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COBIT 5 – an Overview with an InfoSec Focus

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Agenda

- Objectives of this version
- Parts n Pieces (it is not all in one place anymore, [was it ever?])
- Compare COBIT 5 to CobiT 4.1 processes
- Drill Down – DS5 Manage Security is now DSS 02 & 05 and APO13 (and is influenced by others)
- COBIT 5 for Information Security
- References, Q n A

Objectives of COBIT 5

COBIT 5 Objectives

- More emphasis on Management and Governance, the 5 principles:
  1) Stakeholder emphasis - benefits, risk, & resource optimization
  2) The whole enterprise end to end (not just IT)
  3) A Single Framework then plug-in the details, (ISO 38500 31000 27000 20000 15504, PCI/DSS, FFIEC, HIPPA, ITIL, TOGAF, PRINCE2, PMBOK….) Appendix E
  4) Holistic (7 enablers)
     - ❖ Policies, Principles, Framework
     - ❖ Processes
     - ❖ Organization Structure
     - ❖ Culture, Ethics, Behavior
     - ❖ Information
     - ❖ Services, Infrastructure, Applications
     - ❖ People, Skills, Competencies
  5) Separating Governance from Management

COBIT 5 Objectives (continued)

- Since ValIT is superseded, these documents stress alignment (cascade) of IT goals with the Business goals (appendix B & C & D)
- Distinguishes Management (Plan, Build, Run Monitor) from Governance (Evaluate, Direct, Monitor)
- 37 enabling processes (was 34)
- Implementation (change process) guidance
- 5 level MM follows Carnegie, +level 0 nothing
- CIA + effective & efficient & compliant are now buried in verbiage (Appendix F)

COBIT 5 Evaluating the 7 Enablers

- Appendix G:
  - (Who) Stakeholders
  - (Why) Goals
  - (When) Lifecycle
  - (What) Good Practices
  - (Where) Relationship to Other Enablers
- Add Maturity assessment for a process
- Information (frame work pages 81 – 84)
  a.) physical (storage) b.) empiric (access)
  c.) syntactic (structure) d.)sematic (type/value of the information) e.) pragmatic (retention, dependencies) f.) social (context, [i.e. contract vs. good practice])

Part and Pieces of COBIT 5

Parts and Pieces

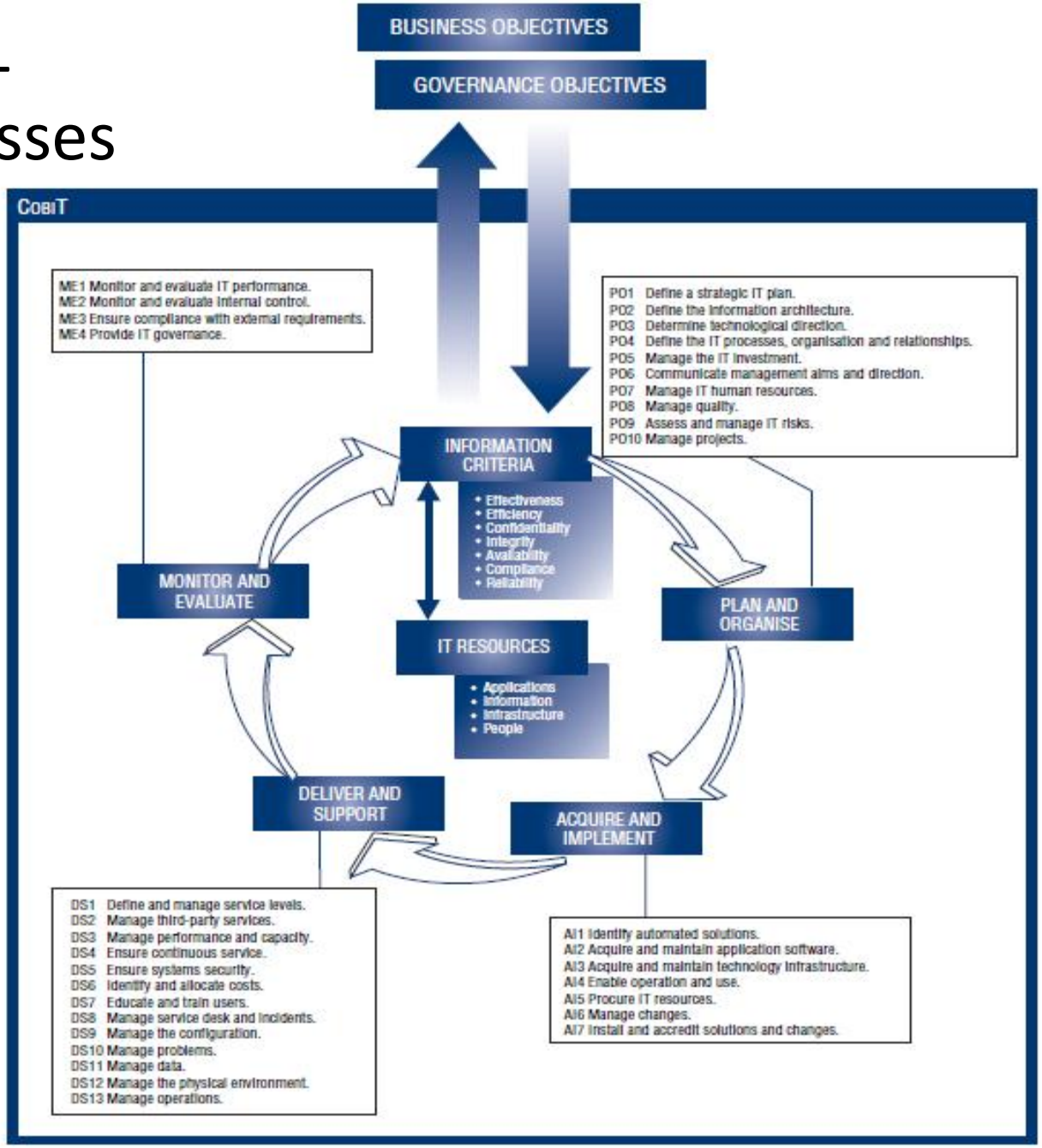
- Enabling Processes – 234 pages, explains the 37 process categories that used to be the 34 process categories in 4.1 ($135 non-members)
- Framework – 94 pages, explaining the goals background and structure of the new multi component COBIT 5 , ($50 non-members)
- COBIT 5 for Information Security – 220 pages (slides coming up) ($175 non-members)
- Implementation – 78 pages now to deploy COBIT5 ($150 non-members)

Parts and Pieces (continued)

- Enabling Information (not published yet, see slide 6 for an outline)
- Toolkit – mostly power points and PDF's to "market" COBIT 5 within your organization (14 Laminate pdf has the graphics, slide 12)
- Process Assessment Model – refers to CobiT 4.1
- In Process –
  - COBIT 5 for Risk
  - COBIT 5 for Assurance
  - COBIT Translations (business cases)
  - COBIT 5 Online

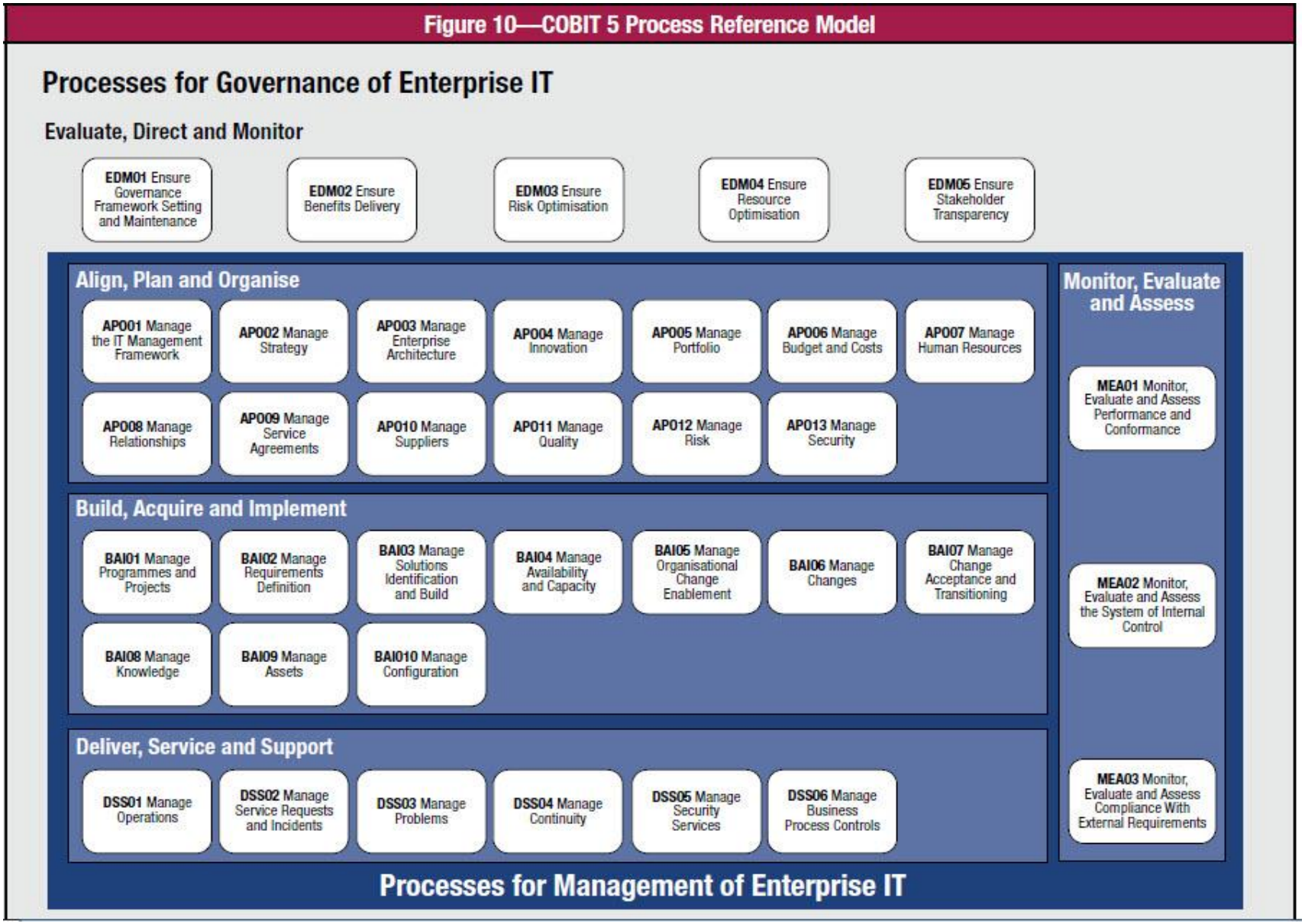
Comparing and Contrasting COBIT 4.1 and 5

CobiT 4.1
34 Processes



Source ISACA/ITGI CobiT 4.1 page 26

COBIT 5 37 Processes



Source ISACA/ITGI COBIT 5 page 33

Process Groups

COBIT 5	CobiT 4.1
Evaluate, Direct, Monitor (Governance, RiskIT)	n/a
Align, Plan , Organize (ValIT)	Plan and Organize
Build, Acquire, Implement	Acquire and Implement
Deliver, Service, Support	Deliver & Support
Monitor, Evaluate, Assess (Management)	Monitor & Evaluate

37 Enabling Processes – “New” (7)

- The new Group, Evaluate, Direct, Monitor (EDM)
  - EDM1, Set a Governance Framework, was in 4.1 as ME 4
  - EDM2, 3, 4, and 5 are new
    - Value Optimization
    - Risk Optimization
    - Resource Optimization
    - Stakeholder Transparency
- BAI 2 new Define Requirements, carved out as a specific process, previously part of AI 1
- BAI 8 new Knowledge Management, carved out as a specific process, previously part of PO 7 and referenced in many processes

- (depending on what you read into it)

37 Enabling Processes – “Removed” (2)

- AI 5 Procure IT Resources, part of EDM 4 Resource Optimization
- DS 6 Identify and Allocate Costs, part of EDM 4 Resource Optimization

- (depending on what you read into it)

37 Enabling Processes – “Collapsed” & “Expanded” (2)

- Collapsed (5 -2)
  - IA 1, 2 & 3 Identify Solutions, Acquire Applications, Acquire Infrastructure, now are in BAI 3
  - DS 11 & 12 Physical Environment & manage Data are now mostly are in DSS 2
- Expanded (3 – 4)
  - PO 5 Manage IT Investment, now APO 5 & 6
  - AI 6 Manage Changes, now APO 5 & 6
  - DS 2 Manage Third Parties, now APO 9 & 10
- 34 + 7 -2 - (5- 2) + (3 -4) = 37

- (depending on what you read into it)

Drill Down - What Used to be DS5

Detailed Mapping – 4.1 to 5
Appendix A in COBIT 5

CobiT 4.1	Description	COBIT 5
DS5.1	Management of IT Security	APO13.01; APO13.03
DS5.2	IT Security Plan	APO13.02
DS5.3	Identity Management	DSS05.04
DS5.4	User Account Management	DSS05.04
DS5.5	Security Testing, Surveillance and Monitoring	DSS05.07
DS5.6	Security Incident Definition	DSS02.01
DS5.7	Protection of Security Technology	DSS05.05
DS5.8	Cryptographic Key Management	DSS05.03
DS5.9	Malicious Software Prevention, Detection and Correction	DSS05.01
DS5.10	Network Security	DSS05.02
DS5.11	Exchange of Sensitive Data	DSS05.02

COBIT 5

APO 13 Align, Plan Organize - Manage Security

DSS 02 Deliver, Service & Support – Manage Security Services

DSS 05 Deliver, Service & Support – Manage Service Requests & Incidents

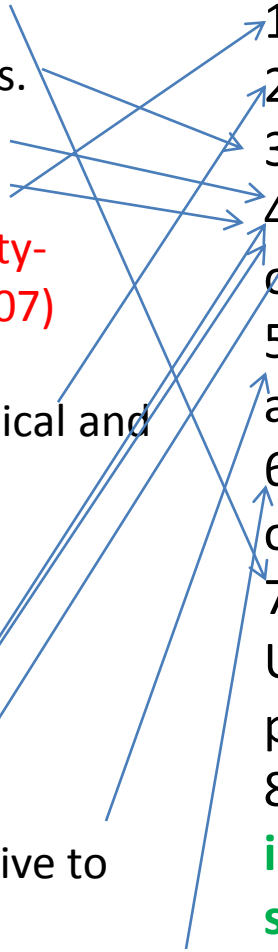
DS 5.3 and 5.4 - Are Now DSS 05.04 Identity Management & User Account Management

DS 5.3 Identity Management

1. Users uniquely identifiable
2. Authentication mechanisms.
3. Confirm user access rights
4. Approved by system owner
5. Implemented by the security-responsible person (see APO 07)
6. Use a central repository
7. Deploy cost-effective technical and procedural measures

DS 5.4 User Account Management

1. User account management procedures
2. Approval procedure
3. Rights and obligations relative to access contractually arranged
4. Perform regular management review



DSS 05.04 Identity Management

1. Maintain aligned user access rights
2. Uniquely identify roles
3. Authenticate all access
4. Administer all changes timely, based only on approvals
5. Segregate and manage privileged user accounts.
6. Perform regular management review of all accounts and related privileges.
7. Users are uniquely identifiable. Uniquely identify all information processing activities by user.
8. **Maintain an audit trail of access to information classified as highly sensitive**.

COBIT 5 For Information Security

COBIT 5 for Information Security

- Section I – COBIT Overview
- Section 2 - Enabling Processes
  - Chapter 1 – Management 101
  - Chapter 2 **A** – Policy components and life cycle
  - Chapter 3 **B** – Process Model
  - Chapter 4 **C** – Organiszation Model
  - Chapter 5 **D** – Ethics, Culture, Behavior (COSO)
  - Chapter 6 **E** – Information (CISO documents and reports) and Stakeholders (ext auditors)
  - Chapter 7 **F** – Services, Infrastructure, & Applications
  - Chapter 8 **G** – People Skills Competencies
- Section 3 – Adapting COBIT 5 to the org

COBIT 5 for IS – Appendix F = Services, Infrastructure & Applications

- Provide a security architecture
- Provide security awareness
- Provide secure development
- Provide security assessments
- Provide adequately secured and configured systems
- Provide user access and access rights in line with business requirements
- Provide adequate protection against malware, external attacks and intrusion attempts
- Provide adequate incident response
- Provide security testing
- Provide monitoring and alert services

COBIT 5 for IS – Appendix F 3 Page 192 = Secure Development

F.3 Secure Development

Description of the Service Capability

Figure 45 describes the service capability for secure development services.

Figure 45—Secure Development Services: Description of the Service Capability	
Service Capability	**Description**
Develop secure coding practices.	The design and delivery of coding practices, examples and content demonstrating secure coding and development (development of code that can withstand attacks) for a given set of languages and environments
Develop secure infrastructure libraries.	The design and delivery of language- and environment-specific information security modules that provide essential or critical information security functions

Attributes

Figure 46 describes attributes for secure development services.

Figure 46—Secure Development Services: Attributes		
Service Capability	**Supporting Technology**	**Benefit**
Develop secure coding practices.	• Compilers, linkers • Secure coding resources (books, courses, examples) • Static and binary analysis tools • Code scanners	• Decreased likelihood of vulnerabilities in code • Assistance in conforming with compliance standards
Develop secure infrastructure libraries.	• Development languages • Secure coding resources (books, courses) • Code scanners • Static and binary analysis tools • Compilers, linkers	• Protection of intellectual property • Decreased likelihood of vulnerabilities in software development

Goals

Figure 47 describes goals for secure development services.

Figure 47—Secure Development Services: Goals		
Service Capability	**Quality Goal**	**Metric**
Develop secure coding practices.	Accurate identification of all information risk and resulting business risk/effects to a given asset or entity	Number of new types of risk discovered via incidents not covered in report
Develop secure infrastructure libraries.	Improvements in information security configuration of systems in alignment with information security requirements	Number of information security issues discovered after an information security assessment of the hardened system

COBIT 5 for IS – Appendix F 5 Pages 193 & 194 = Secure Systems

F.5 Adequately Secured and Configured Systems, Aligned With Security Requirements and Security Architecture

Description of the Service Capability

Figure 51 describes the service capability for adequately secured systems services.

Figure 51—Adequately Secured Systems Services: Description of the Service Capability	
Service Capability	**Description**
Provide adequately secured hardened and configured systems, in line with information security requirements and information security architecture.	Provide the information security-related configuration, settings and system hardening to ensure that the information security posture of a given system is based on a set of requirements or architectural designs.
Provide device information security protection.	Provide device-specific information security measures and activities.
Provide physical information protection.	Provide adequate, specific information security measures for data and information that exist in non-digital forms, including documents, media, facilities, physical perimeter and transit.

COBIT 5 for IS – Appendix F 5 Pages 193 & 194 = Secure Systems (cont.)

Attributes

Figure 52 describes attributes for adequately secured systems services.

Figure 52—Adequately Secured Systems Services: Attributes

Service Capability	Supporting Technology	Benefit
Provide adequately secured hardened and configured systems, in line with information security requirements and information security architecture.	• File Transfer Protocol (FTP) • CMDB update methods • Signature verification solutions • File integrity monitoring • Kernel modules • Information security requirements and information security architecture • System management • Patch management • Virtualisation management • Cloud management	• Reduced unauthorised access to data • Reduced external and internal threats • Simplified compliance
Provide device information security protection.	• Device-specific platform OS • Platform management console/systems	• Confidentiality in case of theft • Prevention of unauthorised access to specific devices • More explicit information security for specific devices
Provide physical information protection.	• Closed-circuit television (CCTV) • Locks • Alarms • Access control • Vaulting • Intelligence reports • First responder interfaces • Facilities management solutions • Fire protection systems • Time locks • Physical access solutions	Protection of physical assets from external and internal threats

Goals

Figure 53 describes goals for adequately secured systems services.

Figure 53—Adequately Secured Systems Services: Goals

Service Capability	Quality Goal	Metric
Provide adequately secured hardened and configured systems, in line with information security requirements and information security architecture.	Improvements in information security configuration of systems in alignment with information security requirements	Number of information security issues discovered after an information security assessment of the hardened system
Provide device information security protection.	Improvements in information security configuration of device in alignment with information security requirements	Number of information security issues discovered after an information security assessment of the secured device
Provide physical information protection.	Physical controls in line with information security requirements	• Number of incidents not discovered by review/assessment • Number incidents detected not addressed by existing controls

References – not whole lot at this time,
COBIT 5 released late April 2012,
"for Information Security" 6/25/2012

1.) THE source
http://www.isaca.org/COBIT/Pages/default.aspx

2.) most others are announcement articles with lots of glowing quotes from ISACA, no real analysis yet (7/18/2012)

Questions ??

You are not seriously thinking about getting up?

Where would you like the scar?