

[MS-ESURL]:

Excel Services Publishing Protocol

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Preliminary

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1 Introduction

The Excel Services Publishing Protocol enables a protocol client to form the protocol server URL and associated query string parameters to display the workbook in the browser after the workbook is published to the 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 specific to this document:

authentication: The act of proving an identity to a server while providing key material that binds the identity to subsequent communications.

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS): An extension of **HTTP** that securely encrypts and decrypts webpage requests.

permission: A rule that is associated with an object and that regulates which users can gain access to the object and in what manner. See also rights.

Request-URI: A URI in an **HTTP** request message, as described in [RFC2616].

site: A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

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

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-WEBSS] Microsoft Corporation, "[Webs Web Service Protocol](#)".

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., Eds., "Uniform Resource Locators (URL)", RFC 1738, December 1994, <http://www.ietf.org/rfc/rfc1738.txt>

[RFC1945] Berners-Lee, T., Fielding, R., and Frystyk, H., "Hypertext Transfer Protocol -- HTTP/1.0", RFC 1945, May 1996, <http://www.ietf.org/rfc/rfc1945.txt>

[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>

[RFC2396] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998, <http://www.rfc-editor.org/rfc/rfc2396.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>

1.2.2 Informative References

None.

1.3 Overview

This protocol specifies how the protocol server URL that is used for displaying the workbook in the browser is formed. At a high level, the protocol involves the following operations:

- Discovery of the URL that is used to display the workbook in the browser given the URL to the workbook.
- Setting the appropriate query string parameters in the URL for displaying the workbook in the browser.

The following sequence diagram illustrates the operations of the protocol.



Figure 1: This protocol message processing sequence

1.4 Relationship to Other Protocols

This protocol uses **HTTP** 1.0, as described in [RFC1945], HTTP 1.1, as described in [RFC2616], or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [RFC2818], for message transport.

The following diagram shows the underlying messaging and transport stack used by the protocol:

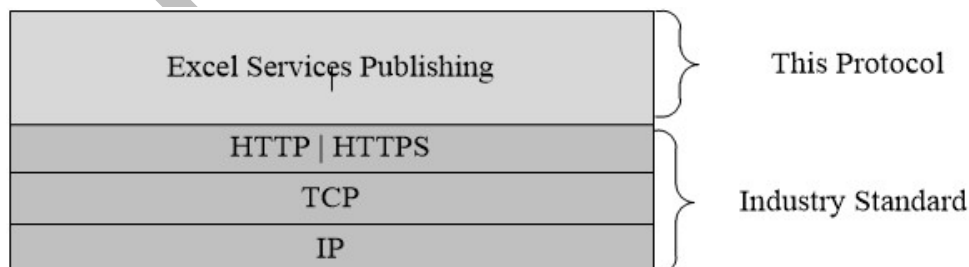


Figure 2: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a **site** identified by a URL that is known by protocol clients. The protocol server endpoint is formed by appending `/_layouts/xlviewer.aspx` to the URL of the site, for example: `http://www.contoso.com/Repository/_layouts/xlviewer.aspx`.

The protocol assumes that **authentication** has been performed by the underlying protocols.

1.6 Applicability Statement

This protocol is for providing protocol clients access to an HTML rendering of a workbook.

1.7 Versioning and Capability Negotiation

Versioning and capability negotiation for this protocol is handled by either the HTTP protocols as described in [\[RFC1945\]](#) and [\[RFC2616\]](#), or the HTTPS protocol as described in [\[RFC2818\]](#).

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

All protocol messages MUST use HTTP 1.0 (as specified in [\[RFC1945\]](#)), HTTP 1.1 (as specified in [\[RFC2616\]](#)), or the HTTPS protocol (as specified in [\[RFC2818\]](#)) for message transport.

2.2 Message Syntax

All messages in this protocol MUST be valid HTTP requests and responses as specified in [\[RFC2616\]](#).

2.2.1 Request Syntax

2.2.1.1 Request HTTP Version

The HTTP version MUST be either HTTP 1.0 or HTTP 1.1, as specified in [\[RFC2616\]](#) section 3.1.

2.2.1.2 Request HTTP Method

The protocol client MUST use the HTTP GET method as specified in [\[RFC2616\]](#) section 9.

2.2.1.3 Request-URI Syntax

The **Request-URI** MUST adhere to the following rules:

- The Request-URI sent in the HTTP request MUST be a valid URL as specified in [\[RFC1738\]](#).
- The Scheme Component MUST be either HTTP or HTTPS, as specified in [\[RFC2396\]](#) section 3.1.
- The protocol client MUST generate the Request-URI by appending "/_layouts/xlviewer.aspx" to the site URI to which the workbook was published. The protocol client MUST determine the site URI by calling **WebUrlFromPageUrl** (as specified in [\[MS-WEBSS\]](#) section 3.1.4.21) with the full URI to which the workbook was published. Therefore the Path Component of the Request-URI MUST end with "/_layouts/xlviewer.aspx", as specified in [\[RFC2396\]](#) section 3.3.
- The Query Component of the Request-URI MUST be present and follow the rules specified in section [2.2.1.3.1](#) and [\[RFC2396\]](#) section 3.4.

The complete contents of the Request-URI MUST be negotiated prior to initiating the protocol as described in section [1.5](#). This includes the Authority Component as specified in [\[RFC2396\]](#) section 3.2 and the Path Component specified in [\[RFC2396\]](#) section 3.3.

2.2.1.3.1 Query Segment

The Query Component of the Request-URI MUST contain three query string parameters with the following names:

- ID
- DefaultItemOpen
- Cookie

The value for each query string parameter MUST be a non-empty string and a valid query string parameter value as specified in [\[RFC2396\]](#). The Query Component MUST NOT contain query string

parameters other than the three required parameters, as specified in [\[RFC2396\]](#) section 3.4. The protocol server MUST NOT require the query string parameters to appear in any particular order.

The protocol client and protocol server MUST interpret the query string parameters as defined in the following table.

Parameter name	Description
ID	The location to which the workbook is published. The value for this parameter MUST be a valid URL as specified in [RFC1738] . The Scheme Component as specified in [RFC2396] section 3.1 of the ID URL MUST be either "HTTP" or "HTTPS".
DefaultItemOpen	The value for this parameter MUST be set to 1.
Cookie	An identifier used to make the Request-URI unique. SHOULD be ignored by the protocol server. The protocol client MUST set the value for this parameter to a unique value across all requests from that protocol client.

Table 1: Query Parameters

2.2.1.4 Request Header Syntax

The protocol client MUST provide valid Message Headers as specified in [\[RFC2616\]](#) section 4.2.

2.2.2 Response Syntax

2.2.2.1 Response Status

The protocol server MUST provide a valid status code as specified in [\[RFC2616\]](#) section 6.1.1.

2.2.2.2 Response Header Syntax

The protocol server MUST provide valid message headers as specified in [\[RFC2616\]](#) section 4.2.

2.2.2.3 Response Body Syntax

The protocol server MUST provide a valid message body as specified in [\[RFC2616\]](#) section 4.3.

3 Protocol Details

3.1 Common 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

The message processing events and sequencing rules are as follows:

- The protocol client MUST generate a valid Request-URI as specified in section [2.2.1.3](#).
- The protocol client MUST issue the HTTP GET request to the generated URL.
- The protocol server MUST verify that the client has **permission** to access the specified URL and MUST return the appropriate Status Code as specified in [\[RFC2616\]](#) section 6.1.1 if the protocol client does not have permissions. The client MUST be prepared to accept all status codes specified in [\[RFC2616\]](#) section 6.1.1.
- After performing any implementation specific processing, the protocol server MUST return a valid HTTP response as specified in section [2.2.2Section_0884b8412988495eb9da0e589f368bea](#).

3.1.6 Timer Events

None.

3.1.7 Other Local Events

None.

4 Protocol Examples

The following is an example of this protocol usage. In this example, the workbook is published to the following location:

```
http://server-name/Site/Dir/Book1.xlsx
```

The URL generated by this protocol that will render the workbook in HTML is as follows:

```
http://server-name/Site/_layouts/xlviewer.aspx?id=http://server-name/Site/Dir/Book1.xlsx&DefaultItemOpen=1&Cookie=0
```

http://server-name/Site is the URL of the site to which the workbook was published. Protocol clients determine the site URL by calling **WebUrlFromPageUrl** (as described in [\[MS-WEBSS\]](#)) with the full URL to which the workbook was published.

HTTP request

```
GET
/team/mysite/ layouts/xlviewer.aspx?id=http%3a%2f%2fServerName%2fSite%2fDocument%20Library%2f
Example.xlsx&DefaultItemOpen=1&Cookie=2 HTTP/1.1
Accept: */*
Host: ServerName
```

HTTP response

```
HTTP/1.1 200 OK
Date: Fri, 22 Jan 2010 20:46:55 GMT
Server: Microsoft-IIS/6.0
MicrosoftSharePointTeamServices: 12.0.0.4017
X-Powered-By: ASP.NET
X-AspNet-Version: 2.0.50727
Set-Cookie: WSS_KeepSessionAuthenticated=80; path=/
Set-Cookie: MSOWebPartPage AnonymousAccessCookie=80; expires=Fri, 22-Jan-2010 21:16:55 GMT;
path=/
Cache-Control: private, max-age=0
Expires: Thu, 07 Jan 2010 20:46:55 GMT
Last-Modified: Fri, 22 Jan 2010 20:46:55 GMT
Content-Type: text/html; charset=utf-8
Content-Length: 20300
<html id="m htmlTag" dir="ltr">
<head>
  <meta name="WebPartPageExpansion" content="full" />
  <meta name="GENERATOR" content="Microsoft SharePoint" />
  <meta name="ProgId" content="SharePoint.WebPartPage.Document" />
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
  <title id="m title">Excel Web Access - http://ServerName/Site/Document
Library/Example.xlsx</title>
  <link rel="stylesheet" type="text/css"
href="/ layouts/1033/styles/EWRDefault.css?rev=oIw8MMnEVJ5jKs65UzX4cw%3D%3D"/>
  <link rel="stylesheet" type="text/css"
href="/_layouts/1033/styles/core.css?rev=5msmprmeONfN6lJ3wtbA1A%3D%3D"/>
```

```
<script type="text/javascript" language="javascript"
src="/_layouts/1033/init.js?rev=ck%2BHdHQ8ABQhif7kr%2Bj7iQ%3D%3D"></script>
<script src="/_layouts/1033/core.js?rev=S5dt4K8TJGVTYU9HrW6enw%3D%3D"></script>
<script src="/_layouts/1033/owsbrows.js?rev=%2F0CWXC03f8AvMOC%2F2LOCjA%3D%3D"></script>
<script src="/_layouts/EWRScripts.js?rev=ycNXUsNKkd1qh12ZwFcmTQ%3D%3D"></script>
<script type="text/javascript" language="javascript"
src="/_layouts/portal.js?rev=cRI8b5r5N%2BkLhIuWR03ICg%3D%3D"></script>

<meta name="Microsoft Theme" content="default" />
<meta name="Microsoft Border" content="none" />
<link type="text/xml" rel="alternate" href="vti bin/spdisco.aspx" />
</head>

<body style="overflow:auto;">
<form name="ctl05" method="post"
action="/xlviewer.aspx?id=http%3a%2f%2fServerName%2fSite%2fDocument+Library%2fExample.xls&amp;
;DefaultItemOpen=1&Cookie=2" onsubmit="javascript:return WebForm_OnSubmit();" id="ctl05"
dir="ltr">
<div>
<input type="hidden" name="EVENTTARGET" id="EVENTTARGET" value="" />
<input type="hidden" name="__EVENTARGUMENT" id="__EVENTARGUMENT" value="" />
<input type="hidden" name="REQUESTDIGEST" id="REQUESTDIGEST"
value="0x287836C9DD259475E14616190CA7036C18EBEF6F4F6F9AFB1D46B8A3C0D763F5CCFEC4B5E5C51BCB1E1
C4AF4E6327C0C726F3A1C10D7EC9EF9726A135AE3F55,22 Jan 2010 21:28:17 -0000" />
<input type="hidden" name="__VIEWSTATE" id="__VIEWSTATE"
value="/wEPDwUKLTI1NzU2Ndc5Nw9kFgJmDxYCHgNkaXIFA2x0chYEAgePFfGieCwLubmVyaHRtbAVNRXhjZwWgV2ViIE
FjY2VzcyAtIGh0dHA6Ly94bHN1cnZpY2VzL3RlYW0vbXN1cmkvU2hhcmVkiERvY3VtZW50cy9FeGftcGxlLnhs3hkAg0
PFfGifAAUDbHRyFgoCBQ8PFfGQeBFR1eHQFDk1hbnByYXRhcCBTdXJpHgtOYXZpZ2F0ZVZvYbAUcaHR0cDovL3hsc2Vydm1j
ZXMvdGvhs9tc3VyaWRkAgkPDxYEHwIFEFNoYXJlZCBEB2N1bWVudHMfAwUwL3RlYW0vbXN1cmkvU2hhcmVkiERvY3VtZ
W50cy9Gb3Jtcy9BbGxJdGVtcy5hc3B4ZGQCCw9kFgJmD2QWBMYPfGifAgUmPHNwYW4gc3R5bGU9J3BhZGRpbmctbGVmdD
ozcHgnPjwvc3Bhb3J5kAgIPDxYEHwIFB015IFNpdGUfAwUraHR0cDovL3hsc2Vydm1jZXM6NTYyNS9fbGF5b3V0cy9NeVN
pdGUuYXNweGRkAgQPFfGifAgU5PHNwYW4gc3R5bGU9J3BhZGRpbmctbGVmdDo0cHg7cGFkZGluZy1yaWdodDozcHgnPnw8
L3NwYW4+ZAIND2QWAmYzBYCAGMPFgIfAgUBfgQCdW8FFGieEFBzYZXpb3VzV29ya2Jvb2sF+AFscGcTSG5wSWk2N0J1c
zNcAw9tdmxhNXZ0aU1hSzbkUnc4Q3dCK0NiWEFhcEhrRVhBzjZoYmJlUHdBS1lXaUdGVThlUD1sZlFiUG56c2gvMWVmbV
J4MFY4enQ5SFJxNG56Um8vQVVAk5MXJ5cGs0Yzk0a1BybWFRSeHFRNRwX2k5TbTMYRHRMRjVkaWdsU3RsczRrVkmXU0Q
wRmw2YysZM2FaczJ4WHdqTmlCTlFYS1dLS0tRd05KYXZqTki5QWVLRUQ4N1dkUU9wcWlKeW1FT2tKRwoXNlHSNjJJZjJ1
TjdzZXJmZjY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3
GFydHMvV2ViUGFydEhlbHBnb2RlAR8ACymFAU1pY3Jvc29mdC5TaGFyZVBvaW50Lld1dY1BhcnRQYWdlcy5EaXJlY3Rpb2
4sIE1pY3Jvc29mdC5TaGFyZVBvaW50LlCBWZXXJzaW9uPTEyLjZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3
va2VuPtCxtZTliY2UxMTF0TQyOWMAHqJobGUEbnVybg9yZwWMAW0dHA6Ly94bHN1cnZpY2VzL3RlYW0vbXN1cmkvX2xh
eW91dHMvGx2aW9uYXNweD9pZD10dHRwO18veGxzX2J2aWNN1cy90ZWFTL2lzdXJpL1NoYXJlZCBEB2N1bWVudHMvR
XhhbXBzS54bHN4Jkr1ZmFlbHRJdGVtZTB1b3J0XjNkNvb2tpZT0yHgdld3JndWlkBRJtX2V4Y2VsV2ViUmVuZGVyZXIeA3
VzcGgeCmNvb2tpZ2W5hbWUFAU1pY3Jvc29mdC5TaGFyZVBvaW50Lld1dY1BhcnRQYWdlcy5EaXJlY3Rpb24sIE1pY3Jvc2
9mdC5TaGFyZVBvaW50LlCBWZXXJzaW9uPTEyLjZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3
XJlPW51dXRyYWwsIFB1YmXpY0tleVRva2VuPtCxtZTliY2UxMTF0TQyOWNFFGyEbxDPZHRoBQQxMDA1HgZoZwlnaHQFBD
EwMCUEBxN0eWxlBQp6LWluZGV4OjA7ZAIBDxYCHw8FF3dpZHR0oJEWMCU7aGVpZ2h0OjEwMCU7FgJmDxYUHHZTY3JpcHR
Gb3JJRnJhbWVdb250ZW50BdMTDQo8aHRtbD4NCgk8Ym9keSBjQW1UaGVJbml0aWwFfUGFnZT0nVHJ1ZSc+DQoJCTxmb3Jt
IG1ldGhvZD0ncG9zdCcgYWN0aW9uPScvdGvhs9tc3VyaS9fbGF5b3V0cy9FeGNlbFJlbnRtJmFzZmY3ZmY3ZmY3ZmY3ZmY3ZmY3
CULcmVsb2FkJSgc3R5bGU9J2Rpc3BsYXk6b29mdC5TaGFyZVBvaW50Lld1dY1BhcnRQYWdlcy5EaXJlY3Rpb24sIE1pY3Jvc2
9mdC5TaGFyZVBvaW50LlCBWZXXJzaW9uPTEyLjZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3ZmY3
dscGxTSg5wSWk2N0J1c2NcAw9tdmxhNXZ0aU1hSzbkUnc4Q3dCK0NiWEFhcEhrRVhBzjZoYmJlUHdBS1lXaUdGVThlUD1
sZlFiUG56c2gvMWVmbVJ4NERvcGxJVfhsQnZiVDQvRDBUaFhmVHFVSDNu1BMK1V6U3dsbXM2Nz1RWV1Db1htWDJpDvVs
RHpzZVpvNDNTZ3BoUmR6OFVc1RaaDRhRmFzEGzYqVFPWRtMXzoOVNXTE9rSjZkUjJFZDZvVjBkU1FKD0xpVFTL1MzO
HRrSTiYXozVnJhbVVRDJOOC9qRGN3QUNZaWZHZ2dQdUVhb09Zc2toNmMvR2ZMOHBPWnZCdFNSU3UzL2E2bjBHSXdkK2
9zYzBGOE9wb1l1mM0Q5REhXWVM2d0VpU0prYkRrTzBPdGswMEgrVEhNnmwyc2FmMkhBcGxZcWR1M2l2z05xaDV5S9S1Q
rRHFTNzVkeTVJTUdEcXDR01vUXZfDkU1Tml1cEtXa2VVEwi9WE1MTlZnSG5UuWRSvNRtTitGL0duNpVbTUpvRzJRNVAx
RWhsbcm5VQjNGNH1oUEFzZHNtVXhqbWx0YXl30U030E1sow90SU0vq1o4Z3JKZDZpR09ieXBBY0Z3VzVUOCndjTGDcbnUa
WM2UHZIsjVdek54WU1OenBLMEtHbURqMmRJVDh3SnhnaDRWmh1VDJCM1FMRG56THRyZwxsZDdjdtNjUNJ6dJtu2RMZF
c2YV1hTVRwFd4WTBocU9HWUgHbXYxamljTTNxdTY0RDZyaFhFMEZFT1Q4Z3Jxa1NPSWlkvtcvOTLMRGhzcmlrQnd5NFR
vbXRqaEdmbfMyMddRZGhjTkg5VU1sUH1qcDMYSHk1Z1ZwaT02ME1za1h5eWJEcUJGb1JLNDZhrTY5dXIwbuZYZnhvVDRS
TEV6dWR1cXJhTHV2U1Jua195Q2U3VU1JaENFVdVouU1ZUkhPdDbaWwXUzFqT4zZTR2VnBRtjNaSHZNMFT6Q0E5U1RXC
UJsQmVjYXRra3BkCtVMVg3QVbhdEhMujhJrlpvdkZoSjkyQ1gwRjEwRd1TcC9jY3YjYkFjOEFtQZTNmFTVVGJzmlvRy
9iejR1eG1TZFNZd3VknTK2dHhIV1FFOHRHOXliVm1hWE5RQ0RDd2psOGJUmJLrNv0ZH12T3N4be1yeHRNwmcwWE84OUR
SaFg1YmlONDVnV1d0enAzMEVEdw1jMF1nbW5mWNBVmxTZFDUJZHZjV2R0NHNv1qR2dzVEIyQjZuaWJXY2FzYXRva2Nz
cU5oTV14N0QvMUTvREYrdm5Suk4wY2t2Y0ZJPSc+DQoJCTwvZm9ybT4NCgk8L2JvZHK+DQoJPHNjcm1wdCB0eXB1PSd0
Xh0L2pmdmFzY3JpcHh1IGxhbmdlYWdlPSdqYXZhc2NyYXk0Ym0Zxh0L2pmdmFzY3JpcHh1IGxhbmdlYWdlPSdqYXZhc2Ny
5jdG1vbiBmB2NhbFNjcm1wdEdldEF0dHJpYnV0ZShjdhJSLCBhdHRyaWIpDQoJcQ17DQoJcQkjaWYgKGN0cmwuaGFzQXR
0cm1idXR1ICE9IG51bGwgKQKQKQJcQ1yZXR1cm4gKGN0cmwuaGFzQXR0cm1idXR1KGF0dHJpYk1pD8gY3Ryb3NzXRB
```



```

    //-->
</script>
<script src="/ layouts/EWRScripts.js?rev=ycNXUsNKKd1qh12ZwFcmTQ%3D%3D"
type="text/javascript"></script>
<script type="text/javascript">
    //
        function WebForm_OnSubmit() {
            UpdateFormDigest('\u002f\u002f', 1440000);
            return true;
        }
    //]]&gt;
&lt;/script&gt;

&lt;div&gt;

    &lt;input type="hidden" name=" EVENTVALIDATION" id=" EVENTVALIDATION"
value="/wEWAgL85K7DagLdp935A227vZTrpVx+IX9lEdSAIKYOVMc" /&gt;
&lt;/div&gt;

    &lt;table cellpadding="0" cellspacing="0" width="100%" height="100%" border="0"&gt;
        &lt;tr&gt;
            &lt;td&gt;
                &lt;!-- begin global breadcrumb --&gt;
                &lt;table width="100%" cellpadding="3" cellspacing="0" border="0" class="ms-
globalbreadcrumb"&gt;
                    &lt;tr&gt;
                        &lt;td nowrap="nowrap"&gt;
                            &lt;span id="GlobalNavigationSiteMap"&gt;&lt;a
href="#GlobalNavigationSiteMap_SkipLink"&gt;&lt;img alt="Skip Navigation Links" height="0"
width="0" src="/WebResource.axd?d=1eQdCimhkLaqCJVEiXyRrQ2&amp;amp;t=633911231850302493"
style="border-width:0px;" /&gt;&lt;/a&gt;&lt;span&gt;&lt;a href="/"&gt;Excel Services&lt;/a&gt;&lt;/span&gt;&lt;span&gt; &amp;gt;
&lt;/span&gt;&lt;span&gt;&lt;a href="/team"&gt;Team&lt;/a&gt;&lt;/span&gt;&lt;span&gt; &amp;gt; &lt;/span&gt;&lt;span&gt;&lt;/span&gt;&lt;a
id="GlobalNavigationSiteMap_SkipLink"&gt;&lt;/a&gt;&lt;/span&gt;
                            &lt;/td&gt;
                            &lt;td nowrap="nowrap"&gt;
                                &lt;a id="m_webLink" href="http://ServerName/Site"&gt;Site Name&lt;/a&gt;
                            &lt;/td&gt;
                            &lt;td nowrap="nowrap"&gt;
                                &lt;span id="m_backLinkSeparator"&gt; &amp;gt; &lt;/span&gt;
                            &lt;/td&gt;
                            &lt;td nowrap="nowrap"&gt;
                                &lt;a id="m_backLink"
href="/site/Document%20Library/Forms/AllItems.aspx"&gt;Shared Documents&lt;/a&gt;
                            &lt;/td&gt;
                            &lt;td width="100%"&gt;
                                &amp;#160;
                            &lt;/td&gt;
                            &lt;td nowrap="nowrap" class="ms-globallinks" align="right" style="padding-
left: 5px;padding-right: 5px"&gt;
                                &lt;table cellspacing="0" cellpadding="0"&gt;
                                    &lt;tr&gt;
                                        &lt;td class="ms-globallinks" nowrap="nowrap"&gt;
                                            &lt;span style='padding-left:3px'&gt;&lt;/span&gt;
&lt;a id="ctl08_hlMySite" href="http://ServerName:5625/_layouts/MySite.aspx"&gt;My Site&lt;/a&gt;
                                            &lt;span style='padding-left:4px;padding-right:3px'|&lt;/span&gt;
                                        &lt;/td&gt;
                                        &lt;td class="ms-globallinks" nowrap="nowrap"&gt;
                                            &lt;table&gt;
                                                &lt;tr&gt;
                                                    &lt;td class="ms-globallinks"&gt;&lt;span
id="ctl10_MyLinksMenu"&gt;&lt;span style="display:none"&gt;&lt;menu type='ServerMenu'
id="ctl10_MyLinksMenuMenuTemplate" largeIconMode="true"&gt;&lt;/menu&gt;&lt;/span&gt;&lt;span title="Open
Menu"&gt;&lt;span id="ctl10_MyLinksMenuMenu t" class="ms-SPLink ms-hovercellinactive"
onmouseover="MMU_PopMenuIfShowing(this);MMU_EcbTableMouseOverOut(this, true)"
hoverActive="ms-SPLink ms-hovercellactive" hoverInactive="ms-SPLink ms-hovercellinactive"
onclick="javascript:FetchCallbackMenuItems (&amp;#39;ctl10_MyLinksMenuMenuTemplate&amp;#39;);
MMU_Open (byid ('ctl10_MyLinksMenuMenuTemplate'),
MMU_GetMenuFromClientId ('ctl10_MyLinksMenuMenu'),event,true, null, 0);"
</pre>
</div>
<div data-bbox="828 882 890 897" data-label="Page-Footer">
<p>14 / 23</p>
</div>
<div data-bbox="112 901 383 954" data-label="Page-Footer">
<p>[MS-ESURL] - v20150316<br/>
Excel Services Publishing Protocol<br/>
Copyright © 2015 Microsoft Corporation<br/>
Release: March 16, 2015</p>
</div>
```

```

foa="MMU_GetMenuFromClientId('ctl10_MyLinksMenuMenu')" oncontextmenu="this.click(); return
false;" nowrap="nowrap"><a id="ctl10_MyLinksMenuMenu" accesskey="M" href="#"
onclick="javascript:return false;" style="cursor:hand;white-space:nowrap;"
onfocus="MMU_EcbLinkOnFocusBlur(byid('ctl10_MyLinksMenuMenuTemplate'), this, true);"
onkeydown="MMU_EcbLinkOnKeyDown(byid('ctl10_MyLinksMenuMenuTemplate'),
MMU_GetMenuFromClientId('ctl10_MyLinksMenuMenu'), event);"
onClick="javascript:FetchCallbackMenuItems(&#39;ctl10_MyLinksMenuMenuTemplate&#39;);
MMU_Open(byid('ctl10_MyLinksMenuMenuTemplate'),
MMU_GetMenuFromClientId('ctl10_MyLinksMenuMenu'),event,true, null, 0);"
oncontextmenu="this.click(); return false;"
menuTokenValues="MENUCLIENTID=ctl10_MyLinksMenuMenu,TEMPLATECLIENTID=ctl10_MyLinksMenuMenuTem
plate" serverclientid="ctl10_MyLinksMenuMenu">My Links</a></span></span></td>
        <td class="ms-globallinks">|</td>
    </tr>
</table>
</td>
</tr>
</table>
</td>
</tr>
</table>
</tr>
</td>
</tr>
<!-- end global breadcrumb -->
</td>
</tr>
<tr>
<td id="webpartContainerCell" height="100%" valign="top">
<!-- begin Excel Web Renderer -->
        <table TOPLEVEL border="0" cellpadding="0" cellspacing="0" width="100%">
            <tr>
                <td valign="top"><div WebPartID="00000000-0000-0000-0000-000000000000"
HasPers="true" id="WebPartm_excelWebRenderer" width="100%" OnlyForMePart="true"
allowMinimize="false" allowRemove="false" allowDelete="false" style="height:100%;" ><div
id="m_excelWebRenderer" style="height:100%;">
                <span></span><input name="m_excelWebRenderer$wbid" type="hidden"
id="m_excelWebRenderer_wbid" wbid="m_excelWebRenderer_ECSFrame" /><table cellpadding="0"
cellspacing="0" border="0" style="border-
collapse:collapse;width:100%;height:100%;border:0;overflow:auto;">
                    <tr>
                        <td><span></span></td>
                    </tr>
                    <tr>
                        <td style="height:100%;"><div style="overflow:hidden;height:100%;"><div
id="m_excelWebRenderer_WaitImage" width="100%" height="100%" style="z-
index:0;width:100%;height:100%;overflow:auto;">
                    </td>
                    </tr>
                </table>
            </tr>
            <tr style="height:48%;">
                <td>
                    <div style="height:100%;;overflow:hidden;">&nbsp;</div>
                </td>
            </tr>
            <tr>
                <td>
                    <table style="height:100%;width:100%;">
                        <tr>
                            <td width="100%" valign="top" style="height:2%">
                                <table width="100%" border="0" cellspacing="0" cellpadding="0" class="ms-
propertySheet">
                                    <tr>
                                        <td align="center" valign="middle">
                                            <table cellpadding="0" cellspacing="0">
                                                <tr>
                                                    <td>
                                                        <table cellpadding="0" cellspacing="0">
                                                            <tr>

```

```

padding-right: 20px;">
alt="Progress icon" />
right:20px;" vertical-align="middle">
progress...</span>
width="1px" height="8px" alt=""></td>
colspan="2">
width="1px" height="1px" alt="">
width="1px" height="8px" alt="">
text="" alt="" />
cellspacing="0"><tr><td style="width:100%;">
type="button" class="ewr-dialog-button" value="Cancel"
onclick="javascript:EwrCancelRequest(event, 'm_excelWebRenderer_ECSFrame', 'm_excelWebRenderer_
ctl06');" />
<td style="padding-top: 0px; padding-left: 20px;

<td MessageID = "Ewr_LoadProgress" style="padding-
<span class='ewr-progress-msg-font'>Operation in
</td>
</tr>
<tr>
<td colspan="2" style="height: 1px">

<tr>
<td class="ms-sectionline" height="1px"

</tr>
<tr>
<td colspan="2" style="height: 1px">

</tr>
<tr>
<td>

<td>
<table cellpadding="0"
</td>
<td>
<input id="ServerMessage2"
</td>
</tr>
</table>
</td>
</tr>
</table>
</td>
</tr>
</table>
</td>
</tr>
</table>
</td>
</tr>
</table>
</td>
</tr>
<tr style="height:48%;">
<td>
<div style="height:100%;overflow:hidden;">&nbsp;</div>
</td>
</tr>
</table>
</div><div style="width:100%;height:100%;"><IFrame id="m_excelWebRenderer_ECSFrame"
ScriptForIFrameContent="

```



```

<html>
  <body IAmTheInitialPage='True'>
    <form method='post' action='/Site/ layouts/ExcelRenderer.aspx?%cancel%%reload%'
style='display:none'>
      <input name='ewrPostData'
value='!p1SHnpIi67Bus3Blomvla5vtiMaK0dRw8CwB+CbXAapHkEXAf6hbpuPwAJYWiGFU8eP9lgQbPnzsh/1efmRx4
DoplITXlBvbT4/D0ThXftQqUH3n7PL+UzSwlms679QYYCnXmX2OuUlDzkeZo43SgphRdz8UksTZh4aFasdH3PVEYdm1vh9
SWLOkJ6dR2Ed6oV0dRQJwLiVqS/S38tkI22az3VramUID2N8/jDcwACYifGggPuEaoOYskh6c/GfL8pOZvBtSRsu3/a6n
0GIwJ+osc0F8OpoYf3D9DHqYS6wEiSjkbDk00tk00H+THM6l2saf2HAplYqde3msgNqh5yK/GJT+DqS75Jy5IMGDqyCG
MoQvEvE5NmupKWkeDZ/VTMLNVGhNtQdRVtSN+F/Gn5ZAMJoG2Q5P1EhlnUB3F4yhPasdsmUxjQlhayw9M78M19otIM/C
Z8grJd6iGObypAcFwW5NBwcLgBnu+ic6PvHJ5CzNxYMNzpK0KGMdJ2dIT8wJxgh4VVhuT2B2QLDnzLtrellid7cu3c5Bzt
2mSdLdW6aYaMTvtWxY0hqOGYHFmvljicM3qu64D6rhXE0FEOT8grqjSOIidU7/99LDhsrikBwy4TomtjhgflS207QdhcN
H9UMLPyjp32Hy5gVpi560IsjXyybDqBFoRK46aE69ur0mFXfoT4RLEzuduqraLuvFRtj/yCe7UMIhCET5hRUsRH0t0Xi
fTC1jNn3e4vVpQN3ZHvM11zCA9STWqBlBeIatQkpJp+U1X7APatHLR8cFZovFhJ92CX0F10D9Sp/ccrrNac8AmA3gzbST
bsnioG/bz4uxmSdSYwud596txHVQE8tG9ybVmaXNQCDCwjl8bIRbKFutdyvOxslMrxtMZg0X089DRhX5bih45gWWtzp30
EDuic0YgmnfYAcv1SdRCS6Gf5vGCa5YjGgsTB2B6nibWcasatokcYqNhMYx7D/1KoDF+vnRRN0ckvcFI='>
      </form>
    </body>
  <script type='text/javascript' language='javascript'>
    <!--
      function LocalScriptGetAttribute(ctrl, attrib)
      {
        if (ctrl.hasAttribute != null )
          return (ctrl.hasAttribute(attrib)) ? ctrl.getAttribute(attrib) : null;
        else
          return ctrl.getAttribute(attrib);
      }

      function SetPostedBackAlready(val)
      {
        try
        {
          window.frameElement.setAttribute('PostedBackAlready', val);
        }
        catch(ex)
        {
        }
      }

      function EwrFramePostToServer()
      {
        var val = 'SureDid';
        try
        {
          val = LocalScriptGetAttribute(window.frameElement, 'PostedBackAlready');
        }
        catch (ex)
        {
        }
        var specialRepost = '&cancel%' == '&cancel=True&'; ||
        '&reload%' == '&reload=True&';
        if (val == null || specialRepost)
        {
          if (!specialRepost)
          {
            SetPostedBackAlready('SureDid');
          }
          else
          {
            SetPostedBackAlready(null);
            window.frameElement.setAttribute('&EwrStatus&',
            '&loading&');
          }
          document.forms.item(0).submit();
        }
        else
        {
          SetPostedBackAlready(null);
        }
      }
    </script>
  </!--

```

```

        history.back();
        window.setTimeout (&quot;window.location.reload(false);&quot;;,0);
    }
}
window.setTimeout (&quot;EwrFramePostToServer ()&quot;;,0);
// -->
</script>
<table border="0" style="width="100%" EwrWaitElementId="m_excelWebRenderer_WaitImage" height="100%"
frameborder="0" style="z-index:1;visibility:hidden;" Scrolling="no" IsEwrMainIframe="true"
EwrStatus="" DummyPage=""></IFrame></div>
<script type='text/javascript' language='javascript'>
    <!--
        FillIFrameWithForm('m_excelWebRenderer_ECSFrame', false, '');
    // -->
</script>
<script type='text/javascript' language='javascript'>
    <!--
        PollForDocumentCompletion('m_excelWebRenderer_ECSFrame', false);
    // -->
</script><IFRAME id="m_excelWebRenderer_ctl06" style="display:none;" DummyPage=""></IFRAME>
<script type='text/javascript' language='javascript'>
    <!--
        function OpenEwrToolpaneForEditm_excelWebRenderer()
        {
            MSOT1Pn_ShowToolPane2('Edit','m_excelWebRenderer');
        }
    // -->
</script></div></td>
</tr>
</table>
</div></div></td>
</tr>
</table>
<!-- end Excel Web Renderer -->
</td>
</tr>
</table>

<script type="text/javascript">
//<![CDATA[
DoEwrResizeViewerPage();
WebForm_InitCallback();//]]>
</script>

<script type='text/javascript' language='javascript' for='window' event='onbeforeunload'>
    <!--
        EwrMainPageBeforeUnload();
    // -->
</script></form>
</body>
</html>

```



5 Security

5.1 Security Considerations for Implementers

When using this protocol over an untrusted network, an HTTPS (as described in [\[RFC2818\]](#)) connection can help mitigate risks of protocol messages being intercepted or tampered with.

The information contained in the workbook identified by the ID query string parameter is likely to be security sensitive. For example, it could contain confidential data such as financial records. Therefore it is recommended that the protocol server establish that the protocol client has permissions to access the workbook in any implementation in which the contents of this workbook are returned in the message body as described in section [2.2.2.3](#).

There are no restrictions on the protocol server regarding the message header content type, as described in section [2.2.2.2](#) and in [\[RFC2616\]](#) section 14.17. Therefore, it is recommended that the protocol client checks the Content-Type to avoid running any executable file that could pose a security risk.

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 Office Excel 2007
- Microsoft Excel 2010
- Microsoft Office SharePoint Server 2007
- Microsoft SharePoint Server 2010
- Microsoft Excel 2013
- Microsoft SharePoint Server 2013
- Microsoft Excel 2016 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

This section identifies changes that were made to this document since the last release. 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.
- The removal of a document from the documentation set.

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 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 changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

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.
- 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 dochelp@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
6 Appendix A: Product Behavior	Updated list of supported products.	Y	Content updated due to protocol revision.

Preliminary

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