

Consolidated Service Test



CST3Q09 (RSU0909)

Dated: October 8, 2009

Prepared by: CST Team

As part of IBM's commitment to quality and continuous improvement, IBM established the Consolidated Service Test (CST) team consisting of cross product test representatives. CST enhances the way IBM tests and recommends maintenance packages for z/OS software, including the major subsystems. In the past, many of the key product families on the z/OS software stacks had different recommended maintenance strategies, with little or no coordination between them. CST has been put in place to address this issue so that you can obtain and install the recommended PTF service level from the CST Web site for z/OS and their key subsystems consolidated into one package. This means you will receive a tested level of service for all of the following products/tools:

- z/OS
- CICS Transaction Server for z/OS
- CICS Transaction Gateway for z/OS
- DB2 Connect
- DB2 for z/OS
- Geographically Dispersed Parallel Sysplex (GDPS/PPRC)
- IMS
- IRLM
- JAVA
- WebSphere Application Server for z/OS
- WebSphere MQ for z/OS
- IBM DB2 and IMS Tools
- IBM Tivoli OMEGAMON
- z/OS Problem Determination Tools

Note: For a complete list of products/tools and levels tested, please refer to the *What Service was Installed* section.

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We provide these recommendations free of charge to all z/OS customers. Note that CST testing is performed in addition to existing test criteria and does not replace any current Quality Assurance processes performed by other products.



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What is the CST Environment?

<p>2097-E56 (H131)</p>	<p>Microcode at Driver 76D + MCL bundle 28A with CFCC code N10964.0093 (R16 srv lvl 00.34)</p> <ul style="list-style-type: none"> • 10 LPARs running z/OS • 56 general processors shared amongst all 10 LPARs, 6 IFA processors, 6 zIIPs Logical processors per LPAR • 14976M Central Storage for 4 MVS LPARs • 10240M Central Storage for 6 MVS LPARs • 2 CF with 12G storage at CFCC level 16 and 2 dedicated processors each
<p>2084-D32 (G17)</p>	<p>Microcode at Driver 55K + MCL bundle 81 with CFCC code J13481.018 (R14 srv lvl 00.27)</p> <ul style="list-style-type: none"> • 16 LPARs running z/OS, 8 CST images • 26 general processors shared amongst all z/OS LPARs, 6 IFA processors shared among SVT images • 10 Logical shared processors on all LPARs. • 10240M Central Storage for 3 CST MVS LPARs. All are running in z/Architecture mode. • 2 CF with 12G storage at CFCC level 14 and 2 dedicated processors each
<p>2097-E26 (H134)</p>	<p>Microcode at Driver 76D + MCL bundle 28A with CFCC code N10964.009 (R16 srv lvl 00.34)</p> <ul style="list-style-type: none"> • 5 LPARs running z/OS • 10496M Central storage for 3 z/OS LPARs • 2 GDPS control images with 3840MB Central storage running z/OS V1R9
<p>2094-S54 (D32)</p>	<p>Microcode at Driver D67L + MCL bundle 30 with CFCC code G40953.009 (R15 srv lvl 2.05)</p> <ul style="list-style-type: none"> • 10 Logical shared processors on all LPARs. • 10240M Central Storage for 3 CST MVS LPARs.
<p>Automated Tape Library (ATL)</p>	<p>3495</p> <ul style="list-style-type: none"> • Library Manager with OS/2 WARP • 16 3490 tape drives, ESCON-attached • 12 3590 tape drives, ESCON-attached • 4 3592 tape drives, ESCON-attached
<p>Virtual Tape Server (VTS)</p>	<p>3494 V18 VTS</p> <ul style="list-style-type: none"> • AIX with VTS CU • 32 emulated 3490 addresses in this L10 VTS • 6 VTS 3590 drives (not directly accessible from z/OS) • 16 3590 tape drives are accessible from z/OS (FICON)
<p>DASD (2105) 800= 28211, 28355, 28644 800=25924</p>	<p>3 Enterprise Storage Server 800 (Shark). Microcode level is 2.4.4.151 (R2i.8b080215a)</p> <p>1 Enterprise Storage Server 800 (Shark). Microcode level is 2.4.4.167 (R2i.8b090325)</p> <p>3 Enterprise Storage Server DS8000. Microcode level is 64.21.17.0</p>



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<p>DASD (2107/242x) DS8000=2107 25030 (SQ00) DS8000=2421 Y2430 (SQ13) DS8000=2421 Y4360 (SQ14) DS8000=2421 FA820 (SQ18) DS8000=2421 FB240 (SQ19)</p>	<p>(R12r.9b090308b)</p> <p>2 Enterprise Storage Server DS8000 Microcode level is 64.25.5.0 (R12t.9b090410a)</p>
<p>GDPS</p>	<p>Configuration info: in one environment, we simulate two logical sites by using 20K of fiber between the two DWDMs, through which all the cross-site links, including the PPRCs links, are sent. In another environment, we do not have any DWDMs or additional fiber, and the designation of site1 and site2 is purely logical.</p>
<p>Lan attached</p>	<p>Both SNA and TCPIP</p>
<p>Data Sharing Groups</p>	<ul style="list-style-type: none"> • 6-way DB2/CICS • (2) 4-way DB2/CICS • 6-way DB2/WAS • (2) 4-way DB2/WAS • (2) 4-way DB2/WAS via CTG/CICS • 2-way DB2 for system back-up, restore and recovery testing • 6-way CICS/VSAM-RLS and non-RLS • (2) 4-way CICS/VSAM-RLS and non-RLS • (2) 4-way TVS batch setup • 6-way IMS/TM • (2) 4-way IMS/TM • (2) 4-way IMS FastPath • (2) IMS Connect Stress Test using Sysplex Distributor • 6-way IMS/CICS • (2) 4-way IMS/CICS • 6-way WMQ/DB2 using Shared Queues (Note: DB2 used for Administration purposes only) • (2) 4-way WMQ/DB2 using Shared Queues and Clustering (Note: DB2 used for Administration purposes only) • 3-way DB2 Connect Application running DB2 Coexistence mode. Background workloads to exploit CICS CF Servers (Shared Temporary Storage, Coupling Facility Data Tables and Named Counter Server)

NOTES:

- Dedicated (24x7)

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- Enhanced Catalog Sharing (ECS) was enabled (APAR OW51412).



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What Service was Installed:

NOTE: Refer to Appendix A for a list of the excluded maintenance due to unresolved PE fixes.

Product/Tool	Maintenance Level
CICS Transaction Gateway V7.1.01 (z/OS) CICS Transaction Gateway V7.2 (z/OS)	All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.
<ul style="list-style-type: none"> - CICS TS 3.1 - CICS TS 3.2 - CICS TS 4.1 - CICS Interdependency Analyzer for z/OS V2.1 	All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.
<ul style="list-style-type: none"> - DB2 V8 - DB2 V9 	All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.
<ul style="list-style-type: none"> - DB2 Connect V9.7 GA - DB2 Connect V9.5 Fixpack 4 	<p>All validation scenarios use Enterprise Edition for Connect Gateway.</p> <p>DB2 remote clients -> DB2 Connect Gateway -> DB2 for zOS servers DB2 local clients on DB2 Connect Gateway -> DB2 for zOS servers</p> <p>DB2 Connect Gateway uses the following service levels:</p> <ul style="list-style-type: none"> - DB2 Connect 9.7 GA - DB2 Connect 9.5 Fixpack 4 <p>DB2 remote clients include downlevel clients:</p> <ul style="list-style-type: none"> - V9.7 GA, V9.5 Fixpack 4, V9.5 Fixpack 3, V9 Fixpack 7, V8 Fixpack18 clients in the V9.7 GA DB2 Connect Gateway scenarios - V9.7 GA, V9 Fixpack 7, V9.5 Fixpack 3, and V9.5 Fixpack 4 clients in the V9.5 Fixpack 4 DB2 Connect Gateway scenarios <p>DB2 Connect Gateway and clients run on the following distributed platforms:</p> <ul style="list-style-type: none"> - AIX 64bit 5.3 TL9 - zLinux SLES 10 - Windows 2003 32bit Server SP2 - Windows 2003 64bit Server SP2 - Windows 2008 64bit Server <p>Even though we utilized AIX, zLinux, Windows Connect Gateway and clients in our configuration, this report is valid for all other operating systems. For other Operating System pre-requisites, please visit http://www.ibm.com/software/data/db2/9/sysreqs.html</p> <p>DB2 for zOS server releases include V8NFM and V9CM SYSPLEX, V9NFM SYSPLEX.</p> <p>DB2 Connect concentrator, automatic client reroute, workload</p>

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	<p>balance, and sync point manager features were tested in the validation scenarios.</p> <p>Application interfaces include CLI, ADO.NET, JCC type 4, and JCC type 2. The CLI scenarios test DB2 CLI driver on distributed platforms. The ADO.NET scenarios test DB2 .NET data provider with .NET framework 1.1 and 2.0 on Windows. The JCC scenarios test JCC driver and IBM WebSphere Application Server with J2EE applications (EJB, servlet, JSP, JMS) on distributed platforms.</p> <p>XA feature was tested in both ADO.NET and JCC scenarios. The ADO.NET XA scenario used Microsoft Transaction Server as the transaction manager. The JCC XA scenario used IBM WebSphere Application Server 6.1.0.25, 7.0.0.3, and 7.0.0.5 as the transaction manager.</p> <p>DB2 .NET trusted connection feature was tested in the V9.7 GA and V9.5 Fixpack 4 DB2 Connect Gateway -> DB2 for zOS V9.1 scenarios.</p> <p>JCC type 4 trusted connection feature was tested with IBM WebSphere Application Server (6.1.0.25, 7.0.0.3, and 7.0.0.5) in the V9.7 GA and V9.5 Fixpack 4 DB2 Connect Gateway -> DB2 for zOS V9.1 scenarios.</p> <p>JCC type 4 trusted connection feature was tested with IBM WebSphere Application Server 6.1.0.23 in the DB2 Connect Gateway 9.5 Fixpack 4 and DB2 for zOS V9.1 scenario.</p> <p>DB2 z/OS service includes all service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.</p>
<p>z/OS Problem Determination Tools</p> <ul style="list-style-type: none"> - Application Performance Analyzer Version 9 Release 1 - Application Performance Analyzer Version 8 Release 1 - Debug Tool for z/OS Version 9 Release 1 - Debug Tool for z/OS Version 8 Release 1 - Debug Tool Utilities and Advanced Functions for z/OS Version 8 Release 1 - Fault Analyzer for z/OS Version 9 Release 1 - Fault Analyzer for z/OS Version 8 Release 1 - File Manager for z/OS Version 9 Release 1 - File Manager for z/OS Version 8 Release 1 - WebSphere Developer for zSeries Version 7 	<p>All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009, unless a z/OS Problem Determination Tool references a specific PTF number.</p>



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<p>GDPS V3.5 GDPS V3.6</p>	<p>GDPS is a services offering, and it's PTFs do not get marked RSUyymm. However, all GDPS service that was available through the end of June 2009 was installed. The following is the list of PTFs installed this quarter:</p> <p><u>GDPS V3.5</u> UK42904 UK43036 UK43046 UK43180 UK43342 UK43722 UK44211 UK44212 UK44217 UK44276 UK44342 UK44365 UK44367 UK44497 UK44502 UK44577 UK44700 UK44866 UK44913 UK44936 UK44942 UK44992 UK45071 UK45075 UK45279 UK45333 UK45336 UK45683 UK45713 UK45779 UK45815 UK45921 UK46015 UK46428 UK46472 UK46631 UK46639 UK46650 UK46889 UK47093 UK47254 UK47399 UK47430 UK47432 UK47437 UK47440 UK47443 UK47451 UK47516 UK47554 UK47641 UK47670 UK47674 UK47797 UK47860 UK47934 UK48032 UK48042 UK48272 UK48320</p> <p><u>GDPS V3.6</u> UK47438 UK47441 UK47444 UK47517 UK47549 UK47663 UK47714 UK47798 UK47940 UK48034 UK48059 UK48289 UK48352</p>
<p>IBM Tivoli OMEGAMON - IBM Tivoli Monitoring Services on z/OS V6.2.1 - IBM OMEGAMON z/OS Management Console V4.1.0 - IBM Tivoli OMEGAMON XE for CICS on z/OS V4.1.0 - IBM Tivoli OMEGAMON XE for CICS Transaction Gateway on z/OS V4.1.0 - IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V4.2.0 - IBM Tivoli OMEGAMON XE for IMS on z/OS V4.2.0 - IBM Tivoli OMEGAMON XE for Mainframe Networks V4.2.0 - IBM Tivoli OMEGAMON XE for Storage on z/OS V4.2.0 - IBM Tivoli OMEGAMON XE on z/OS V4.2.0</p> <p>- IBM Tivoli Monitoring Services on z/OS V6.1.0 - IBM OMEGAMON z/OS Management Console V1.1.0 - IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0 - IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V4.1.0 - IBM Tivoli OMEGAMON XE for IMS on z/OS V4.1.0 - IBM Tivoli OMEGAMON XE for</p>	<p>All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.</p>

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<p>Mainframe Networks V3.1.0 - IBM Tivoli OMEGAMON XE for Storage on z/OS V4.1.0 - IBM Tivoli OMEGAMON XE on z/OS V4.1.0</p>	
<p>- IMS V9 - IMS V10</p>	<p>All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.</p>
<p>- IRLM 2.1 - IRLM 2.2</p>	<p>All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.</p>
<p>IBM DB2 and IMS Tools</p> <p><u>DB2 Tools:</u> - Administration Tool for z/OS V7.1 and V7.2 - High Performance Unload for z/OS V3.1 - Object Comparison Tool for z/OS V7.1 and V7.2</p> <p><u>IMS Tools:</u> - High Performance Fast Path Utilities 3.2 - High Performance Load V2.1 - High Performance Unload V1.1 - High Performance Image Copy V4.1 - Library Integrity Utility V1.1 - High Performance Pointer Checker V2.1 - High Performance Prefix Resolution V3.1 - IMS Index Builder 2.3 - IMS Performance Analyzer 4.1 - Batch Terminal Simulator 3.1 - IMS HP Fast Path Utilities 2.2</p>	<p>All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.</p>
<p>JAVA 1.4.2, service level SR13 Fixpack 1 (PTF UK49000)</p> <p>IBM 31-bit SDK for z/OS, Java 2 Technology Edition, V5, service level SR 10 (PTF UK48410)</p> <p><u>IBM 64-bit SDK for z/OS, Java 2 Technology Edition, V5,, service level SR 10 (PTF UK48412)</u></p>	<p>All service through the end of August, 2009 not already marked RSU.</p>



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WebSphere Application Server for z/OS - V6.1.0 service level 6.1.0.25 build level cf250922.11 - V7.0.0 service level 7.0.0.6 build level cf060930.09	WAS V6.1.0 - All service through PTF UK47274 WAS V7.0.0 - All service through PTF UK48920
- WebSphere MQ V6 - WebSphere MQ V7	All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.
- z/OS V1R8 - z/OS V1R9 - z/OS V1R10	All service through the end of June 2009 not already marked RSU. PE resolution and HIPER/Security/Integrity/Pervasive PTFs and their associated requisites and supersedes through the end of August 2009.

Roll-out of CST3Q09:

IBM recommends that the Customer stage the roll-out of the quarterly recommended service upgrade (RSU) by product on any single system, and not change all the major products (such as z/OS, DB2, IMS, CICS, CTG, DB2 Connect, GDPS, Java, WebSphere MQ, WebSphere Application Server for z/OS, IBM DB2 and IMS Tools and z/OS Problem Determination Tools) all at once. Changing all the major products in a single system simultaneously complicates the tasks of problem diagnosis and back-out, if a severe problem occurs.

Additionally, IBM recommends that the Customer thoroughly test the maintenance level applied, including testing in a parallel sysplex application data sharing environment.

IBM makes this recommendation based on our testing in the environment described in this report. Your environment and applications are likely to differ in numerous ways. Therefore, your results may be different than ours. The Customer must consider their environment, their maintenance philosophy and their production needs in making the final decision on what maintenance to apply, and how you roll this maintenance out in your environment.

Highlights of CST3Q09

This quarterly CST focused on enhancements to the environment and workloads. This included:

- Additional product(s)
- Additional tool(s)
- Additional product / tool scenarios
- Additional workloads / applications
- Workloads run continuously



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- Service applied, as needed

Some highlights follow:

- CICS

- o (Progress Update) General, high availability application: WAS, CTG, CICS, MQ, DB2 workload implementation has been successfully single stream tested. We are continuing to expand this application.
- o (Add) We have installed and have begun testing of CICS/TS V4.1.

- IBM DB2 and IMS Tools:

- o DB2 Tools:

- (Added) High Performance Unload V2.2 was tested with DBV8
- (Added) High Performance Unload V3.1 was tested with DB2 V8 and V9
- (Added) Administration Tool for z/OS V7.1 was tested with DB2 V8
- (Added) Administration Tool for z/OS V7.2 was tested with DB2 V8 and V9
- (Added) Object Comparison Tool for z/OS V7.1 was tested with DB2 V8
- (Added) Object Comparison Tool for z/OS V7.2 was tested with DB2 V8 and V9

- IBM Tivoli OMEGAMON

- o (Added) We have installed and are testing the following:
 - IBM OMEGAMON z/OS Management Console V1.1.0 and V4.1.0
 - IBM Tivoli Monitoring Services on z/OS V6.1.0 and V6.2.1
 - IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0 and V4.1.0
 - OMEGAMON for CICS
 - OMEGAMON II for CICS (CUA Interface)
 - IBM Tivoli OMEGAMON XE for IMS on z/OS V4.1.0 and V4.2.0
 - OMEGAMON for IMS
 - OMEGAMON II for IMS (CUA Interface)
 - IBM Tivoli OMEGAMON XE for Mainframe Networks V3.1.0 and V4.1.0
 - OMEGAMON II for Mainframe Networks (CUA Interface)
 - IBM Tivoli OMEGAMON XE for Storage on z/OS V4.1.0 and V4.2.0
 - OMEGAMON II for SMS (CUA Interface)
 - IBM Tivoli OMEGAMON XE on z/OS V3.1.0 and V4.1.0
 - OMEGAMON for MVS
 - OMEGAMON II for MVS (CUA Interface)
 - OMEGAMON II for MVS CSA Analyzer
 - OMEGAMON II for MVS Epilog Collector
 - OMEGAMON II for MVS Historical Data Interface
 - OMEGAMON II for MVS Zoom to Epilog
 - IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V4.2.0
 - IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V4.1.0

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- o (Added) We have installed and are testing the following:
 - IBM Tivoli OMEGAMON XE for Messaging on z/OS V7.0.0
 - OMEGAMON XE for WebSphere MQ Monitoring
 - OMEGAMON XE for WebSphere MQ Configuration
 - IBM Tivoli OMEGAMON XE for Messaging on z/OS V6.0.1
 - OMEGAMON XE for WebSphere MQ Monitoring
 - OMEGAMON XE for WebSphere MQ Configuration

- IMS:
 - o (In progress) Install IMS V11 and run IMS V11 - IMS V10 in coexistence mode

- WMQ
 - o (Added) Various stack and listener configurations have been made to handle TCP/IP recycling and validate listeners reconnect to TCP/IP.

- z/OS
 - o (In progress) Set up SMF logstream recording per enhancement introduced with z/OS V1R9
 - o (In progress) Set up full STP (Server Time Protocol) on processors
 - o (In progress) Infiniband between Processors
 - o (In progress) z/OS V1R11 toleration and planning
 - o (Completed) White Paper for IBM z/OS® Regular to Large Volume Migration
This paper discusses the Consolidated Service Test experience in migrating data from various 3390 volumes to larger 3390 volumes. Information is provided on techniques to migrate from a direct access storage device (DASD) with smaller source volumes to an enterprise Storage Server® (ESS) device with Large Volume support and z/OS V1R10 Extended Address Volume Support. You can find the white paper at:

<http://www-03.ibm.com/systems/storage/disk/ess/whitepapers.html>

- z/OS Problem Determination Tools (formerly known as eServer zSeries AD Tools)
 - o (Added) Application Performance Analyzer Version 9 Release 1
 - o (Added) Debug Tool for z/OS Version 9 Release 1
 - o (Added) Fault Analyzer Version 9 Release 1
 - o (Added) File Manager Version 9 Release 1

- CICS, CTG, DB2, IMS, MQ, WAS and z/OS recovery scenarios performed

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Problems Encountered during CST3Q09:

The APARs listed in the table below represent the problems the CST team encountered during the quarterly test; however, if a problem was encountered and corrected for this recommendation, it will not be listed in the table below. The APARs listed below are either open, or their associated PTFs were not yet available for testing in the CST environment prior to this recommendation.

Customers should verify APAR status through normal means.

Note: Consolidated Service Test does not replace the regular service procedure. If a problem is encountered with product code, you should report the problem to IBM support.

DFSMS 190	
OA29200	RLS QUIESCE Hang
DFSMS 110	
OA30085	Recursive ABEND0C4 pic4 reason 00E50054 from CSQJR007 followed by QMGR termination and/or recursive ABEND5C6 reason 00E50050 issued by CSQVSRX
IMS V9	
PK92790	Abend0C1 at location 0 – branch to low core was from DFSFDLG0
WMQ V7.0	
PK85544	Abend0C4 in CSQMTPUV
PK91527	Loop in Channel Initiator
PK92551	Abend0C4 in CSQAPRHX during abnormal termination of the queue-manager
Omegamon XE for Messaging on z/OS V7.0.0	
IZ60167	MQ monitoring agent stopped by itself
Omegamon XE for DB2 V4.2.0	
PK94360	Abend0C2 in KO2OCNTB
WAS V7	
PK96010	This APAR provides a cumulative list of the documentation issues for October 2009



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z/OS V1R8	
OA30424	SRB to task percolation may cause an Abend40D RC28
z/OS V1R10	
OA29654	After *S JSS, JES3 does not start all initiators as defined
OA29406	IXC250I with "PERMANENT ERROR PROCESSING IS CURRENTLY ACTIVE FOR THIS DATA TYPE"

How is the Customer going to obtain and install the CST3Q09 level of service?

Please proceed to the CST website for the steps involved.

The URL is: <http://www.ibm.com/servers/eserver/zseries/zos/servicetst/>

For Questions and Comments

To submit questions or comments regarding Consolidated Service Test or the CST Web site, please use the feedback form on the CST web site (URL is: <http://www.ibm.com/servers/eserver/zseries/zos/servicetst/contact.html>)

Appendix A: Excluded Maintenance

z/OS V1R8

EXCLUDEs (UA46732
UA47067
UA47993
UA46415
UA47879
UA46395
UA46412
UA46641
UA47100
UA47237
UA48215)

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EXCLUDEs (UA46733
UA47068
UA47994)

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UK45079
UA00022
UA46416
UA47375
UA47880
UA48146
UA00028
UA46396
UA46413
UA46642
UA47101
UA47238
UA48216)

z/OS V1R10
EXCLUDE (UA47995)

IMS V910
EXCLUDE (UK45210)

IMS V110
EXCLUDEs (UK44112
UK45319
UK45982
UK46115
UK46919
UK47060
UK47062
UK47604)