This Letter of Support (LOS) is a vehicle by which EMC® can offer support for a specific vendor solution. A Letter of Support details support for configurations tested at that particular point-in-time and does not imply future updates of the solution.

EMC reserves the right to make any future updates to the solution. For instance, updates could be made if future enhancements that are discovered through testing further fortifies the existing solution and benefits the customer. EMC recommends that the customer and switch vendor periodically check for updates to the Letter of Support Navigator at https://elabnavigator.emc.com/eln/extendedSupport.

Successful completion of an EMC Engineering-approved test plan with accepted results is required. The Letter of Support is defined by the following:

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**Important:** The information provided in this document is for reference purposes only and does not represent any EMC commitment or change existing policies or agreements. This document can change at any time, without notice. Contact your EMC representative for details on how this information may apply to your specific environment.
Agreement

The following conditions exist:

- Any configuration that is beyond the specified scope of the EMC Letter of Support or the EMC Support Matrix requires an EMC Request for Price Quote (RPQ) submission by the EMC Sales team to EMC Engineering.
- The configuration displayed in the “Supported Configuration” section is supported using only the specified recommendations, revisions, and requirements as listed further.
- Devices in the IP network (such as routers and switches) that are used for LAN/MAN/WAN connectivity and follow IEEE standards, are not qualified for interoperability or listed for support on the EMC Support Matrix.

Supported configurations

Refer to the following table for supported switches and storage systems.

<table>
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<tr>
<th>Fibre Channel</th>
<th>S4000</th>
<th>S5000</th>
<th>S6010</th>
<th>S6100</th>
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<tbody>
<tr>
<td>EMC VMAX® Note 1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>EMC VMAX3™ Note 2</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>EMC VNX® Note 3</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>EMC Unity™ Note 4</td>
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<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>EMC XtremIO® Note 5</td>
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<td>Y</td>
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<thead>
<tr>
<th>iSCSI/FCoE Ethernet</th>
<th></th>
<th></th>
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<td>VMAX Note 1</td>
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<tr>
<td>VMAX3 Note 2</td>
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<td>VNX Note 3</td>
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<td>Unity Note 4</td>
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<td>XtremIO Note 5</td>
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</tbody>
</table>

Note 1: VMAX2 minimum supported code 5876.288.195.N-X
Note 2: VMAX3 minimum supported code 5977.894.859.3
Note 3: VNX2 minimum supported code 5.33.008.3.270
Note 4: Unity minimum supported code 4.0.1.7761138
Note 5: XtremIO minimum supported code 4.0.10-24
Configuration diagrams

This section contains topology diagrams of the supported configurations.

Basic Fabric Services mode

![Basic Fabric Services mode diagram]

NPIV Proxy Gateway (NPG) Mode

![NPIV Proxy Gateway (NPG) Mode diagram]

FCoE Mode

![FCoE Mode diagram]
Limitations

1. Only listed storage systems have been tested and are supported. Refer to storage product documentation for configuration limitations/details.

2. NPG (NPIV) connection was tested and supported to Brocade SAN only. This includes connecting an S5000 in NPG mode to multiple SAN switches in the same or different fabrics. For more details on supported Brocade SAN configurations refer to E-Lab Navigator at: http://elabnavigator.emc.com

3. Only a three-switch S5000 FC fabric can be formed. Use only ISL 3 S5000s together (1 x 12 port Unified/FC module per S5000 switch).

4. Both FC initiator and target connecting to the same S5000 are supported.

5. Additional support details:

   Supported
   - FC initiators on UPM
   - FCoE initiators on any port
   - FC targets on UPM
   - E_Port on UPM

   Not Supported
   - FCoE targets on any ports
   - VE on any ports
   - F_Port Trunking
   - iSCSI-to-FC protocol bridging

6. Firmware upgrade requires a reload of the system and is therefore disruptive.

7. S5000 does not support the hot swapping of a Fibre Channel pluggable module during switch operations. You must power down the switch before removing and replacing an expansion module.

8. S5000 does not support the hot swapping of an Ethernet pluggable module during switch operations. You must power down the switch before removing and replacing an expansion module.

9. The expected deployment for S5000 Switches in Top Of Rack Enterprise Solutions is two switches per rack. This increases port density and scale but has the added advantage of also providing Higher Availability. Consider this during the solution architecting and design phase to ensure that storage interfaces utilize the high availability option of more than one switch.