

Irdeto MediaManager

- AN IRDETO BROADBAND SOLUTION COMPONENT

AN OPEN, FLEXIBLE AND SCALABLE VIDEO CONTENT MANAGEMENT PLATFORM THAT ENABLES PAY TV OPERATORS TO RAPIDLY DELIVER TV EVERYWHERE

Pre-integrated with a wide-range of broadcasting systems, Irdeto MediaManager simplifies and automates the process of creating and managing multi-screen broadband services for pay TV operators. MediaManager connects to multiple sources and types of video and metadata, processing with automated workflows to deliver the appropriate content in the correct format to multiple distribution platforms, mobile and connected devices.

MediaManager's flexibility supports the varied business needs of pay TV operators world-wide, helping them to remain competitive, maximize brand value and monetize assets by offering engaging multi-screen video services to new and existing subscribers.

MediaManager's Queued Task Service module (QTS) automates various content workflow tasks, from segmenting, transcoding, stitching and encryption to distribution. The automation reduces processing time, staffing requirements and scope for human error introduced by manual processes.

When deploying Irdeto MediaManager in conjunction with Irdeto Control and Irdeto Monetize, two other Irdeto Broadband solution components, pay TV operators can securely protect the content published and support online billing for purchasing content or subscriptions.

Irdeto MediaManager's rich set of API's enable operators to rapidly create and deploy multi-device experiences and applications, while keeping costs to a minimum. Irdeto also provides a suite of fully-customizable consumer applications that, when powered by Irdeto Broadband, enables consumers to search for content by keywords within the title, description or cast list, and combine these searches with other metadata elements such as publication date, genre or category of a content item. These capabilities maximize the chance that a piece of content is viewed, thus increasing the return on content investments.

KEY FEATURES

USER INTERFACE

A new easy-to-use interface, complete with widgets and dashboards enables operators to customize their view of the solution depending on their role in the process and what information and data they need. It is quick and easy to setup new user interfaces for editorial, managerial and administration roles.

WORKFLOWS

Reducing cost through automated workflows, MediaManager delivers content in the appropriate format to multiple distribution platforms, rapidly scaling to support new devices and service demands. Workflows are built up from individual tasks in a drag and drop user interface.

VIDEO & METADATA MANAGEMENT

MediaManager connects to multiple sources and types of video and metadata, processing with automated workflows to deliver the appropriate content in the correct format for distribution to TVs, PCs, smart phones and tablet devices. Metadata schemas can be created with attributes to fit the shape of programme data, and templates can be setup to transform content to different schemas for distribution. Metadata can be quality-controlled and enhanced with additional information such as keyword tags, cast lists, genre information or additional language translations.

CONTENT INGEST

MediaManager is integrated with a wide range of content sources such as non linear video editing and broadcast content archives to allow direct ingest of video and metadata. Content can also be added to MediaManager via hot folders and from high-speed file transfer systems.

VIRTUALIZATION

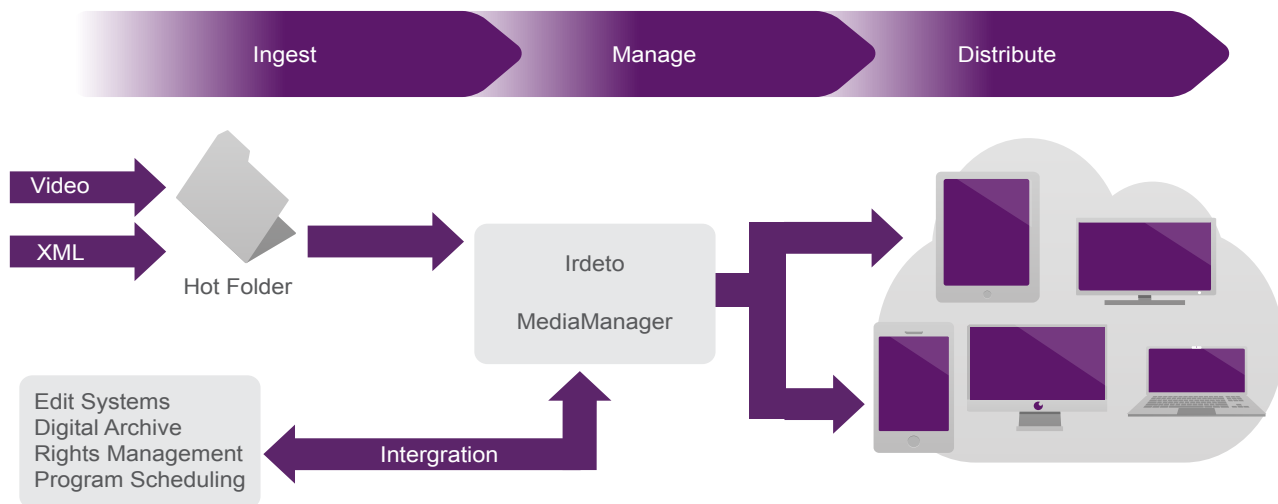
MediaManager is supplied as a virtual machine image that can be installed either in an on-site data center or hosted in the cloud, reducing hardware demands and simplifying maintenance.

CLOUD OPTIMIZED

MediaManager is integrated with optional cloud-based applications for transcoding and resources for storage of video.

HOW IT WORKS

Irdeto MediaManager enables pay TV operators and content producers to ingest, enhance, organize and publish content to a variety of platforms in a highly scalable and automated way.



The content processing and publishing workflow includes three main steps:

1. INGEST

Irdeto MediaManager includes a Polled Device Service (PoDS) that can watch any number of hot folders and non-linear video editing systems for new video and metadata. Video can also be ingested from video servers and digital archive systems. When new content is detected, it is brought into MediaManager by an ingest workflow. This workflow will move content to the Network Attached Storage (NAS) and may transcode the video to produce a low-resolution preview copy plus a set of thumbnail images.

Metadata can be ingested in various file formats, including XML, RSS, MRSS and CSV, from different systems such as newsroom control systems, electronic program guide (EPG) feeds and scheduling and traffic systems.

2. MANAGE

Once video clips and metadata are ingested, operators can easily organize the content, associating clips with appropriate metadata to increase search relevancy. Irdeto MediaManager adopts a hierarchy for grouping content, creating a truly unlimited set of organizational possibilities that maximize the visibility to content:

- **Category and subcategory**
Categories are commonly defined by attributes such as content type, genre, theme and recommendation. A subcategory allows the operator to further sub-divide their content. For example, a “Content Type” category may include subcategories like “Movies”,

“TV Shows” and “Sports”. “A Genre” category may include “Action”, “Romance” and “Comedy” subcategories. A “Recommendations” category may include “Critics’ Choice”, “Top 10” and “Holiday Favorites” subcategories. There can be as many subcategories in a category as necessary and subcategories can also be divided into subcategories of their own, such as by year or by season.

- **Content Item**
The content item is what a consumer can select to view, such as a movie, football match, TV episode or news clip. Each content item contains metadata, one or more video clips, and one or more images. Each of these elements is ingested in step one and then combined to form the complete content item. Each content item can be placed in one or more subcategories under a category to maximize its visibility to consumers.
- **Asset**
An asset is a piece of video content registered within Irdeto MediaManager, and each asset has a unique ID. Each content item could have a number of different assets associated, such as a movie having a full-length feature and a trailer.
- **Asset Rendition**
An asset can exist in multiple formats, each known as a rendition. For example, the original broadcast quality file, a lower resolution QuickTime file for preview, a Flash file for PC distribution and an H.264 MP4 file for tablet devices.

The Irdeto MediaManager user interface has a content explorer that allows an operator to browse, search and organize content. Categories and subcategories can be defined via this interface. Once the categories and subcategories are defined, operators can place articles in the appropriate groups as follows:

- Manually place articles in subcategories using the MediaManager user interface.
- Automate the process by defining rules to be used during content ingest. An example of a rule may be: place any article with the keyword ‘movie’ into the ‘Movies’ category’. It is also possible to extend this automation further to create new subcategories on the fly for content items that do not fit in the existing subcategories. For example, Irdeto MediaManager can

check all content items labeled as “TV Series” for the series name, and place all episodes of a known series in the relevant subcategory. If Irdeto MediaManager encounters an item from a new series for the first time, it can automatically create a new subcategory and place this item and any future episodes of the same series in this subcategory.

- Front Porch Digital DIVArchive
- NDS Encoder
- Rhonet Carbon Coder
- Signiant Content Distribution Management
- Tektronix Cerify Video Validation
- Telestream Flip Factory and Vantage
- Zencoder Cloud Video Encoding

Content item creation can also be a manual or automatic process. Operators can manually link an ingested video clip, metadata and image to create a content item, or automate this process during content ingestion. Irdeto MediaManager can group items with the same attribute such as the same name or ID number to form new content items, and trigger automatic processes to further manipulate the content, including stitching, transcoding and encryption of the video clip based on the rules defined within workflows.

The QTS reports the status of each task, including the percent complete, to the MediaManager user interface. Operators can monitor the health, throughput and current activities of the system, including metrics by QTS task, engine and resource pool. Archived reports are also available for the user to view online, filter, or export in a number of formats including Excel spreadsheet. In addition, email notifications containing execution details are sent for failed tasks, providing a clear audit trail for problem resolution.

3. DISTRIBUTE

Operators can configure Irdeto MediaManager to trigger the automatic transfer of video files to multiple distribution points, such as a Content Delivery Network (CDN), syndication partners and an archive system. Metadata can be transformed to produce XML content feeds to syndicate content to third-party systems, including web content management systems, social networking sites and podcast feeds.

ENCODER MANAGEMENT PLATFORM

Operators can deploy the Encoder Management Platform (EMP) module to automate the ingestion and encoding of live video streams directly from analog, digital or high definition (HD) feeds, generated by tape decks, DVD players, studios or satellites. This module is pre-integrated with encoding appliances from Inlet and Digital Rapids.

OPTIONAL IRDETO MEDIAMANAGER MODULES

QUEUED TASK SERVICE

The Queued Task Service (QTS) module is the workhorse of Irdeto MediaManager. It automates various content workflow tasks, from segmenting, transcoding, stitching and encryption to distribution by utilizing a variety of QTS plug-ins.

Tasks are received and scheduled by a QTS Master and carried out by one or more QTS Workers. QTS is highly scalable; as business grows, operators can add additional QTS Workers to the pool to support additional concurrent tasks. QTS uses a plug-in architecture to implement tasks and comes with a set of stock plug-ins that provides standard functionality. Additional purchasable plug-ins support advanced functionality and custom plug-ins can also be developed. The plug-in architecture enables operators to license and deploy only the plug-ins needed for a particular installation.

Stock QTS plug-ins include:

- DRM Encryption
- File Compression
- File Management
- File Transfer (FTP, HTTP and SSH)
- Image Conversion
- Thumbnail Generation
- Time Code Information
- Video Segmentation & Stitching
- YouTube Upload

Optional QTS plug-ins include:

- Aspera High-Speed File Transfer
- Auto Speech Recognition