Packet Velocity ASIC (PVA) Acceleration Table

Versions: 10.0.0 – 11.1.0
Updated: 2/21/13

As Seen ->		In Virtual Server UI			In Packet Path			Notes
Feature	**Sub-Feature**	**PVA1**	**PVA2**	**PVA10**	**PVA1**	**PVA2**	**PVA10**	
Load Balancing Modes	Round-Robin	Full	Full	Full	Full	Full	Full	
	Ratio Member	Full	Full	Full	Full	Full	Full	
	Least Connection Member	Assist	Assist	Assist	Assist	Assist	Assist	
	Observed Member	Assist	Assist	Assist	Assist	Assist	Assist	
	Predictive Member	Assist	Assist	Assist	Assist	Assist	Assist	
	Ratio Node Address	Assist	Assist	Assist	Assist	Assist	Assist	
	Least Connection Node Address	Assist	Assist	Assist	Assist	Assist	Assist	
	Fastest Node Address	Full	Full	Full	Full	Full	Full	
	Observed Node Address	Assist	Assist	Assist	Assist	Assist	Assist	
	Predictive Node Address	Assist	Assist	Assist	Assist	Assist	Assist	
	Dynamic Ratio	Assist	Assist	Assist	Assist	Assist	Assist	
	Fastest	None	None	None	None	None	None	
FastL4 Profile	reset on timeout	Full*	Full	Full	Full*	Full	Full	* Resets Server side only
	reassemble IP fragments	None*	None	None	None	None	None	*Will demote to software on receipt of valid first fragment
	idle timeout	Assist	Full	Full	Assist	Full	Full	
UDP Profile		None	None	None	None	None	None	
TCP Profile		None	None	None	None	None	None	
HTTP Profile		None	None	None	None	None	None	
SSL Profile		None	None	None	None	None	None	
Non FastL4 Profiles		None	None	None	None	None	None	

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SNAT	General	Assist	Assist	Assist	Assist	Assist	Assist	
	Wildcard Orig. Address (default SNAT)	Assist	Assist	Assist	Assist	Assist	Assist	
	Network Origin Address	Full*	Full*	Full	Assist	Assist	Assist	* up to 16 Virtual + SNAT Network addresses, then Assist
	VLAN SNAT origination	Assist	Assist	Assist	Assist	Assist	Assist	
	Specific SNAT origination	Full	Full	Full	Assist	Assist	Assist	
Rules		Assist	Assist	Assist	Assist	Assist	Assist	
Simple Persistence		Assist	Assist	Assist	Assist	Assist	Assist	
SSL persistence		None	None	None	None	None	None	Requires TCP profile
Other persistence		Assist	Assist	Assist	Assist	Assist	Assist	
IPv6		None	None	None	None	None	None	
Connection Mirroring	FastL4	None	None	Assist	None	None	Assist	
	Non FastL4 Profiles	None	None	None	None	None	None	
Packet Filtering	filter_established = TRUE, pf rule exists	None	None	None	None	None	None	
	filter_established = FALSE, pf rule exists	Assist	Assist	Assist	Assist	Assist	Assist	First packet in flow handled by TMM, and the remainder handled by PVA
Rate Limit Filter		None	None	None	None	None	None	Demotes all virtual servers if any rate limit filter is present.
SYN cookies		Full	Full	Full	Full	Full	Full	
Virtual Servers	Clone pool	None	None	None	None	None	None	
	Connection Limit	Full	Full	Full	Full	Full	Full	
	IP Forwarding	Assist	Assist	Assist	Assist	Assist	Assist	
	Address Translation	Full	Full	Full	Full	Full	Full	
	Port Translation	Full	Full	Full	Full	Full	Full	

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	SNAT Pool	Assist	Assist	Assist	Assist	Assist	Assist	
	Protocol = TCP	Full	Full	Full	Full	Full	Full	
	Protocol = UDP	Assist	Assist	Assist	Assist	Assist	Assist	
	Protocol = Other	None	None	None	None	None	None	
	Protocol = All Protocols	Full	Full	Full	Full	Full	Full	
	Service Port = All Ports	Assist	Assist	Assist	Assist	Assist	Assist	
	FTP Data Support	Assist	Assist	Assist	Assist	Assist	Assist	
	Wildcard Virtual with mask < /32	Full*	Full*	Full	Full*	Full*	Full	* Maximum 16 network SNATS + Virtual Servers, then demoted to Assist.
	VLAN allow/deny Lists	Assist*	Assist*	Full (up to 8 lists, then Assist*)	Assist*	Assist*	Full (up to 8 lists, then Assist*)	* Demotes all virtual servers to Assist. NOTE: vlangroup on list will demote for Columbia
	Lasthop Pools	None	None	None	None	None	None	
RTSP	Data Channel	None	None	None	None	None	None	
	Control Channel	None	None	None	None	None	None	
Vlangroups	Opaque	None*	None*	Assist	None*	None*	Assist	* Demotes all virtual servers
	Translucent	None*	None*	Assist	None*	None*	Assist	* Demotes all virtual servers
	Transparent	None*	None*	Assist	None*	None*	Assist	* Demotes all virtual servers
NAT		Full	Full	Full	Assist	Assist	Assist	Quietly demotes NAT connections to Assist
Pools	min_up_members	Full	Full	Full	Full	Full	Full	
	min_active_members	Full	Full	Full	Full	Full	Full	

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	Allow SNAT/NAT = No	Full	Full	Full	Full	Full	Full	
	IP TOS or Link QOS	Assist	Assist	Assist	Assist	Assist	Assist	
	0 “up” members	Assist	Assist	Assist	Assist	Assist	Assist	
	Shared nodes	Assist	Assist	Assist	Assist	Assist	Assist	PVA acceleration status will be demoted to assist for virtual servers that reference a pool with nodes that are shared across other pools, or two or more virtual servers that reference the same pool. Refer to SOL7834 for details.
	Connection Limits	Assist	Assist	Assist	Assist	Assist	Assist	
Action on Pool members Down	Reselect	None	None	None	None	None	None	
	drop	None	None	None	None	None	None	
	reject	None	None	None	None	None	None	
	none	Full	Full	Full	Full	Full	Full	
Vlan	Mac Masqerade	Assist	Full	Full	Assist	Full	Full	
System	Auto Last Hop (disabled)	None	None	None	None	None	None	Demotes all virtual servers to none when Auto Last Hop is disabled. Since the PVA does not perform IP routing tasks, when auto last hop is disabled, all traffic must be passed to software so that TMM can find next hop from next hop pool.
Nodes	Connection Limits	Assist	Assist	Assist	Assist	Assist	Assist	