IBM

IBM® GDPS® and Server Time Protocol (STP) Limited Application Qualification support for Ciena CN4200 and CN4200 RS FlexSelect Release 6.0.2 Dense Wavelength Division Multiplexing (DWDM) Platform. This Qualification is limited to the use of Release 6.0.2 for a specific application.   Release 6.0.2 may be used in similar applications upon approval from IBM.

International Business Machines Corporation and Ciena Communications Inc. have successfully completed a limited application qualification testing of the Ciena CN4200 and CN4200 RS FlexSelect Advanced Services Platform running software release level 6.0.2, for the following IBM Parallel Sysplex® and Geographically Dispersed Parallel Sysplex™ (GDPS) IBM System z10, z9 and IBM eServer zSeries 990 and 890 environments:

- GDPS / Peer-to-Peer Remote Copy (PPRC) (Metro Mirror) using the following protocols:
    - ESCON or FICON for Storage Access
    - ESCON or FCP for mirroring
    - ISC-3 for CF messaging
    - Sysplex timer links for synchronization of servers
    - ISC-s Peer Mode with STP messaging for synchronization of servers
- FICON attached DASD.

Distances for the protocols supported for these GDPS applications are defined in the Qualification Results Summary below. Although STP applications may exceed 100km, IBM requires an RPQ (8P2263) to assure applications adhere to the bounds of our qualification. This is due to the critical requirement of assuring that no more than 900m of differential delay was introduced into the network.

Qualification Results Summary:
The Ciena CN4200 and CN4200 RS FlexSelect Dense Wavelength Division Multiplexing (DWDM) Platform met IBM Qualification criteria for Server Time Protocol (STP) in support of the IBM System z10, z9 (z9 EC, z9 BC) and zSeries 990 and 890 (z990, z890) servers and GDPS Application Solution protocols identified above.

CN4200 FlexSelect, Software Release Level 6.0.2

Transport Interface	Description	Part Number	Protocols Supported	Supported Distances
G6S	6-port	B-720-0013-003	ISC-3c ISC-3p (2 G) STP	100 km
F10-A-TN	Tunable 10 G Aggregator	B-720-1087-301	OTU 2 (10 G Aggregator)	100 km
FC4-T	FC or FICON 10 G Muxponder 3 ports 1 port	B-720-0025-236	2, 4 G FC or FICON OTU 2 (10 G)	100 km
DCM	Dispersion Compensation Module units specifically designed for GDPS/STP	166-0103-9xx	-------	-----
WSS-ROADM DWR	Dynamic Wavelength Router Module	166-0005-900	-------	------
VMux-C80 (ROADM)	8-channel VMUX	166-0035-905	-------	------

GDPS Application Limitations:

- IBM GDPS support is limited to DWDM product applications which utilize point-to-point fixed dark fiber network interconnect between sites.

- DWDM end-to-end networks, including DWDM components, transport elements and dark fiber links, must not exceed the equivalent of 900 meters differential delay between transmit and receive paths used for ISC-3 links transporting STP messages.
- Redundant Ciena CN 4200 and 4200 RS platforms, utilizing two site-to-site fiber pairs, are recommended for fiber trunk protection of ETR, Control Link Oscillator (CLO) and ISC-3 Server Time Protocol (STP) message passing protocol links.

Results achieved were in a test environment under laboratory conditions. IBM does not make any representations or warranties regarding Ciena products. Ciena retains sole responsibility for its products, the performance of such products and all claims relating to such products, including without limitation its products' compliance with product specifications, industry standards and safety and other regulatory requirements.

The terms eServer, ESCON, FICON, GDPS, Geographically Dispersed Parallel Sysplex, IBM, Parallel Sysplex, Sysplex Timer, zSeries, and z/OS are trademarks or registered trademarks of International Business Machines Corporation.

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