

Shared LOM support on Modular

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Table of contents

 Introduction	4
 2 NIC Selection and Failover support on Modular Sytems	5
2.1 NIC Selection2.2 Failover Network	6
2.2 Failover Network	6
	7
2.3 VLAN support on Modular Systems	8



Executive summary

This whitepaper explains the key changes that have been made to iDRAC NIC selection on modular systems.

In iDRAC8 1.0 (13G RTS), there is no support for changing NIC selection from default "Chassis Dedicated". In iDRAC8 1.2, the Shared LOM (LOM1, LOM2, LOM3, LOM4) NIC Selection and failover support on Modular has been added in addition to "Chassis Dedicated". This feature follows existing behavior of NIC Selection and failover onRack and Tower servers.

1 Introduction

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Shared LOM support on Modular is a new feature that was added in iDRAC8. In earlier releases of Modular systems, unlike Rack and Tower servers, they do not have the support to change the NIC selection from default "Chassis Dedicated"". In IDRAC8 the shared LOM NIC selection (LOM1, LOM2, LOM3 and LOM4) and failover support is added in addition to the" Chassis Dedicated". VLAN support is also added when active NIC is in Shared LOM mode.

2 NIC Selection and Failover support on Modular Sytems

2.1 NIC Selection

IDRAC 8 1.2 supports the following NIC selections on Modular systems.

- Chassis Dedicated
- LOM1
- LOM2
- LOM3
- LOM4

" Chassis Dedicated " enables the remote access device to use the dedicated network interface available on the Remote access controller (RAC) via the CMC network Interface port. This interface is not shared with the host operating system and routes the management traffic to a separate physical network, enabling it to be separated from the application traffic This option implies the iDRAC's dedicated network port routes its traffic separately from the server's LOM or NIC ports.

The LOM1, LOM2, LOM3, LOM4 enable network interface to remotely access the system based on the LOM selected.

Deell	Integrated Access C	d Dell Remote iontroller 8 Enterprise		Support About Logout
System PowerEdge FC	:430	Network SSL Serial Over LAN Services	OS to IDRAC Pass-through	
Overview Server		Network Jump to: Network Settings Common Settings	Auto Config IPv4 Settings IPv6 Settings IPMI Settings VLAN Settings	• • ?
Logs Power Virtual Alerts	/Thermal Console	Options: > Advanced Settings		
Setup	eshooting	Instructions		
- License - iDRAC	es Settings	Changes to the NIC IP address settings will close loss in connectivity.	all user sessions and the user must reconnect to the iDRAC Web-based interface using the updated IP address r	settings. All other changes requires the NIC to be reset, which may cause a brief
User A Update	uthentication and Rollback Profile	Network Settings		
Sessio	ns	Attribute	Value	
CMC		Enable NIC		
+ Hardwa	are e	NIC Selection	LOM1 T	
+ Host O	s	Active NIC Interface	Chassis (Dedicated)	
		Failover Network	LOM2 TVOITE	
		MAC Address	C8:1F:66:FF:19:01	
		NIC MTU	1500	
		Common Settings		▲ Back to Top
		Attribute	Value	
		Register DRAC on DNS		
		DNS DRAC Name	idrac	
		Auto Config Domain Name		

Note: In case of blade servers with 2 NDC ports, two LOM options (LOM1 and LOM2) are available and on server with 4 NDC ports all four LOM options (LOM1,LOM2,LOM3,LOM4) are available

Figure 1 iDRAC GUI - NIC Selection on Blade servers

2.2 Failover Network

If the NIC Selection fails, then the traffic is routed through the selected failover network provided both primary and failover LOM are on the same network. This option is disabled when NIC selection is set to "Chassis Dedicated ". The following failover options are supported:

- LOM1
- LOM2
- LOM3
- LOM4
- All LOMs

These values depend on the NIC Selection mode setting. All the values appear except for the one used for the NIC Selection mode.

If failover mode is used or while switching from one failover mode to another

- There is no connectivity loss
- All existing sessions ar maintained
- Data transfer is not terminated

Note: In case of blade servers with 2 NDC ports, two LOM options (LOM1 and LOM2) are available and on server with 4 NDC ports all four LOM options (LOM1,LOM2,LOM3,LOM4) are available

Network SSL Serial Over LAN Service	s OS to IDRAC Pass-through	
Network		e C
Jump to: Network Settings Common Settings	Auto Config IPv4 Settings IPv6 Settings IPMI Settings VLAN Settings	
Options: > Advanced Settings		
Instructions		
Changes to the NIC IP address settings will close loss in connectivity.	e all user sessions and the user must reconnect to the iDRAC Web-based interface using the updated IP address settings. All other changes requires the NIC to be	e reset, which may cause a brief
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Network Settings Attribute Enable NIC NIC Selection Active NIC Interface Failover Network MAC Address NIC MTU Common Settings Attribute Register DRAC on DNS DNS DRAC Name	Value	▲ Beck to T

Figure 2 iDRAC GUI – Failover Network selection on Blade servers

2.3 VLAN support on Modular Systems

iDRAC 8 1.2 release supports the VLAN feature on blade servers. The iDRAC applies the saved iDRAC VLAN settings when NIC Selection is in shared LOM mode. However this is overwritten by CMC if NIC Selection is "Chassis Dedicated " during iDRAC boot. Modular systems doesn't support iDRAC VLAN configuration options when active NIC is "Chassis Dedicated" (Refer Figure 4 below) instead CMC VLAN settings are used.

Network GGE Genal Over EAN Genvices CG to	DRAC Pass-through	
Autoconfiguration Enable	e e e e e e e e e e e e e e e e e e e	
Static IP Address 1		
Static Prefix Length	64	
Static Gateway		
Link Local Address		
Use DHCPv6 to obtain DNS Server Addresses		
Static Preferred DNS Server		
Obsta Albertata DNO Castar		
IPMI Settings Attribute Enable IPMI Over LAN	E	▲ Back t
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Figure 3 iDRAC GUI – VLAN settings enabled when NIC selection is Shared LOM on Blade servers

04	Access 0	ed Dell Remote Controller 8 Enterprise		Support About Logout
Syster PowerE	m idge FC430	Network SSL Serial Over LAN Services OS to	DRAC Pass-through	
root, A	dmin	Autoconfiguration Enable		
= 0	verview	Static IP Address 1		
-	Server	Static Prefix Length	64	
	Power / Thermal	Static Gateway		
	Virtual Console	Link Local Address		
	Alerts Setup	Use DHCPv6 to obtain DNS Server Addresses		
	Troubleshooting	Static Preferred DNS Server	r.	
	Licenses	Static Alternate DNS Server		
	Network		15	
	User Authentication			
	Server Profile	IPMI Settings		A Back to I op
	Sessions	Attribute	Value	
+	Hardware	Chappel Brivilege Level Limit	Administrator =	
+	Storage			
+	Host OS	Encryption Key	000000000000000000000000000000000000000	
		VLAN Settings		A Back to Top
		Attribute	Value	
		Enable VLAN ID	<u>ک</u>	
		VLAN ID	201	
		Priority	6	
				Apply

Figure 4 iDRAC GUI – VLAN settings disabled when NIC selection is "Chassis Dedicated" on Blade servers