Continuous Monitoring: Getting Results Today!

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Agenda

- Overview / Importance of CCM
- CCM Methodology Principles
- CCM Demo
Overview / Importance of CCM
Fraud, by its very nature, does not lend itself to being scientifically observed or measured in an accurate manner. One of the primary characteristics of fraud is that it is clandestine, or hidden; almost all fraud involves the attempted concealment of the crime.

The typical organization loses 5% of its annual revenues to occupational fraud.
ACFE Fraud Report to the Nations

Initial Detection of Occupational Frauds

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tip</td>
<td>43.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Review</td>
<td>14.6%</td>
<td>16.4%</td>
<td></td>
</tr>
<tr>
<td>Internal Audit</td>
<td>14.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Accident</td>
<td>7.0%</td>
<td>8.3%</td>
<td></td>
</tr>
<tr>
<td>Account Reconciliation</td>
<td>4.8%</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>Document Examination</td>
<td>4.1%</td>
<td>6.2%</td>
<td></td>
</tr>
<tr>
<td>External Audit</td>
<td>3.3%</td>
<td>4.6%</td>
<td></td>
</tr>
<tr>
<td>Notified by Police</td>
<td>3.0%</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>Surveillance/Monitoring</td>
<td>1.9%</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>Confession</td>
<td>1.5%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>IT Controls</td>
<td>1.1%</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>Other*</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source of Tips

<table>
<thead>
<tr>
<th>Source of Tips</th>
<th>Percent of Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>50.9%</td>
</tr>
<tr>
<td>Customer</td>
<td>22.1%</td>
</tr>
<tr>
<td>Anonymous</td>
<td>12.4%</td>
</tr>
<tr>
<td>Other</td>
<td>11.6%</td>
</tr>
<tr>
<td>Vendor</td>
<td>9.0%</td>
</tr>
<tr>
<td>Shareholder/Owner</td>
<td>2.3%</td>
</tr>
<tr>
<td>Competitor</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
CCM Methodology Principles
Challenge Statement:

Implement a CCM program for the Organization that offers flexibility in the definition of analytics that can be custom tailored to fit the needs and changing parameters of our business which includes a workflow system such that owners can update the status of exceptions via a web-based interface that provides real-time statistics and transparency across the Organization of open and closed items of which is readily auditable and can be relied upon by internal/external auditors.
Overall Themes

- Simple
- Value
- Assurance
- Portable
- Accredited
- Closed loop validation
- Escalate
- New perspective of test vs control
CCM Model Diagram

ACL CCM Program

ACL Analytics
- CCM engine
- importing of systems data
- performance of analytics

ACL AX Exception
- website
- repository of exceptions and alerts
- workflow management

ACL AX Core
- scheduling/staging of publishing analytic results to website
Which of the Following Is Continuous Monitoring ??

- Detective Control
- Corrective Control
- Preventative Control
CCM Improves the Closing Process:

1. Detect Errors in Sub-Ledger
2. Correct Errors in Sub-Ledger
3. Prevent Misstatements to GL

Reduce Need for Correcting Journal Entries
3 Key Techniques of Continuous Monitoring

- Anticipated Level of Sophistication
- Specific Identification
- Trending and Patterns
- Heuristic and Predictive

Potential for False Positives
Closed Loop Exceptions Validation Mechanism:

Legend:
- Source Data
- Exceptions Website

CCM Program automatically Re-Publishes Exceptions to website if items closed on website but source data not corrected, all without manual intervention!!
Resolution of Exceptions:

- Out of Scope
  - Data not being analyzed—i.e. Inactive Contracts
  - Auto Close

- Script Changes
  - Modify script to address false positives
  - Auto Close

- Data Corrections
  - Source data has been corrected to resolve exception
  - Auto Close
Uses and Application of CCM

- Financial Reporting Controls / SOX Controls
- Operational Controls
- IT Controls
- Process Efficiency (pre-validation of data before job runs)
- SOX testing (ITAC, scoping, sample selection, reliance)
- Rapid Remediation Solutions
- Eliminate manual controls
Harmonization of CCM into SOX Methodology:

- **Transaction Level Controls (TLC)**
- **IT General Controls (ITGC)**
- **Company Level Controls (CLC)**

Perform assessment of CCM Change Management & User Management
CCM DEMO
CCM DEMO

- Import validation / Import Hash total validation
- Analytic Routine / Duplicates / Completeness check
- User Notifications – New Items
- Publish Reconciliation
- Re-publish (Closed loop validation) – improper closure
- Script change management / Script Sync
- No Longer Exception/Auto Close
IMPORT DATA ROUTINE / IMPORT HASH TOTAL RECON

The import routines for today have completed successfully.

Refer to the link(s) below for further information:

```
\isew515a.ww400.siemens.net\ServerScripts\SIEMENS CCM TEST D\CCM RUN_SEQ_105\ IMPORT_HASH_RECON_OVERALL_104.XLSX
```

ACL CCM Alert: 104 Import Hash Total Reconciliation Success

ACL.sfs@siemens.com

Sent: Tue 11/5/2013 2:24 PM

To: Zambada Senties, Emigdio

Attachments: IMPORT_HASH_RECON_OVERALL_104.XLSX (7 KB)

The Import Hash Total Reconciliation has been performed with 0 discrepancies. The attached spreadsheet is included for reference purposes.

Refer to the link(s) below for further information:

```
\isew515a.ww400.siemens.net\ServerScripts\SIEMENS CANADA\ CCM TEST D\CCM RUN_SEQ 104\IMPORT_HASH_RECON_OVERALL 104.XLSX
```

<table>
<thead>
<tr>
<th>System_Name</th>
<th>Hash_Date</th>
<th>Hash_Table_Name</th>
<th>Hash_Record_Count</th>
<th>IMPORT_Record_Count</th>
<th>Hash_Value_Field</th>
<th>Hash_Value_Total</th>
<th>IMPORT_Value_Total</th>
<th>Records_Variance</th>
<th>Value_Total_Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP</td>
<td>11/5/2013</td>
<td>HR.xlsx</td>
<td>2,956</td>
<td>2,956</td>
<td>payroll payments</td>
<td>19,436,573.00</td>
<td>19,436,573.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SAP</td>
<td>11/5/2013</td>
<td>invoices.xlsx</td>
<td>3,958</td>
<td>3,958</td>
<td>invoice amount</td>
<td>43,832,901.21</td>
<td>43,832,901.21</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Analytics Routine

The Data Analytic routines for today have completed successfully and denotes successful completion of MASTER_STARTUP_SCRIPT2.

Refer to the link(s) below for further information:

\\isew515a.ww400.siemens.net\ServerScripts\SIEMENS\CANADA\CCM_TEST\D\CCM_RUN_SEQ_106\TESTING完备性VALIDATION CK_106.XLSX

\\isew515a.ww400.siemens.net\ServerScripts\SIEMENS\CANADA\CCM_TEST\D\CCM_RUN_SEQ_106\
New items have been published to the ACL AX Exception Website located at https://devaclax.sfs.siemens.com:8443/exceptionmgmt.

Find attached spreadsheet summarizing the new items for each Analytic and Owner relating to today’s 11/05/2013 analysis of ACL RUN SEQ#104.

There are 4 Analytics with new items for today aggregating to 482 items in total.

<table>
<thead>
<tr>
<th>ANALYTIC NUMBER</th>
<th>ANALYTIC TITLE</th>
<th>EXCEPTION TYPE</th>
<th>ENTITY</th>
<th># NEW ITEMS PUBLISHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>RX</td>
<td>TEST</td>
<td>474</td>
</tr>
<tr>
<td>HR-0002</td>
<td>Inactive Employee Receiving Payroll-SAP</td>
<td>RX</td>
<td>TEST</td>
<td>1</td>
</tr>
<tr>
<td>HR-0003</td>
<td>Invalid_Pay_Calculation-SAP</td>
<td>RX</td>
<td>TEST</td>
<td>3</td>
</tr>
<tr>
<td>IT-0001</td>
<td>Unauthorized_Users_Access-SAP</td>
<td>RX</td>
<td>TEST</td>
<td>4</td>
</tr>
</tbody>
</table>

NEW ITEMS PUBLISHED
NEW ITEMS PUBLISHED RECONCILIATION

The reconciliation has been performed to verify the completeness of new items published to the ACL AX Exception Website.

The reconciliation reflected -8 variances arising from 1 Analytics as detailed in the attached spreadsheet.

Refer to the link(s) below for further information:

\isew51a.ww400.siemens.net\ServerScripts\SIEMENS\CCM TEST D\CCM RUN SEQ 106\DAILY PUB SUMMARY RECONCILE 106.XLSX

\isew51a.ww400.siemens.net\ServerScripts\SIEMENS\CCM TEST D\CCM RUN SEQ 106\DAILY PUBLISH LISTING 106.XLSX

The Cumulative Reconciliation has been performed to ensure that all current Exceptions/Alerts as determined by today’s ACL data analytic routines are properly reflected in the AX Exception database as open items (or Closed-Condition Accepted; or Closed-Acknowledged for RA items).

The reconciliation was successful; 0 unreconciled items exist.

Refer to the link(s) below for further information:

\isew51a.ww400.siemens.net\ServerScripts\SIEMENS\CCM TEST D\CCM RUN SEQ 105\CUMULATIVE RECONCILE 105.XLSX

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>K</th>
<th>Q</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analytic_Number</td>
<td>ACL_RUN_SEQ_NUM</td>
<td>Analysis_Date</td>
<td>ACL_Number_of_Items</td>
<td>AXEM_Number_of_Items</td>
<td>PUBLISH_VARIANCE</td>
</tr>
<tr>
<td>2</td>
<td>AC-0004</td>
<td>106</td>
<td>11/5/2013</td>
<td>8</td>
<td>0</td>
<td>-8</td>
</tr>
<tr>
<td>3</td>
<td>Shipping Cutoff Check-SAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Custom workflow
Re-Published (Closed loop Validation)
Items From Improper Closure

There have been 8 Exception/Alert items arising from 1 Analytics that have been Re-Published today as a result of Improper Closure.

ACL determined that the following items are still Exceptions/Alerts but were previously closed improperly with one of the following methods:
+ Closed-Corrected
+ Closed-Improvements Implemented
+ Closed-False Positive
+ Closed-Acknowledged (for RX items)

Research the attached listing for necessary action or communication with the respective owners.

Refer to the link(s) below for further information:
\|
\|issue515a.ww400.siemens.net\ServerScripts\SIEMENS_CANADA\CCM_TEST_D\CCM RUN 570 106\RePublishListing 106.XLSX
\|issue515a.ww400.siemens.net\ServerScripts\SIEMENS_CANADA\CCM_TEST_D\CCM RUN SEQ 86\EM StatUpdate STATUS CHGS 106.XLSX

<table>
<thead>
<tr>
<th>A</th>
<th>Analytic_Number</th>
<th>Analytic_Title</th>
<th>ex_NEW_ITEM</th>
<th>ex_DIFFERENTIAL_ITEM</th>
<th>ex_SIG_FIELD_CHG</th>
<th>ex_Closed_EX_Cor.ITEM</th>
<th>ex_Closed_Impl_ITEM</th>
<th>ex_Closed_False_Pos_ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>5</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>6</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>7</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>8</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>9</td>
<td>AC-0004</td>
<td>Shipping Cutoff Check-SAP</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>
Script change management routines have been executed.

There have been 2 changes in the scripts between today versus prior day as reflected in the attached spreadsheet and summarized as follows:

- NEW scripts: 0
- DELETED scripts: 0
- MODIFIED scripts: 2

The current scripts can be found at:

```sql
/* This is the start of Data Loader (DL) script which pre-loads data before analytic routine begins. */
SET SAFETY OFF
OPEN Invoices_kv_System_Suffix_kv_JUN_SEQ_T4
OPEN Shipments_kv_System_Suffix_kv_JUN_SEQ_T4 SECONDARY
JOIN PREV Sales_Order_NUMBER FIELDS Invoice_Number Sales_Order_Number Customer_Number Invoice_Date Invoice_Amount Payment_Status Payment_Date Payment_Amount Created_By Created_Date Approved_By Approved_Date WITH Shipments_Number Shipping_Cutoff.ORDER_NUM
IF Invoice_Date < Shipping_Cutoff.ORDER_NUM
SET SAFETY ON
CLOSE SECONDARY
COMMENT *This key field to length of 60
DELETE FIELD INVOCIFgetIndex ON
DEFINE FIELD INVOCIFgetIndex COMPUTED AS: Invoice_Number, 1, 60
COMMENT *BELOW FOR SORT CORRECTION EXAMPLE******************************
COM "MOD" IF invoice_date < shipping_date AND invoice_month <> shipping_month
COMMENT *** New CRT(), requires AR10.0 or higher
DEFINE FIELD INVOCIF pageIndex COMPUTED ONLY: invoice_date , 12
DELETE FIELD shipping_month ON
DEFINE FIELD shipping_month COMPUTED ONLY: shipping_date , 12
COMMENT *Identify shipping cutoff violation (Invoice dates before shipping has occurred)
DELETE FIELD SHIPMVINGVALID ON
DEFINE FIELD SHIPMVINGVALID COMPUTED
|"NO" IF invoice_date < shipping_date AND invoice_month <> shipping_month
* "YES"
COMMENT **Identify shipping cutoff violation (Invoice dates before shipping has occurred)
```
<table>
<thead>
<tr>
<th>User</th>
<th>System User</th>
</tr>
</thead>
<tbody>
<tr>
<td>GID</td>
<td>System User</td>
</tr>
<tr>
<td>Time</td>
<td>Tuesday, November 5, 2013 3:08:04 PM</td>
</tr>
</tbody>
</table>

**Details**

- **State:** Closed - Exception Corrected
- **Priority:** -1

**Comment**

Resolved RUN#105, Resolved Date: 11/05/2013. Refer to Change Log, OPEN_CHG_LOG_AC_0004_105

No Longer Exception / Auto Close
## Continuous Assurance Attributes

<table>
<thead>
<tr>
<th>Authorization</th>
<th>Data Completeness</th>
<th>Table Maintenance</th>
<th>Edit Checks</th>
<th>Calculation Verification</th>
<th>Data Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Change Management
- Trending & Analysis
Questions and Discussion…

Contact Information:
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Siemens Financial Services, Inc.
Tel# 732-476-3481
Email: emigdio.zambada_senties@siemens.com
Backup Information
Continuous Auditing Needs to Be Added to the Mix to:

- Reduce time interval between recurring audits
- Reduce audit cycle times
- Achieve timely impact of corrective action implementation
Leveraging Continuous Auditing to Promote Best Practices in Internal Audit

Audit Plan should define optimal mix of traditional audits, consultations, and Continuous Auditing topics for the Organization; with Audit Committee approval. As methodology matures over time, Continuous Audits should comprise a greater portion of the Audit Plan.
Benefits of Data Analytics

- Analysis is more objective, less subjective
- Examine populations of transactions, not samples
- Analyze data from disparate systems
- Unlimited transaction sizes
- Less risk of data integrity issues
- Examine transactions, with greater confidence
- Auditor independence across data analysis workflow:
  - Greater control & independence over testing/analysis
  - Greater assurance
- Maintain audit logs of testing performed
Key Drivers for Successful Implementation

- Define Continuous Auditing/Monitoring objectives
- Obtain support & commitment from Audit Committee and Management
- Continuous Auditing should complement the Audit Plan
- Identify key audit/monitoring topics
- Start small; build from success
- Automate/leverage from well-defined periodic audits
Key Drivers for Successful Implementation

- Migrate from testing of samples to testing of universe
- Timely evaluation of activity
- Define responsibility between continuous monitoring and continuous auditing
- Gain reliance by external auditors and add value
- Formalize continuous audit approaches and methodology
Technology Tools -- Vital for Success

- Embrace and invest in technology tools and solutions
- Data analytics is at the heart of ‘Continuous’
- ‘Continuous Assurance’ is still possible with technology products even without ‘Continuous’ in the name!
- Optimize current data analytic scripts and schedule routines on a ‘continual’ basis
Continuous Monitoring

- Real-time identification of control breakdowns
- Valuable mechanism for testing controls
- Test transactional data against expected limits and parameters
- Automated exceptions and reporting; less manual intervention
- Proactive; less reactive
- Sustainable as a program
- Improves risk management practices
Evolution to a Continuous Methodology

Isolated Detection → Prevention ← Corrective Detection

Event Driven → Continuous Monitoring

Reactive → Proactive

Manual intensive → Automated & Sustainable

Ad hoc → Repetitive → Continuous
CCM Implementation:

- Integrated CCM program design...‘engine’ calls analytics
- Open framework...custom defined ‘engine’ and analytics
- Cumulative versus Differential analytics
- Exception versus Alert analytics...dual purpose for CCM!
- Personalized Email notifications of new exceptions to owners
- Script change management logging and email notifications
- Master table change management and email notifications
- Entire data analytic process is mechanized; no manual intervention
- CCM routine publishes only new or changed exception items
CCM Implementation:

- Self validation of corrected exceptions & false positives
- Web-based customized Workflow process to handle exceptions...un-validated items require 4-eye approval
- Daily and Cumulative Reconciliations (analytic vs. website)
- Rollforward Summary (open + new items – closed items = outstanding items)
- Status Update reminders and tracking email notifications
- ‘CCM engine’ portability to other parts of the Organization
- Fully logged and auditable
Build the Bridge to Continuous Assurance

Continuous Assurance - Built Upon the Two Pillars of Continuous Monitoring and Continuous Auditing

Continuous Monitoring
- Owned by Management
- Is a Management activity
- May be preventive, detective and corrective in nature
- CM is a control itself

Continuous Auditing
- Owned by Internal Audit
- Is an Audit activity and responsibility
- Independent of the control; therefore should not be preventive in nature
- IA should evaluate CM activities, trending and change management

Sponsorship
Strategy
Partnership
Coordination
Continuous Assurance
Technology
Integration
Communication
Oversight

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance
Sponsorship
Strategy
Partnership
Coordination
Continuous Assurance
Technology
Oversight
Integration
Communication
Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
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Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
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Strategy
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Continuous Assurance
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Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
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Oversight
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Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
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Continuous Assurance Partnership
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Communication
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Continuous Assurance Partnership
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Continuous Assurance
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Coordination
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Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
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Sponsorship
Continuous Assurance
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Coordination
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Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
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Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
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Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
Sponsorship
Continuous Assurance
Technology
Oversight
Integration
Coordination
Communication
Continuous Assurance Sponsorship

Continuous Assurance Partnership
Strategy
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Continuous Methodology

**Continuous Risk Assessment**
- Identify risks
- Identify key controls
- Identify impacts

**Continuous Techniques**
- Define topics/approach
- Define frequency/intervals
- Execute techniques

**Continuous Corrective Action Validation**
- Validate corrective action
- Evaluate effectiveness against new universe
Harmonization of CCM into SOX Methodology:

1. Establish and document CCM process
2. Establish Analytic Owner as Control Owner
3. Dashboards generated to summarize Analytic results
4. Analytic Owner certifies Analytic functioning as designed
5. Independent Assessor evaluates objectives of analytic (ToD)
6. Independent Assessor examines Owner Certification and Dashboard results (ToE)
7. Replace manual TLC SOX 404 Tests
8. Obtain External Auditor reliance and reduce testing
Finding the Right Mix…

Continuous Assurance

Continuous Monitoring

Preventive Detective Corrective

Continuous Auditing
Opportunity Areas

- Accounts Payable
- Accounts Receivable
- Cash Disbursements
- Claims
- Credit Card / Procurement Card
- Deposits

- Expenses
- Inventory
- Investments
- General Ledger
- Loans
- Payroll
- PP&E
- Purchases
- Procurement

- Retail Transactions
- Revenues
- System Maintenance
- Travel & Entertainment
- Vendor Management
Benefits of Well-Controlled CCM Program

**Requires well-controlled foundation with strong IT General Controls (change mgmt, user access, security, etc.) to ensure reliance upon the CCM Program.**
Reference Info

http://www.acl.com/portfolio/siemens-financial-services-inc/