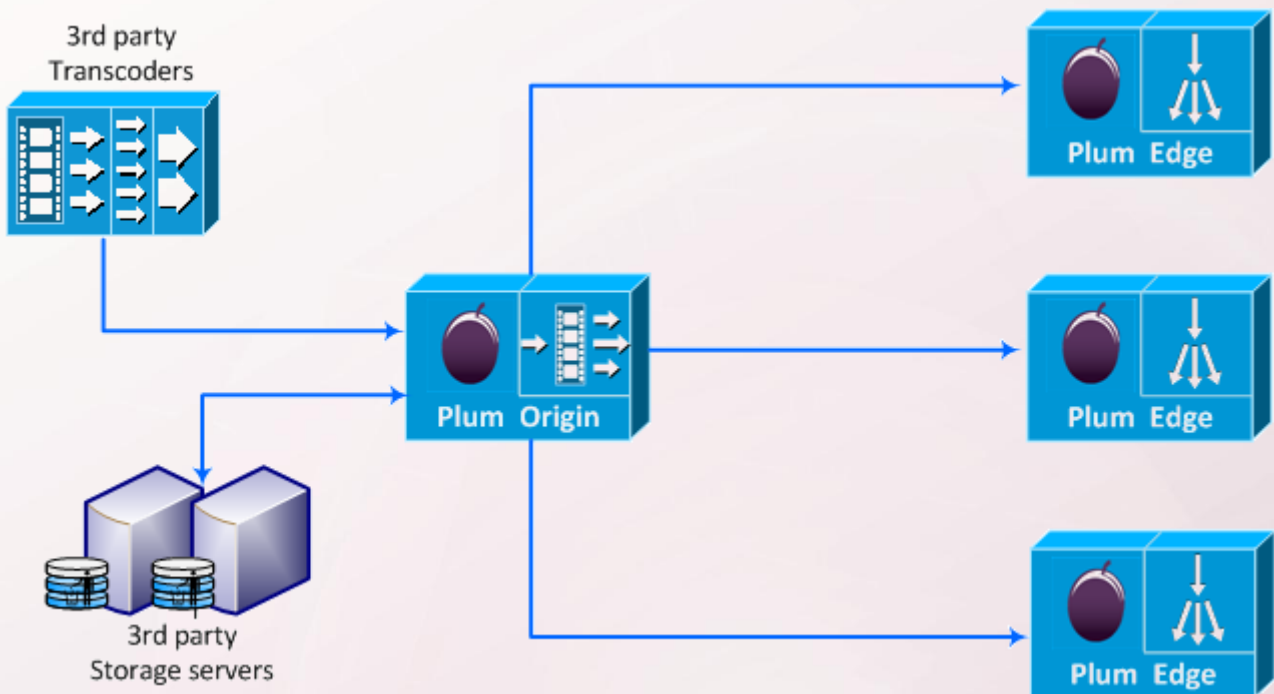




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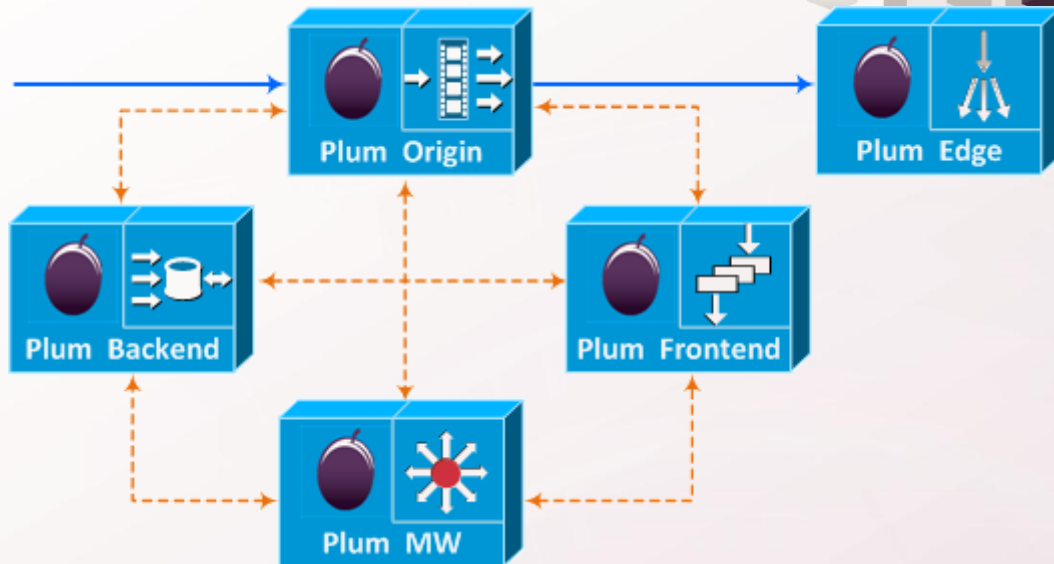
Origin server

Plum Origin server is the next generation of video server solution for Interactive TV (iTV). Origin server performs recording and manages video content using the newest protocols. This enables functionalities like Timeshift, Catchup TV and nPVR.



Plum Origin is responsible for functions of processing, transport, connecting, protection (DRM) and distribution of video content. It implements Timeshift and Catchup TV service, revision of actions and creates accounting data for Plum Middleware.

Plum Origin as part of Plum OTT solution:



Origin server represents the most important component of the system concerning manipulation with video content.

When the client connects to Frontend, Frontend will forward the request for content to Origin. Since Origin does acquisition and caching, when he receives the request he will assign an Edge server to a client and forward IP address of Edge server to the client.

VoD, Timeshift and nPVR recordings are recorded on Origin in case of a smaller system, otherwise recordings are saved on an external third party storage server.

Plum Middleware (+Frontend, +Backend), Origin server and Edge server are one whole, but Transcoder can be a third party solution.

Supported protocols

Supported storage protocols:

Storage	Protocols
Local	NFSv3 NFSv4 SMB iSCSI Fiber Channel
Remote	ext3 ext4 zfs xfs LVM

Supported input protocols and codecs:

Protocol	Codecs
Adobe RTMP	Video: H.264 On2 VP6 Sorenson Spark® Screen Video v1 & v2 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 Nellymoser Asao Speex
RTSP/RTP	Video: H.264 VP9 VP8 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 Speex Opus Vorbis
MPEG-TS	Video: H.265 H.264 VP9 VP8 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 AC-3 (Dolby® Digital) E-AC-3 (Dolby Digital Plus) Opus Vorbis
ICY (SHOUTcast/Icecast)	Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3

Supported file formats for streaming of VoD:

Input	Output
FLV (Flash Video)	Prefix: flv: Extension: .flv
MP4 (QuickTime container)	Prefix: mp4: Extension: .mp4, .f4v, .mov, .m4a, .m4v, .mp4a, .mp4v, .3gp, .3g2
MP3	Prefix: mp3: Extension: .mp3
	Prefix: ismv / isma: Extension: .ismv / .isma

Supported output protocols and codecs:

Protocol	Codecs
Adobe RTMP	Video: H.264 On2 VP6 Sorenson Spark® Screen Video v1 & v2 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 Nellymoser Asao Speex
RTSP/RTP	Video: H.264 VP9 VP8 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 Speex Opus Vorbis
MPEG-TS	Video: H.265 H.264 VP9 VP8 Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3 AC-3 (Dolby® Digital) E-AC-3 (Dolby Digital Plus) Opus Vorbis
ICY (SHOUTcast/Icecast)	Audio: AAC AAC-LC HE-AAC+ v1 & v2 MP3

Supported DRM systems:

DRM	Encryption	Live and on-demand clients
BuyDRM™	Microsoft®	BuyDRM players
	PlayReady®	Smooth Streaming clients
Verimatrix®	Verimatrix® VCAS™ ++	ViewRight® Web clients
	Microsoft® PlayReady®	Smooth Streaming clients
EZDRM	Microsoft	EZDRM Live: Smooth Streaming clients
	PlayReady®	EZDRM VOD: Discretix SecurePlayer™ Smooth Streaming clients (EZDRM doesn't have support for iOS and Android)