

# Embedded Packet Velocity (ePVA) Acceleration Table

**Platform:** VIPRION® B2100/B2200 Series Blades

**Versions:** 10.2.3 – 12.1.0+

**Updated:** 1 April 2016

## ePVA Feature table

Unlike with ASIC-based PVA, ePVA supports only an “assist” mode of acceleration, as all flow acceleration decisions are made by software.

In this table, the software/firmware version indicates whether hardware acceleration is supported for the specific configuration/features, and “none” indicates that the hardware acceleration is unavailable.

Feature	Sub-Feature	First Software Version	First Firmware Version	Notes
Load Balancing Modes	Round-Robin	v10.2.3	v1.0	
	Ratio Member	v10.2.3	v1.0	
	Least Connection Member	v10.2.3	v1.0	
	Observed Member	v10.2.3	v1.0	
	v10.2.3	v10.2.3	v1.0	
	Ratio Node Address	v10.2.3	v1.0	
	Least Connection Node Address	v10.2.3	v1.0	
	v10.2.3	v10.2.3	v1.0	
	Observed Node Address	v10.2.3	v1.0	
	Predictive Node Address	v10.2.3	v1.0	
	Dynamic Ratio	v10.2.3	v1.0	
	Fastest	v10.2.3	v1.0	
FastL4 Profile	Reset on timeout	v10.2.3*	v1.0*	* Resets Server-side only.
	Reassemble IP fragments	None*	None	* Demotes to software on receipt of valid first fragment.
	Idle timeout	v10.2.3	v1.0	
UDP Profile		v11.5.0	v1.9	
TCP Profile		None	None	
HTTP Profile		None	None	
SSL Profile		None	None	
Non FastL4 Profiles		None	None	
TCP	SACK option	v10.2.3	v1.4	

Feature	Sub-Feature	First Software Version	First Firmware Version	Notes
	TS option	v10.2.3	v1.4	
	Other options	v10.2.3*	v1.0*	* Other options are transparent.
SNAT	General	v10.2.3	v1.0	
	Wildcard Orig. Address (default SNAT)	v10.2.3	v1.0	
	Network Origin Address	v10.2.3	v1.0	
	VLAN SNAT origination	v10.2.3	v1.0	
	Specific SNAT origination	v10.2.3	v1.0	
	Rules		v10.2.3*	v1.0
Simple Persistence		v10.2.3	v1.0	
SSL persistence		None	None	
Other persistence		v10.2.3	v1.0	
IPv4	Other extension headers	None	None	Under ePVA/IPv4, unsupported TCP options pass transparently.
	With Destination or Hop-by-Hop extension header	v11.6.0	V2.3	
IPv6	Other extension headers	None	None	Support for transparent passing of other extension headers, starting in v12.0.0.
Connection Mirroring	FastL4	v10.2.3	v1.0	
	Non FastL4 Profiles	None	None	
Packet Filtering	filter_established = TRUE, pf rule exists	None	None	
	filter_established = FALSE, pf rule exists	None	None	
Rate Limit Filter		None	None	All traffic shaping is unsupported.
Hardware SYN cookies		v11.3.0	v1.7.0	Supports virtual servers with FastL4 and TCP profiles; hardware SYN cookies are not supported when mirroring virtual server traffic.
Virtual Servers	Clone pool	v10.2.3	v1.0	
	Connection Limit	v10.2.3	v1.0	
	IP Forwarding	v10.2.3	v1.0	
	Address Translation	v10.2.3	v1.0	
	Port Translation	v10.2.3	v1.0	
	SNAT Pool	v10.2.3	v1.0	
	Protocol = TCP	v10.2.3	v1.0	
	Protocol = UDP	v11.4.1	v1.9	
	Protocol = Other	None	None	
	Protocol = All Protocols	v10.2.3	v1.0	

Feature	Sub-Feature	First Software Version	First Firmware Version	Notes
	Protocol = FIXLL	v12.1.0	v1.30	No IPv6; only on 10000/12000 Series platforms.
	Protocol = DNS	v12.0.0	v2.40	
	Service Port = All Ports	v10.2.3	v1.0	
	FTP Data Support	v10.2.3	v1.0	
	Wildcard Virtual	v10.2.3	v1.0	
	VLAN allow/deny Lists	v10.2.3	v1.0	
	Pool member > 1	None	None	
	Inbound pool member monitoring	None	None	
	Lasthop Pools	None*	None	* Initially no support; supports offloading when there is a single pool member.
RTSP	Data Channel	v11.5.0*	v1.9.0*	* Supported by UDP transport protocol.
	Control Channel	v10.2.3	v1.0	
Vlangroups	Opaque	None*	None*	* Demotes all virtual servers.
	Translucent	None*	None*	* Demotes all virtual servers.
	Transparent	None*	None*	* Demotes all virtual servers.
NAT		v10.2.3	v1.0	Quietly demotes NAT connections to Assist.
Pools	min_up_members	v10.2.3	v1.0	
	min_active_members	v10.2.3	v1.0	
	Allow SNAT/NAT = No	v10.2.3	v1.0	
	IP ToS or Link QoS	None	None	
	0 "up" members	v10.2.3	v1.0	
	Shared nodes	v10.2.3	v1.0	
	Connection Limits	v10.2.3	v1.0	
Action on Pool members Down	Reselect	None	None	
	Drop	None	None	
	Reject	None	None	
	None	v10.2.3	v10.2.3	
VLAN	Mac Masquerade	v10.2.3	v1.0	
	QinQ VLAN traffic	None	None	
System	Auto Last Hop (disabled)	None	None	Disables hardware SYN cookies.
	Jumbo frames	v11.3.0	v1.7.0	
	Hardware DNS acceleration	v12.0.0	v2.40	
	Real time reoffloading	v10.2.3	v1.0	
	Dynamic offloading	v11.5.1	v1.0	
Nodes	Connection Limits	v10.2.3	v1.0	

Feature	Sub-Feature	First Software Version	First Firmware Version	Notes
PEM		v11.4.1	v1.8	When policy enforcement is completed, flows go to hardware.
FIX	FIX ePVA acceleration	v11.6.0	v1.3	When a decision is made, goes to hardware.
	Advanced dedicated latency FIX acceleration	v12.1.0	v1.3	
VCMP		v11.1.0	v1.5	Supports ePVA hardware acceleration; does not support virtual-based DOS; does not support DNS hardware acceleration.
DNS acceleration	DNS response acceleration	v12.0.0	v2.40	
	DNS protocol DDOS protection	v12.0.0	v2.40	
DDOS	Basic DOS vectors	v11.4.1	v1.8	Supports basic EPVA DDOS vectors (32 vector/64/80 DOS vector).
	Enhanced DOS vectors	v11.5.0	v2.0	
	Per Virtual and global scope based EPVA DOS	v12.0.0	v3.0	Supports ePVA white list black list, gray list, and ePVA-based DOS vector.