

# Aviator Orchestrator

## Deploy and Manage Channels Anywhere

Aviator Orchestrator provides the core services layer for deploying, managing, and orchestrating Imagines broadcast playout channels across on-premises, cloud, and hybrid environments. It centralizes software repositories, configuration tooling, and backend services required to support modern playout infrastructure.

### Key Capabilities

- **Deployment Manager**

A built-in user interface that allows quick configuration and launch of playout engines. End-to-end provisioning, including supporting infrastructure, can complete in as little as 15 minutes.

- **Flexible Deployment Models**

Manages installation, deployment, and resource relationships with the ability to scale dynamically based on workload or business demand.

- **Dynamic Orchestration**

Enables real-time configuration of redundancy models—from single-engine deployments for disaster recovery to multi-instance, fully redundant stacks for premium high tier services.

- **Multi-Site and Hybrid Support**

Redundancy groups and engine instances can be distributed across on-premises systems, multi-region cloud environments, or hybrid combinations, supporting a “Channels Anywhere” approach.

- **Offline Operation**

Supports fully offline deployments, enabling consistent operation in secure or air-gapped environments.



#### Accelerate time-to-deployment

From configuration to playout in under 15minutes



#### Improve Resource utilization and TC

Optimize resource with dynamic redundancy



#### Consistent Operations

On-prem Cloud or Hybrid  
Consistent workflows, any environment

## Functional Modules



### Orchestrator Base

Manages the full lifecycle of playout channels, including configuration, deployment, scheduling, and control. It also hosts the core platform services required to support operations—such as software repositories, backend services, user authentication, role-based access, and deployment scripting.

- Orchestration** – Centralized control for provisioning and managing playout engines. Designed for operational flexibility, it supports dynamic channel creation, real-time redundancy configuration and scaling across cloud, on-premises, or hybrid environments
- Monitoring** – Unified monitoring system to gather telemetry and metrics from Imagine applications. Build in alerts and performance measurement dashboards simplify system and service-based monitoring..
- Logging** – Centralized logging framework that aggregates logs from Imagine applications and supporting infrastructure. Enabling real-time log access, filtering, and correlation across distributed environments to support faster troubleshooting and operational insight
- Content & Metadata** – integrated asset management toolset designed to control media acquisition and content preparation
- Workflows** – integrated workflow engine enable automate routine tasks. manages content metadata and asset locations, and can also coordinate human tasks, driving end-to-end workflows that support both automated processes and operator-driven actions



### Redundancy and Control Options

- Disaster Recovery Link** – enables multiple sites to communicate using Orchestration for Active/Passive redundancy of channels.
- Multisite Link** – connects multiple sites together for an Active/Active redundancy and control model. This facilitates the ability for either site to control channels
- ADC Link** – playlist synchronization link using ADC Automation for primary playout and Aviator Automation for disaster recovery.
- Amagi Link** – establishes a connection between Aviator Orchestration core platform services and the Amagi CLOUDPORT playout system for establishing the command and control of the Amagi channels from Aviator Automation

## Key Benefits

- **Rapid Channel Provisioning**

Start and stop channels in minutes using templated deployment — full broadcast channels can be launched in as little as 15 minutes.

- **Unified Operational Control**

Deployment, configuration, and management of playout engines, content workflows, master control and playlists through a single interface.

- **Flexible Deployment Models**

On-premises, cloud, or hybrid environments —infrastructure strategy can evolve without changing operational tools.

- **Scalable and Efficient Resource Management**

Dynamically scale infrastructure and redundancy models based on workload or business priority to reduce underutilization and improve TCO.

- **Integrated Access Control**

Built-in user role-based access authentication

- **Standards Based Integration**

Built on widely adopted IT tools and frameworks, augmented with API's to drive integration with traffic, content management and playlists.

- **Operational Observability**

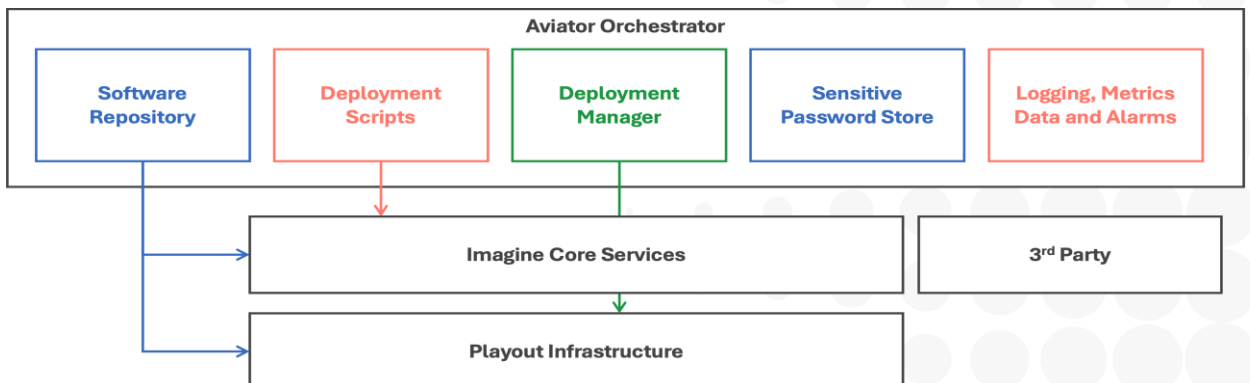
Integrated dashboards provides system status to reduce errors and accelerate issue resolution.

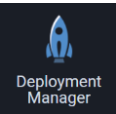
- **Accelerated time-to-market**

Pre-integrated services and scripted deployments eliminate manual setup and long project cycles, enabling faster onboarding and iteration.

- **Self Contained and Secure**

Designed to operate in closed, air-gapped, or access-controlled environments—ensuring secure deployments without the need for external connectivity

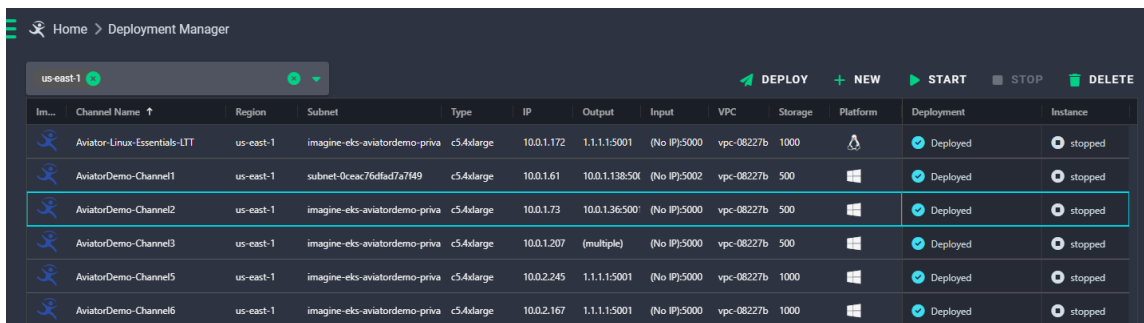




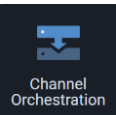
## Deployment Manager

With Aviator’s Deployment Manager you can create channels on demand, adjust configurations, or monitor the channel status on every cloud region.

- Launch channels in minutes
- Define the specifications of each channel
- Select channel allocation: regions, availability zones, and subnets
- Monitor channel deployment status
- Start & stop pop-up channels with ease
- Abstract cloud complexity



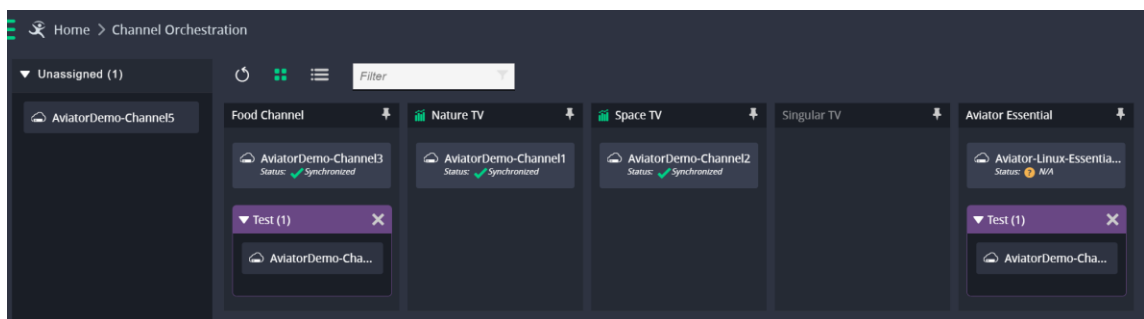
Im...	Channel Name ↑	Region	Subnet	Type	IP	Output	Input	VPC	Storage	Platform	Deployment	Instance
	Aviator-Linux-Essentials-LIT	us-east-1	imagine-eks-aviatordemo-priv	c5.4xlarge	10.0.1.172	1.1.1.15001	(No IP):5000	vpc-08227b	1000		Deployed	stopped
	AviatorDemo-Channel1	us-east-1	subnet-0ceac76dfad7a7749	c5.4xlarge	10.0.1.161	10.0.1.138:50K	(No IP):5002	vpc-08227b	500		Deployed	stopped
	AviatorDemo-Channel2	us-east-1	imagine-eks-aviatordemo-priv	c5.4xlarge	10.0.1.173	10.0.1.36:500	(No IP):5000	vpc-08227b	500		Deployed	stopped
	AviatorDemo-Channel3	us-east-1	imagine-eks-aviatordemo-priv	c5.4xlarge	10.0.1.207	(multiple)	(No IP):5000	vpc-08227b	500		Deployed	stopped
	AviatorDemo-Channel5	us-east-1	imagine-eks-aviatordemo-priv	c5.4xlarge	10.0.2.245	1.1.1.15001	(No IP):5000	vpc-08227b	1000		Deployed	stopped
	AviatorDemo-Channel6	us-east-1	imagine-eks-aviatordemo-priv	c5.4xlarge	10.0.2.167	1.1.1.15001	(No IP):5000	vpc-08227b	1000		Deployed	stopped



## Channel Orchestration

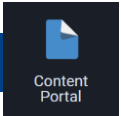
Aviator’s Channel Orchestrator is an application designed to manage channel redundancy stacks, modifying configurations with simple drag & drop operations.

- Configure different redundancy options for each channel (1+1, N+1, N+M with shared backup pools)
- Failover seamlessly to protection streams, manually or automatically
- Link new engines to existing stacks, up to 5 channels per stack
- Monitor schedule synchronization



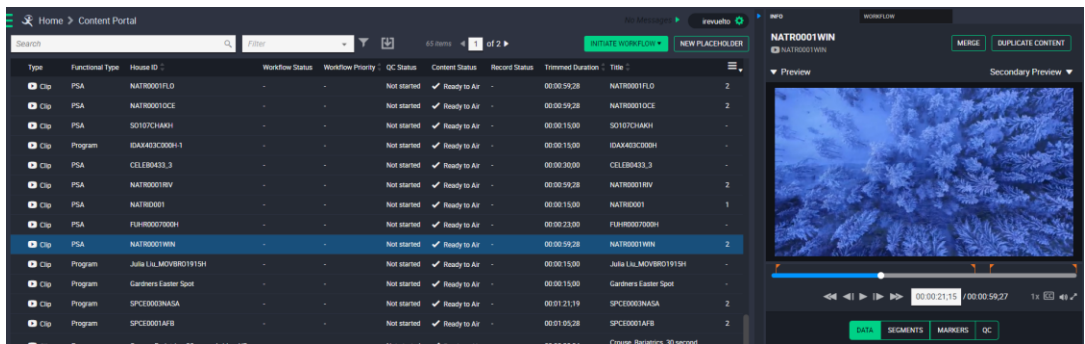
Channel Name	Status
AviatorDemo-Channel5	Unassigned (1)
Food Channel	AviatorDemo-Channel3 (Synchronized)
Nature TV	AviatorDemo-Channel1 (Synchronized)
Space TV	AviatorDemo-Channel2 (Synchronized)
Singular TV	
Aviator Essential	Aviator-Linux-Essentia... (N/A)

## Content Portal

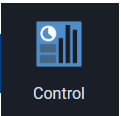


Aviator’s Content Portal is a lightweight media asset management tool that tracks assets and stores additional metadata, making sure they are ready before they can be used in automation playlists.

- Browse content inventory from multiple endpoints
- Make advanced search and filtering
- Use low-res files for content preview
- Prepare content: segmentation, trimming, transcoding, packaging
- Create content groups and restrict access
- Enable QC human tasks and markers
- Launch and monitor workflows for media import/export
- Use extensible metadata with custom properties

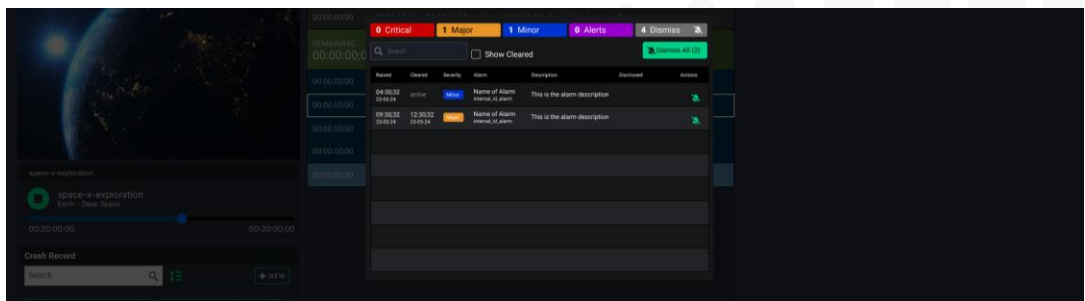


## Monitoring Control



Aviator’s Control UI allows you to build panels in a web browser. It is highly customizable and intuitive, with a collection of widgets that you can combine to create exactly the dashboard required by any operator or supervisor.

- Customize smart dashboards for every user
- Monitor channel performance and status
- Receive real-time telemetry and notification of failure states





## Aviator Management Portal Specifications

Features	Included
<b>Deployment Manager</b>	
Selection of AWS region and availability zone	✓
Monitor instance state and deployment status	✓
Selection of allocated EBS storage capacity for video content	✓
Definition of channel specifications:	✓
Define Video frame rate: PAL or NTSC	✓
Define Source of live inputs	✓
Define Destination for channel outputs	✓
Define Connection parameters to inbound and outbound flows	✓
Define Audio format options	✓
Start, stop, terminate, or reconfigure channels	✓
API Control	✓
<b>Monitoring</b>	
Custom dashboards	✓
Centralized web interface	✓
Aggregated alerts and monitoring	✓
Monitor by exception workflows	✓
Based on open-source tools: Prometheus, Grafana, cAdvisor	✓
AWS infrastructure monitoring	✓
Aviator SW services monitoring	✓
Monitor playout channels status and playlists	✓
Alerting: custom queries, reports, trigger alarms	✓
Notify by web UI, mail, pager duty, Slack, Microsoft Teams, and more	✓
Integration with 3rd party monitoring systems	✓
<b>User Rights Management</b>	
Manage user permissions for Aviator applications	✓
Authentication: log-on before connecting to the different applications	✓
Assign users to different groups: operators, supervisors, administrators	✓
Integrated with AWS Secrets Manager for credential protection	✓
User Registration.	✓
Single Sign-On across all Aviator applications	✓



## Aviator Media Management Specifications

Features	Included
Content Search & Management	✓
Workflow Engine	✓
Low-Res Browse	✓
Low-Res Caption Preview (DASH Only)	✓
Soft Segmentation	✓
Clip Trimming	✓
Metadata Markers (Markers / QC)	✓
BXF Integration (Run Sheet / Side Car Generation)	✓
Metadata Scripting	✓
Custom Metadata Fields	✓
Content Registration	✓
Low-Res Creation	✓
Missing Content Request	✓
High Watermark Automatic Purge	✓
Metadata Attachments	✓
Integrated QC Ready Status	✓
Custom Functional Types	✓
Manual Workflow Invocation & Monitoring	✓
Workflows Human Task Invocation	✓
AWS S3 Integration	✓
API Control	✓
Custom workflows	Option
3rd Party Storage & Archive (Supports SGL, Active Circle, DIVA, K2, Avid Interplay)	Option
3rd Party QC Integration & Processing (Supports: AmberFin, Telestream Vantage & FlipFactory, Tektronix (Digimetrics) Aurora, Baton, Signiant FIMS, Harmonic WFS)	Option
3rd Party Delivery Accelerator (Signiant)	Option

## Ordering Information – Aviator Orchestrator Base

SOFTWARE	
AO-BASE-SINGLE	AVIATOR ORCHESTRATOR BASE SYSTEM SERVICES SITE LICENSE - SINGLE SERVER
AO-BASE-EXP-2	AVIATOR ORCHESTRATOR BASE SYSTEM SERVICES SITE LICENSE - TWO SERVER EXPANSION
AO-AA-DR-LINK	AVIATOR ORCHESTRATOR REDUNDANT SITE LICENSE FOR BACKUP SYNCHRONIZATION BETWEEN TWO LOCATIONS
AO-ADC-LINK	AVIATOR ORCHESTRATOR SITE LICENSE FOR SYNCHRONIZING ADC TO AVIATOR AUTOMATION
AO-AA-MULTISITE	AVIATOR ORCHESTRATOR SITE LICENSE FOR MULTISITE SYNCHRONIZATION AND CONTROL WITH AVIATOR AUTOMATION
AO-AMAGI-LINK	AVIATOR ORCHESTRATOR SITE LICENSE FOR CONTROL LINK BETWEEN AVIATOR AUTOMATION AND AMAGI CLOUDPORT
AO-BASE-OPT-WFL-ADD	AVIATOR ORCHESTRATOR ADDITIONAL CUSTOM WORKFLOW, SERVICES SOLD SEPARATELY
AO-BASE-OPT-WFL-3RD	AVIATOR ORCHESTRATOR WORKFLOW THIRD PARTY INTEGRATION LICENSE
AO-BASE-OPT-PXY-ENG	AVIATOR ORCHESTRATOR ADDITIONAL PROXY TRANCODE ENGINE. REQUIRES AO-BASE-SINGLE



## Ordering Information – Supporting Hardware

HARDWARE	
AO-HW-2UG11-CORE-ESS	AVIATOR ORCHESTRATOR 2RU GEN11 ESSENTIAL CORE SERVER
AO-HW-2UG11-CORE-STD	AVIATOR ORCHESTRATOR 2RU GEN11 STANDARD CORE SERVER
AO-HW-G11-DDR-16G-48	16GB MEMORY MODULE. QTY(1) 16GB SINGLE-RANK DDR5-4800 FOR HPE GEN11 2RU PLATFORM
AO-HW-2UG11-SSD-960GB	AVIATOR ORCHESTRATOR MEDIA SSD FOR HPE GEN11, 1X 960GB 3.5 INCH ENTERPRISE DRIVE
AO-HW-2UG11-HDD-1TB	AVIATOR ORCHESTRATOR MEDIA HDD FOR GEN11, 1X 1TB 3.5 INCH ENTERPRISE SPARE DRIVE
AO-HW-2UG11-HDD-2TB	AVIATOR ORCHESTRATOR MEDIA HDD FOR GEN11, 1X 2TB 3.5 INCH ENTERPRISE SPARE DRIVE
AO-HW-2UG11-HDD-4TB	AVIATOR ORCHESTRATOR MEDIA HDD FOR GEN11, 1X 4TB 3.5 INCH ENTERPRISE SPARE DRIVE
AO-HW-2UG11-HDD-6TB	AVIATOR ORCHESTRATOR MEDIA HDD FOR GEN11, 1X 6TB 3.5 INCH ENTERPRISE SPARE DRIVE
AO-HW-2UG11-FAN	MIDPLANE FAN KIT FOR 2RU DL345 GEN11 MULTIPURPOSE APPLIANCE BASED PLATFORMS
AO-HW-G11-PS1000	SPARE POWER SUPPLY GEN11 2RU 1000W 100-240VAC TITANIUM HOT PLUG SPARE POWER SUPPLY
AO-HW-NIC-PCIE-1G	4-PORT 1GBE PCIE FOR IMAGINE 2RU HPE GEN11
AO-HW-NIC-PCIE-1025	2-PORT 10/25GBE PCIE FOR IMAGINE 2RU HPE GEN11. PURCHASE SFP CABLES AND OPTICS SEPARATELY
AO-HW-NIC-OCP-1025	2-PORT 10/25GBE OCP3 FOR IMAGINE 2RU HPE GEN11. PURCHASE SFP CABLES AND OPTICS SEPARATELY
AO-HW-2UG11-6xPCIE	6 PCIE ENABLEMENT KIT FOR HPE GEN11 2RU
AO-HW-2UG11-12LFF	AVIATOR ORCHESTRATOR 2U GEN11 12LFF DRIVE FRONT UPGRADE KIT
AO-HW-2UG11-RAID	RAID KIT FOR DL345 2RU GEN-11 SERIES SERVERS; ENABLES UP TO 12 HDD OR SSD IN RAID
AO-HW-SFP-25	1X 25GBE SFP28 OPTICAL MODULE FOR USE WITH AVIATOR ORCHESTRATOR
AO-HW-SFP-10	1X 10GBE SFP+ OPTICAL MODULE FOR USE WITH AVIATOR ORCHESTRATOR