MediaKind Management Controller

Overview

MediaKind Management Controller mS is the MediaKind micro-services solution for **controlling MediaKind products**: Encoding Live, On Demand, Packaging, Stream Processing, Content Processing.

It addresses key operational challenges: **Optimize time to market, reduce operational complexity, manage changing environments and cost control.**

It is **ideal** for managing IP solutions, and can be complemented by an Umbrella management system when larger ecosystems are considered (for example SDI routers, output switches, 3rd party device).

The product provides a **centralized configuration and control interface**, **manages failover** for Encoders, and offers a **flexible licensing management** for MediaKind applications.

Main Benefits

A centralized configuration and control for MediaKind products to provide an immediate overview of the entire solution.

A failover capability to ensure high availability for Encoding Live.

A service driven approach for a flexible allocation of resources providing better granularity than device based configuration.

A template mechanism that allows production teams to leverage preparation activities in the lab, and during pre-production.

An improved Web UI shared across all supported products including embedded help tools designed to reduce training investments.

A flexible licensing feature removing node-locked restrictions.
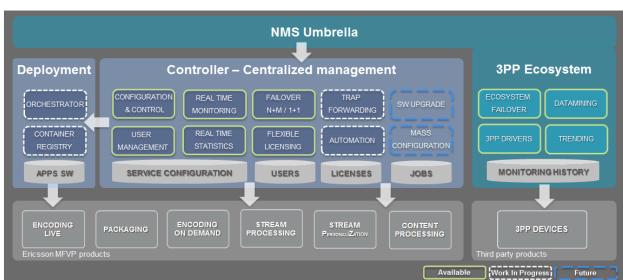
Supported MediaKind Products and Features

Features	Encoding Live	Stream Processing	Packaging	Encoding On-demand	Encoding / Stream Processing Custom	Content Processing

Service management

	Encoding Live	Stream Processing	Packaging	Encoding On-demand	Encoding / Stream Processing Custom	Content Processing
Service configuration	From V8.0	From V2.0	From V8.0	From V5.0	From V11.4 unit based	All releases
Service alarms	From V8.0	From V2.0	From V8.0	Planned	From V11.4 unit based	All releases
Start/stop service	From V8.0	From V2.0	From V8.0	From V5.0	From V11.4 unit based	All releases
Service statistics	From V8.0	From V2.0	From V8.0	From V5.0	From V11.4 unit based	
Templates	From V8.0	From V3.1		Planned		

Resource management

	Encoding Live	Stream Processing	Packaging	Encoding On-demand	Encoding / Stream Processing Custom	Content Processing
Resource assignment	From V8.0	From V2.0	Pool defined at installation	From V5.0	From V11.4 unit based	All releases
Server statistics	From V8.0	From V2.0	From V8.0	From V5.0		All releases
Server alarms	From V8.0	From V2.0	From V8.0	From V5.0		
Server usage	From V8.0	From V2.0	From V8.0	From V5.0	From V11.4 unit based	

System management

	Encoding Live	Stream Processing	Packaging	Encoding On-demand	Encoding / Stream Processing Custom	Content Processing
Licensing	From V8.1	From V3.1	From V8.1 (node-locked)	From V5.1	n/a	All releases
High Availability	Failover V8.1 1+1 in V10.0	Active/Active	LoadBalancing	LoadBalancing V5.1	From V11.4 unit based	

Administration

	Encoding Live	Stream Processing	Packaging	Encoding On-demand	Encoding / Stream Processing Custom	Content Processing
User management	From V8.1	From V3.0	From V8.0	From V5.1	From V11.4	
Back up/restore	From V8.1	From V3.0	From V8.1	From V5.0	n/a	All releases

Architecture Overview
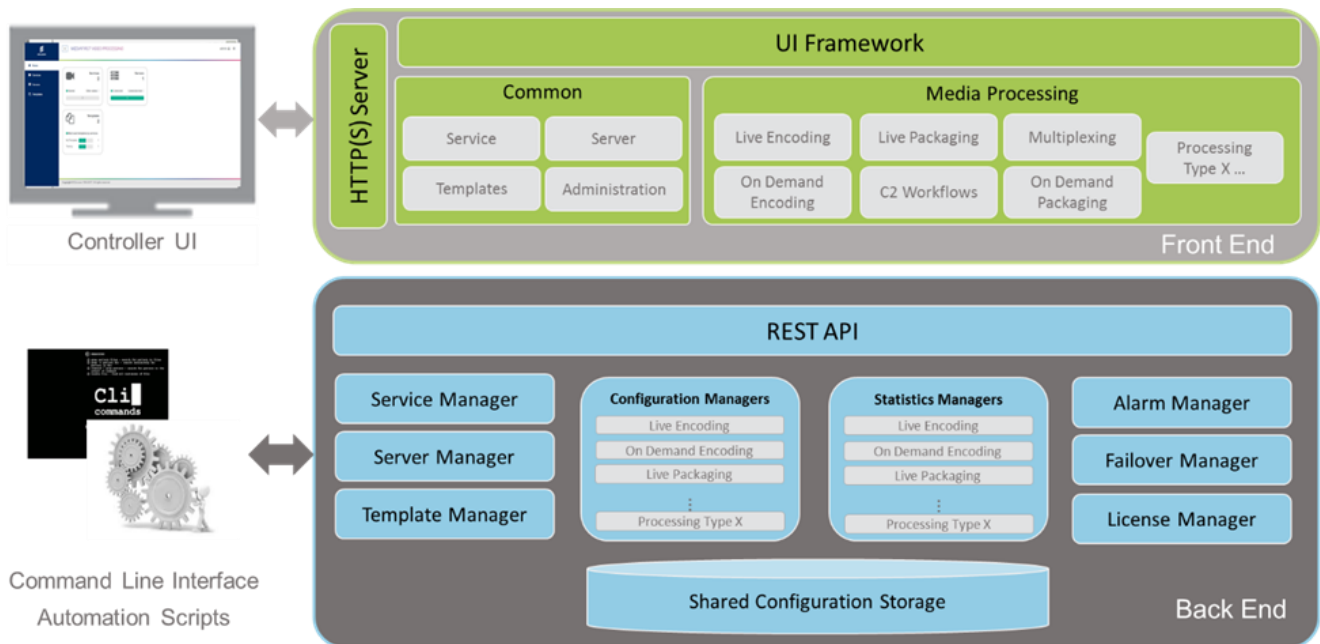
Controller Redundancy

The Management Controller failover feature supports an **active/active implementation** that ensures high availability in case of primary server failure. If failure occurs, the **Virtual IP is automatically re-assigned to the secondary server**.

The Controller **database is synchronized in real time** between both nodes so that in case of failure, the remaining node is ready to process requests.

Management Controller Feature Set

Standard Features

Web UI access	Home dashboard with widgets (overview)
Services configuration & control	Service-based configuration Resource assignment Split service on several servers (for EL) Real-time monitoring (alarms and statistics) Switching control for 1+1 deployments (EC and SPC)
Servers (resources) management	Servers list Servers settings Real-time statistics monitoring (CPU, RAM, I/O Network, Disk usage per volume)
Monitoring UI	Alarm banner, Dashboard widget System-wide alarms (active, history)
Templates	Template creation from service New service creation from template

Failover management for Encoding Live	1+1 (active/active) N+M (primary/backup) Manual failover Automatic failover with configurable triggers Manual revert to primary Failover groups configuration and control Failover real-time and history UI reports
Felixible Licensing Management	Floating licenses delivery to MFVP applications Pool of rights shared across applications Re-allocation of rights from one server to another License types: Permanent, Time-limited
REST API access	Configuration and control Alarms Statistical data

Administration Features

Backup and Restore	Data scope: services, servers, templates, users Local backup (up to 30 files from circular list) Remote backup (secure FTP) Manual backup (immediate) Scheduled backup (hour, day, week) Restore backup (timestamp selection)
User Management	Local users management User groups and permissions Pre-defined groups: Admin, Monitoring, Configuration LDAP / ActiveDirectory support (external server interface for identification and authentication)
SNMP Trap Forwarding (new)	Multi SNMP destinations SNMP v2c, v3

Configuration & Dimensioning

Deployment patterns	Stand-alone: single server, non redundant Distributed: dedicated server, redundant controller (1+1) Up to 500 services / 100 servers per controller OS: Linux CentOS (version 6 or 7 depending on context)
Security and Access Control	HTTPS support API authentification Web UI login / password

Configuration & Dimensioning

Web browsers access	Responsive UI optimized for a 1366x768 resolution Chrome (v46 and above) : recommended IE (v11 and above) Firefox (v41 and above)

Reference Hardware

Specifications	Intel Xeon E5-2660 v3 2.2Ghz (or pass mark > 18000) 32GB RAM 160GB disk drives Ethernet – 2 x 10/100/1000