OSCIO IT Analysis for DEQ

Oregon State Chief Information Office

IT Industry Observations

- There is a high demand on IT organizations today to deliver value added IT services (less focus on utility services)

- Improvement and optimization (maturity) of an IT organization's operations is an ongoing work in progress and needs to be apart of an ongoing strategy.

  - Alignment of information technology efforts to business needs.

  - Efficient IT services with guaranteed quality

  - IT and business accountability

IT Maturity

- The degree to which an organization makes use of IT resources is a measure of its IT maturity.

- There are several IT maturity frameworks available to assess and guide an organizations maturity.
    - Information Technology Infrastructure Library (ITIL)
    - Gartner Enterprise Maturity Model
    - Capability Maturity Model Integration (CMMI)
    - IT Capability Maturity Framework (IT-CMF)
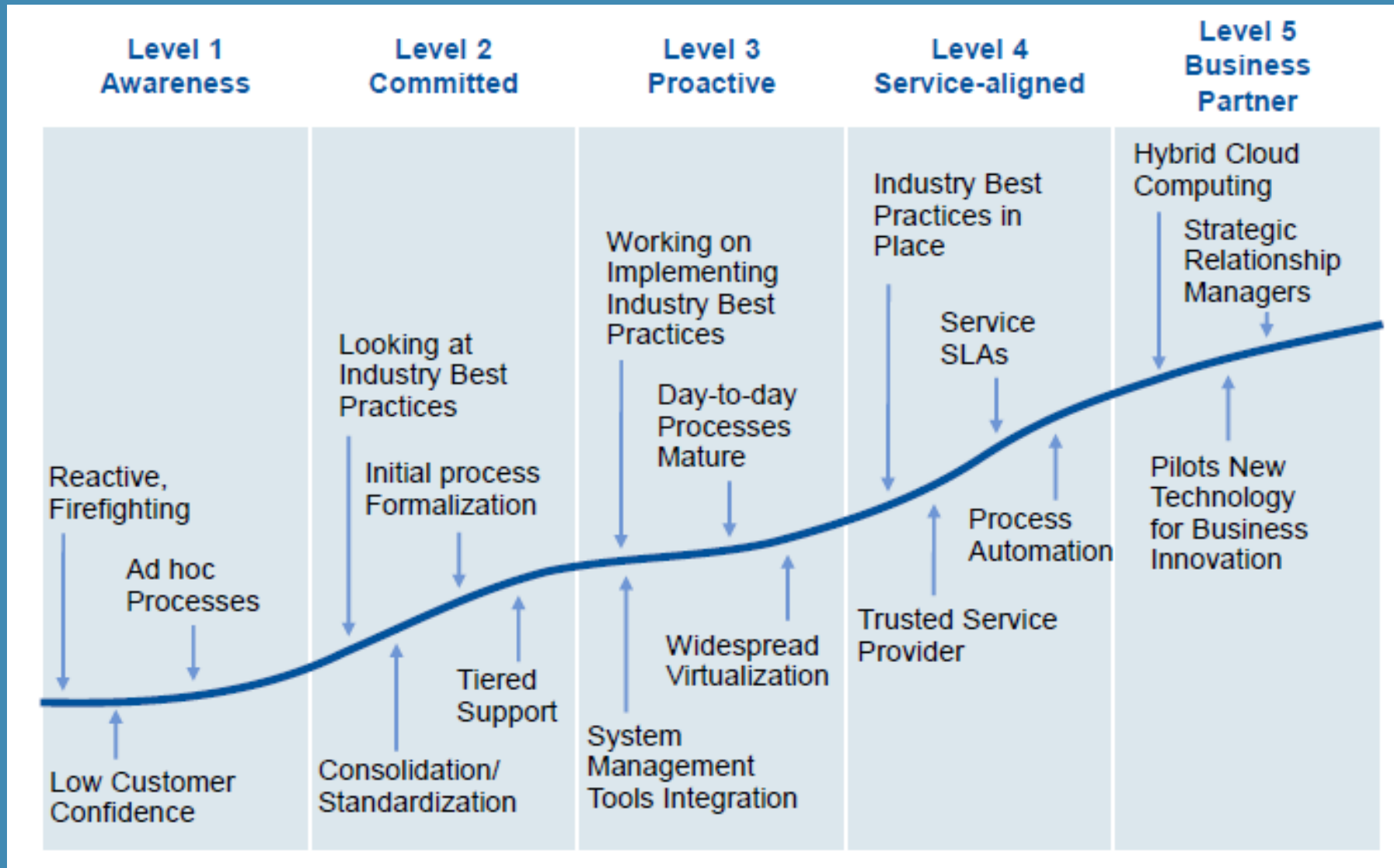
ITIL Continual Service Improvement
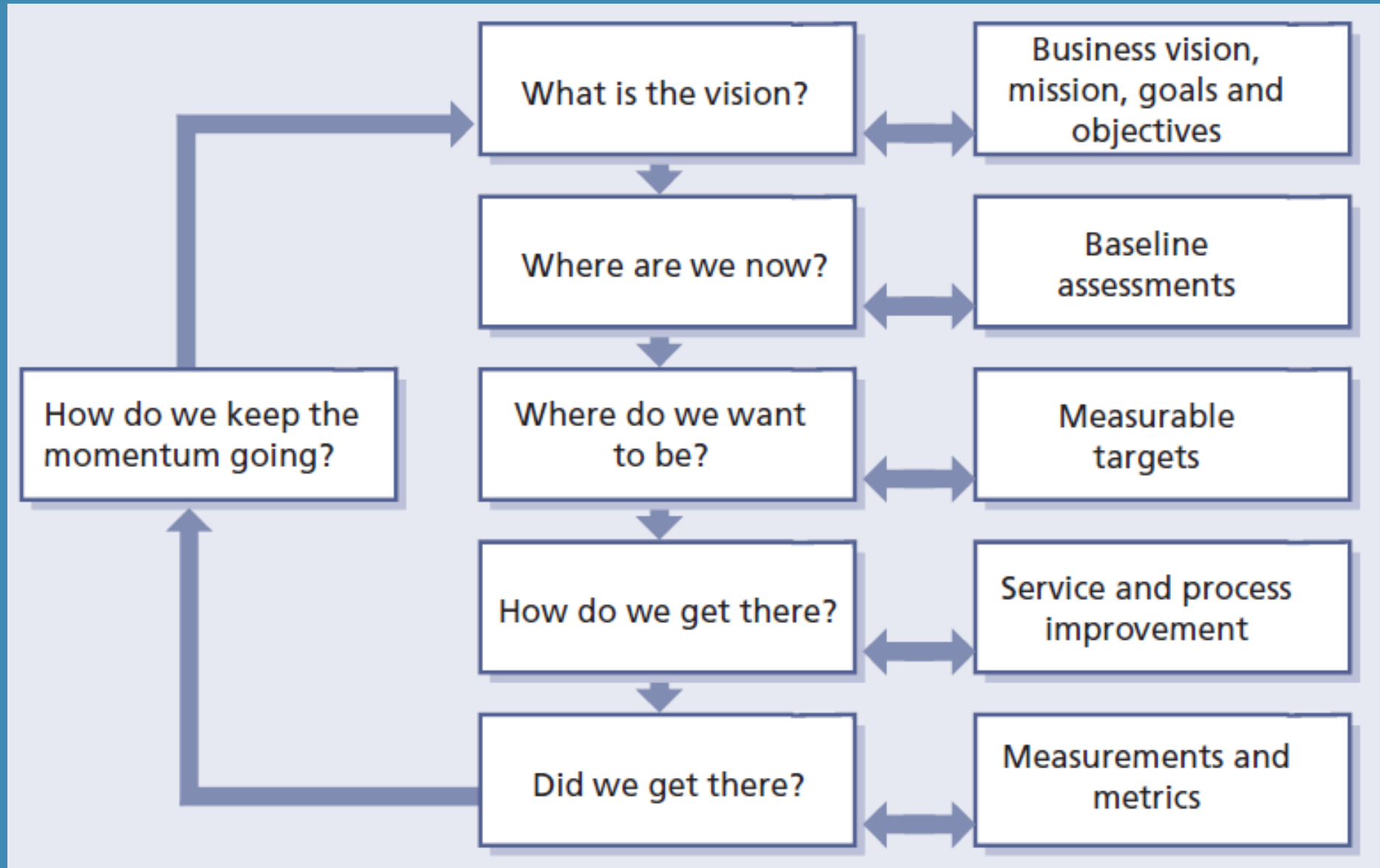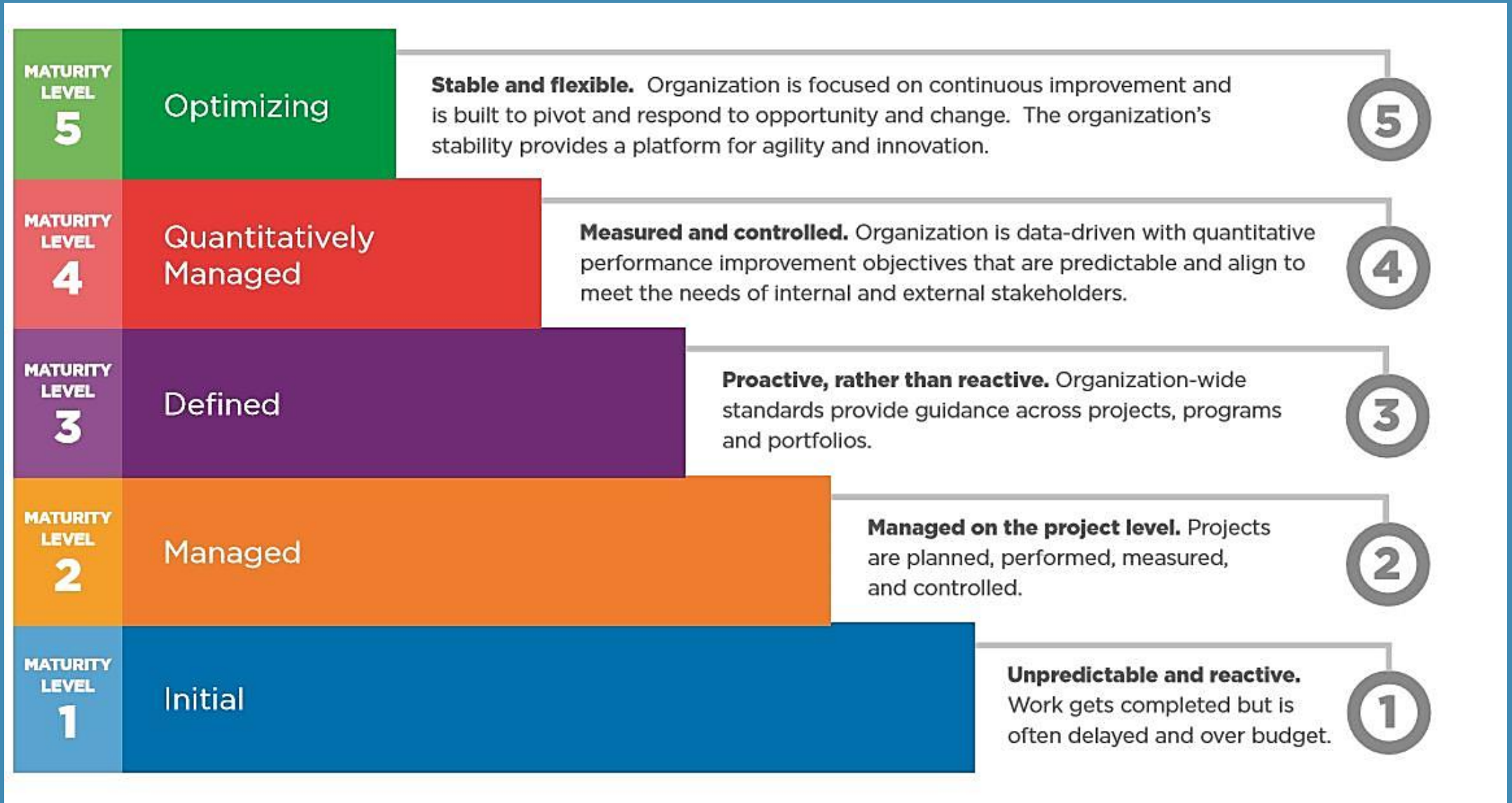
Gartner Maturity Model

- Strategy and Vision

- Executive Leadership

- Business Mindset Toward IT

- Business and Financial Management

- People and Skills Management

- Technology Leadership and Management

- Performance Management

Gartner Maturity Model

Level 1 Awareness	Level 2 Committed	Level 3 Proactive	Level 4 Service-aligned	Level 5 Business Partner
Reactive, Firefighting	Looking at Industry Best Practices	Working on Implementing Industry Best Practices	Industry Best Practices in Place	Hybrid Cloud Computing
Ad hoc Processes	Initial process Formalization	Day-to-day Processes Mature	Service SLAs	Strategic Relationship Managers
Low Customer Confidence	Tiered Support	Widespread Virtualization	Process Automation	Pilots New Technology for Business Innovation
	Consolidation/ Standardization	System Management Tools Integration	Trusted Service Provider	

Capability Maturity Model

MATURITY LEVEL 5	Optimizing	**Stable and flexible.** Organization is focused on continuous improvement and is built to pivot and respond to opportunity and change. The organization's stability provides a platform for agility and innovation.	(5)
MATURITY LEVEL 4	Quantitatively Managed	**Measured and controlled.** Organization is data-driven with quantitative performance improvement objectives that are predictable and align to meet the needs of internal and external stakeholders.	(4)
MATURITY LEVEL 3	Defined	**Proactive, rather than reactive.** Organization-wide standards provide guidance across projects, programs and portfolios.	(3)
MATURITY LEVEL 2	Managed	**Managed on the project level.** Projects are planned, performed, measured, and controlled.	(2)
MATURITY LEVEL 1	Initial	**Unpredictable and reactive.** Work gets completed but is often delayed and over budget.	(1)

IT Capability Maturity Framework

Managing IT like a Business

- **AA** Accounting and Allocation
- **BP** Business Planning
- **BPM** Business Process Management
- **CFP** Capacity Forecasting and Planning
- **DSM** Demand and Supply Management
- **EIM** Enterprise Information Management
- **GIT** Green IT
- **IM** Innovation Management
- **ITG** IT Leadership and Governance
- **ODP** Organization Design and Planning
- **RM** Risk Management
- **SAI** Service Analytics and Intelligence
- **SRC** Sourcing
- **SP** Strategic Planning

Managing the IT Budget

- **BGM** Budget Management
- **BOP** Budget Oversight and Performance Analysis
- **FF** Funding and Financing
- **PPP** Portfolio Planning and Prioritization

Managing the IT Capability

- **CAM** Capability Assessment Management
- **EAM** Enterprise Architecture Management
- **ISM** Information Security Management
- **KAM** Knowledge Asset Management
- **PAM** People Asset Management
- **PDP** Personal Data Protection
- **PPM** Programme and Project Management
- **REM** Relationship Management
- **RDE** Research, Development and Engineering
- **SRP** Service Provisioning
- **SD** Solutions Delivery
- **SUM** Supplier Management
- **TIM** Technical Infrastructure Management
- **UED** User Experience Design
- **UTM** User Training Management

Managing IT for Business Value

- **BAR** Benefits Assessment and Realization
- **PM** Portfolio Management
- **TCO** Total Cost of Ownership

General Maturity Issues

- IT solutions that aren't responsive to customer, management and staff needs.

- Inadequate "future-readiness" (e.g. staff that aren't equipped to work with new, innovative technologies).

- Inability to make informed IT budgeting decisions.

- Lack of contingency planning and disaster recovery options (e.g. backup, data recovery, automatic fall over).

- Risk factors associated with business-IT integration.

- Inability to accurately evaluate how IT is contributing to the organization's goals.

Current State of DEQ IT

- Very operational and reactionary - not able to be forward thinking

- Not viewed as strategic partner that is aligned with the business (cost center)

- Not positioned to provide business transformational initiatives

- IT Governance is siloes within each program (low effectiveness)

- Not using industry best practices (system documentation, legacy applications and infrastructure, policies, budget management, service level agreements)

- No operational, tactical, or strategic planning

- No IT security program or dedicated resources (staff wear multiple hats) and needing a security audit/assessment

Important Factors

- Without agency leadership and commission commitment to IT value management, these issues will go unanswered, to the detriment of the organization.

- IT has the power to be an important center of innovation, value and efficiency gains.

- Need a strong commitment to better IT value management, **IT can become enormously efficient and effective.**

- Combining technically sound solutions with a focus on user and business needs, IT can become a **leading engine of improvement** for any organization.

Recommended Approach

- DEQ needs to develop –

  - Information Resource Management Strategic Plan with current state analysis

  - IT Tactical Plan with Resource Plan (project portfolio)

  - IT Operational Plan with Resource Plan

  - IT Governance – IT business alignment and strategic partnership

Planning Approach

- Leverage Natural Resource IRM Strategic Plan

  - The approach is to mature the agency IT around core competencies.

  - Obtain business and IT input on problems, solutions & buy in.

  - Short Plan duration - 2-3 years

  - Aligns to EDMS Project & SB90 on Cyber Security Unification.

  - In two years IT should be more mature - ability to be more agile and focus on advancing the business.

Planning Approach

- Tactical and operational planning –

  - Is IT working on the right things with the resource's that it has?

  - Do they have enough resources?

  - Can their performance be measured?

  - IT and the business accountability!

  - Focus on long term value in IT Vs. a Cost center