ManagedEvolution for System z

"Thoughtfully managed System z conditioning with the Prizm FICON Converter"

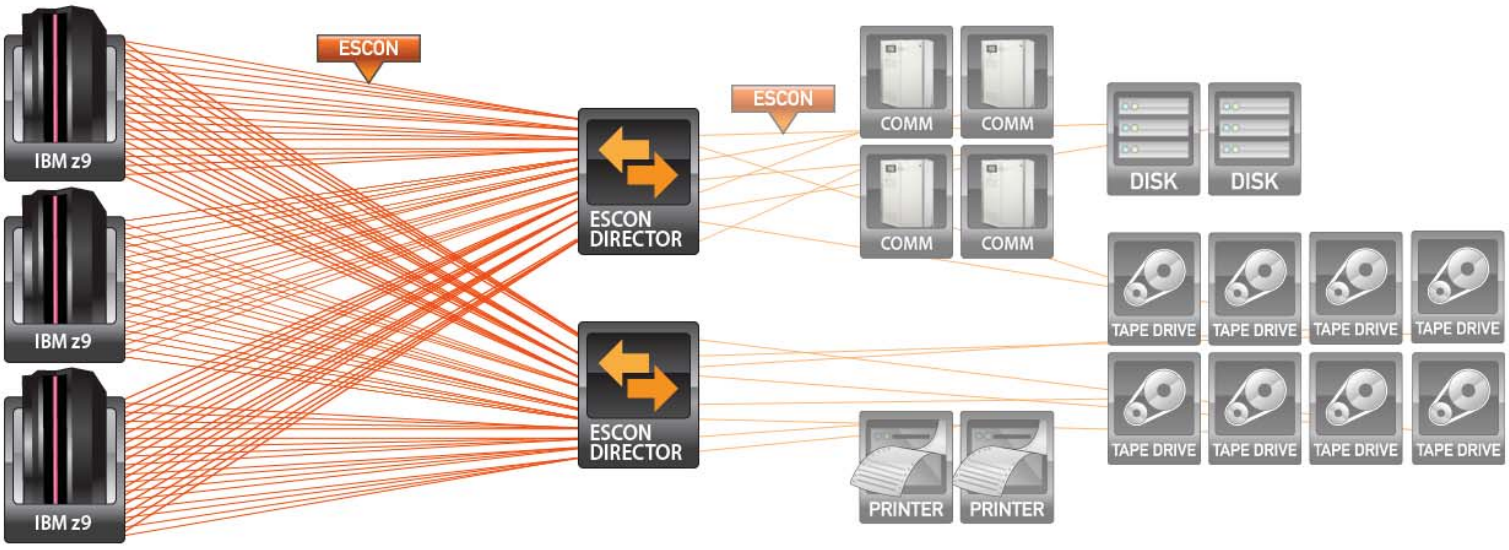
Managed Evolution for System z is a strategic infrastructure based **simplification solution** that aligns with IBM's New Enterprise Data Center and Green Leadership initiatives. The methodology is enabled by Optica's Prizm FICON Converter, which protects investments in ESCON-based and parallel bus & tag-based infrastructures by connecting those mature devices to a unified FICON fabric.

Managed Evolution **conditions and simplifies the System z environment** by facilitating:

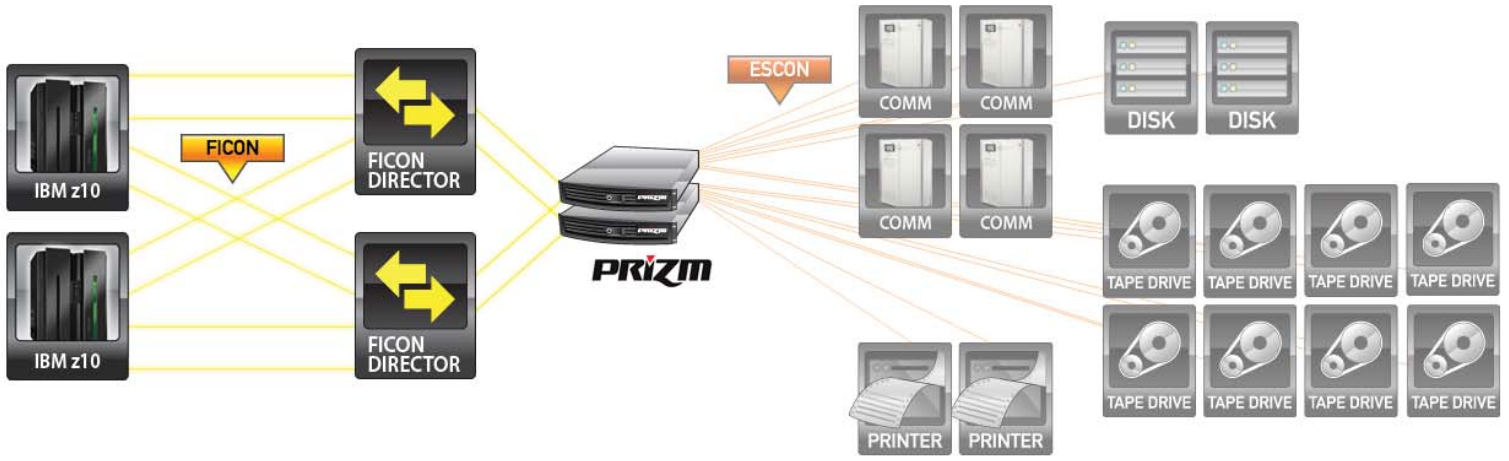
- 100% FICON channel deployment to fully exploit its benefits
- Maximized utilization of FICON channels
- ESCON and parallel bus & tag consolidation
- Simplification of the transition to new System z servers while becoming "new workload ready"
- Support for remote storage applications utilizing FICON's extended distance capabilities
- Replacement of "end of life" ESCON Directors and the FICON bridge cards

Managed Evolution in action! Actual customer example:

"BEFORE" Unconditioned ESCON infrastructure before host channel consolidation



"AFTER" Conditioned System z infrastructure after host channel consolidation



Additional native FICON device attachments not shown

ESCON device pool identical before and after host channel consolidation

Operations

Prizm accepts native FICON channels from the mainframe (CHPID type FC) and converts the protocol to ESCON for connectivity to multiple native ESCON channels (CHPID type CNC). ESCON devices are logically mapped to the FICON channel using a user-accessible configuration table. Prizm supports attachment of the most common ESCON and parallel bus & tag device types.

Prizm units are 19 inch rack mountable and ship standard with sliding mounting rails. A customized 42U server cabinet solution is also available that includes front and rear perforated doors, solid sidewalls, front and rear EIA server rails, power distribution, all power cords, swivel casters and leveling feet.

The Prizm Configuration Data Set (PCDS) utilizes logical path binding and maps FICON logical paths to ESCON logical paths. Prizm is transparent to the HCD/IOCDS.

The Prizm Configuration Toolset offers an auto-configuration tool that reads in IOCDS files. After the user specifies several configuration details (related to number of ports, FICON / ESCON fabric components, etc.) and selects the appropriate LPARS and CHPIDs, the PCDS is automatically created. This auto-configuration tool greatly simplifies the installation process and reduces risk of configuration errors. In addition, a network diagram can be automatically generated that shows real time path status at a glance.

Prizm supports a broad base of multi-vendor ESCON devices including disk, tape, printer, communications controllers and front-end processors. Optica has qualified peripheral devices for Prizm attachment in both laboratory and customer environments from the following vendors: IBM, CISCO, Sun/StorageTek, Memorex, NCR Teradata, Intercom, OCE, and Racal/Thames. Please refer to Optica's "Tested Device List" at www.opticatech.com for specific models/device types.

Bus and Tag Device Support

Adding the ESBT feature to Prizm provides connectivity of parallel bus & tag peripheral devices on native FICON channels (CHPID type FC). The ESBT feature converts native ESCON channels to the parallel bus & tag protocol. Up to four bus & tag devices can be supported behind each ESBT-enabled Prizm ESCON port.

Technical Specifications

Dimensions
- Height: 2U or 8.89 centimeters (3.5 inches)
- Width: 42.95 centimeters (16.93 inches)
- Depth: 67.18 centimeters (26.45 inches) (minimum cabinet depth required is 34 inches)
- Weight: Approximately 25 Kilograms (55 Pounds)

Components
- Intel server platform, Linux operating system
- Standard 2U server enclosure, installs in standard 19 inch cabinet with supplied "no tool" sliding rails
- ESCON Interface: 4 port ESCON board with MTRJ connectors
- FICON interface: LX or SX single port, 1 or 2 gig support (auto-sensing), LC duplex connectors

Configurations and Firmware Updates
- PRIZM can be ordered in a 1:4, 2:8 or 2:12 format.
- Firmware can be updated via functions provided from the Prizm GUI which are accessible via a standard web browser.

Power and Cooling
- Four 60mm fans in tool-less fan module - fans provide cooling for the processors, hard drives, and interface cards
- Electrostatic Discharge, 15kV air discharge and 8kV direct contact
- Dual, redundant hot swappable power supplies
  - 110V = 2.0 amps total
  - 220V = 1.0 amp total
  (current load is balanced across 2 inputs)
- Two 40mm cooling fans per power supply module
- Dual redundant DC Power Supplies, 700W PFC hot-swap power modules, 110/220 VAC, 50/60 Hz auto-sensing
- Unit ships with two power cords; country and voltage specific options available

Environment
- Operating: 5 to 30 C or 41 to 86 F; reduced 0.5 C for every 1000 ft (305 m) to a maximum of 10,000ft.
- Relative Humidity Non-operating: 90% @ 30OC Non-condensing
- Acoustics 5.7 Bels actual

Management
- Configuration management including user-defined, multi-level password access and IP network configuration is provided from PRIZM GUI that is accessed via a standard web browser
- SNMP Support

Serviceability
- Dual, redundant hot swappable power supply modules
- E-mail service alerts via SMTP
- Diagnostics including error logging
- Ethernet and dial-in access are available for remote or local service; available services include HTTP, Telnet and FTP
- Multiple levels of security to enable only authorized users to perform service

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