



**Trusted Computing Group Storage Work Group**  
**Opalite Security Subsystem Class (SSC) Specification FAQ**  
**August 2015**

**Q. What is the Storage Work Group?**

A. The Storage Work Group is an entity within the Trusted Computing Group. It consists of TCG member companies with interests in the implementation of the Trusted Computing Group's specifications for storage devices. For more information on the Storage Work Group, please refer to [www.trustedcomputinggroup.org](http://www.trustedcomputinggroup.org).

**Q. What is the purpose of the Storage Work Group?**

A. The Storage Work Group builds upon existing TCG philosophy in the development of specifications that provide a comprehensive architecture for storage devices. The Storage Work Group's objective is to define specifications and accompanying documents for building and managing storage devices that enforce policy controls as set by hosts across a wide range of storage transport command protocols.

**Q. How is the Storage Work Group organized?**

A. The Storage Work Group operates under the auspices of the TCG. Membership in the Storage Work Group is determined by TCG bylaws and is open to all TCG members.

**Q. Who is participating in the Storage Work Group?**

A. Participation in the Storage Work Group includes storage device manufacturers, storage subsystem manufacturers, software vendors, and designers of custom, highly integrated components. Storage and security management and storage integration vendors also participate. A complete list of current TCG members is available at [www.trustedcomputinggroup.org](http://www.trustedcomputinggroup.org).

**Q. What is the output of this Work Group?**

A. The Storage Work Group deliverables include specifications that define security functionality requirements for storage devices and managing hosts; test cases and certification process documents; and informative supporting documents.

**Q. What is the Core Specification?**

A. The Core Specification, officially known as TCG Storage Architecture Core Specification, developed by the Storage Work Group provides a comprehensive definition of TCG-related functions for a TCG storage device.

**Q. What is a Security Subsystem Class (SSC)?**

A. The Core Specification can be further broken down in multiple subsets of functionality called Security Subsystem Classes (SSCs). SSCs explicitly define the minimum acceptable Core Specification capabilities of a storage device in a specific “class” and potentially expand functionality beyond what is defined in the Core Specification.

**Q. What is the Opalite SSC?**

A. The Opalite SSC specification is predicated on ease of implementation and integration. This SSC defines the functionality for implementing the Core Specification on storage devices.

**Q. What is the audience for this specification?**

A. The target audience includes system integrators, security software vendors, test suites vendors, OEMs, and storage device manufacturers.

**Q. What features are specified by the Opalite SSC?**

A. The Opalite SSC provides data-at-rest protection of user data via data encryption and access controls, secure boot capability (pre-boot authentication), and fast repurposing of the storage device.

**Q. How is user data protected?**

A. The Opalite SSC specifies encryption of user data, and associated authentication requirements that unlock access to user data.

**Q. Why do we need Opalite SSC devices?**

A. Opalite SSC specifies a hardware based data encryption solution to the problem of data breach caused by lost or stolen storage devices.

**Q. Do Opalite SSC devices require a TPM?**

A. No. Opalite SSC storage devices do not require a TPM. For additional protection, integrating these storage devices in systems with activated TPM is recommended.

**Q. What is Opalite SSC’s relationship with Opal SSC?**

A. Opalite SSC is a subset of Opal SSC v2.01.

**Q. What features does Opalite support?**

A. Opalite SSC includes the following capabilities:

- Global Range: Specifies encryption and locking of a single range of LBAs that encompasses the entire user data space on the storage device.
- Admin Authorities: Specifies support for 1 Admin authority.
- User Authorities: Specifies support for 2 User authorities.
- PSID: Requires support for the PSID authority
- DataStore table: Specifies DataStore table size of 128 KB

**Q. What Opal SSC features are not supported by Opalite SSC?**

A. Opalite SSC has the following primary differences from Opal SSC 2.01:

- Locking Ranges: Opalite SSC does not specify support for Locking ranges beyond the single, Global Range.
- Admin Authorities: Opalite SSC specifies support for 1 Admin authority; Opal SSC specifies support for 4 Admin authorities.

- User Authorities: Opalite SSC specifies support for 2 User authorities; Opal SSC specifies support for 8 User authorities.
- DataStore table: Opalite SSC specifies DataStore table size of 128 KB. Opal SSC specifies DataStore table size of 10 MB. Opalite SSC does not specify support for the Additional DataStore Tables Feature Set

**Q. Does Opalite SSC require any features that Opal SSC 2.01 does not support?**

A. Yes. Opalite SSC requires support for the Block SID Authentication Feature Set, which is not required by Opal SSC 2.01.

**Q. What is a Feature Set?**

A. A Feature Set defines additional functionality that extends an SSC.

**Q. Are there any Mandatory Feature Sets for Opalite SSC?**

A. Yes. The PSID Feature Set and the Block SID Authentication Feature Set are Mandatory for Opalite SSC.

**Q. Since Opalite SSC is a subset of Opal SSC 2.01, can host software designed for Opalite SSC work with Opal SSC 2.01 storage devices?**

A. An Opal SSC 2.01 storage device is not required to support the Block SID Authentication Feature Set. Attempts to use the functionality defined by this Feature Set on an Opal SSC 2.01 storage device are not guaranteed to work. All other Opalite SSC features are supported in Opal SSC 2.01.

**Q. Does Opal SSC 2.01 software support Opalite SSC?**

- A. Software that supports Opal SSC 2.01 can also support Opalite SSC, as long as the software:
- Can recognize the Opalite SSC Level 0 Feature Descriptor
  - Only supports features that are common between the two specifications (e.g., only uses the Global Range; uses no more than 128KB in the DataStore table)

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