[MS-OXWSPHOTO]:
Photo Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
07/16/2012	0.1	New	Released new document.

Table of Contents

1 Introduction

The Photo Web Service Protocol enables the transfer of a user photo from a **mailbox** to a client application that can authenticate and send an **HTTP GET** request.

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 over Secure Sockets Layer (HTTPS)

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

mailbox
Web service

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

[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

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

[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., Ed., Beech, D., Ed., Maloney, M., Ed., 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., Ed. and Malhotra, A., Ed., "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-OCAUTHWS] Microsoft Corporation, "OC Authentication Web Service Protocol Specification".

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

1.3 Overview

This protocol enables client applications to use a **Web service** to request an image that represents a mailbox. This image, typically a photo of the mailbox owner, can be used by a client application to identify the mailbox.

1.4 Relationship to Other Protocols

Access to the Photo Web Service is discovered through the Autodiscover service, as described in [MS-OXWSADISC]

This protocol is accessible only to authenticated users, either directly through a client application or indirectly through a trusted server application. The authentication service protocol is described in [MS-OCAUTHWS].

1.5 Prerequisites/Preconditions

This protocol is accessible only to authenticated users, either directly through a client application or indirectly through a trusted server application.

1.6 Applicability Statement

This protocol applies to environments that use a Web service to transfer images.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2   Messages

2.1   Transport

This protocol is transported by **HTTPS**.

2.2   Message Syntax

None.

3 Protocol Details

3.1 Server Details

3.1.1 Abstract Data Model

None.

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

This protocol manipulates the following resources.

Resource	Description
UserPhoto	Profile image for a mailbox.

The responses to all the operations can result in the following status codes.

Response code	Description
200	An image is available for the specified mailbox, and the binary image is the contents of the response.
304	The image has not changed since the **ETag** was returned to the client application.
400	The request could not be understood by the server due to malformed syntax.
401	The request requires user authentication.
404	No image is available for the specified mailbox.

The server returns an **ETag** header in the response to the request for a user image. The **ETag** remains the same for the user image until the image is updated. You can return this **ETag** to the server in the HTTPS GET request for the user image in an **If-None-Match** header. If the image has not changed since the last request, the server responds with an HTTP 304 response that indicates that the image has not changed since the last request.

3.1.5.1 UserPhoto

The following operations are allowed to be performed on this resource.

Operation	Description
GetUserPhoto	The **GetUserPhoto** operation retrieves the profile image for a mailbox.

3.1.5.1.1 GetUserPhoto

The **GetUserPhoto** operation retrieves the profile image for a mailbox.

```
https://<Exchange Server>/ews/Exchange.asmx/s/GetUserPhoto?email=<email address>&size=<size
code>
```

Use the Autodiscover service **GetUserSetting** operation, as specified in [MS-OXWSADISC], to retrieve the **ExternalPhotosUrl** setting, which contains the URL of the Exchange Web Services (EWS) endpoint and the location of the Exchange.asmx HTTP handler that returns the user images.

email: Represents the email address of the user account.

size: Contains the size code of the user image. The following table describes possible values. The size code always returns the Active Directory thumbnail image if it is available as long as no image is stored on the server.

Size code	Description
HR48x48	The image is 48 pixels high and 48 pixels wide.
HR64x64	The image is 64 pixels high and 64 pixels wide.
HR96x96	The image is 96 pixels high and 96 pixels wide.
HR120x120	The image is 120 pixels high and 120 pixels wide.
HR240x240	The image is 240 pixels high and 240 pixels wide.
HR360x360	The image is 360 pixels high and 360 pixels wide.
HR432x432	The image is 432 pixels high and 432 pixels wide.
HR504x504	The image is 504 pixels high and 504 pixels wide.
HR648x648	The image is 648 pixels high and 648 pixels wide.

If the request specifies a size that is not available, the largest available photo is returned. If no image is stored on the server, the thumbnail image stored in Active Directory Domain Services (AD DS) is returned.

3.1.6 Timer Events

None.

3.1.7 Other Local Events

None.

4   Protocol Examples

5 Security

5.1 Security Considerations for Implementers

This protocol relies on the web server that hosts the application to perform authentication. The protocol SHOULD use secure communications by means of HTTPS, as described in [RFC2818].

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® Exchange Server 2013 Preview

- Microsoft® Lync® 2013 Preview

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.

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