

Versio™ Integrated Playout

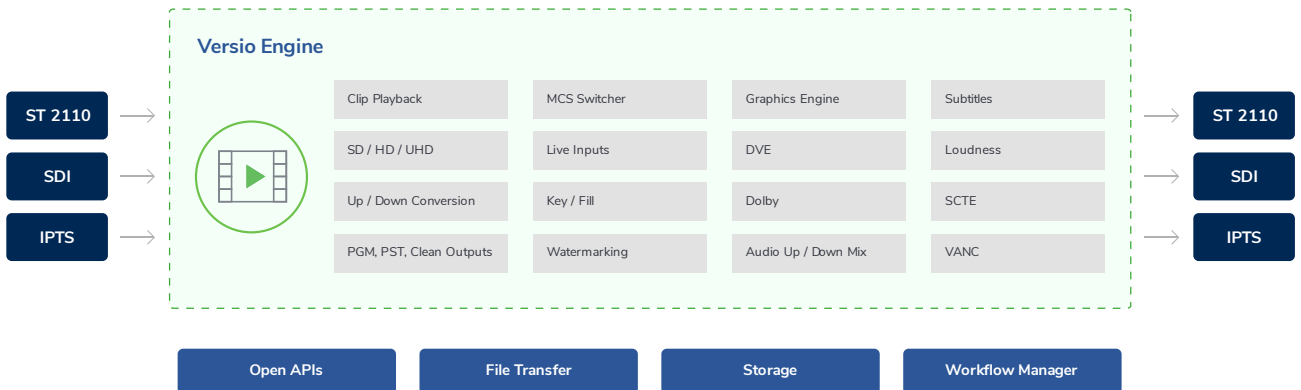
On-Prem Playout Ecosystem for SDI/2110



Broadcasters and media companies around the world rely on Versio™ for their channel origination needs, whether building a new playout center or planning an infrastructure refresh, operating in SDI or ST 2110 IP, or delivering in UHD or HDR.

Designed as a fully software-based, integrated playout ecosystem, Versio is primed for any on-prem implementation, including complex, multi-channel playout environments. From ingest and media asset management to playout, master control, and graphics, Versio's well-proven architecture ensures a powerful and robust turnkey channel origination system.

Versio Ecosystem



VERSIO INTEGRATED PLAYOUT FEATURES SUMMARY

- **ST 2110**
ST 2110 -20/-30/-31/-40 & -7 redundancy
HD 720p, 1080i, 1080p or UHD
SEAM, NMOS IS-04/05
- **Clip Playback**
Real time up/down-conversion, seamless multiformat playback
- **Single or Dual Channel**
Per turnkey server
- **SCTE-104/35**
SCTE insertion & SCTE decoding for playlist triggers
- **SDI**
HD 1080i, 720p; SD 525i/625i with PTP or LTC/Black Burst
- **Storage**
Internal or connected to online IOX NAS
- **Graphics**
Import from After Effects, dynamic branding, 10 layers with unlimited elements
- **UHD**
HD clip/live upconversion, HD simulcast output; SDR-709/HDR-HLG crossconversion
- **Mixing**
Crossfades, fades & dissolves Single & dual DVE
- **Advanced Audio Options**
Loudness, Nielsen/Kantar watermarking
- **TS**
MPEG-2 or H264 encoding Virtualized environments
- **Automation**
Native Versio Automation or ADC Automation drivers for 3rd-party
- **IN/OUT**
Live inputs, key/fill, program, clean & preset outputs, simulcast, branded+
- **Audio**
PCM, Stereo, Dolby, AAC up/down-mix, shuffling profiles
- **Subtitles**
Insertion & passthrough closed captions, open captions, live captions
- **VANC**
AFD, ARC, VCHIP/XDS
- **Interoperability**
Open APIs, Traffic integration, Services layer

VERSIO INTEGRATED PLAYOUT APPLICATIONS

Versio Automation

Integrated playout automation to streamline multichannel control environments with intuitive web-based UI. Designed to coordinate management of all Versio components needed for complete channel origination.

Versio Graphics

Broadcast-grade solution with intuitive web-based UI to create or modify templates; full-motion preview and video overlay. Create simple or complex graphics using direct import from Adobe® After Effects®, and add dynamic-data driver content and real-time tags.

Versio Content Portal

Content management application for media preparation and distribution for playout. Manages all the required playout assets such as video, audio or graphics, and enables control of several key workflows to improve operational efficiency.

Versio Control

Configurable, web-based dashboard-builder designed for master control operations. Enables users to build customized, contextual-driven control and monitoring panels, with the right tools for manual channel control.

Versio Redundancy

Tool that provides a flexible redundancy solution, keeping up to five channels mirrored and synchronized, including automatic failover based on real-time health and status monitoring.

Versio Ingest

Integrated ingest control application for scheduled recordings and crash records. Designed to optimize resources controlling pools of recording ports in Nexio SDI and Versio Ingest ST 2110 servers.

Versio Workflows (Motion)

File orchestration module ensures media assets and metadata required for channel origination make it where they need to be, on time. Integrates with third-party MAM tools, archives and storage devices. Automates workflows for transcoding, file transfer, metadata extraction and QC review.

Versio Caption Server

Centralized web server used to query and distribute subtitle files before being embedded in the video of the channel output during playback. The service allows uploading and importing various closed caption files in multiple languages.

Versio Audio Profile Builder

Tool to build and save audio shuffling profiles – route multiple sources to destinations, adjust gain levels, or mute tracks. Audio presets can be directly called out from the automation or the master control applications.

VERSIO INTEGRATED PLAYOUT BENEFITS

Ground Operations

Designed and maintained for demanding on-prem channels

Modular

Scalable, malleable solution for any installation

Configurable

Ideal for complex multi-channel playout environments with tailored customer requirements

Live Channels

Suitable for highly reactive workflows and channels with live events (news, sports) thanks to superior automation and master control tools

Multi-Site

Supports deployments distributed in multiple locations

High Interoperability

Permits complex 3rd-party integrations

End-to-End 2110 Ecosystems

Build full ST 2110 environments, combine with Imagine Selenio Network Processor and Magellan Control System

Ideal During Migrations

Good for customers with mixed technical requirements, or slowly transitioning to other standards through a hybrid approach

Elastic

Easily add new functionality and maintain disruption-free operations

Multiple Channel Instances SD, HD 1080i, 1080p or UHD channels with HDR processing

IP Transition

Flexible platform that allows migrating to IP playout at your own pace; SDI servers can be upgraded to ST 2110 when required

Simplified

Deployment, integration, and maintenance – move away from multi-vendor distributed architectures to integrated playout (single vendor)

VERSIO INTEGRATED PLAYOUT SPECIFICATIONS PLAYOUT OPTIONS AVAILABLE

Multichannel Payout	Versio can be optioned and configured for multiple independent playout channels from a single server, thus increasing the density and lowering the overall cost-per-channel.
Branded++ Output	Versio can have an additional output with unique branding to deliver a simulcast or otherwise graphically differentiated variant of the channel, while still using the simplicity of a singular graphics layout.
Preset Output	Versio allows for the use of a dedicated preset output allowing operators to setup the sources for an upcoming transition as well as preview graphics, external keys, and audio
Live Inputs	Versio supports dual live inputs, configurable as SDI, 2110, or Transport Stream. 2110 streams utilize clean SEAM switching for make-before-break operations via Imagine's Magellan Control System.
Key-Fill Inputs	Versio can have multiple external key-fill sources enabled allowing upstream graphics sources to be utilized in the air-chain. Downstream keyers in the Versio engine allow for enabling/disabling the source as well as reordering the Z-order.
Dual DVEs	Versio supports dual 2D DVEs for picture-in-picture squeeze back effects. Live video as well as internal clip playback can be routed into each of DVE channels.
Advanced Graphics	Versio is maximized by use of Adobe After Effects authored graphic templates which allow for real-time, dynamic data-driven graphics to be created without the need for time-consuming re-rendering nor re-assembly in a proprietary design tool. Real-time DVE placement and movement is also incorporated with the graphics for seamless interaction between squeeze backs and graphics.
Vizrt Graphics	Versio supports running an internal instance of Viz Engine which provides a direct key fill stream to an additional downstream keyer. Since the hardware platform is shared between Versio and Viz, costs and physical footprint are reduced. As operations are similar to an external Viz, automation workflows are maintained.
Advanced Audio	Track Router Versio's Advanced Audio Track Router (AATR) simplifies and, in many instances, replaces downstream audio router needs. AATR is especially useful when different routing rules must be applied dynamically based on multiple audio profiles present in the media library, or when a customer has complex language requirements.
Audio Loudness Correction	Versio can be optioned to include loudness correction compliant with EBU R-128 and ATSC A/85 (CALM) using an integrated Linear Acoustic software component.

PLAYOUT OPTIONS AVAILABLE - CONTINUED

EAS Versio can be integrated with an external DASDEC II EAS device for receipt of IP data and streaming audio. Within the Versio, a dedicated internal graphics engine and keyer provides on-screen overlays for alerts and messages.

Neilsen Watermarking Versio supports insertion of Neilsen digital audio watermarks using an integrated software component.

Captions Various options support live and file-based caption service import and export, which allows for the addition or replacement of captions. This can be used to support multiple languages and avoid the expense of adding a downstream captions inserter. Options for 608/708, OP42/OP47/WST, and live EEG iCap integrated captioning service component.

Proxy Generation Versio has the ability to view and browse low-resolution proxy files. An optional Proxy Transcoder for files or Encoder for live, automatically converts high-resolution files to proxy. All proxy files are stored on industry standard storage arrays where they can be viewed and segmented using Versio Content Portal tools.

Ancillary Processing Versio offers optional packages for V-Chip insertion, SCTE insertion, ARC processing, and AFD insertion, reducing the need for multiple downstream devices to perform these functions.

Single Channel UHD Integrated Playback & Branding A single UHD output channel is provided as four-wire 3G SDI. This output can be set to either 2SI (2 sample interleave) or QSD (quad square division) modes. The output includes branding and DVEs with the addition of the UHD Graphics package license. HDR workflows are also supported using a sophisticated wide color gamut pipe-line with autoconvection on input and output.

UHD to HD Downconvert In addition to the main UHD output, an additional HD output can be configured to provide a downconverted version of the program for monitoring or distribution.

UHD Live Input A single UHD live input is accepted as four-wire 3G SDI. This output can be set to either 2SI (2 sample interleave) or QSD (quad-split square division) modes.

UHD Record A single live UHD input can be recorded to a clip for later playback on the same or different devices. Simultaneous recording and playback is not supported. Recording supports QSD mode only. Record-only configurations do not require an additional license for graphics.

UHD Video Clips A single clip playback channel supports both HD and UHD. HD playback undergoes high-quality de-interlacing and upconversion to UHD. HD and UHD clips can be played back-to-back on the same channel.

BROADCAST I/O

IP Inputs	2 Inputs SMPTE ST 2110
IP Inputs	2 Keyfill pairs SMPTE ST 2110
IP Outputs	2 Outputs SMPTE ST 2110 2 Outputs MPEG2 TS, H.264 or MPEG2 video Additional options configurable
IP Outputs	3 Outputs SMPTE ST 2110 2 Outputs MPEG2 TS, H.264 or MPEG2 video Additional options configurable
HD-SDI Inputs	2 Inputs via HD-BNC (hybrid only) 2 Inputs SDI 2 Keyfill pairs (optional) 1 UHD input via 4x HD-BNC (optional UHD only)
HD-SDI Outputs	2 Outputs via HD-BNC (hybrid only) — video configurable 1 UHD output via 4x HD-BNC (optional UHD only)
Uncompressed Input to Output Latency	Up to 15 Frames (HD) Up to 40 Frames (UHD preliminary)
HD-SDI Embedded Audio In / Out	16 AES per channel (for In and Out)
Scan Rates (fps)	60, 59.94, 50, 29.97, 25
Audio Format (uncompressed)	PCM (16, 20, 24 bit, 48 KHz) — SMPTE ST 2022-6 & HD SDI
Aspect Ratios	16:9 4:3
Aspect Ratio Conversion	Up/down/cross conversion support AFD aspect ratio conversion Port-based aspect ratio conversion User-based aspect ratio conversion
Closed Captioning	EIA-608, EIA708: from file (SCC, STL, PAC, etc.), from media, live (EEG iCap), cross convert OP-42, OP-47: from file (SCC, STL, PAC, etc.), from media, Cross convert

GENLOCK (REF IN)

Standard	SMPTE ST 2059-2 (PTP)
----------	-----------------------

AUDIO PROCESSING

Channels and Formats	8 pairs embedded per I/O channel (4 pairs if using 24-bit PCM with SD video)
Processing and Storage	16, 20, or 24-bit PCM, 48kHz
Decoding	Dolby E pass-through
Encoding	Dolby Digital/Dolby Digital Plus (AC-3/EAC-3)
Watermarking	Nielsen
Loudness Correction	Linear Acoustics AERO

VANC PROCESSING

AFD	Pass-through or ARC
SCTE	SCTE-104 (SMPTE ST 2022-6 and SDI I/O) Insertion SCTE-35 (MPEG TS I/O) Insertion

SD VIDEO COMPRESSION SPECIFICATION

Compression	Profile	Resolution and Frame Rate
MPEG-2 I-frame — 4 to 15 Mb/s	4:2:0	525 @ 29.97 fps 625 @ 25 fps
MPEG-2 I-frame — 10 to 50 M/s	4:2:2	525 @ 29.97 fps 625 @ 25 fps
MPEG-2 Long GOP — 4 to 15 Mb/s	4:2:0	525 @ 29.97 fps 625 @ 25 fps
MPEG-2 Long GOP — 10 to 50 Mb/s	4:2:2	525 @ 29.97 fps 625 @ 25 fps
IMX — 30, 40, and 50 Mb/s		525 @ 29.97 fps 625 @ 25 fps
DVCPRO — 25 and 50 Mb/s		525 @ 29.97 fps 625 @ 25 fps
DVCAM * — 25 Mb/s		625 @ 25 fps
H.264 — 1 to 15 Mb/s		525 @ 29.97 fps 625 @ 25 fps

* DVCPRO25 is the same as DVCAM in 525 @ 29.97 fps.

HD VIDEO COMPRESSION SPECIFICATION

Compression	Profile	Resolution and Frame Rate
MPEG-2 I-frame — 50, 80, and 100 Mb/s	4:2:0	1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
MPEG-2 I-frame — 50, 70, 80, 100, 120, and 150 Mb/s	4:2:2	1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
MPEG-2 Long GOP — 18, 25, 35, 50, 60, 70, and 80 Mb/s	4:2:0	1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
MPEG-2 Long GOP — 25, 35, 50, 70, and 80 Mb/s	4:2:2	1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
DVCPRO HD — 100 Mb/s		1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
XDCAM HD — 35 Mb/s (not available in 720p)		1080i @ 29.97 fps 1080i @ 25 fps
XDCAM HD422 — 50 Mb/s		1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
XDCAM EX — 35 Mb/s		1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
H.264 — 1 to 15 Mb/s		1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
DNxHD		1080i @ 29.97 fps 720p @ 59.94 fps 1080i @ 25 fps 720p @ 50 fps
XAVC INTRA – CLASS 300		2160p @ 59.94 2160p @ 50
XAVC L-GOP – 188 to 300 Mb/s		2160p @ 59.94 2160p @ 50

HDR PROCESSING

Input	Rec.709 Rec.2020 HLG ITU-R BT.2100
Output	Rec.709 Rec.2020 HLG ITU-R BT.2100
WCG	Rec.2020
Conversion	Fixed or Auto-detect Linear 32-bit float RGBA Custom LUT (CUBE) Separate settings for UHD and HD outputs
Metadata	HDR in ANC (SMPTE ST 352) HDR in MXF (SMPTE ST 436)

SYSTEM SPECIFICATION

Processors	2x Intel E5-2680v3 (2x 12 cores, 24 cores total)
Memory	8x 8GB (64 GB) DDR4-2133 CAS-15-15-15 (or optimal configuration based on server manufacturer)
OS Drives	2x 80 GB RAID 1 recommended
Graphics Drives	4x 240 GB SSD RAID 5 recommended
Local Video — Optional	4x 2TB 7.2K RPM RAID 5 recommended
Management Networking	1x 1 Gb/s management 1x 1 Gb/s control (automation)
Video (Compressed — Optional)	1x 1 Gb/s video
Video (Uncompressed/SMPTE ST 2110 — Optional)	2x 25 Gb/s video
Video (UHD)	Baseband I/O and Nvidia P5000 GPU

GRAPHIC BRANDING

Bit Depth 32 bit
24 bit graphics (RGB), 8 bit alpha

Graphic Video Format (Lossless compression)
Custom sizing
Up to 10 graphic video files running simultaneously
Graphic video files coverage up to 1x screen resolution

Layouts Maximum of 10 layouts loaded simultaneously
Multiple individually controllable elements per layout

Rolls and Crawls Up to 4 rolls and/or crawls*
Up to 1/3 screen coverage at one time*

Clocks and Stills No practical limit

Screen Coverage Up to 2x resolution*

* Supported minimum standard. Limits may vary.

DVE

Quantity Two 2D DVEs
Two DVEs on screen simultaneously

Sources One active source per DVE at a time
2 internal video playback channels
1 internal video playback channel and 1 live input

Control User-defined templates
Automation triggering of templates
Template-defined position and motion control
Template-defined crop and video resizing

I/O
SDI

VER-IO-SDI-IN VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE SDI LIVE INPUT, USE WITH VER-IO-SDI

VER-IO-SDI-OUT VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE SDI OUTPUT (BRANDED OR UNBRANDED), USE WITH VER-IO-SDI

VER-IO-SDI-KEY VERSIO PLATFORM: KEY AND FILL INPUT LICENSE

IP

VER-IO-IP-IN VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2022 LIVE IP INPUT

VER-IO-IP-OUT VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2022 IP OUTPUT (BRANDED OR UNBRANDED)

VER-IO-2110-IN VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2110 LIVE IP INPUT

VER-IO-2110-OUT VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2110 IP OUTPUT

VER-IO-2110-IN VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2110 LIVE IP INPUT

VER-IO-2110-OUT VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE 2110 IP OUTPUT

VER-IO-2110-IN-R VERSIO PLAYOUT SERVICE (REDUNDANT): LICENSE FOR SINGLE 2110 LIVE IP INPUT

VER-IO-2110-OUT-R VERSIO PLAYOUT SERVICE (REDUNDANT): LICENSE FOR SINGLE 2110 IP OUTPUT

CMP

VER-IO-CMP-IN VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE LIVE COMPRESSED INPUT

VER-IO-CMP-OUT VERSIO PLAYOUT SERVICE: LICENSE FOR SINGLE COMPRESSED OUTPUT (BRANDED OR UNBRANDED)

OPTIONS
AUDIO

VER-PLY-OP-ALA	VERSIO PAYOUT SERVICE: LICENSE FOR VERSIO ADVANCED AUDIO - LINEAR ACOUSTIC AERO
VER-PLY-OP-ANL	VERSIO PAYOUT SERVICE: LICENSE FOR VERSIO ADVANCED AUDIO - NEILSEN RATINGS
VER-PLY-OP-ATR	VERSIO PAYOUT SERVICE: LICENSE FOR VERSIO ADVANCED AUDIO - TRACK SHUFFLER
VER-PLY-OP-AUD	VERSIO PAYOUT SERVICE: LICENSE FOR VERSIO ADVANCED AUDIO - DOLBY DTS UP DOWN MIX
VER-PLY-OP-DED	VERSIO PAYOUT SERVICE: LICENSE FOR DOLBY E DECODE FROM A SINGLE DIGITAL STREAM TO 6 OR 8 CHANNELS

VANC

VER-PLY-OP-ANC	VERSIO PAYOUT SERVICE: LICENSE FOR VANC PROCESSING AND INSERTION
----------------	--

CAPTIONS

VER-PLY-OP-CAP	VERSIO PAYOUT SERVICE: LICENSE FOR VERSIO CAPTION ENGINE
VER-PLY-OP-EEG	VERSIO PAYOUT SERVICE: LICENSE FOR EEG ICAP LIVE CAPTION INSERTION
VER-PLY-OP-CBN	VERSIO PAYOUT SERVICE: LICENSE FOR OPEN (BURNT IN) CAPTIONS FROM LIVE CLIP ANC
VER-PLY-OP-CBN-R	VERSIO PAYOUT SERVICE: (REDUNDANT): LICENSE FOR OPEN (BURNT IN) CAPTIONS FROM LIVE CLIP ANC

SCTE

VER-PLY-OP-DPI	VERSIO PAYOUT SERVICE: LICENSE FOR VANC PROCESSING AND INSERTION
----------------	--

EAS

VER-PLY-OP-EAS	VERSIO PAYOUT SERVICE: LICENSE FOR EMERGENCY ALERT SYSTEM
----------------	---

PRESET

VER-PLY-PST-OUT	VERSIO PAYOUT SERVICE: LICENSE FOR SINGLE PRESET OUTPUT
-----------------	---

UHD

VER-PLY-OP-UHD	VERSIO PAYOUT SERVICE: UHD PLAYBACK & ENCODE CHANNEL LICENSE
----------------	--

AUTOMATION

VER-AUT	VERSIO AUTOMATION: VERSIO AUTOMATION ENGINE
VER-AUT-ADC	ADC AUTOMATION CHANNEL, SOFTWARE ONLY. A SINGLE LINEAR CHANNEL
VER-AUT-D	VERSIO PLATFORM: D-SERIES SOFTWARE AUTOMATION CONTROL LICENSE; ONLY VALID WITH VER-CORE-D
VER-AUT-OP-EX	VERSIO AUTOMATION EXTERNAL DEVICE CONTROL - SEE SUPPORTED DEVICES
VER-AUT-OP-INT	VERSIO AUTOMATION: INTEGRATION SERVICE ALLOWS 3RD PARTY SCHEDULE INTEGRATION VIA BXF MESSAGE EXCHANGE
VER-AUT-OP-TRAF	VERSIO AUTOMATION: TRAFFIC TRANSLATOR, PARSE EXISTING TRAFFIC FILE

REDUNDANCY

VERSIO REDUNDANCY SITE LICENSE. ONE PER ADDITIONAL LOCATION

MASTER CONTROL

VER-MCS-SWP	VERSIO MASTER CONTROL: CORE MASTER CONTROL SOFTWARE PANEL - INCLUDES MASTER CONTROL SERVICE
VER-MCS-OP-LIVE	VERSIO MASTER CONTROL: LICENSE FOR MASTER CONTROL LIVE PANEL
VER-PLY-OP-MCS	VERSIO MASTER CONTROL: LICENCE PER CHANNEL, ENABLES MANUAL CONTROL OF VERSIO SWITCHER AND GRAPHICS

WORKFLOW

VER-WFL	VERSIO WORKFLOW: VERSIO ADVANCED WORKFLOW ENGINE
VER-WFL-OP-CLI	VERSIO WORKFLOW: ENTERPRISE WORKFLOW CLIENT APPLICATION
VER-WFL-OP-DES	VERSIO WORKFLOW: ENTERPRISE WORKFLOW DESIGNER APPLICATION
VER-WFL-OP-PRO	VERSIO WORKFLOW: WORKFLOW THIRD PARTY PROCESSING & QC PLUGIN
VER-WFL-OP-STO	VERSIO WORKFLOW: STORAGE & THIRD PARTY TRANSFER WORKFLOW PLUGIN
VER-WFL-OP-WF1	VERSIO WORKFLOW: ADDITIONAL CUSTOM WORKFLOWS, SERVICES SOLD SEPARATELY
VER-WFL-OP-WF3	VERSIO WORKFLOW: ADDITIONAL 3 CUSTOM WORKFLOWS, SERVICES SOLD SEPARATELY
VER-WFL-OP-WF5	VERSIO WORKFLOW: ADDITIONAL 5 CUSTOM WORKFLOWS, SERVICES SOLD SEPARATELY

CORE

VER-CORE-SVC	VERSIO PLATFORM: CORE SERVICE LICENSE FOR VERSIO CENTRAL SERVICES
VER-CORE-ADC	ADC BASED VERSIO INTEGRATED PLAYOUT SYSTEM CORE SERVICES BUNDLE (SOFTWARE ONLY)
VER-CORE-D	D-SERIES BASED VERSIO INTEGRATED PLAYOUT SYSTEM CORE SERVICES BUNDLE (SOFTWARE ONLY)
VER-PLY-OP-CLI3	VERSIO WORKFLOW: CLIENT LICENSE PACK - THREE PACK
VER-PLY-OP-PXY1	VERSIO CONTENT PORTAL: LICENSE FOR SINGLE PROXY ENCODE CHANNEL
VER-WFL-PXY-ENG	VERSIO WORKFLOW (V4.0 AND ABOVE) ADDITIONAL PROXY TRANSCODE ENGINE. REQUIRES VER-CORE-SVC

HARDWARE	
VER-HW-MCS-PNL	VERSIO MASTER CONTROL: MASTER CONTROL HARDWARE PANEL, INCLUDES HW, MASTER CONTROL SERVICE & PANEL
SERVER PLATFORM	
VER-HW-1UG10-[A,C,D,E,F,G]	VERSIO 1RU MULTIPURPOSE APPLIANCE. 2x CPU (various performance tiers [A-G], 64GB, REDUNDANT OS SSD
VER-HW-2UG10-[A,C,D,E,F,G]	VERSIO 2RU MULTIPURPOSE APPLIANCE. 2X CPU (various performance tiers [A-G], 64GB, REDUNDANT OS SSD
VER-HW-1UG10-2	VERSIO 1RU MULTIPURPOSE APPLIANCE. 2X16-CORE 2.9GHZ CPU, 128GB, REDUNDANT OS SSD
VER-HW-2UG10-2	VERSIO 2RU MULTIPURPOSE APPLIANCE. 2X16-CORE 2.9GHZ CPU, 128GB, REDUNDANT OS SSD
VER-HW-DDR-16G-29	VERSIO MEMORY MODULE. QTY(1) 16GB SINGLE-RANK DDR4-2933 FOR HPE 1RU AND 2RU PLATFORMS
GPU KIT	
VER-HW-GPU-[P400, P600, P4000]	VERSIO GPU KIT - NVIDIA QUADRO [P400, P600, P4000] AND POWER HARNESS FOR HPE 1RU OR 2RU PLATFORMS
VER-HW-GPU-[P5000, P6000]	VERSIO GPU KIT - NVIDIA QUADRO [P5000, P6000] AND POWER HARNESS FOR HPE 2RU PLATFORMS
HDD KIT	
VER-HW-HDD-[1T, 2T]	MEDIA HDD KIT, 1X [1TB, 2TB] 2.5" ENTERPRISE, ORDER 1X, 4X, 8X, OR 16X AS NEEDED
MEMORY	
VER-HW-DDR-[8,16,32]G-24	VERSIO UPGRADE OR REPLACEMENT MEMORY MODULE. QTY(1) [8,16,32]GB SINGLE-RANK DDR4-2400 FOR HPE 1RU AND 2RU PLATFORMS
VER-HW-DDR-[8,16,32]G-26	VERSIO UPGRADE OR REPLACEMENT MEMORY MODULE. QTY(1) [8,16,32]GB SINGLE-RANK DDR4-2666 FOR HPE 1RU AND 2RU PLATFORMS
SSD KIT	
VER-HW-SSD-[240G, 480G, 960G, 19T, 38T]	MEDIA SSD KIT, 1X [240GB, 480GB, 960GB, 1.92TB, 3.8TB] 2.5" SSD, ORDER 1X, 4X, 8X, OR 16X AS NEEDED
I/O PCI INTERFACE	
VER-HW-2UIO-SDI	VERSIO PLAYOUT SERVICE: SDI PLAYOUT PACKAGE FOR 2RU INCL MA500 UP TO 6IN 6OUT
VER-HW-1UIO-SDI	VERSIO PLAYOUT SERVICE: SDI PLAYOUT PACKAGE FOR 1RU INCL MA500 UP TO 6IN 6OUT
VER-HW-MXIO-IP-D	VERSIO 2110 I/O PLAYOUT PACKAGE
NIC	
VER-HW-NIC-10GI	INTEL 82599 2-PORT 10GBE LOM NIC FOR HP 1RU AND 2RU PLATFORMS
VER-HW-NIC-10GTI	INTEL X540 2-PORT 10GBASE-T LOM NIC FOR HPE 1RU AND 2RU PLATFORMS. INCLUDES 2X CAT-6A CABLES
VER-HW-NIC-10PTI	INTEL X540 2-PORT 10GBASE-T PCI NIC FOR HPE 1RU AND 2RU PLATFORMS. INCLUDES 2X CAT-6A CABLES
VER-HW-NIC-1X100PI	1-PORT 100GBE PCIE NIC FOR IMAGINE 1RU AND 2RU. ALL CABLING SOLD SEPARATELY. MAX 56GBPS UNIDIR IO
VER-HW-NIC-1X100PM	1-PORT 100GBE PCIE NIC FOR IMAGINE 1RU AND 2RU. ALL CABLING SOLD SEPARATELY.
VER-HW-NIC-25GM	2-PORT 25GBE LOM FOR IMAGINE 1RU AND 2RU. INCLUDES 2X 25GBPS SFP28, 2X 5M LC-LC OM4 MM FIBRE