TCG Storage
Opal SSC Feature Set:
Additional DataStore Tables

Specification Version 1.00
Revision 1.00

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## Change History

<table>
<thead>
<tr>
<th>Version 1.00</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rev 1.00</td>
<td>February 24, 2012</td>
<td>First publication</td>
</tr>
</tbody>
</table>


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1 Introduction

1.1 Document Purpose
The Storage Workgroup specifications provide a comprehensive architecture for putting Storage Devices under policy control as determined by the trusted platform host, the capabilities of the Storage Device to conform with the policies of the trusted platform, and the lifecycle state of the Storage Device as a Trusted Peripheral.

1.2 Scope and Intended Audience
This specification defines the Additional DataStore Tables for the Opal Security Subsystem Class (SSC). Any Storage Device that claims Opal SSC Additional DataStore Tables compatibility SHALL conform to this specification.

The intended audience for this specification is both trusted Storage Device manufacturers and developers that want to use these Storage Devices in their systems.

1.3 Key Words
Key words are used to signify SSC requirements.

The Key Words "SHALL", "SHALL NOT", "SHOULD," and "MAY" are used in this document. These words are a subset of the RFC 2119 key words used by TCG, and have been chosen since they map to key words used in T10/T13 specifications. These key words are to be interpreted as described in [1].

In addition to the above key words, the following are also used in this document to describe the requirements of particular features, including tables, methods, and usages thereof.

- **Mandatory (M):** When a feature is Mandatory, the feature SHALL be implemented. A Compliance test SHALL validate that the feature is operational.

- **Optional (O):** When a feature is Optional, the feature MAY be implemented. If implemented, a Compliance test SHALL validate that the feature is operational.

- **Excluded (X):** When a feature is Excluded, the feature SHALL NOT be implemented. A Compliance test SHALL validate that the feature is not operational.

- **Not Required (N):** When a feature is Not Required, the feature MAY be implemented. No Compliance test is required.

1.4 Document References

[1]. IETF RFC 2119, 1997, "Key words for use in RFCs to Indicate Requirement Levels"


[3]. Trusted Computing Group (TCG), "TCG Storage Security Subsystem Class: Opal", Versions 1.00 and 2.00

[4]. Trusted Computing Group (TCG), "TCG Storage Interface Interactions Specification", Version 1.02

1.5 Document Precedence
In the event of conflicting information in this specification and other documents, the precedence for requirements is:

1. This specification and TCG Storage Security Subsystem Class: Opal (these two documents are at the same level of precedence, and SHALL NOT conflict with each other)


1.6 Dependencies on Other Feature Sets
This feature set has no dependencies on other feature sets.

1.7 Interactions with Other Feature Sets
At the time of writing, this feature set has no interactions with other feature sets.

1.8 Terminology
This feature does not define any new terms.

1.9 Legend
The following legend defines SP table cell coloring coding. This color coding is informative only. The table cell content is normative.

<table>
<thead>
<tr>
<th>Table Cell Legend</th>
<th>R-W</th>
<th>Value</th>
<th>Access Control</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arial-Narrow</td>
<td>Read-only</td>
<td>Opal SSC specified</td>
<td>Fixed</td>
<td>• Cell content is Read-Only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Access control is fixed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Value is specified by the Opal SSC</td>
</tr>
<tr>
<td>Arial Narrow</td>
<td>Read-only</td>
<td>VU</td>
<td>Fixed</td>
<td>• Cell content is Read-Only.</td>
</tr>
<tr>
<td>bold-under</td>
<td></td>
<td></td>
<td></td>
<td>• Access Control is fixed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Values are Vendor Unique (VU). A minimum or maximum value may be specified.</td>
</tr>
<tr>
<td>Arial-Narrow</td>
<td>Not Defined</td>
<td>(N)</td>
<td>Not Defined</td>
<td>• Cell content content is (N).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Access control is not defined.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Any text in table cell is informative only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• A Get MAY omit this column from the method response.</td>
</tr>
<tr>
<td>Arial Narrow</td>
<td>Write</td>
<td>Preconfigured, user personalizable</td>
<td>Preconfigured, user personalizable</td>
<td>• Cell content is writable.</td>
</tr>
<tr>
<td>bold-under</td>
<td></td>
<td></td>
<td></td>
<td>• Access control is personalizable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Get: Access Control is not described by this color coding</td>
</tr>
<tr>
<td>Arial-Narrow</td>
<td>Write</td>
<td>Preconfigured, user personalizable</td>
<td>Fixed</td>
<td>• Cell content is writable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Access control is fixed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Get: Access Control is not described by this color coding</td>
</tr>
</tbody>
</table>
2 Additional DataStore Tables Overview

The Additional DataStore Tables feature set defined in this document is an extension of the existing mechanism provided via the DataStore table defined in [3]. This specification extends the DataStore table concept by providing a mechanism allowing the host to partition the space that the TPer allocates for that table into a number of independently managed DataStore tables.

The goal of the Additional DataStore Tables feature set is to provide an ability to store application-specific metadata in the TPer in such a way that:

- It is possible to create multiple DataStore tables independent from each other
- It is possible to configure access control in such a way that multiple entities owning DataStore tables but unaware of each other are prevented from accessing each other’s data
- The storage area of the DataStore tables does not overlap with the User Area in order to avoid potential compatibility issues with existing host software

The DataStore tables can, in some implementations, be used to store key material without which C_PIN credentials cannot be obtained. Because of that, corruption of DataStore tables may have the same consequences as corruption of C_PIN or K_AES tables. TPer implementers should keep this in mind while designing redundancy mechanisms for the DataStore tables.
3 SSC Specific Functionality

This section defines the SSC-specific functionality (not contained in [2], [3], or [4]) required to support the Additional DataStore Tables feature set.

3.1 Modified methods

3.1.1 Activate

The Activate method of the Admin SP is modified to include an optional parameter called DataStoreTableSizes:

```c
SPObjecUID.Activate[

    DataStoreTableSizes = list [ uintegers ]
]
```

If provided, the DataStoreTableSizes parameter (parameter number 0x060002) specifies the number of the DataStore tables that the TPer is requested to create and their sizes in bytes. The first element in the DataStoreTableSizes list corresponds to the DataStore table defined in [3]. The subsequent elements specify the desired sizes of the additional DataStore tables introduced by the Additional DataStore Tables feature set (refer to section 3.2.1).

The number and the sizes of the DataStore tables created via the Activate method are subject to certain constraints specific to the TPer. The constraints can be discovered via the Level 0 feature descriptor defined in section 4.1.1. If the TPer cannot satisfy a request for additional DataStore tables due to constraints related to the total number or size of the DataStore tables, the Activate method SHALL fail with the INSUFFICIENT_SPACE code. If the TPer cannot satisfy a request for additional DataStore tables due to constraints related to DataStore table size alignment, the Activate method SHALL fail with the INVALID_PARAMETER code.

If the DataStoreTableSizes parameter is not provided, the Activate method shall be processed as if this parameter were provided and consisted of a single element equal to the “Maximum total size of DataStore tables” field of the DataStore Table Feature Descriptor defined in section 4.1.1.

Refer to section 4.2.1 for additional requirements defined for the Activate method by the Additional DataStore Tables feature set.

3.1.2 Reactivate

If the Locking SP supports the Reactivate method, it is modified to include an optional parameter called DataStoreTableSizes:

The Reactivate method of the Locking SP is modified as follows:

```c
ThisSP.Reactivate[

    DataStoreTableSizes = list [ uintegers ]
]
```

If provided, the DataStoreTableSizes parameter (parameter number 0x060003) specifies the number of the DataStore tables that the TPer is requested to create upon Locking SP reactivation and their sizes in bytes. The first element in the DataStoreTableSizes list corresponds to the DataStore table defined in [3]. The subsequent elements specify the desired sizes of the additional DataStore tables introduced by the Additional DataStore Tables feature set.

The number and the sizes of the DataStore tables created via the Reactivate method are subject to certain constraints specific to the TPer. The constraints can be discovered via the Level 0 feature descriptor defined in
section 4.1.1. If the TPer cannot satisfy a request for additional DataStore tables due to constraints related to
the total number or size of the DataStore tables, the Reactivate method SHALL fail with the
INSUFFICIENT_SPACE code. If the TPer cannot satisfy a request for additional DataStore tables due to
constraints related to DataStore table size alignment, the Reactivate method SHALL fail with the
INVALID_PARAMETER code.

If the DataStoreTableSizes parameter is not provided, the Reactivate method shall be processed as if this
parameter were provided and consisted of a single element equal to the “Maximum total size of DataStore
tables” field of the DataStore Table Feature Descriptor defined in section 4.1.1.

Refer to section 4.3.1 for additional requirements defined for the Reactivate method by the Additional DataStore
Tables feature set.

3.2 New tables

3.2.1 DataStoreXXXX

A number of new DataStoreXXXX byte tables are added to the Locking SP. The new DataStoreXXXX tables
are functionally equivalent to the DataStore table defined in [3] and can be used by the host to persistently store
implementation-specific information using the Set and Get methods on the DataStoreXXXX objects.
4 Feature Set Requirements

This section defines the Mandatory (M) and Optional (O) requirements for the Additional DataStore Tables feature set, when it is implemented in an Opal-compliant device.

4.1 Level 0 Discovery

An Opal-compliant SD that contains the Additional DataStore Tables feature set SHALL return the DataStore Table Feature Descriptor as described in 4.1.1, in addition to the Level 0 Discovery response requirements defined in [3].

4.1.1 DataStore Table Feature Descriptor (Feature Code = 0202h)

This feature descriptor SHALL be returned when the Opal-compliant SD supports the Additional DataStore Tables feature set. The contents of the feature descriptor are defined in Table 2.

<table>
<thead>
<tr>
<th>Byte</th>
<th>Bit</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>(MSB)</td>
<td>Feature Code</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>(LSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Version</td>
<td>Reserved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Length</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Reserved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>(MSB)</td>
<td>Maximum number of DataStore tables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>(LSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>(MSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Maximum total size of DataStore tables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>(LSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>(MSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>DataStore table size alignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>(LSB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.1.1.1 Maximum number of DataStore tables

This field specifies the maximum number of the DataStore tables that the TPer supports, including the DataStore table defined in [3].

4.1.1.2 Maximum total size of DataStore tables

This field specifies the maximum total size in bytes of all of the DataStore tables that the TPer supports, including the DataStore table defined in [3].

4.1.1.3 DataStore table size alignment

This field specifies the size alignment in bytes for the DataStore tables other than the DataStore table defined in [3].

4.1.1.4 Level 0 requirements for the DataStore Table Feature Descriptor

- **Feature Code**: 0x0202
- **Version**: 0x1 or any version that supports the defined features in this specification
- **Length**: 0x0C
- **Maximum number of DataStore tables**: 1 or above.
- **Maximum total size of DataStore tables**: 0xA0000 or above.
- **DataStore table size alignment**: 1 or above

## 4.2 Admin SP

An Opal-compliant SD that contains the Additional DataStore Tables feature set SHALL contain the additions to the Admin SP specified in this section, in addition to the Admin SP requirements defined in [3].

### 4.2.1 Activate method

An Opal-compliant SD that contains the Additional DataStore Tables feature set supports the modifications to the Activate method defined in section 3.1.1.

The Activate method supports any DataStoreTableSizes parameter value that meets all of the following criteria:

- The number of elements in the DataStoreTableSizes parameter is less than or equal to the value of the “Maximum number of DataStore tables” field of the DataStore Table Feature Descriptor.
- The total sum of all elements in the DataStoreTableSizes parameter less than or equal to the value of the “Maximum total size of DataStore tables” field of the DataStore Table Feature Descriptor.
- The value of each element in the DataStoreTableSizes parameter is a multiple of the value of the “DataStore table size alignment” field of the DataStore Table Feature Descriptor.

If the Activate method succeeds, the TPer creates DataStore tables in the Locking SP as described in section 3.2.1 and ACE/AccessControl elements for those tables as described in sections 4.3.3 and 4.3.4. The sizes of the DataStore tables can be retrieved from the Rows column of the Table table after Locking SP activation.

## 4.3 Locking SP

An Opal-compliant SD that contains the Additional DataStore Tables feature set SHALL contain the additions to the Locking SP specified in this section, in addition to the Locking SP requirements defined in [3].

### 4.3.1 Reactivate method

An Opal-compliant SD that contains the Additional DataStore Tables feature set and implements the Reactivate method supports the modifications to the Reactivate method defined in section 3.1.2.

The Reactivate method supports any DataStoreTableSizes parameter value that meets all of the following criteria:

- The number of elements in the DataStoreTableSizes parameter is less than or equal to the value of the “Maximum number of DataStore tables” field of the DataStore Table Feature Descriptor.
- The total sum of all elements in the DataStoreTableSizes parameter less than or equal to the value of the “Maximum total size of DataStore tables” field of the DataStore Table Feature Descriptor.
- The value of each element in the DataStoreTableSizes parameter is a multiple of the value of the “DataStore table size alignment” field of the DataStore Table Feature Descriptor.

If the Reactivate method succeeds, the TPer replaces existing DataStore tables in the Locking SP with new DataStore tables as described in section 3.2.1. The content of the DataStore tables is not guaranteed to be preserved across a Reactivate method invocation even if the DataStoreTableSizes list provided in it is the same as in the previous Activate or Reactivate method invocation.

The existing ACE/AccessControl elements for the DataStore tables are replaced with new ACE/AccessControl elements as described in sections 4.3.3 and 4.3.4. This results in the BooleanExpr column of the ACEs related to the DataStore tables being reset to “Admins”. The sizes of the DataStore tables can be retrieved from the Rows column of the Table table after Locking SP activation.
### 4.3.2 Table table

A number of new entries are added to the Table table for the additional DataStore tables, resulting in the following changes in the Table table preconfiguration of the Locking SP:

*TT1 = The number of rows in the DataStore tables is specified via the Activate / Reactivate method and subject to the constraints defined in 4.1.1

*TT2 = The number of the DataStore tables is specified via the Activate / Reactivate method and subject to the constraints defined in 4.1.1

**Table 3 Locking SP – Additions to Table Table Preconfiguration**

<table>
<thead>
<tr>
<th>UID</th>
<th>Name</th>
<th>CommonName</th>
<th>TemplateID</th>
<th>Kind</th>
<th>Column</th>
<th>NumColumns</th>
<th>Rows</th>
<th>RowsFree</th>
<th>RowBytes</th>
<th>LastID</th>
<th>MinSize</th>
<th>MaxSize</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 00 00 01</td>
<td>&quot;DataStore2&quot;</td>
<td></td>
<td></td>
<td>Byte</td>
<td></td>
<td>*TT1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00 00 10 02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00 00 00 01</td>
<td>DataStoreXXXX</td>
<td></td>
<td></td>
<td>Byte</td>
<td></td>
<td>*TT1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00 00 10 00</td>
<td>(+XXXX)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.3.3 AccessControl table

A number of new entries are added to the AccessControl table for the additional DataStore tables, resulting in the following changes in the AccessControl table preconfiguration of the Locking SP:

*ACT = The number of DataStore related AccessControl entries depends on the number of DataStore tables, which is specified via the Activate / Reactivate method and subject to constraints defined in 4.1.1

**Table 4 Locking SP - AccessControl Table Preconfiguration**

<table>
<thead>
<tr>
<th>Table Association - informative only</th>
<th>UID</th>
<th>InvokingID</th>
<th>InvokingID Name - informative only</th>
<th>MethodID</th>
<th>CommonName</th>
<th>ACL</th>
<th>AddACEACL</th>
<th>RemoveACEACL</th>
<th>GetACLEACL</th>
<th>DeleteMethodACL</th>
<th>AddACELog</th>
<th>RemoveACELog</th>
<th>GetACLLog</th>
<th>DeleteMethodLog</th>
<th>LogTo</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td></td>
<td>00 00 00 08</td>
<td>ACE_DataStore2_Get_All</td>
<td>Set</td>
<td>ACE_ACE_ACE_Set_BooleanExpression</td>
<td>ACE_Anybody</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>00 00 00 08</td>
<td>ACT</td>
<td></td>
<td>ACE_ACE_ACE_Set_BooleanExpression</td>
<td>ACE_Anybody</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Table Association</td>
<td>UID</td>
<td>InvokingID</td>
<td>InvokingID Name</td>
<td>MethodID</td>
<td>CommonName</td>
<td>ACL</td>
<td>AddACEACL</td>
<td>RemoveACEACL</td>
<td>GetACLACL</td>
<td>DeleteMethodACL</td>
<td>AddACELog</td>
<td>RemoveACELog</td>
<td>GetACELog</td>
<td>DeleteMethodLog</td>
<td>LogTo</td>
</tr>
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<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>- informative only</td>
<td>00 00 08 00 03 FC 03</td>
<td>ACT</td>
<td>ACE_DataStore2_Set_All</td>
<td>Set</td>
<td>ACE_DataStore2_Get_All</td>
<td>ACE_ACE_Set_BooleanExpression</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
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</tr>
<tr>
<td>- informative only</td>
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<td>ACT</td>
<td>ACE_DataStore_RXXX_Get_All</td>
<td>Set</td>
<td>ACE_DataStore_RXXX_Set_All</td>
<td>ACE_ACE_Set_BooleanExpression</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
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</tr>
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<td>- informative only</td>
<td>00 00 08 00 03 FC 01 (+ (XXXX – 1) * 2)</td>
<td>ACT</td>
<td>ACE_DataStore_RXXX_Set_All</td>
<td>Set</td>
<td>ACE_DataStore_RXXX_Set_All</td>
<td>ACE_ACE_Set_BooleanExpression</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
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<td>ACE_Anybody</td>
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</tr>
<tr>
<td>DataStore</td>
<td>00 00 10 02</td>
<td>ACT</td>
<td>DataStore2</td>
<td>Get</td>
<td>DataStore2</td>
<td>ACE_DataStore2_Get_All</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
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<td>ACE_Anybody</td>
<td>ACE_Anybody</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Table Association**

- Table Association is used to map the invoking ID to the method ID and the common name.

**UID**

- The UID uniquely identifies each entry in the table.

**InvokingID**

- The InvokingID is a unique identifier for each table entry.

**InvokingID Name**

- The InvokingID Name is an informative only field.

**MethodID**

- The MethodID is used to identify the method associated with the table entry.

**CommonName**

- The CommonName is an informative only field.

**ACL**

- The ACL is a list of access control entries that define who can access the data.

**AddACEACL**

- The AddACEACL field indicates whether an ACE can be added.

**RemoveACEACL**

- The RemoveACEACL field indicates whether an ACE can be removed.

**GetACLACL**

- The GetACLACL field indicates whether the ACL can be retrieved.

**DeleteMethodACL**

- The DeleteMethodACL field indicates whether the method can be deleted.

**AddACELog**

- The AddACELog field indicates whether an ACERLog can be added.

**RemoveACELog**

- The RemoveACELog field indicates whether an ACERLog can be removed.

**GetACELog**

- The GetACELog field indicates whether the ACERLog can be retrieved.

**DeleteMethodLog**

- The DeleteMethodLog field indicates whether the method can be deleted.

**LogTo**

- The LogTo field indicates the target of the log entry.
<table>
<thead>
<tr>
<th>Table Association</th>
<th>UID</th>
<th>InvokingID</th>
<th>InvokingID Name</th>
<th>MethodID</th>
<th>CommonName</th>
<th>ACL</th>
<th>Add ACEACL</th>
<th>Remove ACEACL</th>
<th>Get ACL</th>
<th>Delete MethodACL</th>
<th>Add ACELog</th>
<th>Remove ACELog</th>
<th>Get ACLLog</th>
<th>Delete MethodLog</th>
<th>LogTo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>00 00 00</td>
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<td>Set</td>
<td>CommonName</td>
<td>ACL</td>
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<td>Delete MethodACL</td>
<td>Add ACELog</td>
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<td>Get ACLLog</td>
<td>Delete MethodLog</td>
<td>LogTo</td>
</tr>
<tr>
<td></td>
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<td>00 00 00</td>
<td>DataStoreXXX</td>
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<td>CommonName</td>
<td>ACL</td>
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<td>Get ACL</td>
<td>Delete MethodACL</td>
<td>Add ACELog</td>
<td>Remove ACELog</td>
<td>Get ACLLog</td>
<td>Delete MethodLog</td>
<td>LogTo</td>
</tr>
<tr>
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<td>00 00 00</td>
<td>DataStoreXXX</td>
<td>Set</td>
<td>CommonName</td>
<td>ACL</td>
<td>Add ACEACL</td>
<td>Remove ACEACL</td>
<td>Get ACL</td>
<td>Delete MethodACL</td>
<td>Add ACELog</td>
<td>Remove ACELog</td>
<td>Get ACLLog</td>
<td>Delete MethodLog</td>
<td>LogTo</td>
</tr>
</tbody>
</table>

### 4.3.4 ACE table

A number of new ACEs are added for the additional DataStore tables, resulting in the following changes in the ACE table preconfiguration of the Locking SP:

\*ACET = The number of DataStore related ACEs depends on the number of DataStore tables, which is specified via the Activate / Reactivate method and subject to constraints defined in 4.1.1

#### Table 5 Locking SP - ACE Table Preconfiguration

<table>
<thead>
<tr>
<th>Table Association</th>
<th>UID</th>
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<th>CommonName</th>
<th>BooleanExpr</th>
<th>Columns</th>
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<tr>
<td></td>
<td>00 00 00 08</td>
<td>&quot;ACE_DataStore2_Get_All&quot;</td>
<td>Admins</td>
<td>All</td>
<td></td>
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</table>
### Table Association

<table>
<thead>
<tr>
<th>Informative Column</th>
<th>UD</th>
<th>Name</th>
<th>CommonName</th>
<th>BooleanExpr</th>
<th>Columns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>00 00 00 08</td>
<td>&quot;ACE_DataStore2_Set_All&quot;</td>
<td>Admins</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td></td>
<td>00 03 FC 03</td>
<td>&quot;ACE_DataStore_get_All&quot;</td>
<td>Admins</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(+ (XXXX – 1) * 2)</td>
<td>&quot;ACE_DataStore_set_All&quot;</td>
<td>Admins</td>
<td>All</td>
<td></td>
</tr>
</tbody>
</table>

#### 4.4 Additional SPs

This feature set requires no additional SPs.