GV AMPP
Agile Media Processing Platform

The first cloud-based SaaS platform for broadcast to fully leverage the power of elastic compute.

GV Media Universe and GV AMPP

GV Media Universe is Grass Valley’s ground-breaking vision for transitioning to the software- and cloud-based future of content creation and distribution in a safe, efficient, proven ecosystem of new operations and business practices. Designed around a comprehensive ecosystem of cloud-based tools and services that are interconnected with a range of existing solutions, partner offerings and a community of marketplaces, GV Media Universe will revolutionize the way you think about making media.

Grass Valley’s GV AMPP, the Agile Media Processing Platform is the core enabling technology of the GV Media Universe. GV AMPP is the first cloud-based SaaS platform for broadcast to fully leverage the power of elastic compute. Built for the cloud from the start, GV AMPP is specifically designed to overcome broadcasters’ long-time reliance on costly and inflexible hardware-based media systems. Using nothing more than a browser on a laptop, this revolutionary platform empowers you with unprecedented flexibility to spin up or spin down applications as needed — and to only pay for the services you use — even in traditionally costly live production environments.

The true beauty of this game-changing platform is the modular nature of the functions it supports. Specific workflow functions run on the GV AMPP platform as modules, or solutions, which are constructed from a wide range of microservices.
GV AMPP Applications

GV AMPP deploys its powerful capabilities with a series of applications that can take on nearly any media processing demand. With GV AMPP, you can continuously add functionality to enable entirely personalized and customized workflows — and the GV AMPP application collection offers a large variety of services you need to build workflows like you are used to in a traditional broadcast station or live production environment. From simple inputs and outputs to sophisticated live master control switching, GV AMPP’s application collection gives you the granularity and customization abilities that, until now, required time-consuming and expensive in-house software development.

Master Control Switching
GV AMPP Master Control unlocks new workflows with a future-proofed solution that scales with an organization’s day-to-day or even hour-to-hour requirements. GV AMPP Master Control enables easy regionalization by driving multiple outputs from a single user interface and with only one M/E, up to 16 different language and/or branding feeds can be produced. GV AMPP Master Control supports HTML5 graphics and allows a simplified on-air feed selection along with an automatic graphics trigger.
**Multiviewer**

The GV AMPP Multiviewer is a fully customizable multiviewer that allows you to create different layouts with a single click. Sources can be switched in seconds and the multiviewer editor enables you to create layouts in minutes. The GV AMPP Multiviewer also supports multiple formats.

**Recording**

The GV AMPP Recorder allows you to record any input stream in your system with just a few mouse clicks. You have the choice of a large variety of profiles and formats and can stream to either a local disk or S3 bucket.

**Inputs/Outputs**

GV AMPP supports all common local input and output formats including SMPTE ST 2110, NDI and SDI for easy connecting to your existing devices. Global inputs and outputs allow you to stream between different GV AMPP fabrics and lets you choose the best possible transport for low-latency and high-quality streaming. Supporting RIST, ICE and SRT, GV AMPP gives you a wide variety of profiles to fit your needs.
**Clip Player**
The GV AMPP Clip Player allows you to perform all the tasks of a video server. Easily load, play, stop and start, jog and shuttle, loop or trim clips. You can also change formats and run simple playback with a single click, making this tool an easy-to-use application for your production.

**Graphics**
The GV AMPP Graphics app makes it easy to add HTML5 graphics to your production. Just build your graphics and add the link to your application. You can access it across the entire system.
GV AMPP Tools

A collection of system tools to monitor, adjust and control the state of your system including resource management, routing, flow monitoring and signal testing.

Resource Manager
At the heart of these system tools is the GV AMPP Resource Manager. This tool allows you to start and stop the system and create, start and stop workloads. It also allows you to select where you want a workload to run and then track its performance.

Routing Panels
With a single click you can set up GV AMPP Routing Panels and route your signals where they need to go. It automatically detects all available signals that are running on a node and makes it easy to change the view to what you want to see.

Testing
This built-in test signal generator comes with a variety of test signal parameters enabling testing across the entire fabric.
Flow Monitor
Boosted with innovative WebRTC technology, each GV AMPP Flow Monitor enables low-latency live streaming from anywhere.

GV AMPP Delay
The GV AMPP Delay app makes it easy for you to correct any errors in your production and to delay your video and audio flows. Just route the signal you want to delay and add the delay time.
GV AMPP GV.UI

GV.UI is an intuitive user interface that can host multiple HTML5 web components for an at-a-glance view of all your GV AMPP applications. Easily define and build your own interface and then create, load and save different layouts suited for any production and user.

Depending on your screen size, you can add a multiviewer next to your master control switcher, add several clip players or simply have one GV AMPP application running on a small display.

GV AMPP Stack

Independent Platform Deployment
The Agile Media Processing Platform is a fully software-based solution that runs in any data center or cloud environment. It supports a modular, efficient approach to everyday broadcast workflows such as live production, playout automation, asset management, signal processing and master switching.

GV AMPP gives broadcasters the power to easily transition to cloud- and data center-based operations because it addresses the concerns that complicate IP and cloud deployments — particularly network connectivity and latency.

GV AMPP enables easy, elastic content creation and storytelling from anywhere for any kind of live and non-live storytelling, content discovery and delivery.

Live Suite | Production Suite | Playout Suite
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AMPP Solutions
(Comprised of multiple apps)
AMPP Apps
(Acquired through app store)
AMPP Platform
Data Plane
(Customer account in public cloud or on-premises)

Solutions
Apps
Platform
Data Plane
(Acquired through app store)
(Comprised of multiple apps)
(Customer account in public cloud or on-premises)
GV AMPP’s architecture is based on five core technologies and 17 patented advancements

**GV Intelligent Media Fabric:** Unique management for distribution of digital media (video, images, audio and metadata).

**GV Intelligent Media Connect:** Unique management for connections between devices that distribute and process digital media (video, images, audio and metadata).

**GV Intelligent Media Timing:** Unique management for the timing of digital media (video, images, audio and metadata).

**GV Intelligent Media Identity:** Unique management the identity of connected devices that process and distribute digital media (video, images, audio and metadata) and manage the identity of the digital media (video, images, audio and metadata) itself.

**GV Intelligent Media Streams:** Unique management for processing digital media (video, images, audio and metadata) based on the media, itself.

Unique Software Media Processing Boosts AMPP Platform Capabilities

An extensive set of microservices and our latest software processing tools enable GV AMPP applications, file-based workflows, and streaming in real time and non-real time. The virtualization and cloud-friendly core services allow for the fastest and lowest latency on the market.

**Low-latency Cloud Streaming and Monitoring**

Global low-latency streaming and the ability to always choose the right mechanism is a core function of GV AMPP. Low latency is enabled with H.264, HEVC, AAC or OPUS at any bitrate with configurable FEC and support for RIST and SRT.

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**GV AMPP Partners**

Strategic GVTA partners provide access to industry-leading solutions on a seamlessly integrated production platform, providing you with the power to create more flexible, scalable and agile workflows. Now you can focus resources on content creation rather than system configuration and maintenance.

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**Ordering**

GV AMPP is sold as a Software as a Service model (SaaS) — please contact your Grass Valley sales representative for more details.