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Understanding Dell EMC network adapters and their relationship to iDRAC with Lifecycle Controller

This technical white paper lists the supported cards, features, and their functionality for the 14th generation Dell EMC PowerEdge servers.

Authors

Doug Iler

John Abrams

Mike Darby

Nagaveni C

A Dell EMC Technical White Paper

Revisions

Date	Description
July 2017	Initial release

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Executive summary

The number of server networking cards continues to grow at a rapid rate, as does the support for these cards from iDRAC with Lifecycle Controller. There are some limitations, and this technical white paper helps you understand the differences to help you make the best choice to fit their requirement. This technical white paper lists the network cards supported by the 14th generation Dell EMC PowerEdge servers featuring iDRAC9 with Lifecycle Controller.

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1 Introduction

iDRAC with Lifecycle Controller has the ability to configure and monitor network cards, and some HBAs. As Dell EMC continues to develop new solutions with our partners, the list of supported devices grows, and the features within each card.

However, because of the timing of some cards, not all features are available. This can cause issues and may result in loss of productivity. To safeguard against this, the following table enables you to understand the features available for each card.

Form Factor

- PCIe – card is installed in the PCIe slot
- bNDC – blade select Network Daughter Card.
- rNDC – rack select Network Daughter Card.
- Mezz – Mezzanine card
- LOM – LAN on motherboard

Legend

- Green – Feature supported
- Red – Feature not supported
- N/A – Feature not available with this card

Vendor	Model	Form Factor	Speed/Ports	Dell Part Number	Supports LLDP Connection View	Inventory and Configuration through iDRAC	Configuration through F10 and F2 consoles	Out-of-band Firmware Updates	Inventory and Configuration using LC Remote Enablement
Broadcom	5719	bMezz	4 x 1 Gb	22TDT	N				
Broadcom	5720	PCIe	2 x 1 Gb	0FCGN/557M9	N				
Broadcom	5720	bNDC	4 x 1 Gb	MW9RC	N				
Broadcom	5720	rNDC	4 x 1 Gb	FM487	N				
Broadcom	57412	PCIe	2 x 10G SFP+	GMW01/YR0VV	CV				
Broadcom	57412+5720	rNDC	2 x 10G SFP+/2 x 1Gb	NWMNX	CV				
Broadcom	57414	PCIe	2 x 25 Gb SFP28	CX94X/24GFD	CV				
Broadcom	57414	rNDC	2 x 25 Gb SFP28	9XY73	CV				
Broadcom	57416	PCIe	2 x 10 GBT	NC5VD/3TM39	CV				

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Vendor	Model	Form Factor	Speed/Ports	Dell Part Number	Supports LLDP Connection View	Inventory and Configuration through iDRAC	Configuration through F10 and F2 consoles	Out-of-band Firmware Updates	Inventory and Configuration using LC Remote Enablement
Broadcom	57416+5720	rNDC	2 x 10 GBT/2 x 1 Gb	1224N	CV	green	green	green	green
Emulex	LPe1205-M	bMezz	2 x FC8	R072D	N	red	red	red	red
Emulex	LPm16002	bMezz	2 x FC16	73TM8	N	green	green	green	green
Emulex	LPe12000	PCIe	1 x FC8	C855M/R1N53	N	red	red	red	red
Emulex	LPe12002	PCIe	2 x FC8	C856M/R7WP7	N	red	red	red	red
Emulex	LPe31000	PCIe	1 x FC16	3T3T7/6CWM6	N	green	green	green	green
Emulex	LPe31002	PCIe	2 x FC16	RXNT1/VGJ12	N	green	green	green	green
Intel	I350	bMezz	4 x 1 Gb	8CF6D	N	green	green	green	green
Intel	I350	bNDC	4 x 1 Gb	V017G	N	green	green	green	green
Intel	I350	PCIe	2 x 1 Gb	8WWC9/V5XVT	N	green	green	green	green
Intel	I350	rNDC	4 x 1 Gb	R1XFC	N	green	green	green	green
Intel	I350	PCIe	4 x 1 Gb	0NWK2/T34F4	N	green	green	green	green
Intel	Omni-Path 100Gb	PCIe	1 x OPA 100Gb	1VCRR/N64D3	N	red	red	red	red
Intel	X520	bNDC	2 x 10 Gb	XWKGY	N	green	green	green	green
Intel	X520	bMezz	2 x 10 Gb	8F6NV	N	red	green	green	green
Intel	X550	rNDC	4 x 10 GBT	64PJ8		green	green	green	green
Intel	X550	PCIe	2 x 10 GBT	FKHKC/HWWN0	N	green	green	green	green
Intel	X550/I350	rNDC	2 x 10 GBT/2 x 1 Gb	CD2VM	N	green	green	green	green
Intel	X710	bNDC	2 x 10 Gb	DX69G	CV	green	green	green	green
Intel	X710	PCIe	2 x 10 Gb	Y5M7N/5N7Y5	CV	green	green	green	green
Intel	X710	PCIe	4 x 10 Gb	DDJKY	CV	green	green	green	green
Intel	X710	rNDC	4 x 10G SFP+	68M95	CV	green	green	green	green
Intel	X710	PCIe	4 x 10 GBT	K5V44/08XJ7	CV	green	green	green	green
Intel	X710 + I350	rNDC	2 x 10G SFP+/2 x 1 Gb	6VDPG	CV	green	green	green	green
Intel	X710	bNDC	4 x 10 Gb	Y348Y	CV	green	green	green	green
Intel	XL710	OCP Mezz	2 x 10G SFP+	T44PH	CV	green	green	green	green
Mellanox	ConnectX-3	PCIe	1 x FDR	79DJ3	N	red	red	red	red
Mellanox	ConnectX-3	bMezz	FDR	8PTD1	N	red	red	red	red
Mellanox	ConnectX-3 Pro	PCIe	2 x 10 Gb	YHTD6/19RNV	N	green	green	green	green

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Vendor	Model	Form Factor	Speed/Ports	Dell Part Number	Supports LLDP Connection View	Inventory and Configuration through iDRAC	Configuration through F10 and F2 consoles	Out-of-band Firmware Updates	Inventory and Configuration using LC Remote Enablement
Mellanox	ConnectX-3 Pro	bMezz	2 x 10Gb	2T0WW	N	Green	Green	Green	Green
Mellanox	ConnectX-4	PCIe	1 x EDR	JJN39/6W1HY	N	Green	Red	Red	Red
Mellanox	ConnectX-4	PCIe	2 x EDR	NNJ2M/068F2	N	Green	Red	Red	Red
Mellanox	ConnectX-4 LX	rNDC	2 x 25G SFP28	R887V	N	Green	Green	Green	Green
Mellanox	ConnectX-4 LX	PCIe	2 x 25G SFP28	20NJD/MRT0D	N	Green	Green	Green	Green
Qlogic	57810	bNDC	2x 10G	JVFVR	N	Green	Green	Green	Green
Qlogic	57810	bMezz	2x 10G	55GHP	N	Green	Green	Green	Green
QLogic	57800	rNDC	10G SFP+/1Gb	165T0	N	Green	Green	Green	Green
QLogic	57800	rNDC	10 GBT/1Gb	G8RPD	N	Green	Green	Green	Green
QLogic	QLE2560	PCIe	1x FC8	R1N53/5VR2M	N	Red	Green	Green	Green
QLogic	QLE2562	PCIe	2x FC8	MFP5T/RW9KF	N	Red	Green	Green	Green
QLogic	QLE2692	PCIe	2x FC16	CK9H1/WVT0T	N	Green	Green	Green	Green
QLogic	QLE2690	PCIe	1x FC16	P8PCK/P3T0T	N	Green	Green	Green	Green
QLogic	QL41112	PCIe	2x 10 GBT	VCXN5/41PNV	CV	Green	Green	Green	Green
QLogic	QL41112	PCIe	2x 10 Gb SFP+	GT3C4/GY71W	CV	Green	Green	Green	Green
QLogic	QL41262	PCIe	2x 25 Gb SFP28	V5TMM/R491V	CV	Green	Green	Green	Green
QLogic	QME2572	bMezz	2x FC8	2H47D	N	Red	Green	Green	Green
QLogic	QME2662	bMezz	2x FC16	4GDP5	N	Green	Green	Green	Green
SolarFlare	SFN8522 Onload	PCIe	2x 10G SFP+	WY7T5/R76FD	N	Red	Red	Red	Red
SolarFlare	SFN8522	PCIe	2x 10G SFP+	NPHCM/332MM	N	Red	Red	Red	Red

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2 Conclusion

Understanding the features and functionality of the network adapters can help IT professionals quickly and accurately choose the adapter that best suits their needs.

Technical support and resources

- Dell.com/support is focused on meeting customer needs with proven services and support.
- Dell TechCenter is an online technical community where IT professionals have access to numerous resources for Dell EMC software, hardware and services.
- DellTechCenter/iDRAC provides up to date links to firmware downloads, manuals, and white papers for iDRAC.

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