

Leveraging Your Existing Infrastructure for Continuous Controls Monitoring

CCM Made Affordable

A CFO Services Firm

Agenda



- Review of what CCM is
- Required Components
- The Business Case
- Tools to leverage
- The Approach and Best Practices



Do You Need to Worry About Fraud?



- Of the estimated \$994 billion that companies collectively lost in 2008 due to fraud, more than **one-quarter of U.S. businesses experienced losses of at least \$1mm** each, according to a recent survey by the Association of Certified Fraud Examiners (ACFE).
- A recent KPMG forensic study found nearly three out of four employees (**74 percent**) had personally observed or had firsthand knowledge of wrongdoing within their organizations during the last year.



Do You Need to Worry About Mistakes?



- High volume transactions, with manual activities --
What would a half-percent error rate mean?
- Billing mistakes by vendors – there are companies that make a living off a percentage of recovered dollars due to mistakes! (Recovery Audit Firms, Freight Auditors, Medical Billing Auditors, etc.)
- Process mistakes that impact your product or service quality and impact customer perceptions





CCM Shines at Stopping Fraud and Mistakes

The idea behind CCM has 2 key aspects:

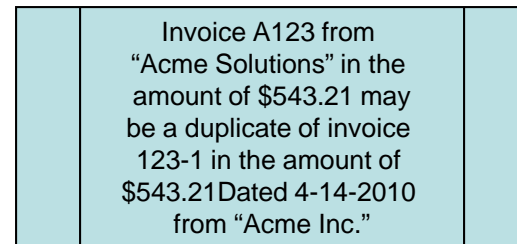
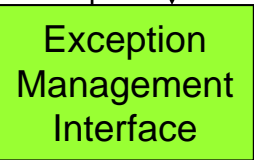
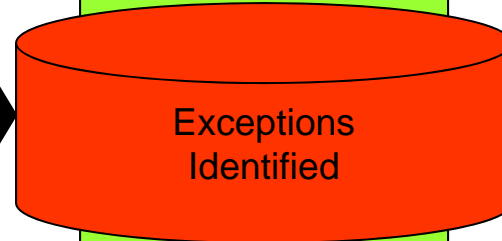
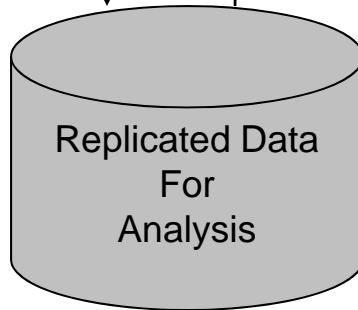
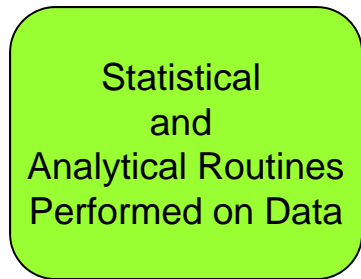
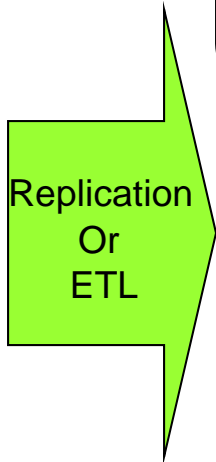
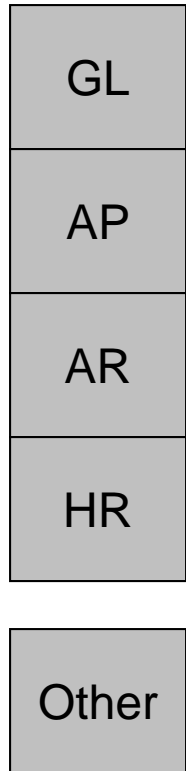
1. *100% of transactions* are tested with sophisticated analytics (as opposed to just a sample)
2. The test is performed in near real time (so problems are identified timely, often before the transaction chain completes) –
Ex: Catching Duplicates Payments **before** the check run



Components of CCM



Source Systems



Examples of What CCM Does



- Notification of Vendor File tampering (Ex: change and change-back fraud attempt)
- Transactions out of the norm (statistical techniques – commissions, rebate programs, T&E spending, etc.)



Examples of What CCM Does



- Catch systems user permissions that violate segregation of duties principles
(Automated testing of SOD/Access Controls)
- Catch terminated or other non-Employees with systems access
- Catch duplicate employees or “ghost” employees that are not in HR system but on the payroll register



Examples of What CCM Does



- Find duplicate or missing checks by bank account
- Produce automated notification of events requiring review or authorization (changes to salary rates, payments over certain limits, etc.)
- Identify vendors with similar address to an employee
- Identify Multiple vendors with similar addresses, Tax ID, Name, etc.



Examples of What CCM Does



Catch Travel Expense Policy Violations:

- Recurring unusual or just below limit submissions
- Purchase of prohibited goods or services
- Purchases made outside of approved vendor list
- Timeliness violations (perpetually late filers)
- Procurements split across periods to circumvent spending limits
- Compliance with approvals



Examples of What CCM Does



- Catch Journal Entries with improper or missing approval (based on amount, account, center, or user)
- Journal entries made to unusual accounts for a given center/user (statistical anomalies)
- Notify of entries with unusual amounts or time of day



Examples of What CCM Does



- Catch PO's where cost exceeds retail price (or is less than set threshold)
- Identify products with zero quantities or zero prices
- Notify of duplicate items added to inventory master or purchasing master
- Other examples???



CCM's Value



CCM can be a key control for Sarbanes-Oxley purposes but....

Most companies rely on CCM for operational improvement and **cost reductions** with true **ROI**:

- Reduce operational & GRC costs
- Reduce external audit fees
- Stop Revenue “Leakage”
- Improve working capital
- Improve Quality (and therefore future sales)
- Catch fraud attempts
- Improve Compliance (preventing fines)
- Policy Enforcement



Exceptions Highlight Broken Processes

Your time is freed up to partner with operations to add strategic value by helping to fix the processes that allowed the exceptions:

- Operational Audits
- Process Improvement
- Training
- Policy Development & Documentation
- System Enhancements
- Efficiency initiatives
- Quality Initiatives



Could Your Company Benefit From CCM?



- Any manual processes subject to human error?
- Any Manual Audits or Reconciliations?
- Any recurring Analytical procedures that consume a lot of time or are pain-points?
- Concerns about policy compliance?
- Concerns about employee theft?

If the answer is “yes” to any of these, it is likely that CCM can bring solid value to your company enabling you to increase its Audit Capability Maturity Level while allowing the finance and audit teams to show their strategic value to the rest of the company.





Benefits Of Self Development

- Mid-Sized Companies can afford to implement CCM (or large companies can get it for less)
- You typically team with operations and IT and can be a great way to show you are not just an overhead necessary for compliance purposes, but a true business partner adding value to the organization
- You can lead an effort to take your company's IA function to world class levels without a huge capital outlay
- You can free up your resources to focus on more value adding activities in partnership with operations



Buy vs. Build?



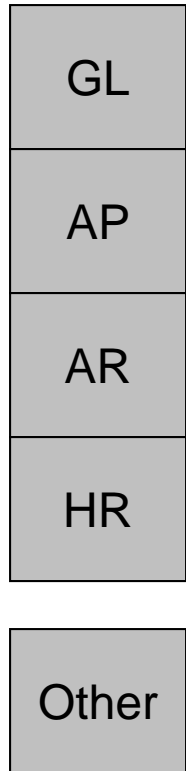
- It is possible to leverage your existing infrastructure and eliminate the need to purchase any expensive CCM software.
- You can create functionality comparable to the best of breed software tools for a fraction of the cost of the packaged providers, with **NO** ongoing subscription or license fees.



Components of CCM

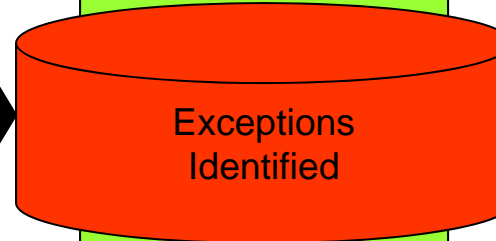
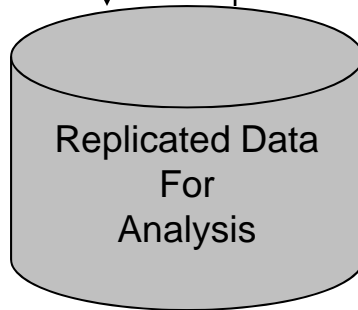


Source Systems



Replication
Or
ETL

Statistical
and
Analytical Routines
Performed on Data



Email
Alerts

Invoice A123 from
"Acme Solutions" in the
amount of \$543.21 may
be a duplicate of invoice
123-1 in the amount of
\$543.21 Dated 4-14-2010
from "Acme Inc."



Reporting
Tool



Exception
Management
Interface





A Great Tool You Probably Already Have

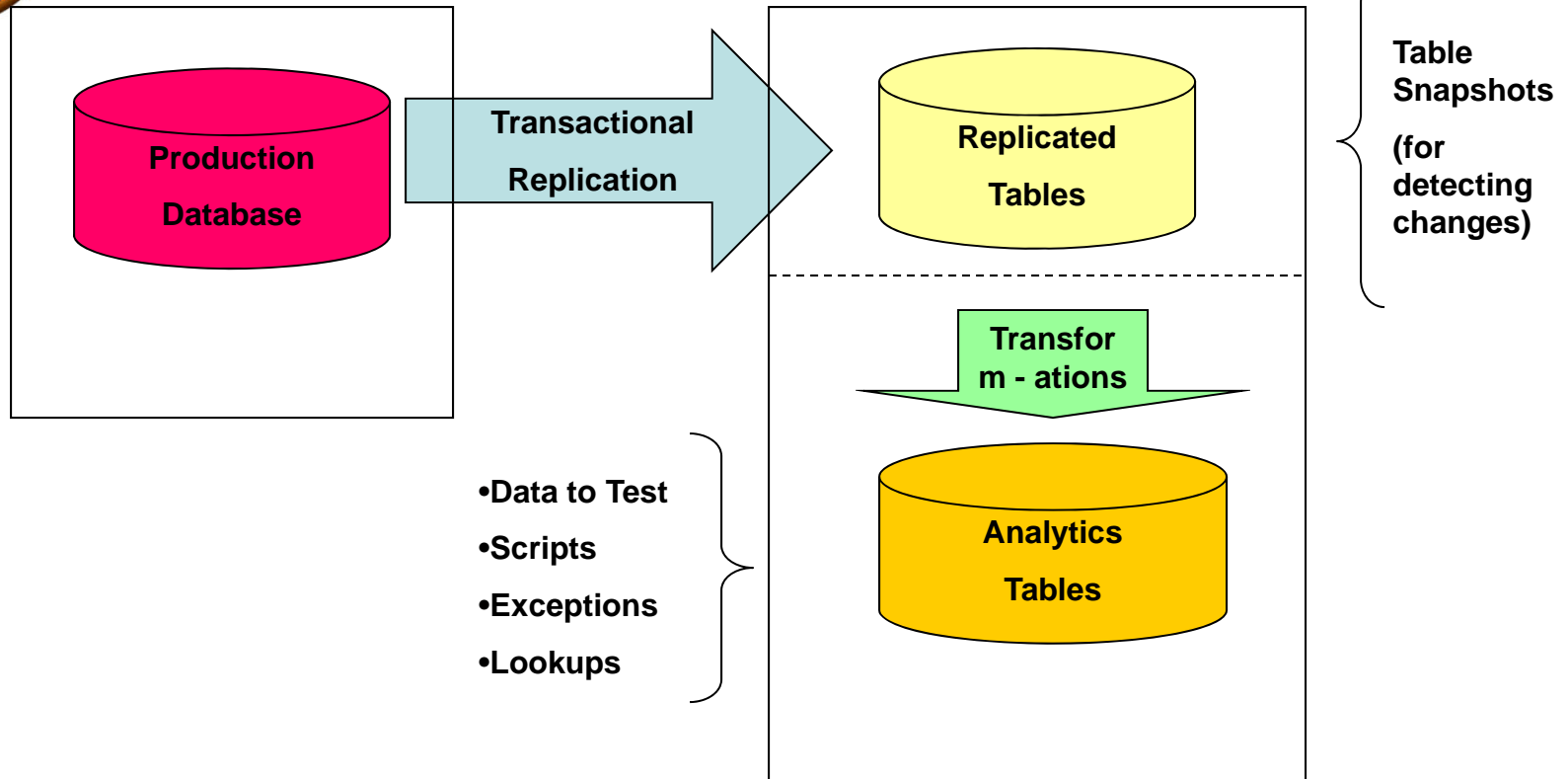
SQL Server

- **Integration Services** handles ETL
- Houses Data (Data to be analyzed and Exceptions records)
- Supports Queries for analytics/IC's
- **Notification Services** allows emails, texts, or calls to personnel in near real-time
- **Reporting Services** enables reports and dashboards
- Has built-in scheduler to automate the analytics
- Can easily build .NET web form to handle Exception Management

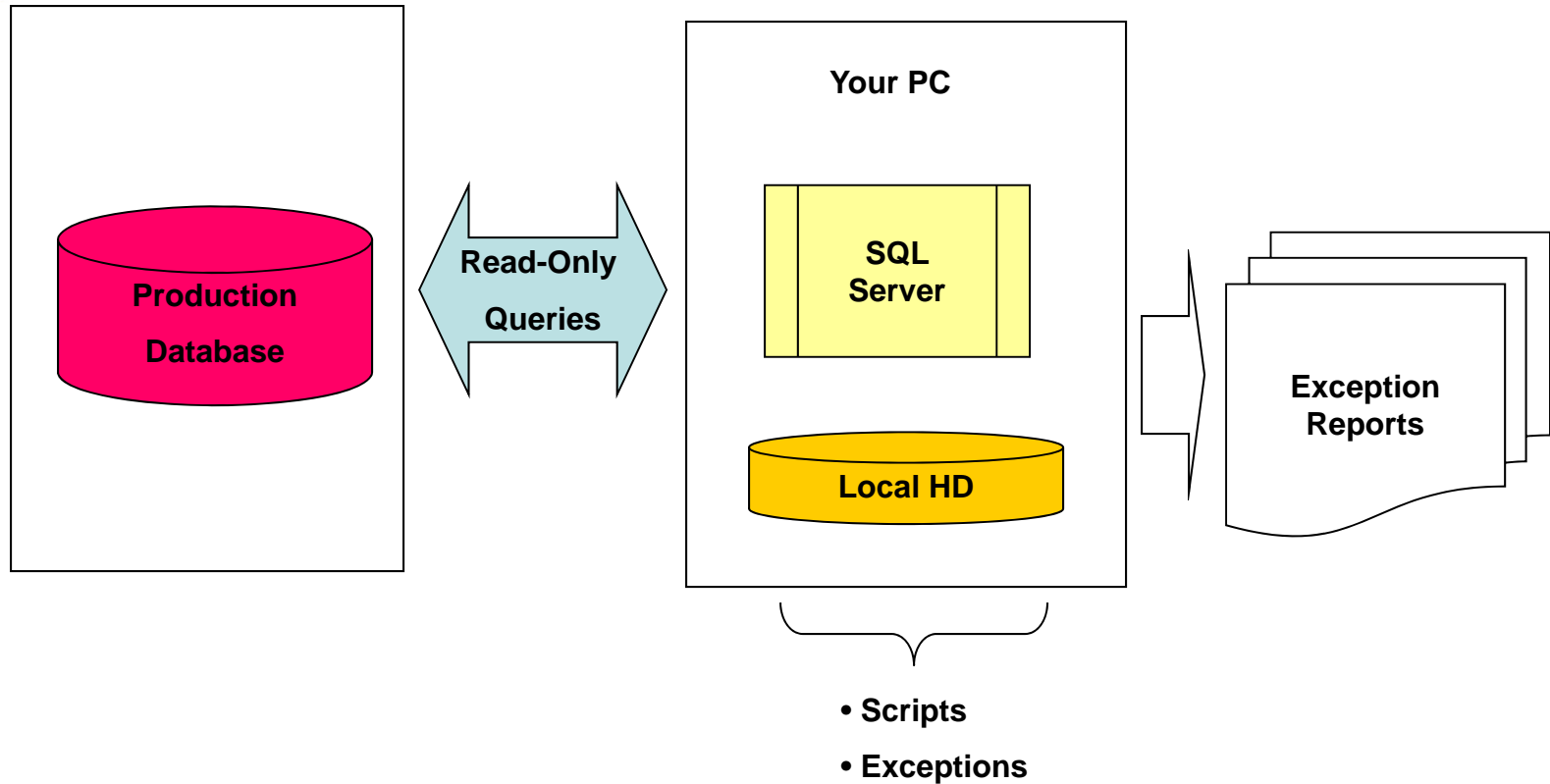




Most Robust Architecture



Simplest Architecture





Approach



Workshop(s):

- Determine Risks and Control Use Cases needed
- Understand the systems involved
- Understand the Data
- Define Analytical Logic needed, by Use Case
- Define Exception Resolution workflow & Status Codes
- Develop High Level Architecture
- Security Requirements

Create Design Document

Collaborate w/ IT:

- Set up hardware & Connectivity
- Select ETL Approach
- Develop ETL process
- Develop Transformations, if required
- Test Integrity and Impact on Production Environment
- Start scheduler/Cron job

Analytics DB In Place

Create Exceptions DB

Iteratively for Each Use Case:

- Develop Algorithm(s)
- Unit Testing: Review and refine to reduce false positives

Set up Reports & Dashboards Tool

Set up Exceptions Management Interface

System Documentation

Develop Reports & Dashboards

User Training

User Acceptance Testing

Tuning & Optimization

Develop Email Alerts (Optional)

Roll Out





Requirements Gathering

- **Control Objective**
- **Functional Description of the Integrity Check**
- **Functional Description of the Data Involved**
- **Triggering Event**
- **Financial Impact**
- **Data Specifics**
 - **Data to Exclude from Analyzing**
 - **Insufficiency Criteria**
 - **Delay (if applicable)**
 - **Data to Display**
 - **Indicator(s)**
- **Exception Resolution Process**



Specific Indicators



Name	Duplicate PO
Description	Test for multiple occurrences of the same PO number being referenced by multiple invoices.
Functional Logic / Algorithm	For each given voucher, test all vouchers within the previous 60 days for the same PO number being referenced.
Probability	.3

Name	Duplicate Amount
Description	Test for multiple occurrences of the same Amount being referenced by multiple invoices from the Same Vendor.
Functional Logic / Algorithm	For each given voucher, test all vouchers within the previous 60 days from the same vendor that are for the same amount.
Probability	.3

Each Indicator becomes a part of the Where Clause and possibly helps drive joins



Multiple Indicators In SQL

Select
Field 1(key),
'Duplicate Invoice' as 'Exception_Type',
XXX as Probability,
Etc...(All data needed)

From Vouchers as V

Join Vouchers as V_Same_PO
on V.PO = V_Same_PO.PO

Join Vouchers as V_Same_Amt
on V.Amt = V_Same_Amt.Amt

Where V_Same_PO.VoucherNum not Null OR
V_Same_Amt.VoucherNum not Null



Use of Probabilities

The Probability field in your select clause:

Select

'Probability' =

```
(case WHEN V.PO = V_Same_PO.PO  
THEN .3 end) + (case when V.Amt =  
V_Same_Amt.Amt then .3 end)
```

From Table_X



Typical Exceptions Table(s)



Column	Description
Exception ID	Unique Key based on transaction numbers (may be used to link to tables with more details)
Exception Type	Type of Analytic
Exception Date	Date Detected
Related Source Data	Data to report on
Status	Actions taken to resolve the identified exception
Owner	Who has responsibility for resolution





Exception Management

- Simplest is porting exceptions result set into Excel, and track status there
- Best is to build a web form that shows exceptions and lets you input status

Exception ID	Exception Date	Exception Type	Owner	Status
12345678	7/4/2010	Duplicate Invoice	7/4/2010	Detected

Exception Details

Original Invoice	Duplicate Invoice	Vendor	Vendor 2	Date

Specific Data from the tables involved





Reporting

- Direct Reports against Transactional Data (Open PO's > 90 days, Top 5 customers, Edit Checks, etc.)
- Exceptions Based/Meta Reporting (Top 5 types of exceptions, top 5 people/centers violating policy, etc.)
- Can be tabular or graphical
- Can we “webified” and made available to a broad audience





Use an Iterative Approach

Area	Integrity Check	Value (1 Low to 5 Hi)	Complexity (-1 Low to -5 Hi)	Total Score	Development Order
PTP	Duplicate Vouchers	5	-5	0	1
OTC	Employee Sales of Damaged Goods	4	-3	1	2
OTC	Unapplied Credit Memos > 90 days	5	-3	2	3
PTP	Payables Discounts Not Taken	4	-1	3	4
OTC	Unearned Discounts Taken	4	-2	2	5
PTP	Open PO's Over 90 Days	3	-1	2	6
OTC	Picks exceed Order QTY	2	-1	1	7
OTC	Largest Unpaid Balances	1	-1	0	8
PTP	Received, not vouchered	2	-2	0	9
PTP	Invoice w/out PO	3	-3	0	10
OTC	Shipped, Not Invoiced	3	-3	0	11
OTC	Shipped, No Invoice or \$0 Invoice	3	-4	-1	12
OTC	Unusual Quantity or Value of Inventory Adjustments	3	-5	-2	13
PTP	Vendor is an Employee	2	-4	-2	14



For More Information



Wylie Roberts, CPA

Senior Manager

Five Concourse Parkway

Suite 1450

Atlanta, GA 30328

wroberts@solomonedwards.com

Direct: 404-497-4148

Mobile: 404-218-6892

www.solomonedwards.com

