[MS-RDPBCGR]: Remote Desktop Protocol: Basic Connectivity and Graphics Remoting

This topic lists the Errata found in [MS-RDPBCGR] since it was last published. Since this topic is updated frequently, we recommend that you subscribe to these RSS or Atom feeds to receive update notifications.

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Errata below are for Protocol Document Version V41.0 – 2016/03/02.

Errata Published*	Description
2016/05/02	In Section 2.2.1.3.2, Client Core Data (TS_UD_CS_CORE), in the keyboardLayout field description, clarified when the server should use the default active input locale identifier and active language identifier associated with the user account. Changed from: ... keyboardLayout (4 bytes): A 32-bit, unsigned integer. The active input locale identifier, also known as the "HKL" (for example, 0x00010409 for a "United States-Dvorak" keyboard layout and 0x00020418 for a "Romanian (Programmers)" keyboard layout). For a list of input locale identifiers, see [MSFT-DIL].<5> ... Changed to: ... keyboardLayout (4 bytes): A 32-bit, unsigned integer. The active input locale identifier, also known as the "HKL" (for example, 0x00010409 for a "United States-Dvorak" keyboard layout and 0x00020418 for a "Romanian (Programmers)" keyboard layout). For a list of input locale identifiers, see [MSFT-DIL].<5> If the keyboardLayout field is set to zero, then the server SHOULD use the default active input locale identifier and active language identifier (see the CodePage field in section 2.2.1.11.1.1) associated with the user account.<6> <6> Section 2.2.1.3.2: Microsoft RDP servers apply only the active locale identifier to a newly created session. The value is ignored when connecting to an existing session. ... In Section 2.2.1.11.1.1, Info Packet (TS_INFO_PACKET), in the CodePage field description, clarified when the active language identifier should be ignored by the server. Changed from: ... CodePage (4 bytes): A 32-bit, unsigned integer. If the flags field does not contain the INFO_UNICODE flag (0x00000010), then this field MUST contain the ANSI code page descriptor being used by the client (for a list of code pages, see [MSDN-CP]) to encode the character fields in the Info Packet and Extended Info Packet (section 2.2.1.11.1.1.1). However, if the flags field contains the INFO_UNICODE flag, then the CodePage field MUST contain the active language identifier in the low-word<13> (for a list of language identifiers, see [MSDN-MUI]); the contents of the high-word MUST be ignored by the server. ...

Errata Published*	Description
	Changed to: ... CodePage (4 bytes): A 32-bit, unsigned integer. If the flags field does not contain the INFO_UNICODE flag (0x00000010), then this field MUST contain the ANSI code page descriptor being used by the client (for a list of code pages, see [MSDN-CP]) to encode the character fields in the Info Packet and Extended Info Packet (section 2.2.1.11.1.1.1). However, if the flags field contains the INFO_UNICODE flag, then the CodePage field MUST contain the active language identifier in the low-word<14> (for a list of language identifiers, see [MSDN-MUI]); the contents of the high-word MUST be ignored by the server. The active language identifier SHOULD be ignored by the server if the keyboardLayout field of the Client Core Data structure (section 2.2.1.3.2) is set to zero.<15> <15> Section 2.2.1.11.1.1: Microsoft RDP servers only apply the active language identifier to a newly created session. The value is ignored when connecting to an existing session. ...
2016/04/18	In Section 2.2.1.11.1.1, Info Packet (TS_INFO_PACKET), added details to the description of the UserName field to clarify how it is affected by the value of the flags field. Changed from: UserName (variable): Variable-length logon user name of the user (the length in bytes is given by the cbUserName field). The maximum length allowed by RDP 4.0 servers is 44 bytes (including the mandatory null terminator), while all other versions of RDP servers allow a maximum length of 512 bytes (including the mandatory null terminator). The field MUST contain at least a null terminator character in Windows-1252 or Unicode format (depending on the presence of the INFO_UNICODE flag). … Changed to: UserName (variable): Variable-length logon user name of the user (the length in bytes is given by the cbUserName field). The maximum length allowed by RDP 4.0 servers is 44 bytes (including the mandatory null terminator), while all other versions of RDP servers allow a maximum length of 512 bytes (including the mandatory null terminator). The field MUST contain at least a null terminator character in Windows-1252 or Unicode format (depending on the presence of the INFO_UNICODE flag). The contents of the UserName field SHOULD be ignored if the INFO_PASSWORD_IS_SC_PIN (0x00040000) flag is specified in the flags field. …
2016/04/18	In several sections, updated with the RDP versions that send the Set Keyboard IME Status PDU and added more specific information about the fields that are used with a Fujitsu Oyayubi-specific IME control function. In Section 2.2.8.2.2, Server Set Keyboard IME Status PDU, changed from: The Set Keyboard IME Status PDU is sent by the server when the user's session employs at least one input method editor (IME) and is used to set the IME state. This PDU is accepted and ignored by non-IME aware clients. Changed to: The Set Keyboard IME Status PDU is used to request that the client set the state of the input method editor (IME) and is sent by the server<31> when the user's session employs at least one IME. This PDU is accepted and ignored by non-IME-aware clients. <31> Section 2.2.8.2.2: Only Microsoft RDP 5.0, 5.1, 5.2, 6.0, 6.1, 7.0, and 7.1 servers send the Set Keyboard IME Status PDU.

<table>
<tr><th>Errata Published*</th><th>Description</th></tr>
<tr><td></td><td>In Section 2.2.8.2.2.1, Set Keyboard IME Status PDU Data (TS_SET_KEYBOARD_IME_STATUS_PDU), changed from:

On RDP 5.0, 5.1, 5.2, 6.0, 6.1, 7.0, 7.1, 8.0, 8.1, 10.0, and 10.1 clients, the latter two fields are used as input parameters to a Fujitsu Oyayubi specific IME control function of East Asia IME clients.

Changed to:

The ImeState and ImeConvMode fields are used as input parameters to a Fujitsu Oyayubi-specific IME control function on Far East IME clients.</td></tr>
<tr><td>2016/04/04</td><td>In Section 2.2.7.1.1, General Capability Set (TS_GENERAL_CAPABILITYSET), added OSMAJORTYPE_CHROME_OS to the osMajorType field table.

Changed from:
...
osMajorType (2 bytes): A 16-bit, unsigned integer. The type of platform.

<table><tr><th>Value</th><th>Meaning</th></tr><tr><td>OSMAJORTYPE_UNSPECIFIED
0x0000</td><td>Unspecified platform</td></tr><tr><td>OSMAJORTYPE_WINDOWS
0x0001</td><td>Windows platform</td></tr><tr><td>OSMAJORTYPE_OS2
0x0002</td><td>OS/2 platform</td></tr><tr><td>OSMAJORTYPE_MACINTOSH
0x0003</td><td>Macintosh platform</td></tr><tr><td>OSMAJORTYPE_UNIX
0x0004</td><td>UNIX platform</td></tr><tr><td>OSMAJORTYPE_IOS
0x0005</td><td>iOS platform</td></tr><tr><td>OSMAJORTYPE_OSX
0x0006</td><td>OS X platform</td></tr><tr><td>OSMAJORTYPE_ANDROID
0x0007</td><td>Android platform</td></tr></table>
...

Changed to:
...
osMajorType (2 bytes): A 16-bit, unsigned integer. The type of platform.

<table><tr><th>Value</th><th>Meaning</th></tr><tr><td>OSMAJORTYPE_UNSPECIFIED</td><td>Unspecified platform</td></tr></table></td></tr>
</table>

<table>
<tr><th>Errata Published*</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>0x0000</td><td></td></tr>
<tr><td>OSMAJORTYPE_WINDOWS
0x0001</td><td>Windows platform</td></tr>
<tr><td>OSMAJORTYPE_OS2
0x0002</td><td>OS/2 platform</td></tr>
<tr><td>OSMAJORTYPE_MACINTOSH
0x0003</td><td>Macintosh platform</td></tr>
<tr><td>OSMAJORTYPE_UNIX
0x0004</td><td>UNIX platform</td></tr>
<tr><td>OSMAJORTYPE_IOS
0x0005</td><td>iOS platform</td></tr>
<tr><td>OSMAJORTYPE_OSX
0x0006</td><td>OS X platform</td></tr>
<tr><td>OSMAJORTYPE_ANDROID
0x0007</td><td>Android platform</td></tr>
<tr><td>OSMAJORTYPE_CHROME_OS
0x0008</td><td>Chrome OS platform</td></tr>
</table>
...
</td></tr>
<tr><td>2016/03/21</td><td>
In various sections, corrected the names of fields and ENUMs and updated the description for one field.
In Section 2.2.1.1, Client X.224 Connection Request PDU, changed from:
rdpCorrelationInfo (36 bytes): An optional Correlation Info (section 2.2.1.1.2) structure. The length of this field is included in the X.224 Connection Request Length Indicator field. This field MUST be present if the CORRELATION_INFO_PRESENT (0x08) flag is set in the flags field of the RDP Negotiation Request structure, encapsulated within the optional rdpNegRsp field. If the CORRELATION_INFO_PRESENT (0x08) flag is not set, then this field MUST NOT be present.
Changed to:
rdpCorrelationInfo (36 bytes): An optional Correlation Info (section 2.2.1.1.2) structure. The length of this field is included in the X.224 Connection Request Length Indicator field. This field MUST be present if the CORRELATION_INFO_PRESENT (0x08) flag is set in the flags field of the RDP Negotiation Request structure, encapsulated within the optional rdpNegReq field. If the CORRELATION_INFO_PRESENT (0x08) flag is not set, then this field MUST NOT be present.
In Section 2.2.3.1.1, Deactivate All PDU Data (TS_DEACTIVATE_ALL_PDU), changed from:
shareControlHeader (6 bytes): Share Control Header (section 2.2.8.1.1.1.1) containing information about the packet.
The type subfield of the pduType field of the Share Control Header MUST be set to TS_PDUTYPE_DEACTIVATEALLPDU (6).
Changed to:
shareControlHeader (6 bytes): Share Control Header (section 2.2.8.1.1.1.1) containing information about the packet.
</td></tr>
</table>

Errata Published*	Description
	The type subfield of the pduType field of the Share Control Header MUST be set to **PDUTYPE_DEACTIVATEALLPDU** (6). In Section 2.2.4.1.1, Auto-Reconnect Status PDU Data (TS_AUTORECONNECT_STATUS_PDU), changed from: shareDataHeader (18 bytes): Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_ARC_STATUS_PDU (50), and the **pduSource** field MUST be set to zero. Changed to: shareDataHeader (18 bytes): Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_ARC_STATUS_PDU (50), and the **PDUSource** field MUST be set to zero. In Section 2.2.5.1.1, Set Error Info PDU Data (TS_SET_ERROR_INFO_PDU), changed from: shareDataHeader (18 bytes): Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_SET_ERROR_INFO_PDU (47), and the **pduSource** field MUST be set to zero. Changed to: shareDataHeader (18 bytes): Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_SET_ERROR_INFO_PDU (47), and the **PDUSource** field MUST be set to zero. In Section 2.2.5.2, Server Status Info PDU, changed from: shareDataHeader (18 bytes): A Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_STATUS_INFO_PDU (54), and the **pduSource** field MUST be set to zero. Changed to: shareDataHeader (18 bytes): A Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_STATUS_INFO_PDU (54), and the **PDUSource** field MUST be set to zero. In Section 2.2.9.1.1.3.1.2.2, Bitmap Data (TS_BITMAP_DATA), changed from: bitmapComprHdr (8 bytes): Optional Compressed Data Header structure (section 2.2.9.1.1.3.1.2.3) specifying the bitmap data in the bitmapDataStream. This field MUST be present if the BITMAP_COMPRESSION (0x0001) flag is present in the **Flags** field, but the NO_BITMAP_COMPRESSION_HDR (0x0400) flag is not. Changed to: bitmapComprHdr (8 bytes): Optional Compressed Data Header structure (section 2.2.9.1.1.3.1.2.3) specifying the bitmap data in the bitmapDataStream. This field MUST be present if the BITMAP_COMPRESSION (0x0001) flag is present in the **flags** field, but the NO_BITMAP_COMPRESSION_HDR (0x0400) flag is not. In Section 2.2.9.1.2.1, Fast-Path Update (TS_FP_UPDATE), changed from:

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	updateHeader (1 byte): An 8-bit, unsigned integer. The TS_FP_UPDATE structure begins with a 1- byte, bit-packed update header field. Three pieces of information are collapsed into this byte: … Changed to: updateHeader (1 byte): An 8-bit, unsigned integer. Three pieces of information are collapsed into this byte: … In Section 2.2.12.1, Monitor Layout PDU, changed from: shareDataHeader (18 bytes): A Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_MONITOR_LAYOUT_PDU (55), and the **pduSource** field MUST be set to zero. Changed to: shareDataHeader (18 bytes): A Share Data Header containing information about the packet. The type subfield of the pduType field of the Share Control Header (section 2.2.8.1.1.1.1) MUST be set to PDUTYPE_DATAPDU (7). The pduType2 field of the Share Data Header MUST be set to PDUTYPE2_MONITOR_LAYOUT_PDU (55), and the **PDUSource** field MUST be set to zero.

*Date format: YYYY/MM/DD