Fast, hardware-based network security

Unilaterally data transfer between high security networks without the risk of unauthorized remote access or data stealing

Even the most secure connections can be compromised and even the most well-protected networks can be penetrated.

The fail-safe solution is to physically separate high security from low security networks. While this is the most secure solution, this also severely hampers productivity since it prevents data from being transferred between the networks.

However, with the Arbit Data Diode you can allow one-way data transfer without compromising the integrity of the air-gapped network. By using a single fiber-optic connection which can only send light in one direction, the Arbit Data Diode transports data from less-secure networks such as the open Internet, to secure networks.

While data is allowed to pass one way, it can never be transmitted the opposite way. This means that no intruders can use the connection to remotely access or steal data from your critical network.

**COMPARE SOFTWARE VS. HARDWARE SOLUTION**

<table>
<thead>
<tr>
<th>Protection Feature</th>
<th>Firewall</th>
<th>Software Data Diode</th>
<th>Arbit Data Diode</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% protection against datathief</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>100% protection against hackers</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Secure one-way connection</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Protected by laws of physics</td>
<td>no</td>
<td>no</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**TEST**

<table>
<thead>
<tr>
<th>Category</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through-put</td>
<td>700 mbit/s</td>
</tr>
<tr>
<td>Transactions per second</td>
<td>18.0 (512 KB files)</td>
</tr>
<tr>
<td>Transaction failure rate</td>
<td>0 (out of 5 mio. files)</td>
</tr>
</tbody>
</table>
TECHNICAL DESCRIPTION

The Arbit Data Diode is a physical data diode that establishes a physically secure one-way connection with a single fiber-optic cable. The transmission is handled by two dedicated servers.

The sending server is called a pitcher and the receiving server is called a catcher. No data can be transported from the receiving network to the transmitting network. Therefore, the Arbit Data Diode is just as safe as manual data transfer, yet offers the same convenience as a normal network connection.

The Arbit Data Diode has received the Common Criteria EAL 5+ certification, is listed on NATO IAPC, and meets the ISO-15408 requirements.

FEATURES

- Maximum file size limited only by available disk space
- 64 data channels per diode
- Data channel priority (on transaction basis)
- Supports up to 24 streaming channels (video, radio, etc.)
- Back Pressure in case of critical disk space
- Notifications by email, syslog and SNMP
- User-friendly web interface
- No daily maintenance
- Software runs on hardened Linux

BENEFITS

- The Arbit Data Diode is a 100% secure physical data diode
- Proven stability through 10 years of service
- User-friendly web interface
- Integrates with Microsoft server solutions
- Quick installation and configuration
- Powerful add-ons to control content moving through the diode
- Full integration with OPSWAT multi anti-malware scanning including content disarmament and data loss prevention
- 700 mbit/s throughput

SUPPORTED PROTOCOLS

- Mail (SMTP)
- Simple File Transfer (FTP, SFTP)
- Windows share forwarding (SMB)
- Windows share mirroring (SMB)
- Network File System share forwarding (NFS)
- Network File System share mirroring (NFS)
- Time synchronization (NTP)
- Streaming (TCP, UDP)
- REST API Forwarder (HTTP, HTTPS)

ABOUT

Founded in 2006, Arbit specializes in cybersecurity solutions for organizations requiring the highest security. Arbit’s solutions are deployed in top security networks throughout the world, including military organizations, police, and intelligence services.

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