

ZebOS®
Advanced Routing Suite

Layer 2 Advanced Switching & VLAN Software for the Broadcom StrataXGS Switch Development Kit

The ZebOS® Layer 2 (L2) Advanced Switching & VLAN software is a family of Ethernet bridging, Spanning Tree, Multicast, and VLAN packages that provide advanced L2 functionality for vendors building routing and switching equipment. IP Infusion has integrated and optimized its ZebOS L2 switching software on the Broadcom StrataXGS™ Switch Development Kit. Using Broadcom's switch development kit and the ZebOS L2 switching and VLAN software, original device manufacturers (ODMs) and original equipment manufacturers (OEMs) can rapidly bring full Ethernet switching solutions to market without the costly software and hardware development normally associated with complex device development.

The ZebOS integration with the Broadcom StrataXGS™ includes an advanced interface manager that provides logical views of Broadcom ports so that they can be managed and configured from the control plane through the ZebOS Integrated Management Interface (IMI). This simplifies systems management and provides a uniform mechanism for all of the L2 protocols to view the interfaces. In addition, ZebOS contains a packet driver that provides a logical pipe between the control and data planes for exception packet processing.

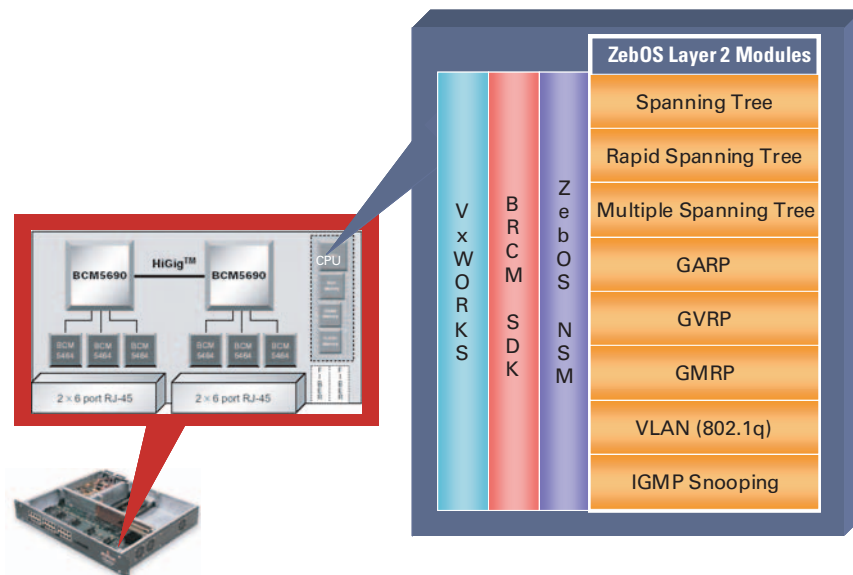


Figure 1 Broadcom StrataXGS ZebOS Layer 2 Advanced Switching & VLAN software Integrated with Broadcom StrataXGS

Advanced Layer 2 Feature Set

- Extensive Spanning Tree Protocol Features
 - Spanning Tree
 - Rapid Spanning Tree
 - Multiple Spanning Tree
- Mac Bridging
- VLAN Tagging 802.1q
- Generic Attribute Registration Protocol (GARP)
- GARP VLAN Registration Protocol (GVRP)
- GARP Multicast Registration Protocol (GMRP)
- IGMP Snooping

The ZebOS L2 software has been integrated and optimized for the Broadcom StrataXGS™ switch development platform using Broadcom's BCM application programming interface (API).

Supported BCM APIs

- Initialization
- Error Codes
- Address MUX
- CoS Queue Management
- Filter Management
- Layer 2 Address Management
- Mirroring
- Packet Transmission
- Packet Reception (PMUX)
- Port Control & Status
- Link Scanning
- Rate Limiting
- Statistics
- VLAN Management
- IP Multicast

Requirements

SKU	PRODUCT NAME
ZOS-NSM	ZebOS Network Services Module

Supported Operating Systems

- VxWorks®

Supported Platform

- Broadcom StrataXGS™ 5690

Standards Supported

STANDARD	FUNCTION
IEEE 802.1d Bridging	Standard for Local Area Network MAC Bridges
Spanning Tree	Spanning Tree Algorithm and Bridging Protocol
IEEE 802.1q VLAN Bridging	Virtual Local Area Network (VLAN) Bridging
IEEE 802.1w Rapid STP	Rapid Spanning Tree Protocol Support
IEEE 802.1s Multiple STP	Multiple Spanning Tree Protocol Support
IEEE 802.3x	Flow Control
GARP	Generic Attribute Registration Protocol
GVRP	GARP VLAN Registration Protocol
GMRP	GARP Multicast Registration Protocol
ADVANCED LAYER 2 FUNCTION	
IGMP Snooping	
Broadcast Storm Recovery	
Port Mirroring	

Standard Deliverables

- Source Code (written in ANSI compliant C)
- Installation and Configuration Guides
- Command References



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Part No. 0181001-04/2004