ZebOS-XP®
Network Platform

Version 1.4
Extended Performance

Edge Virtual Bridging
Configuration Guide

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Preface

This guide describes how to configure Edge Virtual Bridging (EVB) in ZebOS-XP.

Audience

This guide is intended for network administrators and other engineering professionals who configure EVB.

Conventions

Table P-1 shows the conventions used in this guide.

Table P-1: Conventions

Convention	Description
Italics	Emphasized terms; titles of books
Note:	Special instructions, suggestions, or warnings
`monospaced type`	Code elements such as commands, functions, parameters, files, and directories

Contents

This guide contains this chapter:

- Chapter 1, *Configuring EVB*

Related Documents

Use this guide with these command references for details about the commands used in the configurations.

- *Edge Virtual Bridging Command Reference*
- *Network Services Module Command Reference*

Note: All ZebOS-XP technical manuals are available to licensed customers at http://www.ipinfusion.com/support/document_list.

Chapter Organization

The chapters in this guide are organized into these major sections:

- An overview that explains a configuration in words

- Topology with a diagram that shows the devices and connections used in the configuration
- Configuration steps in a table for each device where the left-hand side shows the commands you enter and the right-hand side explains the actions that the commands perform
- Validation which shows commands and their output that verify the configuration

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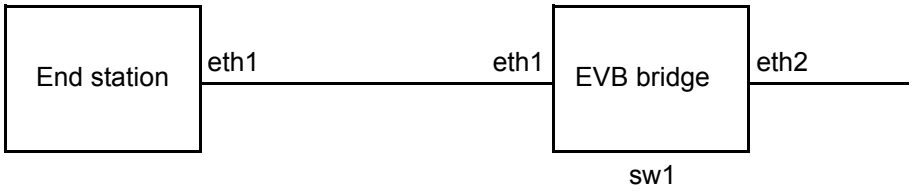
CHAPTER 1 Configuring EVB

This chapter shows how to configure Edge Virtual Bridging (EVB).

EVB as defined by IEEE 802.1Qbg specifies the interaction between virtual switching environments in a hypervisor and the first layer of the physical switching infrastructure. EVB is also referred to as VEPA (Virtual Ethernet Port Aggregation).

Topology

In this topology, the end station is a virtual machine and sw1 is an EVB bridge (layer 2 switch).



sw1

`sw1#configure terminal`	Enter configure mode
`sw1(config)#bridge 1 protocol evb`	Configure EVB bridge protocol
`sw1(config)#vlan database`	Configure VLAN database
`sw1(config-vlan)#vlan 10 type service multipoint-multipoint bridge 1 state enable`	Configure service VLAN 10 and associate with bridge 1
`sw1(config-vlan)#exit`	Exit VLAN mode
`sw1(config)#int eth1`	Enter interface mode
`sw1(config-if)#switchport`	Configure switchport and switch to Layer 2 mode
`sw1(config-if)#bridge-group 1`	Enable bridge group 1
`sw1(config-if)#switchport mode sbp`	Configure switchport mode as SBP for EVB bridge
`sw1(config-if)#evb cdcp enable`	Enable CDCP on interface
`sw1(config-if)evb reflective-relay enable`	Enable reflective relay on the interface
`sw1(config)#set lldp enable txrx`	Enable LLDP
`sw1(config-if)#lldp tlv ieee-8021-org-specific`	Specify LLDP TLV
`sw1(config-if)#exit`	Exit interface mode
`sw1(config)#evb bridge 1 tlv-mode auto`	Configure TLV mode as automatic
`sw1(config)#evb bridge 1 ecp-acktimer 20`	Configure the acknowledgement time
`sw1(config)#evb bridge 1 ecp-max-retry 7`	Configure the maximum number of retries

`sw1(config)#evb bridge 1 vdp-keep-alive 31`	Configure VDP keep-alive time
`sw1(config)#evb bridge 1 resource-wait-delay 31`	Configure resource-wait-delay time
`sw1(config)#evb bridge 1 cdcp channel-capacity 167`	Specify the channel capacity
`sw1(config)#evb bridge 1 cdcp svid-pool-range 2 4094`	Specify the SVID pool range
`sw1(config)#exit`	Exit configure mode

Validation

```
sw1#show evb-bridge 1


                        BRIDGE PARAMETERS FOR EVB
Admin Configuration:
acktimer  max_retry   Resource    Resource   Channel    Svid Pool    TLV
                    Wait Delay  Keep Alive   Cap         Range      Mode
================================================================================
 20         7           31           31        167         2 - 4094  Manual

Operational Configuration:
acktimer  max_retry   Resource    Resource   Channel    Svid Pool    TLV
                    Wait Delay  Keep Alive   Cap         Range      Mode
================================================================================
 20         7           31           31        167         2 - 4094  Manual

sw1#show evb interface eth1
Interface: eth1

Admin Configuration:
acktimer  max_retry   Resource    Resource   Channel    Svid Pool    TLV    Reflective   CDCP
                    Wait Delay  Keep Alive   Cap         Range      Mode     Relay
================================================================================================
 20         7           31           31        167         2 - 4094  Manual   Enable      Enable

Operational Configuration:
acktimer  max_retry   Resource    Resource   Channel    Svid Pool    TLV    Reflective   CDCP
                    Wait Delay  Keep Alive   Cap         Range      Mode     Relay
================================================================================================
 20         7           31           31        167         2 - 4094  Manual   Enable      Enable
```

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