Emergent with TVU MediaMesh®

AI-enhanced HTML5 graphics and content production platform — browser-native template creation, live playout control, and GPU-accelerated rendering deployed within TVU MediaMesh workflows.

AI-ENHANCED GRAPHICS & CONTENT PRODUCTION

TV and media production teams need to create more content faster and more efficiently. Traditional broadcast graphics rely on proprietary, rigid hardware character generators that tie operators to physical control rooms — creating bottlenecks, increasing cost, and limiting scalability across cloud and remote production workflows.

Emergent with TVU MediaMesh solves this by pairing an AI-native, browser-based graphics platform with TVU's cloud-first media infrastructure — enabling teams to build, control, and playout dynamic data-driven graphics directly within MediaMesh workflows, eliminating manual engineering friction and heavy local hardware.

SOLUTION OVERVIEW

Emergent Platform

AI-enhanced HTML5 graphics platform — Nova GFX for template creation, Pulsar GFX/MCR for live playout and scheduling, Flux for GPU-accelerated rendering to SDI, NDI, or ST 2110.

TVU MediaMesh®

Cloud-first live media infrastructure for contribution, production, and distribution. Emergent's graphics overlay live TVU feeds in the cloud, or Flux renders output into MediaMesh for global multi-format distribution.

Together, Emergent and TVU MediaMesh deliver an end-to-end cloud production with native complete graphics — from AI-driven template creation through live playout to global distribution — replacing proprietary CG hardware with a browser-native, software-defined workflow.

HTML5 CG · AI Design · WebGPU Graphics · L-Bar · Channel Origination · Cloud

HOW IT WORKS

1. **Build Templates with Nova GFX**
   Creative teams use AI-native logic to automatically ingest live data feeds and rapidly build dynamic, data-driven HTML5 graphic templates — no manual coding or asset rigging required.

2. **Render & Output with Flux**
   Flux renders the graphics directly in TVU MediaMesh where it is composited over live video, or for on premises deployments, outputs key+fill on genlocked SDI, NDI, or ST 2110, with sub -frame latency.

3. **Distribute via MediaMesh**
   TVU Applications output the composited video and graphics, combined with time aligned audio and metatada, to any target format on the fly, distributing Emergent-enhanced content globally across broadcast, OTT, and streaming platforms.

AT A GLANCE

- AI-enhanced HTML5 and WebGPU graphics authoring
- Browser-based workflow and live playout control
- GPU-accelerated rendering via Flux
- Automated data-driven tickers & CG
- Cloud or on-premises deployment
- No proprietary hardware required
- SaaS annual or usage-based pricing

JOINT HIGHLIGHTS

Signals In, Graphics Out
TVU ingests live video globally; Emergent overlays AI-driven graphics in the cloud — a complete composited signal.

Browser-Native Everywhere
Build, control, and playout graphics from any browser — no local workstation or proprietary CG hardware.

Cloud-to-Baseband Bridge
Flux renders HTML5 to genlocked SDI or ST 2110 with sub-frame latency for studio plant integration.

CONTACT

TVU Networks
info@tvunetworks.com
www.tvunetworks.com

Emergent
www.emergent.solutions

SOLUTION USE CASES

Live Sports & News CG Operations

Production teams use Pulsar GFX to trigger lower-thirds, scorebugs, and full-screen data displays during fast-paced live broadcasts — all from a web browser, overlaid on TVU-ingested feeds.

AI-Driven Template Creation

Creative teams leverage Nova GFX to instantly build dynamic HTML5 templates, using AI-native logic to automatically ingest and bind real-time data feeds — sports stats, weather, elections — without writing code.

Automated Master Control Tickers

Broadcasters deploy Pulsar MCR to feed continuous, data-driven tickers, breaking news banners, and sponsor logs across regional networks according to precise, pre-programmed schedules.

Cloud-to-Baseband Plant Integration

Facilities use Flux to pull cloud-managed graphics and deliver them as genlocked SDI (key+fill) or ST 2110 flows directly into physical studio switchers and routers — sub-frame latency.

WHY IT MATTERS

Everywhere Access

No proprietary graphics hardware. Designers and producers build templates, update fields, and trigger playlists from any browser, anywhere — while Flux handles broadcast output at the studio.

AI-Native Design Automation

Nova GFX eliminates manual coding and asset rigging. AI-native logic automatically ingests data feeds and binds them to templates — dramatically accelerating content creation.

Single Portable Template Library

One HTML5 template library bridges live newsrooms, master control rooms, and cloud video ecosystems seamlessly — same templates, same tools, any output format.

Broadcast-Grade Resilience

Stale-cache fallback ensures that if a live data feed drops during broadcast, Flux automatically holds the last known good data to keep graphics on-air without blanking.

WORKFLOW OVERVIEW — EMERGENT + TVU MEDIAMESH®

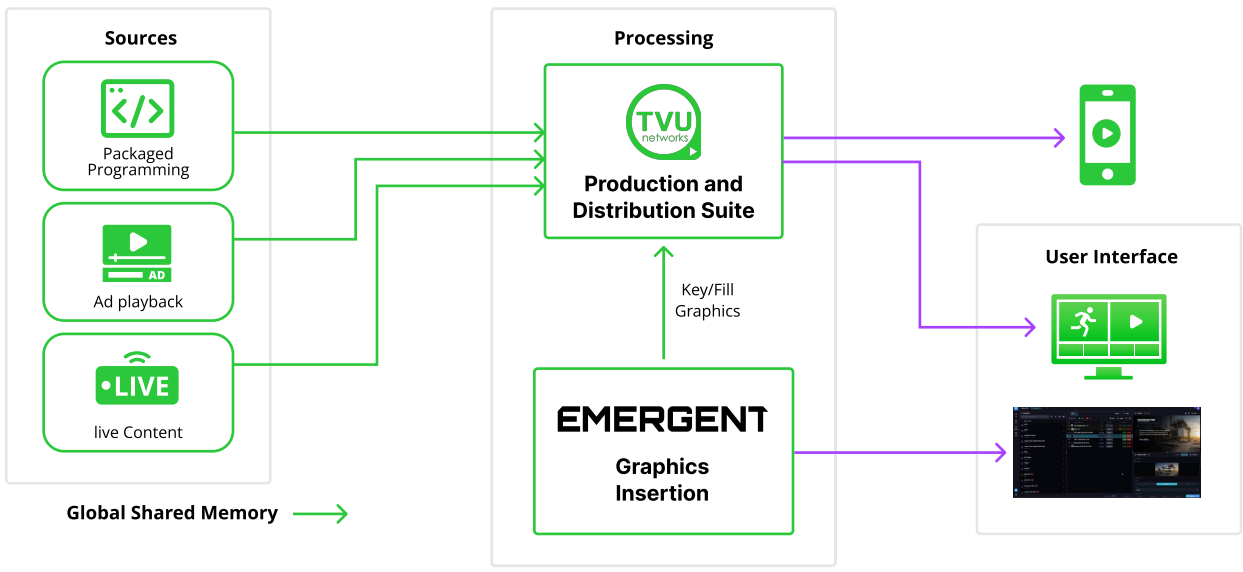

Fig. 1 — Emergent integrates with TVU MediaMesh to create an end-to-end cloud graphics pipeline. Live sources are ingested via TVU, Emergent overlays AI-driven HTML5 graphics in the cloud, and TVU MediaMesh distributes the composited output globally in any format.

TVU MediaMesh® - Every Feed. Everyone. Connected.

tvunetworks.com | emergent.solutions