What CAEs Should Expect from IT Auditors

Steve Goepfert, CIA, CPA
Staff Vice President – Internal Audit
Continental Airlines, Inc.
April 17, 2008

Continental Airlines SKYTEAM

Session Highlights

- ❑ Understanding the Business
- ❑ Focusing on Technical Competencies
- ❑ Adding Value to the Organization
- ❑ Identifying Leaders for the Organization

Understanding the Business

Understanding the Business

❑ **Industry Specifics**

- Understanding of the key business processes (ex., Revenue Recognition) in order to test application controls

- Identification of the applications that support key business processes

Understanding the Business

❑ **Technology Department's Operations**
- ▪ *How do they operate and meet the users' needs?*

  - ▪ Centralized – Corporate policies and procedures for all applications

  - ▪ Decentralized – Application-specific policies and procedures

RISK

CENTRALIZED ──────────────────────► DECENTRALIZED

Understanding the Business

❑ <u>Conclusion</u>:   The IT Audit Professional must have an understanding of information technology risk, as well as business risk.

Focusing on Technical Competencies

Today's World of Technology

❑ Technical Competencies Are Required for Sarbanes-Oxley IT Controls' Testing, Application Reviews, & System Development Projects.

▪ **<u>Program Development & Program Change</u> -** Acquiring & implementing new programs and systems, as well as changes in, and maintenance of, existing systems.

Today's World of Technology Example #1

- Company XYZ's Marketing Department wants to push a new service to their customer base as quickly as possible.

- The new service requires significant enhancements to an existing system.

- The Technology Department migrates the new program to production in *record time* to the content of Marketing.

Today's World of Technology Example #1
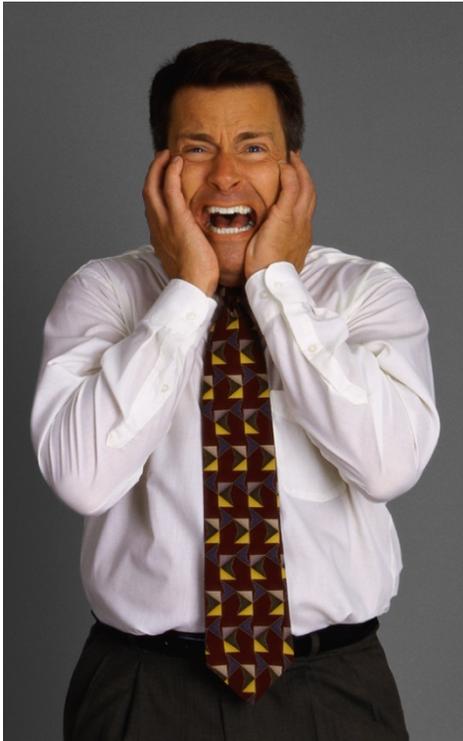
What happened?

The business did not take into consideration any IT Controls. THUS, Company XYZ experienced ….

- Damage to Image, Reputation or Brand, Market Share

- Significant Revenue Loss

- Increased Risk for Fraudulent Activity

Today's World of Technology Example #1

❑ **<u>CAE Expectation</u>**:   The IT Audit Professional is involved throughout the development of significant enhancements to ensure that the appropriate IT Controls are in place.

Today's World of Technology Example #2

□ **<u>Logical Access & Security</u>** – Key elements include data confidentiality, integrity and availability.

  ▪ <u>Example #2</u>: All users in the Payroll system for Company XYZ have full access rights (i.e., update/create pay rates).

Today's World of Technology

What happened?

- **FRAUD as Employees Are Running to the Bank!!!**

- **Damage to Image, Reputation or Brand, Market Share**

- **Significant Revenue Loss**
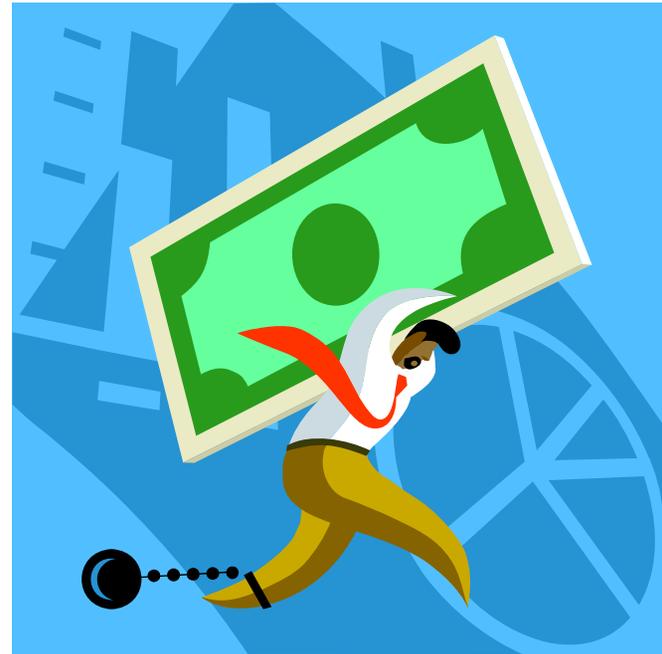
Today's World of Technology

❑ **<u>CAE Expectation</u>**:   The IT Audit Professional understands the logical access risks for all layers of the IT environment (i.e., network, application, operating system, and database).

Today's World of Technology
More IT Control Areas to Consider…

❑ **Physical Security – IT assets**

❑ **Backup & Recovery**

❑ **Disaster Recovery**

Today's World of Technology
Be at the Forefront of Emerging Technologies!

- The Continuous Evolution of Technology

- The IT Audit Professional is attune to the IT risks related to the following emerging technologies:
  - Wireless Networks – Intrusion, Eavesdropping
  - Interfaces – Single Point of Failure
  - Data Privacy – Fines, Criminal Prosecution, Brand/Company's Image
  - PCI – Credit Card Information

Adding Value to the Organization

Adding Value…More Than an Expression
Real Audits, Real Benefits!

- Broadened Audit Scope

- Risk Assessment Process

- Process Improvement Identifiers

- "Continuous Life Learners"
  - Provide Proactive Services (i.e. Internal Controls Training)
  - Share "Self-Help" Tools
  - Share "Best Practice" Observations of Recent Audits

Adding Value…More Than an Expression
Real Audits, Real Benefits!

❑ **<u>IT General Controls' Example</u>**: The IT Audit Professional discovers that no Business Continuity Plan (BCP) or Disaster Recovery Plan (DRP) exists for one of Company ABC's key systems. The estimated cost for the disruption of operations is equal to approximately $5M/day.

Adding Value...More Than an Expression
Real Audits, Real Benefits!

❑ **<u>Result</u>**:   The CAE communicates this significant finding to Executive Management, as well as recommendations, to address this vulnerability.

❑ **<u>Value Added</u>**: Resolution of this significant finding prevents significant revenue loss and a tarnished Company image.

Adding Value...More Than an Expression

Real Audits, Real Benefits!

❑ **<u>Application Controls' Example</u>**: The IT Audit Professional identifies unencrypted plain text credit card numbers within the sales database.

Adding Value...More Than an Expression

Real Audits, Real Benefits!

❑ **Result**: The CAE communicates this significant finding to Executive Management, as well as recommendations, to address this vulnerability.

❑ **Value Added**: Resolution of this significant finding prevents potential fraudulent activity, a tarnished Company image, and revenue loss.

Identifying Leaders for the Organization

Identifying Leaders for the Organization

❑ **Characteristics that Make a Solid IT Audit Professional & an Exceptional Leader…**
  - Decision Making Skills
  - Initiative
  - Planning & Organization
  - Work Standards
  - Communication
  - Team Player
  - Ethics

Identifying Leaders for the Company

Over 50 Former Internal Auditors Continue To Add Value Throughout The Continental Organization...

	Director of Ethics & Compliance
VP-CMI Sales & Marketing	**ExJet Chief Auditor**
Corporate Accounting Managers	**Finance Directors & Managers**
Corporate Real Estate Managers	**International Accounting Managers**
Dining Services Manager	**Sales & Marketing Directors**
Division Controllers	**Technology Managers**

Questions & Answers