[MS-RDWR]: Remote Desktop Workspace Runtime Protocol

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1 Introduction

The Remote Desktop Workspace Runtime Protocol is a Web service-based protocol used to remotely retrieve the contents of the Remote Desktop Protocol (RDP) file that is associated to a user's remote desktop or application-sharing session on a remote computer.

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)
remote application
Remote Desktop Protocol (RDP)
SOAP
SOAP
SOAP action
SOAP body
SOAP message
Terminal Services
Uniform Resource Locator (URL)
URI
URL
WSDL message
WSDL operation
XML
XML namespace

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.

[MS-TSWP] Microsoft Corporation, "Terminal Services Workspace Provisioning 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

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[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/

[SOAP1.2-1/2003] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part1-20030624

[SOAP1.2-2/2003] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part2-20030624

[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

[XMLNS-2ED] World Wide Web Consortium, "Namespaces in XML 1.0 (Second Edition)", August 2006, http://www.w3.org/TR/2006/REC-xml-names-20060816/

[XMLSCHEMA1] Thompson, H.S., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "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

[MSDN-TSCCRDP] Microsoft Corporation, "Terminal Services Client Configuration through the .rdp File", http://msdn.microsoft.com/en-us/library/aa915001.aspx

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

[MS-RDPBCGR] Microsoft Corporation, "Remote Desktop Protocol: Basic Connectivity and Graphics Remoting".

1.3 Overview

The Remote Desktop Workspace Runtime Protocol retrieves **Remote Desktop Protocol (RDP)** files, as described in [MSDN-TSCCRDP], that are required to reestablish connections to a user's session(s) on a remote server(s). The protocol returns the number of resources that corresponds to the number of connected and disconnected sessions the user has in the deployment. In addition, the type of session (desktop, remote application, or virtual machine (VM)) and the RDP file for reconnecting are returned. In order to reconnect the sessions, the presence of the **Terminal Services** client is required to launch the application, and the Terminal Services client will use the RDP protocol [MS-RDPBCGR] to connect.

1.4 Relationship to Other Protocols

The Remote Desktop Workspace Runtime Protocol uses **SOAP** over **Hypertext Transfer Protocol over Secure Sockets Layer** (HTTPS), as specified in [RFC2818].

The following diagram illustrates the layering of the protocol stack.

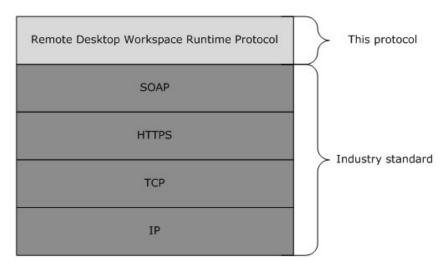


Figure 1: Protocol Stack

1.5 Prerequisites/Preconditions

The following are prerequisites for the operation of the Remote Desktop Workspace Runtime Protocol:

- The Remote Desktop Workspace Runtime Protocol does not provide a mechanism for a client to discover the Uniform Resource Locator (URL) to the server; consequently, the client requires a valid URL to the server.
- The client machine has the necessary applications to launch any of the Remote Desktop Protocol (RDP) configuration files [MSDN-TSCCRDP] returned by the protocol. For example, the Terminal Services client is required to launch the application or desktop and will use the RDP protocol [MS-RDPBCGR] to connect.
- Both client and server implementations of the Remote Desktop Workspace Runtime Protocol are present and running.
- The Remote Desktop Workspace Runtime Protocol uses the authentication model based on [MS-TSWP]. For example, the re-use of the authentication cookie negotiated prior to this protocol starting, as described in [MS-TSWP] section 3.1.1.1.

1.6 Applicability Statement

The use of the Remote Desktop Workspace Runtime Protocol is appropriate when the client requires the resource files required to reconnect to the user's remotely connected sessions. These resources represent the remote applications and or desktops that are associated to the user, in the form of RDP file contents.

1.7 Versioning and Capability Negotiation

The Remote Desktop Workspace Runtime Protocol defines a version field to facilitate the process of identifying the protocol version.

1.8 Vendor-Extensible Fields

The Remote Desktop Workspace Runtime Protocol does not define any vendor-extensible fields.

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1.9 Standards Assignments

XML namespaces used by SOAP-based protocols are listed in section 2.2.1.

2 Messages

2.1 Transport

The Remote Desktop Workspace Runtime Protocol uses SOAP over HTTPS for communication. The Remote Desktop Workspace Runtime Protocol is used as the transport to provide access to the user's RDP file contents that are associated with their active remote application sessions and/or remote desktop sessions.

2.2 Common Message Syntax

This section contains common definitions used by this protocol. The syntax of the definitions uses XML Schema, as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and Web Services Description Language, as defined in [WSDL].

2.2.1 Namespaces

This specification defines and references various XML namespaces using the mechanisms specified in [XMLNS-2ED]. 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	NameSpaces URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
xsd	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1], [XMLSCHEMA2]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2-1/2003], [SOAP1.2-2/2003]
tns	http://schemas.microsoft.com/ts/2010/09/rdweb	
wsaw	http://www.w3.org/2006/05/addressing/wsdl	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]

2.2.2 Messages

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

2.2.3 Elements

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

2.2.4 Complex Types

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

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.

2.2.9 Common Data Structures

This specification does not define any common XML schema data structures.

3 Protocol Details

3.1 RDWebServiceSoap Server Details

The following sections describe the behavior of the Remote Desktop Workspace Runtime Protocol. This protocol follows a client-server model, whereby a client sends a **SOAP message** that contains a request (a GetRDPFiles operation) to the server, and the server responds with a SOAP message that contains the response.

The following sections describe the behavior of the Remote Desktop Workspace Runtime Protocol.

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

When this protocol initializes, it MUST begin listening for SOAP requests using the standard SOAP protocol and ports.

3.1.4 Message Processing Events and Sequencing Rules

This specification includes the following WSDL operations.

WSDL Operation	Description
GetRDPFiles	Retrieves an array of resources.

3.1.4.1 GetRDPFiles

A server processes a GetRDPFiles request using the Remote Desktop Workspace Runtime Protocol upon receiving a SOAP message that contains the specified **Uniform Resource Identifier (URI)** as the **SOAP action**:

soapAction="http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles"

This operation is specified by the following WSDL.

3.1.4.1.1 Messages

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

Message	Description
RDWebService_GetRDPFiles_InputMessage	Contains a GetRDPFiles element. A message MUST NOT contain anything in the SOAP body .
RDWebService_GetRDPFiles_OutputMessage	The response to a GetRDPFilesSoapIn message, which contains a GetRDPFilesResponse element. A message that either MUST NOT contain anything if no resources are available to connect to or MUST contain resource-specific XML in the SOAP body for resources to connect to.

3.1.4.1.1.1 RDWebService_GetRDPFiles_InputMessage Message

A WSDL message containing the request for **GetRDPFiles** WSDL operation.

The SOAP action value is:

```
http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles
```

The SOAP body contains **GetRDPFiles** element.

```
<wsdl:message name="RDWebService_GetRDPFiles_InputMessage">
    <wsdl:part name="GetRDPFiles" element="tns:GetRDPFiles"/>
</wsdl:message>
```

The GetRDPFilesSoapIn message contains a GetRDPFiles element, as specified in section 3.1.4.1.2.1.

3.1.4.1.1.2 RDWebService_GetRDPFiles_OutputMessage Message

A WSDL message containing the response for **GetRDPFiles** WSDL operation.

The SOAP action value is:

```
http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles
```

The SOAP body contains **GetRDPFilesResponse** element.

```
<wsdl:message name="RDWebService_GetRDPFiles_OutputMessage">
   <wsdl:part name="GetRDPFilesResponse" element="tns:GetRDPFilesResponse"/>
</wsdl:message>
```

The GetRDPFilesSoapOut message contains a GetRDPFileResponse element in response to a GetRDPFilesSoapIn message. The GetRDPFileResponse element is specified in section 3.1.4.1.2.2.

3.1.4.1.2 Elements

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

Element	Description
GetRDPFiles	Forms the body of GetRDPFiles request. An empty type that is used when making the request for RDP files.
GetRDPFilesResponse	Contains the response to a GetRDPFiles request. The overall container that defines the protocol configuration.

3.1.4.1.2.1 **GetRDPFiles**

The GetRDPFiles element forms the body of the request. This element contains no child elements and conveys no information.

```
<xsd:element name="GetRDPFiles" nillable="true">
    <xsd:complexType/>
    </xsd:element>
```

3.1.4.1.2.2 GetRDPFilesResponse

The GetRDPFilesResponse contains the response to a GetRDPFiles request.

GetRDPFilesResult:

GetRDPFilesResult is a complex type that contains a container called ReconnectContents types. The ReconnectContents container is described in section $\underline{3.1.4.1.3.3}$. GetRDPFilesResult contains the complex data type ReconnectContents.

The GetRDPFileResponse MUST contain at least one GetRDPFilesResult.

3.1.4.1.3 Complex Types

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

ComplexType	Description	
ArrayOfReconnectContent	The container for the ReconnectContent complex type.	
ReconnectContent	Used to contain the remote desktop file stream and type of resource defined.	

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ComplexType	Description
ReconnectContents	The container that defines the version and array of contents received by the web server.

3.1.4.1.3.1 ArrayOfReconnectContent

ArrayOfReconnectContent is a complex type that specifies the collection of ReconnectContent types, as specified in section 3.1.4.1.3.2.

Namespace: http://schemas.microsoft.com/ts/2010/09/rdweb

```
<xsd:complexType name="ArrayOfReconnectContent">
    <xsd:sequence>
        <xsd:element minOccurs="0" maxOccurs="unbounded" name="ReconnectContent" nillable="true"
type="tns:ReconnectContent"/>
        </xsd:sequence>
</xsd:complexType>
```

ReconnectContent: A collection of ReconnectContent types.

3.1.4.1.3.2 ReconnectContent

ReconnectContent has a string element that contains the RDP file stream, and a simple type called ReconnectContentType that is used to specify the type of RDP file stream. ReconnectContentType is specified in section <u>3.1.4.1.4.1</u>. The RDP file stream consists of RDP files as described in <u>[MSDN-TSCCRDP]</u>.

Namespace: http://schemas.microsoft.com/ts/2010/09/rdweb

rct: ReconnectContentType is specified in section <u>3.1.4.1.4.1</u>.

rdpStream: A file stream that consists of RDP files as described in [MSDN-TSCCRDP].

3.1.4.1.3.3 ReconnectContents

The ReconnectContents type has a version string element and either zero or one type of ArrayOfReconnectContent type. The ArrayOfReconnectContent type is specified in section 3.1.4.1.3.1.

Namespace: http://schemas.microsoft.com/ts/2010/09/rdweb

```
<xsd:complexType name="ReconnectContents">
    <xsd:sequence>
        <xsd:element minOccurs="0" maxOccurs="1" name="version" nillable="true"
type="xsd:string"/>
```

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version: A complex type that contains a string to represent versioning of the Remote Desktop Workspace Runtime protocol. A value should be defined in this operation when it is implemented.

wkspRC: An element of type ArrayOfReconnectContent.

3.1.4.1.4 Simple Types

The following table shows the Simple types inlcuded in the operation.

SimpleType	Description
ReconnectContentType	An enumerated type to indicate whether the user's resource is remote desktop, remote application, or virtual machine-based.

3.1.4.1.4.1 ReconnectContentType

The valid values for this enumeration are "REMOTEDESKTOP", "VMREMOTEDESKTOP", or "REMOTEAPPLICATION".

Namespace: http://schemas.microsoft.com/ts/2010/09/rdweb

```
<xsd:simpleType name="ReconnectContentType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="REMOTEDESKTOP"/>
        <xsd:enumeration value="VMREMOTEDESKTOP"/>
        <xsd:enumeration value="REMOTEAPPLICATION"/>
        </xsd:restriction>
    </xsd:simpleType>
```

The following table specifies the allowable values for **ReconnectContentType**.

Value	Meaning
REMOTEDESKTOP	Specifies a session type of remote desktop.
VMREMOTEDESKTOP	Specifies a session type of virtual machine.
REMOTEAPPLICATION	Specifies a session type of remote application.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

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3.2 RDWebServiceSoap Client 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.

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing Rules

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

4.1 An HTTP post request for data from the web service

The following is a request and response operation for RDP files resources.

```
POST /RDWeb/myWeb/rdwebservice.asmx HTTP/1.1
Host: localhost
Content-Type: text/xml; charset=utf-8
Content-Length: length
SOAPAction: "http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles"
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
 <soap:Body>
    <GetRDPFiles xmlns="http://schemas.microsoft.com/ts/2010/09/rdweb" />
  </soap:Body>
</soap:Envelope>
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: length
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetRDPFilesResponse xmlns="http://schemas.microsoft.com/ts/2010/09/rdweb">
      <GetRDPFilesResult>
        <version>string</version>
        <wkspRC>
          <ReconnectContent>
            <rdpStream>string</rdpStream>
            <rct>REMOTEAPPLICATION or REMOTEDESKTOP or VMREMOTEDESKTOP</rct>
          </ReconnectContent>
          <ReconnectContent>
            <rdpStream>string</rdpStream>
            <rct>REMOTEAPPLICATION or REMOTEDESKTOP or VMREMOTEDESKTOP</rct>
          </ReconnectContent>
        </wkspRC>
      </GetRDPFilesResult>
    </GetRDPFilesResponse>
  </soap:Body>
</soap:Envelope>
```

4.2 A sample of the resources returned

The request in section 4.1 is made and the return is an xml payload consisting of three resources (RDP file streams) that are associated to the user's remote desktop session, remote application session, or virtual machine.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ReconnectContents xmlns="http://schemas.microsoft.com/ts/2010/09/rdweb"</pre>
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <version>8.0</version>
    <wkspRC>
      <ReconnectContent>
        <rdpStream>redirectclipboard:i:0 redirectprinters:i:0 redirectcomports:i:1
redirectsmartcards:i:0 devicestoredirect:s: drivestoredirect:s:* redirectdrives:i:1 session
bpp:i:32 prompt for credentials on client:i:1 server port:i:3389 allow font smoothing:i:1
promptcredentialonce:i:1 authentication level:i:0 gatewayusagemethod:i:2
gatewayprofileusagemethod:i:0 gatewaycredentialssource:i:0 full address:s:RDVB9-
101180.rdvteam.stbtest.microsoft.com workspace id:s:RDVB9-
101180.rdvteam.stbtest.microsoft.com use redirection server name:i:1
loadbalanceinfo:s:tsv://MS Terminal Services Plugin.1.RDVB9-101180 use multimon:i:0 alternate
full address:s:RDVB9-101180.rdvteam.stbtest.microsoft.com signscope:s:Full Address,Alternate
Full Address, Use Redirection Server Name, Server
Port, Gateway Usage Method, Gateway Profile Usage Method, Gateway Credentials Source, Prompt Credential On Control of the Control of Control 
ce, Authentication
Level, RedirectDrives, RedirectPrinters, RedirectCOMPorts, RedirectSmartCards, RedirectClipboard, D
evicesToRedirect, DrivesToRedirect, LoadBalanceInfo signature:s: Full Address, Alternate Full
Address, Use Redirection Server Name, Server
{\tt Port, Gateway Usage Method, Gateway Profile Usage Method, Gateway Credentials Source, Prompt Credential Oncomplete Comparison of Comparison (Comparison Comparison Comparis
Shell, RemoteApplicationProgram, RemoteApplicationMode, RemoteApplicationName, RemoteApplicationC
mdLine, Authentication
Level, RedirectDrives, RedirectPrinters, RedirectCOMPorts, RedirectSmartCards, RedirectClipboard, D
evicesToRedirect,DrivesToRedirect,LoadBalanceInfo
\verb|signature:s:AQABAAEAAAAZEqAAMIISFQYJKoZIhvcNAQcCoIISBjCCEgICAQExCzAJBgUrDgMC| \\
GgUAMAsGCSqGSIb3DQEHAaCCEI8wggffMIIGx6ADAgECAhBfZzkIP2oDi06PGDo+
oaFJMA0GCSqGSIb3DOEBBOUAMBMxETAPBqNVBAMTCFNTTCBSb290MCAXDTkwMDEw
MTAwMDAwMFoYDzIwOTAxMjMxMDAwMJATMREwDwYDVQQDEwhTU0wgUm9vdDCC
ASIwDQYJKoZIhvcNAQEBBQADqqEPADCCAQoCqqEBAKBSnjeWWYGMhQa1IGbdEkbC
ot14+TeYARdNAlsSIXOrD42ohMtR+owHtFAkY4zeanTZWO0vp6erI8osVvSv6jL4
Wf8WQ6qoNPK9WsHb3QbfcCXvq+EzRpiVbr+JF9OYsC2cuq3ZIw/3FnE7jWcbGOn5
DbXCtE6mHbpDgpnq2oG7PsU3rq+EBw8sIvPRegofdEns8GM8Dys+eYbCW4o7+EDy
rtaqRuCnjZX5mdmdHIunlD4kzeVv5dFqoZoU5HMBIPPpK+D156+vZrQy6jyKkEqA
w1zqBhqvHzXWv9+uYyfjsX82tRr6x3YnVnh5sdH+CMvpLKsr0fhvwe1Ocq3HCvMC
AwEAAaoCBSswggUnMAwGA1UdEwQFMAMBAf8wggTVBg8rBgEEAYI3E4LfZ4ajUwEE
qqTAMIIEvAOIU1NMVGVzdAAECFNTTFJvb3OAAqEBAqECBAhOAFUATABMAASCBJOH
AgAAACQAAFJTQTIACAAAAQABAPMKx61yTu3Bb/jRK6ss6csI/tGxeXhWJ3bH+hq1
Nn+x4ydjrt+/1jUfrxoG61zDgEqQijzqMrRmr6/n9eAr6fMqAXPkFJqhatHlb+XN
JD6Up4scndmZ+ZWNp+BGqtau8kD4O4pbwoZ5PisPPGPw7E10Hwp60fMiLA8HhK+u
N8U+u4Ha6pmCQ7odpk60wrUN+ekYG2eNO3EW9w8j2a26nC2wmNMXib9ulZhGM+Gr
7yVw3wbd28FavfI0qKpDFv9Z+DLqr/RWLMojq6enL+1Y2XRq3oxjJFC0B4z6UcuE
qIOPq3MhElsCTRcBmDf5eN2iwkYS3WYqtQaFjIFZljeeUqBfw57B47bG5/MuF5eq
COGYcqAkeZDB8Ko3526kln923CqVuWIwq7XfTe3ayvlHP+4VhPlo1/pII4OAdsVK
NjfuHT/47UabRsmyzTiSCGL/mwGKEVxKxjI5ZLH8lgpb2j/JuhZt2Kd7FLpBHg1Y
3unPcdMBx7BI18kjRaqVuTmY0u1U7xCewvNjC4O5VckPXukfMo5PadzhAHOp5QoM
\verb"u6LI3yipTGGT7tFfcOkWaMFf+adtX364x6Trl8EzJHgjaQtvsZ8uegqoymUNffz+"
6fFp2qjKiHu0F4+GL4IiYQ9cijZNB8cZ33MdlXCqBCEGUYcG3u18iBioXBLo2tBF
ouPCw21/8zKg+DQp2LoBjWVkbBl7pw8dXzSUrOWiuaTJnzQ+MQNc9sCc4FJPfYJJ
ANWa0ql7FN/5Skc3TU64G0StHnBudaFdF7V82ZYGWKyB3fZ8UNpmkOirxmyLpQQ7
WlcKYfqMiR5rZEbkGjPbkKCieJBUC3UFZnNgMGOLENm18DlReWgN0kNIMH4896mS
B6B9kN2ywc1POmAE8DeBX6FzR13rbLKakm8CuTo7arS6nw/OuV1xKkOAMNvgUwFJ
q6fqGbjkXoqePIbMXqXqFwXhLkqy/3sVkMW5C4sSQSHuOweWdtq6H6uKnE90OHYq
k9FGBZ1F6bYyrTaxo6mObxDkrg5AZLgfp03UYdYADbghMG8oWP5W0wUYEXtH9B0H
VO9ZZXg4nr1lfmII2tGY0Hhe6hSyynpkROaE6VI18D0KJ14Gi912YY95aUb0yj4b
xcFrQf63P72PSPS1ZAUBlo+UsZ1/XfMvJjYiIvKc+wQ80tG0Vi24hfhcTDpiuNJ4
H/aMKdYwowEpYhQnGrC/yL5juBUhUB3x77lV8qZjb7wF46f9s0azbAf22XktqIC0
GFYEknWorlkiXYMW3DWFVpCd+2YB0c5jGrLivmdQtXcbx7AzcharSknUmVWfRUgC
u8aIcVew+6b1Xs1JBsB2vdMPUB/QEZVtQiFfQWtOymxQEVqnZ9B60LBzY00ztkjC
f+bNS24V/wo3vfQuEK0CuHLwmDTjr4Z/9ndy4u6PY0xDO9+pqLaWIhVZpkGl2M3q
myN+XvtRDT101z7YdA96ur6xSWKcZyJPhYSoC0xm2nq/pBknoS585MbixyWQuldg
MWhHnWNg0VTBV73zqkiQNmzBJDAdBqNVHQ4EFqQUKMnouHlh+66LZcePcoKz8qNB
```

Ge4wHwYDVR0jBBgwFoAUKMnouHlh+66LZcePcoKz8gNBGe4wDQYJKoZIhvcNAQEF

BQADqqEBAEKDDEkzEnl+ZO5IckEzk5BuIWtD9ht/1SSIiectM0+tdhJqjLuTcoU6 d/DZoOREQbvfE3ketK9fHcY+leiCigD2g0XYxfNctFxpo1dPbbG1LIiyupUHzNBM mKriwTpXNhaEw1wySjBI9brzB1cOrrGK9Eilo48QLmqPeb4eMrW+h0PFjunaa+kR NABQOfxzwqg32T15z03dTlm59zL/qLvYRS7pDIFGjw4FdbdRhHDSYJv4CSzxcNpd GCmwRLAs92fKT59JBI7DWTozezZPXxf0aAjqfWNwjLgdNedIKcbN0DcAbEZBLQvD $\verb|xKx2rJseV4iBo28tzGq8+c80fqInoxswggioMIIHkKADAgECAhCwk27ipHlCr02u| \\$ fWa7Sv3pMA0GCSqGSIb3DQEBBQUAMBMxETAPBqNVBAMTCFNTTCBSb290MB4XDTEx MDIwMzAxMDIzM1oXDTExMDqwMzAxMDIzM1owNTEzMDEGA1UEAxMqUkRWQjktMTAx MTg0LnJkdnRlYW0uc3RidGVzdC5taWNyb3NvZnQuY29tMIIBIjANBgkqhkiG9w0B AQEFAAOCAQ8AMIIBCqKCAQEAoOOcj2o9ZWMG8iiz3e315xMvolqSVY/J6dy4pJz5 $\verb|ZlsGXODw56nq4r9En8/AxEDqMu2DYJA1mc05xHYzqhZullbAV1khgN+EE2Jy0r0X| \\$ Tt4slbiEITmtMj5wSYW0qbyrpPP0+inU6Zm+FZhkte+Ery/rO+/09c2ei02VRboQ aEox4jY22nLF7mOCsxdUzfBzFBE7pswtTl/qji6niTf7oyofKFOGZy4EwIrCadtH AvAlBR8GgZ6/snLurFl8bX0w0c5om/bQ51E0t6wPgjlitP41zokkWc9xubTgBb81 jp0+J1SgszJoD1qfRsteafy/MImLVNVfoSHn35GOs9wmZQIDAQABo4IF1DCCBdAw IwYDVR0fBBwwGjAYoBOgEYYPZmlsZTovL3Rlc3QuY3JsqQEAMAwGA1UdEwQFMAMC AQAwCwYDVR0PBAQDAqQwMBMGA1UdJQQMMAoGCCsGAQUFBwMBMBMGA1UdJQQMMAoG $\verb|CCsGAQUFBwMDMDUGA1UdBwQuMCyCKlJEVkI5LTEwMTE4NC5yZHZ0ZWFtLnN0YnRl| \\$ c3QubWljcm9zb2Z0LmNvbTA1BgNVHREELjAsqipSRFZCOS0xMDExODQucmR2dGVh bS5zdGJ0ZXN0Lm1pY3Jvc29mdC5jb20wggTTBg8rBgEEAYI3E4LfZ4ajUwEEggS+ MIIEugQIU1NMVGVzdAAEBnZhbGlkAAIBBAIBAQQITgBVAEwATAAEggSUBwIAAACk AABSU0EyAAgAAAEAAQBlJtyzjpHf5yGhX9VUi4kwv/xpXstGn1oPaDKzoFQnPp20 Nb8F4LS5cc9ZJInONf60YjmCD6y3NFHn0PabaM7RMH1tfFms7nKyv56BBh8FJfAC R9tpworABC5nhlMoHyqj+zeJpy60619OLcymOxEUc/DNVBezqmPuxXLaNjbiMUpo ELpFlU2Lns3190876y+vh0+1ZJgVvpnp1Cn69P0kq7yptIVJcD4yrTkhhLiVLN50 F73ScmIThN+AIV1XwFaWbhaqM3bEOc2ZNZBqq+0y6kDEwM+fRL/i6qnn8OBcBltm yIkWgAnNx3qxUeBnrigL0948NHP6qHJuqiu1fz4yU/tbhlDlKJ0u2UziMhI5m66j LI2UU2b4x9LopuVcno8cVTwTmw7BCRJZsO3/VO751yAtDHc+QLQ39rp846nE50+u JvZW6BU6/hY1IZT+gtCnWmT+Ixur1/r++400SgMiAtjR9liFdsoEN6LJwGzx+wFy Tt7P1OdJeLSiVir+6CUodaAFs+tfqDToSjsduT9wFRm8i83EXTu7xFwhGJZKqGsU vl6waYIsJZs+QZx/p1WtUNGMI3jyEvl6qGeloYpjmseTy0V86grxFyKZIAuIxeul EvAm6b1qD/btM0YMFZ8RNk7in8OjlBfZyO0f5kMvqBASipOvxGMcpnOmBsxKVpb8 ZBI+K7EWdkjq+W9ViatqO/6Qj9rVu5I5aWAPUoyxy3IF1E3yRs4pvPmNZzxpEh1/ dG19wlebHQZY3cZ1mN602j2fHZlyRHPCPdNBoGFLm/N2Z4qK5OtekuuH1k+xB4qY leZrC7sDVnPl28CroKI4G9SM8OSkPikKsrP34BcoGRoTFpeKkBOAk5f0OUbgUZit sVImrLLexBexlI9184YBkf8rLaFWajFK+p1H68qBRFkOsvCpUWhBtiqc447qtCYj WrwUph6yt+orXmzkfiuKLcdJ1WJfb2t4JxwQf80JWKxIKfVZy+aOk4BaB57PyC3o M/JRdxkCizW7G0W49nD4aMBiJNcgnsdnDm9ZhWUX1sMQKQwqvG7g4YGBWwG+8Zjv 99NT+V3Sw/LUbG7tjsAnPzJYG0Y6prwF749+M2FnBB0ZWwdIrACT7izOGKEcPxWT LnKFu7PSksomly7cq5NskYD8bamcmxSIS7jwav/BLuTRGV5EWvGeM8eUfDkxQRRI OW3IDw0HjD6VYVNjyHs7q+xkNJsSBPRqD9mGgFfTjtyOhwHmLrIDwIJzIr54XqlT 8f7Dj4P5vPcUZhtOHC+00ZElmp7tODHX191uotAiPKSa3zH5S0kP93hOwepoZYhn rJNDDLpSk0rzyPZeq5F0W4ZmNv3YrLQ47RdoZbOPBu+U5yyD2001bH1Rli56NJgr NsZMKnwx/Zghl/Yb9mge+jEbqUmxCfGrNTw7gIyXc3lS2CCVQLPcjTa5RjoaUobj bAzFh6uMUZaTUXKVU48wHwYDVR0jBBgwFoAUKMnouHlh+66LZcePcoKz8gNBGe4w DQYJKoZIhvcNAQEFBQADqqEBAIIBdFJe+7TwikFEdvyJMkBeGiqESQU3qIR8KBjC +EjuCWa2kEnh2H8MdEK1YAucHPJyFCwIo3RRb72HTeAb9/K0G1LuLiHEG6QJPO8U 8nE7vLncBCkVZ3RsoZnwqZBYXq7cGxOIOmEeNbB5z6IZUgqhwn1VxxfEz0eM2yw8 GGymBseh5F+PSCd6m8Xwfpv++MLymAFnYAASVLfviH+ZohNKPvpr7LAE6M1B6UFT LlSjDg+te1NAJGlPoEQ1L1yNIkwIMo7fyJyA2QFFcHHW00X+kdZK62LK61UAMYTi MOMhs3XOnNVUkzMPILVnC/W4WvgChZFl4dA9dNknm0WIEp8xggFOMIIBSgIBATAn MBMxETAPBgNVBAMTCFNTTCBSb290AhCwk27ipHlCr02ufWa7Sv3pMAkGBSsOAwIa BQAwDQYJKoZIhvcNAQEBBQAEggEARg6AoNGE/Fg16ohkHCT+AivrjbLSELtfB62m MBkmwGG14M6GsM7x/pnhMrE1iGMXy91Oc/wdv0hojRhLo43DEdu/sQ0GgIkzF0Fu C1gmLu88wUp7L45o7lWtrhwOWWsjMVskbj//5XGrQ9dJnFb2s0cFhtCTEkKuXMRA $\tt dSPn0YFHS2Uzk6hhNMmjQ1+j1EJy5mFAod1jHAJrdwaQcE7Ttwp5jh0zntUbKFE61$ 1z26UTmt4V61+Z/eqwtPvcAyibqUwV180TayNSbmUd7fqVDPVaO9D+Pn4k1pEzfR 5dEvdHbLSCHbB7zr1YUh7KGsDCftNm7EIJZWXzoBnGwE6RAJSg==

```
</rdpStream>
  <rct>REMOTEDESKTOP</rct>
  </ReconnectContent>
  <ReconnectContent>
  <rdpStream>redirectclipboard:i:0 redirectprinters:i:0 redirectcomports:i:1
redirectsmartcards:i:0 devicestoredirect:s: drivestoredirect:s:* redirectdrives:i:1 session
```

bpp:i:32 prompt for credentials on client:i:1 server port:i:3389 allow font smoothing:i:1
promptcredentialonce:i:1 authentication level:i:0 gatewayusagemethod:i:2
gatewayprofileusagemethod:i:0 gatewaycredentialssource:i:0 full address:s:RDVB9101180.rdvteam.stbtest.microsoft.com workspace id:s:RDVB9-

101180.rdvteam.stbtest.microsoft.com use redirection server name:i:1

loadbalanceinfo:s:tsv://MS Terminal Services Plugin.1.RDVB9-101180 use multimon:i:0 alternate full address:s:RDVB9-101180.rdvteam.stbtest.microsoft.com signscope:s:Full Address,Alternate Full Address,Use Redirection Server Name,Server

 ${\tt Port}, {\tt Gateway Usage Method}, {\tt Gateway Profile Usage Method}, {\tt Gateway Credentials Source}, {\tt Prompt Credential Once}, {\tt Authentication}$

Level, RedirectDrives, RedirectPrinters, RedirectCOMPorts, RedirectSmartCards, RedirectClipboard, DevicesToRedirect, DrivesToRedirect, LoadBalanceInfosignature:s: Full Address, Alternate Full Address, Use Redirection Server Name, Server

 ${\tt Port, Gateway Usage Method, Gateway Profile Usage Method, Gateway Credentials Source, Prompt Credential Once, Alternate}$

 ${\tt Shell, RemoteApplication Program, RemoteApplication Mode, RemoteApplication Name, RemoteApplication Confidence and Line, Authentication}$

Level, RedirectDrives, RedirectPrinters, RedirectCOMPorts, RedirectSmartCards, RedirectClipboard, DevicesToRedirect, DrivesToRedirect, LoadBalanceInfo

signature:s:AQABAAEAAAAZEgAAMIISFQYJKoZIhvcNAQcCoIISBjCCEgICAQExCzAJBgUrDgMC

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remoteapplicationmode:i:1 server port:i:3389 allow font smoothing:i:1
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gatewayprofileusagemethod:i:0 gatewaycredentialssource:i:0 full address:s:RDVB9101180.rdvteam.stbtest.microsoft.com alternate shell:s:||cmd remoteapplicationprogram:s:||cmd
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Address, Use Redirection Server Name, Server

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 ${\tt Shell, RemoteApplication Program, RemoteApplication Mode, RemoteApplication Name, RemoteApplication Confidence and Line, Authentication}$

Level, RedirectDrives, RedirectPrinters, RedirectCOMPorts, RedirectSmartCards, RedirectClipboard, DevicesToRedirect, DrivesToRedirect, LoadBalanceInfosignature:s: Full Address, Alternate Full Address, Use Redirection Server Name, Server

 ${\tt Port, Gateway Usage Method, Gateway Profile Usage Method, Gateway Credentials Source, Prompt Credential Once, Alternate}$

 ${\tt Shell, RemoteApplicationProgram, RemoteApplicationMode, RemoteApplicationName, RemoteApplicationComplete and Model and Mo$

Level, Redirect Drives, Redirect Printers, Redirect COMPorts, Redirect Smart Cards, Redirect Clipboard, Devices To Redirect, Drives To Redirect, Load Balance Info

 $\verb|signature:s:AQABAAEAAAAZEgAAMIISFQYJKoZIhvcNAQcCoIISBjCCEgICAQExCzAJBgUrDgMC| \\$

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jp0+J1SqszJoD1qfRsteafy/MImLVNVfoSHn35GOs9wmZQIDAQABo4IF1DCCBdAw IwYDVR0fBBwwGjAYoBOgEYYPZmlsZTovL3Rlc3QuY3JsqQEAMAwGA1UdEwQFMAMC AQAwCwYDVR0PBAQDAqQwMBMGA1UdJQQMMAoGCCsGAQUFBwMBMBMGA1UdJQQMMAoG $\verb|CCsGAQUFBwMDMDUGA1UdBwQuMCyCK1JEVkI5LTEwMTE4NC5yZHZ0ZWFtLnN0YnR1| \\$ $\verb|c3QubWljcm9zb2Z0LmNvbTA1BgNVHREELjAsgipSRFZCOS0xMDExODQucmR2dGVh| \\$ bS5zdGJ0ZXN0Lm1pY3Jvc29mdC5jb20wggTTBg8rBgEEAYI3E4LfZ4ajUwEEggS+ MIIEugQIU1NMVGVzdAAEBnZhbGlkAAIBBAIBAQQITgBVAEwATAAEggSUBwIAAACk AABSU0EyAAgAAAEAAQBlJtyzjpHf5yGhX9VUi4kwv/xpXstGn1oPaDKzoFQnPp20 Nb8F4LS5cc9ZJInONf60YjmCD6y3NFHn0PabaM7RMH1tfFms7nKyv56BBh8FJfAC R9tpworABC5nhlMoHyqj+zeJpy60619OLcymOxEUc/DNVBezqmPuxXLaNjbiMUpo ${\tt ELpF1U2Lns3190876y+vh0+1ZJgVvpnp1Cn69P0kq7yptIVJcD4yrTkhhLiVLN50}$ F73ScmIThN+AIVlXwFaWbhaqM3bEOc2ZNZBgg+0y6kDEwM+fRL/i6qnn80BcBltm +ZykuNzpyY9VEliiLxPn9e3dsyjyBmNlPWqPnOOgE7R0OUSrYkiqVVnWDi+4qbfr yIkWgAnNx3qxUeBnrigL0948NHP6qHJuqiu1fz4yU/tbhlDlKJ0u2UziMhI5m66j LI2UU2b4x9LopuVcno8cVTwTmw7BCRJZsO3/VO75lyAtDHc+QLQ39rp846nE50+u JvZW6BU6/hY1IZT+gtCnWmT+Ixur1/r++400SgMiAtjR9liFdsoEN6LJwGzx+wFy Tt7P1OdJeLSiVir+6CUodaAFs+tfqDToSjsduT9wFRm8i83EXTu7xFwhGJZKqGsU vl6waYIsJZs+QZx/p1WtUNGMI3jyEvl6qGeloYpjmseTy0V86grxFyKZIAuIxeul EvAm6b1qD/btM0YMFZ8RNk7in8OjlBfZyO0f5kMvqBASipOvxGMcpnOmBsxKVpb8 ${\tt ZBI+K7EWdkjq+W9Viatq0/6Qj9rVu5I5aWAPUoyxy3IF1E3yRs4pvPmNZzxpEh1/2}$ dG19wlebHQZY3cZ1mN602j2fHZlyRHPCPdNBoGFLm/N2Z4qK5OtekuuH1k+xB4qY leZrC7sDVnPl28CroKI4G9SM8OSkPikKsrP34BcoGRoTFpeKkBQAk5fQOUbqUZit sVImrLLexBexlI9184YBkf8rLaFWajFK+p1H68qBRFkOsvCpUWhBtiqc447qtCYj WrwUph6yt+orXmzkfiuKLcdJ1WJfb2t4JxwQf80JWKxIKfVZy+aOk4BaB57PyC3o M/JRdxkCizW7G0W49nD4aMBiJNcgnsdnDm9ZhWUX1sMQKQwqvG7g4YGBWwG+8Zjv 99NT+V3Sw/LUbG7tjsAnPzJYG0Y6prwF749+M2FnBB0ZWwdIrACT7izOGKEcPxWT LnKFu7PSksomly7cq5NskYD8bamcmxSIS7jwav/BLuTRGV5EWvGeM8eUfDkxQRRI OW3IDw0HjD6VYVNjyHs7q+xkNJsSBPRqD9mGgFfTjtyOhwHmLrIDwIJzIr54XqlT 8f7Dj4P5vPcUZhtOHC+00ZElmp7tODHX191uotAiPKSa3zH5S0kP93hOwepoZYhn rJNDDLpSk0rzyPZeq5F0W4ZmNv3YrLQ47RdoZbOPBu+U5yyD2001bH1Rli56NJgr NsZMKnwx/Zghl/Yb9mge+jEbqUmxCfGrNTw7qIyXc3lS2CCVQLPcjTa5RjoaUobj bAzFh6uMUZaTUXKVU48wHwYDVR0jBBgwFoAUKMnouHlh+66LZcePcoKz8gNBGe4w DQYJKoZIhvcNAQEFBQADqqEBAIIBdFJe+7TwikFEdvyJMkBeGiqESQU3qIR8KBjC +EjuCWa2kEnh2H8MdEK1YAucHPJyFCwIo3RRb72HTeAb9/K0GlLuLiHEG6QJPO8U 8nE7vLncBCkVZ3RsoZnwqZBYXq7cGxOIOmEeNbB5z6IZUgqhwn1VxxfEz0eM2yw8 GGymBseh5F+PSCd6m8Xwfpv++MLymAFnYAASVLfviH+ZohNKPvpr7LAE6MlB6UFT LlSjDg+te1NAJGlPoEQlL1yNIkwIMo7fyJyA2QFFcHHW00X+kdZK62LK61UAMYTi MOMhs3XOnNVUkzMPILVnC/W4WvqChZFl4dA9dNknm0WIEp8xqqFOMIIBSqIBATAn MBMxETAPBqNVBAMTCFNTTCBSb290AhCwk27ipHlCr02ufWa7Sv3pMAkGBSsOAwIa BQAwDQYJKoZIhvcNAQEBBQAEggEARg6AoNGE/Fg16ohkHCT+AivrjbLSELtfB62m MBkmwGG14M6GsM7x/pnhMrE1iGMXy91Oc/wdv0hojRhLo43DEdu/sQ0GgIkzF0Fu C1gmLu88wUp7L45o7lWtrhwOWWsjMVskbj//5XGrQ9dJnFb2s0cFhtCTEkKuXMRA dSPn0YFHS2Uzk6hhNMmjQ1+jlEJy5mFAod1jHAJrdwaQcE7Ttwp5jh0zntUbKFE6 1z26UTmt4V61+Z/eqwtPvcAyibgUwV180TayNSbmUd7fqVDPVaO9D+Pn4k1pEzfR 5dEvdHbLSCHbB7zr1YUh7KGsDCftNm7EIJZWXzoBnGwE6RAJSg==

```
</rdpStream>
  <rct>REMOTEAPPLICATION</rct>
  </ReconnectContent>
  </wkspRC>
</ReconnectContents>
```

5 Security

5.1 Security Considerations for Implementers

There are no known additional security considerations for the Remote Desktop Workspace Runtime Protocol, but server implementers are encouraged to use transport mechanisms that support encryption and integrity verification of the messages.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

```
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
\verb|xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"|\\
xmlns:tns="http://schemas.microsoft.com/ts/2010/09/rdweb"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
targetNamespace="http://schemas.microsoft.com/ts/2010/09/rdweb"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"</pre>
targetNamespace="http://schemas.microsoft.com/ts/2010/09/rdweb">
      <xsd:element name="GetRDPFiles" nillable="true">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="GetRDPFilesResponse" nillable="true">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element minOccurs="1" maxOccurs="1" name="GetRDPFilesResult" nillable="true"</pre>
type="tns:ReconnectContents"/>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="ReconnectContents">
        <xsd:sequence>
          <xsd:element minOccurs="0" maxOccurs="1" name="version" nillable="true"</pre>
type="xsd:string"/>
          <xsd:element minOccurs="0" maxOccurs="1" name="wkspRC" nillable="true"</pre>
type="tns:ArrayOfReconnectContent"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="ArrayOfReconnectContent">
        <xsd:sequence>
          <xsd:element minOccurs="0" maxOccurs="unbounded" name="ReconnectContent"</pre>
nillable="true" type="tns:ReconnectContent"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="ReconnectContent">
        <xsd:sequence>
          <xsd:element minOccurs="0" maxOccurs="1" name="rdpStream" nillable="true"</pre>
type="xsd:string"/>
          <xsd:element minOccurs="1" maxOccurs="1" name="rct"</pre>
type="tns:ReconnectContentType"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:simpleType name="ReconnectContentType">
        <xsd:restriction base="xsd:string">
          <xsd:enumeration value="REMOTEDESKTOP"/>
          <xsd:enumeration value="VMREMOTEDESKTOP"/>
          <xsd:enumeration value="REMOTEAPPLICATION"/>
        </xsd:restriction>
      </xsd:simpleTvpe>
    </xsd:schema>
  </wsdl:types>
  <wsdl:portType name="RDWebService">
    <wsdl:operation name="GetRDPFiles">
      <wsdl:input wsaw:Action="http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles"</pre>
name="RDWebService GetRDPFiles InputMessage"
message="tns:RDWebService GetRDPFiles InputMessage"/>
```

```
<wsdl:output wsaw:Action="http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles"</pre>
name="RDWebService GetRDPFiles OutputMessage"
message="tns:RDWebService_GetRDPFiles OutputMessage"/>
   </wsdl:operation>
 </wsdl:portType>
 <wsdl:binding name="RDWebServiceSoap" type="tns:RDWebService">
   <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
   <wsdl:operation name="GetRDPFiles">
     style="document"/>
     <wsdl:input name="RDWebService GetRDPFiles InputMessage">
       <soap:body use="literal"/>
     </wsdl:input>
     <wsdl:output name="RDWebService GetRDPFiles OutputMessage">
       <soap:body use="literal"/>
     </wsdl:output>
   </wsdl:operation>
 </wsdl:binding>
 <wsdl:binding name="RDWebServiceSoap12" type="tns:RDWebService">
   <soap12:binding transport="http://schemas.xmlsoap.org/soap/http"/>
   <wsdl:operation name="GetRDPFiles">
     <soap12:operation</pre>
soapAction="http://schemas.microsoft.com/ts/2010/09/rdweb/GetRDPFiles" style="document"/>
     <wsdl:input name="RDWebService GetRDPFiles InputMessage">
       <soap12:body use="literal"/>
     </wsdl:input>
     <wsdl:output name="RDWebService_GetRDPFiles_OutputMessage">
       <soap12:body use="literal"/>
     </wsdl:output>
   </wsdl:operation>
 </wsdl:binding>
 <wsdl:message name="RDWebService_GetRDPFiles_InputMessage">
   <wsdl:part name="GetRDPFiles" element="tns:GetRDPFiles"/>
 </wsdl:message>
 <wsdl:message name="RDWebService GetRDPFiles OutputMessage">
   <wsdl:part name="GetRDPFilesResponse" element="tns:GetRDPFilesResponse"/>
 </wsdl:message>
</wsdl:definitions>
```

7 Appendix B: 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:

- Windows 8 operating system
- Windows Server 2012 operating system
- Windows 8.1 operating system
- Windows Server 2012 R2 operating system

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.

8 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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