

DOCUMENT NUMBER:	MTN-0023-24
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MOTOROLA SOLUTIONS TECHNICAL NOTIFICATION (MTN)

Title

Virtualized Geo-Prime Site (VPS) may go into a split brain state due to incorrect Force-Activate procedure.

Technology

ASTRO® 25

Severity Recommendation

Medium/Operational - Schedule to implement

Symptoms

If both VPS Primary and Secondary Geo-Prime Sites are FORCE-ACTIVE, the VPS GeoPrime Site may enter in a Split-Brain state (where the Site Controller and Channels are running on different Geo-Location Sites. This will result in Non-Optimal Operation of the VPS Site and may result in non-optimal operation of the VPS site such as launch time errors due to site time reference issues. Additionally, subscribers may be out of range.

Models / System Releases / Kits / Datecodes Affected

A2020.1, A2020.HS, A2021.1, A2022.1, A2022.HS

DSC8000 Virtual Prime Site / DSC8000 Firmware - 9.3.43 or earlier

When To Apply

After failure of the site time reference (e.g., TRAK) at the VPS primary Geo-Prime site _x_ Whenever force activation is required at the VPS primary or secondary Geo-Prime site _x_

Test To Perform

If a site is improperly Force-Activated, the following will be seen:

SC3 (Site Controller) will be reported Active, with an Alarm, on the secondary GeoPrime's PCA Services Event Monitoring Screen. Channels showing GREEN with no redundancy alarms in the secondary GeoPrime's PCA (i.e Primary Geo VPS location is still ACTIVE).

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₹		Site Controller	
		Site Controller	Major Failed: Redundancy Impaired - DSC 1 controlling. Active SC: 3. Missing SC(s) 1.
•	0	Data RNG Link	
•	L	Remote Site Link	
₩	H	Channel	
		Channel 1	Enabled: No Reason
		Channel 2	Enabled: No Reason
		Channel 3	Enabled: No Reason
		Channel 4	Enabled: No Reason
		Channel 5	Enabled: No Reason

If the Site is properly Force-Activated a proper force-activated Secondary GeoPrime site will show:

SC3 will be reported Active, with an Alarm, on the secondary GeoPrime's PCA Services Event Monitoring Screen.

Channels will be yellow, with redundancy alarms in the secondary GeoPrime's PCA i.e (Primary Geo VPS location is still IN-ACTIVE).

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▼	📆 Site Controller	
	Site Controller	Minor Failed: Secondary Site Active - DSC 1 controlling. Active SC: 3.
▶	Data RNG Link	
►	Remote Site Link	
▼	Channel Channel	
	Channel 1	Minor Failed: Redundancy Impaired - Redundant preferred channel is not available or not capable for channel 1
	Channel 2	Minor Failed: Redundancy Impaired - Redundant preferred channel is not available or not capable for channel 2
	Channel 3	Minor Failed: Redundancy Impaired - Redundant preferred channel is not available or not capable for channel 3
	Channel 4	Minor Failed: Redundancy Impaired - Redundant preferred channel is not available or not capable for channel 4
	Channel 5	Minor Failed: Redundancy Impaired - Redundant preferred channel is not available or not capable for channel 5

Workaround/Recovery

None

Resolution And Repair Procedure

Proper Procedure needs to be followed for to activate the VPS Geo Secondary Site if, in the case of the following issues at the VPS Geo Primary Site:

TRAK/Reference Issues

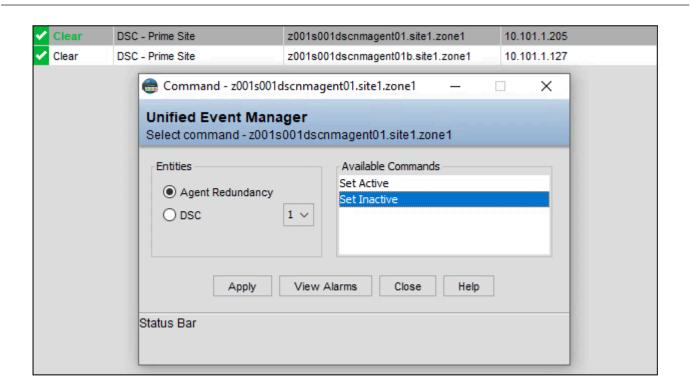
Repair Procedure:

- 1) To Force-Activate the VPS Geo Secondary Location:
 - a) Connect to, and logon to, the Unified Event Manager (UEM)
 - b) In the Network Database, locate the 'DSC Prime Site' entries for the particular VPS Geo Prime Site
 -) Two entries should exists for a Geo Prime site, dscnmagent01 and dscnmagent01b
 - c) Right-click the dscnmagent01, for the VPS Geo Primary Slte, and click Issue Command
 - d) Select Agent Redundancy and Set Inactive, and click Apply

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- e) Right-click the dscnmagent01b, for the VPS Geo Secondary Site, and click Issue Command
- f) Select Agent Redundancy and Set Active, and click Apply
 - i) SC1 and SC2 will sleep as a result of Force Active of Secondary Geo Site Location, Force Inactive of the Primary GeoLocation Disables Primary Channels and CSTR messaging to Subsites)
 - ii) SC 3 on the VPS Geo Secondary Site will link up to the Zone Controller, and Redundant Channels will go Active as a result of Force InActive of the Primary GeoLocation.
- 2) To Force-Activate the VPS Geo Primary Location:
 - a) Connect to, and logon to, the Unified Event Manager (UEM)
 - b) In the **Network Database**, locate the 'DSC Prime Site' entries for the particular VPS Geo Prime Site
 - i) Two entries should exists for a Geo Prime site, dscnmagent01 and dscnmagent01b
 - c) Right-click the dscnmagent01, for the VPS Geo Primary SIte, and click **Issue Command**
 - d) Select Agent Redundancy and Set Active, and click Apply
 - e) Right-click the dscnmagent01b, for the VPS Geo Secondary Site, and click Issue Command
 - f) Select Agent Redundancy and Set Inactive, and click Apply
 - SC3 will disable and SC1/SC2 will enable on the VPS Primary Location where Active Site Link will be established and the Preferred Active Channel along with Control Channel will be observed to the Primary Location , Redundant Channels on VPS Secondary location will be Disabled
 - ii) VPS Geo Primary Site will be restored with Wide Trunking Operation.

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Time To Implement/System Impact

Estimated time to implement - Less than 5 minutes

High - Following the recovery procedure to activate the Primary Geo Location, the site will encounter a short (<20 seconds) Failsoft event, while the SC1/SC2 connect to the Zone Controller

Software Parts Required

Name / SW version / System Release	Details / Part Number
N/A	N/A

Hardware Parts Required

Name	Part Number
N/A	N/A

Reference The Following Documents/Processes For Installation Procedures

MN007309A01 - VirtualizedPrime Site Installation Guide

Labor Allowance

This is an informational bulletin. No labor warranty is implied, intended, or authorized

For assistance with this bulletin please contact your MSI Technical Support Centre at https://motorolasolutions.com/support

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