[MS-RDPERP]: Remote Desktop Protocol: Remote Programs Virtual Channel Extension

Errata below are for Protocol Document Version V19.0 – 2015/06/30.

Errata Published*	Description
2015/10/12	In Section 2.2.1.1.1, Remote Programs Capability Set, added three bits:TS_RAIL_LEVEL_SHELL_INTEGRATION_SUPPORTED, TS_RAIL_LEVEL_SERVER_TO_CLIENT_IME_SYNC_SUPPORTED, and TS_RAIL_LEVEL_HIDE_MINIMIZED_APPS_SUPPORTED. <table><tr><td>Value</td><td>Meaning</td></tr><tr><td>H TS_RAIL_LEVEL_SHELL_INTEGRATION_SUPPORTED</td><td>Set to 1 if the client/server is capable of supporting extended shell integration like tabbed windows and overlay icons for Remote Programs; set to 0 otherwise. This flag MUST be set to 0 if TS_RAIL_LEVEL_SUPPORTED is 0.</td></tr><tr><td>C TS_RAIL_LEVEL_SERVER_TO_CLIENT_IME_SYNC_SUPPORTED</td><td>Set to 1 if the client/server is capable of supporting syncing IME changes originating at the server for Remote Programs; set to 0 otherwise. This flag MUST be set to 0 if TS_RAIL_LEVEL_SUPPORTED is 0.</td></tr><tr><td>M TS_RAIL_LEVEL_HIDE_MINIMIZED_APPS_SUPPORTED</td><td>Set to 1 if the client/server supports hiding minimized windows of Remote Programs on the server; set to 0 otherwise. This flag MUST be set to 0 if TS_RAIL_LEVEL_SUPPORTED is 0.</td></tr></table> In Section 2.2.2.1, Common Header (TS_RAIL_PDU_HEADER), the description of the TS_RAIL_ORDER_HANDSHAKE_EX value has been changed. Changed from:

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	<table><tr><td>Value</td><td>Meaning</td></tr><tr><td>TS_RAIL_ORDER_HANDSHAKE_EX 0x0013</td><td>Indicates a bi-directional HandshakeEx PDU.</td></tr></table>Changed to:<table><tr><td>Value</td><td>Meaning</td></tr><tr><td>TS_RAIL_ORDER_HANDSHAKE_EX 0x0013</td><td>Indicates a HandshakeEx PDU from server to client.</td></tr></table>In Section 2.2.2.2.3, HandshakeEx PDU (TS_RAIL_ORDER_HANDSHAKE_EX), the description of the HandshakeEx PDU has been changed from: The HandshakeEx PDU is exchanged between the server and the client to establish that both endpoints are ready to begin RAIL mode. The server sends the HandshakeEx PDU and the client responds with the HandshakeEx PDU. Changed to: The HandshakeEx PDU is sent from the server to the client to signal that it is ready to begin Enhanced RemoteApp mode. The server sends the HandshakeEx PDU, and the client responds with the Handshake PDU.
2015/08/17	In Section 2.2.1.3.1.2.1, New or Existing Window, changed the FieldsPresentFlags field value WINDOW_ORDER_FIELD_WNDCLIENTDELTA to WINDOW_ORDER_FIELD_CLIENTDELTA. Changed from: Hdr (11 bytes): Eleven bytes. Common Window AltSec Order header, TS_WINDOW_ORDER_HEADER. The FieldsPresentFlags field of the header MUST conform to the values defined as follows.<table><tr><td>Value</td><td>Meaning</td></tr><tr><td>0x00008000 WINDOW_ORDER_FIELD_WNDCLIENTDELTA</td><td>Indicates that the WindowClientDeltaX and WindowClientDeltaY fields are present.</td></tr></table>Changed to: Hdr (11 bytes): Eleven bytes. Common Window AltSec Order header, TS_WINDOW_ORDER_HEADER. The FieldsPresentFlags field of the header MUST conform to the values defined as follows.<table><tr><td>Value</td><td>Meaning</td></tr><tr><td>0x00008000 WINDOW_ORDER_FIELD_CLIENTDELTA</td><td>Indicates that the WindowClientDeltaX and WindowClientDeltaY fields are present.</td></tr></table>

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2015/08/17	In Section 4.7.1, TS_RAIL_ORDER_ZORDER_SYNC, changed the orderType field value from 0x0020 to 0x0014 in the network capture for TS_RAIL_PDU_HEADER.
	
	Changed from:
	
	The following is a network capture of the Server Z-Order Sync Information PDU (TS_RAIL_ORDER_ZORDER_SYNC, as specified in section 2.2.2.11.1).
	
	`20 00 -> TS_RAIL_PDU_HEADER::orderType = TS_RAIL_ORDER_ZORDER_SYNC (20)`
	`(2 Bytes)`
	
	`08 00 -> TS_RAIL_PDU_HEADER::orderLength   = 8`
	`(2 Bytes)`
	
	`10 05 40 00 -> WindowIdMarker`
	`(4 Bytes)`
	
	Changed to:
	
	The following is a network capture of the Server Z-Order Sync Information PDU (TS_RAIL_ORDER_ZORDER_SYNC, as specified in section 2.2.2.11.1).
	
	`14 00 -> TS_RAIL_PDU_HEADER::orderType = TS_RAIL_ORDER_ZORDER_SYNC (20)`
	`(2 Bytes)`
	
	`08 00 -> TS_RAIL_PDU_HEADER::orderLength   = 8`
	`(2 Bytes)`
	
	`10 05 40 00 -> WindowIdMarker`
	`(4 Bytes)`

2015/08/17	In Section 2.2.2.10.1, Language Profile Information PDU (TS_RAIL_ORDER_LANGUAGEIMEINFO), changed from: ProfileType (4 bytes): An unsigned 4-byte integer that identifies the profile type of the language. The value should be either TF_PROFILETYPE_INPUTPROCESSOR (0x0001) or TF_PROFILETYPE_KEYBOARDLAYOUT (0x0002).

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	Changed to: ProfileType (4 bytes): An unsigned 4-byte integer that identifies the profile type of the language. The value SHOULD be either TF_PROFILETYPE_INPUTPROCESSOR (0x0001) or TF_PROFILETYPE_KEYBOARDLAYOUT (0x0002). In Section 2.2.2.2.3, HandshakeEx PDU (TS_RAIL_ORDER_HANDSHAKE), updated the section name from HandshakeEx PDU (TS_RAIL_ORDER_HANDSHAKE) to HandshakeEx PDU (TS_RAIL_ORDER_HANDSHAKE_**EX**)

*Date format: YYYY/MM/DD