# Dell EMC Networking Z9332F-ON Data Center PowerSwitch Spine Switch

## Frequently Asked Questions

Date: September 2019

This document is for **Dell Internal Use Only** and is a living document, updated as needed.

1. **What are the important details of this networking announcement?**
    a. *We are announcing the product release of the industry's first Open Networking 400GbE switch – the Dell EMC PowerSwitch Z9332F-ON.*
        i. *The PowerSwitch Z9332F-ON provides four times the throughput, double the price/performance and double the power efficiency of our previous 100GbE platforms*
        ii. *The PowerSwitch Z9332F-ON helps organizations meet the need for higher density data center 100GbE IP fabric scalability*
        iii. *The PowerSwitch Z9332F-ON with multi-rate capabilities provides data centers with a smooth migration path to 400GbE and the flexibility to meet emerging high-performance workloads and server connectivity transitioning to 50GbE and 100GbE uplinks*
2. **What models are included in this announcement?**
    a. ***Z9332F-ON** – 1RU with 32 x 400GbE ports in QSFP56-DD form factor*
        i. *32 ports x 400GbE*
        ii. *64 ports x 200GbE (via breakout)*
        iii. *128 ports x 10/50/100GbE ports (via breakout)*
3. **What operating systems will the Z9332F-ON Series support?**
    a. *The Z9264F-ON will have the option of a factory loaded SmartFabric OS10 software along with the normal 3rd party OS offerings when they become available.*
    b. *Within our ecosystem of 3rd party OS partners, Cumulus Networks is looking to support the Z9332F-ON in Q3. Both Big Switch Networks and SONiC have committed to supporting it in a future release.*
4. **What are the key features and benefits of the Z9332F-ON-ON Series?**

| Feature | Function | Benefit |
|---|---|---|
| • 32 x 400 or<br>• 128 x 10/25/40/50/100GbE with breakout | High-density 400GbE fabric leaf nodes or 10/25/40/50/100GbE in-rack connections | Offers optimum flexibility and cost-effectiveness for demanding compute and storage traffic environments |
| Multi-rate 400GbE ports + 2 x 10GbE SFP+ ports | • 128 x 100GbE<br>• 128 x 50GbE<br>• 128 x 40GbE<br>• 128 x 25GbE<br>• 128 x 10GbE + 2 | Future-proof port speed options that can be reconfigured as needed to ease migration |
| 25.6Tbps switching fabric (Full Duplex) | Largest switching I/O bandwidth | Delivers non-blocking, line-rate performance under full traffic load |
| Native Linux-based SmartFabric OS10 | Dell EMC Networking Layer 2 and 3* switching and routing protocols with integrated IP services, Quality of Service, manageability and automation features<br><br>*No VXLAN Support | Enables customers with a Linux-based data center environment to share management orchestration and automation tools between server and network devices |
| Open Networking - Supports Open Networking Install Environment (ONIE) | Supports choice of NOS including Dell EMC OS10, Cumulus, Big Switch Networks, and Pluribus Networks | Allows customer the choice of switch hardware, NOS and Linux or open source based applications and tools |

**5. I heard there might be some silicon restrictions with the Broadcom Tomahawk3?**

*That is correct. The Broadcom Tomahawk3 has the following limitations:*

- *It does not support VXLAN VTEPs*
- *It has reduced L2 forwarding tables*
- *It has reduced ACL capacity*
- *It has limited multi-cast bandwidth*

**6. So how should I position the Z9332F-ON as compared to the Z9264F-ON?**

| Z9332F-ON | Z9264F-ON |
|---|---|
| • Fixed system for Super Spine layer or End of Row in data center fabrics<br>• Good fit in Leaf/Spine architectures as alternative to high-density chassis<br>• Usable as 400GbE or 100GbE (with optical breakout)<br>• Optionally useable as 100GbE switch with more buffering<br>• 50GhZ signaling internal | • Fixed system for Leaf or Spine position in data center fabrics (100GbE focused)<br>• 64 x 100GbE ports with no breakouts necessary<br>• Full L2VXLAN support<br>• 25GhZ signaling internal |

**7. How do I order this solution?**

*a. See the table below for order configurations.*

| Product | Description |
|---|---|
| Z9332F-ON | Z9332F, 32x 400GbE QSFP56-DD, 2x AC PSU, Fan module, I/O Panel to PSU Airflow, OS10 Enterprise Edition<br>Z9332F, 32x 400GbE QSFP56-DD, 2x AC PSU, Fan module, I/O Panel to PSU Airflow, NO-OS<br>Z9332F, 32x 400GbE QSFP56-DD, 2x AC PSU, Fan module, I/O Panel to PSU Airflow, OS10 Enterprise Edition. TAA Certified |
| Redundant power supplies | AC Power Supply, IO Panel to PSU Airflow<br>AC Power Supply, PSU to IO Panel Airflow<br>DC Power Supply, IO Panel to PSU Airflow (delayed release)<br>DC Power Supply, PSU to IO Panel Airflow (delayed release) |
| Fans | Fan module, IO Panel to PSU Airflow<br>Fan module, PSU to IO Panel Airflow |

**8. Where can I learn more about the Z9332F-ON Series?**

*a. You can access the following Dell EMC Networking resources on Sales Portal*

*i. Dell EMC Networking Z9332F Spec Sheet*

*ii. Dell EMC Networking Z9332F-ON NDA Customer Presentation*

*iii. Dell EMC Networking Z9332F-ON Battle Card*

*iv. Dell EMC Networking Z9332F-ON Sourcebook*

*b. As always you are welcome to reach out to us at ask-networking-plm@dell.com*