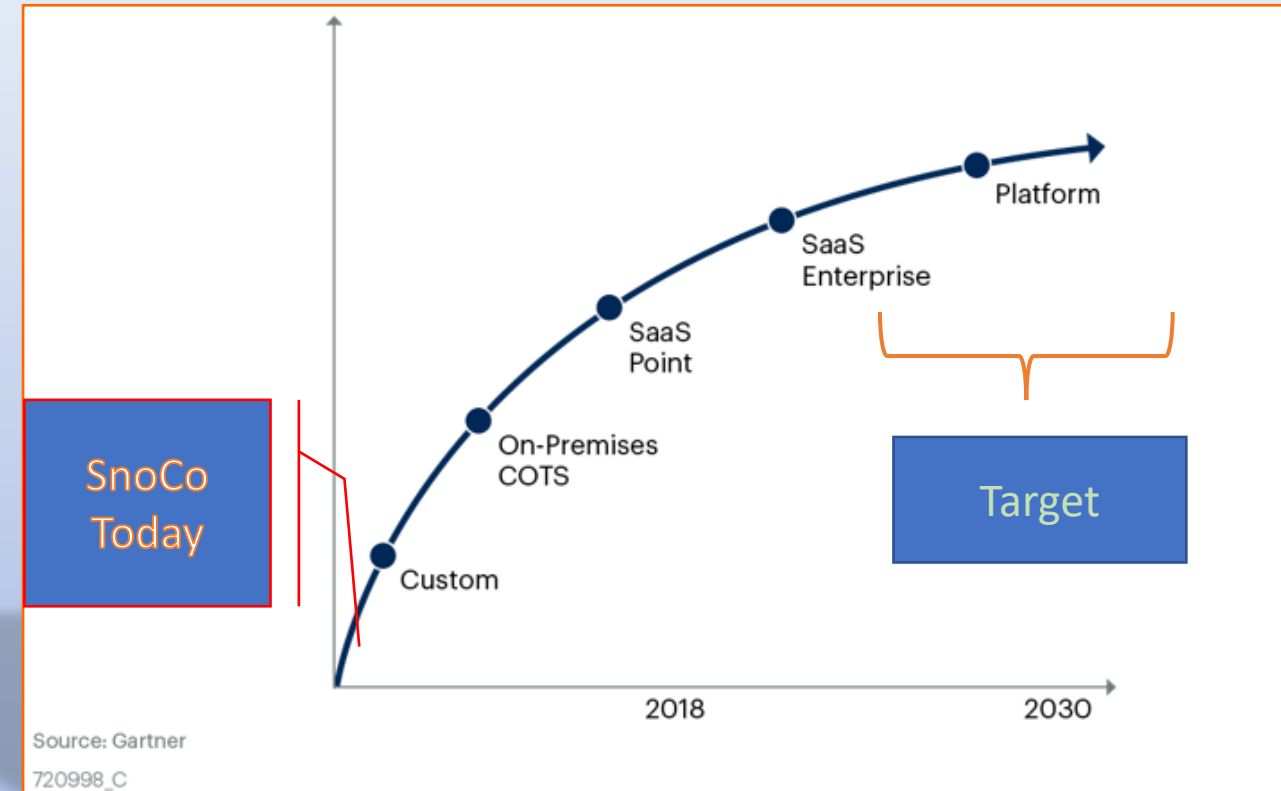
Requirements

Core ERP Components and how the Market is Evolving

- **Financial Management System (FMS)**
- **Human Capital Management (HCM)**
- **Procurement/Supply Chain**
- **Grants Management**
- **Enterprise Asset Management (EAM)**

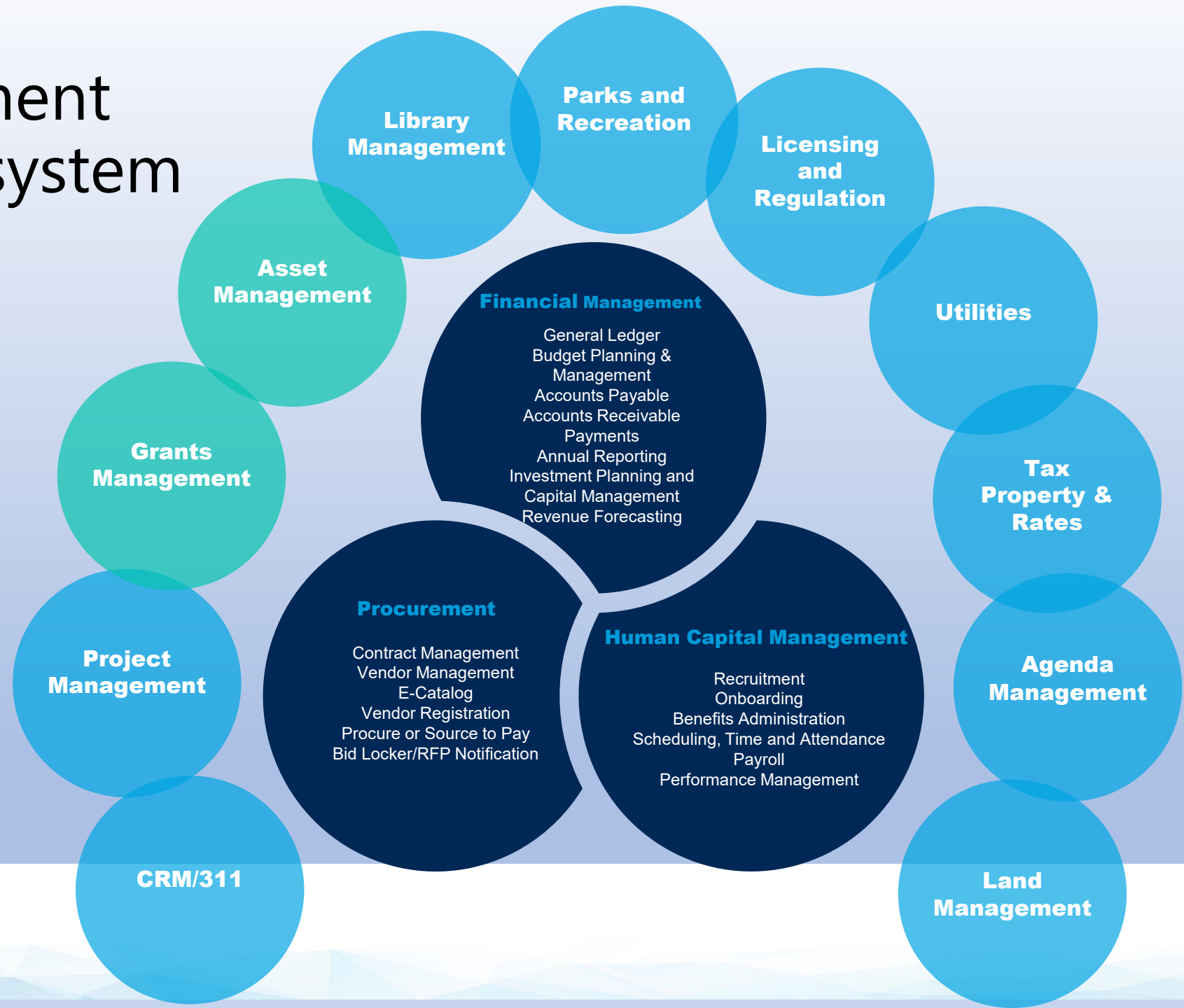
- Note: EAM inclusion tends to vary by industry
- Grants management for recipients standardly included.
- Procurement/supply chain and contract management modules typically included
- Different geographies define ERP differently

Source: Gartner (April 2020)



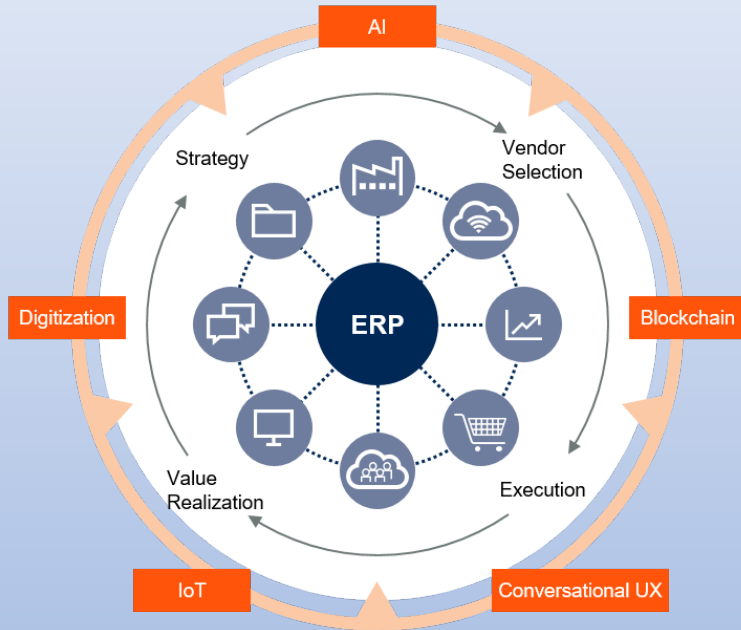
Snohomish County

Government ERP Ecosystem



Post Modern ERP Strategy Considerations

Postmodern ERP Strategy



ID: 376262

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Postmodern ERP

- Business-driven
- Holistic and integrated
- Life cycle based on business capabilities
- Federated, loosely coupled and “differentiated” connecting technology
- End-to-end value chains
- Business-controlled

The Six Hallmarks of the Fourth Era of ERP



Snohomish County

Current State and Next Steps



Our current financial management system (Cayenta) is going through an upgrade process. However, the update only removes technical risks that are **mandatory** to resolve. This version upgrade **does not solve the underlying problem that the county does not have an integrated and scalable ERP platform**



IT believes our current solution (Cayenta+++) **does not provide the capabilities needed in modern county operations**, nor does it offer effective integration between the over 50 systems our departments, offices and courts rely on to run county operations



We have to address the long-term viability of our current financial, payroll, and HR solutions. The proper **platform based** composable ERP solution will enable broad ranging **improvements** to accounting structured and processes, provide business process improvements across every departments, and **reduce risk** for the county. (*)

(*) Quantified efficiencies are not yet defined and analyzed, but we know from research this to be true.

Expected Cost of a Composable ERP Solution

Sum of Costs (three-year planning window) (*)	Low Estimate	High Estimate (Rounded)
Pre-Planning	\$ 200,000	\$ 300,000
Software acquisition	\$ 5,840,000	\$ 7,800,000
Implementation	\$ 6,062,500	\$ 7,600,000
Total	\$ 12,102,500	\$ 15,700,000

(*) **Numbers derived from high level Gartner data and conversations with two peer counties in our state covering core components of Financial Management, Payroll, and HR Systems**
This does not include any potential internal project FTE that may be needed to implement the ERP

Key Elements to a Successful ERP Project

- Preplanning to ID business AND technical requirements
- ERP selection process
- Strong Systems Integration vendor required
- ID benefits derived (Internal efficiencies in operations; hardware and software savings in portfolio simplification)

Key Tenants for an ERP Project from a CIO Perspective

- Adhere to Snohomish County IT Strategic focus of “**cloud first**”
- Identify a solution that is **platform based** (Composable ERP)
- **Leverage knowledge** and experience from our peer counties (and other agencies) who have implemented ERPs recently
- Invest in **external partner advice** to support pre-planning related to business and technical capabilities
- Invest in **external systems integrators** to support implementation of chosen ERP solution
- High focus on **internal change management** to ready the organization for a new ERP

This is a technology project with multiple internal partners, in particular Finance and HR

Business impact spans all departments

Discussion/Q&A