



Leveraging COBIT® for More Effective Audits

Strategies and Techniques
Session ST11

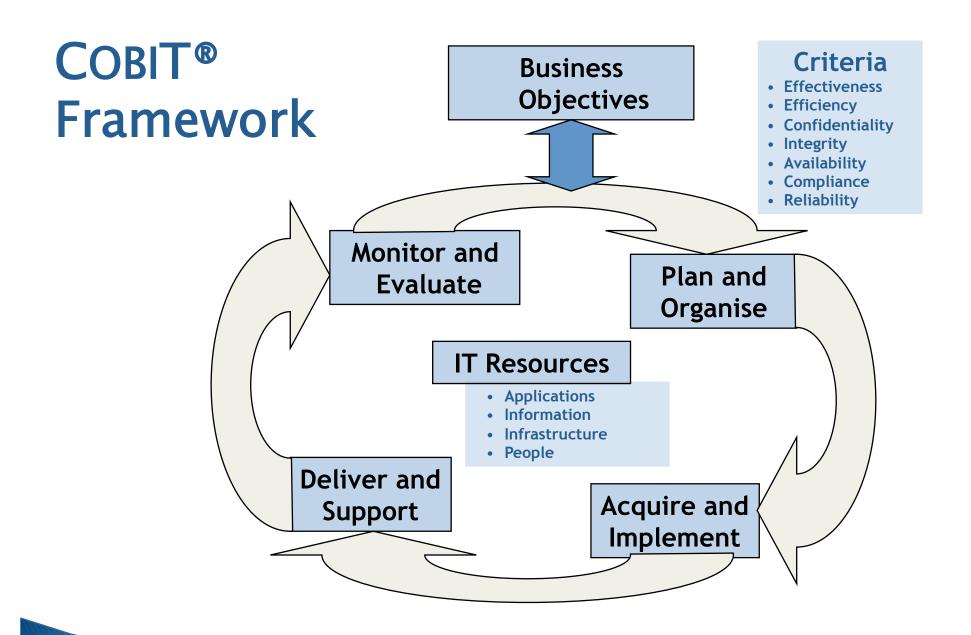
Session Outline

- ▶ Leveraging CobiT®
 - COBIT® and Related Products
 - Framework, Processes and Navigation
- Better Audits with Process Focus
 - Process Definition & Controls
 - Lean
 - Six Sigma Methods
- Better Audits with COBIT®
 - IT Assurance Guide
 - Planning
 - Executing
 - Customer Focused Reports and Communications



Leveraging COBIT®







COBIT® Processes

Plan and Organise

PO1	Define an IT Strategic Plan	
PO2	Define the Information Architecture	
PO3	Determine Technological Direction	
PO4	Define the IT Processes, Organisation and Relationships	
PO5	Manage the IT Investment	
P06	Communicate Management Aims and Direction	
PO7	Manage IT Human Resources	
PO8	Manage Quality	
PO9	Assess and Manage IT Risks	
PO10	Manage Projects	

Acquire and Implement

Al1	Identify Automated Solutions
AI2	Acquire and Maintain Application Software
AI3	Acquire and Maintain Technology Infrastructure
Al4	Enable Operation and Use
AI5	Procure IT Resources
Al6	Manage Changes
AI7	Install and Accredit Solutions and Changes



COBIT® Processes

Deliver and Support

DS1	Define and Manage Service Levels	
DS2	Manage Third-party Services	
DS3	Manage Performance and Capacity	
DS4	Ensure Continuous Service	
DS5	Ensure Systems Security	
DS6	Identify and Allocate Costs	
DS7	Educate and Train Users	
DS8	Manage Service Desk and Incidents	
DS9	Manage the Configuration	
DS10	Manage Problems	
DS11	Manage Data	
DS12	Manage the Physical Environment	
DS13	Manage Operations	

Monitor and Evaluate

ME1	Monitor and Evaluate IT Performance	
ME2	Monitor and Evaluate Internal Control	
ME3	Ensure Compliance With External Requirements	
ME4	Provide IT Governance	



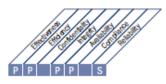
Process -level Navigating in COBIT®

Acquire and Implement Manage Changes AI6

HIGH-LEVEL CONTROL OBJECTIVE

Al6 Manage Changes

All changes, including emergency maintenance and patches, relating to infrastructure and applications within the production environment must be formally managed in a controlled manner. Changes (including procedures, processes, system and service parameters) must be logged, assessed and authorised prior to implementation and reviewed against planned outcomes following implementation. This assures mitigation of the risks of negatively impacting the stability or integrity of the production environment.









Control over the IT process of

Manage changes

that satisfies the business requirement for IT of

responding to business requirements in alignment with the business strategy, whilst reducing solution and service delivery defects and rework

by focusing on

controlling impact assessment, authorisation and implementation of all changes to the IT infrastructure, applications and technical solutions, minimising errors due to incomplete request specifications and halting implementation of unauthorised changes

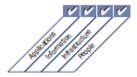
is achieved by

- . Defining and communicating change procedures, including emergency changes
- · Assessing, prioritising and authorising changes
- · Tracking status and reporting on changes

and is measured by

- Number of disruptions or data errors caused by inaccurate specifications or incomplete impact assessment
- Application or infrastructure rework caused by inadequate change specifications
- · Percent of changes that follow formal change control processes







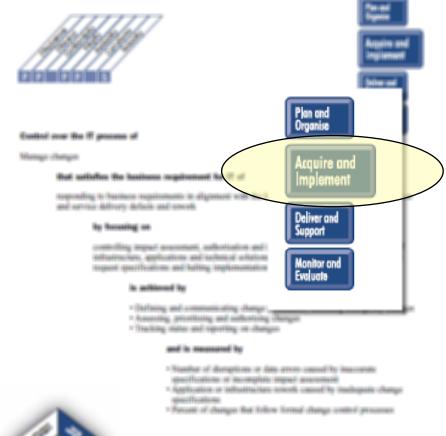


HIGH-LEVEL CONTROL OBJECTIVE

Which Domain?

Att Manage Changes

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Process



Description

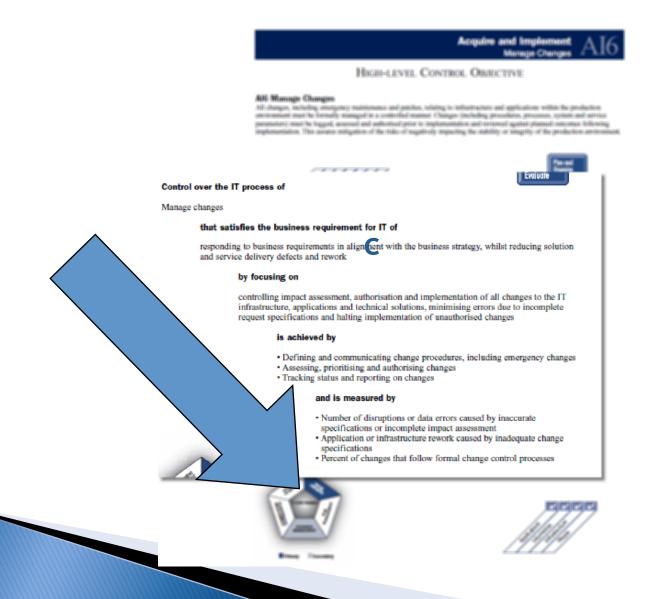
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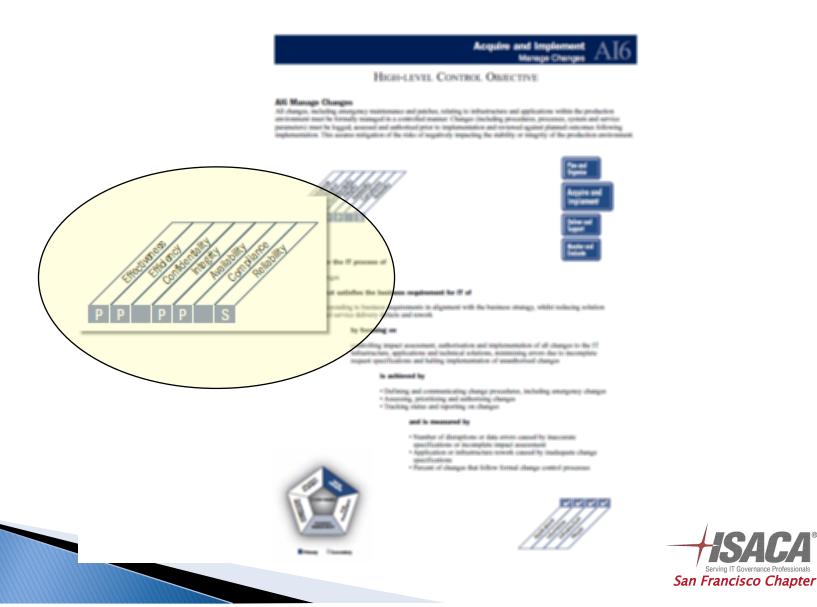


The Waterfall of Control

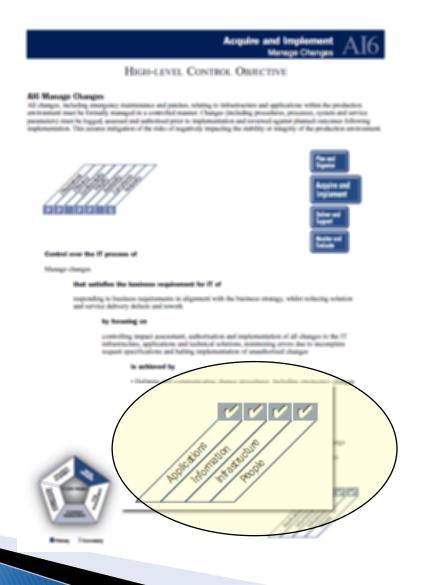




Information Criteria

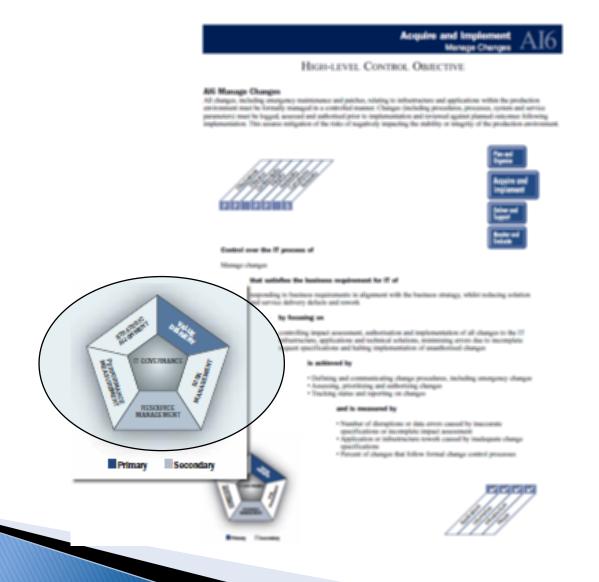


IT Resources





IT Governance





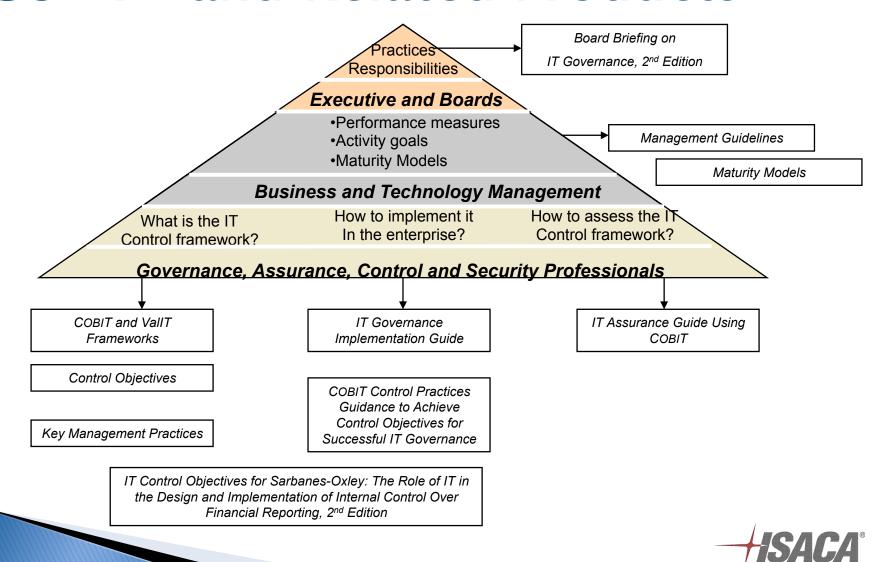
Control Objectives



Al6.5 Change Closure and Documentation Whenever changes are implemented, update the associated system and user documentation and procedures accordingly.

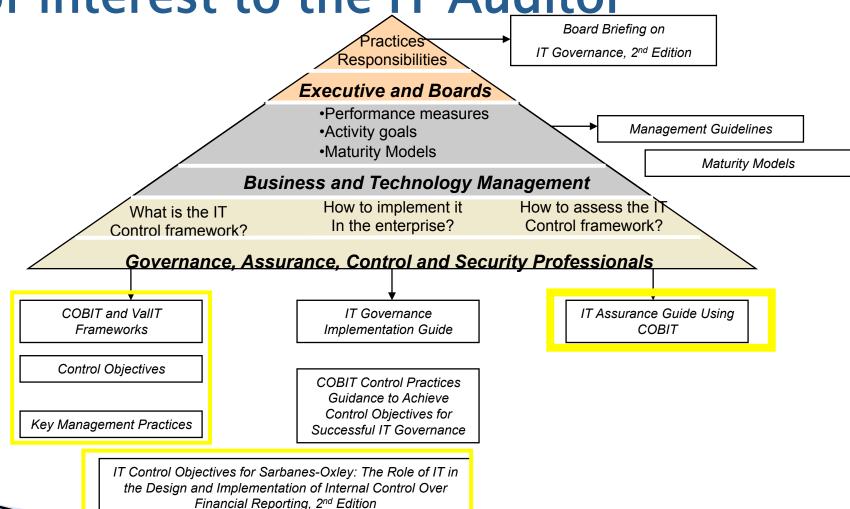


COBIT® and Related Products



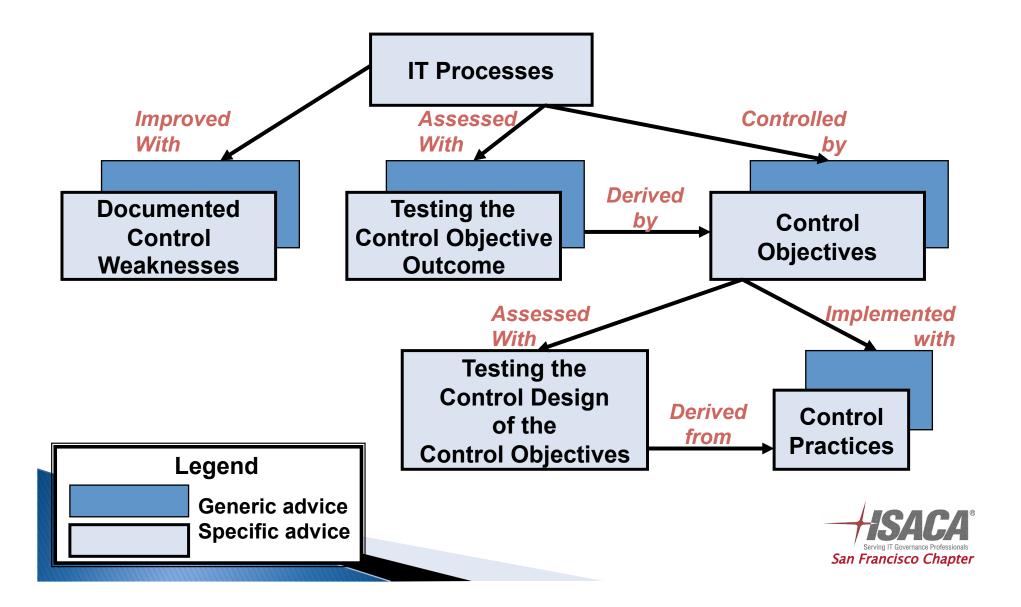
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COBIT® and Related Products of interest to the IT Auditor





IT Assurance Guide Advice



Better Audits with Process Focus

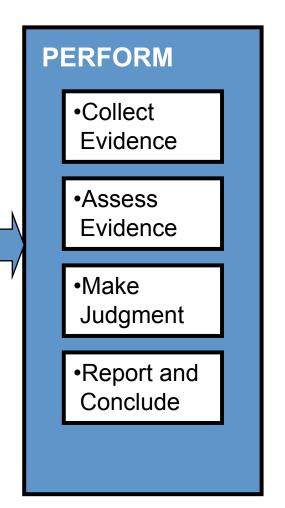


How we do audits*

•Determine intended user of assurance output •Determine

responsible party

- Determine
- nature of
- Subject Matter
- •Define and Agree on Evaluation Criteria



*Source: IAASB from IT Assurance Guide Intro



Reason for defining how we do audits as a process:

So we know what we are doing

A defined process is repeatable and more consistently produces the expected results with less likelihood of errors.

Value Drivers:

- Increased efficiency and effectiveness
- Ease of process maintenance
- Ability to demonstrate process effectiveness to external auditors and regulators
- Alignment with overall IT organization goals

Risk Drivers

- High reliance on process specialists
- Processes unable to react to problems and new requirements.



Steps to Define the Audit Process

- Identify Process S-I-P-O-C
 - Suppliers & Inputs
 - Outputs & Customers
 - Process Flow: Activities & Role/Responsibilities
- Evaluate the Process for
 - Control
 - Customer's Value
 - Business Management Value
- Identify gaps & correct.
- Execute, Learn, Improve, Repeat



Audit Process as S-I-P-O-C

PLAN PERFORM Determine intended Collect user of assurance Evidence output Assess Customers Determine S Evidence responsible party Make Determine Judgment nature of Subject Matter Report and Conclude Define and Agree on **Evaluation Criteria Process**

Stakeholders



Suppliers & Inputs

From (Suppliers)	Inputs
IT Assurance Strategy	Scope
IT Assurance Function	Qualified Resources
Policy, Standards & Procedures	Performance expectations & direction

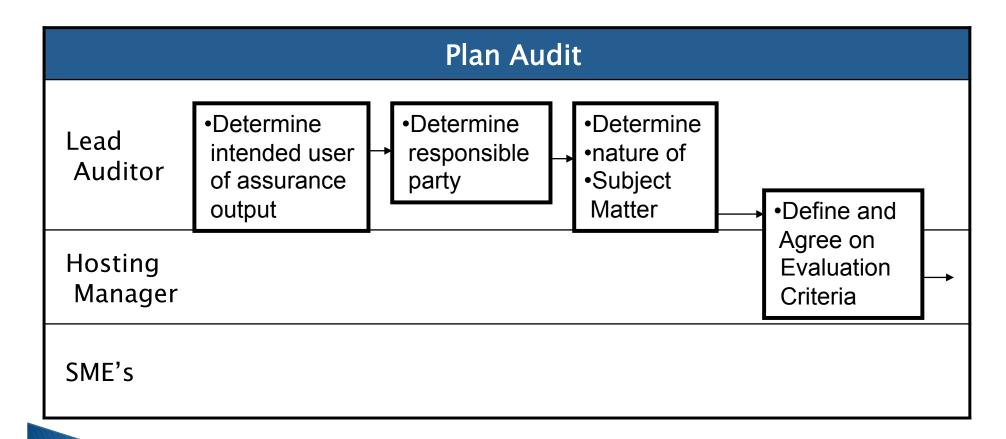


Outputs & Customers

Outputs	Customers (To)
Report	Intended User
Conclusions	Responsible Party
Communications	Management

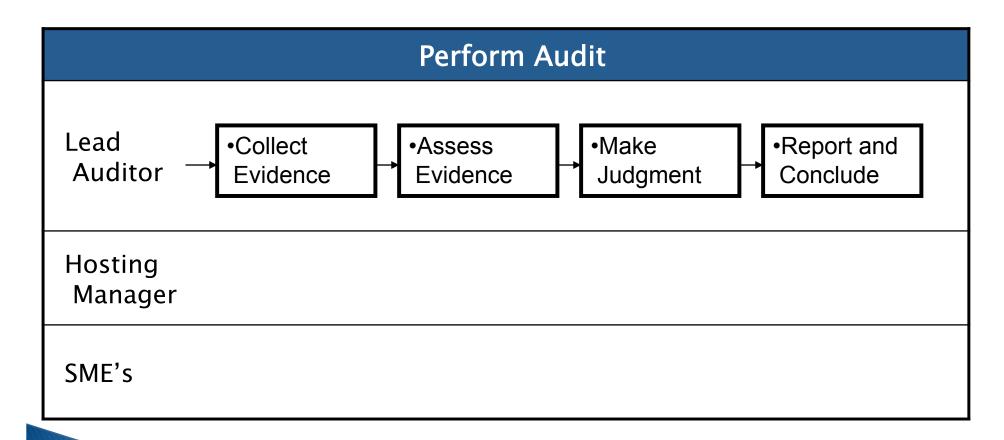


Process: Flow Activities & Roles for Plan





Process Flow: Activities & Roles for Perform





Evaluate the Process for Control

- Reason: if the Audit Process is under control then:
 - Risk is mitigated
 - Value is delivered more reliably
 - Efficiency is increased
 - Errors and Rework are Reduced or eliminated
 - Improvements are easier to recognize and achieve
 - Process is sustainable and maintained
- Audit Management Stakeholders are happy!

Note: This step assures basic COBIT Process Controls are in place



Checklist for Process Controls





Evaluate process for Customer Value:

- Reason: if the Audit Process is delivering what the customer wants then:
 - Customer has more trust and greater loyalty
 - Customer recognizes the value more reliably (and rewards accordingly)
 - Efficiency is increased
 - Errors and Rework are Reduced or eliminated
 - Improvements are easier to justify, recognize and achieve
- Customers are Happy!

Note: This is a Lean/Six Sigma Voice of the Customer (VOC) Process Step



Evaluating for Customer's Value: What the Customers want

Customers	What Customers want (Critical To Quality Factors):
Intended User	 Accurate, No surprises Recognize work done well Keep it Short (not overwhelming) Use Specifics Give Reason finding & corrective action is important Say How to test for success.
Responsible Party	Stay Focused Summarize Risks & Importance Summarize State of Internal Controls



Evaluating process for Business Stakeholder's Value:

- Reason: if the Audit Process is delivering what the Business stakeholder wants then:
 - Customers' Stakeholders and Management Stakeholders have more trust
 - Management Stakeholders recognize the value more reliably (and rewards accordingly)
 - Efficiency is increased
 - Errors and Rework are Reduced or eliminated
 - Improvements are easier to justify, recognize and achieve
- Business Stakeholders happy –"transparency"

Note: This is a COBIT IT Governance and Six Sigma (Voice of the Business) Process Step



Evaluating for Stakeholder Value: What Stakeholders want

Stakeholder	What Stakeholder wants:
Business Management	 Keep it Simple Keep Context Clear Say How well process & controls are performing Use Numbers & Stories for support Show Strategic Impact/alignment Highlight Process & Control benefits realized for investments made How long it will take, what it will cost, when you'll be done



Fill in Gaps and Repeat

- Gap: Risks
 - Customer Value:
 - Intended User Want: Give Reason finding & corrective action is important
 - Responsible Party Want: Summarize risks and importance
- Gaps: Business & IT Goals
 - Process Control:
 - Goal alignment with Business Goals.
 - Stakeholder Value:
 - Stakeholder want: Results Show Strategic Impact/alignment



Added Suppliers and Inputs correct Customer & Stakeholder gaps:

From (Suppliers)	Inputs
Business Strategy	Business Goals
IT Strategy	IT Goals
Risk Assessment	Risks
IT Assurance Strategy	Scope
IT Assurance Function	Qualified Resources
Policy, Standards & Procedures	Performance expectations & direction



Lean - Removing 7 Deadly Wastes

- 7 Deadly Wastes
- Also called "Muda"
- DOTWIMP
 - Defects]←
 - Over–production
 - Transportations
 - Waiting
 - Inventory
 - Motion
 - Processing

- Lean Techniques
 - Value
 - Value-Stream MappingFlow or 5 "S" Standards
 - Pull
 - Perfection
 - Replicate

Start with Defects, Values & Flow

See www.isixsigma.com for more information



Flow: 5 "S" Standards

- 1. Seiri/Sort: Sorting or segregating through the contents of the workplace and removing all unnecessary items.
- 2. Seiton/Straighten: Putting or arranging the necessary items in their place and providing easy access by clear identification.
- 3.Seiso/Shine: Cleaning everything, keeping it clean and using cleaning to inspect the workplace and equipment for defects.
- 4. Seiketsu/Standardize: Creating visual controls and guidelines for keeping the workplace organized, orderly and clean, in other words, maintaining the seiso, or shine.
- 5.Shitsuke/Sustain: Instituting training and discipline to ensure that everyone follows the 5S standards.

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Six Sigma in context

- ► Methods Using statistics and analytics to improve control/reduce variation.
 - Six Sigma is a Statistical term describing the standard deviation of a process about it's mean that produces less than 3.4 defects per million opportunities.
- Methodology Using Rigorous Process Improvement Methodology to improve control and performance.
 - Six Sigma DMAIC and Design for Six Sigma are methods that can be used by a Process improvement project to achieve breakthrough process performance improvement.
- Muscle Bring on the "Belts"
 - Six Sigma is the Company-wide Initiative or "Breakthrough Strategy" credited with savings in the billions of dollars by early adopter companies



Six Sigma in Context

- Method Using statistics and analytics (scientific method) to improve control/reduce variation.
 - Six Sigma is a Statistical term describing the standard deviation of a process about it's mean that produces less than 3.4 defects per million opportunities.
- ▶ **Methodology** Using Rigorous Process Improvement Methodology to measurably improve performance – especially financial performance.
 - Six Sigma DMAIC and Design for Six Sigma are methods that can be used by a Process improvement project to achieve breakthrough process performance improvement.
- ▶ Muscle Bring on the "Belts"
 - Six Sigma is the Company-wide Initiative or "Breakthrough Strategy" credited with savings in the billions of dollars by early adopter companies. Six Sigma Programs employ Black Belts.



Defined processes are quickly improved using scientific methods.

	Level 1:	Level 2:	Level 3:	Level 4:	Level 5:
	Initial/	Repeatable/	Defined	Managed	Optimized
	Ad Hoc	Intuitive	Process	and	_
				Measured	
Breakthrough					
Strategy				X	X
Improvement					
Project			X	X	X
Statistical					
Methods		X	X	X	X

Six Sigma "Value-Add" Table

"X" indicates Six Sigma Method, Methodology or Muscle that will deliver performance improvement based on the Process Maturity

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Audit Output Metrics

- » % of audit findings corrected out of audit findings reported
- Audit findings reported by category or risk
- Average time lag between identification of an audit finding and corrective action
- # of Pages & # of defects logged/page in review/walkthrough of audit report
- Process Control Checklist (as a self -assessment survey)
- Customer or Stakeholder satisfaction survey



Audit Customer Satisfaction Survey

- Audit Process:
 - defined
 - a report standard template is used.
 - a peer review of the report was conducted by the team before presentation
- Audit Information:
 - Audit Team: 3
 - Time Spent: 1 week (120 hours)
 - Pages in final report: 30
 - 5 summary, 25 in appendices
 - Rating: Satisfactory
 - Findings: 2 critical or serious, 10 needs attention
 - Findings verified corrected:
 - 7 critical or serious findings corrected, 100% of previously identified findings requiring correction
- Customer Satisfaction Survey (21% response rate):
- See results on next page



Customer Satisfaction Survey Baseline Results

	Strongly			Strongly	No
	Agree	Agree	Disagree	Disagree	Opinion
Accurate, No surprises	35%	51%	11%	3%	1%
▶Recognized work done well	30%	50%	15%	4%	1%
▶Kept it Short (not overwhelming)	38%	56%	5%	1%	1%
▶Used Specifics	38%	57%	4%	1%	0%
▶Gave Reason finding & corrective action is important	45%	50%	3%	1%	0%
▶Said How to test for success.	44%	54%	2%	0%	1%
▶Summarized Risks & Importance	43%	48%	5%	1%	3%
Summarized State of Internal Controls	44%	48%	2%	3%	4%



What would you do to improve?

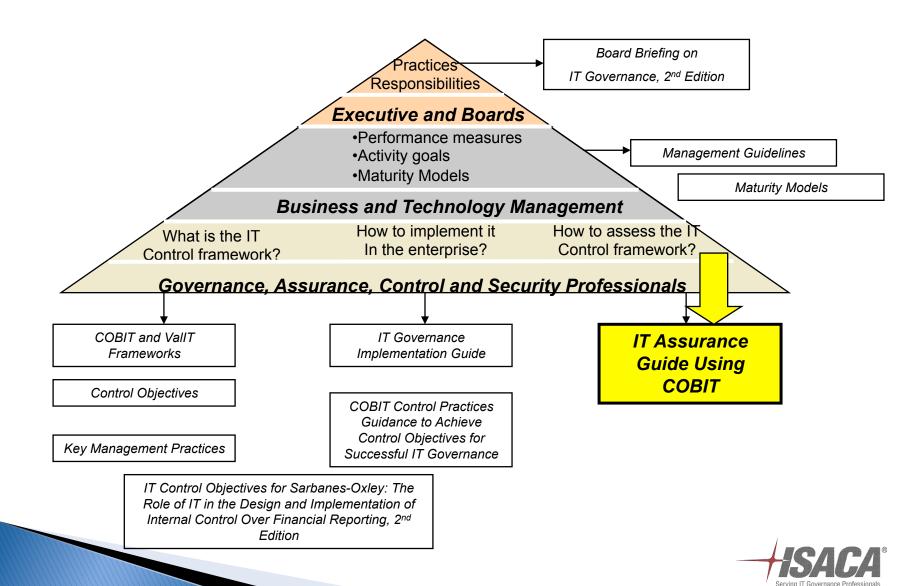
- Set a Target: Improve Customer Satisfaction
- Look at Survey results for options:
 - Remove sources of disagreement with source
 - Build on sources of agreement
 - Look to comments!
- Check for impact in:
 - Inputs and outputs
 - Activities
 - Role/Responsibilities
- Make a hypothesis -
 - "If we include target SME's in the peer review of the report, we expect to see an improvement from Agree to Strongly Agree with Accuracy and Recognition"
- Make the Change
 - Define/refine peer review activity to include SME's
 - Add identify/notify/train SME's and their managers about review activity
- Repeat Test improvement



Better Audits with COBIT®

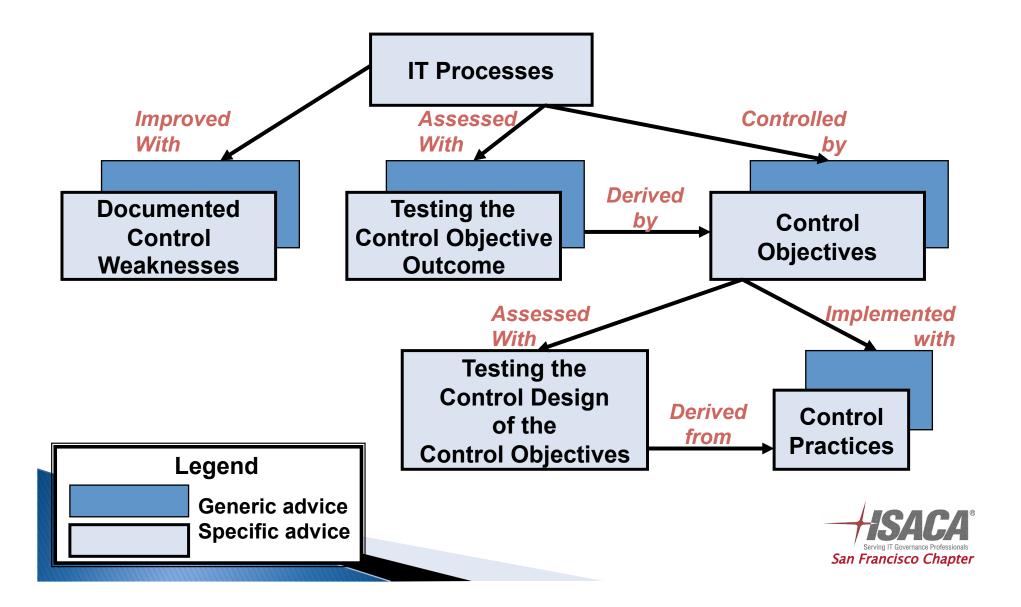


COBIT Products & IT Assurance Process



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IT Assurance Guide Advice



IT Assurance Guide using COBIT®

Table of Contents:

- Introduction
- IT Assurance Principles and Context
- Assurance Planning
- IT Resource and Control Scoping
- Assurance Initiative Execution
- Assurance Guidance for COBIT® Processes and Controls
- How COBIT® Components Support IT Assurance Activities
- Appendix I Process Control (PC)
- Appendix II Plan and Organize (PO)
- Appendix III Acquire and Implement (AI)
- Appendix IV Deliver and Support (DS)
- Appendix V Monitor and Evaluate (ME)
- Appendix VI Application Control (AC)
- Appendix VII Maturity Model for Internal Control
- Appendix VIII IT Scoping
- Appendix IX COBIT and Related Products



The really useful information for auditors is in the Appendices

- For each COBIT Process Control Objective /Detailed Control objective, you find:
 - Description of the Control Objective
 - Value Drivers
 - Risk Drivers
 - Test the Control Design

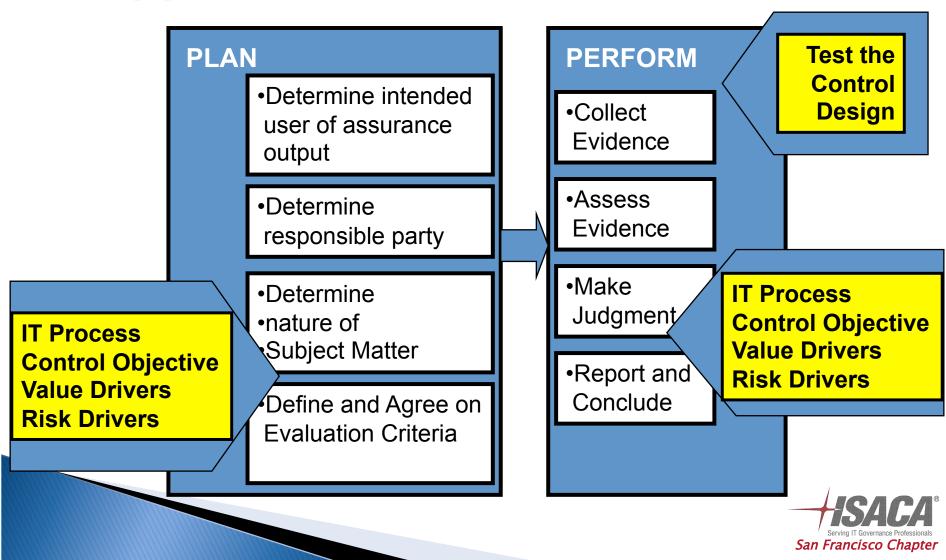


Where the IT Assurance Guide supports Customer Satisfaction with Audits

	Strongly			Strongly	No
	Agree	Agree	Disagree	Disagree	Opinion
Accurate, No surprises	35%	51%	11%	3%	1%
▶Recognized work done well	30%	50%	15%	4%	1%
▶Kept it Short (not overwhelming)	38%	56%	5%	1%	1%
▶Used Specifics	38%	57%	4%	4% 1%	
▶Gave Reason finding & corrective action is important	IT D	ocess			0%
Said How to test for success.		trol Ob		1%	
Summarized Risks & Importance Value Drivers				3%	
Summarized State of Internal Controls		Drive			4%
	lest	Contr	gn –		



Where the IT Assurance Guide supports the IT Audit Process



What would you do to improve?

- Set a Target improve Customer Satisfaction
- Look at Survey results for options:
 - Remove sources of disagreement with source
 - Build on sources of agreement
 - Look to comments!
- Check for impact in:
 - Inputs and outputs
 - Activities
 - Role/Responsibilities
- Make a hypothesis -
 - "If we use the IT Assurance Guide: Risk Drivers and Value Drivers to summarize the Risks and show alignment, we expect to improve "Summarized Risks and Importance" and "Giving the reason the finding and the corrective action is important"
- Change the Process:
 - IT Assurance Guide is an input
 - Auditors need training on how to use
- Repeat Test improvement

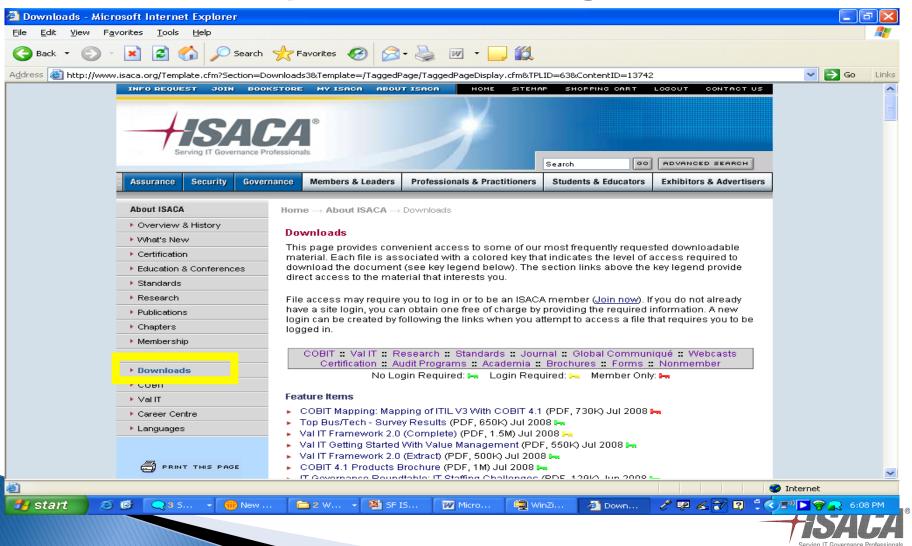


Session Summary

- Better Audits with Process Focus:
 - Process Definition
 - Process Controls
 - Customer and Stakeholder Value
 - Lean
 - Six Sigma
 - Using data from a Customer Satisfaction Survey
- Better Audits with COBIT®
 - Planning
 - Executing
 - Customer Focused Reports and Communications

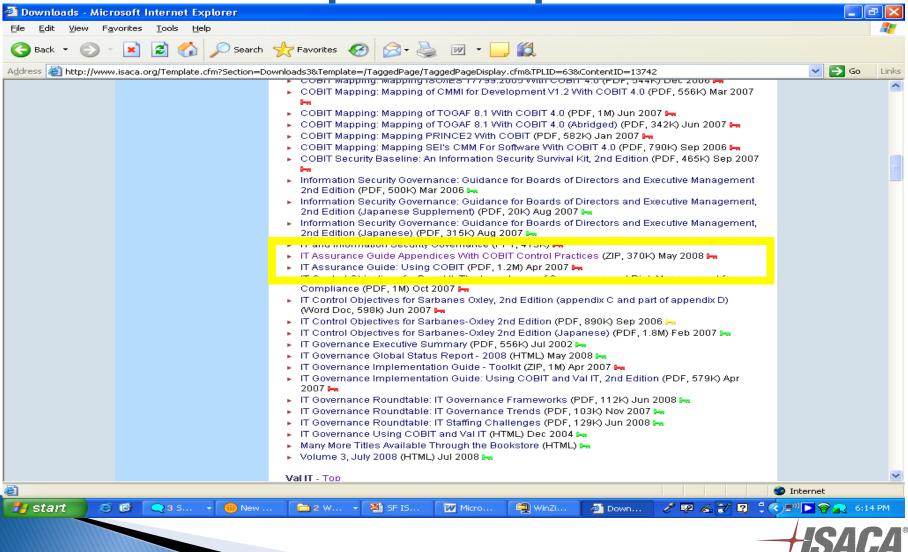


www.isaca.org (Members only) IT Assurance guide download



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Two files - pdf & zip archive





Survey:

Course Objective Statements:	Agree	Strongly	Agree	Disagree	Disagree	Strongly	Opinion	N _o
As a result of this session, I have a better understanding of how to make my audits more effective through process controls with COBIT and some very simple Lean and Six Sigma process improvement techniques.								
As a result of this session, I have a better understanding of how COBIT components support IT Assurance activities and the particular COBIT components that provide the most benefit.								
As a result of this session, I have a better understanding of how to using COBIT for more Effective Communications with Responsible Parties and Stakeholders								

If to do were as easy as to know what were good to do, chapels had been churches, and poor men's cottages princes' palaces

The Merchant of Venice, Act I, Scene 2

Success unites knowledge and action.



Thank You for your kind attention!



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