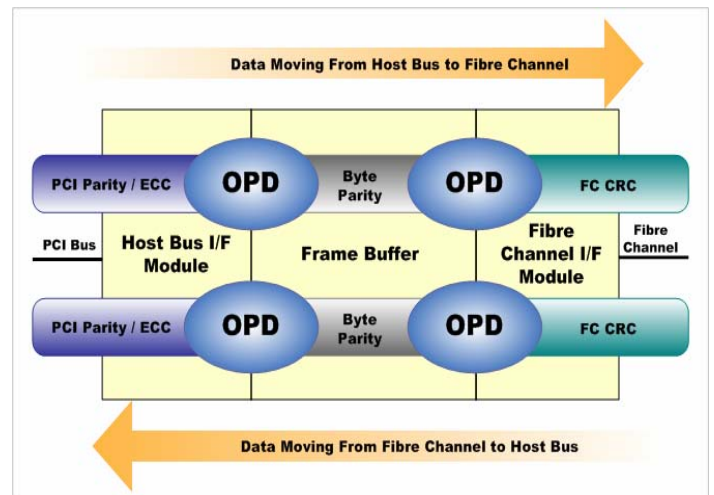


Overlapping Protection Domains

Industry Challenge

Maintaining the highest level of data integrity is a challenge faced by enterprise IT managers. Providing accurate data in a timely manner gives business operations a competitive edge over their competition. In a Storage Area Network (SAN) infrastructure, Fibre Channel (FC) HBAs provide critical data protection as data travels between the storage devices and the servers. To provide the highest level of data protection, IT professionals need FC HBAs that provide continuous data protection at all times.



QLogic's OPD Solution

Overlapping Protection Domains (OPD) is QLogic's unique implementation within the FC controller (ASIC) that offers the highest level of data protection. OPD generates a new check (parity or ECC) before stripping out the old check. The new check ensures that at all times data remains protected as it traverses through the FC controller.

How QLogic's OPD Works

Data received from the host bus is protected by host-bus parity or ECC. Before data is put into the frame buffer, frame buffer byte parity is calculated on the data. Then host-bus parity/ECC is checked; if its integrity is verified, it is stripped. With OPD, frame buffer parity protects the data. Similarly, when data is put on the FC interface, FC CRC is calculated on the data. The data is checked against the frame buffer parity; if its integrity is verified, it is stripped.

User Benefits

- **Highest Reliability** by ensuring that data is never unprotected, even for the smallest fraction of time
- Data protection that is above and beyond the end-to-end data-protection offered by T10 CRC, which is part of all QLogic 4Gb ASICs and HBAs