#### IP-9x0E V02L062 Enhancement List

#### ☐ Modified Item

No.	Affected Region & Version	Description
1	IP-900E/IP-920E	CVE-2023-38433: Vulnerable to use of hard-coded
	(V01L001~V02L061)	credentials
		Addressing the above problem that authentication
		information of the Web interface of the product may be
		obtained by reverse engineering, etc.

# IP-9x0E V02L061 Enhancement List (Released Date: June 5th, 2020)

#### ☐ Modified Item

No.	Affected Region & Version	Description
1	IP-900E/IP-920E	CVE-2020-8597: Affected by buffer overflow
	(V01L001~V02L060)	vulnerability in pppd.
	(**************************************	Addressing potential Denial of Service (DoS) attacks
		when using PPPoE.

# IP-9x0E V02L060 Enhancement List (Released Date: May 28th, 2018)

No.	Item	Description
1	MIB file and OSS license	You can download MIB file and OSS license sheet from
	sheet became to be	web GUI.
	downloaded.	
2	GUI for smartphone has	User authentication is now available in case of using
	been enhanced.	GUI for smartphone.

# IP-9x0E V02L052 Enhancement List (Released Date: October 5<sup>th</sup>, 2016)

No.	Affected Region & Version	Description
1	IP-900E/IP-920E	Following bug has been fixed.
	(V02L050~V02L051)	Because there is a lack of configuration information for
		low frame rate that has been enhanced at V02L050,
		there were few cases that decoder cannot output video
		signal.
2	IP-900E/IP-920E	Following item has been modified. (This is NOT bug.)
	(V01L001~V02L051)	SDI embedded audio from some video recorders
		cannot be encoded because of error of parity check bit
		information for audio data in their SDI signal. Fujitsu
		has modified that encoder encodes SDI signal without
		checking this unaffected information for audio
		encoding.

# IP-9x0E V02L050 Enhancement List (Released Date: December 22<sup>nd</sup>, 2015)

No.	Item	Description
1	Support lower video bitrate and	Minimum 100 kbps video bitrate and 0.4995~14.985fps
	lower frame rate	frame rate at 1080i / 59.94Hz / (60Hz->59.94Hz) and 480i /
		59.94Hz input are supported.
2	Support changing TTL value	TTL value for both main encoder and sub encoder can be
		set from Web GUI and SNMP command. (For both IPv4
		and IPv6)

# IP-9x0E V02L041 Enhancement List (Released Date: July 14th, 2015)

No.	Affected Region	Description
1	IP-900E/IP-920E	Following bug has been fixed.
		In case of changing Configuration data in Load configuration
		without changing IPv4/v6 network settings under DHCP or
		PPPoE mode in IP address mode, there is some possibility
		of stopping video stream or RS-232C data.

# IP-9x0E V02L040 Enhancement List (Released Date: April 30th, 2015)

#### □ New Features

No.	Item	Description
1	Down-convert with 'Squeeze'	1080i to NTSC/PAL down conversion with squeeze.
2	Google Chrome	Support Google Chrome for Web GUI
3	Quick menu for smart devices	Enables to change 'Configuration data' from smart
		devices
4	300k/400k/500kbps video	Support lower video bitrate at D1 for video distribution
	bitrate for D1	application
5	Closed GOP	Support Closed GOP encode (Open/Closed selectable)

No.	Affected Region	Description
1	IP-900E/IP-920E	Bug that video & audio break and unit reboot may happen in
		case of using MPEG2-AAC audio with 'Ultra low latency'
		video control mode has been fixed.

# IP-9x0E V02L030 Enhancement List (Released Date: October 28th, 2014)

No.	Affected Region	Description
1	IP-900E/IP-920E	Bug related SNMP command for recorded video files has
		been fixed.
2	IP-900E/IP-920E	Basic software has been modified that GNU Bash is not used
		for avoiding the vulnerability of GNU Bash (CVE-2014-6271,
		CVE-2014-7169 etc.).

# IP-9x0E V02L021 Enhancement List (Released Date: July 28th, 2014)

No.	Affected Region	Description
1	IP-900E/IP-920E	Modified a case that video quality may have degradation in
		case of selecting video bitrate from 20.649Mbps through
		27Mbps.

# IP-9x0E V02L020 Enhancement List (Released Date: March 28th, 2014)

No.	Item	Description
1	SMPTE2022	Rename 'Pro-MPEG FEC' to 'SMPTE2022 FEC'

# [Previous Enhancement List]

# IP-900E/IP-920E V02L010 Enhancement List (Released Date: Nov. 28<sup>th</sup>, 2013)

No.	Item	Description
1	Support SIF on the Main	SIF (352 x 240 or 352 x 288) is supported on the Main Encoder
	Encoder	and recordable on the local storage.
2	Enlarge the low rate mode	The video rate at SIF (352x240 or 352x288) and QSIF (176x112 or
	of SIF and QSIF	176x114) are configurable from 25kbps to 1Mbps.
		The video frame rate of SIF(352x240 or 352x288) and QSIF
		(176x112 or 176x114) are configurable from 0.999Hz to
		14.985Hz
3	Local storage protection	Support the local storage protection feature which prohibits from
	feature	overwriting the local storage.
4	Support the 32GB CF card	The 32GB CF card is supported for local storage.

### [Previous Enhancement List]

# IP-9x0E V02L002 Enhancement List (Released Date: Nov, 29th, 2012)

☐ New Feature

No.	Item	Description
1	Encoding control mode	"Ultra Low Latency (PPPP)" mode which enables approx.99ms
		over IP network is supported.
		*Need the option license per unit for this function to be available.
2	Low video bit rates of SIF	Low bit rate of 40 and 45 kbps of SIF(352x240 or 352x288) are
		supported.
3	Carrier ID	Supported for sending Carrier ID in NIT (Network Information
		Table) which specifies each uplink sender, is standardized by
		WBU-ISOG (World Broadcasting Unions - International Satellite
		Operations Group).
4	SDT	Support video transmission using SDT (Service Description Table).
5	PCR interval	Extended the PCR interval setting range up to 1000ms from
		existing 100ms.
6	SIF/QSIF Settings	In case of specifying SIF/QSIF settings, 1, 2 or 4 times for
	(352 x 240, 176 x 112)	"Refresh cycle" and "Double" for "Coded Picture Buffer" can be
		selected.

### IP-9x0E V01L053 Enhancement List (Released Date: March, 16<sup>th</sup>, 2012)

☐ Modified Item

No.	Affected Region	Description
1	IP-900E/IP-920E	Modified a case that input video may freeze for switching SDI
		input video from SD to HD/HD to SD.

# IP-9x0E V01L052 Enhancement List (Released Date: July, 26th, 2011)

No.	Item	Description
1	Enlarged lower limit of video	Change lower limit of video rate to below when you input HD.
	rate	-1080 system resolution:1440x1080 2Mbp, 1920x1080 3Mbps
		-720 system resolution:960x720 2Mbps, 1280x720 3Mbps

# IP-9x0E V01L051 Enhancement List (Released Date: April, 8th, 2011)

#### ☐ Modified Item

No.	Affected Region	Description
1	V01L050	Modify malfunction when you set video rate 150kbs in IPPP
		mode of Half-D1 (352x480 and 352x576).
		Modify to set normally against the problem of not encoding
		and operating from WEB GUI when you set conditions above.

# IP-9x0E V01L050 Enhancement List (Released Date: March, 8th, 2011)

No.	Item	Description
1	SDI Voice Input	Support encode for stereo 2 channels by SDI Voice Input.
2	Enlarged lower limit of	150k, 200kbps at SD (352x480 and 352x576) are supported.
	video rate	
3	Overhead reduction	Improve encoding efficiency by reducing overhead of encoded
		video stream.
4	Additional language code	Language code in the given information is additionally
		supported when encodes.
5	Additional display when	"Black" besides "Gray" display is supported, existing color bar
	video input signals are	as display for shut off Video Input Signals.
	shut off.	

# IP-9x0E V01L041 Enhancement List (Released Date: Nov, 29<sup>th</sup>, 2010)

#### ☐ Modified Item

No.	Affected Region	Description
1	V01L040	Modify a problem that SDI embedded Voice encoding channel
		of sub-encoder is fixed to "channel 2"
		A problem regards to added function from V01L040 "can
		select arbitrary 1 channel from stereo 8 channels when SDI
		Voice input." Because voice in dual encoder's sub side is fixed
		encoding, sub-encoder cannot output correct voice when if
		the Voice Input channel is not set to 2 channel.
		Modify to be selected the same voice channel at sub side as
		selected channel at main side

# IP-9x0E V01L040 Enhancement List (Released Date: Aug, 31st, 2010)

No.	Item	Description
1	Lower limit of Video Rate	- 500kbps at HD (960x1080 and 640x720) is supported.
		- 300kbps and 400kbps at SD (352x480 and 352x576) are
		supported.
2	Voice MPEG-2 AAC Rate	CBR (56k, 64k, 128k, 256k, 384kbps) at MPEG-2 AAC is
		supported.
3	SDI Voice Input	Selectable arbitrary 1ch from stereo 8ch at SDI input.
4	PID settings	PID parameters settings (Video/Audio/PMT/PCR) are
		supported.
5	PCR insert intervals	Configuration of PCR intervals (30 to 100ms) is supported.
6	Encoding Buffer	Selections of Encoding Buffer amount(Coded picture buffer)
		(Normal or Double) are additionally supported.
7	Picture Coordination	- "Motion(IBP)"mode in encoding control mode is supported.
		- Selections of Picture mode (Normal/ Dynamic texture) are
		supported.

# IP-9x0E V01L030 Enhancement List (Released Date: Jan, 15<sup>th</sup>, 2010)

☐ New Features

No.	Item	Description
1	Support IPTV Forum	Following settings are supported to match with IPTV Forum
	Japan's spec	Japan's spec.
		-PPS interval
		-PES structure of video encoding
2	Flash Video support	PPS ID settings function is supported for Flash video.

# IP-900E V01L020 Enhancement List (Released Date: Oct, 6th, 2009)

No.	Item	Description
1	Video encoding rate	Enlarge rates at each resolution as below.
		H.264 HP@L4, 1080i, 720p:1Mbps to 27Mbps
		H.264 HP@L3, 480i, 576i : 500k to 10Mbps
		H.264 MP@L1.3 240p, 288p : 50k to 384kbps
		H.264 MP@L1.3 112p, 144p : 25k to 50kbps
2	Multiplexed encoding	"MPEG2 TS" is supported.
3	Archiving function	Enables to pick file out without suspending LIVE.
4	Network function	Setting functions at SNMP v2c and SNMP are additionally
		supported.
		MLDv2 at IPv6 is supported.
5	Error Correction	"Pro-MPEG FEC" is supported.