[MS-RDPECAM]: Remote Desktop Protocol: Video Capture Virtual Channel Extension

This topic lists the Errata found in [MS-RDPECAM] 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.

NRSS Atom

Errata are subject to the same terms as the Open Specifications documentation referenced.

Errata below are for Protocol Document Version V1.0 – 2018/09/12.

Errata Published*	Description		
2019/02/19	In Section 4.6.2, Property List Response, an annotated dump of a Property List Response (section 2.2.3.17) has been added.		
	Added: The following is an annotated dump of a Property List Response (section 2.2.3.17).		
	00000000 02 15 01 02 03 00 00 00 fa 00 00 05 00 00		
	00000010 00 00 00 00 02 02 01 00 00 00 ff 00 00 00		
	00000020 01 00 00 00 80 00 00 00 02->SHARED_MSG_HEADER::Version = 2 15->SHARED_MSG_HEADER::MessageId = PropertyListResponse(21) 01->PropertyDescription[0]::PropertySet = CameraControl(1) 02->PropertyDescription[0]::PropertyId = Focus(2) 03->PropertyDescription[0]::Capabilities = Manual and Auto(1 + 2) 00 00 00 00->PropertyDescription[0]::MinxValue = 0 fa 00 00 00->PropertyDescription[0]::Step = 5 00 00 00 00->PropertyDescription[0]::DefaultValue = 0 02->PropertyDescription[1]::PropertySet = VideoProcAmp(2) 02->PropertyDescription[1]::Capabilities = Manual(1) 00 00 00 00->PropertyDescription[1]::MinValue = 0 ff 00 00 00->PropertyDescription[1]::MinValue = 0 ff 00 00 00->PropertyDescription[1]::MaxValue = 255 01 00 00 00->PropertyDescription[1]::Step = 1 80 00 00 00->PropertyDescription[1]::DefaultValue = 128		
2019/02/19	In Section 2.2.1, Shared Message Header (SHARED_MSG_HEADER), updated values to hexadecimal format for consistency in the MessageId field table.		
	Changed from:		
	MessageId (1 byte): An 8-bit unsigned integer that specifies the type of the message.		
	Value Meaning		
	SuccessResponse 1 A Success Response (section 2.2.3.1) message.		

Errata Published*	Description	
	ErrorResponse 2	An Error Response (section 2.2.3.2) message.
	SelectVersionRequest 3	A Select Version Request (section 2.2.2.1) message.
	SelectVersionResponse 4	A Select Version Response (section 2.2.2.2) message.
	DeviceAddedNotification 5	A Device Added Notification (section 2.2.2.3) message.
	DeviceRemovedNotification 6	A Device Removed Notification (section 2.2.2.4) message.
	ActivateDeviceRequest 7	An Activate Device Request (section 2.2.3.3) message.
	DeactivateDeviceRequest 8	A Deactivate Device Request (section 2.2.3.4) message.
	StreamListRequest 9	A Stream List Request (section 2.2.3.5) message.
	StreamListResponse 10	A Stream List Response (section 2.2.3.6) message.
	MediaTypeListRequest 11	A Media Type List Request (section 2.2.3.7) message.
	MediaTypeListResponse 12	A Media Type List Response (section 2.2.3.8) message.
	CurrentMediaTypeRequest 13	A Current Media Type Request (section 2.2.3.9) message.
	CurrentMediaTypeResponse 14	A Current Media Type Response (section 2.2.3.10) message.
	StartStreamsRequest 15	A Start Streams Request (section 2.2.3.11) message.
	StopStreamsRequest 16	A Stop Streams Request (section 2.2.3.12) message.
	SampleRequest 17	A Sample Request (section 2.2.3.13) message.
	SampleResponse 18	A Sample Response (section 2.2.3.14) message.
	SampleErrorResponse 19	A Sample Error Response (section 2.2.3.15) message.
	PropertyListRequest 20	A Property List Request (section 2.2.3.16) message. This message is supported only by version 2 of the protocol.
	PropertyListResponse 21	A Property List Response (section 2.2.3.17) message. This message is supported only by version 2 of the protocol.

Errata Published*	Description	
	PropertyValueRequest 22	A Property Value Request (section 2.2.3.18) message. This message is supported only by version 2 of the protocol.
	PropertyValueResponse 23	A Property Value Response (section 2.2.3.19) message. This message is supported only by version 2 of the protocol.
	SetPropertyValueRequest 24	A Set Property Value Request (section 2.2.3.20) message. This message is supported only by version 2 of the protocol.

Changed to:

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MessageId (1 byte): An 8-bit unsigned integer that specifies the type of the message.

Value	Meaning
SuccessResponse 0x01	A Success Response (section 2.2.3.1) message.
ErrorResponse 0x02	An Error Response (section 2.2.3.2) message.
SelectVersionRequest 0x03	A Select Version Request (section 2.2.2.1) message.
SelectVersionResponse 0x04	A Select Version Response (section 2.2.2.2) message.
DeviceAddedNotification 0x05	A Device Added Notification (section 2.2.2.3) message.
DeviceRemovedNotification 0x06	A Device Removed Notification (section 2.2.2.4) message.
ActivateDeviceRequest 0x07	An Activate Device Request (section 2.2.3.3) message.
DeactivateDeviceRequest 0x08	A Deactivate Device Request (section 2.2.3.4) message.
StreamListRequest 0x09	A Stream List Request (section 2.2.3.5) message.
StreamListResponse 0x0A	A Stream List Response (section 2.2.3.6) message.
MediaTypeListRequest 0x0B	A Media Type List Request (section 2.2.3.7) message.
MediaTypeListResponse 0x0C	A Media Type List Response (section 2.2.3.8) message.
CurrentMediaTypeRequest 0x0D	A Current Media Type Request (section 2.2.3.9) message.

Errata Published*	Description		
	CurrentMediaTypeResponse 0x0E	A Current Media Type Response (section 2.2.3.10) message.	
	StartStreamsRequest 0x0F	A Start Streams Request (section 2.2.3.11) message.	
	StopStreamsRequest 0x10	A Stop Streams Request (section 2.2.3.12) message.	
	SampleRequest 0x11	A Sample Request (section 2.2.3.13) message.	
	SampleResponse 0x12	A Sample Response (section 2.2.3.14) message.	
	SampleErrorResponse 0x13	A Sample Error Response (section 2.2.3.15) message.	
	PropertyListRequest 0x14	A Property List Request (section 2.2.3.16) message. This message is supported only by version 2 of the protocol.	
	PropertyListResponse 0x15	A Property List Response (section 2.2.3.17) message. This message is supported only by version 2 of the protocol.	
	PropertyValueRequest 0x16	A Property Value Request (section 2.2.3.18) message. This message is supported only by version 2 of the protocol.	
	PropertyValueResponse 0x17	A Property Value Response (section 2.2.3.19) message. This message is supported only by version 2 of the protocol.	
	SetPropertyValueRequest 0x18	A Set Property Value Request (section 2.2.3.20) message. This message is supported only by version 2 of the protocol.	
In Section 2.2.3.2, Error Response, updated values to hexadecimal format for consistency in the ErrorCode field table. Changed from: ErrorCode (4 bytes): A 32-bit unsigned integer containing an error code.			
	Value	Meaning an error code.	
	UnexpectedError 1	An unexpected error occurred.	
	InvalidMessage 2	An invalid message was received. Either the message is malformed, or the protocol version or message type is unexpected.	

Errata Published*	Description	
	NotInitialized 3	The object MUST be initialized before the requested operation can be carried out. This error could be returned, for example, when attempting to communicate with a deactivated camera device.
	InvalidRequest 4	The request is invalid in the current state.
	InvalidStreamNumber 5	The provided stream number was invalid.
	InvalidMediaType 6	The data specified for the stream format is invalid, inconsistent, or not supported.
	OutOfMemory 7	The client ran out of memory.
	ItemNotFound 8	The device does not support the requested property. This error code is generated only by version 2 of the protocol.
	SetNotFound 9	The device does not support the requested property set. This error code is generated only by version 2 of the protocol.
	OperationNotSupported 10	The requested operation is not supported. This error code is generated only by version 2 of the protocol.

Changed to:

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ErrorCode (4 bytes): A 32-bit unsigned integer containing an error code.

Value	Meaning
UnexpectedError 0x00000001	An unexpected error occurred.
InvalidMessage 0x00000002	An invalid message was received. Either the message is malformed, or the protocol version or message type is unexpected.
NotInitialized 0x00000003	The object MUST be initialized before the requested operation can be carried out. This error could be returned, for example, when attempting to communicate with a deactivated camera device.
InvalidRequest 0x00000004	The request is invalid in the current state.
InvalidStreamNumber 0x00000005	The provided stream number was invalid.

Errata Published*	Description		
	InvalidMediaType 0x00000006	The data specified for the stream format is invalid, inconsistent, or not supported.	
	OutOfMemory 0x00000007	The client ran out of memory.	
	ItemNotFound 0x00000008	The device does not support the requested property. This error code is generated only by version 2 of the protocol.	
	SetNotFound 0x00000009	The device does not support the requested property set. This error code is generated only by version 2 of the protocol.	
	OperationNotSupported 0x0000000	The requested operation is not supported. This error code is generated only by version 2 of the protocol.	
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In Section 2.2.3.6.1, STREAM_DESCRIPTION, updated the value to hexadecimal format for consistency in the StreamCategory field table.

Changed from:

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StreamCategory (1 byte): An 8-bit unsigned integer that specifies the category of the stream.

Value	Meaning
Capture 1	Capture category streams provide a stream of compressed or uncompressed digital video.

Changed to:

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StreamCategory (1 byte): An 8-bit unsigned integer that specifies the category of the stream.

Value	Meaning
Capture 0x01	Capture category streams provide a stream of compressed or uncompressed digital video.

In Section 2.2.3.8.1, MEDIA_TYPE_DESCRIPTION, updated values to hexadecimal format for consistency in the Format field table.

Changed from:

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Format (1 byte): An 8-bit unsigned integer that specifies the stream codec.

Value	Meaning
H264 1	H.264 video as described in [ITU-H.264-201704]. Media samples contain H.264 bitstream data with start codes and interleaved sequence parameter set/picture parameter set (SPS/PPS) packets. Each sample contains one complete picture, either one field or one frame.
MJPG 2	Motion JPEG. Motion JPEG is a video compression format in which each video frame of a digital video sequence is independently compressed as a JPEG image.
YUY2 3	YUY2 video as specified in [MSDN-YUVFormats].
NV12 4	NV12 video as described in [MSDN-YUVFormats].
I420 5	I420 video. Identical to YV12 as described in [MSDN-YUVFormats] except that the order of the U and V planes is reversed.
RGB24 6	RGB, 24 bits per pixel.
RGB32 7	RGB, 32 bits per pixel.

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Changed to:

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Format (1 byte): An 8-bit unsigned integer that specifies the stream codec.

Value	Meaning
H264 0x01	H.264 video as described in [ITU-H.264-201704]. Media samples contain H.264 bitstream data with start codes and interleaved sequence parameter set/picture parameter set (SPS/PPS) packets. Each sample contains one complete picture, either one field or one frame.
MJPG 0x02	Motion JPEG. Motion JPEG is a video compression format in which each video frame of a digital video sequence is independently compressed as a JPEG image.
YUY2 0x03	YUY2 video as specified in [MSDN-YUVFormats].
NV12 0x04	NV12 video as described in [MSDN-YUVFormats].
I420 0x05	I420 video. Identical to YV12 as described in [MSDN-YUVFormats]

Errata Published*	Description	
		except that the order of the U and V planes is reversed.
	RGB24 0x06	RGB, 24 bits per pixel.
	RGB32 0x07	RGB, 32 bits per pixel.

In Section 2.2.3.17.1, PROPERTY_DESCRIPTION, updated values to hexadecimal format for consistency in the PropertySet and PropertyId field tables.

Changed from:

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PropertySet (1 byte): An 8-bit unsigned integer that specifies the property set.

Value	Meaning
CameraControl 1	This property set category controls camera device settings.
VideoProcAmp 2	This property set controls devices that can adjust the image color attributes of analog or digital signals.

PropertyId (1 byte): An 8-bit unsigned integer that contains the identifier of the property within the property set specified by the PropertySet field.

CameraControl properties:

carrier de orition properties.		
Value	Meaning	
Exposure 1	This property controls the exposure time of the device.	
Focus 2	This property controls the focus setting of the device.	
Pan 3	This property controls the pan setting of the device.	
Roll 4	This property controls the roll setting of the device.	
Tilt 5	This property controls the tilt setting of the device.	
Zoom 6	This property controls the zoom setting of the device.	

VideoProcAmp properties:

Value	Meaning
BacklightCompensation 1	This property controls the backlight compensation setting of the device. This value MUST be either 0 or 1. The value 0 indicates that backlight

Errata Published*	Description	
		compensation is disabled. The value 1 indicates that backlight compensation is enabled.
	Brightness 2	This property controls the brightness setting of the device.
	Contrast 3	This property controls the contrast setting of the device.
	Hue 4	This property controls the hue setting of the device.
	WhiteBalance 5	This property controls the white balance setting of the device.

Changed to:

. . .

PropertySet (1 byte): An 8-bit unsigned integer that specifies the property set.

Value	Meaning
CameraControl 0x01	This property set category controls camera device settings.
VideoProcAmp 0x02	This property set controls devices that can adjust the image color attributes of analog or digital signals.

PropertyId (1 byte): An 8-bit unsigned integer that contains the identifier of the property within the property set specified by the PropertySet field.

CameraControl properties:

Value	Meaning	
Exposure 0x01	This property controls the exposure time of the device.	
Focus 0x02	This property controls the focus setting of the device.	
Pan 0x03	This property controls the pan setting of the device.	
Roll 0x04	This property controls the roll setting of the device.	
Tilt 0x05	This property controls the tilt setting of the device.	
Zoom 0x06	This property controls the zoom setting of the device.	

VideoProcAmp properties:

Errata Published*	Description	
	Value	Meaning
	BacklightCompensation 0x01	This property controls the backlight compensation setting of the device. This value MUST be either 0 or 1. The value 0 indicates that backlight compensation is disabled. The value 1 indicates that backlight compensation is enabled.
	Brightness 0x02	This property controls the brightness setting of the device.
	Contrast 0x03	This property controls the contrast setting of the device.
	Hue 0x04	This property controls the hue setting of the device.
	WhiteBalance 0x05	This property controls the white balance setting of the device.
	consistency in the Mode field table Changed from:	VALUE, updated values to hexadecimal format for
	Value	Meaning
	Manual 1	The value was set manually.
	Auto 2	The value was set automatically.
Changed to:		
	Mode (1 byte): An 8-bit unsigned	integer that specifies how the property was set.
	Value	Meaning
	Manual 0x01	The value was set manually.
	Auto 0x02	The value was set automatically.

^{*}Date format: YYYY/MM/DD