

Video Content Manager (VCM)

Content Operations and Management System

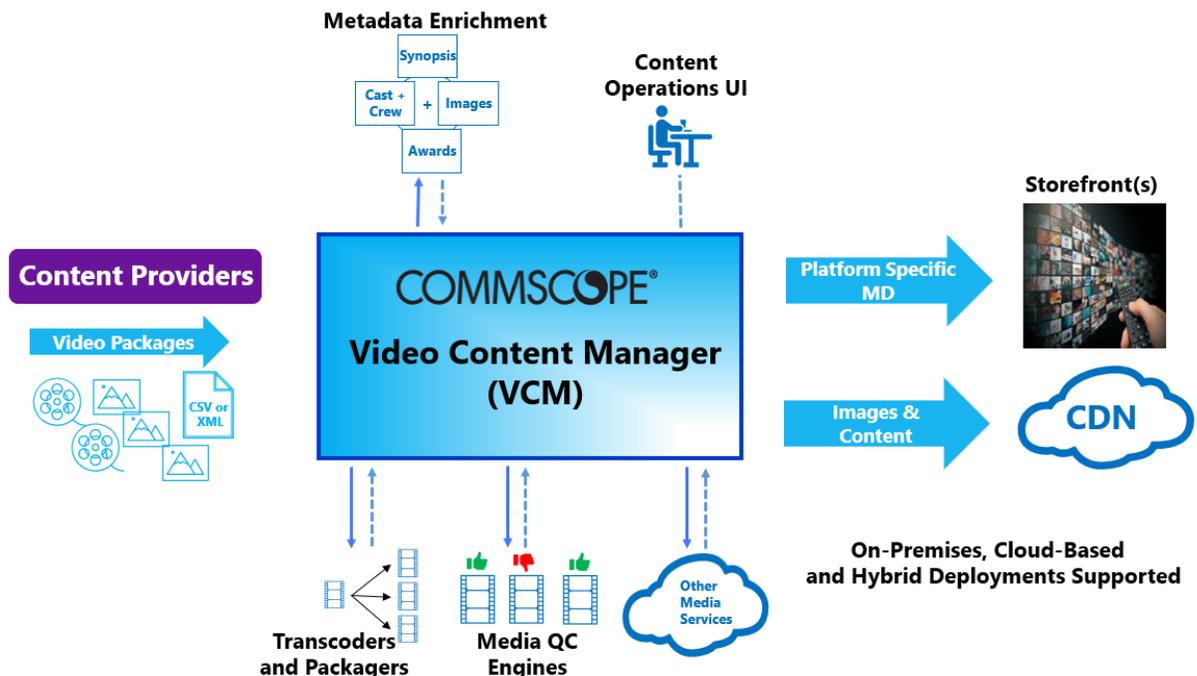
Enabling Optimized and Efficient Content Operations

BUSINESS ADVANTAGES

- Quickly launch Video On-Demand (VOD) and non-linear video services:
 - Free
 - Ad Supported
 - Transactional (Rental/Purchase)
 - Subscription
 - Catch-Up
- Consistent refresh of content catalogs
- Bundle creation and management
- Consolidate and optimize Video Operations across all services into one system
- Reduce Total Cost of Ownership (TCO)
- Leverage on-premises and Cloud media processing systems
- Flexible workflows and integrations
- Enables aggregated catalogs
- Enables rapid growth of catalogs

CommScope’s Video Content Manager (VCM) is a field-hardened, highly configurable, purpose-built system that optimizes content operations and enables efficient management of diverse catalogs necessary to provide customers with a superior video storefront experience.

- VCM’s **robust architecture** can be scaled to handle catalog sizes of over a million (**1,000,000+**) assets and can be deployed **on-premises**, in a **private or public cloud**, and in a **hybrid** environment.
- VCM optimizes ingest, normalization, and distribution processing by using rules, auto resolutions, and Artificial Intelligence (AI).
- VCM includes **well-established integrations** to many systems to handle media transfer, ingestion, analysis, transcoding, quality control checks, packaging, archive, and distribution. New integrations can be quickly added.
- VCM supports **multiple monetization paradigms**, varied metadata formats, and robust workflows.





VCM FEATURES

Flexible Deployment and Integration

- Can be deployed **on-premises**, in a **private cloud**, in a **public cloud**, or in a **hybrid** environment.
- Integrates with **media processing engines from multiple vendors** that can either be on-premises or cloud-based.

Extensibility and Scalability

- Built using containerized **micro-services architecture** that supports both vertical and horizontal scaling.
- Supports IPTV, Satellite, OTT, and streaming services.

Metadata and Content

- Handles metadata, artwork, previews, and media.
- Supports SCTE-236, ADI 1.1, ADI 3.0, and other custom metadata formats (XML, CSV, XLS, JSON).
- Configurable interface for **metadata field mapping, validation, and normalization**.
- Configurable **business rules** to automatically address metadata variations.
- Supports **multi-language** metadata, images and audio tracks.
- **AI integration** to help with description translation, summarization, and verification.
- Rule-based inclusion of disclaimer, advisory verifications, audio and video designations based on rating, format, and configuration.
- Produces low-resolution version of ingested content for proxy video viewing.

Enhanced Monetization

- **Catalog Aggregation** – Federate catalogs across owned and operated and third-party video services.
- **Offer and Pricing** – Offers can be defined either based on the metadata passed by the Content Provider, using onboarding configuration or manually by the operator. The VCM supports free (FVOD), ad-sponsored (AVOD), subscription (SVOD), and rental and purchase transactional (TVOD) services.
- **Dynamic Ad Insertion** – Ingests metadata with Ad Breakpoints and facilitates the encoding of ad markers in the content to support Dynamic Ad Insertion.
- **Advertising Content** – Manages advertisement metadata, creatives, assets, and integration with advertising platforms.
- **Content Promotion** – Supports bundles, automatic promotion creation, and variable placement of content into the storefront categories to help drive customer traffic, views, and sales.
- **Rights and Terms** – Supports content rights for multiple platforms and multiple languages.

Open APIs

- VCM exposes a rich set of REST APIs that can be used to extend VCM's capabilities and integrations.

Efficient Content Management Operations

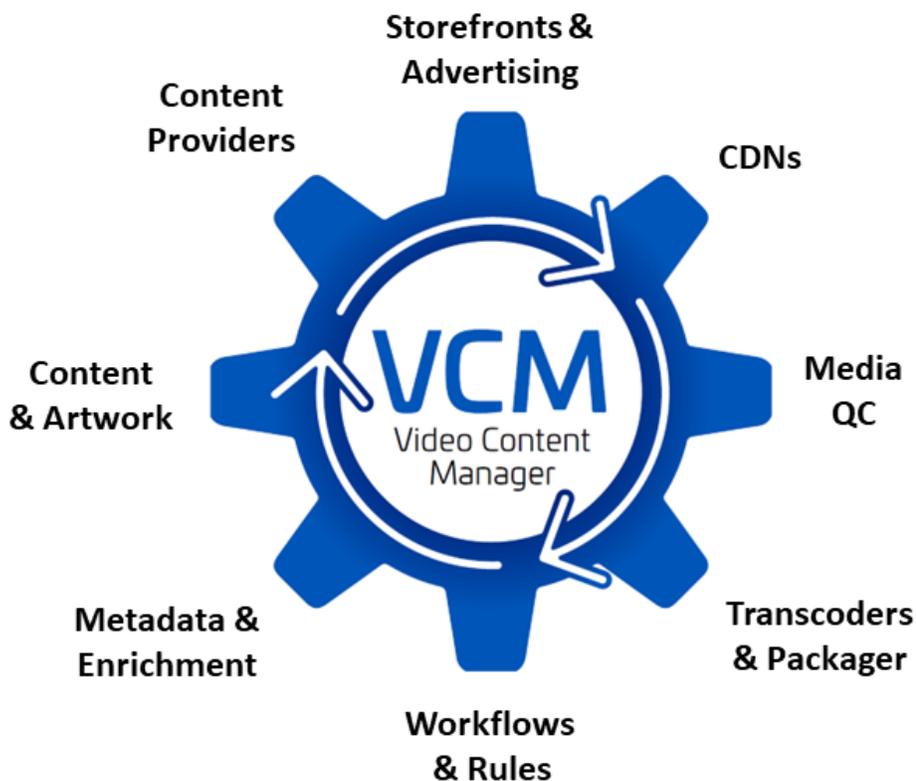
- Modern and intuitive User Interface (UI).
- Supports a variety of operational roles.
- Configurable rules to drive media transcode and quality control processing.
- Configurable **engine and profile selection for media processing** to support downstream distributions.



FEATURES CONTINUED

Flexible Workflows and Automation

- Provides **flexible workflow and integration** for VOD ingestion, preparation (validation, transcode, QC, encrypt), and publication to downstream systems.
- Allows **modification of delivered workflows in the field** to support new integrations or enhancement to existing integrations.
- **Resizes artwork** to meet the image requirements of the downstream platforms.
- Supports Off-Line Packaging and Just-In-Time Packaging (JIT-P) Engines.
- Publishes to **multiple Content Distribution Networks (CDNs)** using configurable Distribution Rules.
- Enables **automated resolutions for reoccurring problems**, saving time from performing repetitive manual tasks.
- Allows the configuration of **automatic quality checks** on ingested content and post transcoded content.
- **Protects against rating violations and accidental adult content placement within catalog.**
- Supports Human Task Queues.





FEATURES CONTINUED

Automated Content Archiving

- Supports **content archiving**. VCM manages storage by backing up content for cost efficient long-term storage and automatic cleaning up of working storage.
- Archives ingested content to **cloud-based or on-premises storage**. Relieving the need to repurchase content from Content Providers.

Leveraging AI for Operational Efficiency

- Leverages AI for synopsis rewording, metadata translation, metadata enrichment, content analysis, rating verifications, automated problem resolution and better on-time delivery of content.

Metadata Enrichment

- VCM integrates with **third-party metadata enrichment services** such as Gracenote, Rotten Tomatoes, and Cinoche. VCM matches ingested titles to augment metadata attributes to enable a superior user experience.

Integration, Verification, and Publishing to Downstream Systems

- Delivers metadata, content, and artwork to the downstream systems. Delivery confirmation and verifications can be included as needed.

Designation of Operational Ownership by Content Provider and/or Rating

- Enables **operational ownership** of content such as the handling of adult versus non-adult content placement in the storefront.

Test Automation Framework

- **Automated test framework** available for field system and integration testing. This framework can also be used to automate regression test for new releases.
- Allows continuous engagement, operational efficiency, and continuous upgrades on-premises or in cloud-based environment.

Online Documentation

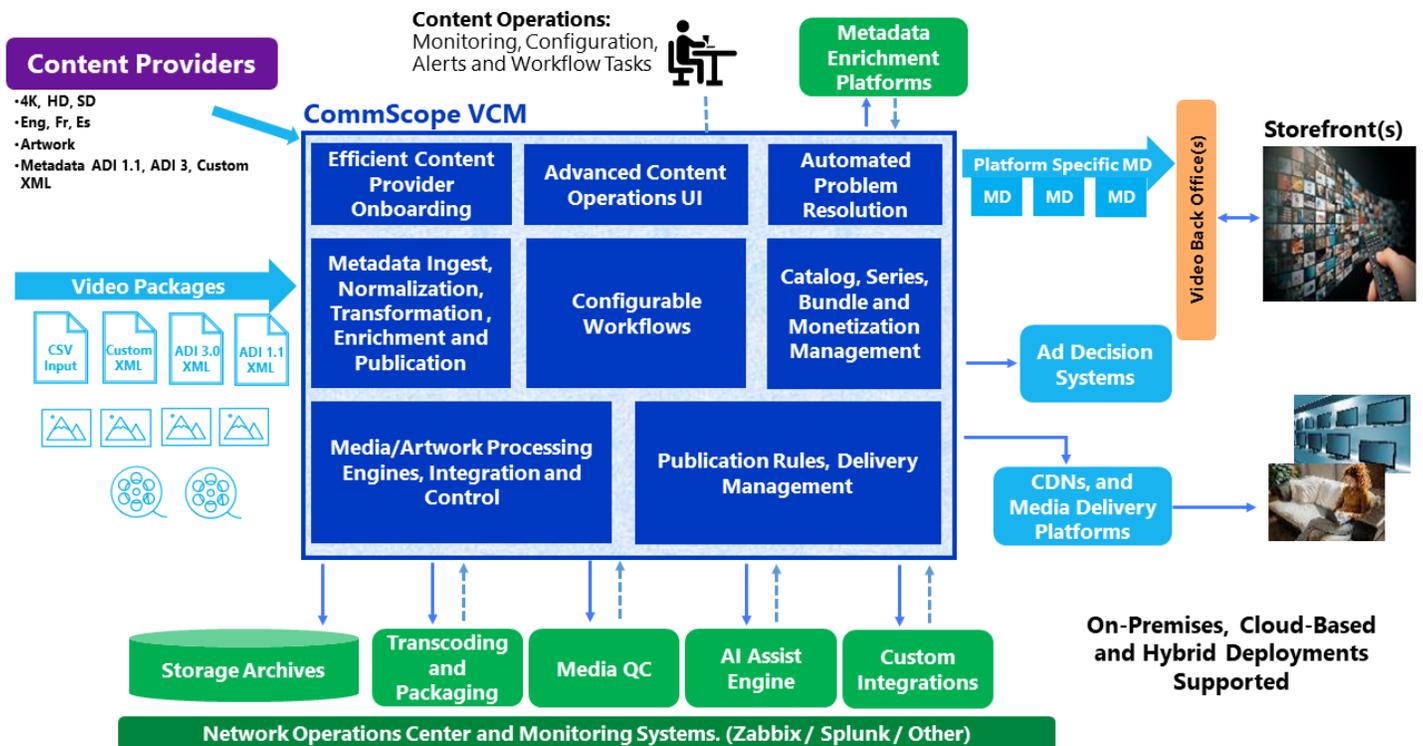
- Allows operations personnel to quickly find critical procedures and how-to information.



FEATURES CONTINUED

Enhanced Operations Functionality

- **Quarantine dashboard** – VCM detects faulty metadata and content and moves exceptions to a quarantine area. The Quarantine Dashboard provides an intuitive view into these quarantined objects and provides a description as to why they were quarantined. Content providers can be notified automatically if problems have been detected with their pitched metadata, images or content.
- **Bulk reprocessing** – Operators can quickly search, identify, group, and submit assets for the desired bulk actions. For example: Delivery of metadata, delivery of content and un-deploy operations. The VCM can throttle bulk operations to prevent overloading the downstream systems.
- **Bulk Metadata editing and transformations** – Operators can efficiently perform bulk metadata and transformations on large number of assets. VCM also supports bulk rollback of changes.
- **Prioritization** – Priority processing can be set by catcher, by any field within the metadata, or by manually using the VCM Operations UI to ensure on-time content arrivals to Storefronts.
- **Automatic archiving of ingested and delivered metadata** – Automatically archives all ingested and delivered metadata. Enables the operations personnel to review and compare versions of metadata making it easier to debug problems.
- **Advanced monitoring** – Predefined dashboards that can be used to monitor system activity. Operators can also define their own dashboards for focused tasks.



INTEGRATION AND SCALING INFORMATION

Integration/System	Description
Deployment Options	On-Premises, Cloud-based, Hybrid Solutions
Capacity and Throughput	1,000,000+ Asset Library 10K+ Deliveries per day
Ingest Metadata Formats	SCTE-236, ADI 1.1, ADI 3.0, and other custom metadata formats XML, CSV, XLS, JSON
Images	Poster, box cover, thumbnail, and other custom image types
Content	Configurability supports all formats: <ul style="list-style-type: none">• SD, HD, UHD, 4K, 8K, HDR, others• Single Bit Rate (SBR)• Multi-Bit Rate (MBR)• Adaptive Bit Rate (ABR) – HLS, DASH
QC Systems	Interra Baton, others
Transcoders	Telestream Vantage, Ateme Titan File, ffmpeg, Cloud-based, and others
Packagers	MediaKind, Ateme, Cloud-based, and others
CDNs	Akamai, AWS CloudFront, others
Delivery Platforms	IPTV, Satellite, OTT, Streaming
Metadata Enrichment	Gracenote, Rotten Tomatoes, Cinoche
Content Archives	Front Porch Digital DIVA, Cloud Storage Archives

ORDERING INFORMATION

Model Name	Description
901100-001-00	Video Content Manager (VCM) Core License

NOTE: Additional part numbers may be applicable per customer environment. Contact CommScope for additional information.

RELATED PRODUCTS

ConvergeMedia® Manager	Manifest Delivery Controller
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Contact Customer Care for product information and sales:

- United States: 888-944-4357
- International: +1-215-323-2345

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