

CGEIT Exam Prep: Week #5

Resource Management

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Agenda

- **Review Practice Test Items**
- **Resource Management**
 - The least “prepped” domain of CGEIT
 - Very limited materials
 - Area where experience matters most...
- **Catch-up on Previous Sections**

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Resource Reminders

- **Share questions \ comments with class**
 - Use: cgeit@tunitas.com or wiki
- **Lectures and links**
 - <http://www.tunitas.com/cgeit>
- **Class Wiki for notes and candidate contributions**
 - <http://cgeitexamprep.wikispaces.com/>
- **Weekly sample questions generally found at:**
 - <http://Tinyurl.com/cgeit-wk#> where # is the week number
- **In-Person Session for SF Bay candidates**
 - Saturday Nov 14
 - Location TBD
- **Teleconference**
 - Mute / un-mute yourself by pressing *6

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Week 5 Test Scenario

- *Company A is a long established financial services firm serving the banking and investment needs of retail as well as institutional customers. The IT organization maintains separate divisions to support retail and institutional customers with a common infrastructure.*
- What questions should we expect?
 - Resource management
 - “Decentralized’ structure is more likely to aligned with needs of individual business units but less efficient overall
 - Role and assignment of resources to the ‘common infrastructure’ component
 - Strategic alignment
 - Potentially disparate requirements coming from the different business units: ‘customer intimacy’ for institutional customers (?); service efficiencies for retail customers(?).

Resource Management Question Hints

Select options that:

1. Maintain / promote maturity of resource management *process*
 - Define objectives / goals and policy and procedures
 - Assign Roles & responsibilities; ensure appropriate capability
 - Collect / monitor activity metrics
 - Continues improvement
2. Give priority to strategic initiatives; cost minimization for others
3. Promote efficiency through standardization
 - Inventory and catalogs integrated with IT architecture
4. Support life-cycle management

Few hard and fast rules; rely upon your judgment.

Question 5.1

The IT infrastructure is currently unable to support new ways of communicating with clients such as SMS or 'twitter'. What is the best way for IT to acquire such communications capability?

- **Show how the new infrastructure supports a strategic business goal**
 - Activities in support of strategic goals will always be given priority
- Contract with ISP or other service provide for the capability
 - Whether or not this is the best alternative depends upon the ISP's capability to support all related business requirements. E.g., can the ISP support requirements for an integrated communications platform that supports monitoring, 'call' logging and security filters and the like.
- Implement risk based controls that ensure appropriate use of such protocols
 - Distracter response. While important implementation of controls logically follow the acquisition of the capability
- Assign appropriate task responsibilities to the CTO
 - CTO may be most effective in designing a technology plan that leverages existing resources however may not be in a position to bring together implementation resources.

Question 5.2

Brokers are complaining that the nightly 2 hour maintenance window diminishes their opportunity to enter and complete transactions for international clients. What is the best way to improve system availability?

- Upgrade hardware and reduce maintenance activities
 - Assumes, most likely) incorrectly that maintenance related activities are 'hardware related'
- Segment resources serving international clients and perform maintenance on a different schedule
 - Will increase operational costs \ risk
- Add system administration staff to shorten maintenance window
 - A better answer would be to increase the level of automation used in the maintenance activity
- **Upgrade transaction processing systems**
 - **Modern transaction processing systems should support 7X24 processing allowing for maintenance activities such as backup, routine software fixes / feature additions and patch installation to occur in real time.**

Question 5.3

Retail customers are complaining that the Company does not support online trading. The retail unit does not have expertise in-house to develop and maintain a secure online trading system. What is the best way for it to acquire that expertise?

- Share application components used by institutional customers for online trading
 - The requirements of institutional and retailer clients is likely to be significantly different as the institutional investors require a high degree of integration with their financial systems
- **Contract for services from an existing online brokerage**
 - **Where there is no competitive or strategic advantages, it s generally better to buy vs build. Buying services rather than owning software is likely to have a lower TCO (at least during transition period)**
- Hire new staff with the requisite skills
 - Online trading systems are commonplace and a Company developed application is unlikely to provide any strategic advantage
- Training existing development staff in required protocols and tools
 - Presumably, other projects would suffer if the development staff were reassigned.

Question 5.4

Due to cost pressures brought about by new regulation, the Company seeks to relocate all data processing to a Company operated off-shore facility. What is the major concern with this tactic?

- **Additional resource requirements for compliance monitoring may not be recognized**
 - **Since the re-location is intended to avoid cost due regulation, it is necessary to implement controls to ensure that the Company is compliant with those regulations**
- **Security**
 - The relocation is unlikely to create *new* security requirements that do not exist in current location. The information and its values are not changed by processing location
- **Disruption and errors introduced during migration**
 - The risk for as much would be addressed as part of the project / migration plan.
- **Expected cost savings may not be realized**
 - Given that it is an existing Company facility, operational costs should be well known

Question 5.5

The Company is experiencing frequent disruptions in system operations. What is the best way to address this problem?

- Strengthen perimeter security with next generation firewalls and intrusion detection
 - Intrusions are only one of several causes of system disruption.
- Accelerate server maintenance and replacement
 - Without understanding of the configuration issues that lead to the disruption, additional maintenance activity (with accompanying system changes) is unlikely to reduce disruptions.
- Add more capability to monitor the state of system and network resources
 - Systems and networks are best managed for performance when resource utilization and network & system events well understood
- Resize servers, routers, disk arrays and other components
 - Capacity limitations are an unlikely cause of system disruption. Over utilized systems are more likely to run slowly than not at all.



CGEIT Task Competency *Resource Management*

- Ensure that skill requirements are understood & expressed
 - PO7 : Manage IT Human Resources
 - + Policy & procedure for staff training
 - + Assignment of human resources to programs and services
- Maintain appropriate asset inventories
 - Resource availability
- Conduct gap analysis resources vs needs
 - DS3: Manage Performance and Capacity
 - Linking of goals / objectives of all functions to business goals
- Ensure the standardization of IT infrastructure and realization of economies of scale
 - DS9: Manage the Configuration
 - IT architecture
- Manage resources through their economic lifecycle
 - AI5: Procure IT Resources
 - Maintain alignment



Study Approach

- Review scant preparatory material
- Review in detail provided
 - Task Statements
 - Knowledge Statements

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Resource Management

- Defined:

The effective stewardship of *people*, *processes*, and *technologies* to address the mission of the organization
(people, applications, infrastructure and information)

DOMAIN 5 – RESOURCE MANAGEMENT (13%) -- Ensure that IT has sufficient, competent and capable resources to execute current and future strategic objectives and keep up with business demands by optimizing the investment, use and allocation of IT assets.

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Task Statement #1

- Ensure that the requirements for trained resources with the requisite skill sets are understood and are assessed appropriately.
- Here “resources” means “people” but not everywhere is this true
- Establishes the need for understanding skills inventory



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Task #2

- Ensure the existence of appropriate policies for the training and development of all staff to help meet enterprise requirements and personal/professional growth.
- Again, “resources” means “people”



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Task #3

- Develop and facilitate the maintenance of systems to record the resources available and potentially available to the enterprise.
- Here, “resources” means computers, operating systems and firmware.
- Availability is brought in.
- Difference between reliability and availability.



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Task #4

- Undertake gap analyses to determine shortfalls against requirements to ensure that the business and IT resources (people, application, information, infrastructure) are able to meet strategic objectives.
- Brings in concept of capacity planning, business drivers and establishing linkage between business and IT capacity.



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Task #5

- Effectively and efficiently ensure clear, consistent and enforceable human resource allocation to investment programs and services.
- Match people allocation with investment objectives of company



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Task #6

- Ensure that sourcing strategies are based on the effective use of existing resources and the identification of those that need be acquired.
- Acquisition issue
- Make or buy
- Outsourcing
- Best method of “acquiring” skills and other resources



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Task #7

- Ensure that people, hardware, software and infrastructure procurement policies exist to effectively and efficiently fulfill resource requirements.
- Necessary policies and rules for use of resources (e.g. business use only, etc.)
- Establishes need to account for and measure usage in a fine grained manner



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Task #8

- Through periodic assessment of the training requirements for human resources, ensure that sufficient, competent and capable human resources are available to execute the current and future strategic objectives and that they are kept up to date with constantly evolving technology.
- People need to be trained, but...
- Where are they lacking in skills
- What skills will be required in future
- Do we re-train people or acquire new people with the skills we need?



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Task #9

- Ensure integration of resource identification, classification, allocation and periodic evaluation processes into the business's strategic and tactical planning and operations.
- Identify “owners” and involve them in policy setting about resource use and allocation



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Task #10

- Ensure that the IT infrastructure is standardized; economies of scale are achieved, wherever possible; and interoperability exists, where required, to support the agility needs of the enterprise.
- Concept of standardization
- Power tools
- Interoperability – e.g. code reuse libraries, etc.
- ...but what are the agility needs of the enterprise?



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Task #11

- Ensure that IT assets are managed and protected through their economic life cycle and are aligned with current and long-term business operations requirements to support cost-effective achievement of business objectives.
- Life-cycle management concept.
- End-of-life decisions
- Next release or skip one?
- Bleeding edge? (Vista or wait for Windows 7?)
- Ability to communicate plans to the organization in business terms



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Knowledge #1

- Knowledge of corporate business and IT resources (people, applications, infrastructure and information)
- Do you have a good inventory?



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Knowledge #2

- Knowledge of an enterprise's business and IT resources and acquisition processes (people, application, software, hardware, facilities and outsourced services)
- How are all types of resources acquired
- Rule for use
- End-of-life or disposal?



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Knowledge #3

- Knowledge of the skill and technology mixes required to meet the enterprise's business objectives
- Match people skills portfolios with those required (mostly in the future) by the business
- Cultural tie-in



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Knowledge #4

- Knowledge of human resource management processes and optimization practices needed to meet established technical and business proficiency, competency, and capability requirements
- Have HR processes and follow them
- Adapt HR processes to evolving business needs where necessary



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Knowledge #5

- Knowledge of outsourcing and offshoring processes that may be employed to meet investment program and operation and service level agreements
- How would the offshoring or outsourcing decision be made?
- Where are all the moving parts
- Who is on the steering committee? Why?



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Knowledge #6

- Knowledge of the strengths and weaknesses inherent within the enterprise's human and technical business and IT resources and how to identify trainers with the requisite skill sets to maintain work competency and proficiency
- In short, how to do a skills inventory and meet future needs



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Knowledge #7

- Knowledge of enterprise business strategies
- Necessary for much of IT Governance
- Also need to be able to accommodate when business strategy lacks sufficient content for IT



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Knowledge #8

- Knowledge of business and IT resource planning and strategic and tactical planning methods, techniques and processes
- Self-explanatory



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Knowledge #9

- Knowledge of quantitative and qualitative methods used to determine and evaluate business and IT resource utilization and the availability of these resources to effectively meet enterprise objectives
- Performance appraisals,
- HIPO charts, etc.



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Knowledge #10

- Knowledge of methods for monitoring and reporting on business and IT resource performance
- All kinds of accounting methods for resources
- People – hourly tracking, project office, etc.
- Computers – charge back schemes, accounting, etc.



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Next Week Value Delivery

- Value Delivery is the most difficult domain
 - Very important to develop the 'more than IT' perspective on the value of IT projects
 - Controls to ensure 'business' direction of IT projects
 - Project financial planning
- Reading:
 - Optimizing Value Creation from IT Investments part of IT Governance Domain Practices and Competencies series downloadable from ISACA eLibrary.

