

SOLUTION BRIEF

# Commercial Solutions for Classified

Validated products from NetApp



## The data protection challenge

Cyberattacks using horizontal escalation, insider threats and physical theft of storage systems have created advanced risks to business and government data that must be eliminated. In response, IT organizations are combating data breaches by removing the concept of trusted users in IT architecture and employing a new model for security known as zero trust. One element of this approach is encryption technology for data at rest. NetApp supports not just one, but two levels of certified data protection services when operating NetApp® ONTAP® data management software.

The Commercial Solutions for Classified (CSfC) Program is a key component of the U.S. National Security Agency commercial cybersecurity strategy. CSfC-validated products are proven to meet rigorous security requirements for protection of classified National Security Systems data. With this validation, U.S. government agencies such as the Department of Defense (DoD) can incorporate state-of-the-art commercial hardware and software technologies into their data protection and cybersecurity solutions.

By enabling your organization to deploy cutting-edge, commercially available data security solutions, CSfC-validated products achieve program objectives quickly while always protecting data at any location the mission requires.

### Software-based encryption

**NetApp Volume Encryption (NVE)** is a storage-efficient software data-at-rest encryption solution that enables ONTAP to encrypt your data for each volume, which promotes granularity. NVE is a FIPS 140-2 compliant solution. ONTAP software is Protection Profile compliant for the Full Drive Encryption—Authorization Acquisition 2.0E collaborative Protection Profile and the Full Drive Encryption—Encryption Engine 2.0E collaborative Protection Profile when NVE is enabled and the onboard key manager is configured in Common Criteria mode.

### NetApp Aggregate Encryption (NAE)

is available with ONTAP. With NAE, after data is encrypted, all ONTAP storage efficiencies are leveraged as the volumes can share encryption keys across the aggregate.

## Key benefits

### Get unbreakable data protection with dual-layer encryption

- Re-encrypt data in a volume and on disk or SSD.

### Enable granular key services for encrypting volumes

- Key data volumes independently and uniquely from disk or SSD encryption.

### Maintain storage efficiencies

- Encrypt your data while maintaining NetApp storage efficiencies such as deduplication, compression, and compaction.

### Satisfy governance and compliance requirements

- Operate advanced security profiles that comply with industry and U.S. Government regulations (e.g., PCI-DSS, DoDIN APL, and DISA STIG).

Both NVE and NAE use a FIPS 140-2 validated crypto module to perform encryption and decryption.

### Hardware-based encryption

**NetApp Storage Encryption (NSE)** is configured to use FIPS 140-2 Level 2 self-encrypting drives (SEDs). By enabling data-at-rest protection through AES 256-bit transparent disk encryption, NSE facilitates compliance and failed or spare drive return. NetApp ONTAP data management software is Protection Profile compliant for the Full Drive Encryption—Authorization Acquisition 2.0E collaborative Protection Profile when used with NSE drives.

**NVMe SEDs** do not carry the FIPS 140-2 certification. However, they are still configured to use AES 256-bit transparent disk encryption to facilitate failed and spare drive return.

### NetApp ONTAP is CSfC validated

NetApp ONTAP data management software is CSfC validated. Its robust encryption-at-rest technologies offer enhanced security so that all your data is protected all the time, without affecting daily operations. As the industry's first CSfC-validated enterprise-class storage solution, ONTAP enables you to protect at both the hardware and the software layer for rugged security.



NetApp Volume Encryption combined with NetApp Storage Encryption provides dual-layer encryption technologies that are deemed eligible as CSfC components of a composed, layered IA solution.

### Learn more

To learn more about CSfC and why it is important to private and public sector organizations, watch this [short video](#) from Barry Lake Chief of NSA Cyber-Security.

### Additional resources

- [CSfC Components List](#)
- [NIAP product compliant list](#)
- [Security Technical Implementation Guide \(STIG\) listing \(page 3\)](#)
- [NetApp security hardening guide for ONTAP 9](#)
- [NSE, NVMe SEDs, NVE, and NAE datasheet](#)
- [NSE datasheet](#)
- [NVE datasheet](#)
- [Security features in ONTAP 9 datasheet](#)
- [NetApp ONTAP Security](#)
- [NetApp Trust Center](#)
- [NetApp security certifications](#)

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### About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. [www.netapp.com](http://www.netapp.com)

