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Background

We are trying to create redundant trunks between two GBE2c 2/3 blade switches and an E5412zl switch.

In the working configuration we have port 20 on each of the GBE2C switches connected to a port on the E5412zl with spanning-tree running. The blade servers would find the network storage.

We then took ports 21,22,23,24 on each of the GBE2C switches and made them in to a portchannel (trunk) and ports C10-c13 and D10-D13 and made them in to trunks. We connected the trunks and disconnected ports 20 on each switch. At this point nothing would work. The servers would not find the network storage. We tried enabling flow control to see if that would help.

The only difference between the two configurations is that we have two four port trunks setup instead of two single port connections.

This configuration works

Storage-1 Configuration

```
version "5.2.8"  
switch-type "GbE2c L2/L3 Ethernet Blade Switch for HP c-Class BladeSystem"  
system timezone 85  
system daylight  
hostname "Storage-1"  
system idle 60  
spanning-tree mstp name "MSTP1"  
spanning-tree mode mst  
spanning-tree mstp cist-add-vlan 1  
spanning-tree mstp cist-add-vlan 4095  
spanning-tree mstp cist-bridge priority 0  
spanning-tree mstp cist-bridge maximum-age 20
```

```
spanning-tree mstp cist-bridge forward-delay 15
interface GigabitEthernet 1
    pvid 301
    exit
interface GigabitEthernet 2
    pvid 301
    exit
interface GigabitEthernet 3
    pvid 301
    exit
interface GigabitEthernet 4
    pvid 301
    exit
interface GigabitEthernet 5
    pvid 301
    exit
interface GigabitEthernet 6
    pvid 301
    exit
interface GigabitEthernet 7
    pvid 301
    exit
interface GigabitEthernet 8
    pvid 301
    exit
interface GigabitEthernet 9
    pvid 301
    exit
interface GigabitEthernet 10
    pvid 301
    exit
interface GigabitEthernet 11
    pvid 301
    exit
interface GigabitEthernet 12
    pvid 301
    exit
interface GigabitEthernet 13
    pvid 301
    exit
interface GigabitEthernet 14
    pvid 301
```

```
    exit
interface GigabitEthernet 15
    pvid 301
    exit
interface GigabitEthernet 16
    pvid 301
    exit
interface GigabitEthernet 17
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 18
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 20
    pvid 301
    exit
interface GigabitEthernet 21
    shutdown
    pvid 301
    exit
interface GigabitEthernet 22
    shutdown
    pvid 301
    exit
interface GigabitEthernet 23
    shutdown
    pvid 301
    exit
interface GigabitEthernet 24
    shutdown
    pvid 301
    exit
vlan 1
vlan 301
    enable
    name "VLAN 301"
    member 1
    member 2
    member 3
    member 4
```

```
member 5
member 6
member 7
member 8
member 9
member 10
member 11
member 12
member 13
member 14
member 15
member 16
member 17
member 18
member 20
member 21
member 22
member 23
member 24
vlan 4095
    member 19
spanning-tree stp 1 bridge priority 0
spanning-tree stp 1 vlan 301
ip dns primary-server 172.29.1.14
ip dns secondary-server 172.29.1.10
ip dns domain-name cgc.local
ntp enable
ntp primary-server 172.29.1.14
end
```

Storage-2 Configuration

```
version "5.2.8"
switch-type "GbE2c L2/L3 Ethernet Blade Switch for HP c-Class BladeSystem"
system timezone 85
system daylight
hostname "Storage-2"
system idle 60
spanning-tree mstp name "MSTP1"
spanning-tree mode mst
spanning-tree mstp cist-add-vlan 1
spanning-tree mstp cist-add-vlan 4095
```

```
spanning-tree mstp cist-bridge priority 8192
spanning-tree mstp cist-bridge maximum-age 20
spanning-tree mstp cist-bridge forward-delay 15
interface GigabitEthernet 1
    pvid 301
    exit
interface GigabitEthernet 2
    pvid 301
    exit
interface GigabitEthernet 3
    pvid 301
    exit
interface GigabitEthernet 4
    pvid 301
    exit
interface GigabitEthernet 5
    pvid 301
    exit
interface GigabitEthernet 6
    pvid 301
    exit
interface GigabitEthernet 7
    pvid 301
    exit
interface GigabitEthernet 8
    pvid 301
    exit
interface GigabitEthernet 9
    pvid 301
    exit
interface GigabitEthernet 10
    pvid 301
    exit
interface GigabitEthernet 11
    pvid 301
    exit
interface GigabitEthernet 12
    pvid 301
    exit
interface GigabitEthernet 13
    pvid 301
    exit
```

```
interface GigabitEthernet 14
    pvid 301
    exit
interface GigabitEthernet 15
    pvid 301
    exit
interface GigabitEthernet 16
    pvid 301
    exit
interface GigabitEthernet 17
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 18
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 20
    pvid 301
    exit
interface GigabitEthernet 21
    shutdown
    pvid 301
    exit
interface GigabitEthernet 22
    shutdown
    pvid 301
    exit
interface GigabitEthernet 23
    shutdown
    pvid 301
    exit
interface GigabitEthernet 24
    shutdown
    pvid 301
    exit
vlan 1
vlan 301
    enable
    name "VLAN 301"
    member 1
    member 2
```

```
member 3
member 4
member 5
member 6
member 7
member 8
member 9
member 10
member 11
member 12
member 13
member 14
member 15
member 16
member 17
member 18
member 20
member 21
member 22
member 23
member 24
vlan 4095
    member 19
spanning-tree stp 1 bridge priority 8192
spanning-tree stp 1 vlan 301
ntp enable
ntp primary-server 172.29.1.14
End
```

Core-1 Configuration (this configuration is the same in both cases)

```
; J8698A Configuration Editor; Created on release #K.15.08.0013
; Ver #02:1b.ef:f6
hostname "Core-1"
module 1 type j8702a
module 2 type j8702a
module 3 type j8702a
module 4 type j8702a
module 5 type j9309a
module 6 type j9309a
module 7 type j9307a
module 8 type j9307a
```

```
fault-finder bad-driver sensitivity low
fault-finder bad-transceiver sensitivity low
fault-finder bad-cable sensitivity low
fault-finder too-long-cable sensitivity low
fault-finder over-bandwidth sensitivity low
fault-finder broadcast-storm sensitivity low
fault-finder loss-of-link sensitivity low
fault-finder duplex-mismatch-hdx sensitivity low
fault-finder duplex-mismatch-fdx sensitivity low
fault-finder link-flap sensitivity low
trunk E1,F1 trk1 trunk
trunk G10 trk2 trunk
trunk C10-C13 trk7 trunk
trunk D10-D13 trk8 trunk
trunk G9 trk10 trunk
trunk H9 trk11 trunk
logging 172.30.0.151
logging severity info
power-over-ethernet pre-std-detect
timesync sntp
ntp unicast
ntp server priority 1 172.29.1.14
ntp server priority 2 66.102.79.92
ntp server priority 3 67.212.90.198
no telnet-server
time daylight-time-rule continental-us-and-canada
time timezone -300
no web-management
web-management ssl
ip default-gateway 172.30.7.1
ip dns domain-name "cgc.local"
ip dns server-address priority 1 172.29.1.14
ip dns server-address priority 2 172.29.1.10
ip ssh filetransfer
ip timep manual 64.235.98.66
ip route 192.168.113.0 255.255.255.0 172.30.6.1
no core-dump management-module
interface C10
  flow-control
  exit
interface C11
  flow-control
```

```
exit
interface C12
  flow-control
  exit
interface C13
  flow-control
  exit
interface D10
  flow-control
  exit
interface D11
  flow-control
  exit
interface D12
  flow-control
  exit
interface D13
  flow-control
  exit
snmp-server community "public" unrestricted
snmp-server host 172.30.0.151 community "public"
snmp-server contact "Gordon Cook" location "Server Room - Communications Rack"
spanning-tree
spanning-tree Trk1 priority 4
spanning-tree Trk2 priority 4
spanning-tree Trk7 priority 4
spanning-tree Trk8 priority 4
spanning-tree Trk10 priority 4
spanning-tree Trk11 priority 4
spanning-tree config-name "MSTP1"
spanning-tree config-revision 1
spanning-tree instance 1 vlan 301
spanning-tree instance 1 priority 3
spanning-tree instance 1 Trk1 priority 4
spanning-tree instance 1 Trk2 priority 4
spanning-tree instance 1 Trk7 priority 4
spanning-tree instance 1 Trk8 priority 4
spanning-tree instance 1 Trk10 priority 4
spanning-tree instance 1 Trk11 priority 4
spanning-tree instance 2 vlan 290
spanning-tree instance 2 priority 3
spanning-tree instance 2 Trk1 priority 4
```

```
spanning-tree instance 2 Trk2 priority 4
spanning-tree instance 2 Trk7 priority 4
spanning-tree instance 2 Trk8 priority 4
spanning-tree instance 2 Trk10 priority 4
spanning-tree instance 2 Trk11 priority 4
spanning-tree priority 3
vlan 1
  name ""
  no untagged A1-A24,B1-B24,C1-C9,C14-C24,D1-D9,D14-D24,E2-E4,F2-F4,G1-G8,G11-G24,H1-H8,H10-
H24,Trk1-Trk2,Trk10-Trk11
  untagged Trk7-Trk8
  no ip address
  exit
vlan 10
  name ""
  untagged G1-G4,H1-H4
  no ip address
  exit
vlan 29
  name ""
  untagged G7-G8,H7-H8
  no ip address
  exit
vlan 31
  name ""
  untagged G5-G6,H5-H6
  no ip address
  exit
vlan 290
  name "CGC"
  untagged A1-A12,B1-B12,E3,F3
  tagged Trk1
  ip address 172.29.0.77 255.255.248.0
  exit
vlan 300
  name "Management"
  untagged A13-A24,B13-B24
  tagged Trk1
  ip address 172.30.0.252 255.255.255.0
  exit
vlan 301
  name "Storage"
```

```
untagged C1-C9,C14-C24,D1-D9,D14-D24
tagged Trk1,Trk7-Trk8
no ip address
exit
vlan 302
  name "DMZ"
  untagged G14-G19,H14-H19
  no ip address
  exit
vlan 306
  name "SME"
  untagged G23-G24,H23-H24
  tagged Trk1
  ip address 172.30.6.252 255.255.255.0
  exit
vlan 500
  name "VLAN500"
  untagged E2,E4,F2,F4,G11,H10-H11
  no ip address
  exit
primary-vlan 500
```

This configuration does not work.

Storage-1 Configuration

```
version "5.2.8"
switch-type "GbE2c L2/L3 Ethernet Blade Switch for HP c-Class BladeSystem"
system timezone 85
system daylight
hostname "Storage-3"
system idle 60
spanning-tree mstp name "MSTP1"
spanning-tree mode mst
spanning-tree mstp cist-add-vlan 1
spanning-tree mstp cist-add-vlan 4095
spanning-tree mstp cist-bridge priority 0
spanning-tree mstp cist-bridge maximum-age 20
spanning-tree mstp cist-bridge forward-delay 15
interface GigabitEthernet 1
  pvid 301
  exit
interface GigabitEthernet 2
```

```
pvid 301
exit
interface GigabitEthernet 3
pvid 301
exit
interface GigabitEthernet 4
pvid 301
exit
interface GigabitEthernet 5
pvid 301
exit
interface GigabitEthernet 6
pvid 301
exit
interface GigabitEthernet 7
pvid 301
exit
interface GigabitEthernet 8
pvid 301
exit
interface GigabitEthernet 9
pvid 301
exit
interface GigabitEthernet 10
pvid 301
exit
interface GigabitEthernet 11
pvid 301
exit
interface GigabitEthernet 12
pvid 301
exit
interface GigabitEthernet 13
pvid 301
exit
interface GigabitEthernet 14
pvid 301
exit
interface GigabitEthernet 15
pvid 301
```

```
    exit
interface GigabitEthernet 16
    pvid 301
    exit
interface GigabitEthernet 17
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 18
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 20
    pvid 301
    exit
interface GigabitEthernet 21
    pvid 301
    exit
interface GigabitEthernet 22
    pvid 301
    exit
interface GigabitEthernet 23
    pvid 301
    exit
interface GigabitEthernet 24
    pvid 301
    exit
vlan 1
vlan 301
    enable
    name "VLAN 301"
    member 1
    member 2
    member 3
    member 4
    member 5
    member 6
    member 7
    member 8
    member 9
```

```

member 10
member 11
member 12
member 13
member 14
member 15
member 16
member 17
member 18
member 20
member 21
member 22
member 23
member 24
vlan 4095
    member 19
spanning-tree stp 1 bridge priority 0
spanning-tree stp 1 vlan 301
portchannel 7 port 21
portchannel 7 port 22
portchannel 7 port 23
portchannel 7 port 24
portchannel 7 enable
!
!interface ip 256
    enable
    addr <dhcp>
!ip gateway 4 addr <dhcp>
!ip gateway 4 enable
ip dns primary-server 172.29.1.14
ip dns secondary-server 172.29.1.10
ip dns domain-name cgc.local
ntp enable
ntp primary-server 172.29.1.14
end

Storage-2 Configuration
version "5.2.8"
switch-type "GbE2c L2/L3 Ethernet Blade Switch for HP c-Class BladeSystem"
system timezone 85
system daylight

```

```
hostname "Storage-2"
system idle 60
spanning-tree mstp name "MSTP1"
spanning-tree mode mst
spanning-tree mstp cist-add-vlan 1
spanning-tree mstp cist-add-vlan 4095
spanning-tree mstp cist-bridge priority 8192
spanning-tree mstp cist-bridge maximum-age 20
spanning-tree mstp cist-bridge forward-delay 15
interface GigabitEthernet 1
    pvid 301
    exit
interface GigabitEthernet 2
    pvid 301
    exit
interface GigabitEthernet 3
    pvid 301
    exit
interface GigabitEthernet 4
    pvid 301
    exit
interface GigabitEthernet 5
    pvid 301
    exit
interface GigabitEthernet 6
    pvid 301
    exit
interface GigabitEthernet 7
    pvid 301
    exit
interface GigabitEthernet 8
    pvid 301
    exit
interface GigabitEthernet 9
    pvid 301
    exit
interface GigabitEthernet 10
    pvid 301
    exit
interface GigabitEthernet 11
```

```
pvid 301
exit
interface GigabitEthernet 12
    pvid 301
    exit
interface GigabitEthernet 13
    pvid 301
    exit
interface GigabitEthernet 14
    pvid 301
    exit
interface GigabitEthernet 15
    pvid 301
    exit
interface GigabitEthernet 16
    pvid 301
    exit
interface GigabitEthernet 17
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 18
    no shutdown
    pvid 301
    exit
interface GigabitEthernet 20
    pvid 301
    exit
interface GigabitEthernet 21
    pvid 301
    exit
interface GigabitEthernet 22
    pvid 301
    exit
interface GigabitEthernet 23
    pvid 301
    exit
interface GigabitEthernet 24
    pvid 301
    exit
```

```
vlan 1
vlan 301
    enable
    name "VLAN 301"
    member 1
    member 2
    member 3
    member 4
    member 5
    member 6
    member 7
    member 8
    member 9
    member 10
    member 11
    member 12
    member 13
    member 14
    member 15
    member 16
    member 17
    member 18
    member 20
    member 21
    member 22
    member 23
    member 24
vlan 4095
    member 19
spanning-tree stp 1 bridge priority 8192
spanning-tree stp 1 vlan 301
portchannel 8 port 21
portchannel 8 port 22
portchannel 8 port 23
portchannel 8 port 24
portchannel 8 enable
!
!interface ip 256
    enable
    addr <dhcp>
```

```
!ip gateway 4 addr <dhcp>
!ip gateway 4 enable
ip dns primary-server 172.29.1.14
ip dns secondary-server 172.29.1.10
ip dns domain-name cgc.local
ntp enable
ntp primary-server 172.29.1.14
end
```

Core-1 Configuration

```
;J8698A Configuration Editor; Created on release #K.15.08.0013
;Ver #02:1b.ef:f6
hostname "Core-1"
module 1 type j8702a
module 2 type j8702a
module 3 type j8702a
module 4 type j8702a
module 5 type j9309a
module 6 type j9309a
module 7 type j9307a
module 8 type j9307a
fault-finder bad-driver sensitivity low
fault-finder bad-transceiver sensitivity low
fault-finder bad-cable sensitivity low
fault-finder too-long-cable sensitivity low
fault-finder over-bandwidth sensitivity low
fault-finder broadcast-storm sensitivity low
fault-finder loss-of-link sensitivity low
fault-finder duplex-mismatch-hdx sensitivity low
fault-finder duplex-mismatch-fdx sensitivity low
fault-finder link-flap sensitivity low
trunk E1,F1 trk1 trunk
trunk G10 trk2 trunk
trunk C10-C13 trk7 trunk
trunk D10-D13 trk8 trunk
trunk G9 trk10 trunk
trunk H9 trk11 trunk
logging 172.30.0.151
logging severity info
power-over-ethernet pre-std-detect
timesync sntp
```

```
sntp unicast
sntp server priority 1 172.29.1.14
sntp server priority 2 66.102.79.92
sntp server priority 3 67.212.90.198
no telnet-server
time daylight-time-rule continental-us-and-canada
time timezone -300
no web-management
web-management ssl
ip default-gateway 172.30.7.1
ip dns domain-name "cgc.local"
ip dns server-address priority 1 172.29.1.14
ip dns server-address priority 2 172.29.1.10
ip ssh filetransfer
ip timep manual 64.235.98.66
ip route 192.168.113.0 255.255.255.0 172.30.6.1
no core-dump management-module
interface C10
  flow-control
  exit
interface C11
  flow-control
  exit
interface C12
  flow-control
  exit
interface C13
  flow-control
  exit
interface D10
  flow-control
  exit
interface D11
  flow-control
  exit
interface D12
  flow-control
  exit
interface D13
  flow-control
  exit
snmp-server community "public" unrestricted
```

```
snmp-server host 172.30.0.151 community "public"
snmp-server contact "Gordon Cook" location "Server Room - Communications Rack"
spanning-tree
spanning-tree Trk1 priority 4
spanning-tree Trk2 priority 4
spanning-tree Trk7 priority 4
spanning-tree Trk8 priority 4
spanning-tree Trk10 priority 4
spanning-tree Trk11 priority 4
spanning-tree config-name "MSTP1"
spanning-tree config-revision 1
spanning-tree instance 1 vlan 301
spanning-tree instance 1 priority 3
spanning-tree instance 1 Trk1 priority 4
spanning-tree instance 1 Trk2 priority 4
spanning-tree instance 1 Trk7 priority 4
spanning-tree instance 1 Trk8 priority 4
spanning-tree instance 1 Trk10 priority 4
spanning-tree instance 1 Trk11 priority 4
spanning-tree instance 2 vlan 290
spanning-tree instance 2 priority 3
spanning-tree instance 2 Trk1 priority 4
spanning-tree instance 2 Trk2 priority 4
spanning-tree instance 2 Trk7 priority 4
spanning-tree instance 2 Trk8 priority 4
spanning-tree instance 2 Trk10 priority 4
spanning-tree instance 2 Trk11 priority 4
spanning-tree priority 3
vlan 1
  name ""
  no untagged A1-A24,B1-B24,C1-C9,C14-C24,D1-D9,D14-D24,E2-E4,F2-F4,G1-G8,G11-G24,H1-H8,H10-
H24,Trk1-Trk2,Trk10-Trk11
  untagged Trk7-Trk8
  no ip address
  exit
vlan 10
  name ""
  untagged G1-G4,H1-H4
  no ip address
  exit
vlan 29
  name ""
```

```
untagged G7-G8,H7-H8
no ip address
exit
vlan 31
  name ""
  untagged G5-G6,H5-H6
  no ip address
  exit
vlan 290
  name "CGC"
  untagged A1-A12,B1-B12,E3,F3
  tagged Trk1
  ip address 172.29.0.77 255.255.248.0
  exit
vlan 300
  name "Management"
  untagged A13-A24,B13-B24
  tagged Trk1
  ip address 172.30.0.252 255.255.255.0
  exit
vlan 301
  name "Storage"
  untagged C1-C9,C14-C24,D1-D9,D14-D24
  tagged Trk1,Trk7-Trk8
  no ip address
  exit
vlan 302
  name "DMZ"
  untagged G14-G19,H14-H19
  no ip address
  exit
vlan 306
  name "SME"
  untagged G23-G24,H23-H24
  tagged Trk1
  ip address 172.30.6.252 255.255.255.0
  exit
vlan 500
  name "VLAN500"
  untagged E2,E4,F2,F4,G11,H10-H11
  no ip address
  exit
```

primary-vlan 500