



Continuous Auditing: Concepts and Observations

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Mid-America Intergovernmental Audit Forum

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Discussion Items

- Current audit environment
- What is continuous auditing?
- Why perform continuous audits?
- How to implement continuous auditing?
- Why isn't continuous auditing in wide-spread use?
- Do governmental auditors need to be concerned with continuous auditing?

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What is the Current Audit Environment ?

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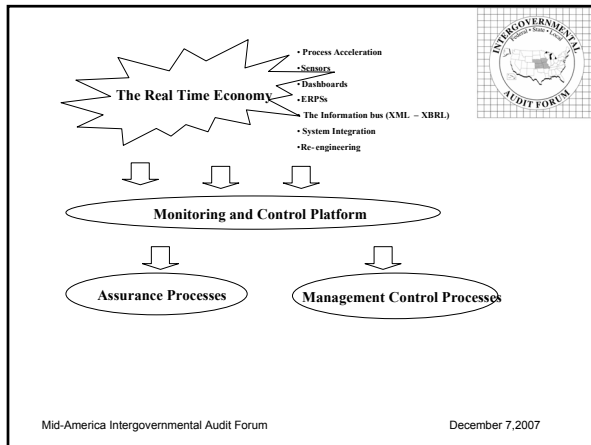
Migration of Business Environment to Electronic Age



- Distributive systems (e.g., LAN and/or WAN)
- Enterprise Resource Planning systems (e.g., SAP, Baan, PeopleSoft, Oracle)
- Electronic Commerce (e.g., Internet, EDI, EFT, ATM)

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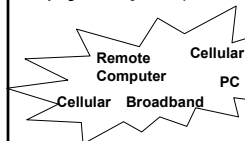
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Characteristics of Current Audit Environment



Network Cloud (Cyberspace)



- Characteristics*
- Lack of audit trail
 - Limited human intervention
 - Decentralized
 - Open highways
 - Mobility/portability
 - Outsourcing
 - Extended enterprise
 - Volatility

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Changes Needed in Audit Model



- Strategic monitoring
- Auditing by exception
- Wider set of data:
 - Quantitative and qualitative
 - Non-financial data
- Independence considerations
- Alternative materiality considerations

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Auditors Look to Technology For:



- Cost reduction
- Service enhancement for clients
- Management of engagements
- Improve quality, including implementation of quality efforts

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What is Continuous Auditing?



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The Audit Process

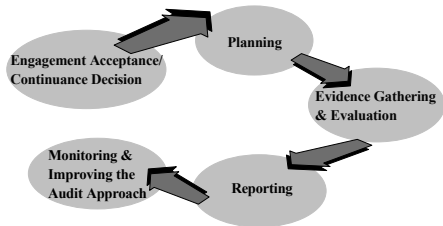


- Traditional Audit
 - Engagement definition
 - Audit planning
 - Internal control evaluation
 - Substantive testing
 - Opinion formulation
 - Reporting
- Continuous Audit
 - Analytical monitoring structuring
 - Discrepancy based audit monitoring
 - Continuous model building
 - Alarming and informing
 - Discrepancy analysis

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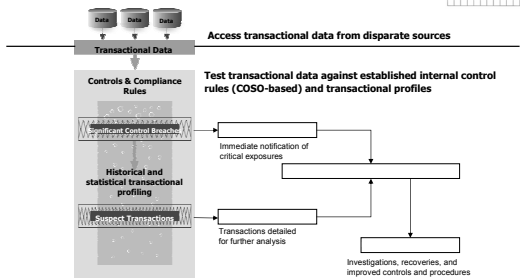
Continuous Audit Overview



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Continuous Auditing Model*



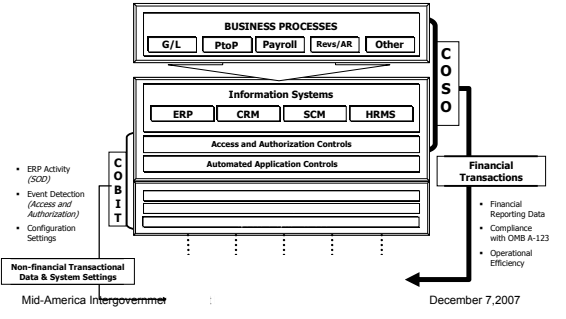
*ACL Model

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Continuous Controls Assessment *

*ACL Model



Continuous Auditing???



- No consensus on what constitutes a continuous audit
- Enhanced auditor skill set
- Differences from traditional audit
- New audit risk model
- Continuous reporting and impact on auditor's report

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Continuous Auditing is:



- A type of auditing which produces audit results *simultaneously* with, or a *short period of time after*, the occurrence of relevant events
- More accurately referred to as *instant* rather than continuous

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AICPA/CICA –

Continuous Auditing is:



An assurance engagement resulting in an independent auditors' report, issued at short intervals or on an immediate basis, that includes:

- (a) an opinion on a written assertion by management that evaluates, using suitable criteria, subject matter for which management is responsible; or
- (b) an opinion that provides a direct evaluations, using suitable criteria, of subject matter for which management is responsible

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Other Thoughts – Continuous Auditing is and/or includes:



- Periodic examination of business process (e.g., purchases/accounts payable on a cycle basis)
- Use of audit interrogative software (e.g., ACL, Caseware, AuditMaster)
- Monitoring controls and transactions
- Continuous assurance

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A Distinction between Continuous Auditing and Continuous Monitoring



Continuous auditing does not necessarily have to generate a report; it is a process that tests transactions based upon prescribed criteria, identifies anomalies, and is the responsibility of the auditor. **Continuous monitoring**, on the other hand, is the responsibility of management, best defined in terms of the COSO Study control framework. Continuous monitoring, when employed by auditors, focuses on the control environment and not transactions.

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**Auditor's Role in Continuous Audit
(No different than in traditional audit):**



- Identify opportunities for audit software
- Define test/report requirements
- Promote benefits
- Assist in obtaining/verifying data for processing
- Evaluate results of processing

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Why Perform Continuous Audits?



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Why Continuous Auditing?



- Improve Governance (Fraud Detection, SOX Compliance, Monitoring, etc)
- Reduce Compliance Costs
- Improve skill level and quality of work life for auditing and compliance Associates
- Move closer to real time program & financial reporting capabilities
- Leverage Common ERP infrastructure
- Etc...

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Value Proposition

“Value = Quality + Cost”



- **Quality:**
 - Continuous Auditing model improves the quality of auditing with significant improvements in access to critical control information and in the frequency of review.
 - Enables continuous assurance and real time disclosure in the reporting cycle.
 - Improves operational effectiveness through early detection of problems / opportunities.
 - Better audit effectiveness
 - Optimized common audit results in complex organizations

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Value Proposition

“Value = Quality + Cost”



- **Cost:**
 - Consider a large Federal agency with 400 auditors (internal), each with a fully absorbed (sal./fee, benefits, travel, etc.) \$150,000/yr cost for a total annual compliance cost of \$60 million dollars. Assume further that the proposed continuous auditing model cost \$1 million dollars to develop and implement and only reduced manual compliance effort by 25% in the firm. The annual net estimated savings or cost avoidance of this project for the firm defined above would be:
\$15 million

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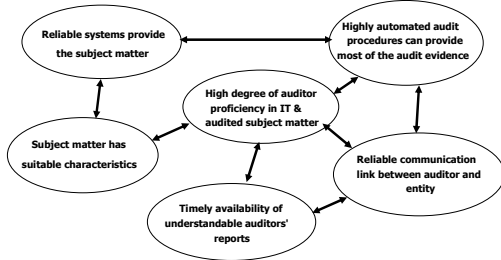
How to implement Continuous Auditing?



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Conditions Necessary for a Continuous Audit



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Factors to Consider in implementing Continuous Auditing:



- Identify audit areas susceptible to the application continuous auditing
- Prioritize risk by audit area
- Determine staff mix
- Inventory skill set of audit team
- Supplement audit team with needed skill set
- Determine training requirements of audit team
- Evaluate internal control environment of prioritized audit areas

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Factors to Consider in implementing Continuous Auditing:



- Determine manual audit procedures and nature, timing and extent
- Determine technologies necessary to implement continuous audit
- Determine how methodologies and technologies are to be developed—internally and externally
- Prepare preliminary budget for implementation plan
- Develop audit plan (including funding request) for presentation to senior management
- Obtain senior management buy-in
- Request funding for technology requirements
- Implement plan in accordance with priorities

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Automation of controls testing



- What types of controls and deficiencies can be tested through automated continuous auditing?
- Any control or breakdown that can be evidenced through computerized data e.g.:
 - Business process financial controls
 - Segregation of Duties
 - I.S. security controls
 - Application control settings / ERP configuration

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Automation of controls testing



- Must be possible to define rule of a control, e.g.:
 - invoice payment should not be entered and approved by same person
 - payments >\$X must be approved by Y
 - inventory items shipped must be matched by invoice details
 - ERP application control for duplicate payments should be set on
- Or, indicators of control breaches need to be able to be established, e.g.:
 - Transactions that fall outside of statistical norms
 - Profile/trend analysis

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Results of Continuous Monitoring Engagement: U.S. Federal Agency



- Procurement Card System:
- \$6.5 billion annual expenditure through procurement cards
- 12 million card transactions annually
- Continuous monitoring application per GAO control standards for waste, misuse, fraud

**Revealed \$38 million usage exposure
2000 card holders, 13,500 transactions**

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If it is so beneficial for management and auditors in fulfilling their responsibilities, why isn't continuous auditing in widespread use ?

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Its Acceptance???

- Not widely accepted by auditors nor embraced by management
- Auditors continue to follow traditional audit model, with some movement
- Regulatory environment may bring pressures on both management and auditors to adopt some continuous processes
- Not "if" but "when"
- Software companies developing continuous processes for auditors (e.g., ACL, CaseWare IDEA)

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The challenges to continuous auditing adoption

- Culture – this is not auditing!
- Independence???
- Who should develop / own CA (Management, Internal auditors, External auditors)????
- Skills void – new skill sets for auditors.
- The persistent lack of common harmonized systems.
- CA software maturity.

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To move continuous auditing forward



- Senior management understanding and support
- Definitional issues need to be resolved
- Owner of process needs to be identified and take charge
- Investment in technology and methodology
- Absence of guidance
- Change management (e.g., reluctance to change)

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Continuous Auditing and Monitoring in the Spotlight



"I am pleased to see that the audit professionals surveyed strongly endorsed the value of continuous monitoring and auditing to support ongoing Sarbanes-Oxley compliance. Until there is mainstream adoption of these best practices, companies will continue to experience challenges managing their compliance processes. Technologies that automate and monitor controls – on an ongoing basis – will be critical for achieving true success in the future."

Honorable David M. Walker, Comptroller General of the United States and Chair of the Center for Continuous Auditing Advisory Board

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Do governmental auditors have to be concerned with continuous auditing?



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OMB Circular A-123



- July 2005 revision
- Sarbanes-Oxley Act provided impetus for Federal government to re-evaluate its policies over internal controls over financial reporting
- Emphasis on management's focus on ensuring effective internal control over financial reporting is established and maintained throughout the federal government
- Focuses on COSO internal control model: Control Environment, Risk Assessment, Control Activities, Information and Communications, and Monitoring

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OMB Circular A-123



- Requires management perform monitoring activities that include direct testing of the controls as part of the assessment process
- Recognized monitoring and improving internal control is a continuous process
- Testing controls through continuous monitoring activities, separate evaluations or a combination of the two

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OMB Circular A-123



- Agencies that rely heavily on information and financial systems to process and report data should implement and conduct a combination of continuous monitoring and separate evaluations of information technology controls
- Consider *Internal Control Management and Evaluation Tool* issued by GAO that includes a list of factors to consider when developing monitoring activities

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Reasons Why Governmental Auditor Should Move To Continuous Auditing



- As Federal management moves toward continuous monitoring
- Reduce audit and compliance costs
- More efficient use of resources
- Add value to the audit process
- More effective use of taxpayer dollars
- Etc.

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Questions???



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