Information Technology Audit

Report Presentation

11 November 2009

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Presentation Topics

- IT Audit Process
- Summary of Findings
  - Strategy
  - Organization
  - Process
  - Technology
- Conclusions and Recommendations

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IT Audit Processes

Data Gathering & Assessment

Business Direction & Effectiveness

Technical Infrastructure Analysis

Controls Analysis

Organizational Analysis

Business & Functional Needs Analysis

Interviews, observation and comparison to best practices:

- Understand where the County wants to go and role of technology
- Analyze technology expenditures by the County vs. industry benchmarks
- Examine the technical infrastructure (network, applications)
- Use ITIL standard to examine how IT controls its responsibilities
- Analyze security policies and process and isolate potential for data loss or unauthorized access caused by identified threats
- Examine IT's organizational structure in light of its mission and strategic goals
- Interview departments to understand their use of and planned use of technology
- Survey users' satisfaction with service levels provided by IT

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Strategy

Answering Questions

- What are the county strategic goals?
  - How are IT projects supporting those goals?

- What are the business unit managers preferred technology strategy?
  - How well is IT aligning with them?

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IT Support of County Goals

Relevant County Strategic Goals	IT Accomplishment
1. To provide quality public services in a cost-effective manner.	✓Empowering creativity among staff ✓External Website Redesign
2. To maintain, promote and improve transportation systems for Collin County.	✓Design/Publish an interactive thoroughfare website based on Collin County's Approved Thoroughfare Plan for public use
3. To support fair and efficient administration of justice.	✓Development of a common integrated judicial system (CIJS) ✓CIJS Odyssey Go-Live for JPs 1, 2, 3.1, 3.2, 4
4. To promote and protect public health throughout the county.	✓Survey, map and analyze healthcare related cases, referrals and/or diseases

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IT Support of County Goals

Relevant County Strategic Goals	IT Accomplishment
5. To continue the development of technology that enhances operations.	✓Integrated judicial systems and internal operational systems ✓AS/400 Migration (825 to i5) ✓New Administration Building Construction and Move-In ✓Enterprise Blade/SAN Solution/Backup Solution ✓Alteris Imaging Solution ✓Tax System Replacement ✓Track-IT ✓VMWare ✓Web 2.0 ✓Enterprise Merchant Card RFP ✓Workforce Development Training ✓Process Modeling / Streamlining IT Efficiencies ✓Performance Metrics ✓Additional on-line options for citizens to include kiosks

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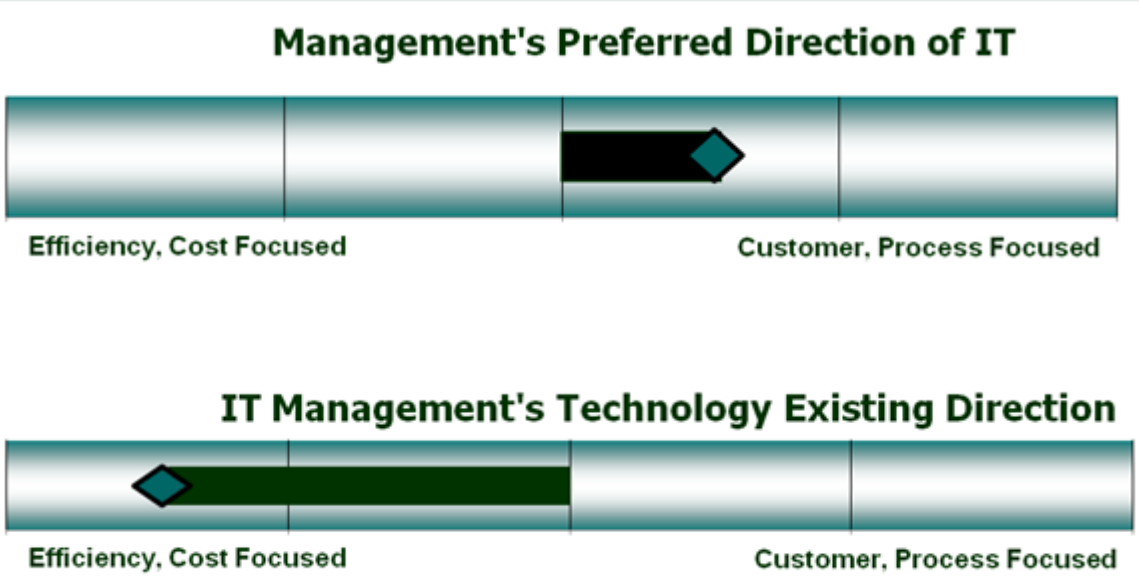
Aligning Strategy



- Business User Management wants a more balanced approach, with a slight bias towards a more flexible, customer and process focused
- IT Department is pursing efficiency and cost saving strategy

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Organization

Answering Questions

- Does the organizational management structure and staffing levels support its success against its goals?

Areas Examined

- Customer Satisfaction
- Staff Activities
- Organizational Structure
- Culture

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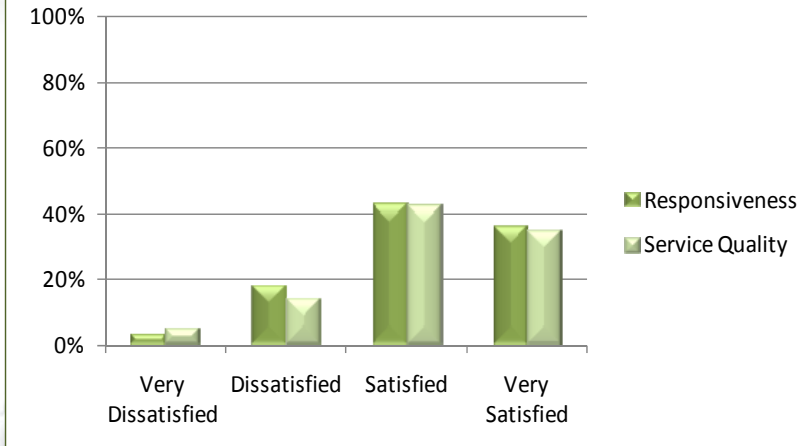
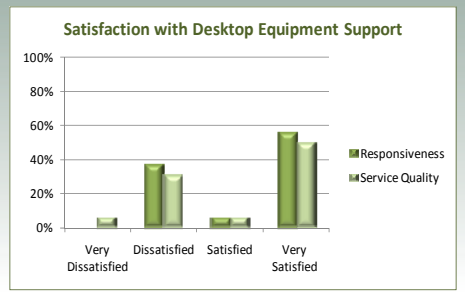
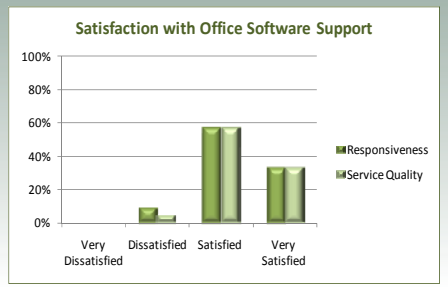
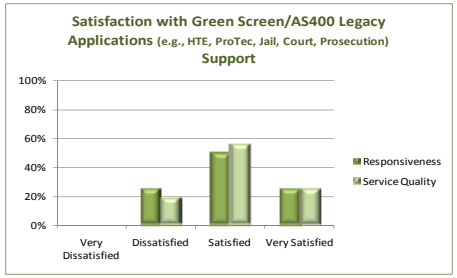
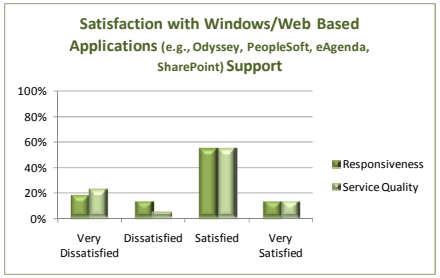
Customer Satisfaction

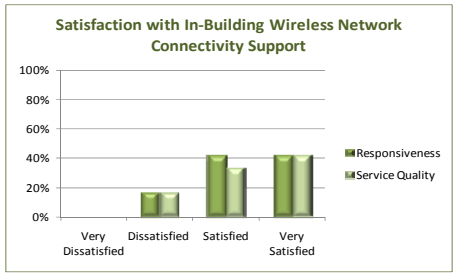












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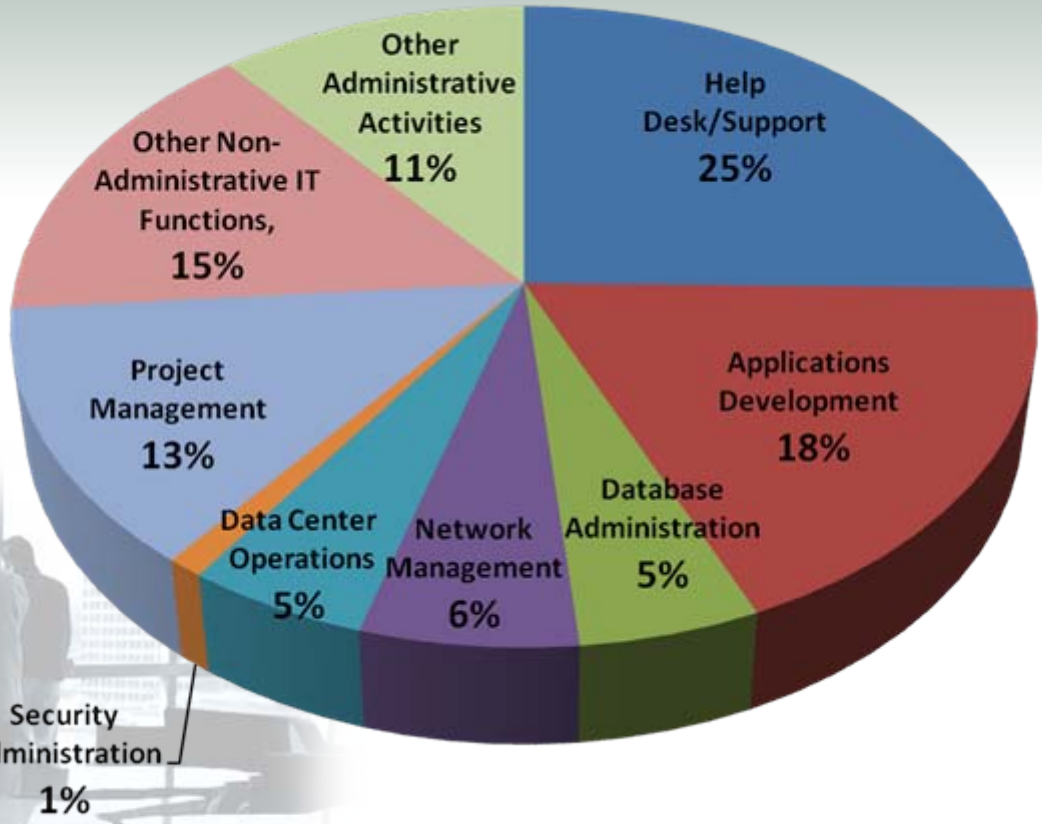
Staff Functional Activities



- Over 25% of work functions are reactive supporting the help desk.
- Security Administration is very limited

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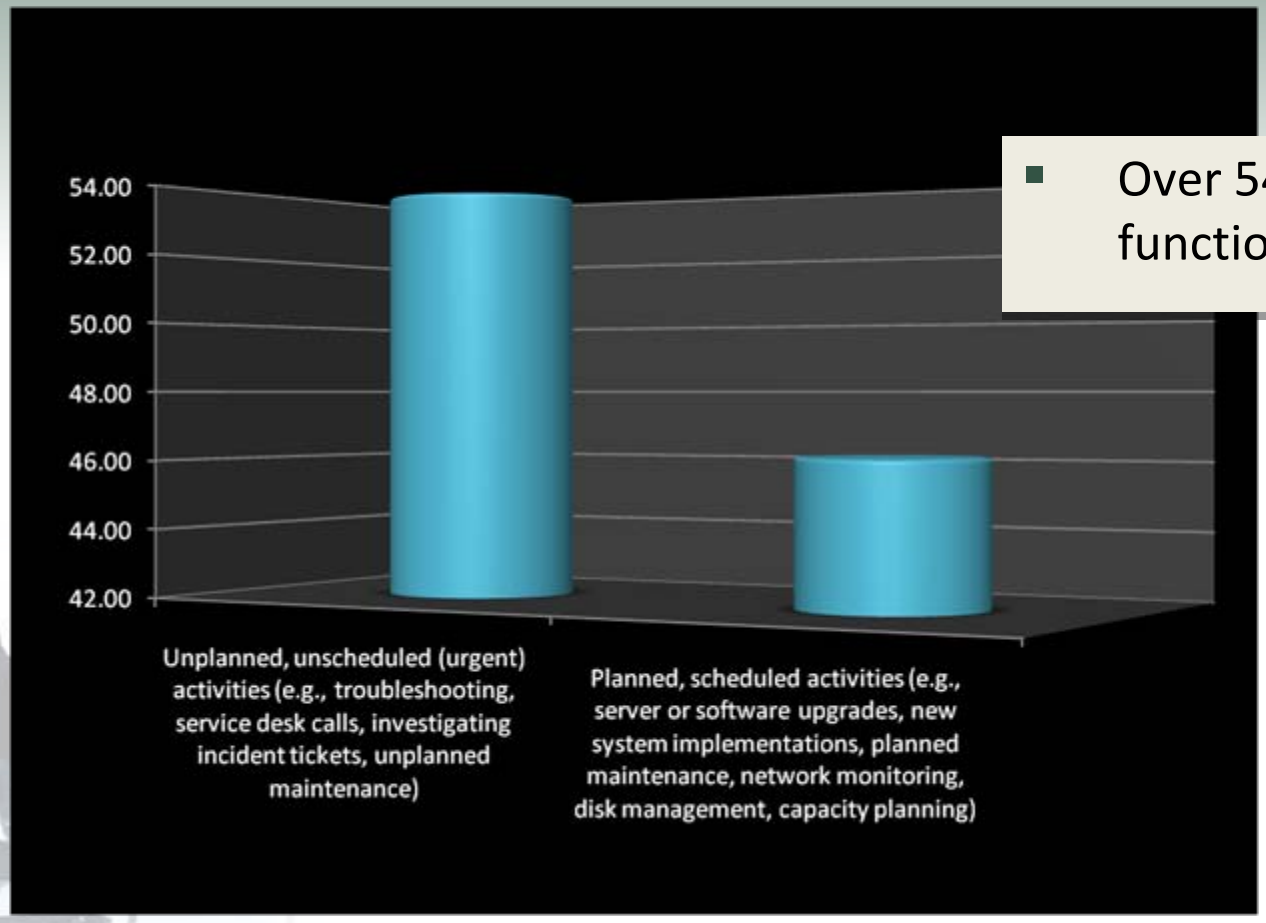
Reactive vs. Proactive Work Culture



- Over 54% of work functions are unplanned

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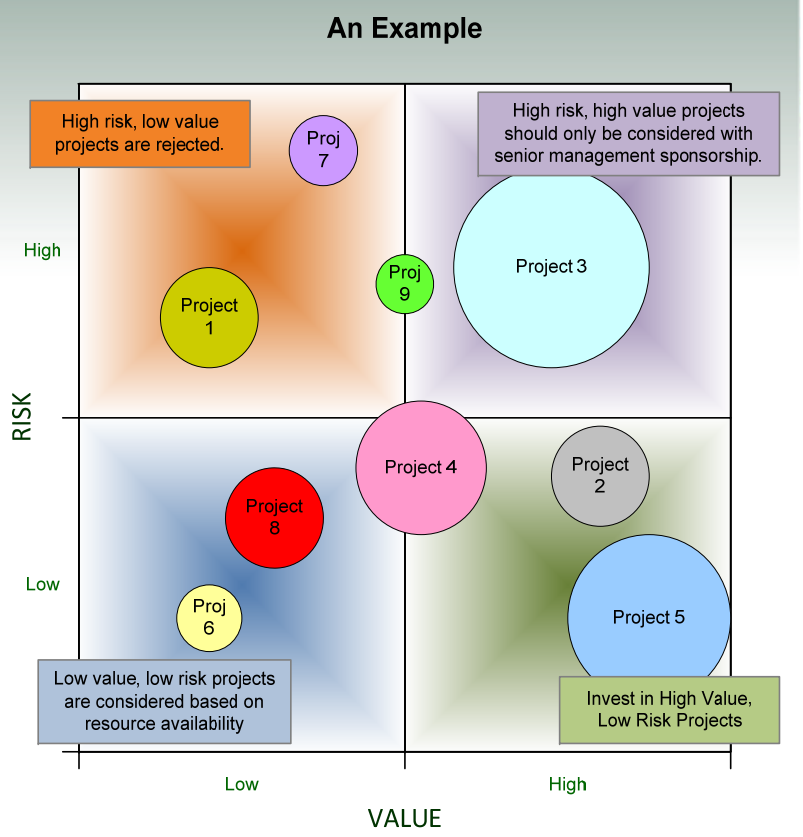
Managing the Projects Portfolio

- Business Analyst and Project Management functions are insufficiently utilized and not part of a coherent project management strategy
- Major projects have formalized project management focus.



Process

Answering Questions

- How well is the IT Department performing against best practices?

Areas Examined

- Quality of Services (ITIL) Maturity

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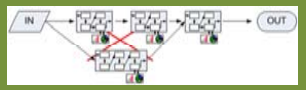
What are the Maturity Levels?

Level 5 Optimizing		**Sustainable, Service-based IT Delivery** • Holistic service-based IT at the heart of its mission and day-to-day activity. • All key IT activities are carried out with the interlocking lifecycles of projects, systems and the resulting services in mind.	5
Level 4 Manage		**Holistic, Service-based IT** • Mission and key work activities in the context of delivery of a high-level set of IT services.	4
Level 3 Defined		**Operational Business Service** • Moved beyond a technology-focused representation of operational IT services, and now provides business context for service level agreements.	3
Level 2 Repeatable		**Operational Technology** • Implemented some aspects of "traditional" IT Service Management (ITSM) practices and has started to pull operational technology practice stovepipes together.	2
Level 1 Initial		**No Service Delivery Processes** • IT organization does, but it doesn't go any further than that. • Development and integration projects are managed in a separate organizational silo from administration and operations.	1

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Quality of Service

Area	Goal	Meeting Objective
Release	Release and change management	1
Service	A portfolio of business-aligned IT services	1
Support	Quality customer support and a service culture	3
Security	Protected county assets, controlled authorization, and proactive security planning	1
Operations	Predictable, repeatable, and automated system management	2

Level	
5 Optimizing	5
4 Managed	4
3 Defined	3
2 Repeatable	2
1 Initial	1

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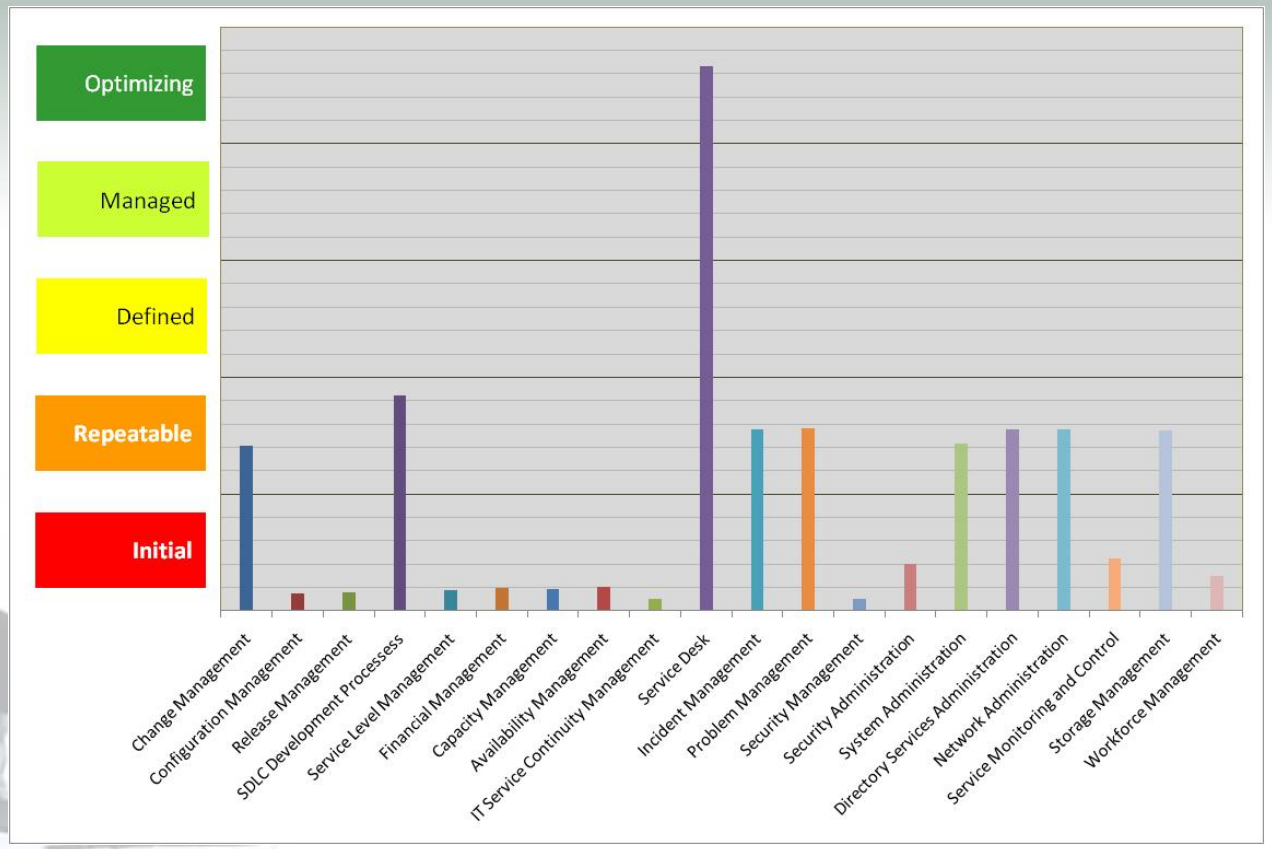
Quality Service (detailed view)



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Quality of Service

Area	Graphic
Release	ed
Service	ble
Support	ed
Security	g
Operations	ing

Conclusions

- IT has procedures to
  - Perform scheduled and repeatable processes such as data backup, system monitoring, and file and print server management
  - Provide technical support for Customers, resolving incidents and problems using some automated tools.
  - Coordinate building and office moves, expansions and acquisitions, and physical environment changes such as wiring and user connectivity

- Key activities partially performed
  - Ensuring the County's data confidentiality, integrity, and availability.

- Key activities <u>not</u> being performed
  - Ensuring that all of the IT services being provided to customers are aligned to the customers' need for them.
  - Tracking inventory and changes in a configuration management database

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Technology

- The County has continued to provide effective support through the Microsoft Enterprise Agreement.
- There are PCs on the network that are older than 4 years and which begin to increase the support and maintenance requirements.
- The network management tools can be complex to service desk staff.
- There is no IT Tie back to county-wide continuity of operations plan.
- The AS/400 applications are limited in supporting the user functional requirements
  - There is a large initiative to migrate all programs from the mainframe and remove it from production.

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Recommendations

- The areas that need attention and could bring about the greatest improvement in efficiency and service for the County are:
  - Organizational Operational Alignment and
  - Processes Streamlining

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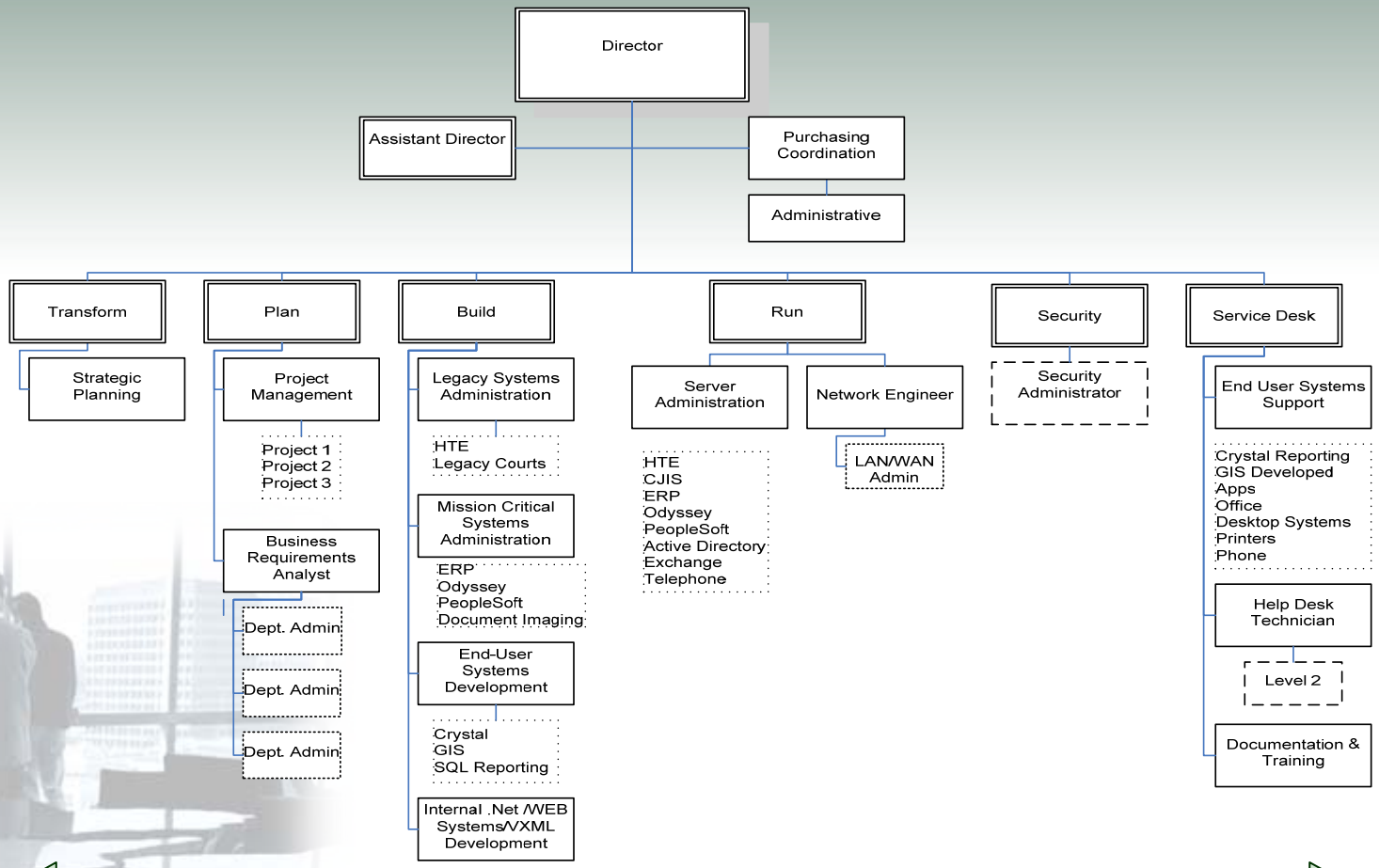
IT's Operational Alignment



Proactive **Reactive**

Structure Benefits

- Provides for focused Security Management functions
- Separate reactive functions, such as Customer Service, from pro-active functions, such as Planning.
- Provides a business-oriented, customer-oriented position facing customers in the form of business analysts
- Provide a project management position that is responsible for making activity happen on-time an on-budget within IT.
- Provides for a forward looking function strategic planning function that is isolated from the triage mindset to keep the IT Department thinking and taking advantage of future state-of-the-art capabilities.

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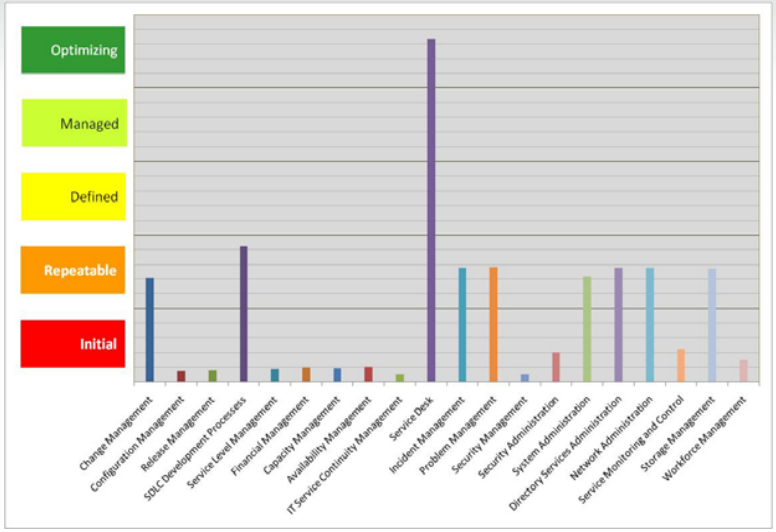
Process Streamlining Focus

- Configuration and Release Management
  - Ensure that the current state is known
  - Facilitate the introduction of software and hardware releases into managed IT environments.
- IT Security and Risk Management
  - Fewer operational surprises and failures,
  - Greater stakeholder confidence
- Continuity Management
  - Ensure that in the event of a business interruption required IT services can be recovered according to an agreed schedule



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Continue to Improve

- County IT has embraced innovation to improve efficiency.
- To continue the IT Department should…
  - Align IT to reflect a greater focus on business users
  - Continue to balance the needs of both business process and technology with an increasing focus towards the business process management.
  - Mature their processes to ensure configuration, service continuity and risk management.

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Thank You

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