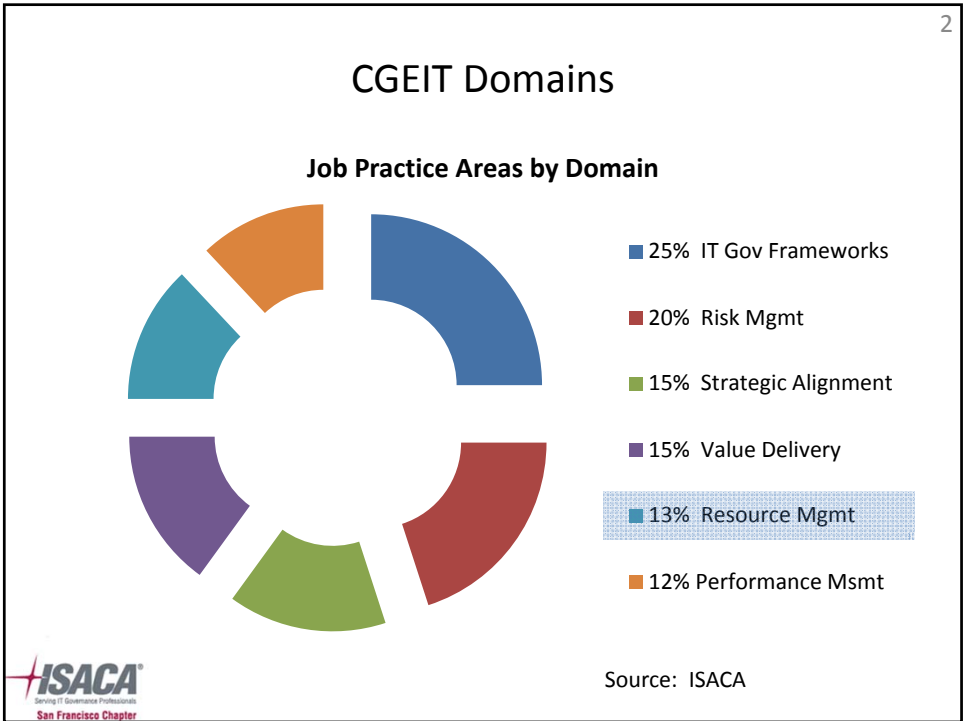


CGEIT Exam Prep
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Resource Management


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IT Resource Management


- **ISACA Thumbnail Description**
 - Optimal investment in, and the proper management of, critical IT resources -- applications, information, infrastructure and people
- **Primary Objective**
 - Ensure that IT has sufficient, competent and capable resources to execute strategic objectives and keep up with business demands by optimizing the investment, use and allocation of IT resources
- **CGEIT Exam Perspective**
 - Demonstrate you understand and can execute appropriate resource management practices



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Definitions of IT Resources


ISACA	People, apps, information, & infrastructure
ITIL	People, products, processes, & partners
BSC	Human, information & organization capital



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Benefits of IT Resource Management

- Strengthen IT and business unit working relationships
- Improve accountability for results
- Reduce enterprise risks
- Enhance IT service quality and effectiveness
- Engender more efficient use of IT resources
- Focus IT spending on business drivers, values, needs, and priorities
- Facilitate effective project and contract management
- Reduce IT project complexity
- Facilitate more effective IT planning




CGEIT Domain Task Statements

- **Ensure that IT has sufficient, competent, and capable resources to execute strategic objectives**
 - Design & establish resource planning programs
 - Train & develop staff
 - Analyze gaps
 - Allocate against requirements
 - Integrate resource management into strategic & tactical planning (identification, classification, allocation, periodic evaluation)
 - Standardize IT infrastructure; focus on economy of scale principles; interoperability
 - Manage & protect IT assets throughout lifecycle

Key Functions



- Assess baseline
- Analyze gaps
- Gap remediation
- Acquisition
- Training & Maintenance
- Support
- Performance
- Monitoring



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CGEIT Domain Knowledge Statements


- **Know**
 - Corporate, business & IT resources
 - Resource acquisition processes
 - Required skill and technology mix
 - HR management processes
 - Outsource and offshore processes
 - How to maintain workforce competency
 - Enterprise business strategies
 - Methods for monitoring & reporting resource performance



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Resource Management Roles


- **Board**
 - Monitor how management determines what IT resources are needed to achieve strategic objectives
 - Ensure a critical review of resource allocations—proper balance of IT investments between sustaining and growth objectives
- **IT Strategy Committee**
 - High level direction for sourcing & use of IT resources
 - Oversee aggregate IT funding
- **CEO**
 - Capitalize on knowledge & information
 - Establish business priorities & allocate resources for IT performance
 - Organize for & facilitate IT strategic implementations
 - Define the CIO role



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Resource Management Roles


- **Business Executives**
 - Allocate business resources for effective IT governance
- **CIO**
 - Provide the IT infrastructure to facilitate knowledge & information creation/sharing
 - Ensure availability of IT resources for strategic objectives
 - Define value creation roles within IT
 - Standardize architecture & technology
- **Management Committees**
 - Balance sustain/growth proposals
 - Advise on infrastructure needs
 - Architectural design
 - Manage complex projects
 - Monitor & report on results



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Two Distinct Components


- **Resource Planning**
 - Ensure focused resources are aligned with strategic IT objectives and investments
 - Determine what resources are needed to ensure success to the business strategy
 - What processes are required to support the resources (acquisition, maintenance, automation, training, operations, etc)
 - How to ensure resources are being used efficiently and effectively
 - Covers both IT project and non-project resources (operations and support functions)
- **Project Management**
 - Focus on best utilization of available resources
 - Time, cost, space concerns



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ITIL Resource Categories


- **People**
 - Skill sets
 - Certifications
 - Productivity
 - Morale
- **Processes**
 - Costs
 - Productivity
 - Availability (ARMSS)
 - Change & Configuration Mgt
- **Products**
 - Knowledge & information re customers, markets, processes
 - Infrastructure
- **Partners/Suppliers**
 - Relationships
 - Diligence
 - Escrows
 - Second sourcing
 - Equity positions



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Kaplan & Norton Resource Categories

- **Human**
 - Ensure right skills are available for the business needs
- **Organization**
 - Build the supporting culture
- **Information**
 - Deliver relevant, high quality, and timely information



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Resource Management Starts with Alignment

- **Strategic Objective: Operational Excellence**
 - Minimize problems
 - Provide rapid response
- **Strategic Job Identification**
 - Quality managers
 - Six sigma
 - Problem management
 - Call center agents
 - Customer interaction skills
 - Problem management
 - Team building



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Resources Aligned to Strategy


- **Strategic Objective: Innovative Market Leader**
 - Understand customer segments
 - Develop new products
- **Strategic Job Identification**
 - Consumer market managers
 - Market research
 - Advertising
 - Cross business processes
 - Joint venture managers
 - Relationship mgt
 - Negotiation skills
 - E-commerce knowledge



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Human Resource Planning


- **Core activities**
 - Start with strategic objectives
 - Identify strategic job families
 - Define competency profile
(skills, experience, values, knowledge)
 - Assess status
 - Report gaps
 - Plan for Gap remediation
 - Execute Gap Plan



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Values, Skills, Knowledge, Experience

Strategic Objective	<ul style="list-style-type: none">• Achieve a high performance service culture
Values	<ul style="list-style-type: none">• Anticipate customer needs• Services easy to use• Create effective solutions• Expertise inspires customer confidence• Assure quality first time, every time
Profile	<ul style="list-style-type: none">• Follow through on commitments• Hold self accountable• Concentrate on working problems, not fault finding• Ensure highest quality



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Human Resource Planning

- **HR often has its own governance program**
 - Cascading Balanced Score Card opportunities
 - Also needs alignment with business strategies
- **IT human resources shared responsibility**
 - HR takes on the internal process aspects
 - IT takes on the IT skill sets, experience, certification, location, motivation, career development



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IT Human Resource Planning


- **Interrelated to other IT decisions**
- **Example – Move to Cloud Computing**
 - Personnel requirements may change
 - Less need for internal operations
 - More need for system services management
 - More focus on understanding business value chain
 - Less focus on designing and administering system infrastructures



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IT Human Resource Planning


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IT Human Resource Planning


Strategic Objective	<ul style="list-style-type: none">• Achieve a high performance service culture
Skills	<ul style="list-style-type: none">• Architecting distributed computing networks• Managing diverse remote access methods• Configuring large-scale virtual storage• Building and reinforcing vendor relationships• Forecasting capacity
Knowledge	<ul style="list-style-type: none">• Service oriented architecture• Cisco product lines• Kerberos and PKI• .Net Programming



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Information Resource Categories


- **Transaction Processing**
 - Systems that automate basic repetitive enterprise transactions
- **Analytic**
 - Systems and networks that promote analysis, interpretation, and share of information or knowledge
- **Transformational**
 - Systems and networks that change the prevailing business model
- **Technology Infrastructure**
 - Shared technology and administration expertise for effective use and delivery of the Information resources



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Information Resource Planning

Strategic Theme	Operational Excellence		Innovation	
Strategic processes	Min Problems	Rapid Response	Understand customer	New products
Strategic job families	Quality mgr	Call center agent	Financial mgt	Strategic mgt
Analytical	Service QA	Best practice benchmarking	Customer profitability system	Market research
Transaction	Incident tracking	Workforce scheduling	Customer feedback system	Project management
Transformational		Customer self-help		
Infrastructure	IVR, CTI, CRM stnds, web apps			



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Information Resources

- **Information portfolio**
 - Systems, apps, infrastructure for each strategic job family; sorted by category
 - Level of investment in new information projects
 - Mix of investments to align and meet business requirements
 - Industry benchmarks for competitive spending comparisons
 - Input into IT portfolio management (value delivery)
 - Strategy should impact decisions

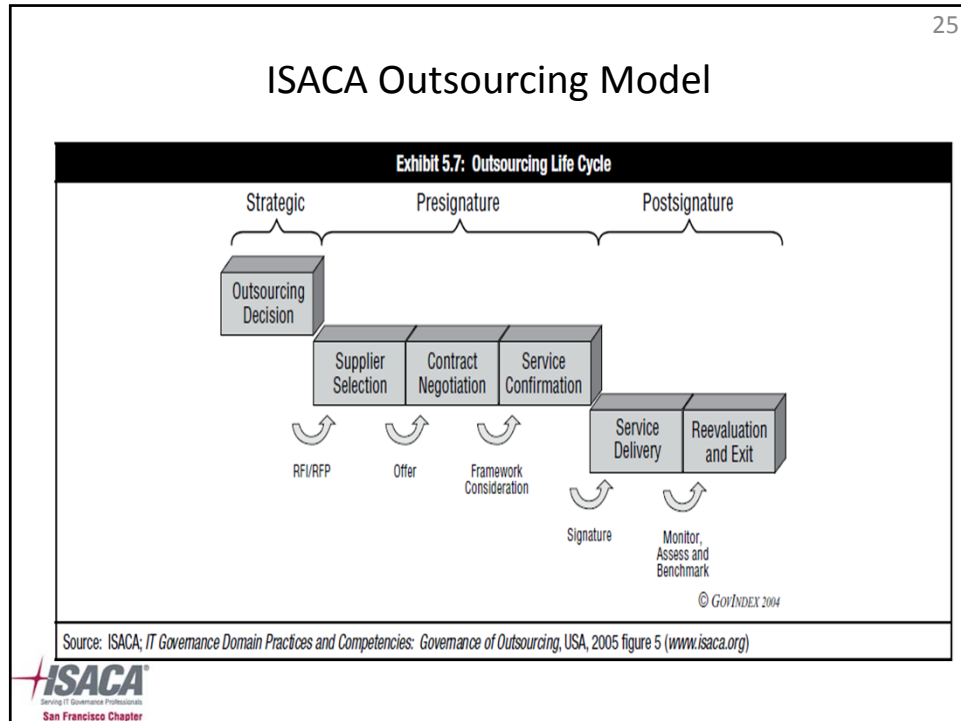


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Sourcing

- **Along with the globalization of business, the sourcing of strategic resources on a global basis has proven to be a source of competitive advantage both in terms of innovation and in cost effectiveness.**
- **It is not sufficient to manage internal resources; managing external relationships with outsourcing service providers is equally important**
- **Specialist jobs are likely to continue to migrate from current employers toward companies that provide outsourcing services**
 - Outsourcing is not just a cost reduction strategy; but also drives speed, flexibility and level of innovation
- **Multi-sourcing risks arise when the best-of-breed benefits do not materialize or become overshadowed by negatives, issues and overheads**
- **These negative synergies have three root causes:**
 - Poorly shaped clusters of IT services
 - Misaligned technology and provider strategies
 - Broken end-to-end processes






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- ### ITIL Resource Management
- **Focus on resource availability and utilization**
 - **Three ITIL processes**
 - Demand management
 - Capacity management
 - Availability management
 - **Capacity and availability management also featured in the ISO 20000 standard for service management, under the service delivery processes group**
- ISACA**
Serving IT Governance Professionals
San Francisco Chapter

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Demand Management


- **Purpose**
 - is to understand and influence customer demand for services and capacity provisioning to meet customer demand
- **Strategically**
 - At a strategic level, focus on analysis of patterns of business activity and user profiles
- **Tactically**
 - At a tactical level, focus on use of differential charging to encourage customers to use IT services at less busy times.



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BPA and UP


- **Business processes are the primary source of demand for services. Patterns of business activity (PBAs) influence the demand patterns seen by service providers**
 - Analyzing and tracking the activity patterns of the business process makes it possible to predict demand
 - PBAs are identified, codified and shared across processes for clarity and completeness of detail
- **User profiles (UPs) are based on roles and responsibilities within enterprises for people, and functions and operations for processes and applications**
 - Processes and applications can have UPs
 - Each UP can be associated with one or more PBA
 - UPs are constructed using one or more predefined PBA.
- **Pattern matching using PBAs and UPs ensures a systematic approach to understanding and managing demand from customers.**



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Capacity Management


- **Purpose**
 - Provide a point of focus and management for all capacity and performance-related issues, relating to both services and resources, and to match the capacity of IT to the agreed-on business demands
- **Capacity management**
 - Ensures that capacity and performance of the IT services and systems match the evolving agreed-on demands of the business in the most cost-effective and timely manner
 - It includes business, service and component capacity management across the IT service life cycle
 - A key success factor in managing capacity is ensuring that it is considered during the service design stage
- **The IT service life cycle is broadly centered around the business customer and staging through service strategy → service design → service transition → service operation → continual service improvement, and then back to the business customer.**



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Capacity Management


- **Business capacity management**
 - Translates business needs and plans into requirements for service and IT infrastructure
- **Service capacity management**
 - The management, control and prediction of the end-to-end performance and capacity of the live, operational IT services usage and work loads
- **Component capacity management**
 - The management, control and prediction of the performance, utilization and capacity of individual IT technology components



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Availability Management


- **Purpose**
 - Provide a point of focus and management for all availability issues
 - Relating to services, components and resources,
 - Ensure availability targets in all areas are measured and achieved, and that they match or exceed the current and future agreed-on needs of the business in a cost effective manner



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Availability management


- **There are two key aspects:**
 - *Reactive activities*
 - Monitoring, measuring, analysis and management of events, incidents and problems involving service unavailability
 - *Proactive activities*
 - Proactive planning, design, recommendation and improvement of availability



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Resource Management & Metrics


- **Performance measurement questions**
 - How well is the capacity and resource plan working
 - Are milestones met
 - Are utilization models holding
 - What's trending
 - Are SLA and OLA on target



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Resource Management Summary

- **Focus shift**
 - From cost and availability
 - To strategic alignment, with emphasis on the critical differentiating processes
- **IT resources**
 - Managed like other enterprise assets
 - Value measured to indicate contribution to strategy and value delivery
- **Resource Planning**
 - Feeds into IT Portfolio management
 - Business cases
 - Alignment success



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Key Resource Management Points

- **Part of the IT Governance process**
 - Purpose is to optimize the planning and availability of IT resources needed for business strategies
- **Frameworks**
 - ITIL for service management environments
 - BCS—learning and growth approaches—strategic alignment
 - Availability & Capacity focus areas
- **IT Project Management**
 - Part of good governance to have a standard PM methodology
 - But not the same as Resource Planning and Strategic Alignment
 - Detailed knowledge of Prince2 and PMBOK not needed for exam



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IT PROJECT MANAGEMENT



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COBIT Project Management


- **Focus on Project Management**
 - PO10 Manage Projects
 - Prioritization and coordination of IT projects
 - Master plan, resource assignments, deliverables, approvals, phased delivery, QA, testing, post implementation review
 - Reduce the risk of unexpected costs and project cancellation
 - Improve communication between business units and users
 - Ensure value delivery



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COBIT PO10 Manage Projects


- **Standardize the PM process**
 - Have a methodology
 - Provide enterprise PM guidelines
 - Require enterprise project planning
- **Critical Factors**
 - Commitment
 - Scoping
 - Integrated planning
 - Resource assignments
 - Risk assessment and management
 - Change control
 - Performance metrics and monitoring
 - Formal project closure



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COBIT PO10 Manage Projects

Inputs		Outputs	
PO1	IT Portfolio	Performance Reports	ME1
PO5	Updated IT Portfolio	Risk Management Plan	PO9
PO7	IT Skills Matrix	PM Guidelines	AI 1—7
PO8	Development Stnds	Detailed Project Plans	PO8/AI 1-7
AI7	Post-implementation Review	Updated IT Portfolio	PO1/PO5



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PMBOK and Prince2

- **General project management frameworks (not just for IT)**
 - Both have been mapped to COBIT
 - PO 10 Manage Projects capture most components
- **PMBOK (ANSI/PMI 99-001-2004)**
 - Focus on consistent implementation of a proven framework based on best PM practices
 - Lifecycle approach—initiation, planning, executing, controlling, closing
- **Prince2 (UK Gov't)**
 - Business case driven
 - Focus on the process of project management
 - Segments projects into manageable stages

