[MS-OXWSGNI]:
Nonindexable Item Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
07/16/2012	0.1	New	Released new document.
10/08/2012	1.0	Major	Significantly changed the technical content.
02/11/2013	2.0	Major	Significantly changed the technical content.

Table of Contents

1 Introduction

The Nonindexable Item Web Service Protocol enables a client to use a **web service** to retrieve **mailbox** items that cannot be indexed.

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 RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

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

Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)

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

endpoint
mailbox
Simple Object Access Protocol (SOAP)
SOAP action
SOAP body
SOAP header
Uniform Resource Locator (URL)
web server
web service
Web Services Description Language (WSDL)
WSDL message
WSDL operation
WSDL port type
XML namespace
XML namespace prefix
XML schema

The following terms are specific to this document:

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

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical 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. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[MS-OXWSCDATA] Microsoft Corporation, "Common Web Service Data Types".

[MS-OXWSCORE] Microsoft Corporation, "Core Items Web Service Protocol".

[MS-OXWSEDISC] Microsoft Corporation, "Electronic Discovery (eDiscovery) Web Service 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.ietf.org/rfc/rfc2616.txt

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

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, http://www.w3.org/TR/2001/NOTE-wsdl-20010315

[WSIBASIC] Ballinger, K., Ehnebuske, D., Gudgin, M., et al., Eds., "Basic Profile Version 1.0", Final Material, April 2004, http://www.ws-i.org/Profiles/BasicProfile-1.0-2004-04-16.html

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

[XMLSCHEMA1] Thompson, H.S., Beech, D., Maloney, M., Eds., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary".

[MS-OXDSCLI] Microsoft Corporation, "Autodiscover Publishing and Lookup Protocol".

[MS-OXGLOS] Microsoft Corporation, "Exchange Server Protocols Master Glossary".

[MS-OXPROTO] Microsoft Corporation, "Exchange Server Protocols System Overview".

[MS-OXWSADISC] Microsoft Corporation, "Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol".

1.3 Overview

The Nonindexable Item Web Service Protocol enables the client to use web services to retrieve details and statistics for mailbox items that could not be indexed.

1.4 Relationship to Other Protocols

A client that implements this protocol can use the Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], to identify the target **endpoint (4)** to use for each operation.

This protocol uses **SOAP**, as described in [SOAP1.1], to specify the structure information that is exchanged between the client and the server. This protocol uses the **XML schema**, as described in [XMLSCHEMA1] and [XMLSCHEMA2], to describe the message content that is sent to and from the server.

This protocol uses SOAP over **HTTP**, as described in [RFC2616], and SOAP over **HTTPS**, as described in [RFC2818], as shown in the following layering diagram.
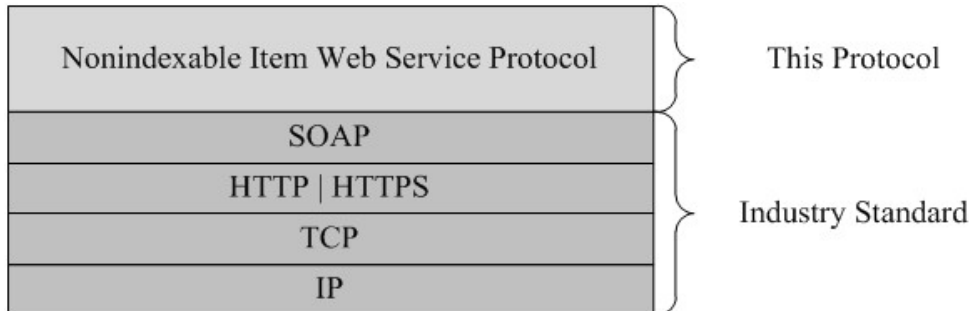
Figure 1: This protocol in relation to other protocols

This protocol uses the mailbox search and mailbox hold information provided by the Electronic Discovery (eDiscovery) Web Service Protocol, as described in [MS-OXWSEDISC].

For conceptual background information and overviews of the relationships and interactions between this and other protocols, see [MS-OXPROTO].

1.5 Prerequisites/Preconditions

The operations that this protocol defines cannot be accessed unless the correct endpoint (4) is identified in the HTTP web requests that target this protocol. This endpoint (4) **URL** is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI].

1.6 Applicability Statement

This protocol is applicable to environments that use web services to implement retrieval of mailbox items that could not be indexed. This protocol is applicable to all SOAP-based clients, as described in [SOAP1.1].

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports**: This protocol uses SOAP, as described in section 2.1.

- **Protocol Versions**: This protocol specifies only one **WSDL port type** version. The **RequestServerVersion** element, as described in [MS-OXWSCDATA] section 2.2.5.9, identifies the WSDL port type version of the request. The **ServerVersionInfo** element, as described in [MS-OXWSCDATA] section 2.2.5.10, identifies the version of the server responding to the request.

- **Security and Authentication Methods**: This protocol relies on the **web server** that is hosting it to perform authentication.

- **Localization**: This protocol uses date/time formats in various types, as described in section 3.1.4.

- **Capability Negotiation**: This protocol does not support version negotiation.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2   Messages

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The **Web Services Description Language (WSDL)** in this specification provides a base description of the protocol. The schema in this specification provides a base description of the message syntax. The text that specifies the WSDL and schema might specify restrictions that reflect actual protocol behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, not null, or present.

2.1   Transport

This protocol uses SOAP 1.1, as specified in [SOAP1.1].

This protocol uses SOAP over HTTP, as specified in [RFC2616]. The protocol SHOULD use secure communications by means of HTTPS, as defined in [RFC2818].

2.2   Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses XML schema, as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and WSDL, as defined in [WSDL].

2.2.1   Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [XMLNS]. Although this specification associates a specific **XML namespace prefix** for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
m	http://schemas.microsoft.com/exchange/services/2006/messages	
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
t	http://schemas.microsoft.com/exchange/services/2006/types	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
wsi	http://ws-i.org/schemas/conformanceClaim/	[WSIBASIC]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]

2.2.2   Messages

This specification does not define any common **WSDL message** definitions.

2.2.3   Elements

This specification does not define any common XML schema element definitions.

2.2.4 Complex Types

The following table summarizes the set of common XML schema complex type definitions defined by this specification. XML schema complex type definitions that are specific to a particular operation are described with the operation.

Complex type	Description
NonEmptyArrayOfLegacyDNsType	The **NonEmptyArrayOfLegacyDNsType** complex type specifies an array of legacy distinguished names.

2.2.4.1 NonEmptyArrayOfLegacyDNsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **NonEmptyArrayOfLegacyDNsType** complex type specifies an array of legacy distinguished names.

```
<xs:complexType name="NonEmptyArrayOfLegacyDNsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="LegacyDN" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

LegacyDN: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents a single legacy distinguished name.

2.2.5 Simple Types

This specification does not define any common XML schema simple type definitions.

2.2.6 Attributes

This specification does not define any common XML schema attribute definitions.

2.2.7 Groups

This specification does not define any common XML schema group definitions.

2.2.8 Attribute Groups

This specification does not define any common XML schema attribute group definitions.

3   Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

In the following sections, the schema definition might be less restrictive than the processing rules imposed by the protocol. The WSDL in this specification matches the WSDL that shipped with the product and provides a base description of the schema. The text that introduces the WSDL specifies additional restrictions that reflect actual Microsoft product behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, not null and present.

3.1   ExchangeServicePortType Server Details

This protocol defines the ExchangeServicePortType port type with two operations, the **GetNonIndexableItemDetails** WSDL operation and the **GetNonIndexableItemStatistics WSDL operation**, that enable the retrieval of details and statistics for mailbox items that could not be indexed.

3.1.1   Abstract Data Model

None.

3.1.2   Timers

None.

3.1.3   Initialization

None.

3.1.4   Message Processing Events and Sequencing Rules

The following table summarizes the list of operations as defined by this specification.

Operation	Description
GetNonIndexableItemDetails	The **GetNonIndexableItemDetails** WSDL operation retrieves details for items in a mailbox that could not be indexed.
GetNonIndexableItemStatistics	The **GetNonIndexableItemStatistics** WSDL operation retrieves statistics for items that could not be indexed.

3.1.4.1   GetNonIndexableItemDetails

The **GetNonIndexableItemDetails** WSDL operation retrieves details for items in a mailbox that could not be indexed.

```
<wsdl:operation name="GetNonIndexableItemDetails"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetNonIndexableItemDetailsSoapIn"/>
  <wsdl:output message="m:GetNonIndexableItemDetailsSoapOut"/>
```

```
    </wsdl:operation>
```

The following is the WSDL binding specification of the **GetNonIndexableItemDetails** WSDL operation.

```
<wsdl:operation name="GetNonIndexableItemDetails"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemD
etails" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:GetNonIndexableItemDetailsSoapIn" part="RequestVersion"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:GetNonIndexableItemDetailsSoapIn" part="ManagementRole"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetNonIndexableItemDetailsResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:GetNonIndexableItemDetailsSoapOut" part="ServerVersion"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

The client sends a **GetNonIndexableItemDetailsSoapIn** request WSDL message, and the server responds with a **GetNonIndexableItemDetailsSoapOut** response.

3.1.4.1.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
GetNonIndexableItemDetailsSoapIn	Specifies the request to retrieve details for items that could not be indexed.
GetNonIndexableItemDetailsSoapOut	Specifies the response to the **GetNonIndexableItemDetailsSoapIn** request.

3.1.4.1.1.1 GetNonIndexableItemDetailsSoapIn

The **GetNonIndexableItemDetailsSoapIn** WSDL message specifies the request to retrieve nonindexable item details.

The following is the **GetNonIndexableItemDetailsSoapIn** WSDL message specification.

```
<wsdl:message name="GetNonIndexableItemDetailsSoapIn"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetNonIndexableItemDetails"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

The **GetNonIndexableItemDetailsSoapIn** WSDL message is the input message for the **SOAP action**
http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemDetails.

The parts of the **GetNonIndexableItemDetailsSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	m:GetNonIndexableItemDetails	Specifies the **SOAP body** of the request to retrieve details for items that could not be indexed.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a **SOAP header** that identifies the schema version for the **GetNonIndexableItemDetails** WSDL operation request.
ManagementRole	t:ManagementRole ([MS-OXWSCDATA] section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

3.1.4.1.1.2   GetNonIndexableItemDetailsSoapOut

The **GetNonIndexableItemDetailsSoapOut** WSDL message specifies the response to the **GetNonIndexableItemDetailsSoapIn** request.

The following is the **GetNonIndexableItemDetailsSoapOut** WSDL message specification.

```
<wsdl:message name="GetNonIndexableItemDetailsSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetNonIndexableItemDetailsResult"
element="m:GetNonIndexableItemDetailsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **GetNonIndexableItemDetailsSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemDetails.

The parts of the **GetNonIndexableItemDetailsSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
GetNonIndexableItemDetailsResult	m:GetNonIndexableItemDetailsResponse	Specifies the SOAP body of the response that contains the requested information.
ServerVersion	t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the

Part name	Element/type	Description
		response.

A successful **GetNonIndexableItemDetails** WSDL operation request returns a **GetNonIndexableItemDetailsResponse** element with the **ResponseClass** attribute set to "Success". The **ResponseCode** element of the **GetNonIndexableItemDetailsResponse** element is set to "NoError".

If the **GetNonIndexableItemDetails** WSDL operation request is not successful, it returns a **GetNonIndexableItemDetailsResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **GetNonIndexableItemDetailsResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.3.23.

3.1.4.1.2 Elements

The following table summarizes the XML schema element definitions that are specific to this operation.

Element	Description
GetNonIndexableItemDetails	The input data for the **GetNonIndexableItemDetails** WSDL operation.
GetNonIndexableItemDetailsResponse	The result data for the **GetNonIndexableItemDetails** WSDL operation.

3.1.4.1.2.1 GetNonIndexableItemDetails

The **GetNonIndexableItemDetails** element specifies the input data for the **GetNonIndexableItemDetails** WSDL operation.

```
<xs:element name="GetNonIndexableItemDetails" type="m:GetNonIndexableItemDetailsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.1.2.2 GetNonIndexableItemDetailsResponse

The **GetNonIndexableItemDetailsResponse** element specifies the result data for the **GetNonIndexableItemDetails** WSDL operation.

```
<xs:element name="GetNonIndexableItemDetailsResponse"
type="m:GetNonIndexableItemDetailsResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.1.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
GetNonIndexableItemDetailsType	Specifies a request to retrieve items in a mailbox that could not be indexed.

Complex type	Description
GetNonIndexableItemDetailsResponseMessageType	Specifies the response message for a **GetNonIndexableItemDetails** WSDL operation.
NonIndexableItemDetailResultType	Specifies the results of the **GetNonIndexableItemDetails** WSDL operation.
ArrayOfNonIndexableItemDetailsType	Specifies an array of **NonIndexableItemDetails** elements.
NonIndexableItemDetailType	Specifies a detail for an item that could not be indexed.

3.1.4.1.3.1   GetNonIndexableItemDetailsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetNonIndexableItemDetailsType** complex type specifies a request to retrieve items in a mailbox that could not be indexed. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.15.

```
<xs:complexType name="GetNonIndexableItemDetailsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="Mailboxes" type="t:NonEmptyArrayOfLegacyDNsType"/>
        <xs:element minOccurs="0" name="PageSize" type="xs:int"/>
        <xs:element minOccurs="0" name="PageItemReference" type="xs:string"/>
        <xs:element minOccurs="0" name="PageDirection" type="t:SearchPageDirectionType"/>
        <xs:element minOccurs="0" name="SearchArchiveOnly" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Mailboxes: An element of type **NonEmptyArrayofLegacyDNsType**, as defined in section 2.2.4.1, that represents a list of mailboxes in the format of legacy distinguished names.

PageSize: An element of type **int**, as defined in [XMLSCHEMA2] section 3.3.17, that represents the size of the page.

PageItemReference: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the item reference.

PageDirection: An element of type **SearchPageDirectionType**, as defined in [MS-OXWSEDISC] section 3.1.4.4.4.4, that represents the search direction, either previous or next.

SearchArchiveOnly: An element of type **boolean**, as defined in [XMLSCHEMA2] section 3.2.2, that specifies whether only the archive is searched.

3.1.4.1.3.2   GetNonIndexableItemDetailsResponseMessageType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetNonIndexableItemDetailsResponseMessageType** complex type specifies the response message for a **GetNonIndexableItemDetails** WSDL operation.

This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

```
<xs:complexType name="GetNonIndexableItemDetailsResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" name="NonIndexableItemDetailsResult"
type="t:NonIndexableItemDetailResultType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

NonIndexableItemDetailsResult: An element of type **NonIndexableItemDetailResultType**, as defined in section 3.1.4.1.3.5, that specifies the results of the **GetNonIndexableItemDetails** WSDL operation.

3.1.4.1.3.3   ArrayOfNonIndexableItemDetailsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfNonIndexableItemDetailsType** complex type specifies an array of **NonIndexableItemDetailType** complex types, as specified in section 3.1.4.1.3.4.

```
<xs:complexType name="ArrayOfNonIndexableItemDetailsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="NonIndexableItemDetail"
type="t:NonIndexableItemDetailType"/>
  </xs:sequence>
</xs:complexType>
```

NonIndexableItemDetail: An element of type **NonIndexableItemDetailType** that represents a single detail for an item that could not be indexed.

3.1.4.1.3.4   NonIndexableItemDetailType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **NonIndexableItemDetailType** complex type specifies a detail for an item that could not be indexed.

```
<xs:complexType name="NonIndexableItemDetailType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="ItemId" type="t:ItemIdType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ErrorCode" type="t:ItemIndexErrorType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ErrorDescription" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsPartiallyIndexed" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsPermanentFailure" type="xs:boolean"/>
```

```
      <xs:element minOccurs="1" maxOccurs="1" name="SortValue" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="AttemptCount" type="xs:int"/>
      <xs:element minOccurs="0" maxOccurs="1" name="LastAttemptTime" type="xs:dateTime"/>
      <xs:element minOccurs="0" maxOccurs="1" name="AdditionalInfo" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
```

ItemId: An element of type **ItemIdType**, as defined in [MS-OXWSCORE] section 2.2.4.19, that represents the identifier of the item that could not be indexed.

ErrorCode: An element of type **ItemIndexErrorType**, as defined in section 3.1.4.1.4.1. This element is for internal use only.

ErrorDescription: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the description of the error returned.

IsPartiallyIndexed: An element of type **boolean**, as defined in [XMLSCHEMA2] section 3.2.2, that indicates whether the item is partially indexed.

IsPermanentFailure: An element of type **boolean** that indicates whether a previous attempt to index the item was unsuccessful.

SortValue: An element of type **string** that contains a value used for sorting.

AttemptCount: An element of type **int**, as defined in [XMLSCHEMA2] section 3.3.17, that represents the number of attempts that have been made to index the item.

LastAttemptTime: A element of type **dateTime**, as defined in [XMLSCHEMA2] section 3.2.7, that represents a time and date at which the last attempt to index the item was made.

AdditionalInfo: An element of type **string** that represents additional information.

3.1.4.1.3.5   NonIndexableItemDetailResultType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **NonIndexableItemDetailResultType** complex type specifies the results of the **GetNonIndexableItemDetails** WSDL operation.

```
<xs:complexType name="NonIndexableItemDetailResultType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="Items" type="t:ArrayOfNonIndexableItemDetailsType"/>
    <xs:element minOccurs="0" name="FailedMailboxes"
type="t:ArrayOfFailedSearchMailboxesType"/>
  </xs:sequence>
</xs:complexType>
```

Items: An element of type **ArrayOfNonIndexableItemDetailsType**, as defined in section 3.1.4.1.3.3, that contains an array of details for items that could not be indexed.

FailedMailboxes: An element of type **ArrayOfFailedSearchMailboxesType**, as defined in [MS-OXWSEDISC] section 2.2.4.1, that contains an array of mailboxes that failed the search.

3.1.4.1.4 Simple Types

The following table summarizes the XML schema simple type definitions that are specific to this operation.

Simple type	Description
ItemIndexErrorType	This type is for internal use only.

3.1.4.1.4.1 ItemIndexErrorType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ItemIndexErrorType** simple type is for internal use only.

```
<xs:simpleType name="ItemIndexErrorType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="GenericError"/>
    <xs:enumeration value="Timeout"/>
    <xs:enumeration value="StaleEvent"/>
    <xs:enumeration value="MailboxOffline"/>
    <xs:enumeration value="AttachmentLimitReached"/>
    <xs:enumeration value="MarsWriterTruncation"/>
    <xs:enumeration value="DocumentParserFailure"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ItemIndexErrorType** simple type.

Value	Meaning
None	This value is for internal use only.
GenericError	This value is for internal use only.
Timeout	This value is for internal use only.
StaleEvent	This value is for internal use only.
MailboxOffline	This value is for internal use only.
AttachmentLimitReached	This value is for internal use only.
MarsWriterTruncation	This value is for internal use only.
DocumentParserFailure	This value is for internal use only.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.4.2 GetNonIndexableItemStatistics

The **GetNonIndexableItemStatistics** WSDL operation retrieves statistics for items that could not be indexed.

```
<wsdl:operation name="GetNonIndexableItemStatistics"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
   <wsdl:input message="m:GetNonIndexableItemStatisticsSoapIn"/>
   <wsdl:output message="m:GetNonIndexableItemStatisticsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetNonIndexableItemStatistics** WSDL operation.

```
<wsdl:operation name="GetNonIndexableItemStatistics"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemS
tatistics" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
   <wsdl:input>
     <soap:header message="m:GetNonIndexableItemStatisticsSoapIn" part="RequestVersion"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
     <soap:header message="m:GetNonIndexableItemStatisticsSoapIn" part="ManagementRole"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
     <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
   </wsdl:input>
   <wsdl:output>
     <soap:body use="literal" parts="GetNonIndexableItemStatisticsResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
     <soap:header message="m:GetNonIndexableItemStatisticsSoapOut" part="ServerVersion"
use="literal" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
   </wsdl:output>
</wsdl:operation>
```

The client sends a **GetNonIndexableItemStatisticsSoapIn** request WSDL message, and the server responds with a **GetNonIndexableItemStatisticsSoapOut** response.

3.1.4.2.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
GetNonIndexableItemStatisticsSoapIn	Specifies the request to retrieve statistics for items that could not be indexed.
GetNonIndexableItemStatisticsSoapOut	Specifies the response to the **GetNonIndexableItemStatisticsSoapIn** request.

3.1.4.2.1.1 GetNonIndexableItemStatisticsSoapIn

The **GetNonIndexableItemStatisticsSoapIn** WSDL message specifies the request to retrieve statistics for items that could not be indexed.

The following is the **GetNonIndexableItemStatisticsSoapIn** WSDL message specification.

```
<wsdl:message name="GetNonIndexableItemStatisticsSoapIn"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetNonIndexableItemStatistics"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

The **GetNonIndexableItemStatisticsSoapIn** WSDL message is the input message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemStatistics.

The parts of the **GetNonIndexableItemStatisticsSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	m:GetNonIndexableItemStatistics	Specifies the SOAP body of the request to retrieve statistics.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the **GetNonIndexableItemStatistics** WSDL operation request.
ManagementRole	t:ManagementRole ([MS-OXWSCDATA] section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

3.1.4.2.1.2 GetNonIndexableItemStatisticsSoapOut

The **GetNonIndexableItemStatisticsSoapOut** WSDL message specifies the response to the **GetNonIndexableItemStatisticsSoapIn** request.

The following is the **GetNonIndexableItemStatisticsSoapOut** WSDL message specification.

```
<wsdl:message name="GetNonIndexableItemStatisticsSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetNonIndexableItemStatisticsResult"
element="m:GetNonIndexableItemStatisticsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **GetNonIndexableItemStatisticsSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemStatistics.

The parts of the **GetNonIndexableItemStatisticsSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
GetNonIndexableItemStatisticsResult	m:GetNonIndexableItemStatisticsResponse	Specifies the SOAP body of the response that contains the requested information.
ServerVersion	t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response.

A successful **GetNonIndexableItemStatistics** WSDL operation request returns a **GetNonIndexableItemStatisticsResponse** element with the **ResponseClass** attribute set to "Success". The **ResponseCode** element of the **GetNonIndexableItemStatisticsResponse** element is set to "NoError".

If the **GetNonIndexableItemStatistics** WSDL operation request is not successful, it returns a **GetNonIndexableItemStatisticsResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **GetNonIndexableItemStatisticsResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.3.23.

3.1.4.2.2 Elements

The following table summarizes the XML schema element definitions that are specific to this operation.

Element	Description
GetNonIndexableItemStatistics	The input data for the **GetNonIndexableItemStatistics** WSDL operation.
GetNonIndexableItemStatisticsResponse	The result data for the **GetNonIndexableItemStatistics** WSDL operation.

3.1.4.2.2.1 GetNonIndexableItemStatistics

The **GetNonIndexableItemStatistics** element specifies the input data for the **GetNonIndexableItemStatistics** WSDL operation.

```
<xs:element name="GetNonIndexableItemStatistics" type="m:GetNonIndexableItemStatisticsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.2.2.2 GetNonIndexableItemStatisticsResponse

The **GetNonIndexableItemStatisticsResponse** element specifies the result data for the **GetNonIndexableItemStatistics** WSDL operation.

```
<xs:element name="GetNonIndexableItemStatisticsResponse"
type="m:GetNonIndexableItemStatisticsResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.2.3   Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
GetNonIndexableItemStatisticsType	Specifies a request to retrieve statistics for items that could not be indexed.
GetNonIndexableItemStatisticsResponseMessageType	Specifies the response message for a **GetNonIndexableItemStatistics** WSDL operation.
ArrayOfNonIndexableItemStatisticsType	Specifies an array of statistics for items that could not be indexed.
NonIndexableItemStatisticType	Specifies a statistic for an item that could not be indexed.

3.1.4.2.3.1   GetNonIndexableItemStatisticsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetNonIndexableItemStatisticsType** complex type specifies a request to retrieve statistics for items that could not be indexed. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.15.

```
<xs:complexType name="GetNonIndexableItemStatisticsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="Mailboxes" type="t:NonEmptyArrayOfLegacyDNsType"/>
        <xs:element minOccurs="0" name="SearchArchiveOnly" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Mailboxes: An element of type **NonEmptyArrayOfLegacyDNsType**, as defined in section 2.2.4.1, that specifies the mailboxes that were not indexed although items were requested.

SearchArchiveOnly: An element of type **boolean**, as defined in [XMLSCHEMA2] section 3.2.2, that specifies whether only the archive is searched.

3.1.4.2.3.2   GetNonIndexableItemStatisticsResponseMessageType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetNonIndexableItemStatisticsResponseMessageType** complex type specifies the response message for a **GetNonIndexableItemStatistics** WSDL operation. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

```
<xs:complexType name="GetNonIndexableItemStatisticsResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="NonIndexableItemStatistics"
type="t:ArrayOfNonIndexableItemStatisticsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

NonIndexableItemStatistics: An element of type **ArrayOfNonIndexableItemStatisticsType**, as defined in section 3.1.4.2.3.1, that represents an array of statistics for items that could not be indexed.

3.1.4.2.3.3 ArrayOfNonIndexableItemStatisticsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfNonIndexableItemStatisticsType** complex type specifies an array of statistics for items that could not be indexed.

```
<xs:complexType name="ArrayOfNonIndexableItemStatisticsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="NonIndexableItemStatistic"
type="t:NonIndexableItemStatisticType"/>
  </xs:sequence>
</xs:complexType>
```

NonIndexableItemStatistic: An element of type **NonIndexableItemStatisticType**, as defined in section 3.1.4.2.3.4, that represents a single statistic for an item that could not be indexed.

3.1.4.2.3.4 NonIndexableItemStatisticType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **NonIndexableItemStatisticType** complex type specifies a statistic for an item that could not be indexed.

```
<xs:complexType name="NonIndexableItemStatisticType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ItemCount" type="xs:long"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ErrorMessage" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Mailbox: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the mailbox on which indexing failed.

ItemCount: An element of type **long**, as defined in [XMLSCHEMA2] section 3.3.16, that represents the number of items that could not be indexed.

ErrorMessage: An element of type **string** that contains the error message.

3.1.4.2.4   Simple Types

None.

3.1.4.2.5   Attributes

None.

3.1.4.2.6   Groups

None.

3.1.4.2.7   Attribute Groups

None.

3.1.5   Timer Events

None.

3.1.6   Other Local Events

None.

4   Protocol Examples

4.1   Getting Details for Nonindexable Items

This example of the **GetNonIndexableItemDetails** operation, as described in section 3.1.4.1, shows how the client retrieves from the server the details for items that could not be indexed.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
          xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
          xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
  </soap:Header>
  <soap:Body >
    <m:GetNonIndexableItemDetails>
      <m:Mailboxes>
        <t:LegacyDN>/o=First Organization/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=35181a742f0e47e392c8201a60d13ecf-Steve</t:LegacyDN>
      </m:Mailboxes>
      <m:SearchArchiveOnly>false</m:SearchArchiveOnly>
    </m:GetNonIndexableItemDetails>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client. The response shows that the document had a parsing error.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="526"
                         MinorBuildNumber="0"
                         Version="Exchange2013"
            xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:xsd="http://www.w3.org/2001/XMLSchema"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetNonIndexableItemDetailsResponse ResponseClass="Success"
            xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
        <NonIndexableItemDetailsResult>
          <Items xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
            <NonIndexableItemDetail>
              <ItemId
Id="AQMkAGVmNDAyODMwLTNkMzMALTRhMGQtYTRlOS1kODU3NjkwMAE2MGQARgAAA2L1bNf8ooZNtO4guk3auRYHALkzP
vMoJY1FjWrkRuQQcK0AAAMLAAAAuTM+8ygljUWNauRG5BBwrQAAAY2fUAAAAA==" ChangeKey="CQAAAA=="/>
              <ErrorCode>DocumentParserFailure</ErrorCode>
```

```
            <ErrorDescription>The document parser encountered a processing
error.</ErrorDescription>
              <IsPartiallyIndexed>false</IsPartiallyIndexed>
              <IsPermanentFailure>true</IsPermanentFailure>
            <SortValue>502511175756</SortValue>
            <AttemptCount>0</AttemptCount>
            <LastAttemptTime>2012-11-15T01:56:11Z</LastAttemptTime>
            <AdditionalInfo> 301002 Error parsing document
'exchange://localhost/Attachment/d987b1f4-9aa7-42b3-aa8c-9515a35dfa1a/1f3047d4-c287-41e4-
910c-feb70c1a59f0/ef402830-3d33-4a0d-a4e9-d8576900060d/85b83861-0026-418f-8464-
be2036696333/502511175756.0/binaryfile.abc'. Document has an undetectable format and will not
be parsed.</AdditionalInfo>
          </NonIndexableItemDetail>
        </Items>
      </NonIndexableItemDetailsResult>
    </GetNonIndexableItemDetailsResponse>
  </s:Body>
</s:Envelope>
```

4.2 Getting Statistics for Nonindexable Items

This example of the **GetNonIndexableItemStatistics** operation, as described in section , shows how the client retrieves the statistics for an item that could not be indexed from the server.

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
          xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
  </soap:Header>
  <soap:Body >
    <m:GetNonIndexableItemStatistics>
      <m:Mailboxes>
        <t:LegacyDN>/o=First Organization/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=35181a742f0e47e392c8201a60d13ecf-Steve</t:LegacyDN>
      </m:Mailboxes>
      <m:SearchArchiveOnly>false</m:SearchArchiveOnly>
    </m:GetNonIndexableItemStatistics>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful results of the request to the client. The response shows that two items in the mailbox could not be indexed.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="526"
                         MinorBuildNumber="0"
                         Version="Exchange2013"
          xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
          xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```
             xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetNonIndexableItemStatisticsResponse ResponseClass="Success"
      xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <NonIndexableItemStatistics>
        <NonIndexableItemStatistic
 xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
          <Mailbox>/o=First Organization/ou=Exchange Administrative Group
 (FYDIBOHF23SPDLT)/cn=Recipients/cn=35181a742f0e47e392c8201a60d13ecf-Steve</Mailbox>
          <ItemCount>2</ItemCount>
        </NonIndexableItemStatistic>
      </NonIndexableItemStatistics>
    </GetNonIndexableItemStatisticsResponse>
  </s:Body>
</s:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6   Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided in this appendix.

```xml
<?xml version="1.0"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2013" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:include schemaLocation="MS-OXWSGNI-messages.xsd"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:message name="GetNonIndexableItemDetailsSoapIn">
    <wsdl:part name="request" element="m:GetNonIndexableItemDetails"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="GetNonIndexableItemDetailsSoapOut">
    <wsdl:part name="GetNonIndexableItemDetailsResult"
element="m:GetNonIndexableItemDetailsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="GetNonIndexableItemStatisticsSoapIn">
    <wsdl:part name="request" element="m:GetNonIndexableItemStatistics"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="GetNonIndexableItemStatisticsSoapOut">
    <wsdl:part name="GetNonIndexableItemStatisticsResult"
element="m:GetNonIndexableItemStatisticsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetNonIndexableItemStatistics">
      <wsdl:input message="m:GetNonIndexableItemStatisticsSoapIn"/>
      <wsdl:output message="m:GetNonIndexableItemStatisticsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetNonIndexableItemDetails">
      <wsdl:input message="m:GetNonIndexableItemDetailsSoapIn"/>
      <wsdl:output message="m:GetNonIndexableItemDetailsSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="ExchangeServiceBinding" type="m:ExchangeServicePortType">
    <wsdl:documentation>
      <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
    </wsdl:documentation>
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="GetNonIndexableItemStatistics">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemS
tatistics"/>
      <wsdl:input>
```

```
        <soap:header message="m:GetNonIndexableItemStatisticsSoapIn" part="RequestVersion"
use="literal"/>
        <soap:header message="m:GetNonIndexableItemStatisticsSoapIn" part="ManagementRole"
use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetNonIndexableItemStatisticsResult"/>
        <soap:header message="m:GetNonIndexableItemStatisticsSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetNonIndexableItemDetails">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetNonIndexableItemD
etails"/>
      <wsdl:input>
        <soap:header message="m:GetNonIndexableItemDetailsSoapIn" part="RequestVersion"
use="literal"/>
        <soap:header message="m:GetNonIndexableItemDetailsSoapIn" part="ManagementRole"
use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetNonIndexableItemDetailsResult"/>
        <soap:header message="m:GetNonIndexableItemDetailsSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>
```

7   Appendix B: Full XML Schema

For ease of implementation, the following sections provide the full XML schema for this protocol.

Schema name	Prefix	Section
http://schemas.microsoft.com/exchange/services/2006/messages	m	7.1
http://schemas.microsoft.com/exchange/services/2006/types	t	7.2

7.1   http://schemas.microsoft.com/exchange/services/2006/messages Schema

This section contains the MS-OXWSGNI-messages.xsd and information about additional files that this schema file requires to operate correctly.

MS-OXWSGNI-messages.xsd includes the files listed in the following table. To operate correctly, these files have to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

File name	Defining specification/section
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 7.1
MS-OXWSGNI-types.xsd	7.2

```
<?xml version="1.0"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2013" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import schemaLocation="MS-OXWSGNI-types.xsd"
namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:complexType name="GetNonIndexableItemStatisticsType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element minOccurs="1" name="Mailboxes" type="t:NonEmptyArrayOfLegacyDNsType"/>
          <xs:element minOccurs="0" name="SearchArchiveOnly" type="xs:boolean"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetNonIndexableItemStatistics"
type="m:GetNonIndexableItemStatisticsType"/>
  <xs:complexType name="GetNonIndexableItemStatisticsResponseMessageType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="NonIndexableItemStatistics"
type="t:ArrayOfNonIndexableItemStatisticsType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
```

```
    <xs:element name="GetNonIndexableItemStatisticsResponse"
  type="m:GetNonIndexableItemStatisticsResponseMessageType"/>
    <xs:complexType name="GetNonIndexableItemDetailsType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType">
          <xs:sequence>
            <xs:element minOccurs="1" name="Mailboxes" type="t:NonEmptyArrayOfLegacyDNsType"/>
            <xs:element minOccurs="0" name="PageSize" type="xs:int"/>
            <xs:element minOccurs="0" name="PageItemReference" type="xs:string"/>
            <xs:element minOccurs="0" name="PageDirection" type="t:SearchPageDirectionType"/>
            <xs:element minOccurs="0" name="SearchArchiveOnly" type="xs:boolean"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetNonIndexableItemDetails" type="m:GetNonIndexableItemDetailsType"/>
    <xs:complexType name="GetNonIndexableItemDetailsResponseMessageType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
          <xs:sequence>
            <xs:element minOccurs="0" name="NonIndexableItemDetailsResult"
  type="t:NonIndexableItemDetailResultType"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetNonIndexableItemDetailsResponse"
  type="m:GetNonIndexableItemDetailsResponseMessageType"/>
  </xs:schema>
```

7.2   http://schemas.microsoft.com/exchange/services/2006/types Schema

This section contains the MS-OXWSGNI-types.xsd and information about additional files that this schema file requires to operate correctly.

MS-OXWSGNI-types.xsd includes the files listed in the following table. To operate correctly, these files have to be present in the folder that contains the WSDL, types schema, and messages schema for this protocol.

File name	Defining specification/section
MS-OXWSCORE-types.xsd	[MS-OXWSCORE] section 7.2
MS-OXWSEDISC-types.xsd	[MS-OXWSEDISC] section 7.2

```
  <?xml version="1.0"?>
  <xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
  elementFormDefault="qualified"
  targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
  version="Exchange2013" id="types" xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
    <xs:include schemaLocation="MS-OXWSCORE-types.xsd"/>
    <xs:include schemaLocation="MS-OXWSEDISC-types.xsd"/>
    <xs:complexType name="ArrayOfNonIndexableItemDetailsType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NonIndexableItemDetail"
  type="t:NonIndexableItemDetailType"/>
      </xs:sequence>
```

```xml
      </xs:complexType>
      <xs:complexType name="ArrayOfNonIndexableItemStatisticsType">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="NonIndexableItemStatistic"
  type="t:NonIndexableItemStatisticType"/>
        </xs:sequence>
      </xs:complexType>
      <xs:simpleType name="ItemIndexErrorType">
        <xs:restriction base="xs:string">
          <xs:enumeration value="None"/>
          <xs:enumeration value="GenericError"/>
          <xs:enumeration value="Timeout"/>
          <xs:enumeration value="StaleEvent"/>
          <xs:enumeration value="MailboxOffline"/>
          <xs:enumeration value="AttachmentLimitReached"/>
          <xs:enumeration value="MarsWriterTruncation"/>
          <xs:enumeration value="DocumentParserFailure"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:complexType name="NonEmptyArrayOfLegacyDNsType">
        <xs:sequence>
          <xs:element minOccurs="1" maxOccurs="unbounded" name="LegacyDN" type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="NonIndexableItemStatisticType">
        <xs:sequence>
          <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
          <xs:element minOccurs="1" maxOccurs="1" name="ItemCount" type="xs:long"/>
          <xs:element minOccurs="0" maxOccurs="1" name="ErrorMessage" type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="NonIndexableItemDetailType">
        <xs:sequence>
          <xs:element minOccurs="1" maxOccurs="1" name="ItemId" type="t:ItemIdType"/>
          <xs:element minOccurs="1" maxOccurs="1" name="ErrorCode" type="t:ItemIndexErrorType"/>
          <xs:element minOccurs="1" maxOccurs="1" name="ErrorDescription" type="xs:string"/>
          <xs:element minOccurs="1" maxOccurs="1" name="IsPartiallyIndexed" type="xs:boolean"/>
          <xs:element minOccurs="1" maxOccurs="1" name="IsPermanentFailure" type="xs:boolean"/>
          <xs:element minOccurs="1" maxOccurs="1" name="SortValue" type="xs:string"/>
          <xs:element minOccurs="1" maxOccurs="1" name="AttemptCount" type="xs:int"/>
          <xs:element minOccurs="0" maxOccurs="1" name="LastAttemptTime" type="xs:dateTime"/>
          <xs:element minOccurs="0" maxOccurs="1" name="AdditionalInfo" type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="NonIndexableItemDetailResultType">
        <xs:sequence>
          <xs:element minOccurs="0" name="Items" type="t:ArrayOfNonIndexableItemDetailsType"/>
          <xs:element minOccurs="0" name="FailedMailboxes"
  type="t:ArrayOfFailedSearchMailboxesType"/>
        </xs:sequence>
      </xs:complexType>
    </xs:schema>
```

8   Appendix C: 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 Exchange Server 2013

- Microsoft Lync 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.

9 Change Tracking

This section identifies changes that were made to the [MS-OXWSGNI] protocol document between the October 2012 and February 2013 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.

- An extensive rewrite, addition, or deletion of major portions of content.

- The removal of a document from the documentation set.

- Changes made for template compliance.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

Major and minor changes can be described further using the following change types:

- New content added.

- Content updated.

- Content removed.

- New product behavior note added.

- Product behavior note updated.

- Product behavior note removed.

- New protocol syntax added.

- Protocol syntax updated.

- Protocol syntax removed.

- New content added due to protocol revision.

- Content updated due to protocol revision.

- Content removed due to protocol revision.

- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.

- Protocol syntax removed due to protocol revision.

- New content added for template compliance.

- Content updated for template compliance.

- Content removed for template compliance.

- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated.**

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1.4 Relationship to Other Protocols	Added information about this protocol's dependency on the Electronic Discovery (eDiscovery) Web Service Protocol.	Y	Content updated.
4 Protocol Examples	Added sections for the XML code examples for GetNonindexableItemDetails and GetNonindexableItemStatistics operations.	N	New content added.
4.1 Getting Details for Nonindexable Items	Added XML code example for the GetNonIndexableItemDetails operation.	N	New content added.
4.2 Getting Statistics for Nonindexable Items	Added XML code example for the GetNonIndexableItemStatistics operation.	N	New content added.

Release: February 11, 2013

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