HiOS EtherNet/IP stack vulnerability

Date: 2020-09-09
Version: 1.0

Executive Summary

The HiOS industrial protocol EtherNet/IP stack is vulnerable to EtherNet/IP packets with incorrect length field.

Details

On a device with the industrial protocol EtherNet/IP enabled, sending UDP EtherNet/IP packets to the device with a length in the header that is larger than the actual packet length can cause a crash or hang of the EtherNet/IP stack within the switch device.

Impact

The switch device can be crashed or brought into an inoperable state if the industrial protocol EtherNet/IP is enabled on the device and an attacker sends corrupted UDP EtherNet/IP packet(s) to the IP address/EtherNet/IP UDP port of the device.

Affected Products

<table>
<thead>
<tr>
<th>Brand</th>
<th>Product Line / Platform</th>
<th>Product</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirschmann</td>
<td>HiOS</td>
<td>RSP, RSPE, RSPS, MSP, EES, GRS1040, OS, RED, BRS</td>
<td>08.0.00 and lower (starting with 05.0.00, which introduced EtherNet/IP support)</td>
</tr>
</tbody>
</table>

Solution

Updates are available, which address the vulnerability. Customers are advised to update their product.

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<tbody>
<tr>
<td>Hirschmann</td>
<td>HiOS</td>
<td>RSP (2A/3S), RSPE, MSP, GRS1040, OS, BRS</td>
<td>08.1.00 or higher</td>
</tr>
<tr>
<td>Hirschmann</td>
<td>HiOS</td>
<td>RSP (2S), RSPS, EES, RED</td>
<td>07.1.01 or higher</td>
</tr>
</tbody>
</table>

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Revisions

V1.0 (2020-09-09): Bulletin created.