ELEMENTAL CONDUCTOR

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Elemental® Conductor is a video network management system for file-based and live video workflow applications. The software-based solution offers high availability, secure administration and comprehensive monitoring of video encoding and delivery tasks through an easy-to-use web-based user interface. Customer-defined 1+1, N+M or N+1 redundancy provide continuous signal flow and uninterrupted service delivery. Comprehensive alerting and reporting capabilities simplify status monitoring, maintaining quality of service and providing operational confidence. Elemental Conductor delivers operational efficiencies by reducing the complexity of cluster management while enabling scalability and stability of multi-instance deployments.

EXPERIENCE THE BENEFITS

Simplified System Management Lowers Operating Expense
Manage multiple Elemental instances from a single graphical or machine to machine interface. An intuitive UI allows command and control of cluster functionality from on-site or remote locations to significantly reduce equipment costs and management overhead.

High Availability for Uninterrupted Video Service
Seamlessly detect, diagnose, contain and repair anomalies in a multi-system cluster with customer-defined 1+1, N+M and N+1 redundancy. Elemental Conductor management software automatically performs node-based failover and recovery of channels for round-the-clock uptime and guaranteed content delivery to consumers.

Reduce Configuration Complexity and Administration
REST / XML APIs and a Linux-based operating system allow for easy integration into existing operations. Predictable failover allows operators to prioritize critical channels and gain operational efficiencies.

SDV
SCALABILITY · ELASTICITY · FLEXIBILITY · AFFORDABILITY

SOFTWARE-DEFINED VIDEO

Scalability
Seamlessly add capacity to keep pace with growth

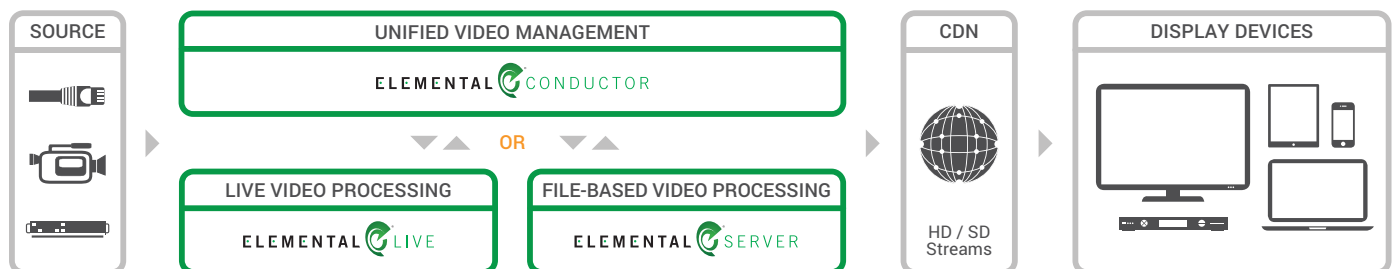**Elasticity**
Quickly adjust resources as demand fluctuates

Flexibility
Accommodate multiple workflow scenarios

Affordability
Replace capital investments with operational expenses

ELEMENTAL CONDUCTOR WORKFLOW

SOURCE	UNIFIED VIDEO MANAGEMENT		CDN	DISPLAY DEVICES
	ELEMENTAL CONDUCTOR			
	OR		HD / SD Streams	
	LIVE VIDEO PROCESSING	FILE-BASED VIDEO PROCESSING		
	ELEMENTAL LIVE	ELEMENTAL SERVER		

ELEMENTAL CONDUCTOR

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ELEMENTAL CONDUCTOR LIVE

Elemental® Conductor Live offers the features and functionality for linear workflows required by pay TV operators. Capabilities that allow multiple channels to be stopped, started and edited simultaneously simplify the management of hundreds of channels while ensuring configurations are synchronized. The combined capabilities of profile-based channel configuration and secure authentication provide confidence that channels are configured with the desired settings and only by authorized users.

ENSURE OPERATIONAL EFFICIENCIES AND UPTIME

Tasks
Start, stop and edit channels with confidence. Task-based controls provide a streamlined approach for simultaneously controlling multiple channels.

Flexible Redundancy
Intuitively configure 1+1, N+M and N+1 redundancy groups with manual or automatic redundancy switching and customer-defined channel failover conditions.

Ease of Maintenance
Reduce operational maintenance windows. Benefit from software enhancements and feature additions with centralized version control. Upgrade individual instances to verify software enhancements and feature additions before updating an entire cluster.

MAINTAIN QUALITY OF SERVICE

Profile-Based Channel Configuration
Simplify channel configuration and avoid time-consuming and error-prone tasks associated with creating video services. Provide operators the confidence channels are operating in expected configurations.

Secure Administration
Authenticated user access for system control and monitoring with configurable user levels. Audit logs are maintained for user actions and modifications, providing cluster management oversight.

Channel Monitoring
Visually preview activity on each encoder via video thumbnails. Alert and message aggregation with advanced filtering simplifies fault management.

Real-Time Controls
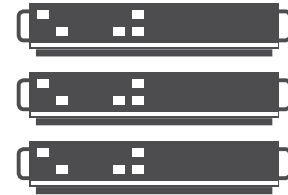A web-based user interface enables real-time system controls for linear video delivery.

ELEMENTAL CONDUCTOR FILE

Elemental® Conductor File provides centralized control and management for on-demand video processing and delivery workflows. The software-based solution offers high availability, secure administration and comprehensive monitoring of multiple Elemental instances through an easy-to-use web-based UI.

COMPREHENSIVE MONITORING AND MANAGEMENT

Reduce Management Overhead
Use REST / XML APIs, the web-based interface, or watch folders for tasks such as system setup, CMS integration, job queuing, and job prioritization. Simplify operations by reducing the total number of instances in use and manage the platform through built-in tools or SNMP.

Manage Peak Demand
Seamlessly augment physical data centers with cloud-based resources. When peak requirements outpace on-premise video processing capacity, Elemental Conductor File coordinates job allocation with Elemental® Cloud to meet video processing demands.

Node Management
Centralized and intuitive web UI for transcoding node management. Configure network settings, cluster mount points, firewall and advanced settings or manage software version control for nodes in the cluster.

High Density Video Processing
Convert content with unprecedented speed and throughput. A unique software architecture provides maximum performance and scalability. Jobs are submitted to Elemental Conductor File, which manages the queue as jobs are dynamically retrieved by transcoding resources.

System Monitoring
Monitor all video processing instances simultaneously from any location on the network. Verify system health for individual encoding units and transcoding tasks in operation.

License Management
Flexible license provisioning on an individual or cluster basis.

Redundancy Management
In the case of a power failure or other unexpected system interruption, Elemental Conductor File returns jobs in process back to the queue for transcoding by another Elemental® Server system.

SPECIFICATIONS

Encoder Control
Live Content:
Create Channels
Start Channels
Stop Channels
Delete Channels
Schedule Events
MPTS Management
File-Based Content:
Start Jobs
Cancel Jobs
Archive Jobs
Cloudburst

Scalability
Redundancy
1 + 1
N + 1
N + M
Simulated Switchover
Cold Backup

System Control
Add to Cluster
Remove from Cluster
View all Nodes
Assign Node Priority
Monitor Cluster Status
Configure Redundancy

Communication
Protocol
REST / XML APIs
HTML-based UI
SNMP

Alerts & Messages
On-Demand Device Polling
SNMP Trap Selection
Alert Email Notification
Configurable Alerts
Alert History

Physical & Power
CentOS Linux
Redundant Power Supply
120V / 240V 40-69Hz
Dual Gigabit Ethernet
Redundant HDD

Other Features
Pooled Licensing
Profile Parameters
Schedule Backups
Load Balancing
Push Upgrades