Chapter-45

BFD

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45.1 BFD Overview

Bidirectional Forwarding Detection (BFD) periodically checks the status of the peers of a session and notifies a routing protocol of a fault if any immediately. Then the routing protocol responds with a fast reroute action. Generally, the BFD interval is shorter than 1s and therefore the convergence time of routing protocols is reduced. For this reason, BFD can help routing protocols such as OSPF, RIP, and BGP to detect the reachability of neighbors or link failures, which realizes fast reroute and ensures link reliability.

45.2 Configure BFD

45.2.1 BFD Configuration List

Configuration Task	Description	Detailed Configuration
Enable BFD	Required	45.2.2
Configure BFD Parameters and Mode	Optional	45.2.3
Display and Maintain BFD Configurations	Optional	45.2.4

45.2.2 Enable BFD

Operation	Command	Remarks
Enter the global configuration mode	**system-view**	
Enable bfd function	**bfd enable**	
Disable bfd function	**bfd disable**	
Enter the VLAN-interface or Supervlan-interface configuration	**interface** { vlan-interface | supervlan-interface } *vlan-id*	

mode		
Enable bfd function	**ip ospf bfd**	
Disable bfd function	**undo ip ospf bfd**	OSPF BFD is disabled by default. Currently, only OSPF BFD is supported.

45.2.3 Configure BFD Parameters and Mode

Operation	Command	Remarks
Enter the global configuration mode	**system-view**	
Enter the VLAN-interface or Supervlan-interface configuration mode	**interface** { vlan-interface | supervlan-interface } *vlan-id*	
Configures the desired minimum transmission interval of BFD.	**bfd min-transmit-interval** *interval*	
Restores the desired minimum	**undo bfd min-transmit-interval**	The default value

transmission interval of BFD to the default value.		is 400 ms.
Configures the minimum request receiving interval of BFD.	**bfd min-receive-interval** *interval*	
Restores the minimum request receiving interval of BFD to the default value.	**undo bfd min-receive-interval**	The default value is 400 ms.
Configures the BFD multiplier.	**bfd detect-multiplier** *value*	
Restores the BFD multiplier to the default value.	**undo bfd detect-multiplier**	
Configures whether BFD sessions can enter the demand mode.	**bfd demand on**	
Restores the configuration of whether BFD sessions can enter the demand mode to the default value.	**bfd demand off**	The default value is off (not allowed).
Configures the initial mode of BFD sessions.	**bfd session init-mode active**	The default value is active.
Restores the initial mode of BFD sessions to the default value.	**bfd session init-mode passive**	
Clears the statistics of the sent and received packets in BFD sessions	**clear bfd session statistics**	
through an interface.		

Notes:

value: desired minimum packet transmission interval of an interface. It ranges from 200 to 1000 ms and is 400 ms by default.

Packet transmission interval = max(Desired minimum transmission interval, Minimum receiving interval) x a percentage (from 70% to 90%)

45.2.4 Display and Maintain BFD Configurations

Operation	Command	Remarks
Views the information of all the BFD sessions.	**display bfd session** [verbose]	
Views the BFD configuration of each interface.	**display bfd interface** [verbose]	