[MS-EDCSOM]:
eDiscovery Client-Side Object Model Protocol

Revision Summary

Date	Revision History	Revision Class	Comments
01/20/2012	0.1	New	Released new document.
04/11/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
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1 Introduction

The eDiscovery Client-Side Object Model Protocol provides types, methods, and properties to enable a protocol client to access and control electronic discovery (eDiscovery) data stored on a protocol server.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in [RFC2119]. Sections 1.5 and 1.9 are also normative but do not contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are defined in [MS-OFCGLOS]:

CSOM array
CSOM Boolean
CSOM DateTime
CSOM Int32
CSOM Object
CSOM String
custodian
discovery case
discovery source
Information Rights Management (IRM)
legal hold
list item
policy
search query
site
Uniform Resource Locator (URL)
website

The following terms are specific to this document:

static CSOM method: A class method that is accessed through the type name rather than an instance of the class.

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

References to Microsoft Open Specification documents do not include a publishing year because links are to the latest version of the documents, which are updated frequently. References to other documents include a publishing year when one is available.

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-CSOM] Microsoft Corporation, "SharePoint Client Query Protocol".

[MS-CSOMSPT] Microsoft Corporation, "SharePoint Client-Side Object Model Protocol".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.rfc-editor.org/rfc/rfc2119.txt

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, http://www.rfc-editor.org/rfc/rfc2616.txt

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, http://www.rfc-editor.org/rfc/rfc2818.txt

[RFC4627] Crockford, D., "The application/json Media Type for JavaScript Object Notation (JSON)", RFC 4627, July 2006, http://www.ietf.org/rfc/rfc4627.txt

1.2.2 Informative References

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary".

1.3 Overview

This protocol defines types, methods, and properties that a protocol client uses to manage a **discovery case**. For example, the protocol enables a protocol client to retrieve a discovery case from the protocol server, retrieve the associated **discovery sources**, and perform such operations as initiating a **legal hold** on those discovery sources.

1.4 Relationship to Other Protocols

The eDiscovery Client-Side Object Model protocol is a set of types, properties, and methods that can be accessed by using the SharePoint Client Query protocol as described in [MS-CSOM]. This protocol uses JSON as described in [RFC4627] to format data returned to a protocol client. This protocol also uses HTTP, as described in [RFC2616], and HTTPS, as described in [RFC2818]. The dependencies for this protocol are shown in the following layering diagram.

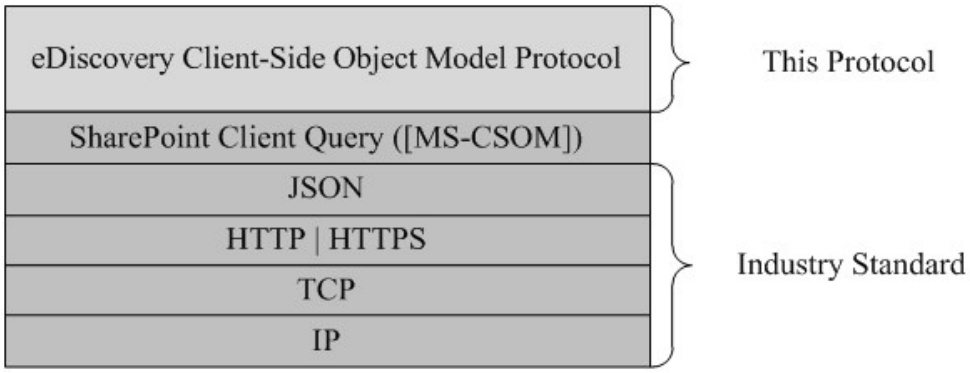

Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol assumes that authentication has been performed by underlying protocols.

1.6 Applicability Statement

This protocol is optimized to enable a protocol client to specify the exact set of data and operations to perform in a single batch, making it suitable for situations where the connection speed between the protocol client and the protocol server can be slow.

This protocol is not suitable and is inefficient if both the protocol client and protocol server are on the same computer. In this case, the client can use an API that does not require communication over a network.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Messages are transported by using the SharePoint Client Query Protocol, as specified in [MS-CSOM].

2.2 Message Syntax

None.

2.2.1 Common Exceptions

The protocol server MUST validate the request from the protocol client. When a protocol server processes a CSOM operation in the request, the following table lists common exceptions that could occur when accessing or updating a property or invoking a method.

Error Code	Error Type Name	Condition
-2147024891	System.UnauthorizedAccessException	The user does not have permission to access a property, update a property, or call a method.

Besides the preceding exceptions and the exceptions that are listed for the specific properties or methods, the protocol server can return other exceptions to the protocol client, for which the protocol client could use the error message for display purpose but could not use the error code or error type to determine the causes of the exception.

Exceptions listed for the specific properties are thrown for both read and write operations, unless otherwise specified.

3 Protocol Details

3.1 Server Details

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

The protocol server maintains a multiple collections of discovery cases, for example lawsuits for 2005-2010 and lawsuits for 2000-2005.

For each case, the protocol server maintains a list of discovery sources that are applicable to the scope of the discovery case. For example, if a case were about Contoso vs. Fabrikam, an exemplary discovery source might be the email mailbox for the executives of Contoso. Discovery sources can be organized in groups, such as locations associated with a given person, that is a **custodian**. The protocol server also maintains internal state about actions that need to be performed for discovery sources, such as when a given discovery source can be placed on legal hold, as well as the status of whether those actions have been performed.

In addition, the protocol server maintains a list of search queries applicable to the discovery sources of a given case, as well as metadata about when those search queries have been exported, that is downloaded.

The protocol server also maintains a directory of valid email mailboxes and **Web sites** that can be used as discovery sources. In addition, the protocol server maintains a set of **policies** that can be associated with the location, as well as state whether the location allows further editing or is in archival (closed).

This protocol shares the abstract data model used by the SharePoint Client Query protocol as described in [MS-CSOM] section 3.1.1 to communicate with the protocol server.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

None.

3.1.5 Message Processing Events and Sequencing Rules

3.1.5.1 Microsoft.SharePoint.Client.Discovery.Case

TypeId: {DF6AC2D8-CD50-4CF4-BC52-F61766F2E005}

ShortName: SP.Discovery.Case

A discovery case.

3.1.5.1.1 Properties

3.1.5.1.1.1 Scalar Properties

None.

3.1.5.1.1.2 ObjectPath Properties

None.

3.1.5.1.2 Methods

3.1.5.1.2.1 Scalar Methods

3.1.5.1.2.1.1 GetExportContent

Return Type: CSOM String

This method returns the export configuration content.

Parameters:

sourceIds: The identifer of each export included for the export content.

Type: **CSOM array** of **CSOM Int32**

3.1.5.1.2.2 ObjectPath Methods

3.1.5.1.2.2.1 CSOM Constructor

Constructs a discovery case **CSOM Object**.

Parameters:

web: The **site** (2) that represents a discovery case.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

3.1.5.2 Microsoft.SharePoint.Client.Discovery.Export

TypeId: {A0C1EA79-9E20-4F8E-96B7-B18956A5CFFB}

ShortName: SP.Discovery.Export

Represents an export associated with a discovery case.

3.1.5.2.1 Properties

3.1.5.2.1.1 Scalar Properties

3.1.5.2.1.1.1 Status

Type: Microsoft.SharePoint.Client.Discovery.ExportStatus

Accessibility: Read/Write

The status of the export, which MUST be a value as specified in section 3.1.5.3.

3.1.5.2.1.2 ObjectPath Properties

None.

3.1.5.2.2 Methods

3.1.5.2.2.1 Scalar Methods

3.1.5.2.2.1.1 GetExportContent

Return Type: CSOM String

Returns the export configuration, which MUST conform to the following schema:

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://schemas.microsoft.com/Discovery/ExportConfigSchema"
    targetNamespace="http://schemas.microsoft.com/Discovery/ExportConfigSchema"
    elementFormDefault="qualified"
>
    <xs:element name="Export">
        <xs:complexType>
            <xs:sequence>
                <xs:element name="Metadata" minOccurs="1" maxOccurs="1" type="xsi:metadata">
                </xs:element>
                <xs:element name="Sources" minOccurs="1" maxOccurs="1" type="xsi:sources">
                </xs:element>
            </xs:sequence>
        </xs:complexType>
    </xs:element>
    <xs:complexType name="metadata">
        <xs:sequence>
            <xs:element name="CaseName" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="CaseId" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="CaseURL" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="ExportURL" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="ExportName" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="ExportId" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="RemoveDuplicates" type="xs:boolean" minOccurs="1" maxOccurs="1"
/>
            <xs:element name="RemoveRms" type="xs:boolean" minOccurs="1" maxOccurs="1" />
            <xs:element name="IncludeVersions" type="xs:boolean" minOccurs="1" maxOccurs="1"
/>
            <xs:element name="IncludeUncrawlableContent" type="xs:boolean" minOccurs="1"
maxOccurs="1" />
```

```
            <xs:element name="EstimatedItems" type="xs:double" minOccurs="1" maxOccurs="1" />
            <xs:element name="EstimatedSize" type="xs:double" minOccurs="1" maxOccurs="1" />
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="sources">
        <xs:sequence>
            <xs:element name="Source" type="xsi:source" minOccurs="0" maxOccurs="unbounded"
/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="source">
        <xs:sequence>
            <xs:element name="Id" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="ServerSourceId" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="SourceFilter" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="Type" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="Endpoint" type="xs:string" minOccurs="0" maxOccurs="1" />
            <xs:element name="Custodians" type="xsi:custodians" minOccurs="1" maxOccurs="1"
/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="custodians">
        <xs:sequence>
            <xs:element name="Custodian" type="xsi:custodian" minOccurs="0"
maxOccurs="unbounded" />
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="custodian">
        <xs:sequence>
            <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1" />
            <xs:element name="Id" type="xs:int" minOccurs="1" maxOccurs="1" />
        </xs:sequence>
    </xs:complexType>
</xs:schema>
```

The elements are defined as follows:

- **Metadata:** Metadata associated with the export.
  - **CaseName:** The name of the discovery case.
  - **CaseId:** The identifier of the discovery case.
  - **CaseUrl:** The **URL** of the discovery case.
  - **ExportUrl:** The URL of the export.
  - **ExportName:** The name of the export.
  - **ExportId:** The identifier of the export.
  - **RemoveDuplicates:** Whether duplicate content is removed from the content.
  - **RemoveRms:** Whether **Information Rights Management (IRM)** encryption is removed from the exported content.
  - **IncludeVersions:** Whether versions of content are included in the export.

- **IncludeUncrawlableContent:** Whether content that cannot be crawled is included in the export.
- **EstimatedItems:** The estimated number of items in the export.
- **EstimatedSize:** The estimated size of the content to be downloaded.

- **Sources:** The discovery sources associated with the export.
  - **Id:** The identifier of the discovery source.
  - **Name:** The name of the discovery source.
  - **ServerSourceId:** The identifier of the discovery source.
  - **SourceFilter:** A **search query** associated with the discovery source.
  - **Type:** The type of discovery source.
  - **Endpoint:** The URL of the discovery source.
  - **Custodians:** The custodians associated with the discovery source.
    - **Name:** The name of the custodian.
    - **Id:** The identifier of the custodian.

Parameters: None

3.1.5.2.2.1.2 Update

Return Type: None

Updates or adds the export in a discovery case.

Parameters: None

3.1.5.2.2.2 ObjectPath Methods

3.1.5.2.2.2.1 CSOM Constructor

Constructs a discovery export CSOM Object.

Parameters:

item: The **list item** that represents a discovery export.

Type: Microsoft.SharePoint.Client.ListItem

The type is specified in [MS-CSOMSPT] section 3.2.5.87.

3.1.5.3 Microsoft.SharePoint.Client.Discovery.ExportStatus

ShortName: SP.Discovery.ExportStatus

Flag: false

Represents the status of an export.

3.1.5.3.1 Field Values

3.1.5.3.1.1 NotStarted

Value: 0

The export has not yet been downloaded.

3.1.5.3.1.2 Started

Value: 1

The client has started processing the export.

3.1.5.3.1.3 Complete

Value: 2

The client has finished processing the export.

3.1.5.3.1.4 Failed

Value: 3

The client failed to process the export.

3.1.5.4 Microsoft.SharePoint.Client.InformationPolicy.ProjectPolicy

TypeId: {EC5E0A70-0CC3-408F-A4DC-1BB3495AAC75}

ShortName: SP.InformationPolicy.ProjectPolicy

A policy associated with a Web site (2) or email mailbox.

3.1.5.4.1 Properties

3.1.5.4.1.1 Scalar Properties

3.1.5.4.1.1.1 Description

Type: CSOM String

Accessibility: Read Only

The description of the policy.

3.1.5.4.1.1.2 EmailBody

Type: CSOM String

Accessibility: Read/Write

The body of the notification email if there is no site mailbox associated with the site (2).

The policy can be configured to send a notification email to site (2) owners in advance of the site (2) deletion.

3.1.5.4.1.1.3 EmailBodyWithTeamMailbox

Type: CSOM String

Accessibility: Read/Write

The body of the notification email if there is a site mailbox associated with the site (2).

The policy can be configured to send a notification email to site (2) owners in advance of the site (2) deletion.

3.1.5.4.1.1.4 EmailSubject

Type: CSOM String

Accessibility: Read/Write

The subject of the notification email.

The policy can be configured to send a notification email to site (2) owners in advance of the site (2) deletion.

3.1.5.4.1.1.5 Name

Type: CSOM String

Accessibility: Read Only

The name of the policy.

3.1.5.4.1.2 ObjectPath Properties

None.

3.1.5.4.2 Methods

3.1.5.4.2.1 Scalar Methods

3.1.5.4.2.1.1 ApplyProjectPolicy

This method is a **static CSOM method**.

Return Type: None

Apply the policy to the site (2). If the site (2) already has a policy applied, the new policy will replace the existing policy.

Parameters:

web: The site (2) that will have the policy to be applied.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

projectPolicy: The policy that will be applied to the site (2).

Type: Microsoft.SharePoint.Client.InformationPolicy.ProjectPolicy

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null or *projectPolicy* is null.

3.1.5.4.2.1.2 CloseProject

This method is a static CSOM method.

Return Type: None

Close the site (2) if the site (2) has a policy applied and the site (2) is open.

Parameters:

web: The site (2) to be closed.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null.

3.1.5.4.2.1.3 DoesProjectHavePolicy

This method is a static CSOM method.

Return Type: CSOM Boolean

Checks whether the Web site (2) has an associated policy.

Parameters:

web: The site (2).

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	Web is null.

3.1.5.4.2.1.4 GetProjectCloseDate

This method is a static CSOM method.

Return Type: CSOM DateTime

Gets the date the Web site (2) was archived (closed). If the Web site (2) is not closed, the protocol server returns an implementation specific default value that is less than 1970.

Parameters:

web: The site (2).

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	Web is null.

3.1.5.4.2.1.5 GetProjectExpirationDate

This method is a static CSOM method.

Return Type: CSOM DateTime

Gets the expiration date of the Web site (2) according to its associated policy. If there is no associated expiration date, the protocol server returns an implementation specific default value that is less than 1970.

Parameters:

web: The site (2).

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	Web is null.

3.1.5.4.2.1.6 IsProjectClosed

This method is a static CSOM method.

Return Type: CSOM Boolean

Checks whether the Web site (2) is in archival (closed).

Parameters:

web: The site (2).

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	Web is null.

3.1.5.4.2.1.7 OpenProject

This method is a static CSOM method.

Return Type: None

Open the site (2) if the site (2) has a policy applied and the site (2) is closed.

Parameters:

web: The site (2) to be opened.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null.

3.1.5.4.2.1.8 PostponeProject

This method is a static CSOM method.

Return Type: None

Postpone the expiration date of the site (2) based on the policy if the site (2) has a policy applied and the site (2) has the expiration date.

Parameters:

web: The site (2) to be postponed.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null.

3.1.5.4.2.1.9 SavePolicy

Return Type: None

Save the changes that are made to the current policy.

Parameters: None

3.1.5.4.2.2 ObjectPath Methods

3.1.5.4.2.2.1 GetCurrentlyAppliedProjectPolicyOnWeb

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.InformationPolicy.ProjectPolicy

Gets the policy that is currently applied to the site (2) if the site (2) has a policy applied.

Parameters:

web: The site (2) that has a policy applied.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null.

3.1.5.4.2.2.2 GetProjectPolicies

This method is a static CSOM method.

Return Type: CSOM array of Microsoft.SharePoint.Client.InformationPolicy.ProjectPolicy

Gets all policies that are available on the site (2).

Parameters:

web: The site (2) that might have one or more policies.

Type: Microsoft.SharePoint.Client.Web

The type is specified in [MS-CSOMSPT] section 3.2.5.143.

It MUST NOT be NULL.

Exceptions:

Error Code	Error Type Name	Condition
-2147467261	System.ArgumentNullException	*web* is null.

3.1.6 Timer Events

None.

3.1.7 Other Local Events

None.

4 Protocol Examples

None.

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

- Microsoft SharePoint Server 2013

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that the product does not follow the prescription.

7 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

8 Index