

BUSINESS PROCESS ANALYSIS IN COMPLEX SYSTEMS: GETTING OVER THE “I.T. FEAR FACTOR”

AUDITING “TECHNOLOGY-BASED APPS” IN A PRACTICAL BUSINESS CONTEXT (A PROCESS FOCUS ... “THE BUSINESS OF BUSINESS”)

COURSE DESCRIPTION

Note: the Instructor was the Director of Research of the ISACA and ran the largest Masters Program in I.T. Audit in the US for 15 years.

Ever wonder why I.T. seems to talk in “gibberish”? (“Our applications, why they are all REAL-TIME, NUCLEAR-POWERED, and we bounce signals off remote transponders on Jupiter.”) Yea, right! And, yet, when you really look at their apps ... slowly and analytically, there really AREN’T so complex! Maybe we just need to DEMYSTIFY the seemingly mystical world of I.T.? So, how about we take a slow ride into the world technology ... enabling an IT infrastructure and business applications. Along the way, we’ll discover this truism...

I.T. RISK = BUSINESS RISK

We will delve into 1) network architectures, 2) Public Key Infrastructure, 3) firewalls and scanning and 4) access controls/schemas. Additionally, let’s differentiate real-time from run time, database versus a base of data and edits versus validations. Then we’ll take typical business applications, like kiosks or phone apps, and look at the related business risks.

Another part of this course is Business Process Analysis (BPA) in complex systems. Here is the typical “groans list” of frustrations that Dr. Dan receives from Internal Audit managers regarding BPA, “Our audit staff doesn’t understand the process, focus on the critical processes/functions or focus on the essential controls.”

As applications become more automated, it sometimes becomes difficult for the auditor to “see the controls.” Further, if the dialogue between process audit and I.T. audit is not clear (and front-loaded) control opportunities may fall thru the cracks. Thus there exists the possibility of a disconnect between risk assessment and control assessment/testing. This course provides the capabilities, perspectives, tools, awareness and opportunities to have more comfort in BPA.

One outcome of this class is to be able to LOCATE embedded control opportunities (for invoking) and quantify business rules (for modeling) to allow for enabled automated controls/control testing/monitoring. This will result in a more sustainable Control Environment, Reduction in Business Risk, quick response auditing, stronger compliance and governance.

One conclusion we’ll reach from this course is ... **We’re All I.T. auditors now!!**

This course is case-based. Computers are not necessary to bring to class.

WHO SHOULD ATTEND

ALL auditors: process, compliance, fraud/waste/abuse, I.T., SOX, efficiency, program, performance ... anyone who has to ask the following questions: *What does this process really look like? Where are the control points? Can this be audited faster ... better ... remotely? Is this “in” or “out” of control?*

DETAILED COURSE OUTLINE

1. The Audit Process ... A “Process” Focus
 - a. Risk Assessment (the “dog”) and Sample Size (the “tail”)
 - b. The Audit Risk Model and a Diagram of an Audit
 - c. Radically different costs of evidence (by type)
 - d. Shifting from Field work to Remote Telemetry
2. Demystifying I.T.
 - a. Network Architecture
 - i. I.T. “Zones:” defense in depth
 - ii. Classic 3-tier design
 - b. Public Key Infrastructure: Do you know a “secret?”
 - c. Firewalls and the notion of “scanning”
 - i. Outside-in versus inside-out traffic scanning
 - d. Access Controls and User Schemas
 - i. User roles/rights/privileges in a liquid world ... CHANGE CONTROL!
 - e. Let’s learn some I.T. concepts and terms and apply them in a business context
 - f. What are the risks in a complex app?
 - g. Business Process Analysis: it’s ALL about Controls!
 - i. Can you “see” controls ... present and working/present and not working/present and redundant ... and MISSING?
 - ii. Documenting a process: Let’s learn GOOD flowcharting
 - iii. Could a parallel, undocumented, system be operating (off-the-grid)?
 - iv. How to get your arms around a technology-based process (real-time, paperless, human-less)
 - v. Application controls (computerized AND manual)
 - h. Can you STAY FOCUSED and concentrate on ESSENTIAL PROCESSES and CRITICAL controls (scope it down!)
3. The Future of Controls ... Embedded in the Apps (ERPs)
 - a. A re-visit to great concepts: edits and validation controls
 - b. Process-level controls IN the apps ... they never sleep!
 - c. SAP configurables and Oracle/PeopleSoft triggers
 - d. Helping management: process optimization
4. Control TESTING, not “reviews”
 - a. Tests of Operating Effectiveness (TOEs) versus Tests of Design (TODs)
 - b. Auditing around, thru, with and continuous) and dangerous assumptions
5. All of this leads to an improved “Integrated Audit”
 - a. The shifting sandbox of audit turf: we’re all IT auditors now! Yikes! Now we need the integrated audit.



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COURSE OBJECTIVES

Upon completion of this course participants will be able to:

- Enumerate the Audit Risk Model
- Distinguish between costs of evidence
- Recognize IT architecture “zones”
- Discover how key-pair exchanges work
- Differentiate levels of firewall/router “sniffs”
- Determine how to restrict granular user access
- Demystify I.T. phrases
- Explain the business risks related to new technologies
- Perform robust tests of controls
- Recognize controls placed in operation versus operating effectively (and tests)
- Decompose advanced business applications into understandable chunks
- Perform process flowcharting
- Consider remote testing for audit leverage
- Improve
- Recognize the assumptions in auditing around, thru, with and continuous
- Explain the Internal Control trilogy.
- Identify embedded controls IN the apps.
- Explain the move towards continuous monitoring and assurance.
- Improve risk assessment with real-time data feeds.

COURSE MATERIALS/DELIVERY METHOD

Each participant will receive the following:

- Workbook with complete with screen captures and (numbered) step-by-step instructions and the “rules” of good flowcharting

COURSE LENGTH

- 1 to 1½ days