

KONSEP DASAR AUDIT TEKNOLOGI INFORMASI

Materi 2. Audit Process

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Understanding the Purpose of an Audit

- An *audit* is simply a review of past history.
- The IT auditor is expected to follow the defined audit process, establish audit criteria, gather meaningful evidence, and render an independent opinion about internal controls.
- The audit involves applying various techniques for collecting meaningful evidence, and then performing a comparison of the audit evidence against the standard for reference.

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Classifying Basic Types of Audits

- 1 Internal Audits and Assessments
- 2 External Audits
- 3 Independent Audit

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Special IT Audit Requirements

- Auditors are called to audit products, processes, and systems :

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Pendekatan Audit TI

Audit around the Computer

Pertimbangan:
 Risiko bawaan rendah; logika aplikasi "straightforward", transaksi input adalah batched; pengendalian dilakukan melalui metode tradisional; pemrosesan hanyalah men-sorting input data dan meng-update master file "sequentially"; jejak audit ada dan jelas; lingkungan relatif konstan; sistem jarang dimodifikasi

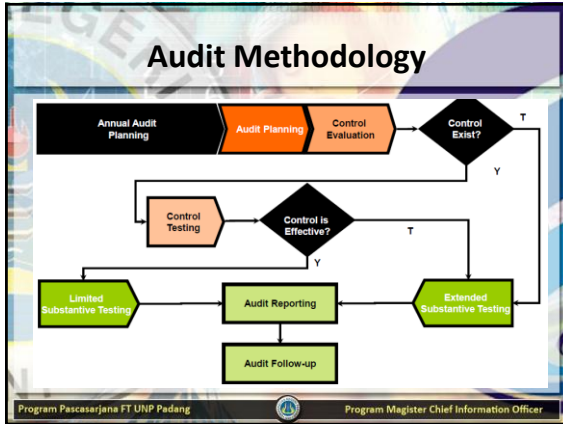
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Pendekatan Audit TI...

Audit Through the Computer

Pertimbangan:
 Risiko bawaan tinggi; aplikasi memproses input & output dalam jumlah yang besar; pengendalian intern yang signifikan melekat dalam sistem; logika prosesnya kompleks; terdapat kesenjangan yang signifikan dalam jejak audit

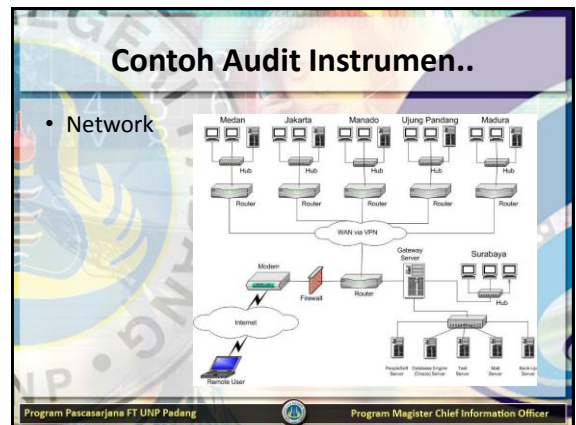
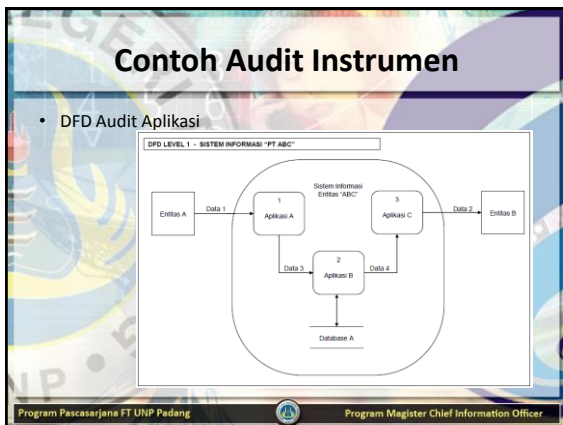
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- ### Audit Methodology..
- **Audit Planning**
 - Informasi Bisnis
 - Dokumentasi Pemahaman TI
 - Finansial (Pendapatan, Biaya, Laba, Aktiva)
 - Indikator Organisasi (Struktur, Jumlah, Lokasi, Afiliasi)
 - Tujuan Audit dan Lingkup Audit
 - Risiko Audit (Audit Risk)
 - Tim Audit dan Jadwal Audit
 - **Control Evaluation**
 - Kebijakan, Standar, Pedoman, Prosedur, Struktur Organisasi
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- ### Audit Methodology..
- **Lingkungan TI**
 - Sistem operasi dan sistem aplikasi
 - Infrastruktur
 - Komunikasi
 - **Pengendalian TI**
 - Perencanaan dan organisasi
 - Pengembangan dan implementasi
 - Operasi dan layanan TI
 - **Dokumentasi Informasi TI**
 - Diagram Sistem Aplikasi (Data/Application Flow Diagram)
 - Diagram Infrastruktur & Jaringan (Network Diagram)
 - **Penilaian Risiko TI**
 - Risiko Umum TI (IT Inherent Risk)
 - Risiko Pengendalian TI (IT Control Riks)
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- ### Audit Methodology..
- **Control Evaluation**
 - Kebijakan, Standar, Pedoman, Prosedur, Struktur Organisasi
 - **Control Testing**
 - Analisa risiko
 - Reviu pengendalian intern
 - **Substantive Testing**
 - Test of details of transactions
 - **Audit Reporting**
 - Audit findings and conclusions
 - **Audit Follow-up**
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Contoh Audit Instrumen..

Daftar Aplikasi (Lampirkan Diagram Aplikasi – lihat contoh)						
No	Nama Aplikasi	Fungsi Utama	Sistem Operasi	Bahasa Pemrograman	Sistem Database	Tanggal Modifikasi
1						
2						

Daftar Lisensi Paket Aplikasi & Database					
No	Nama Paket Aplikasi & Database	Vendor	Jumlah Lisensi	Tipe Lisensi	Keterangan / Ref
1					
2					

Daftar Perangkat Jaringan (Lampirkan Diagram Jaringan)					
No	Deskripsi	Jumlah	Spesifikasi	Merek	Tipe
1	Router, Switch, etc.				
2					

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Contoh Audit Instrumen..

Daftar Perangkat Terminal					
No	Deskripsi	Jumlah	Spesifikasi	Merek	Lokasi
1	PC, Notebook, NC, etc				
2					

Daftar Server					
No	Deskripsi / Fungsi	Merk & Tipe	Jumlah	Sistem Operasi	Lokasi
1					
2					

Daftar Media Komunikasi Data (Eksternal & Internal)						
No	Media Koneksi	Koneksi ke		Untuk Akses	Kecepatan Koneksi	Provider
		Internal	Eksternal			
1						
2						

Daftar Teknologi Khusus		
No	Teknologi Khusus	Pengguna Utama
1	Contoh: Absensi Otomatis, Bar Code Reader, Document Imaging, etc	
2		

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Contoh Audit Instrumen..

Daftar Kebijakan & Prosedur TI			
No	Kebijakan dan Prosedur Sistem Informasi	Deskripsi Singkat	Ket
1			
2			

Uraian Singkat Permasalahan Yang Dihadapi	
No	Permasalahan
1	
2	
3	

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Audit Teknis

- Audit kontrol Entri Level
- Audit Data Center dan Disaster Recovery
- Audit Switches, Routers dan Firewalls
- Audit Sistem Operasi (Windows, Unix, Linux)
- Audit Web Server
- Audit Basis Data
- Audit Aplikasi
- Audit WLAN dan Perangkat Mobile
- Audit Project

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Regulation of Audit

- The global nature of business and technology has long dictated a common understanding and support of standards
- as demonstrated by the strategic partnerships of :
 - the *International Organization of Standardization (ISO)*,
 - the *International Electrotechnical Commission (IEC)*,
 - the *International Telecommunication Union (ITU)*, and
 - the *World Trade Organization (WTO)*.

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Regulatory Impact on IT Audit

- industry-specific privacy acts and other regulations
- intended to protect and support the business consumer
- internal and external audit groups are tasked with reviewing business processes and procedures
- to ensure that appropriate business controls are in place to mitigate risks to the business and the consumer

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Regulatory Impact on IT Audit...

- The *International Association of Internal Auditors* (IIA) and the *International Information Systems Audit and Control Association* (ISACA) publish guidelines to assist members of these internal and external audit groups in establishing common controls and audit processes



Regulation Audit System

- **The Sarbanes-Oxley Act of 2002**
 - requires company executives to attest to the adequacy and effectiveness of their internal controls related to financial transactions and reporting, including *information technology* (IT) controls
 - As a result, *information services managers* (IS managers) who may not be keenly aware of the internal control measures necessary when dealing with the requirements of Sarbanes-Oxley are being asked to thoroughly examine the technology risks and test all controls

