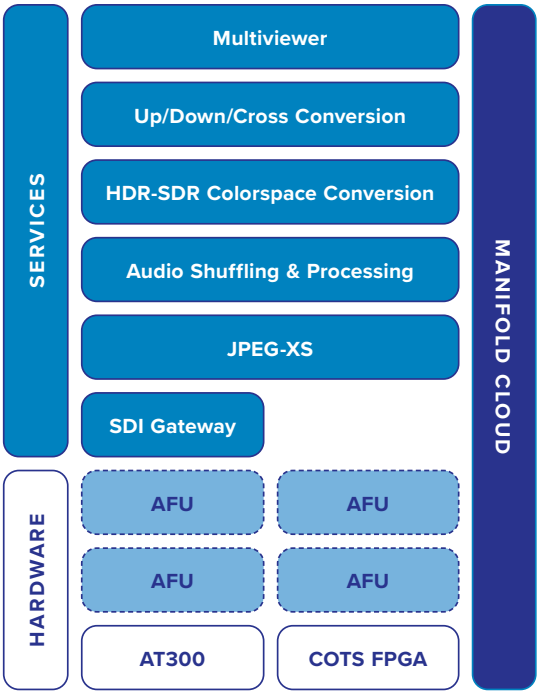
manifold CLOUD

Live Performance Cloud Intelligence



manifold CLOUD is a broadcast live production infrastructure software that runs on COTS FPGA programmable acceleration cards (PAC).

At its core, manifold CLOUD is a service-oriented software that utilizes an on-demand configurable pool of shared resources allocated within a private cloud environment.

Hardware resources (PAC) are pooled together in *clusters* which can be thought of as Virtual Private Clouds or, simply, a broadcast production. Typically, a cluster has a fixed purpose for a set period of time, such as the “6 ‘o’clock news” or the “Sunday football game.” Multiple clusters can be operated simultaneously, each with different services utilizing a shared hardware resource pool from one or more data centers.

Users operate manifold CLOUD services through a single-sign-on secure web UI which facilitates access to clusters.

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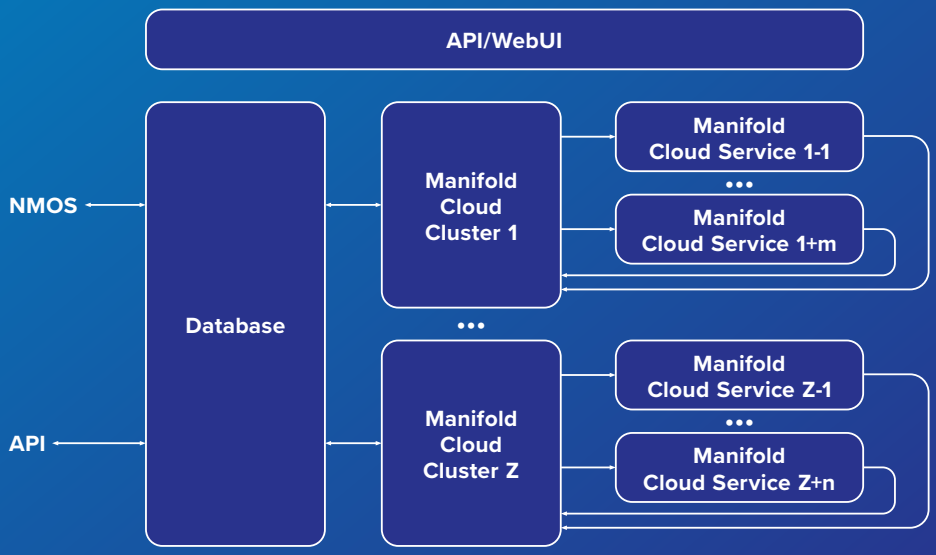
Step into the future of live production!

A manifold CLOUD cluster has two main components - *sources* and *services.* Sources are audio, video, and metadata flows in either IP or SDI and are allocated to a cluster via NMOS or API.



manifold CLOUD services are live production functionality such as compression, multi-viewing, routing, audio and video mixing, color correction and color space conversion, etc. For example, a service could be a multiviewer output *head,* an up/down/cross converter *instance,* or a JPEG-XS *encoder.* A cluster contains all the services required for a particular production.

Services usually have one or more inputs of audio/video/metadata and one or more outputs of the same. For example, an up/down/cross converter might have 1 video and metadata input and 1 video and metadata output (in another video format). Service outputs automatically become available as new sources, which can then be routed to other services or exported from the cluster.

Services are generic in that they run on any supported hardware regardless of manufacturer and are automatically instantiated on assigned PAC by manifold CLOUD. manifold CLOUD is inherently resilient and will reroute services as required upon failure.

manifold CLOUD offers the benefits of Cloud: Scalability, Commodity Hardware, Service Focus, Automatic Provisioning, Resiliency and Efficiency. All while supporting the largest live uncompressed workflows with guaranteed subframe latency for the most demanding Tier-1 productions.

KEY FEATURES

- **SERVICE FOCUS**
  Simple configuration, focus on the what not the how. Easily save productions as code.
- **EFFICIENCY**
  Power consumption is 10x lower than equivalent CPU systems.
- **AUTOMATIC PROVISIONING**
  manifold CLOUD scales linearly, as factor of the total aggregated network capacity.
- **LIVE PERFORMANCE**
  FPGA accelerators guarantee performance that meets the stringent low latency requirements of Tier-1 broadcast productions.
- **DENSITY**
  Current generation COTS FPGA PACs offer roughly 8x more density than competing platforms.
- **RESILIENCY**
  manifold CLOUD is inherently self-healing and will automatically recover from failure.

PAC TECHNOLOGY PARTNERS

arkona

BittWare a molex company

prodesign FALCON-NEST

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