The demand for encryption continues to increase as the need to mitigate risks of data breaches, protect brand reputation, and comply with privacy and data protection regulations also increase. The escalating costs of data breaches are driven by the loss of customers and business, customer notifications, legal services, and consulting services. In addition, many companies find that one of the biggest costs of a data breach is the damage it can do to your brand. Encryption mitigates the risks of these costs by protecting your data even after it leaves the data center. Encryption also helps companies comply with increasing regulations around security and privacy.

Scalar® Key Manager is simple to use, easy to manage, and is designed to enable encryption for Scalar library installations of all sizes. Scalar Key Manager integrates directly with Quantum’s Scalar tape libraries to provide a simple, centralized security solution designed to work with encryption-enabled LTO drives. It offers high-availability (HA) key management that can be easily integrated into existing backup architectures, and is FIPS 140-2 validated. Scalar Key Manager also offers customers flexible implementation options. It can be installed as a pair of servers or as a pair of virtual machines in a VMware environment. Scalar Key Manager provides Quantum tape library customers with a federally certified security solution while maintaining simplicity for encryption key management across all Scalar library units in the data center and in remote locations.

INTEGRATED WITH QUANTUM’S SCALAR LIBRARIES
Scalar Key Manager is fully integrated with Quantum’s Scalar tape libraries to reduce the time you spend managing your encryption solution. The Scalar Key Manager setup, configuration, management, and even diagnostics are all accomplished through the native Scalar library user interface. Since there is no additional interface to manage, this integration further simplifies initial setup and the ongoing administration of your security solution.

> DATASHEET

Simplified Encryption Key Management for Scalar Tape Libraries

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Quantum, Scalar i500

Setup - Encryption System Configuration

Key Server Type: QKM
Automatic EKM Path Diagnostics: Enabled
SSL Connection: Enabled
Primary Key Server IP Address or Host: 12.20.198.243
Primary Key Server Port Number: 80
Secondary Key Server IP Address or Host: 12.20.198.243
Secondary Key Server Port Number: 80

LEARN MORE:
www.quantum.com/tape
MINIMIZE COMPLEXITY OF THE KEY MANAGEMENT PROCESS
Quantum’s Scalar Key Manager is customer installable, and setup and configuration are easily accomplished through the simple, intuitive Scalar library user interface. Once Scalar Key Manager is installed and encryption is enabled, Scalar Key Manager handles all of the key management tasks, including key creation, tracking the relationship between keys and tapes, and synchronizing key databases between the primary and secondary appliances. No further direct involvement is required from the end user. Quantum’s solution is “set-and-forget” simple—and end users can rest assured knowing their data is secure.

COMPLIANCE WITH FEDERAL SECURITY STANDARDS
Scalar Key Manager is FIPS 140-2 validated, which is a federally approved level of security. Purchasing a key management solution that is FIPS validated means that the underlying cryptographic key management software and hardware is sufficiently robust to meet federally adopted standards of security. In addition, Scalar Key Manager is included in a high-availability (HA) configuration that provides redundancy and failover for the encryption key management process.

SCALABLE SOLUTION FOR DISTRIBUTED ENVIRONMENTS
Scalar Key Manager is the ideal solution to centrally manage the encryption key process across systems and sites. It can manage the encryption key process for one system or all the systems in your environment while providing a platform that can scale with data growth.

SCALAR KEY MANAGER APPLIANCE EXAMPLE ARCHITECTURE

GENERAL
• Built to comply with the FIPS 140-2 Level 1 federal security standard
• Centralized, scalable solution to manage keys across multiple tape libraries and multiple locations
• HA configuration with redundant, synchronized key servers
• Customer installable
• Integrated directly with Quantum Scalar tape libraries (managed through the native tape library GUIs)
• Support for LTO-4, LTO-5, LTO-6, LTO-7, and LTO-8 drive-based encryption
• Ability to import and export keys to facilitate key sharing

APPLIANCE SPECIFICATIONS
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Form Factor*</td>
<td>1U, rack mount</td>
</tr>
<tr>
<td>Server Weight*</td>
<td>24.3 lb</td>
</tr>
<tr>
<td>Server Dimensions (H x W x D, in)*</td>
<td>1.7 x 17.3 x 22</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>10 °C to 35 °C at 914.4 m</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>8% to 80%</td>
</tr>
</tbody>
</table>

*The Scalar Key Manager appliance option includes a pair of HA servers.

VM SPECIFICATIONS
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires VMware ESXi or ESXi, 4.0 (64 bit) or 5.0 (64 bit)</td>
<td>Requires VMware ESXi or ESXi, 4.0 (64 bit) or 5.0 (64 bit)</td>
</tr>
<tr>
<td>Resources Required for Each Scalar Key Manager VM server: 4 GB RAM</td>
<td>Resources Required for Each Scalar Key Manager VM server: 4 GB RAM</td>
</tr>
<tr>
<td>16 GB of disk space</td>
<td>16 GB of disk space</td>
</tr>
</tbody>
</table>

SUPPORTED PRODUCTS
• Scalar i6000 with IBM LTO-5, LTO-6, LTO-7 and LTO-8 drives
• Scalar i6000 with HP LTO-4, LTO-5, and LTO-6 drives
• Scalar i6 with IBM LTO-6, LTO-7, and LTO-8 drives
• Scalar i500 with IBM LTO-5, LTO-6, LTO-7, and LTO-8 drives
• Scalar i500 with HP LTO-4, LTO-5, and LTO-6 drives
• Scalar i40/i80 with IBM LTO-5, LTO-6, and LTO-7 drives
• Scalar i40/i80 with HP LTO-4, LTO-5, and LTO-6 drives

ABOUT QUANTUM
Quantum technology and services help customers capture, create, and share digital content—and preserve and protect it for decades at the lowest cost. Quantum’s platforms provide the fastest performance for high-resolution video, images, and industrial IoT, with solutions built for every stage of the data lifecycle, from high-performance ingest to real-time collaboration and analysis and low-cost archiving. Every day the world’s leading entertainment companies, sports franchises, research scientists, government agencies, enterprises, and cloud providers are making the world happier, safer, and smarter on Quantum. See how at www.quantum.com.

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