

SQL Web Connect for z/OS & z/VSE

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CA IDMS™ Technical Conference

Framingham MA
December 2-5, 2014



Abstract

Introduced in CA IDMS™ version 18.5, the SQL Web Connect feature allows all CA IDMS/DB customers to take advantage of SQL, ODBC and JDBC connectivity technology that previously was only available to customers who licensed the CA IDMS™ SQL and CA IDMS™ Server optional products. SQL Web Connect provides access for two concurrent users of dynamic SQL via ODBC and JDBC from the Web, Windows, Java and other non-mainframe platforms, as well as the usual CA IDMS tools (e.g. OCF, BCF). SQL Web Connect is perfect for prototyping, pilot projects, application development and low-volume application usage. This course provides guidance on the installation and management of the SQL Web Connect feature, for both the z/OS and z/VSE environments.



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Agenda

- Feature Overview
- Requirements
- Installation
- How it works
- Monitoring Usage
- Considerations
- Summary
- Use Case - Schema Diagram Tool

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SQL Web Connect Feature Overview

- Provides a mechanism by which all CA IDMS/DB users may establish:
 - 2 concurrent CA IDMS SQL sessions
as well as...
 - 2 concurrent ODBC and/or JDBC connections
- No LMP key required for SQL or Server
- No LMP key messages or PINT-related failures

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SQL Web Connect Use Cases

- Prototyping
- Pilot projects
- Application development
- Low-volume application usage

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SQL Web Connect Usage Limits

- Usage is tracked across all CVs on a z/OS LPAR or z/VSE image
- Tracking is performed using:
 - z/OS: CA Common Services' "#PRODUCE" macro
 - z/VSE: System Locks
- Usage registration is automatic
- Users can continue to control usage using RHDCPINT

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SQL Web Connect z/OS Requirements – CA Common Services

- CA Seat License Registration Service must be installed
- Service is initialized by CAIRIM
- CA Common Services Release requirements
 - CCS r12.0 with PTF RO40748
 - CCS r14.0 with PTF RO33298
 - CCS r14.1 (or greater)

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SQL Web Connect z/VSE Requirements & Registration Methodology

- Common Services not available on z/VSE
- In z/VSE we acquire “locks” to represent registrations
- The name of each lock is:
 - Literal “PROD” +
 - product code +
 - session number
- VSE Product Codes:
 - SQL Option: “1D”
 - IDMS Server: “05”
- Lock name for the second SQL session would be:

“PROD1D02”

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SQL Web Connect CA IDMS Server Requirements

- SQL Web Connect uses TCP/IP
 - JDBC users must use a Type-4 connection
 - ODBC users must use the 'IDMS' communications protocol
 - CAICCI is not required
 - TCP/IP Line must be defined/configured within IDMS
- CA IDMS Server:
 - JDBC users must use r16.0 or greater
 - ODBC users must use r17.0 or greater

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SQL Web Connect CA IDMS Server Installation

- IDMS Server Component added to IDMS/DB product pack list
 - All clients can now download CA IDMS Server from CSO
- IDMS Server installation zip file added to IDMS PAX file
 - Clients can perform a binary FTP from CAGJDTV library (member IDSER17)

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SQL Web Connect CA IDMS Installation Changes

- Use of SQL requires a Catalog
- Both CAISAG and CSM installations modified
- Optionally install the SQL Employee Demo database

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SQL Web Connect CA IDMS Server Implementation

- Product usage based on the creation of a Connection
- Both ODBC & JDBC connections handled within program IDMSJSRV
- Product registration precedes LMP checking
- Deregistration occurs when connection is closed
- CA IDMS™ Visual DBA is excluded from the Registration counter

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SQL Web Connect CA IDMS SQL Option Implementation

- Product usage based on the creation of a session
- Registration process only applies to the 'primary' SQL session
 - All secondary SQL sessions are grandfathered under the primary session
- Applies to OCF, BCF, ODBC, JDBC and any batch programs running dynamic SQL
- Compiled SQL not supported in batch
- Deregistration occurs when session ends

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SQL Web Connect Abnormal Termination Handlers

- Abnormal Task termination
- Abnormal CV termination
- z/OS
 - CA Common Service LMP Registration Service 'Resource Manager'
- z/VSE
 - Lock released automatically by the op-sys

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SQL Web Connect Registration Monitoring – z/OS

- z/OS Console Command:
 'DISPLAY PROD,REGISTERED,ID(xx)'
- Product ID Codes:
 GT – For the CA IDMS SQL Option product
 XS – For the CA IDMS Server product
- SYSVIEW:
 'REGPROD'
 'SORT ID'

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SQL Web Connect Registration Monitoring – z/OS

- SYSVIEW REGPRODS Panel:

```

tpx
QWS3270 Edit View Options Tools Help
-----
SYSVIEW 12.7 XE9C ----- REGPRODS, Registered Products ----- 01/15/13 16:38:50
Command =====> Scroll *====> CSR
----- Lvl 2 Row 69-72/72 Col 1-79/139
Cmd Name      Feature      Version  Register Enabled Jobname  ASID
IDMS-Server   SQL Web Connect  01.00.00 REGISTER S247R185 002A
.             .             .       .         .         .
IDMS/SQL-OPT  SQL Web Connect  01.00.00 REGISTER S246R185 0029
.             .             .       .         .         .
***** End of Data *****
  
```

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SQL Web Connect Registration Monitoring – z/VSE

- On VSE console, enter “LOCK SHOW,PROD*” to show all registrations
- LOCK SHOW,PROD05* to show only CA IDMS Server product registrations
- Product Codes:
 - 1D for CA IDMS SQL option
 - 05 for CA IDMS Server

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SQL Web Connect Registration Monitoring – z/VSE

```
lock show,prod*
BG 0073 IPN388W Warning: Errors occurred during TCP/IP initialization
Q1 0080 CAS9180S - CPU 074D07 REQUIRES AN LMP KEY TO RUN PROD (T4)

AR 0025 LOCKTAB ENTRY
V00070D90 ..... 00070DEC *      Ø* R00070D90
V00070DA0 00000000 D7D9D6C4 F0F5F0F2 C9C4D4E2 *  PROM0502IDMS* R00070DA0
V00070DB0 11800001 05BE3FE0 00070D7C *  Ø @ * R00070DB0
AR 0025 OWNER ELEMENT
V00070DE0 ..... 00000000 *      * R00070DE0
V00070DF0 00500000 00011000 00000000 * & * R00070DF0
AR 0025 LOCKTAB ENTRY
V05BE3E20 05BE3E50 00000000 D7D9D6C4 F1C4F0F2 * ' &  PROM1D2* R00DA4E20
V05BE3E30 C9C4D4E2 11800001 05BE3E00 05BE3E60 *IDMS/ Ø ' -* R00DA4E30
AR 0025 OWNER ELEMENT
V05BE3E50 00000000 00500000 00011000 00000000 * & * R00DA4E50
AR 0015 1I40I READY
```

Server Registration

SQL Registration

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SQL Web Connect Implementation & Usage Tips

- Clients using “Task” level security must bypass security for task RHDCNP3J
- Clients wanting to restrict ODBC/JDBC access to “read-only” mode should apply PTF :
 - RO72650 – 18.5
 - RO72646 – 18.0
 - RO68732 – 17.0
- Registration Usage - See KD TEC1071039

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SQL Web Connect For more Information...

- CA IDMS Manuals:
 - R18.5 Release Notes
 - System Operations Guide
 - SQL Programming Guide
 - Install Guide for z/OS
- New Scenario:
 - “How to use SQL Web Connect”

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Summary

- SQL Web Connect provides a nice way to trial the CA IDMS Server and CA IDMS SQL Option products.
- SQL Web Connect can be used for:
 - prototyping
 - pilot projects
 - application development
 - low-volume application usage
- Available in release 18.5 for both z/OS and z/VSE
- Use Case Video – Luc Hermans' Schema Diagram Tool
 - <https://kozzeLuc.wordpress.com/>

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Questions and Answers