Information & Media Services Review

March 2017

Brett Hanes
2 March 2017

Oregon State Legislature
Information Services

1 March 2017
1

Information & Media Services

Customer Engagement

- Technology advice
- Project management
- User training
- Technology support

Operations & Security

- System security
- Systems administration
- Help desk
- Technology support

Media

- Streaming services
- Productions
- Special events
- Technology support

Design & Development

- Systems architecture
- Application development
- Lifecycle management
- Technology support

End to End Technology Services & Support

Current State

Operational Workload

Ticket volume
- Current volume is just over half of 2013 peak
- Majority of calls on hardware install/fix and password reset
- Emphasis on outreach with customer engagement team

Time on calls
- Current total hours on calls is one third of 2015 peak
- 75% reduction in time working critical application issues

IS Work Order Volume ('13, '15 & '17)
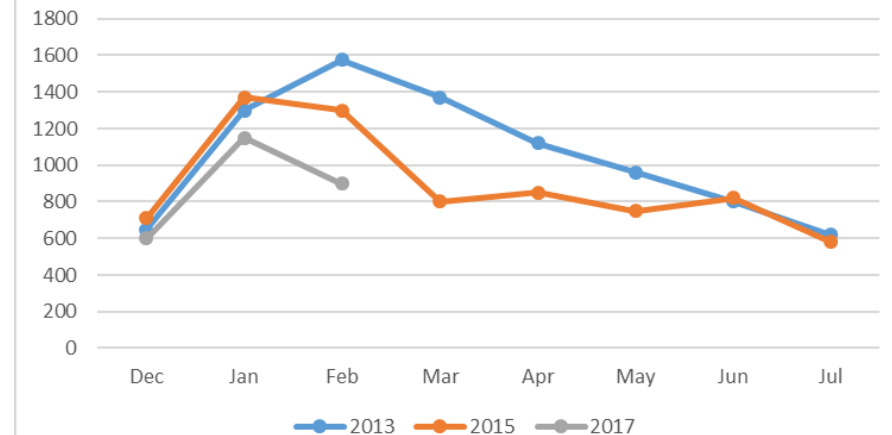
2016 Interim Focus

1 Critical application maintenance
- 98 modifications to custom applications
- 17 infrastructure improvement projects
- 9 upgrades to third party applications
- 7 media services projects

2 Training & engagement
- Increased training classes
- Technology focus during onboarding for new staff
- Proactive approach to remediate issues before they are felt by the user community
- Filled all open IS positions

3 Enhancing user experience
- Introduction of new technologies
- Bring-your-own-device improvements
  - Dedicated wireless for members
  - Printing capability

Challenges & Focus

Existing Challenges

Supporting Platforms for Custom Applications

The platforms, languages and hardware on which our custom applications reside are either outpacing our ability upgrade our code to maintain support, or the technologies are being sunset in favor of new solutions.

Custom applications include: Fiscal & Revenue Impact Statements (FIS/RIS), DESKS, Staff Measure Summary (SMS), CASS, Bill Drafting System & OLIS

Risk Factors

- Oracle
  - Oracle forms extended support ends Oct 2017, sustaining support remains
  - Java 8 public updates end Sep 2017, extended support ends Mar 2025
- Microsoft .Net
  - .Net framework needs upgraded to stay within support
  - Web forms based applications are falling out of support and would need to be rewritten in MVC

2017-2018 Project Focus

- Maintain current custom applications
  - Remediate break/fix issues
  - Collect enhancement requests
- Disaster recovery, phase I
  - Cold site storage
  - Production data backup
  - Recovery Point Objective (RPO) – 24 hours
- Document publishing & management system, phase I
  - Ensure that LC's business requirements are completely and correctly documented
  - Ensure LC's business requirements can be met or exceeded by an IS custom built and/or technical solution in future development projects
  - Provide the data and specifications to create accurate cost estimates for future development projects
- Voice over internet protocol (VOIP) phone system
  - Evaluate best solution for the Legislative Branch
  - Target implementation after the 2017 session

Strategy

Vision	Mission	Principles	Initiatives	1 Yr Goals & Obj	3-5 Yr Goals & Obj
• Innovative technology solutions & services to support the legislative process	• We support the legislative process by providing technology solutions & services for the public good	• Technical criteria to which our solutions & services must adhere	• Key themes that tie our daily and long term work back to fulfillment of our mission & vision	• The tactical set of goals & objectives that establish the team's project work deliverables	• The strategic high level goals & objectives that drive fulfillment of the vision

Vision Imperatives

Technology solutions that are:

- Resilient – secure solutions that are disaster recovery enabled

- Integrated – technologies that operate in a seamless manner

- Scalable – grow or contract based upon demand

- Enabling – solutions that enhance productivity and efficiency

- Supportable – all technologies remain within 2 major releases (n-2)

Principles

- Fit for purpose – the right tool for the job

- Simplicity – Solutions that are elegant

- Reuse > buy > build – custom built solutions should be the last option

- Controlled technical diversity – less is more

- Customer centricity – partnership with the community to deliver the best solution

- Compliance with laws & regulations
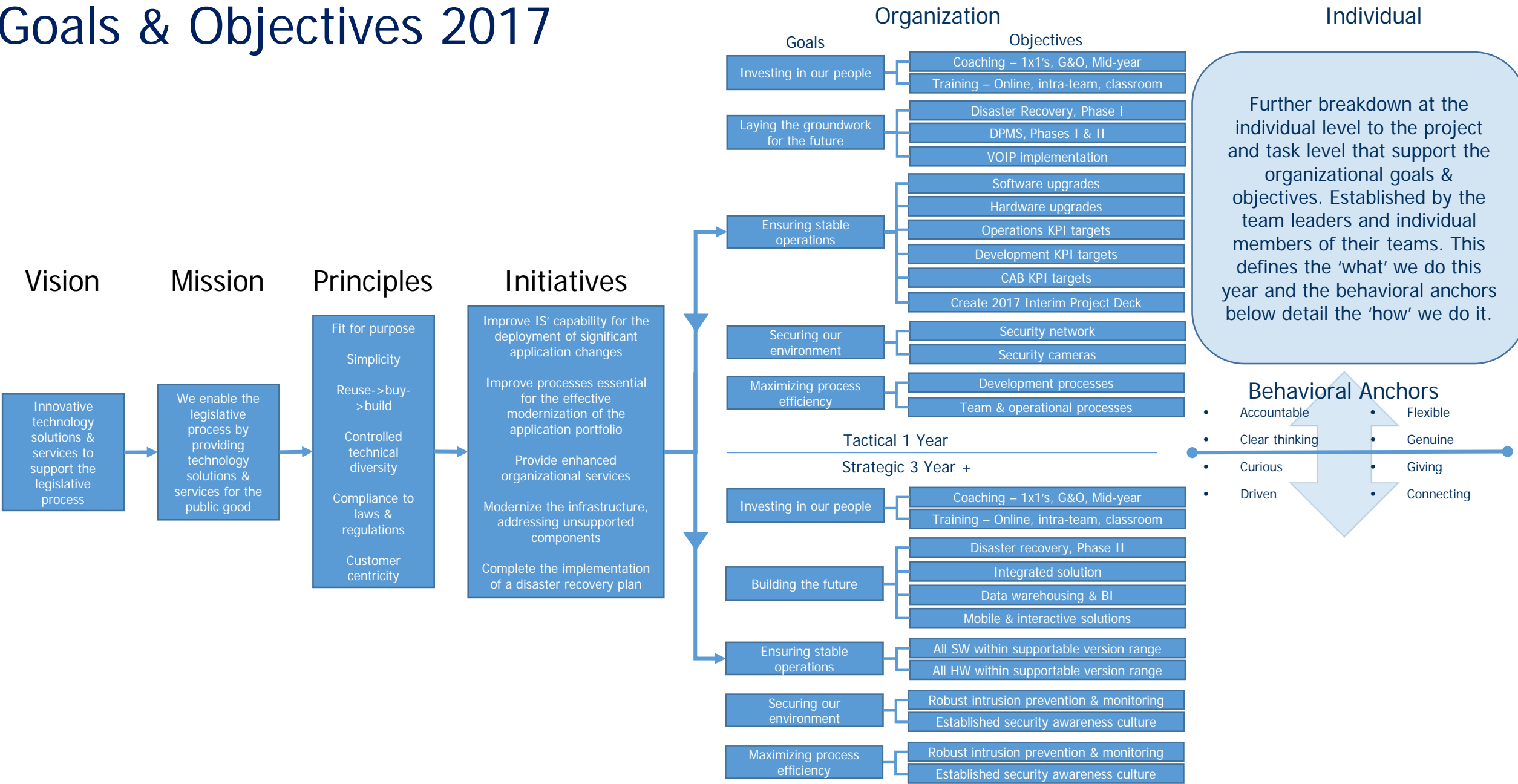
Initiatives

- Improve IS' capability for the deployment of significant application changes

- Provide enhanced organizational services

- Modernize the infrastructure, addressing unsupported components

- Improve processes essential for the effective modernization of the application portfolio

- Complete the implementation of a disaster recovery solution

Appendix

Goals & Objectives 2017

Individual

Organization

Goals — **Objectives**

Investing in our people
- Coaching – 1x1's, G&O, Mid-year
- Training – Online, intra-team, classroom

Laying the groundwork for the future
- Disaster Recovery, Phase I
- DPMS, Phases I & II
- VOIP implementation

Ensuring stable operations
- Software upgrades
- Hardware upgrades
- Operations KPI targets
- Development KPI targets
- CAB KPI targets
- Create 2017 Interim Project Deck

Securing our environment
- Security network
- Security cameras

Maximizing process efficiency
- Development processes
- Team & operational processes

Tactical 1 Year
Strategic 3 Year +

Investing in our people
- Coaching – 1x1's, G&O, Mid-year
- Training – Online, intra-team, classroom

Building the future
- Disaster recovery, Phase II
- Integrated solution
- Data warehousing & BI
- Mobile & interactive solutions

Ensuring stable operations
- All SW within supportable version range
- All HW within supportable version range

Securing our environment
- Robust intrusion prevention & monitoring
- Established security awareness culture

Maximizing process efficiency
- Robust intrusion prevention & monitoring
- Established security awareness culture

Vision

Innovative technology solutions & services to support the legislative process

Mission

We enable the legislative process by providing technology solutions & services for the public good

Principles

- Fit for purpose
- Simplicity
- Reuse->buy->build
- Controlled technical diversity
- Compliance to laws & regulations
- Customer centricity

Initiatives

- Improve IS' capability for the deployment of significant application changes
- Improve processes essential for the effective modernization of the application portfolio
- Provide enhanced organizational services
- Modernize the infrastructure, addressing unsupported components
- Complete the implementation of a disaster recovery plan

Individual

Further breakdown at the individual level to the project and task level that support the organizational goals & objectives. Established by the team leaders and individual members of their teams. This defines the 'what' we do this year and the behavioral anchors below detail the 'how' we do it.

Behavioral Anchors
- Accountable
- Clear thinking
- Curious
- Driven
- Flexible
- Genuine
- Giving
- Connecting

Information & Media Services

Tollgates & Deliverables

Initiate	Design	Build	Test	Deploy	Support
TG - 0	**TG - 1**	**TG - 2**	**TG - 3**	**TG - 4**	**TG - 5**

Slides	Design	Build	Test	Deploy	Support
• Project charter • Team structure • As-Is process map	• Project plan summary • Requirements/CTQ summary • QFD • Architecture overview • Cost benefit analysis • Risk assessment • Communication plan • To-Be process map • Multi-generation system plan	• Code review summary	• SIT result summary • UAT result summary • Customer testing signoff • Defect resolution plan	• Rollout/rollback plan summary • Training plan summary • Final customer signoff	• Transition support summary • Lessons learned summary

Tools	Design	Build	Test	Deploy	Support
	• Detailed requirements document • Detailed project plan • RFPs/contracts • FMEA	• Code reviews • Strawman/wireframe	• Detailed testing use cases • Defect tracking	• Detailed rollout/ rollback plan	• 'Run Book' – detailed support documentation

Major Initiatives – Disaster Recovery, Phase 1
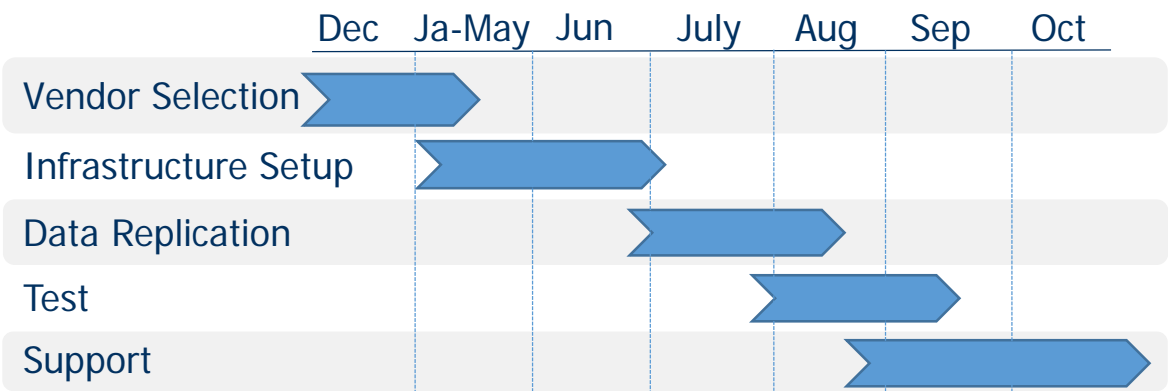
Problem Statement

The Legislative Branch currently lacks a comprehensive disaster recovery plan and offsite data storage solution to mitigate risk in the event of a catastrophic loss of infrastructure

- Need for an offsite location to store data that meets disaster recovery criteria (geographic separation & recoverability)
- Need for the ability to stand up the applications and tools that will enable the Legislative Branch to continue to conduct state business
- The new system will need to be supportable, resilient and integrated with the rest of the technology stack

Current State

Need	Challenge
Data Protection	• Current offsite data storage solution does not meet geographic separation criteria
App Availability	• Current Phase I funding is not sufficient for application & security tier backup
Operational	• Lack of a comprehensive backup environment will extend the time to be fully operational

High-Level Timeline

	Dec	Ja-May	Jun	July	Aug	Sep	Oct
Vendor Selection							
Infrastructure Setup							
Data Replication							
Test							
Support							

Project Goals, Phase 1

1. Ensure that application data is backed up in a secure, offsite location that meets geographic requirements (>100 miles)

2. Data backup for: FIS/RIS, OLIS, SMS, Desks, CASS & all file directories
Application & data backup for: email & mainframe

3. Recovery Point Objective (RPO): Within 24 hours
Recovery Time Objective (RTO): 2 months

4. Out of scope for Phase 1: application, web & security tiers for FIS/RIS, OLIS, SMS, Desks, CASS

Document Publishing &Management System (DPMS) Phase 1 & 2 Project Charter

Customer: Legislative Counsel

Current State

- Diminished pool of knowledgeable Oracle forms and IBM mainframe resources
- Bolt-on software reaching end-of-support with no upgrade path
- Lack of seamless integration between systems that support legislative process
- Current siloed legacy systems lack a robust disaster recovery solution.

Problem Statement

- The current platforms for bill drafting and supporting suite of applications do not meet the long term needs of the business:
- Legislative Counsel needs a robust document publishing and management system that meets or exceeds the performance of the current system
- The new system will need to be supportable, resilient, and integrate with the rest of the technology stack

High Level Timeline

- Phase 1 Requirements – 2/2018 -2/2018
- Phase 2 Design – 2/2018 – 2/2019
- Develop/Test/Deploy - TBD

Project Goals- Phase 1 and 2

- Ensure that LC's business requirements are completely and correctly documented
- Ensure LC's business requirements can be met or exceeded by an IS custom built and/or technical solution in future development projects
- Provide the data and specifications to create accurate cost estimates for future development projects

Budget & Schedule:

Budget: $600,000. Phase 1 and 2 costs will include contracting for business analysis, quality assurance, and organizational change management consulting services.

Technology Stack:

- Technology stack will be identified during Phase 2- Design

Major Initiatives – VOIP (New Phone System)

Key Decisions

- Do we migrate to the new system before or after the 2017 session?

- Do we join on to Project Music or implement our own solution?

Project Needs

- Need funding for new modules to support 10g fiber optic lines - $70K

- If the decision is made to migrate prior to the 2018 session, we will need this funding quickly

Music: Pro

- IBM hosted solution with a large support structure

- Would be a part of the same solution with the Executive & Judicial Branches

In-House: Pro

- Approximate cost reduction of $70K/year over current system

- Supported by Legislative IS team for faster response

Music: Con

- Increased annual cost between $50K-$100K, feature dependent

- Legislative IS team unable to assist with issues/outages

In-House: Con

- Higher cost of initial investment for equipment and expertise

- Will require coordination with Music team to work through technical challenges (i.e. caller id)