

Def Stan 00-82 Issue 2 changes from Issue 1

Part number	Page number	Section	Change description
0	1	1	Note added that in the event of an inconsistency between Def Stan 00-82 and a referenced standard, then Def Stan 00-82 shall take precedence.
0	12	6.2	Deleted the reference to using link aggregation to transmit high definition formats.
0	12	Table 1	Frame rate values added to the video formats in the Table 1.
0	12	Table 1	YUV replaced with YCbCr.
0	13	6.2.2.1	Deleted the option to use Jumbo frames in a VIVOE system.
0	14	6.3.1.1	Specified a default IP address of 192.168.204.254.
0	14	6.3.1.2	Changed the IP allocation scheme to a two stage procedure with an initial statically assigned address and the option to modify the address using SNMP and the MIB as part of a reconfiguration or maintenance function.
0	15	6.3.1.2	Delete the option to use DHCP or LLA.
0	15	6.3.1.2	Guidance added to recommend that system managers check that all devices on the VIVOE network have the correct IP address assigned during system initialisation.
0	15	6.3.1.3	Section added to define how RFC 5227 is used to detect IP address conflicts, how devices select a new address if a conflict is detected (including reverting to the default IP address if a new address is not available) and how the conflict is notified to the system manager using a SNMP Trap notification message.
0	18	6.5.1.1	Deleted the option to use RTCP in a VIVOE system.
0	18	6.5.1.2	Clarification added that the standard does not list specific video formats but how a selected format shall be encoded and transmitted using RTP.
0	19	6.5.1.2	Added text to describe how RFC 4175 has been extended in the standard to support the VESA video formats, non-standard aspect ratio and ROIs.
0	20	6.5.3	Deleted the option to use RTCP in a VIVOE system.
0	20	6.5.3.2	Made the requirement for SNMP managers within a VIVOE system to implement the VIVOE MIB optional.
0	22	6.5.3.4	Made the implementation of SNMP Trap notification messages mandatory.
0	23	Figure 5	Updated diagram to reflect new objects in MIB.
0	24	6.5.3.7	Section added to describe the 3 modes of operation for the MIB (normal, default start-up configuration and maintenance).
0	25	6.5.3.8	Section added to describe how the resolution and ROI objects in the MIB (and the additional ROI parameters in the SDP announcements) may be used to provide ROI support including decimation (for thumbnail generation) and interpolation (for electronic zoom).
0	27	6.5.3.9	Section added to describe how the resolution and ROI objects in the MIB may be used to control how an image is presented on a display (i.e. windowing, up- and down-scaling and cropping).
0	32	6.6	Paragraph added on ITU-R BT.709.
0	34	7.1.1	Text added to clarify the use of unmanaged switches and hubs.
0	35	7.1.3	Deleted the option that switches should support Jumbo frames.
1	1	1	Note added that in the event of an inconsistency between Def Stan 00-82 and a referenced standard, then Def Stan 00-82 shall take precedence.
1	8	5	YUV replaced with YCbCr (and throughout rest of document).
1	8	6.1.2	Deleted the option to use Jumbo frames in a VIVOE system.
1	9	7.1.1	Specified a default IP address of 192.168.204.254.
1	9	7.1.1	Specified broadcast IP addresses for both IP address assignment options.
1	10	7.1.2	Changed the IP allocation scheme to a two stage procedure with an initial statically assigned address and the option to modify the address using SNMP and the MIB as part of a reconfiguration or maintenance function.
1	10	7.1.2	Delete the option to use DHCP or LLA.
1	10	7.1.3	Section added to define how RFC 5227 is used to detect IP address conflicts and how devices select a new address if a conflict is detected, including reverting to the default IP address if a new address is not available.

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1	11	7.1.4	Section added to how an IP address conflict is notified to the system manager using a SNMP Trap notification message.
1	12	7.2	Text added to note that unmanaged switches and hubs may be used.
1	13	9.1	Text added to clarify that the RTP Payload Type field in the RTP header shall not be assigned or fixed to a specific video format and clarify how the RTP Payload Type, multicast address and SDP announcement are used to decode
1	16	10.2	Text added to clarify the behaviour and interaction of the SAP Message Hash ID, the SDP Session Version number and the SDP Session ID when a session commences or is modified.
1	18	10.5	Colorimetry parameter (as specified in RFC 4175) added to the "a=fmtp:" line in the SDP announcement description.
1	19	10.5	Clarified behaviour of SDP <session version> parameter when supporting ROIs.
1	21	10.5	Four new optional SDP parameters added to the "a=fmtp:" line to support ROI origins and extents.
1	23	Table 2	Made the implementation of SNMP Trap notification messages mandatory.
1	23	11.1.1	Clarified the SNMP error handling when a device receives an SNP message it does not implement or a valid message on an object it does not implement.
1	24	11.2	Modified the requirement for SNMP controllers or managers within a VIVOE system to implement the VIVOE MIB.
1	25	11.2.2	Text and Table 3 added describing how the resolution and ROI objects in the <videoFormatInfo> module are used to support default ROIs that can incorporate decimation and interpolation.
1	27	11.2.3	Clarified the behaviour of the <channelVideoFormatIndex> and the <channelDefaultVideoFormatIndex> objects and the <setChannelGroup>.
1	27	11.2.3	Corrected an error to say that "A service <u>user</u> shall be commanded to receive a particular video stream..."
1	27	11.2.3	Text and Table 4 added describing the how the resolution and ROI objects in the <channelControl> module are used to support ROIs that can incorporate decimation and interpolation.
1	28	11.2.3	Text and Table 5 added describing how the resolutions and ROI objects in the <channelControl> module can also be used to support display windows, scaling and cropping.
1	29	11.2.4	Section added describing how the <deviceError> and <ipAddressConflict> notification objects in the MIB are used.
1	30	11.2.5	Section added describing the groups defined in the MIB to classify objects as preset, volatile, channel setting, maintenance or notification traps.
1	30	11.3	Section edited to describe the 3 modes of operation for the MIB (normal, default start-up configuration and maintenance).
1	31	Figure 4	Diagram edited to agree with the text (SNMP response may be sent after the SAP/SDP announcement and the start of the RTP video stream).
1	32	11.3.2	Section added describing the default start-up configuration mode
1	32	11.3.3	Section added describing the maintenance mode
1	33	A.2	Notification imports added to MIB
1	33	A.2	Issue 2 revision history added to MIB module
1	33	A.2	The description of the <DisplayString16> textual convention modified to only allow printable characters to be included in this object type.
1	33	A.2	The description of the <DisplayString32> textual convention modified to only allow printable characters to be included in this object type.
1	33	A.2	The description of the <DisplayString64> textual convention modified to only allow printable characters to be included in this object type.
1	36	A.2	<deviceMibVersion> description updated to reflect the new version number.

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1	36	A.2	<deviceUserDesc> description changed to only allow modification of this object when in the maintenance mode with the new value becoming active after a reset or reboot.
1	38	A.2	<ethernetIfIpAddress> description modified to only allow modification of this object when in the maintenance mode with the new value becoming active after a reset or reboot.
1	38	A.2	<ethernetIfSubnetMask> description modified to only allow modification of this object when in the maintenance mode with the new value becoming active after a reset or reboot.
1	38	A.2	<ethernetIfIpAddressConflict> object replaces the <ethernetIfMtu> object to store the last conflicting IP address.
1	39	A.2	New <deviceNatoStockNumber> to store the NATO stock number for the device.
1	39	A.2	New <deviceMode> object to specify the mode of operation.
1	39	A.2	New <deviceReset> object to allow the complete device to be reset.
1	41	A.2	<videoFormatStatus> description update to include device and channel resets.
1	42	A.2	Integer range value added for the <videoFormatBitDepth> object.
1	42	A.2	Integer range values add for the <videoFormatFps> object and description updated to clarify that it stores the maximum frame rate for the format.
1	43	A.2	New <videoFormatColorimetry> object added to specify the colorimetry scheme for a video format. Note that this has offset the OID numbering for the subsequent objects in <videoFormatTable>.
1	43	A.2	New <videoFormatCompressionFactor>, <videoFormatCompressionRate>, <videoFormatRoiHorzRes>, <videoFormatRoiVertRes>, <videoFormatRoiOriginTop>, <videoFormatRoiOriginLeft>, <videoFormatRoiExtentBottom>, <videoFormatRoiExtentRight> and <videoFormatRtpPt> objects added to the video format table to support default start-up configuration.
1	46	A.2	<channelReset> object modified to allow one or more channels to be reset independently from the rest of the device.
1	48	A.2	<channelUserDesc> description changed to only allow modification of this object when in the maintenance mode with the new value becoming active after a reset or reboot.
1	48	A.2	<channelStatus> object modified to include a single frame capture mode.
1	49	A.2	<channelVideoFormatIndex> description modified include the use of <setChannelGroup> and clarify when the object shall be set to 0.
1	49	A.2	Integer range value added for the <channelVideoBitDepth> object.
1	50	A.2	Integer range values add for the <channelFps> object and description updated to clarify that it stores the maximum frame rate for the channel.
1	50	A.2	New <channelColorimetry> object added to specify the colorimetry scheme for a channel. Note that this has offset the OID numbering for the subsequent objects in <channelTable>.
1	50	A.2	The <channelCompressionFactor> object changed to read-only access as it is now listed in <setChannelGroup> and loaded from <videoFormatTable> when setting a channel.
1	51	A.2	<channelHorzRes>, <channelVertRes>, <channelRoiOriginTop> and <channelRoiOriginLeft> descriptions changed to reflect the support for ROI scaling (including decimation and interpolation) and image windowing, scaling and cropping in displays.
1	52	A.2	<channelRoiExtentBottom> and <channelRoiExtentRight> objects added to support ROI scaling (including decimation and interpolation) and image windowing, scaling and cropping in displays.
1	53	A.2	<channelRtpPt> and <channelInterPacketDelay> object descriptions changed to only allow modification of this object when in the maintenance mode.

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1	54	A.2	Integer range value added for the <channelSapMessageInterval> object and description changed to only allow modification when in the maintenance mode.
1	54	A.2	New <channelDefaultVideoFormatIndex> object added to the channel control table to specify the default video format when a service provider is in the default start-up configuration.
1	54	A.2	New <channelDefaultReceiveIpAddress> object added to the channel control table to specify the default multi-cast address when a service user is in the default start-up configuration.
1	54	A.2	<deviceError> and <ipAddressConflict> notification objects added to support notification of device errors and IP address conflicts.
1	55	A.2	<conformanceGroup> module renamed <vivoGroups>.
1	55	A.2	Objects grouping reorganised to classify each objects in the MIB as preset, volatile, channel setting, maintenance or a notification trap.
1	57	B.1	Clarification added that the standard does not list specific video formats but how a selected format shall be encoded and transmitted using RTP with Table 6 added to list the families of uncompressed video formats and cross-reference them to the examples in the following sections.
1	59	B.2	Colorimetry parameter added to the "a=fmtp:" line in the SDP announcement example (also in B.3 and B.4).