[MS-ESURL]:
Excel Services Publishing Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1		Initial Availability
06/27/2008	1.0	Major	Revised and edited the technical content
12/12/2008	1.01	Editorial	Revised and edited the technical content
03/18/2009	1.02	Editorial	Revised and edited the technical content
07/13/2009	1.03	Major	Revised and edited the technical content
08/28/2009	1.04	Editorial	Revised and edited the technical content
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02/19/2010	2.0	Minor	Updated the technical content
03/31/2010	2.01	Editorial	Revised and edited the technical content
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06/07/2010	2.03	Editorial	Revised and edited the technical content
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07/23/2010	2.05	Minor	Clarified the meaning of the technical content.
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11/15/2010	2.05	No change	No changes to the meaning, language, or formatting of the technical content.
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01/20/2012	2.05	No change	No changes to the meaning, language, or formatting of the technical content.

Date	Revision History	Revision Class	Comments
04/11/2012	2.05	No change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1   Introduction

This document specifies the Excel Services Publishing Protocol, which 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 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]:

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

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

permission
Request-URI
site

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 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-WEBSS] Microsoft Corporation, "Webs Web Service Protocol Specification".

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., "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.ietf.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.ietf.org/rfc/rfc2616.txt

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

1.2.2   Informative References

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

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

1.3   Protocol Overview (Synopsis)

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.
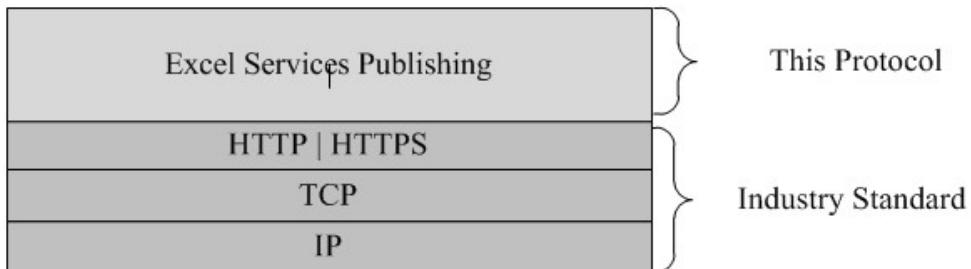
Figure 1: This protocol message processing sequence

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 (2)** 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 (2), for example: http://www.contoso.com/Repository/_layouts/xlviewer.aspx.

The protocol assumes that **authentication (2)** 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 URI 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 (2) URI to which the workbook was published. The protocol client MUST determine the site (2) 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   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 2.2.2.

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 (2) to which the workbook was published. Microsoft protocol clients determine the site (2) 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=5msmprmeONfN6lJ3wtbAlA%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=%2FOcWXc03f8AvM0C%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.xlsx&amp
;DefaultItemOpen=1&amp;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="0x287836C9DDD259475E14616190CA7036C18EBEF6F4F6F9AFB1D46B8A3C0D763F5CCFEC4B5E5C51BCB1E1
C4AF4E6327C0C726F3A1C10D7EC9EF9726A135AE3F55,22 Jan 2010 21:28:17 -0000" />
<input type="hidden" name="__VIEWSTATE" id="__VIEWSTATE"
value="/wEPDwUKLTI5NzU2NDc5Nw9kFgJmDxYCHgNkaXIFA2x0chYEAgEPFgIeCWlubmVyaHRtbAVNRXhjZWwgV2ViIE
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J4MFY4enQ5SFJxNG56Um8vVQVVXaVk5MXJ5cGs0Yzk0a1BybWWFSeHFFNVRRw2Yk5TbTMyRHRRMRjVKaWdSSU3RsczRxVkMxU0Q
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cU5oTVl4N0QvMUtvREYrdm5SUk4wY2t2Y0ZJPSc+DQoJCTwvZm9ybT4NCgk8L2JvZHk+DQoJPHNjcmlwdCB0eXBlPSd0Z
Xh0L2phdmFzY3JpcHQnIGxhbmd1YWdlPSdqYXZhc2NyaXB0Jyd0ZXh0L2phdmFzY3JpcHQnPg0KCQk8IS0tDQoJCQlmdW
5jdGlvbiBMb2NhbFNjcmlwdEdldEF0dHJpYnV0ZShjdHJsLCBhdHRyaWIpDQoJCQl7DQoJCQkaWYgKGN0cmwuaGFzQXR
0cmlidXRlICE9IG51bGwgKQ0KCQkJCQlyZXR1cm4gKGN0cmwuaGFzQXR0cmlidXRlKGF0dHJpYikpID8gY3RybC5nZXRB
dHRyaWJ1dGUoYXR0cmliKSA6IG51bGw7DQoJCQlZWxzZQ0KCQkJCQlyZXR1cm4gY3RybC5nZXRBdHRyaWJ1dGUoYXR0c
mliKTsNCgkJCX0NCg0KCQkJZnVuY3Rpb24gU2V0UG9zdGVkQmFja0FscmVhZHkodmFsKQ0KCQkJew0KCQkJCXRyeQ0KCQ
kJCXsNCgkJCQkJd2luZG93LmZyYW1lRWxlbWVudC5zZXRBdHRyaWJ1dGUoJ1Bvc3RlZEJhY2tBbHJlYWR5JywgdmFsKTs
NCgkJCQl9DQoJCQkJY2F0Y2goZXgpDQoJCQkJew0KCQkJCX0NCgkJCX0NCgkJCZnVuY3Rpb24gRXdyRnJhbWVQb3N0
VG9TZXJ2ZXIoKQ0KCQkJew0KCQkJCXZhciB2YWwgPSAnU3VyZURpZCc7DQoJCQkJdHJ5DQoJCQkJew0KCQkJCQl2YWwgP
SBMb2NhbFNjcmlwdEdldEF0dHJpYnV0ZSh3aW5kb3cuZnJhbWVFbGVtZW50LCdQb3N0ZWRCYWNrQWxyZWFkeScpOw0KCQ
kJCX0NCgkJCQljYXRjaCAoZXgpDQoJCQkJew0KCQkJCX0YXIgc3BlY2lhbFJlcG9zdCA9ICIlY2FudAVsJSI
gPT0gImNhbmNlbD1UcnVlJiIgfHwgIiVyZWxvYWQlIiA9PSAicmVsb2FkPVRydWUmIjsNCgkJCQlpZiAodmFsID09IG51
bGwgfHwgc3BlY2lhbFJlcG9zdCkNCgkJCQl7DQoJCQkJCWlmICghc3BlY2lhbFJlcG9zdCkNCgkJCQkJew0KCQkJCQkJU
2V0UG9zdGVkQmFja0FscmVhZHkoJ1N1cmVEaWQnKTsNCgkJCQkJfQ0KCQkJCQllbHNlDQoJCQkJCXsNCgkJCQkJCVNldF
Bvc3RlZEJhY2tBbHJlYWR5KG51bGwpOw0KCQkJCQkJd2luZG93LmZyYW1lRWxlbWVudC5zZXRBdHRyaWJ1dGUoIkV3clN
0YXR1cyIsICJJsb2FkaW5nIik7DQoJCQkJCX0NCgkJCQkJZG9jdW1lbnQuZm9ybXMuaXRlbSgwKS5zdWJtaXQoKTsNCgkJ
CQl9DQoJCQkJZWxzZQ0KCQkJCXsNCgkJCQkJU2V0UG9zdGVkQmFja0FscmVhZHkobnVsCk7DQoJCQkJCWhpc3RvcnkuY
mFjaygpOw0KCQkJCQl3aW5kb3cuc2V0VGltZW91dCgid2luZG93LmxvY2F0aW9uLnJlbG9hZChmYWxzZSk7IiwwKTsNCg
kJCQl9DQoJCQl9DQoJCQl3aW5kb3cuc2V0VGltZW91dCgidmludWxvY2F0aW9uLnJlbG9hZChmYWxzZSk7IiwwKTsNCg
tPg0KCTwvc2NyaXB0Pg0KPC9odG1sPh8NBQQxMDAlHhBFd3JXYWl0RWxlbWVudElkBRxtX2V4Y2VsV2ViUmVuZGVyZXJf
V2FpdEltYWdlHw4FBDEwMCUeC2ZyYW1lYm9yZGVyBQEwHw8FHHotaW5kZXg6MTt2aXNpYmlsaXR5OmhpZGRlbjseCVNjc
m9sbGluZwUCbm8eD0lzRXdyTWFpbklmcmFtZQUEdHJ1ZR4JRXdyU3RhdHVzZR4JRHVtbXlQYWdlZWQCBA8WBB8PBQ1kaX
NwbGF5Om5vbmU7HxZlZGRcHuXjujvvxWWe+rd32TChVa4Eaw==" />
</div>

<script type="text/javascript">
//<![CDATA[
var theForm = document.forms['ctl05'];
if (!theForm) {
    theForm = document.ctl05;
}
function __doPostBack(eventTarget, eventArgument) {
    if (!theForm.onsubmit || (theForm.onsubmit() != false)) {
        theForm.__EVENTTARGET.value = eventTarget;
        theForm.__EVENTARGUMENT.value = eventArgument;
        theForm.submit();
    }
}
//]]>
</script>

<script src="/WebResource.axd?d=e0GKyGKnuokxMqsPUJZAlQ2&t=633911231850302493"
type="text/javascript"></script>

<script> var MSOWebPartPageFormName = 'ctl05';</script>
<script type="text/javascript">
//<![CDATA[
var originalFormAction = document.forms[0].action;
function FetchCallbackMenuItems(menutemplate)
{
   var template=document.getElementById(menutemplate);
   if(template == null || (template != null && template.hasChildNodes()))
   {
      return;
   }
```

```
        __theFormPostData = '';
    WebForm_InitCallback();
    var lastFormAction = document.forms[0].action;
    document.forms[0].action = originalFormAction;

WebForm_DoCallback('ctl10$MyLinksMenu','',PopulateCallbackMenuItems,'^R^,^F^,ctl10_MyLinksMen
uMenu,ctl10_MyLinksMenuMenuTemplate',null,false);
    document.forms[0].action = lastFormAction;
}
//]]>
</script>
<script type="text/JavaScript" language="JavaScript">
    <!--
    var L_Menu_BaseUrl="/Site";
    var L_Menu_LCID="1033";
    var L_Menu_SiteTheme="";
    //-->
</script>
<script src="/_layouts/EWRScripts.js?rev=ycNXUsNKKd1qh12ZwFcmTQ%3D%3D"
type="text/javascript"></script>
<script type="text/javascript">
    //<![CDATA[
    function WebForm_OnSubmit() {
    UpdateFormDigest('\u002f\u002f', 1440000);
    return true;
    }
    //]]>
</script>


<div>

    <input type="hidden" name="__EVENTVALIDATION" id="__EVENTVALIDATION"
value="/wEWAgL85K7DAgLDp935A227vZTrpVx+IX9lEdSAIKYOVXMc" />
</div>

    <table cellpadding="0" cellspacing="0" width="100%" height="100%" border="0">
        <tr>
            <td>
                <!-- begin global breadcrumb -->
                <table width="100%" cellpadding="3" cellspacing="0" border="0" class="ms-
globalbreadcrumb">
                    <tr>
                        <td nowrap="nowrap">
                        <span id="GlobalNavigationSiteMap"><a
href="#GlobalNavigationSiteMap_SkipLink"><img alt="Skip Navigation Links" height="0"
width="0" src="/WebResource.axd?d=1eQdCimhkLaqCJVEiXyRrQ2&amp;t=633911231850302493"
style="border-width:0px;" /></a><span><a href="/">Excel Services</a></span><span> &gt;
</span><span><a href="/team">Team</a></span><span> &gt; </span><span></span><a
id="GlobalNavigationSiteMap_SkipLink"></a></span>
                        </td>
                        <td nowrap="nowrap">
                            <a id="m_webLink" href="http://ServerName/Site">Site Name</a>
                        </td>
                        <td nowrap="nowrap">
                            <span id="m_backLinkSeparator"> &gt; </span>
                        </td>
                        <td nowrap="nowrap">
```

```
                                    <a id="m_backLink"
href="/site/Document%20Library/Forms/AllItems.aspx">Shared Documents</a>
                            </td>
                            <td width="100%">
                                 
                            </td>
                            <td nowrap="nowrap" class="ms-globallinks" align="right" style="padding-
left: 5px;padding-right: 5px">
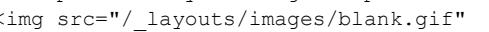                                <table cellspacing="0" cellpadding="0">
                                    <tr>
                                        <td class="ms-globallinks" nowrap="nowrap">
                                            <span style='padding-left:3px'></span>
<a id="ctl08_hlMySite" href="http://ServerName:5625/_layouts/MySite.aspx">My Site</a>
                                            <span style='padding-left:4px;padding-right:3px'>|</span>
                                        </td>
                                        <td class="ms-globallinks" nowrap="nowrap">
                                            <table>
                                                <tr>
                                                    <td class="ms-globallinks"><span
id="ctl10_MyLinksMenu"><span style="display:none"><menu type='ServerMenu'
id="ctl10_MyLinksMenuMenuTemplate" largeIconMode="true"></menu></span><span title="Open
Menu"><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(&#39;ctl10_MyLinksMenuMenuTemplate&#39;);
MMU_Open(byid('ctl10_MyLinksMenuMenuTemplate'),
MMU_GetMenuFromClientId('ctl10_MyLinksMenuMenu'),event,true, null, 0);"
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<img src="/_layouts/images/blank.gif"
border="0" alt="Use SHIFT+ENTER to open the menu (new window)."/></a><img align="absbottom"
src="/_layouts/images/menudark.gif" alt="" /></span></span></span></td>
                                                    <td class="ms-globallinks">|</td>
                                                </tr>
                                            </table>
                                        </td>
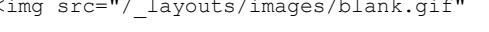                                    </tr>
                                </table>
                            </td>
                        </tr>
                    </table>
                    <!-- end global breadcrumb -->
                </td>
            </tr>
            <tr>
                <td id="webpartContainerCell" height="100%" 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;">

<table style="height:100%;width:100%;">
   <tr style="height:48%;">
      <td>
         <div style="height:100%;;overflow:hidden;"> </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>
                                          <td style="padding-top: 0px; padding-left: 20px;
padding-right: 20px;">
                                             <img src="/_layouts/images/ewr133.gif" text=""
alt="Progress icon" />
                                          </td>
                                          <td MessageID = "Ewr_LoadProgress" style="padding-
right:20px;" vertical-align="middle">
                                             <span class='ewr-progress-msg-font'>Operation in
progress...</span>
                                          </td>
                                       </tr>
                                       <tr>
                                          <td colspan="2" style="height: 1px">
                                             <img src="/_layouts/images/blank.gif"
width="1px" height="8px" alt=""></td>
                                       </tr>
                                       <tr>
                                          <td class="ms-sectionline" height="1px"
colspan="2">
                                             <img src="/_layouts/images/blank.gif"
width="1px" height="1px" alt="">
                                          </td>
                                       </tr>
```

```
                                                    <tr>
                                                       <td colspan="2" style="height: 1px">
                                                          <img src="/_layouts/images/blank.gif"
width="1px" height="8px" alt="">
                                                       </td>
                                                    </tr>
                                                    <tr>
                                                       <td>
                                                                <img src="/_layouts/images/ewr034.gif"
text="" alt="" />
                                                       </td>
                                                       <td>
                                                          <table cellpadding="0"
cellspacing="0"><tr><td style="width:100%;">
                                                          </td>
                                                          <td>
                                                                <input id="ServerMessage2"
type="button" class="ewr-dialog-button" value="Cancel"
onclick="javascript:EwrCancelRequest(event,'m_excelWebRenderer_ECSFrame','m_excelWebRenderer_
ctl06');" />
                                                          </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;"> </div>
                </td>
             </tr>
          </table>
          </div><div style="width:100%;height:100%;"><IFrame id="m_excelWebRenderer_ECSFrame"
          ScriptForIFrameContent="
          &lt;html>
             &lt;body IAmTheInitialPage='True'>
                &lt;form method='post' action='/Site/_layouts/ExcelRenderer.aspx?%cancel%%reload%'
          style='display:none'>
                   &lt;input name='ewrPostData'
```

value='lplSHnpIi67Bus3Biomvla5vtiMaK0dRw8CwB+CbXAapHkEXAf6hbbuPwAJYWiGFU8eP9lgQbPnzsh/1efmRx4
DoplITXlBvbT4/D0ThXfTqUH3n7PL+UzSwlms679QYYCnXmX2OuUlDzkeZo43SgphRdz8UksTZh4aFasdH3PVEYdm1vh9
SWLOkJ6dR2Ed6oV0dRQJwLiVqS/S38tkI22az3VramUID2N8/jDcwACYifGggPuEaoOYskh6c/GfL8pOZvBtSRSu3/a6n
0GIwJ+osc0F8OpoYf3D9DHqYS6wEiSJkbDkO0Otk00H+THM6l2saf2HAplYqde3msgNqh5yK/GJT+DqS75Jy5IMGDqyCG
MoQvEvE5NmupKWkeDZ/VTMLNVgHnTQdRVtSN+F/Gn5ZAMJoG2Q5P1EhlrnUB3F4yhPAsdsmUxjQlhayw9M78Ml9otIM/C
Z8grJd6iGObypAcFwW5NBwcLgBnu+ic6PvHJ5CzNxYMNzpK0KGmDj2dIT8wJxgh4VVhuT2B2QLDnzLtrelld7cu3c5Bzt
2mSdLdW6aYaMTVtWxY0hqOGYHFmv1jicM3qu64D6rhXE0FEOT8grqjSOIidU7/99LDhsrikBwy4TomtjhGflS207QdhcN
H9UMlPyjp32Hy5gVpi560IsjXyybDqBFoRK46aE69ur0mFXfxoT4RLEzuduqraLuvFRTj/yCe7UMIhCET5hRUsRHOt0Xi
fTC1jNn3e4vVpQN3ZHvM11zCA9STWqBlBeIatQkpJp+U1X7APatHLR8cFZovFhJ92CX0F10D9Sp/ccrrNAc8AmA3gzbST

bsnioG/bz4uxmSdSYwud596txHVQE8tG9ybVmaXNQCDCwjl8bIRbKFutdyvOsxlMrxtMZg0XO89DRhX5bih45gWWtzp30
EDuic0YgmnfYcAVlSdRCS6Gf5vGCa5YjGgsTB2B6nibWcasatokcYqNhMYx7D/1KoDF+vnRRN0ckvcFI='>

```
        &lt;/form>
    &lt;/body>
    &lt;script type='text/javascript' language='javascript''text/javascript'>
        &lt;!--
            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 = &quot;%cancel%&quot; == &quot;cancel=True&amp;&quot; ||
&quot;%reload%&quot; == &quot;reload=True&amp;&quot;;
                if (val == null || specialRepost)
                {
                    if (!specialRepost)
                    {
                        SetPostedBackAlready('SureDid');
                    }
                    else
                    {
                        SetPostedBackAlready(null);
                        window.frameElement.setAttribute(&quot;EwrStatus&quot;,
&quot;loading&quot;);
                    }
                    document.forms.item(0).submit();
                }
                else
                {
                    SetPostedBackAlready(null);
                    history.back();
                    window.setTimeout(&quot;window.location.reload(false);&quot;,0);
                }
            }
```

```
            window.setTimeout(&quot;EwrFramePostToServer()&quot;,0);
         // -->
     &lt;/script>
 &lt;/html>" 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()
         {
             MSOTlPn_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® 15 Technical Preview

- Microsoft® SharePoint® Server 15 Technical 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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