

# CA Product Demonstrations: Show and Tell

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## Abstract

Along with developing new features for CA IDMS itself, the CA IDMS team has been busy integrating CA IDMS with other CA and vendor products to help you get the most value from CA IDMS. Come to this session to see how you can use CA Data Content Discovery to identify Personally Identifiable Data in your CA IDMS databases to improve security and privacy compliance. Also get a sneak peak of the new CA IDMS MQ Adapter feature that is being developed.



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## Agenda

- 1 DATA-CENTRIC MAINFRAME SECURITY AND THE GDPR
- 2 DATA CONTENT DISCOVERY DEMONSTRATION
- 3 CA IDMS MQ SNEAK PEAK



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# Data-Centric Mainframe Security and the GDPR

Data content discovery demonstration



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## Agenda

- 1 IT'S ALL ABOUT THE DATA
- 2 WHAT'S THE DEAL WITH MAINFRAME DATA
- 3 THE IMPACT OF REGULATIONS
- 4 THE MAINFRAME AND THE GENERAL DATA PROTECTION REGULATION
- 5 CA'S DATA-CENTRIC TAKE ON MAINFRAME SECURITY AND COMPLIANCE



## Data is an asset

- Data *is* business value
  - Consider Facebook, Google, Uber, Twitter
- Industries depend on data
  - Banking, Insurance, Healthcare
- By 2020 there will be:
  - 44 zettabytes of data
  - Over 6 billion smart phones
  - 50 billion smart devices



## But, data is also a Liability

- Highly regulated
  - Industry, National, International
    - Data Protection Act, GDPR, Privacy Shield
- It gets personal, quickly!
  - PII must be managed
    - Who owns it? What are you allowed to do with it? Delete it when requested
- Data - the keys to the future
  - Business strategy, digital secrets, financial posture



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## Here's the challenge with data:

**3,141**

Breaches with confirmed data loss in past year



**146**

Days infiltrated before detection



**\$20**

Average price for Credit Card on Black Market



**10,490**

Incidents from privilege misuse



- Mandiant Mtrrends report 2015
- Verizon Data Breach Investigations Report 2016



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## And don't forget about those industry regulations

### GDPR

- Prove that data is being protected
- Appoint a data protection officer
- Fines of 4% of annual turnover

### UK Data Protection Act 1998

- Information Commissioners Office
- Wide scope
- Consent
- Cross industry



### PCI DSS

- Protect stored cardholder data
- Encrypt transmissions
- Maintain InfoSec policy

### EU-U.S. Privacy Shield

- U.S. Department of Commerce and European Commission
- Individual choice & control
- Security



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## 80% of all corporate transactional data still reside on mainframes

The mainframe acts as **the enterprise IT server** and has more entry and exit vectors.

We must protect the mainframe and all business critical data as the strategic assets that they are, plus ensure easily confirmed regulatory compliance.

Years in the making...



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## Why locating data on the mainframe is a problem

### CHALLENGES

- ❑ Copies of sensitive production data exist
- ❑ Files with possible sensitive data are accidentally sent to outside parties without validation
- ❑ The Mainframe was processing transactions before many compliance regulations were introduced
- ❑ Large portions of PII data were collected and distributed with no tracking



### REALITY

Existing mainframe content discovery tools migrate off the mainframe to PCs or other devices to scan



### RESULT

Organizations are neither prepared for or confident in an audit!



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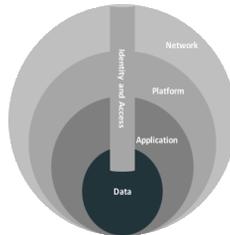
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## How data-centric mainframe security helps

### Start with the Data



### Understand What Data Is At Risk



### Monitor Access To the Data



### Limit Access



- Security often views the world from the edge inward - maintaining defenses from external threats
- Mainframe is usually deep within the network under several layers of security, but vulnerable to credential theft and insider threat
- Examine Mainframe Security from the bottom up



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## The solution: CA Data Content Discovery

Find, classify, and protect to effortlessly facilitate regulatory compliance



### Review the Regulations

GDPR and EU-US Privacy Shield



### Understand the Risks

Of not knowing where sensitive data resides



### Know How to Comply

To protect mission essential data



### Find, Classify and Protect

To effortlessly facilitate regulatory compliance



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## CA Data Content Discovery



Security Operations



Internal Auditor



Security Administrator

### FIND

Set up the scan  
Initiate the scan  
Provide discovered results to Security Administrator



### CLASSIFY

Review compliance results and label sensitive data  
Provide compliance report to Internal Auditor



### PROTECT

Modify access based on scan results  
Confirm successful audit against industry regulations



**10+ Filetypes**

**130+ Classifiers out of the box:**

- PCI, HIPPA, PII, etc.

**Custom classifiers**

- Identify who has access to what data
- Identify who accessed data



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## Protect it: Who has access to the sensitive data?

### CADCD.TEST.DATA

ESM Name	Response Message	Request Date and Time
ACF2	DCD2300I - WHO HAS ACCESS BASED ON THE ACF2 "ACCESS" SUBCOMMAND	5 Oct 2015, 3:08:31 pm

User Id	User Name	Execute	Read	Update/Write	Alter/Alloc
ALLJE05	JEFF ALLMAN	✓	✓	✓	-
BAYJ002	THE BAY	✓	✓	✓	-
CHEJE18	CHERRINGTON, JEF	✓	✓	✓	-
DCDADM		✓	✓	✓	-
DCDUSER	DCD MINION	✓	✓	✓	-
GUUSA02	SAI	✓	✓	✓	-
HANV009	VIRVA	✓	✓	✓	-
HARDE10	FULL COURT	✓	✓	✓	-



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## Data-centric security as a competitive advantage

### CA Data Content Discovery

- **Find** sensitive data, that may be lost hidden or abandoned
- **Classify** discovered data based on sensitivity level for compliance
- **Protect** the enterprise and mitigate data breach risks



### CA Compliance Event Manager

- **Alert** in real-time to violations of critical security systems and resources
- **Inspect** security issues deeper, with comprehensive reporting and forensics
- **Protect** to simplify regulatory compliance and mitigate negative security events



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# Questions?

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# Demo

---

4854980601822184	John	Smith	JohnSmith@gmail.com
377701267044004	Mike	Wilson	Mikew@gmail.com
343381482396868	Bob	Dole	Bdole@gmail.com
376885764163762	Hank	Anderson	<b>hankson@gmail.com</b>
376885764163762	Hank		
		Anderson	
			hankson@gmail.com



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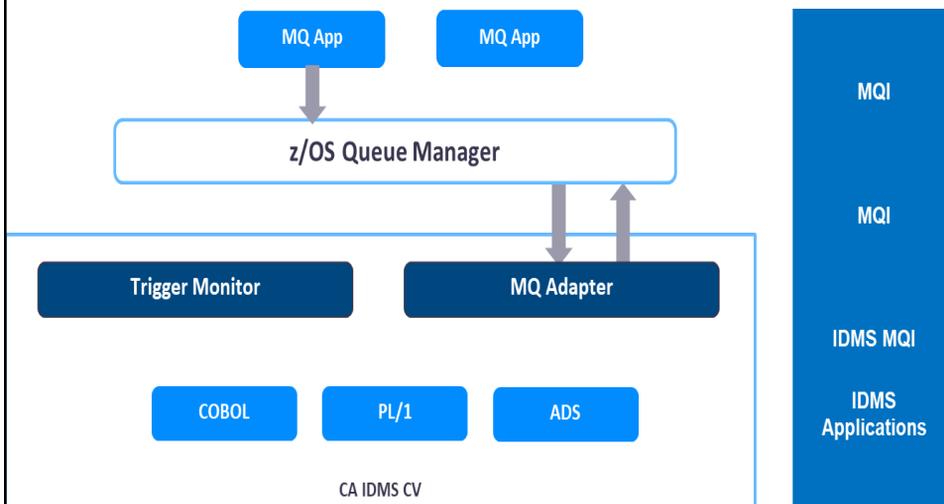
# CA IDMS 19.0 MQ



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## CA IDMS MQ Adapter



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## CA IDMS MQ Project Status

- Agile development process
- Validation customers
- Deliver working code for customer feedback
  - Test APAR
  - Documentation in PDF format
- Initial validation



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## CA IDMS MQ Adapter API

Included in Initial Validation APAR

- |           |                            |
|-----------|----------------------------|
| • MQBACK  | • Back out changes         |
| • MQCLOSE | • Close object             |
| • MQCMIT  | • Commit changes           |
| • MQCONN  | • Connect queue manager    |
| • MQDISC  | • Disconnect queue manager |
| • MQGET   | • Get message              |
| • MQOPEN  | • Open object              |
| • MQPUT   | • Put message              |



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## CA IDMS MQ Adapter MQ CV Startup changes

- During CV startup, MQ initialization for the CV is performed

```
IDMS DC013017 V197 TO SECURITY SYSTEM INITIALIZATION COMPLETE
IDMS DC131000 V197 TO MQ: Initialization starting
IDMS DC131001 V197 TO MQ: Initialization is complete. MQ is active
IDMS DC088071 V197 TO Initialization TCP/IP environment started.
```

- An MQ Queue manager is defined in SYSGEN

```
SYSGEN 19.0 NO ERRORS DICT=SYSTEM
DIS MQ.
*+ ADD MQ
*+ STATUS IS ENABLED
*+ QUEUE MANAGER IS IDM2
*+ .
```



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## CA IDMS MQ Adapter

### IDMS ADS dialog demo using IDMS MQ API



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## CA IDMS MQ Adapter MQ ADS Demo

- MQOPEN using Output option

```

tpx.ca.com
QW53270 Edit View Options Tools Help
IDMSMQMM IDMS MQ DEMO
-----
FUNCTION      : MQOPEN      FUNCTION OPTION  : 00000016  PF1 FUNCTION HELP
QUEUE MANAGER : IDM2
QUEUE        : CAMQTS.SID.SYS0197

MSG DATA    :

1-INPUT AS Q DEF  16-OUTPUT  8192-FAIL IF QUIESE
-----

QUEUE MANAGER : IDM2
FUNCTION      : MQOPEN
COMPLETION CODE : 00000000
REASON CODE   : 00000000

MSG DATA    :

HIT ENTER TO EXECUTE FUNCTION
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- MQPUT using Syncpoint option

```

tpx.ca.com
QW53270 Edit View Options Tools Help
IDMSMQMM IDMS MQ DEMO
-----
FUNCTION      : MQPUT      FUNCTION OPTION  : 00000002  PF1 FUNCTION HELP
QUEUE MANAGER : IDM2
QUEUE        : CAMQTS.SID.SYS0197

MSG DATA    : TESTING MQPUT WITH SYNCPOINT
-----

QUEUE MANAGER : IDM2
FUNCTION      : MQPUT
COMPLETION CODE : 00000000
REASON CODE   : 00000000

MSG DATA    : TESTING MQPUT WITH SYNCPOINT

RETURNED FROM MOPUT
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- Browsing Queue contents after MQPUT

```

tpx.ca.com
QW53270 Edit View Options Tools Help
SYSVIEW 15.0 CALL --- MQBROWSE.DETAIL, MQ Message Browse ---- 04/25/18 13:44:03
Command =====>
----- Lv1 6 Row 31-45/49 Col 1-79/176
Jobname IDM2MSTR ASID 0380 Jobid STC41757 MQ 8.0.0 Qmgr IDM2
Queue CAMQTS.SID.SYS0197 Seqno 1
Options CONFIRM DLH XQH DEFCONTEXT
-----
MQMD_PUTAPPLNAME      MQAT_ZOS
MQMD_PUTDATE          CL28'SYS0197'
MQMD_PUTTIME          CL8'20180425'
MQMD_APPLORIGINDATA  CL8'17432942'
MQMD_PUTTIME          CL4' '
-----
Message Data
37DE52A0 00000000 E3C5E2E3 C9D5C740 D4D8D7E4 E340E6C9 *TESTING MQPUT WI*
37DE52B0 00000010 E3C840E2 E8D5C3D7 D6C9D5E3 40404040 *TH SYNCPOINT *
37DE52C0 00000020 40404040 40404040 40404040 40404040 * *
37DE52D0 00000030 40404040 40404040 40404040 40404040 * *
37DE52E0 00000040 40404040 40404040 40404040 40404040 * *
37DE52F0 00000050 40404040 40404040 40404040 40404040 * *
37DE5300 00000060 40404040 40404040 40404040 40404040 * *
-----
1-HELP 2-SPLIT 3-RETURN 5-EXIT 7-UP 8-DOWN 9-SWAP 10-LEFT 11-RIGHT 12-RECALL

```

## CA IDMS MQ Adapter MQ ADS Demo

- MQGET using No Wait option

```

tpx.ca.com
QW53270 Edit View Options Tools Help
IDMSMQMM IDMS MQ DEMO
-----
FUNCTION      : MQGET      FUNCTION OPTION : 00000000 PF1 FUNCTION HELP
QUEUE MANAGER : IDM2
QUEUE        : CAMQTS.SID.SYS0197
MSG DATA    :
0-NO WAIT 1-WAIT 8-SET SIGNAL
-----
QUEUE MANAGER : IDM2
FUNCTION      : MQGET
COMPLETION CODE : 00000000
REASON CODE   : 00000000
MSG DATA     : TESTING MQPUT WITH SYNCPOINT
-----
HTT ENTER TO EXECUTE FUNCTION

```

## CA IDMS MQ Adapter MQ ADS Demo

- MQCLOS closing the queue

```

tpx.ca.com
QWS3270 Edit View Options Tools Help
-----
IDMSMQMM                                IDMS MQ DEMO
-----
FUNCTION          : MQCLOS  FUNCTION OPTION : 00000000 PF1 FUNCTION HELP
QUEUE MANAGER    : IDM2
QUEUE            : CAMQTS.SID.SYS0197

MSG DATA        :

-----

QUEUE MANAGER    : IDM2
FUNCTION         : MQCLOS
COMPLETION CODE  : 00000000
REASON CODE     : 00000000

MSG DATA        :

RETURNED FROM MQCLOS
Connected to tpx.ca.com port 23                5/22      NUM      13:46:30 IBM-3278-2 - A55T2358
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- MQDISC disconnecting from Queue Manager

```

tpx.ca.com
QWS3270 Edit View Options Tools Help
-----
IDMSMQMM                                IDMS MQ DEMO
-----
FUNCTION          : MQDISC  FUNCTION OPTION : 00000000 PF1 FUNCTION HELP
QUEUE MANAGER    : IDM2
QUEUE            : CAMQTS.SID.SYS0197

MSG DATA        :

-----

QUEUE MANAGER    : IDM2
FUNCTION         : MQDISC
COMPLETION CODE  : 00000000
REASON CODE     : 00000000

MSG DATA        :

RETURNED FROM MQDISC
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- MQCMIT commit a message after an MQPUT

```

tpx.ca.com
QWS3270 Edit View Options Tools Help
IDMSMQMM IDMS MQ DEMO
-----
FUNCTION      : MQCMIT      FUNCTION OPTION  : 00000000  PF1 FUNCTION HELP
QUEUE MANAGER : IDM2
QUEUE        : CAMQTS.SID.SYS0197

MSG DATA    :

-----

QUEUE MANAGER : IDM2
FUNCTION      : MQCMIT
COMPLETION CODE : 00000000
REASON CODE   : 00000000

MSG DATA    : MESSAGE BUILT BY MQPUT TO VALIDATE MQCMIT

RETURNED FROM MQCMIT
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- MQBACK replacing a message following MQGET

```

tpx.ca.com
QWS3270 Edit View Options Tools Help
IDMSMQMM IDMS MQ DEMO
-----
FUNCTION      : MQBACK     FUNCTION OPTION  : 00000000  PF1 FUNCTION HELP
QUEUE MANAGER : IDM2
QUEUE        : CAMQTS.SID.SYS0197

MSG DATA    :

-----

QUEUE MANAGER : IDM2
FUNCTION      : MQBACK
COMPLETION CODE : 00000000
REASON CODE   : 00000000

MSG DATA    : MESSAGE BUILT BY MQPUT TO VALIDATE MQCMIT

MESSAGE RETRIEVED PLACED BACK ON QUEUE
  
```

## CA IDMS MQ Adapter MQ ADS Demo

- Verifying that message was returned to the queue

```

ipx.ca.com
QMS3270 Edit View Options Tools Help
----- MQBROWSE.DETAIL, MQ Message Browse ----- 04/25/18 13:48:09
Command =====> | Scroll *====> PAGE
----- Lv1 6 Row 31-45/49 Col 1-79/176
Jobname IDM2MSTR ASID 0380 Jobid STC41757 MQ 8.0.0 Qmgr IDM2
Queue CAMQTS.SID.SYS0197 Seqno 1
Options CONFIRM DLH XQH DEFCONTEXT
-----
MQMD_PUTAPPLNAME MQAT_ZOS
MQMD_PUTDATE CL28' SYS0197'
MQMD_PUTTIME CL8' 20180425'
MQMD_APPLORIGINDATA CL8' 17470421'
CL4' '
-----
Message Data
37DE52A0 00000000 D4C5E2E2 C1C7C540 C2E4C9D3 E340C2E8 *MESSAGE BUILT BY*
37DE52B0 00000010 40D4D8D7 E4E340E3 D640E5C1 D3C9C4C1 * MQPUT TO VALIDA*
37DE52C0 00000020 E3C540D4 D8C3D4C9 E3404040 40404040 *TE MQCMIT *
37DE52D0 00000030 40404040 40404040 40404040 40404040 *
37DE52E0 00000040 40404040 40404040 40404040 40404040 *
37DE52F0 00000050 40404040 40404040 40404040 40404040 *
37DE5300 00000060 40404040 40404040 40404040 40404040 *
-----
1=HELP 2=SPLIT 3=RETURN 5=FOUND 7=UP 8=DOWN 9=SWAP 10=LEFT 11=RIGHT 12=RECALL
  
```

## Summary

- CA Data Content Discovery enhances security and compliance for CA IDMS databases and applications
- Preview of the CA IDMS MQ Adapter that will enable on-line CA-IDMS applications to exchange messages with other applications when connected to an IBM MQ Queue Manager on z/OS
- More validation users are welcome!

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# Questions & Answers



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Comments:							
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Comments:							
General Comments:		_____ _____ _____ _____					