



[Home](#) [Archives](#) [Profile](#) [Subscribe](#)

« [Yet another reason why enabling FIP Snooping is important when using FCoE](#) | [Main](#) | [Join me at EMC World 2013!](#) »

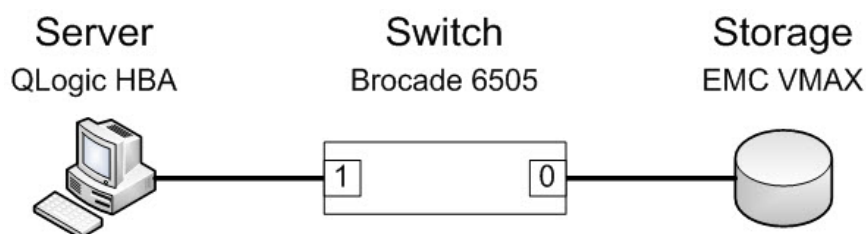
04/12/2013

Target Driven Zoning works!

Thanks to EMC's DJ Brown and some help from Blayne Rawsky at Brocade, we finally have [TDZ](#) running in the lab. The first peer zone was successfully registered on 3:55 PM EDT on Thursday April 4th 2013.

Test configuration

The test configuration was deliberately kept small and is shown below.



The Server is a Cisco UCS C Series server running SLES11SP2 with a QLogic 8GBHA installed in it.

The switch is a Brocade 6505 that is running a special test version of FOS with rudimentary TDZ support.

The Storage is an EMC VMAX that is running a special TDZ capable debug version of Enginuity.

The protocol

As shown in the xgig trace below, as soon as the link came up between the Storage and the Switch, the storage port transmitted a GAPZ (Get Active Peer Zone, command = 012A) and the switch rejected this request because there was



[Erik Smith](#)

ARCHIVES

[September 2022](#)

[August 2020](#)

[April 2019](#)

[December 2017](#)

[November 2017](#)

[July 2017](#)

[April 2017](#)

[September 2016](#)

[July 2016](#)

[February 2016](#)

SEARCH

CATEGORIES

[Subscribe to this blog's feed](#)

DISCLAIMER

This is not an official EMC blog. The opinions expressed here are my personal opinions. Content published here is not read or approved in advance by EMC and does not necessarily reflect the views and opinions of EMC nor does it constitute any official communication of EMC.

no peer zone registered yet. This is normal and expected behavior the first time a storage port initializes.

FC4UCtl; FC-GS; FCGS Command = 0x012A Reserved;	010000	Management Server	0011	FFFF
FC4SCtl; FC-GS; Reject; Unable to perform command request; Zone Name unknown;	Management Server	010000	0011	0027
FC4UCtl; FC-GS; FCGS Command = 0x022B Reserved;	010000	Management Server	0012	FFFF
FC4SCtl; FC-GS; Accept;	Management Server	010000	0012	0028
ExtLinkReq; EX_LNK_SRV; RSCN;	Fabric Controller	010000	0029	FFFF
ExtLinkRply; EX_LNK_SRV; Accept;	010000	Fabric Controller	0029	0013
FC4UCtl; FC-GS; GID_PT;	010000	Directory Server	0014	FFFF
FC4SCtl; FC-GS; Accept;	Directory Server	010000	0014	0031
ExtLinkReq; EX_LNK_SRV; PLOGI;	010100	010000	009B	FFFF
ExtLinkRply; EX_LNK_SRV; Accept;	010000	010100	009B	0015
ExtLinkReq; EX_LNK_SRV; PRLI;	010100	010000	009B	FFFF
FC4UCtl; FC-GS; GA_NXT;	010000	Directory Server	0016	FFFF
FC4SCtl; FC-GS; Accept;	Directory Server	010000	0016	0032
ExtLinkRply; EX_LNK_SRV; Accept;	010000	010100	009B	0017
FC4UCtl; FC-GS; FCGS Command = 0x012A Reserved;	010000	Management Server	0018	FFFF
FC4SCtl; FC-GS; Accept;	Management Server	010000	0018	0033
Inquiry; LUN = 0x0000; FCP_DL = 0x000000024;	010100	010000	009C	FFFF
FC4UCtl; FC-GS; FCGS Command = 0x022B Reserved;	010000	Management Server	001A	FFFF
FC4SData; SCSI FCP; Offset = 0x00000000; Len = 0x0024;	010000	010100	009C	0019
FC4SCtl; FC-GS; Accept;	Management Server	010000	001A	0034
Good Status;	010000	010100	009C	0019

The storage then transmits AAPZ (Add/Replace Active Peer Zone, command = 022B). The storage uses this command to register the peer zone with the switch. The result of this command is shown below in the cfgshow output.

```
TDZ-test-switch:admin> cfgshow
Defined configuration:
cfg:   TDZ_Test
      blocking_zone; PRZ_X0_500009730005FD1C
zone:  PRZ_X0_500009730005FD1C
      50:00:09:73:00:05:fd:1c; 21:00:00:1b:32:0a:47:b1
zone:  blocking_zone
      10:00:00:00:00:00:12:34

Effective configuration:
cfg:   TDZ_Test
zone:  PRZ_X0_500009730005FD1C
      50:00:09:73:00:05:fd:1c
      21:00:00:1b:32:0a:47:b1
zone:  blocking_zone
      10:00:00:00:00:00:12:34

TDZ-test-switch:admin>
```

Notice the zone name of “PRZ_X0_500009730005FD1C”. The zone members are the WWPNs of the VMAX port (starting with 50:00) and the QLogic HBA (starting with 21:00). This zone was created by the switch in response to the AAPZ command that was sent by the VMAX port.

Another important point to note in the xgig trace is the PLOGI and PRLI after the RSCN. These requests were from the host and I'll simply point out that the QLogic HBA automatically generated these login requests after it received an RSCN. The RSCN was generated by the switch in response to the zoning change that was initiated by the VMAX registering a peer zone. The fact that the host automatically detected the zoning change and logged into the storage port is due to the way that FC Discovery works and TDZ leverages this behavior so that it can function properly even though no changes were made on the HBA to allow the TDZ functionality to operate correctly.

Next steps

The next steps are to scale up the number of ports and prepare for a demonstration at EMC World in May. I'll provide more detail about my sessions and when you can see TDZ working in a subsequent post.

In regards to product plans for including the TDZ functionality, there are none. However, I'm hoping that if we get enough positive feedback on this blog post and at EMC World that we'll be able to convince both Brocade and EMC to add it to our roadmaps and into your environments as soon as possible.

Thanks for reading!

Posted at 02:20 PM | [Permalink](#)

 Reblog (0)

Comments

 You can follow this conversation by subscribing to the [comment feed](#) for this post.



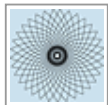
Erik. Cracking piece of work and a technology that makes a lot of sense to me, and therefore one I think the vendors and standards guys should pursue.

Posted by: [Nigel Poulton](#) | [05/09/2013 at 03:00 AM](#)



Is TDZ compatible with FC alias? I mean, can I see human readable names associated to pWWN on the zone that gets created?

Posted by: [fausto](#) | [05/09/2013 at 04:46 AM](#)



Hi Fausto, yes, TDZ is compatible with Aliases.

Posted by: [Erik](#) | [05/15/2013 at 12:18 PM](#)



Hi Erik,
Great Work !!
I think this looks very promising. Did you had a chance to develop and present this in EMC World ?

Posted by: [Rahul](#) | [05/29/2013 at 06:52 AM](#)

The comments to this entry are closed.

[Brass Tacks](#) [Powered by TypePad](#)