



Quest Forum Digital Event

— Insights. Information. Education. —
Practical hands-on learning for the Oracle user community.

Innovation Week

April 20 - 24, 2020

Community Education

Cloud Week	—————	May 27 - 29
PeopleSoft Week	—————	June 1 - 4
JD Edwards Week	—————	June 8 - 11
Database & Tech Week	—	June 15 - 18

Focus Days

Professional Development	—————	June 5
Emerging Technology	—————	June 5
Training & Workshops	—————	June 12

Preparing for the Auditors

JD Edwards Security Audit in the Cloud

Remember to provide your session feedback in the app!

Session ID:

102710

Prepared by:

Jen Leatherman

IT Business Solutions Director

CTB, Inc

@jaleather228

Mike Ward

CEO

Q Software

June 9, 2020



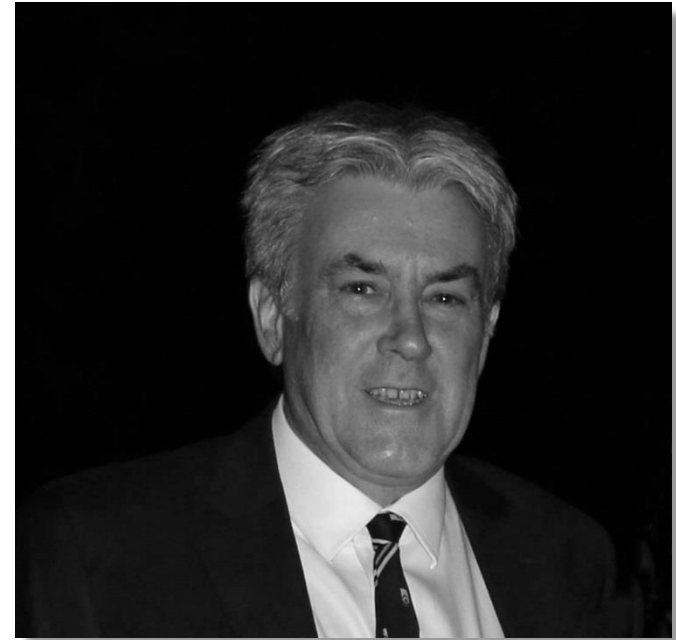
Jen Leatherman

- Logistics
- Project Manager
- IT Business Solutions Director
- Business Orientation
- Delivering Value & Change
- Favorite Road Trip – Traveling around Ireland



Mike Ward

- 40 Years IT Experience
- ERP from the Beginning
- 300+ Audits
- @mikeaward
- Supports Leicester City FC
- Aged by Isolation (no road trips)



Objectives of the Presentation

- To identify the main obstacles to a successful JDE security audit at CTB and the areas that continue to remain a problem in each audit.
- To share the baseline analysis at implementation of Q Software's QCloud solution. Share how we use the tool to improve security setup and reduce risk.
- Share our new policy for auditing; review and approving JD Edwards security setup in a timely manner.



CTB, Inc.

- Founded in 1952 in Ohio, moved to Milford, Indiana in 1954
- Became a wholly owned subsidiary of Berkshire Hathaway Inc. in 2002
- \$1 Billion annual sales
- 3,000+ employees worldwide
- 46 Manufacturing & Warehouse facilities
- Corporate brochure produced in 8 languages



IT Infrastructure

- Small Corporate IT staff (9)
- CIO, 2 programmers, 3 business analysts and 3 network & PC Support
- Tenure at CTB: 3@40+, 2@30+, 2@20+ and 2@1year (239 years)
- Supporting 11 locations on JDE with 650 users, a total of 1,200 domestic employees
- JDE World A9.4 base, on-prem running on an IBMi Power 8



CTB, Inc. - Audit Challenges

- Audit items were a moving target
- Lack of complete SOD definitions
- Based our SOD review on previous audit discovery
- Reporting was cumbersome
- People most familiar with JDE functions and security were not allowed to perform internal review
- Lack of resources made this entire process inefficient, hard to complete in a timely manner resulting in the inability to complete on a quarterly basis
- Focused on Segregation of Duties Only



CTB, Inc – Previous Audit Process

- CTB used Showcase Report Writer and eventually ReportsNow, but this was still cumbersome and hard for our review group to understand.
- A9.3 introduced the new JDE Security Workbench. We started with no access and attempted to build proper user access. This was our biggest upgrade issue.
- Security in general was a struggle for us in A9.3 so we spent our first year just trying to manage the system access without thought to an upcoming audit. Our IT Audit came the following year resulting in many red flags.
- We upgraded to A9.4 and chose to implement role-based security to reduce maintenance but still had issues with producing easy to use reports. We struggled with proper setup of the JDE Security Auditing and Reporting module for this process to be successful.
- We needed help!



CTB, Inc – Search and Solution

- Top considerations were cost, our limited internal resources and the need for simplified results leaving us three options.
 - Pursue custom reporting (limited to our internal knowledge base)
 - Setup JDE A9.4 to use canned reporting (limited to our knowledge base and restricted resources)
 - 3rd Party solution (rely on the experts)
- QCloud was our chosen solution in 2018. It was the perfect fit for CTB!
 - Very easy to install
 - No in-house technical skills required
 - Rapid results: delivered within 48 hours (now within same day)
 - Accurate, comprehensive information delivered online
 - Saved CTB time and money



QCloud Audit – General Security

World Audit » Dashboard

Audit : 09-Jan-19 (298)

Tenant : CTB, Inc	Audit : 09-Jan-19 (298)	Sales : Darwin Thangappan	Auditor : Sam	Completion Date : 01 February 2019
▼ General Security				
+ Users				
+ Menus				
- Action Code				
Total action code records				5655
AC - Total *PUBLIC records				247
AC - Total *Group/Role records				4241
AC - Total User records				1167
AC - *PUBLIC *ALL NNN				Y

World Audit » Dashboard

Audit : 25-Feb-20 (502)

Tenant : CTB, Inc	Audit : 25-Feb-20 (502)	Sales : Darwin Thangappan	Auditor : Sam	Completion Date : 25 February 2020
▼ General Security				
+ Users				
+ Menus				
- Action Code				
Total action code records				5845
AC - Total *PUBLIC records				62
AC - Total *Group/Role records				4401
AC - Total User records				1382
AC - *PUBLIC *ALL NNN				Y



QCloud Audit – Critical Object Access

Tenant : CTB, Inc Audit : 09-Jan-19 (298) Sales : Darwin Thangappan

> General Security

▼ Critical Object Access

[-] Work By Rule

- + ✖ Ship Confirm (12.95% Violation)
- + ✖ Purchase Order Detail Information (10.14% Violation)
- + ✖ Item Branch/Plant Revisions (8.74% Violation)
- + ✖ Sales Order Detail Information (8.42% Violation)
- + ✖ Item Master Revisions (8.27% Violation)
- + ✖ Inventory Adjustments (7.64% Violation)
- + ✖ Purchase Order Receipts (7.18% Violation)
- + ✖ Bill of Material Revisions (7.18% Violation)
- + ✖ Routing Revisions (6.08% Violation)
- + ✖ Base Price Revisions (5.46% Violation)
- + ✖ Work Center Revisions (4.52% Violation)
- + ✖ Update Sales Orders (3.74% Violation)
- + ✖ Accounts Payable & Receivable Information (3.43% Violation)

Tenant : CTB, Inc Audit : 25-Feb-20 (502) Sales : Darwin Thangappan

> General Security

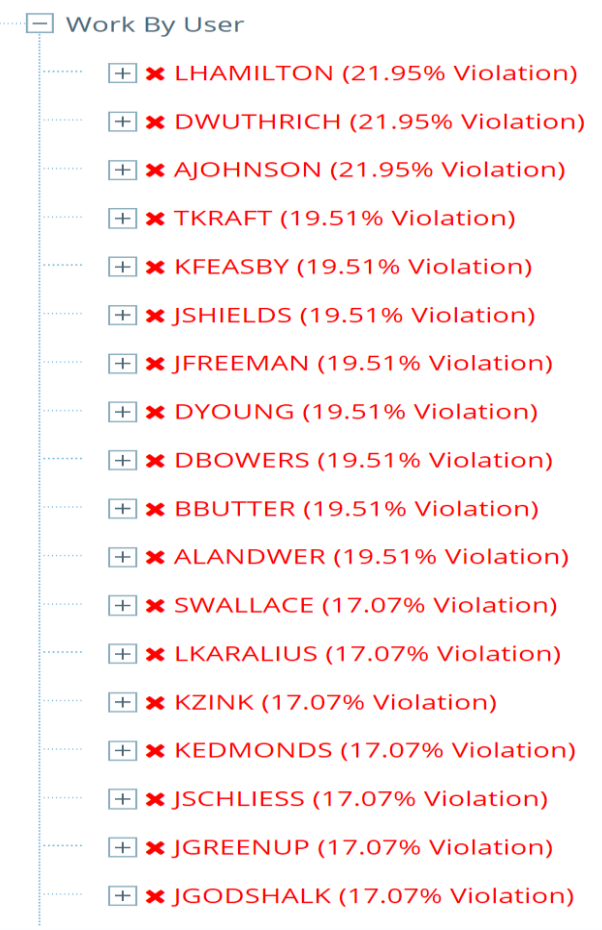
▼ Critical Object Access

[-] Work By Rule

- + ✖ Ship Confirm (45.45% Violation)
- + ✖ Purchase Order Detail Information (12.6% Violation)
- + ✖ Sales Order Detail Information (9.89% Violation)
- + ✖ Item Branch/Plant Revisions (9.73% Violation)
- + ✖ Inventory Adjustments (9.57% Violation)
- + ✖ Item Master Revisions (9.41% Violation)
- + ✖ Bill of Material Revisions (8.29% Violation)
- + ✖ Purchase Order Receipts (7.34% Violation)
- + ✖ Routing Revisions (5.58% Violation)
- + ✖ Base Price Revisions (3.99% Violation)
- + ✖ Work Center Revisions (3.51% Violation)
- + ✖ Update Sales Orders (2.07% Violation)
- + ✖ Accounts Payable & Receivable Information (1.12% Violation)



QCloud Audit – Critical Object Access –Work by User - Drill Down



QCloud Audit – Critical Object Access –Work by User - Drill Down

[-] ✘ SPATE (12.2% Violation)

[-] ✘ Work Center Revisions

[-] ✘ Item Master Revisions

[-] ✘ Item Branch/Plant Revisions

[-] ✘ Inventory Adjustments

[-] ✘ Ship Confirm

[-] Rule Violation:

✘ P4114 -Explicit-Action Security-SPATE (Single: Add = Y, Change = Y,)

✘ P4114 -Explicit-Application Security-SPATE (Single: Run = Y,)



QCloud Audit – SoD Rules –Work by User - Drill Down

SoD Rules

+ Work By Rule

- Work By User

- + ✘ SWALLACE (19.15 % Violation)
- + ✘ CTUDOR (19.15 % Violation)
- + ✘ MMILLER (10.64 % Violation)
- + ✘ LSCHLAGEN (10.64 % Violation)
- + ✘ KPILLARD (10.64 % Violation)
- + ✘ JANDERSON (10.64 % Violation)
- + ✘ GIVEY (10.64 % Violation)
- + ✘ JPENKALA (8.51 % Violation)
- + ✘ KFEASBY (6.38 % Violation)
- + ✘ FDUCELL (6.38 % Violation)
- + ✘ YMORALES (4.26 % Violation)
- + ✘ TSHRECKEN (4.26 % Violation)
- + ✘ TPIPHO (4.26 % Violation)
- + ✘ TKRAFT (4.26 % Violation)

SoD Rules

+ Work By Rule

- Work By User

- + ✘ SWALLACE (17.02 % Violation)
- + ✘ CTUDOR (17.02 % Violation)
- + ✘ MDODGE (14.89 % Violation)
- + ✘ JANDERSON (12.77 % Violation)
- + ✘ LSCHLAGEN (10.64 % Violation)
- + ✘ KPILLARD (10.64 % Violation)
- + ✘ JPENKALA (10.64 % Violation)
- + ✘ GIVEY (10.64 % Violation)
- + ✘ TKRAFT (6.38 % Violation)
- + ✘ RGROSSER (6.38 % Violation)
- + ✘ KFEASBY (6.38 % Violation)
- + ✘ FDUCELL (6.38 % Violation)
- + ✘ DYOUNG (6.38 % Violation)
- + ✘ YMORALES (4.26 % Violation)



QCloud Audit – SoD Rules – Work by User - Mitigation

▼ Mitigated Violations (SoD Rules)

+ Work By Rule

- Work By User

- + ✖ SCRIM (74.47 % Violation)
- + ✖ QSECOFR (74.47 % Violation)
- + ✖ QPGMR (74.47 % Violation)
- + ✖ MBRANCH (74.47 % Violation)
- + ✖ JLEATHER (74.47 % Violation)
- + ✖ LCOLE (72.34 % Violation)
- + ✖ KFINNIGAN (72.34 % Violation)
- + ✖ DEMO (72.34 % Violation)
- + ✖ LOGIMAX (70.21 % Violation)
- + ✖ DASADMIN (70.21 % Violation)
- + ✖ AKITSON (61.7 % Violation)
- + ✖ DLECHLIT (55.32 % Violation)
- + ✖ CPARRISH1 (6.38 % Violation)

Do you want to mitigate the following rules for the above user?
1. Cycle Count Update to Inventory Adjustments

Please give your reason for the mitigation

Set Expiry Date

Cancel Save

QCloud Audit – SoD Rules –Work by User – Mitigation – Drill Down

▼ Mitigated Violations (SoD Rules)

⊕ Work By Rule

⊖ Work By User

⊖ ✖ SCRIM (74.47 % Violation)

✖ AP Entry to Bank Acct Reconcile	08-06-2019
✖ AP Voucher Entry and Bank Acct Reconcile	08-06-2019
✖ PO Entry and Bank Acct Reconcile	08-06-2019
✖ Edit AB-Voucher Entry-Pmt w/Vcher	08-06-2019
✖ Edit AB-Pmt w&w/o Vcher Match	08-06-2019
✖ Edit AB-Employee setup	08-06-2019
✖ Receipts Entry- Ship Sales Orders	08-06-2019
✖ AR Invoice Entry- AR Receipts Entry	08-06-2019
✖ AR Invoice Entry- AR Receipts Entry	08-06-2019
✖ AR Invoice Entry- Cust Billing Instruct	08-06-2019
✖ AR Invoice Entry- Cust Billing Instruct	08-06-2019
✖ Cust Billing Instruct- Enter Sales Order	08-06-2019
✖ Modify customer credit limit to inflate purchasing ability and record unauthoriz	08-06-2019
✖ Modify customer credit limit to inflate purchasing ability and record unauthoriz	08-06-2019
✖ Edit AB- Edit Cust Master	08-06-2019
✖ Cycle Count Entry to Inventory Adjustments	08-06-2019



Q Search ...

Unmitigate



Related Document Functionality

Audit Results » Supporting Documents

Audit :



- Please upload files in approved file formats(.png, .gif, .jpeg, .pdf, .doc, .docx, .csv, .xls, .xlsx).
- File size allowed is 20 MiB.

Drop files to upload (or click)



Roxell3_20200227_124940.pdf
0.4 MB

Completed!

Supporting Documents

Tenant Name: CTB [Audit id: 502]

CTB502/502_Roxell3_20200227_124940.pdf



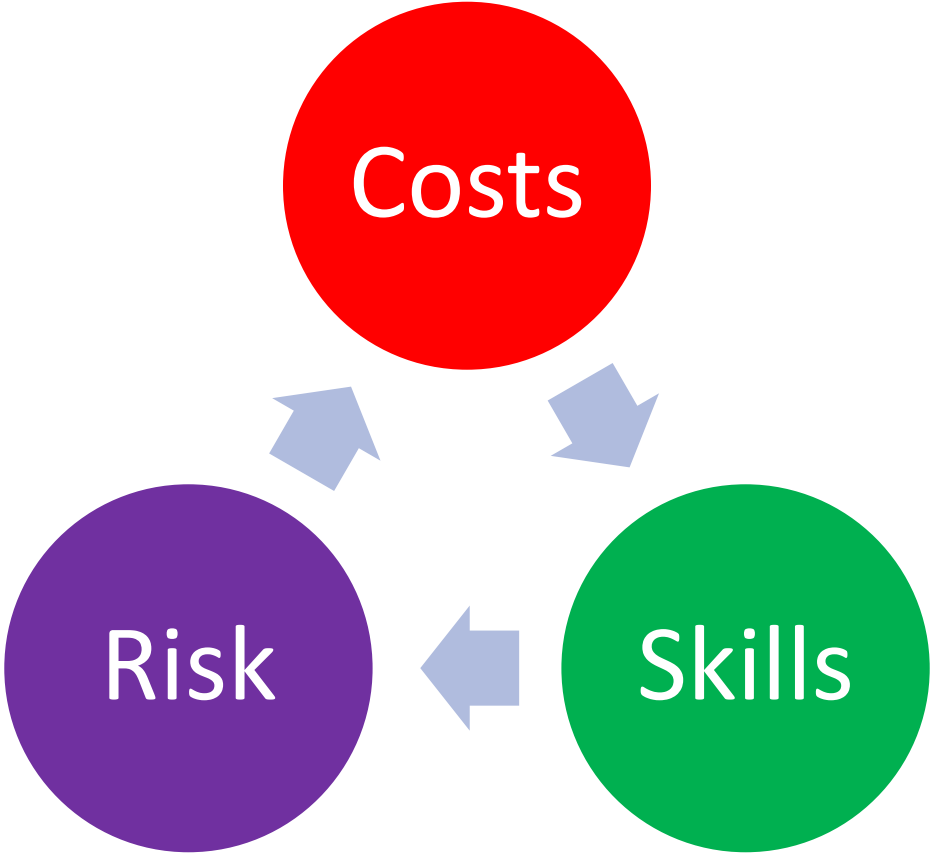
CTB, Inc. – Audit Scorecard

Audit Item	Initial Audit Results	Q1 2020 Results	Improvements
General Security – Menus, Action Code, Programs, Function Key, UDC and BU-Cost Center	25 Potential Issues for review	11	44%
Access to Critical Object Data Programs - % of users violating Critical/Master Data Rules	42%	28%	33%
Segregation of Duties – Object to Object Rules	16%	11%	31%



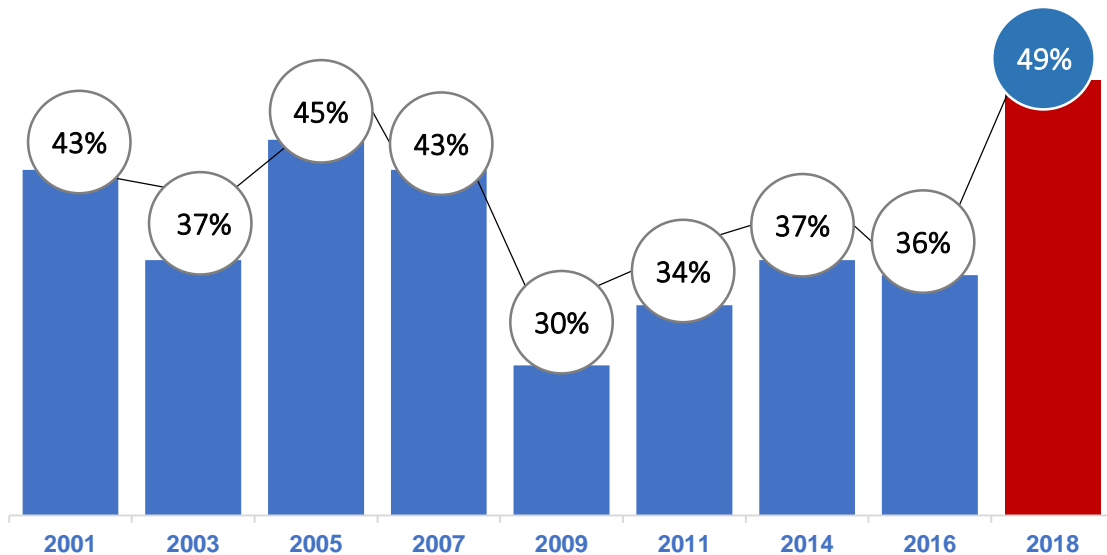
Very Rapid, No Effort.....Answers

QCloud Audit as a Service

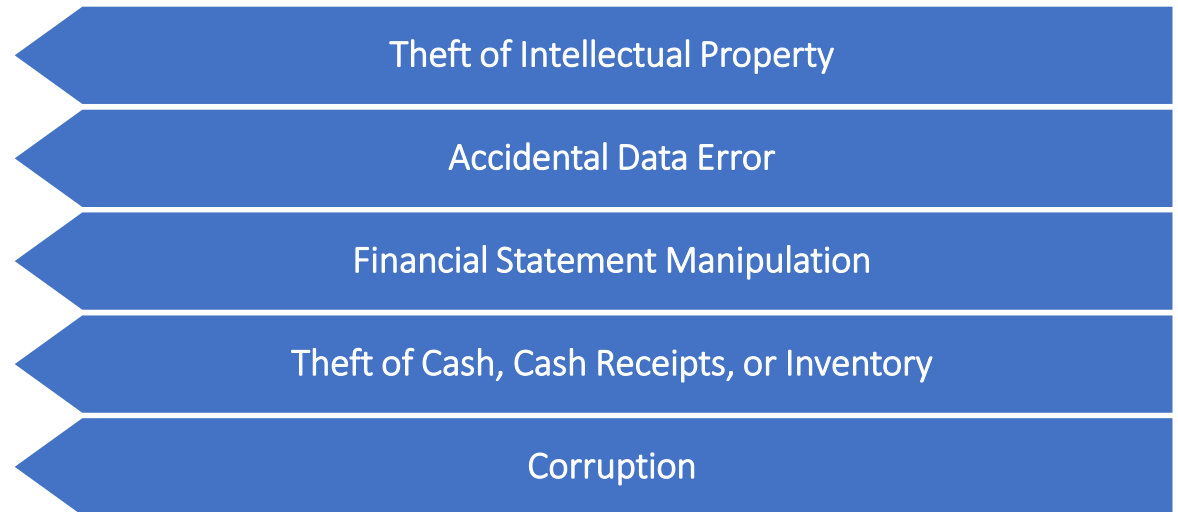


Fraud Exposure and Insufficient Controls

50% OF COMPANIES EXPERIENCE FRAUD



MOST COMMON TYPES OF FRAUD



Source: PwC 2018 Crime & Fraud Survey

ROOT CAUSES

Poor Internal Controls

Non-Segregation of Duties

Wide System Authorizations

Lack of Supervision

Business Pressure



INTERNAL CONTROL WEAKNESSES WERE RESPONSIBLE FOR NEARLY HALF OF FRAUDS



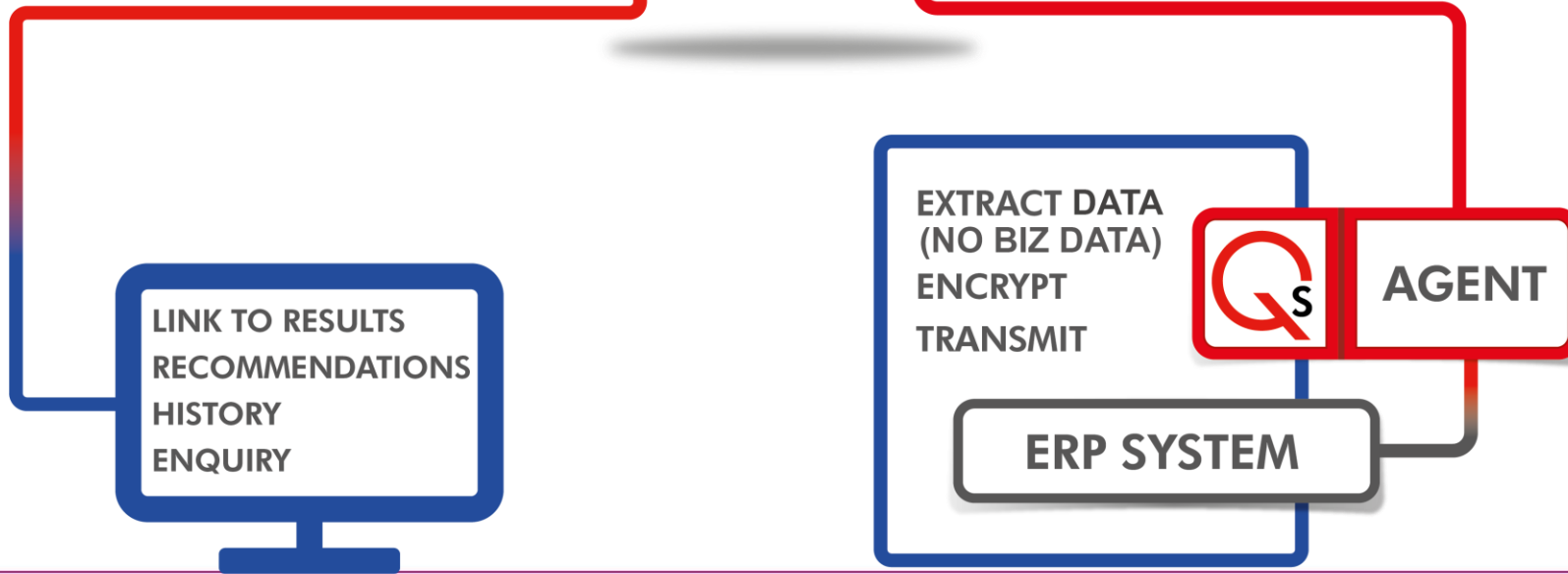
Issues to Worry an ERP Director

- ❏ What are my Risks
- ❏ Are Major Frauds Possible on my ERP
- ❏ Satisfying Internal/External Audit
- ❏ Internal Controls
- ❏ How do I Plan Remediation
 - Path to Best Practice





Q HELPER
RECEIVE DATA
DECRYPT
RUN ANALYSIS
PRODUCE RESULTS



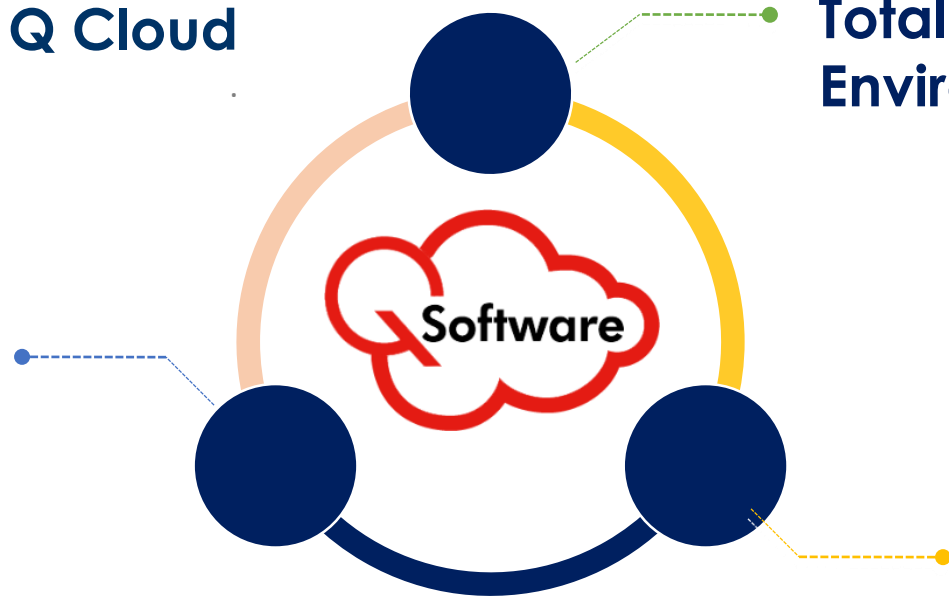
Security of Customer Data

ISO/IEC 18033-3:2010 Part 3 Encryption (Oracle Standard)

**No Business Data
Uploaded to the Q Cloud**

**Hosted at AWS/OCI
Totally secure
Environment**

**Encrypted in Flight
From customer site
to QCloud**



**Encrypted at Rest
in the QCloud**



Understand your Module Usage

- ❏ Input Oracle License
- ❏ Request Audit – No technical requirements
- ❏ Report will show
 - Usage by Module
 - Non-Compliance Modules
 - Custom Modules
- ❏ Access - Determine Usage & Remove unnecessary access
- ❏ Plus Associated Tables





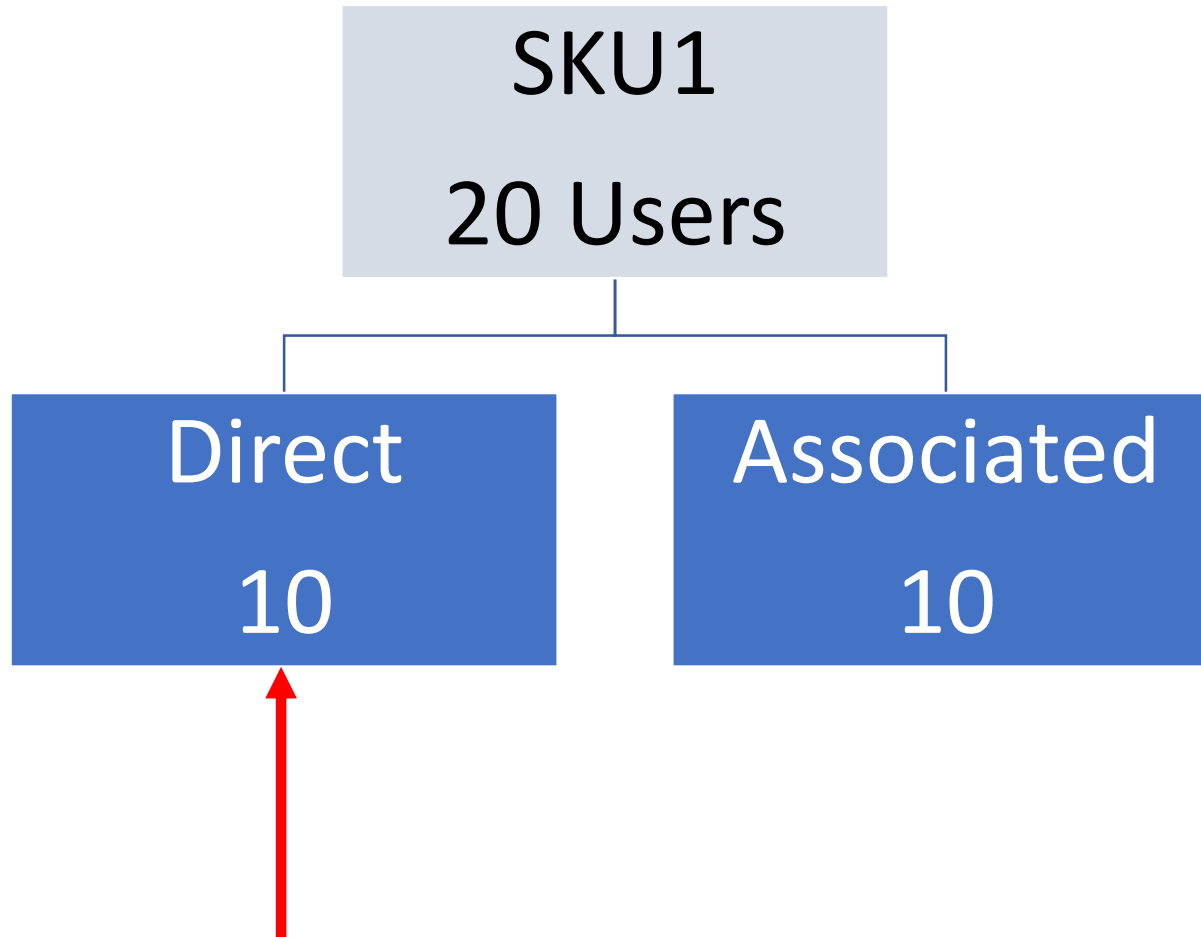
Use Cases

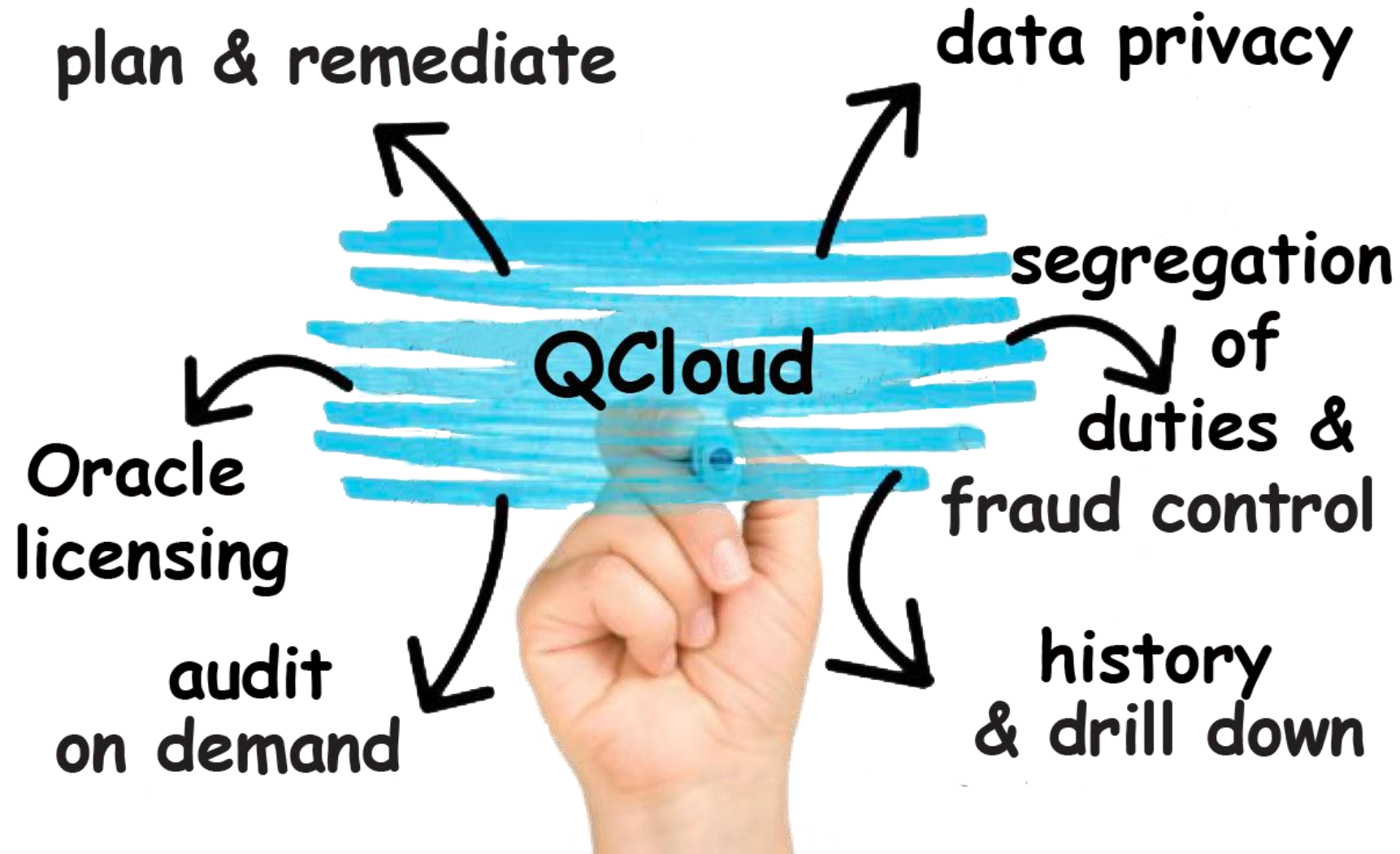


- ❏ Oracle License Negotiation
 - Actual Module Usage
- ❏ Users with Access but not Accessing
 - Check your Contract
- ❏ Concurrent Licensing (3:1)
 - Other Tools, ready for Negotiation
- ❏ Enterprise Licensing
 - Ready for Negotiation
- ❏ CAS Bundling
 - Enter License Details
- ❏ Associated Tables –
 - do you Need Licensing



Associated Tables (JDE)





Summary

- Reduced audit prep time from 5 days to 24-48 hours
- Reduced audit review completion from 4-6 weeks to 1 week
- Increased the audit content from basic SoD to full security audit
- Reduced initial QCloud audit results to an acceptable level in 6 months time
- We are now ready for our next IT audit!!!



102710



Q&A

jleatherman@ctbinc.com

Session ID:

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*Remember to provide your
session feedback in the app!*



Quest Forum Digital Event

Quest Forum Digital Event Continues!

Cloud Week

Wednesday, May 27 - Friday, May 29

PeopleSoft Week

Monday, June 1 - Thursday, June 4

Professional Development & Emerging Technology Day

Friday, June 5

JD Edwards Week

Monday, June 8 - Thursday, June 11

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REGISTER TODAY!