



# Release Notes for Cisco Virtual Media Packager Release 2.11.1

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This publication describes the requirements, dependencies, and caveats for Cisco Virtual Media Packager (VMP) System Release 2.11.1.

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## Introduction

Cisco Virtual Media Packager (VMP) is a component of Cisco Virtualized Video Processing (V2P), a software solution that provides an open, programmable, scalable, and extensible platform for rapid innovation. V2P supports video processing applications in headends and data centers without being tied to the operational features of their underlying infrastructure.

As a component of V2P, VMP provides the linear and just-in-time packaging functions needed for OTT services such as live streaming, VOD, and cloud DVR (cDVR). VMP uses the latest virtualization and cloud orchestration technology to let you elastically instantiate and scale critical media functions independently for deployment flexibility. You can prepare and originate media for distribution to the latest HTTP ABR streaming clients on mobile devices, set-top boxes (STBs), PCs, and laptops.

## New Features

This VMP release incorporates feature enhancements and resolves certain previously open caveats. For complete feature descriptions, see the *Cisco Virtual Media Packager 2.11.1 User Guide*.

## System Requirements

### External Servers

Configuring external DNS and NTP servers is mandatory for all VMP components (MCE, AppEngines, CLS, and MPE).

### Cisco UCS

All VMP components run on top of VMware on Cisco Unified Computing System (UCS) B200 M3 Blade Servers. For information about running the VMP components on other types of servers, contact your Cisco representative.

The following table shows the minimum UCS hardware requirements for this VMP release:

Part Number	Description	Quantity
UCSB-B200-M3-U	UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG)	4
UCS-CPU-E52680B	2.80 GHz E5-2680 v2/115W 10C/25MB Cache/DDR3 1866MHz	2 (Total 40 CPUs)
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	16 (Total 128 GB)
A03-D600GA2	600GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	2 (1200 GB total disk space available)
UCSB-MLOM-40G-01	VIC 1240 modular LOM for M3 blade servers	2
UCSB-HS-01-EP	Heat Sink for UCS B200 M3 server	2

### VMware, vCenter, vSphere

VMP support for VMs requires the following virtualization software programs and releases:

- VMware ESXi hypervisor version 6.0, Update 3, build 5050593 or later
- VMware vCenter version 6.0 or later
- VMware vSphere version 6.0 or later

## System Requirements

**VM System Resources**

The following table lists the VM and hardware sizing recommended for each VMP component.

Component	Flavor Name	vCPUs	RAM	Hard Drive Partition 1	Hard Drive Partition 2	Network Interfaces
V2PC Masters (3)	2X-Large	8	32 GB	40 GB	–	1 X 10 GE
MCE	2X-Large	8	32 GB	40 GB	–	3 X 10 GE
MPE	2X-Large	8	32 GB	40 GB	–	3 X 10 GE
Repository	2X-Large	8	32 GB	40 GB	–	1 X 10 GE
IPVS Nodes (2) *	X-Large	8	16 GB	40 GB	–	2 X 10 GE
REDIS Nodes (2) **	X-Large	8	16 GB	40 GB	–	2 X 10 GE
HAProxy Nodes (2) **	X-Large	8	16 GB	40 GB	–	2 X 10 GE
AM (2)	X-Large	8	16 GB	40 GB	–	1 X 10 GE
ELK Node	2X-Large	8	32 GB	40 GB	512 GB	1 X 10 GE

\* Two required *per service*: one pair for MCE and another pair for MPE.

\*\* Two required *per device type*: one set for SCE-StateCacheEndpoint and one set for VOD service.

**Note:** Legacy deployments using Cisco Media Origination System (MOS) do not require V2PC Masters or an ELK node, but instead, require VMs for the Platform and Application Manager (PAM) and Centralized Logging Server (CLS). See the *User Guide* for your MOS release for complete deployment information for these nodes.

These recommended minimum system resource numbers are based on the following assumptions:

- Hyper-threading is enabled in the ESXi compute nodes.
- There is no virtual CPU oversubscription. That is, the recommended number of virtual CPUs is the same as the number of actual physical cores.

These numbers include VMware overhead. You may need to adjust these numbers based on your specific deployment.

**VMP Service Manager GUI Requirements**

The VMP Service Manager GUI can run on the following operating systems and browsers:

- Windows Internet Explorer 9 (IE9) or later for Windows 7
- Mozilla Firefox 20 or later for Windows 7
- Google Chrome 30.x for Windows 7
- Apple Safari 7.x for Windows 7 or MAC OS Version 10.9 or later

The VMP Service Manager GUI requires a display resolution of 1600 x 900 or better.

## Installing VMP

For information about installing the VMP software and deploying the VMs, see the *Cisco Virtual Media Packager Release 2.11.1 User Guide*.

## Updating Publish Templates After Upgrade

VMP 2.11.1 uses a media playback engine (MPE) for VOD playback of Dynamic Adaptive Streaming over HTTP (DASH) formatted content. The MPE supports multiple periods in DASH content, a feature not supported in VMP 2.9.x and earlier VMP releases. As a result, customers with existing VOD DASH content who upgrade from VMP 2.9.x or earlier to VMP 2.11.1 must add a new publish template variant for playback compatibility with the existing VOD DASH content. If this is not done, errors may occur during playback of previously ingested VOD DASH content after upgrading to VMP 2.11.1.

To add the new publish template variant:

1. Log in to the V2PC GUI and, from the navigation menu, choose **Media Workflow Manager > Resources > Templates > Publish Templates**.
2. Choose an existing VOD DASH template and click **Edit** (pencil icon) to open the template for editing.
3. Open the **Package** section of the dialog and click **+ (Add)** to add a new variant.

**Note:** If the template you selected is already used by one or more existing workflows, the message "This Publishing Template is in use in one or more Media Workflows and cannot be modified" now appears. If you see this message, navigate to **Media Workflow Manager > Media Workflows** and stop the related VOD workflows before continuing.

4. Enter the name **fragDASH** as the name of the new variant.
5. Enter or select the following parameters for the new variant in the fields provided:
  - Selective Publish - choose **TRUE** or **FALSE**
  - Enable SMPTE-TT - choose **TRUE** or **FALSE**
  - Enable WEBVTT - choose **TRUE** or **FALSE**
6. Click **OK** to apply the new variant.
7. From the V2PC GUI navigation menu, choose **Media Workflow Manager > Media Workflows**.
8. Select the VOD media workflow and click **Assets** to view the assets for the workflow.
9. Under Publish assets, confirm that the Publish URL now identifies **fragDASH.mpd** as the publish URL.

## Caveats

This section provides a list of open and resolved caveats for this release. This list is not intended to be comprehensive. If you have questions about a particular defect, contact your account representative.

**Note:** Defects are identified by a case tracking number (Defect ID) and a headline that briefly identifies the case. The headlines in this section are presented exactly as they appear in the issue tracking system.

## Caveats

## Resolved Caveats

Defect ID	Headline
CSCUw36898	MOS reports incorrect frame rate values for Live captures
CSCvd51979	MOS rpms version are not match with build version
CSCvd70976	defect for MOS daily build
CSCve52059	TTML Mid-Row code processing
CSCvf66557	support DASH using video_seg_auto AdaptationSet
CSCvf72341	kmsproxy crash after redis connect on error
CSCvf88219	Recording getting freezes after channel restart
CSCvf95754	add log if audio video duration difference is more than 0.1s
CSCvf98473	video profile bitrate is not same as previous one after channel restart
CSCvf99006	22105: memory leak on MPE for DASH completed cdvr content with 300 clients
CSCvf99796	fix HSS manifest content type
CSCvg06412	Cleaned up a few few fixes which got missed in the merge
CSCvg14743	MPE 404 error on VMR HLS test case
CSCvg17122	MCE: MPD segment repeat count and duration does not match tstv window
CSCvg18402	configurable segment sizes for VMR use case
CSCvg18875	configured pid can not passthrough in DRM FairPlay mode in url passthrough mode in version 2.11
CSCvg20819	Live:DASH output - specifying the audio sampling rate for HE-AACv1
CSCvg22907	MCE Peirodid not changing/PTS getting restarted after feed discontinuity
CSCvg23160	22049 : TTML adaptation is sometimes missing on MCE mpd
CSCvg23560	MCE: live capture failed on DVB-bitmap content
CSCvg24103	Connection refused error on Lookupservice errorlog
CSCvg24547	22151: 500 error for HA recovery for channel failover
CSCvg24558	2.11-22151: VMR recording in pending state due to MPD not update (tml adaptation not update)
CSCvg26258	Live: HLS Master playlist non-compliant with HLS spec
CSCvg28985	ipvs agent keepalived enhance
CSCvg29224	CPIXF implementation for single key fairplay-hls.
CSCvg31655	Channels distribution in MCEs are not proper
CSCvg40886	Add support on k8s env with kmsproxy as a seperate service
CSCvg45565	rename sessionid in log to avoid confusion
CSCvg46058	keepalived containerization issue set
CSCvg52741	500 error for subtitles and playback stopped during cdvr playback
CSCvg53770	correct frameRate in MCE
CSCvg55567	ansible-galaxy-template for ipvs-daemonset role
CSCvg55724	coredump in mpe when hls + vgc
CSCvg56147	enable tcp_tw_recycle and tcp_tw_reuse for trafficserver
CSCvg57629	fix [customer] pe_coredump issue
CSCvg60164	drm crash in 2.11.0-cisco-mos-morro_bay.22259.b27
CSCvg61619	fix endless loop bug

## Caveats

Defect ID	Headline
CSCvg66217	Doesn't show unknown language in m3u8
CSCvg67116	use dashSegmentDuration for video_seg_auto when only DASH publish template is configured
CSCvg69644	http-500 when set Key Rotation=1 for Live HLS VGC Fairplay
CSCvg69685	MCE put frameRate in MPD
CSCvg70601	error 500 in race condition
CSCvg71920	EXT-X-INDEPENDENT-SEGMENTS in master playlist
CSCvg73772	mce coredump in LogMessage (this=0x8d33f0) while ingesting a special vod
CSCvg75690	hls vgc got uncaught exception
CSCvg75803	ipvs keepalived change log file to console
CSCvg79060	Change the logging in kmsproxy on microservice(k8s) env
CSCvg82971	Live dash vgc coredump and cause http-504 and Unknown HTTP response code
CSCvg84841	Ingestion Failed due to Unsupported Profile
CSCvg85174	add correct ttl attribute in DASH XML
CSCvg87180	drm-system crash in MOS 2.11
CSCvg88166	fix memory leak issue
CSCvg88180	tasksOwned in mce node exceed its weight
CSCvg88205	Content protection scrambles subtitles
CSCvg88764	Add kmsproxy alarm in microservice(k8s) env
CSCvg89970	fix invalid char issue in ttl
CSCvg90026	mce return http-200 but mpe return http-404 for AC3 streaming
CSCvg95377	only use video_seg_auto for new VOD and live case
CSCvg96010	VMP build failure due to ova deleting error
CSCvg96025	Upgrade stats_over_http plugin in traffic server to support integer-counters and wrap-counters
CSCvg96813	kmsProxy exception when vgc-hls rotation=1
CSCvh06374	Support UTCTiming attribution for DASH Live mpd file
CSCvh09652	Change kmsproxy to accept configmap based config at start up
CSCvh13258	Neilson id3 not working for CDVR DASH playback - fixed an exception in MPD generator when adding id3 tag to adaptation set.
CSCvh14441	dash insys default_KID wrong
CSCvh15213	ipvs keepalived log enhancement
CSCvh15563	set unknown lang to und
CSCvh17102	MCE MPD lastDiscontinuityTime did not update
CSCvh17191	fix MPE 400 error when WWW-Authentication headers
CSCvh19163	reduce retryAttempts time to avoid socket hang up
CSCvh22460	add configuration for HostDB
CSCvh26339	fix ttl to wvtt special character issue
CSCvh26439	Special characters are not being properly encoded in the subtitle output from MPE.
CSCvh26485	Playback Error at [customer]
CSCvh26858	remove mpe_docker build from VMP
CSCvh27094	Add more log in calculating bitrate
CSCvh27847	fix memory issue for live case

## Related Documentation

Defect ID	Headline
CSCvh28166	MCE3 segment timeline will not be generated
CSCvh29550	add some log for [customer] Duplicated channels on VMR MCEs
CSCvh32587	VOD additional audio streams listed
CSCvh32593	fix vod lipsync for multi-profiles
CSCvh32601	VMP - VOD: Non-Compliant MPD file as compared to ISO/IEC 23009
CSCvh33549	manifest wrong when eid and rid are different on CDVR case
CSCvh49337	VOD: When using HLS publishing template to select variants, an extra I-frame variant is in manifest
CSCvh49503	Many disconnections from Zookeeper for Lookup Service
CSCvh61061	[customer] core dump traffic server is coring
CSCvh65256	use Representation ID to generate HLS manifest and segment name
CSCvh68934	MCE: lookup-service timeout due to writing log slow
CSCvh70854	fix memory issue for AC3 on url passthrough mode
CSCvh78258	Live Ingestion Failed for Some Channel Due to No Audio Data Found

## Related Documentation

## VMP Documentation

Refer to the following documents for additional information about *VMP*:

- *Cisco Virtual Media Packager 2.11.1 User Guide*
- *Cisco Virtual Media Packager 2.10 API Guide*
- *Open Source Used in VMP 2.11.1*

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