

## vPC Consistency Checks:

There are 2 types of vPC Consistency Checks and 2 types of configuration parameters – Type 1 and Type 2. If Type 2 parameters mismatch both switches continue to operate normally, however, some traffic will be forwarded not optimally. With Type 1 settings mismatch, the secondary switch stops forwarding traffic for VPC enabled VLANs. **Type 1 and Type 2 consistency check apply both for global configuration and for vPC interface configuration.**

### Type 1 vPC Consistency Check:

Type 1 vPC Consistency check puts peer device or interface into a suspended state to prevent invalid packet forwarding behavior. With vPC Graceful Consistency check, suspension occurs only on the secondary peer device. Type 1 Consistency checks, must be identical of both devices. Per-interface inconsistent parameters – vPC member ports on secondary peer set to down state.

### Type 2 vPC Consistency Check:

Type 2 vPC Consistency check peer device or Interface still forward traffic. However, they are subject to undesired packet forwarding behavior. When Type 2 parameters exist, a configuration mismatch generates a warning syslog message.

### How it works:

After you enable the vPC feature and configure the vPC peer-link on both peer devices, Cisco Fabric Services messages provide a copy of the configuration on the local vPC peer device to the remote vPC peer device. The system then determines whether any of the crucial configuration parameters differ on the two devices. Many global configuration parameters must be identical as well as vPC interfaces parameters in the same vPC domain. The devices automatically check for compatibility. The per-interface parameters must be consistent per interface, and the global parameters must be consistent globally.

When Type 1 inconsistency check is detected, the following actions are taken:

For global configuration type 1 inconsistency check, all vPC member ports are set to down state. For vPC interface configuration type 1 inconsistency check, the misconfigured vPC is set to down state. `show vpc consistency-parameters global` command displays global type 1 consistency parameters. `show vpc consistency-parameters interface port-channel <id>` command displays per vPC interface type 1 consistency parameters.

When Type 2 inconsistency check is detected, for global configuration type 2 inconsistency check, all vPC member ports remain in upstate and vPC systems trigger protective actions. For vPC interface configuration type 2 inconsistency check, the misconfigured vPC remains in up state. vPC systems will trigger protective actions.

NX-1(config)# show vpc consistency-parameters global

Legend:

Type 1 : vPC will be suspended in case of mismatch

Name	Type	Local Value	Peer Value
STP MST Simulate PVST	1	Enabled	Enabled
STP Port Type, Edge BPDUGuard	1	Normal, Disabled, Disabled	Normal, Disabled, Disabled
STP MST Region Name	1	""	""
STP Disabled	1	None	None
STP Mode	1	Rapid-PVST	Rapid-PVST
STP Bridge Assurance	1	Enabled	Enabled
STP Loopguard	1	Disabled	Disabled
STP MST Region Instance to VLAN Mapping	1		
STP MST Region Revision	1	0	0
Xconnect Vlans	1		
QoS (Cos)	2	([0-7], [], [], [], [], [], [], [])	([0-7], [], [], [], [], [], [], [])
Network QoS (MTU)	2	(1500, 1500, 1500, 1500, 0, 0, 0, 0)	(1500, 1500, 1500, 1500, 0, 0, 0, 0)
Network QoS (Pause: T->Enabled, F->Disabled)	2	(F, F, F, F, F, F, F, F)	(F, F, F, F, F, F, F, F)
Input Queuing (Bandwidth)	2	(0, 0, 0, 0, 0, 0, 0, 0)	(0, 0, 0, 0, 0, 0, 0, 0)
Input Queuing (Absolute Priority: T->Enabled, F->Disabled)	2	(F, F, F, F, F, F, F, F)	(F, F, F, F, F, F, F, F)
Output Queuing (Bandwidth Remaining)	2	(100, 0, 0, 0, 0, 0, 0, 0)	(100, 0, 0, 0, 0, 0, 0, 0)
Output Queuing (Absolute Priority: T->Enabled, F->Disabled)	2	(F, F, F, T, F, F, F, F)	(F, F, F, T, F, F, F, F)
Allowed VLANs	-	1	1
Local suspended VLANs	-	-	-

NX-2# show vpc consistency-parameters interface port-channel 10

Legend:

Type 1 : vPC will be suspended in case of mismatch

Name	Type	Local value	Peer Value
delayed-lacp	1	disabled	disabled
mode	1	active	active
Switchport Isolated	1	0	0
Interface type	1	port-channel	port-channel
LACP Mode	1	on	on
Virtual-ethernet-bridge	1	Disabled	Disabled
Speed	1	1000 Mb/s	1000 Mb/s
Duplex	1	full	full
MTU	1	1500	1500
Port Mode	1	trunk	trunk
Native Vlan	1	1	1
Admin port mode	1	trunk	trunk
STP Port Guard	1	Default	Default
STP Port Type	1	Default	Default
STP MST simulate PVST	1	Default	Default
lag-id	1	[(7f9b, 0-23-4-ee-be-1, 800a, 0, 0), (8000, 50-0-0-4-80-0, a, 0, 0)]	[(7f9b, 0-23-4-ee-be-1, 800a, 0, 0), (8000, 50-0-0-4-80-0, a, 0, 0)]
Allow-Multi-Tag	1	Disabled	Disabled
Vlan xlt mapping	1	Disabled	Disabled
VPC card type	1	N9K EOR LC	N9K EOR LC
Allowed VLANs	-	1	1