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Report of Successful Completion of Qualification Testing

International Business Machines Corporation and Hitachi, Ltd. have successfully completed compatibility and interoperability testing of Hitachi TagmaStore®/SANRISE® series products in the identified IBM System z9 109 and IBM eServer zSeries environments.

IBM and Hitachi hereby confirm testing has been successfully completed for the supported ESCON, FICON, and FCP connectivity.

Servers	System z9 109 (z9-109) at D63J
	IBM eServer zSeries (z800, z900, z990) at D55K
	S/390 G5 and G6 at D26W
Operating Systems	z/OS V1.6 and V1.7
	z/VM V5.2
	Linux on System z (SuSE SLES 8.0 and 9.0) (Red Hat RHEL3)
Extended Functions	PPRC on ESCON and FCP in a non-GDPS environment
	XRC in a non-GDPS environment
	NPIV on FCP
	MIDAW facility support on FICON
Storage Devices	Hitachi TagmaStore series
	Hitachi SANRISE series

More detailed testing results are available from IBM or Hitachi on request.

Limitations:

The following considerations and limitations apply to the tested configurations:

- FCP point-to-point configurations are restricted. This problem is associated with IBM defect H4705 and is still under investigation at this time.
- An initial test of the PPRC and XRC functions was performed. Full (Geographically Dispersed Parallel Sysplex™ (GDPS) qualification is pending from the IBM lab in Montpellier France.

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Test Summaries:

- Hitachi USP-100 and USP-1100 at DKCMain 50.03.99.00/79
- FICON and ESCON from z9-109 and z990 through supported directors/switches and direct connection
- FCP on z9-109, z990, and z900 through supported directors and switches (see note under limitations for direct connections)
- Intermix of FICON and FCP traffic in single switch and cascaded (single hop) configurations
- Limited MIDAW facility testing was completed at IBM. Hitachi has final say for device support.

IBM does not make any representations or warranties of any kind regarding the Hitachi products and is not liable for such products or any claims made regarding such products. The fact that the listed Hitachi products passed the enumerated IBM tests does not imply that the products will operate properly in any particular customer environment.

Hitachi retains sole responsibility for its products, the performance of such products and all claims relating to such products, including without limitation its products' compliance to product specifications, safety requirements, regulatory agencies requirements and industry standards.

The terms ESCON, eServer, FICON, IBM, System z9, z/OS, z/VM, z/VSE, and zSeries are trademarks or registered trademarks of International Business Machines Corporation.

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Attachment A

Test Matrix

Test Case	Successfully Completed Error Free Test Shifts (REFTS)	Test Case Description
System Assurance Kernel (SAK) Testing	✓	SAK is an IBM proprietary test suit which does a range of architectural limit testing. The DASD test programs that were run on ESCON and FICON channels include IFDASD, IDASD0, IDSCAN, IDASDX, and ICTVDR.
z/OS CHNLDRVR	✓	CHNLDRVR is an IBM proprietary DASD test program that runs under z/OS on ESCON and FICON channels.
PPRC	✓	Basic PPRC functions on ESCON and FCP channels were performed in the Poughkeepsie IBM Lab. Further testing is required in Montpellier France for full GDPS XRC support.
XRC	✓	Basic XRC functions were performed in the Poughkeepsie IBM Lab. Further testing is required in Montpellier France for full GDPS XRC support.
MixPlex Configurations	✓	Testing of different MiPlex system configurations. Systems are added and removed from Plex. Various error conditions are invoked to make sure the Plex recovers gracefully.
FCP	✓	FCP testing with the PAWS test to be run with error conditions such as broken cables and ISLs.
VM	✓	IPL and running of associated jobs under the VM operating system.

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