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Side-by-side comparison of the features of Dell EMC iDRAC9 and iDRAC8

This Dell EMC technical brief compares the features and functionalities of the 14th generation iDRAC9 versus the 13th generation iDRAC8.

Dell OpenManage Product Marketing
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A Dell EMC Technical Brief

Revisions

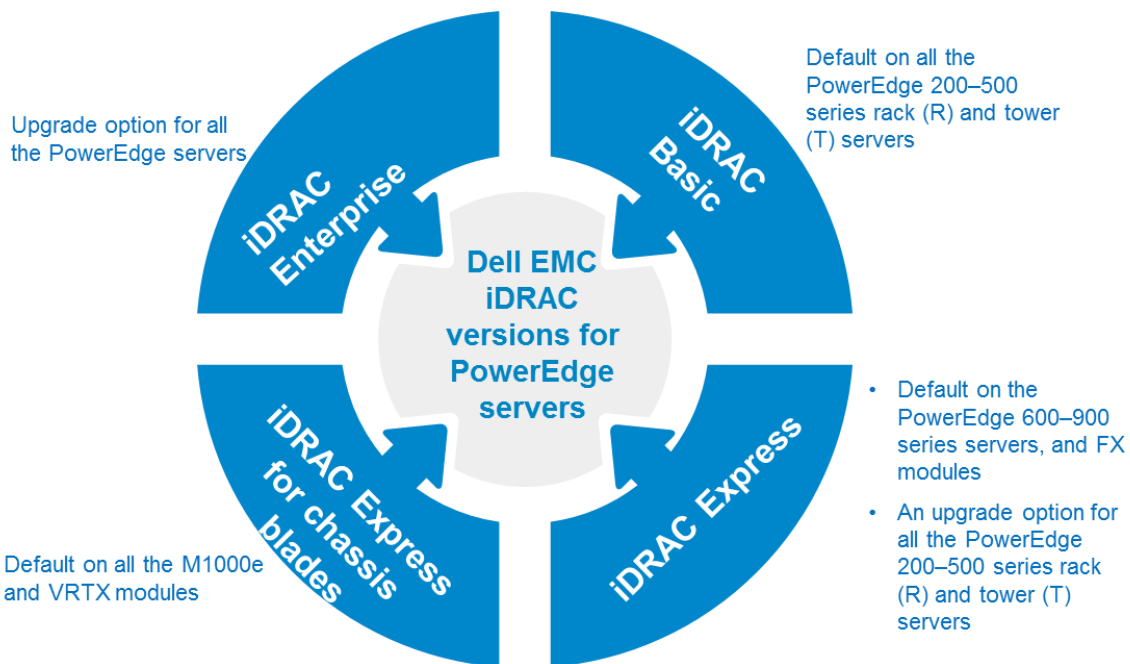| Date	Description
August 2017	Initial release

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Executive summary

This technical brief provides a comparison of the changes and improvements in the new iDRAC9 compared to its predecessor, iDRAC8. Also provides references to other Dell EMC technical white papers that provide in-depth information about the new features provided by iDRAC9 on the 14th generation PowerEdge servers.

iDRAC9 – The server industry's leading Embedded Management solution

- The integrated Dell Remote Access Controller 9 (iDRAC9) with Lifecycle Controller delivers advanced, agent-free, local and remote server administration. Embedded in every PowerEdge server, iDRAC9 provides a secure way to automate a multitude of common management tasks.
- Because iDRAC is embedded in every PowerEdge server, there is no extra software to install; just plug in the power and network cables, and iDRAC with Lifecycle Controller is ready to go.
- iDRAC9 is built off the features and functionality of iDRAC8, which is embedded in the 13th generation PowerEdge servers.
- Each generation of iDRAC with Lifecycle Controller comes with a basic level of functionality. Based on the server model ordered, licensing features differ, and are available to best fit a customer's desired level of management functionality.
- Also, iDRAC9 has new features that are available only on the 14th generation Dell EMC PowerEdge servers.

iDRAC versions for Dell PowerEdge servers

Upgrade option for all the PowerEdge servers

Default on all the PowerEdge 200–500 series rack (R) and tower (T) servers

iDRAC Enterprise

iDRAC Basic

Dell EMC iDRAC versions for PowerEdge servers

iDRAC Express for chassis blades

iDRAC Express

Default on all the M1000e and VRTX modules

- Default on the PowerEdge 600–900 series servers, and FX modules
- An upgrade option for all the PowerEdge 200–500 series rack (R) and tower (T) servers

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iDRAC9 versus iDRAC8 — Side by side comparison

The following table provides an overview of the key features for each license level and compares against the features available in the previous generation of Dell PowerEdge servers. Many of these options are the same between generations, but there are new features available only on the 14th generation iDRAC9.

Note: Features in **boldface** are available only on the 14th generation iDRAC9 application.

Feature	iDRAC8 Basic	iDRAC9 Basic	iDRAC8 Express	iDRAC9 Express	iDRAC8 Express for Blades	iDRAC9 Express for Blades	iDRAC8 Enterprise	iDRAC9 Enterprise
Interfaces / Standards								
Redfish	✓	✓	✓	✓	✓	✓	✓	✓
IPMI 2.0	✓	✓	✓	✓	✓	✓	✓	✓
DCMI 1.5	✓	✓	✓	✓	✓	✓	✓	✓
Web-based GUI	✓	✓	✓	✓	✓	✓	✓	✓
RACADM command line (local/remote)	✓	✓	✓	✓	✓	✓	✓	✓
SMASH-CLP (SSH-only)	✓	✓	✓	✓	✓	✓	✓	✓
Telnet	✓	✓	✓	✓	✓	✓	✓	✓
SSH	✓	✓	✓	✓	✓	✓	✓	✓
Serial Redirection	✓	✓	✓	✓	✓	✓	✓	✓
WS-Man	✓	✓	✓	✓	✓	✓	✓	✓
Network Time Protocol			✓	✓	✓	✓	✓	✓
Connectivity								
Shared NIC	✓	✓	✓	✓	N/A	N/A	✓[1]	✓[1]
Dedicated NIC[2]	✓	✓	✓	✓	✓	✓	✓[2]	✓[2]
VLAN tagging	✓	✓	✓	✓	✓	✓	✓	✓
IPv4	✓	✓	✓	✓	✓	✓	✓	✓
IPv6	✓	✓	✓	✓	✓	✓	✓	✓
DHCP (new default; not static IP)	✓	✓	✓	✓	✓	✓	✓	✓
DHCP with Zero Touch								✓
Dynamic DNS	✓	✓	✓	✓	✓	✓	✓	✓
OS pass-through	✓	✓	✓	✓	✓	✓	✓	✓
iDRAC Direct -Front panel USB	✓	✓	✓	✓	✓	✓	✓	✓
Connection View		✓		✓		✓		✓
NFS v4		✓		✓		✓		✓
NTLMv1 and NTLMv2		✓		✓		✓		✓

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Feature	iDRAC8 Basic	iDRAC9 Basic	iDRAC8 Express	iDRAC9 Express	iDRAC8 Express for Blades	iDRAC9 Express for Blades	iDRAC8 Enterprise	iDRAC9 Enterprise
Security								
Role-based authority	✓	✓	✓	✓	✓	✓	✓	✓
Local users	✓	✓	✓	✓	✓	✓	✓	✓
SSL encryption	✓	✓	✓	✓	✓	✓	✓	✓
IP blocking			✓	✓	✓	✓	✓	✓
Directory services (AD, LDAP)							✓	✓
Two-factor authentication							✓	✓
Single sign-on							✓	✓
PK authentication			✓	✓	✓	✓	✓	✓
FIPS 140-2	✓	✓	✓	✓	✓	✓	✓	✓
Secure UEFI boot - certificate management		✓		✓		✓		✓
Lock down mode								✓
Factory-generated iDRAC default password		✓		✓		✓		✓
Customizable Security Policy Banner - login page		✓		✓		✓		✓
Quick Sync 2.0 - optional auth for read operations		✓		✓		✓		✓
Quick Sync 2.0 - add mobile device number to LCL		✓		✓		✓		✓
Remote Presence								
Power control	✓	✓	✓	✓	✓	✓	✓	✓
Boot control	✓	✓	✓	✓	✓	✓	✓	✓
Serial-over-LAN	✓	✓	✓	✓	✓	✓	✓	✓
Virtual Media					✓	✓	✓	✓
Virtual Folders							✓	✓
Remote File Share							✓	✓
Virtual Console					✓	✓	✓	✓
HTML5 access to Virtual Console					✓	✓	✓	✓
VNC connection to OS							✓	✓
Quality/bandwidth control							✓	✓
Virtual Console collaboration (6 users)							✓	✓
Virtual Console chat							✓	✓

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Feature	iDRAC8 Basic	iDRAC9 Basic	iDRAC8 Express	iDRAC9 Express	iDRAC8 Express for Blades	iDRAC9 Express for Blades	iDRAC8 Enterprise	iDRAC9 Enterprise
Virtual Flash partitions							✓[2,3]	✓[2,3]
Group Manager								✓
HTTP / HTTPS support along with NFS/CIFS		✓		✓		✓		✓
Power & Thermal								
Real-time power meter	✓	✓	✓	✓	✓	✓	✓	✓
Power thresholds & alerts			✓	✓	✓	✓	✓	✓
Real-time power graphing			✓	✓	✓	✓	✓	✓
Historical power counters			✓	✓	✓	✓	✓	✓
Power capping							✓	✓
Power Center integration							✓	✓
Temperature monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Temperature graphing			✓	✓	✓	✓	✓	✓
Health Monitoring								
Full agent-free monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Predictive failure monitoring	✓	✓	✓	✓	✓	✓	✓	✓
SNMPv1, v2, and v3 (traps and gets)	✓	✓	✓	✓	✓	✓	✓	✓
Email Alerting			✓	✓	✓	✓	✓	✓
Configurable thresholds	✓	✓	✓	✓	✓	✓	✓	✓
Fan monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Power Supply monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Memory monitoring	✓	✓	✓	✓	✓	✓	✓	✓
CPU monitoring	✓	✓	✓	✓	✓	✓	✓	✓
RAID monitoring	✓	✓	✓	✓	✓	✓	✓	✓
NIC monitoring	✓	✓	✓	✓	✓	✓	✓	✓
HD monitoring (enclosure)	✓	✓	✓	✓	✓	✓	✓	✓
Out of Band Performance Monitoring							✓	✓
Alerts for excessive SSD wear		✓		✓		✓		✓
Customizable settings for Exhaust Temperature		✓		✓		✓		✓
Update								
Remote agent-free update	✓	✓	✓	✓	✓	✓	✓	✓
Embedded update tools	✓	✓	✓	✓	✓	✓	✓	✓

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Feature	iDRAC8 Basic	iDRAC9 Basic	iDRAC8 Express	iDRAC9 Express	iDRAC8 Express for Blades	iDRAC9 Express for Blades	iDRAC8 Enterprise	iDRAC9 Enterprise
Sync with repository (scheduled updates)							✓	✓
Auto-update							✓	✓
Improved PSU firmware updates		✓		✓		✓		✓
Deployment & Configuration								
Local configuration via F10	✓	✓	✓	✓	✓	✓	✓	✓
Embedded OS deployment tools	✓	✓	✓	✓	✓	✓	✓	✓
Embedded configuration tools	✓	✓	✓	✓	✓	✓	✓	✓
Auto-Discovery			✓	✓	✓	✓	✓	✓
Remote OS deployment			✓	✓	✓	✓	✓	✓
Embedded driver pack	✓	✓	✓	✓	✓	✓	✓	✓
Full configuration inventory	✓	✓	✓	✓	✓	✓	✓	✓
Inventory export	✓	✓	✓	✓	✓	✓	✓	✓
Remote configuration	✓	✓	✓	✓	✓	✓	✓	✓
Zerotouch configuration							✓	✓
System Retire/Repurpose	✓	✓	✓	✓	✓	✓	✓	✓
Server Configuration Profile in GUI		✓		✓		✓		✓
Diagnostics, Service, & Logging								
Embedded diagnostic tools	✓	✓	✓	✓	✓	✓	✓	✓
Part Replacement			✓	✓	✓	✓	✓	✓
Server Configuration Backup							✓	✓
Server Configuration Restore	✓	✓	✓	✓	✓	✓	✓	✓
Easy Restore (system configuration)	✓	✓	✓	✓	✓	✓	✓	✓
Easy Restore Auto Timeout		✓		✓		✓		✓
LED Health status indicators	✓	✓	✓	✓	✓	✓	✓	✓
LCD screen (iDRAC9 requires optional bezel)	✓	✓[5]	✓	✓[5]	N/A	N/A	✓	✓[5]
Quick Sync (require NFC bezel, 13G only)	✓		✓		N/A		✓	

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Feature	iDRAC8 Basic	iDRAC9 Basic	iDRAC8 Express	iDRAC9 Express	iDRAC8 Express for Blades	iDRAC9 Express for Blades	iDRAC8 Enterprise	iDRAC9 Enterprise
Quick Sync 2.0 (requires BLE/WiFi hardware)		✔		✔		N/A		✔
iDRAC Direct (front USB management port)	✔	✔	✔	✔	✔	✔	✔	✔
iDRAC Service Module (iSM) embedded		✔		✔		✔		✔
iSM to inband alert forwarding to consoles		✔		✔		✔		✔
Crash screen capture			✔	✔	✔	✔	✔	✔
Crash video capture [4]							✔	✔
Boot capture							✔	✔
Manual reset for iDRAC (LCD ID button)	✔	✔	✔	✔	✔	✔	✔	✔
Remote reset for iDRAC (requires iSM)	✔	✔	✔	✔	✔	✔	✔	✔
Virtual NMI	✔	✔	✔	✔	✔	✔	✔	✔
OS watchdog [4]	✔	✔	✔	✔	✔	✔	✔	✔
SupportAssist Report (embedded)	✔	✔	✔	✔	✔	✔	✔	✔
System Event Log	✔	✔	✔	✔	✔	✔	✔	✔
Lifecycle Log	✔	✔	✔	✔	✔	✔	✔	✔
Enhanced Logging in Lifecycle Controller Log	✔	✔	✔	✔	✔	✔	✔	✔
Work notes	✔	✔	✔	✔	✔	✔	✔	✔
Remote Syslog							✔	✔
License management	✔	✔	✔	✔	✔	✔	✔	✔
Improved Customer Experience								
iDRAC -Faster processor, more memory		✔		✔		✔		✔
GUI rendered in HTML5		✔		✔		✔		✔
Add BIOS configuration to iDRAC GUI		✔		✔		✔		✔
iDRAC support for SW RAID licensing		✔		✔		✔		✔

1. Not available with blade servers
2. 500 series and earlier rack and tower servers require a hardware card to enable this feature; this hardware is offered at an additional cost.

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3. Requires the vFlash SD card media
4. Requires iDRAC Service Module (iSM) or OpenManage Server Administrator (OMSA)
5. Requires optional bezel; rack and most tower

Conclusion

As listed in the table, there are many new options to consider when ordering for a new 14th generation Dell EMC PowerEdge server. All of these options are designed to increase efficiency and/or security—providing IT professionals around the globe cost saving solutions. For more information about the other new iDRAC9 features, see the white paper on Dell TechCenter: iDRAC9 with Lifecycle Controller−Best in class management for Dell EMC 14th generation PowerEdge Servers (New for 14G)

Technical support and resources

- Dell.com/support is focused on meeting customer requirements 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 technical white papers for iDRAC.

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