Release Notes for V2PC 3.3.2

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This publication describes the features, requirements, dependencies, and caveats for the Cisco Virtualized Video Processing Controller (V2PC) System Release 3.3.2.

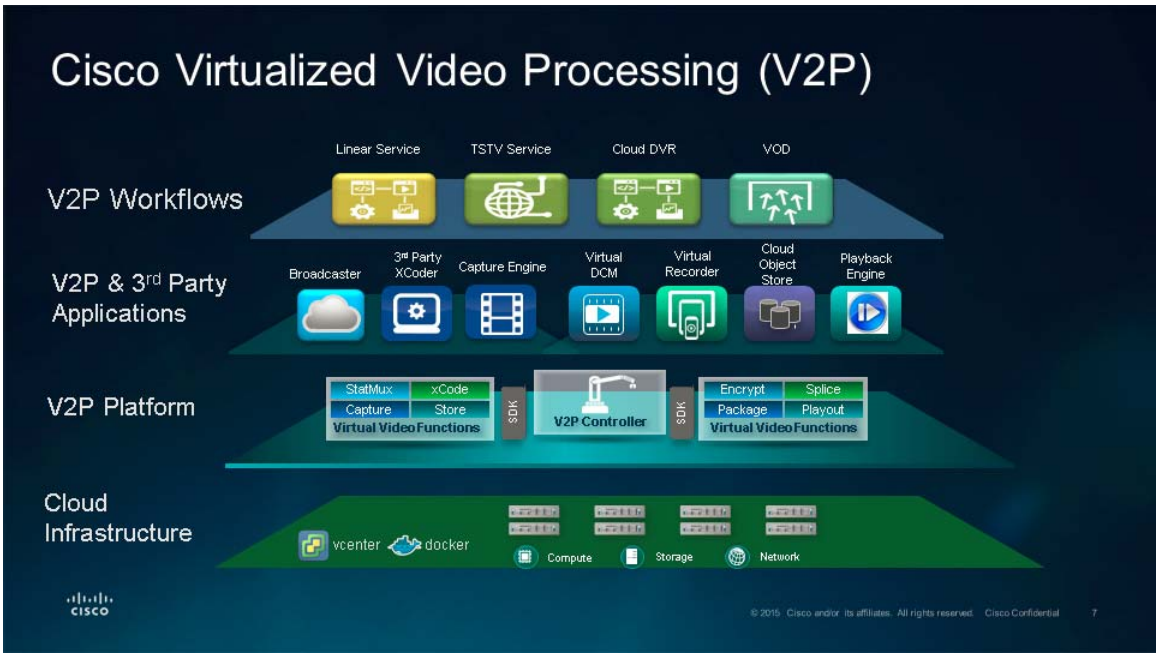
For a list of known defects associated with this release, see Known Defects, page 4.

Introduction

V2PC is an open and extensible platform that facilitates deployment and management of Cisco V2P video data plane applications (such as encoders, packagers, and recorders) in the data center cloud environment. These applications are abstracted from the underlying infrastructure such as VMWare or Docker. This enables the rapid deployment of new services such as Live, VOD, or CDVR to OTT consumers while enabling efficiency and reducing costs.

V2PC also supports multi-OS enablement (including CentOS and CoreOS) and VM orchestration over mixed infrastructure (including VMWare, Kubernetes, and Bare Metal).

Figure 1-1 Cisco Virtualized Video Processing (V2P) Platform



New Features

V2PC Release 3.3.2 provides the following new features and enhancements over previous releases:

- **Dynamic MFC Configuration** – V2PC Release 3.3.2 supports dynamic configuration of the media flow controller (MFC) that integrates applications such as Cisco Virtualized Media Packager (VMP) and Cisco Virtual Media Recorder (VMR) into the V2PC management framework.

  Dynamic configuration allows operators to create and update MFCs without service interruption. For example, a channel lineup can be created, updated, or removed from a linear workflow MFC without having to interrupt service or restart the MFC.

  This feature brings additional enhancements, including:

  – Improved AIC-MFC communication for better error handling and error logging.

  – Manual SLA support to enable dynamic resource allocation of the Cisco Capture Engine (CE) and Playback Engine (PE) components of VMP.

  – Expansion and contraction of application clusters in the field through worker node enablement, disablement, and deletion.

- **Swagger UI API Service** – V2PC Release 3.3.2 supports user access to its underlying API through the OpenAPI Specification, also known as Swagger. The open source Swagger UI web interface provides a common gateway both for new Swagger API calls and for legacy Service Manager (SM) APIs. Support for role based access control (RBAC) enhances API access security and robustness.
- **Thick Provisioning and Separate Log Volume** – By default, V2PC Simplified Deployment supports thick provisioning of storage volumes, as well as the creation of a separate log volume to allow for more efficient use of disks and partitions.
- **Enhanced User Interface** – The V2PC graphical user interface (GUI) benefits from enhancements to the Media Workflow Manager and Application Deployment Manager screens, as well as from integration of the Dynamic Configuration interface and the Swagger UI API gateway.

- **Unbundled Deployment** – The V2PC installation ISO now ships unbundled from Cisco VMP so that either application can be deployed independently.
- **Database Upgrade** – V2PC Release 3.3.2 supports the MongoDB Release 3.2.11 database.
- **Logging Enhancements** – V2PC Release 3.3.2 creates log entries as key-value pairs to make logs more searchable through Elasticsearch, and more useful for analysis and troubleshooting. This release also supports remote ELK log servers with the Fluentd open source data collector.
- **Increased Document Size and Robustness** – V2PC Release 3.3.2 replaces Consul with socket.io for media flow communication. This removes the previous 512 kb document file size limit, enabling workflows to support a larger number of channels. Master node file robustness is also improved through master application (AICM) HA handling.

V2PC Deployment Guidelines and Image Location

- The V2PC Master Controller repository node should be deployed as 2x large (8 CPU, 32 GB RAM, 40 GB Disk storage)
- The ELK node should be deployed as 2x large with 500 GB disks space (8 CPU, 32 GB RAM, 500 GB Disk storage)
- V2PC Unmanaged (Self Install) Kubernetes is recommended for new deployments beginning with V2PC Release 3.2.2.
- To access and download the latest V2PC 3.3.2 images, navigate to V2PC Software Download page at:

  https://software.cisco.com/download/release.html?mdfid=286311316&softwareid=286311340&release=3.3(0)&relind=AVAILABLE&rellifecycle=&reltype=latest&i=rm

Note For additional information about deploying and configuring V2PC, see the *Cisco Virtualized Video Processing Controller Deployment Guide* and *Cisco Virtualized Video Processing Controller User Guide*, respectively.

VMware, vCenter, vSphere

V2PC 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

V2P Product Family

The following V2P Product Family is validated as part of V2PC 3.3.2 solution testing with V2PC, VMP, and VMR.

Table 1 V2P Product Compatibility

Product	Description	Version
V2PC	Virtualized Video Processing Controller (V2PC)	V2PC_3.3.2
VMP	Virtual Media Packager (includes MCE and MPE)	v2p-vmp-bundle-2.10.0
VMR	Virtual Media Recorder (AIC, MFC, Docker Images)	VMR_AIC 1.2.x VMR_MFC 1.2.x VMR_Docker_Images 1.2.x
COS *	Cloud Object Storage (COS)	COS 3.12.x
VSRM	Video Session and Resource Manager (VSRM)	VSRM 4.0.0-882
vDCM *	Virtual Digital Content Manager (DCM)	V2PC-VSM-vDCM package V1.2.0 vDCM OTT V04.00

* For COS and vDCM, integration testing with V2PC is based on each product team's test coverage.

Known Defects

Open Defects

This section provides a list of open defects 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.

Table 2 lists the open defects in V2PC Release 3.3.2.

Table 2 Open Defects in V2PC Release 3.3.2

Bug ID	Description
CSCvg07802	Worker upgrade (td-agent) optimizations
CSCvf69502	some log file is not rotated
CSCvg06153	V2PC Platform: unable to log on V2PC GUI
CSCvg08440	V2PC Platform: v2p-ui request can not be received by SM
CSCvg24408	[V2PC Bare Metal] v2pc installed on bare metal, disk space not fully utilized
CSCvg39167	[V2PC Bare Metal] v2pc should support bond management interface installation

Resolved Defects

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

Table 3 lists the resolved defects in V2PC Release 3.3.2.

Table 3 Resolved Defects in V2PC Release 3.3.2

Bug ID	Description
CSCvf80712	US30759 - Add default value for DASH Publish template
CSCvd81333	make v2pc in workspace
—	mpe docker rolling upgrade feature
CSCvf56581	mpe-docker AIC bundle
CSCvf70709	MCE's Redis cluster will not work when nodes gets restarted
CSCvf80712	GUI issues with stream and variants configuration
CSCvf80763	Properly handle manual SLA changes during worker upgrade.
CSCvf80556	Properly install kubectl v1.4.0 to /usr/bin/
CSCvf79254	Added publishIframes/publishSmptett configuration for channel restart
CSCvf76888	after rebooting redis node; redis process doesn't start automatically.
CSCvf57857	[v2pc bare metal] 500 Internal Server Error should be removed once login to the v2pc - fixed
CSCvf71882	Suppress syslog-ng duplicate configuration warnings.
CSCvf72657	GUI cannot disable or update the subtitle just by language
—	US30405 and US30406 - Cosmetic change for Subtitle and Stream configuration
CSCvf70695	GUI backend change for stream configuration and DASH-MP4_publish_template_var
CSCve48461	US30138_mpe_ivpcoe_docker_bundle
—	US30340 - TA76254 - default 'maxRetryCount' in Advanced Configuration
CSCvf63991	HLS DRM url passthrough mode, request .ts also need request manifest.mpd from VMR--fix merge conflict
CSCvf54435	HLS version 6 and 7 support needs to be added
CSCve36518	Vod ingest:creating asset timeout(MCE task controller not responding the VOD task for 20 min's)
CSCvf61272	Cannot add a bare-metal zone because there is no cluster - fixed
—	US29861 - MPE docker automation test on cDVR workflow in IVP COe
CSCvf55282	Asset resolver generator unbundle from v2pc to PE AIC--bump AIC version
CSCvf48780	In MPE we download mpd show wrong content ID when we use eid & rid
CSCvf22649	restart to HAproxy VM causes outage until HAproxy is restored by enable/disable app instance
CSCvf56317	Doubled node's ping timeout/retries due to bare-metal reboot performance.
—	TA75962 - eliminate clusters for bare metal infra provider
CSCvf56581	mpe-docker AIC bundle

Table 3 Resolved Defects in V2PC Release 3.3.2

Bug ID	Description
—	fix for CSCvf48963 & CSCvf48943
CSCvf40267	Bundle VMP logger RPMs w/ cisco-pe package.
CSCvf36856	US29935 - Cannot add a bare-metal infra-provider in V2PC 3.4 - for empty default config object
CSCve88235	channel continues to be capturing mode even when workers are disabled
CSCvf40267	Bundle VMP node-logger / logger-lib RPMs with cisco-pe package.
CSCve48461	porting aic and mfc cases to ivp coe env
CSCvf34883	Corrected platform upgrade summary message.
CSCvf49125	Bug fix for wrong order of filter and map
CSCvf38667	Increase gem install verbosity/logging.
CSCvf38657	Loop based on logs entry in template.json
CSCve85160	Fairplay VGC playback stopped working after VMP upgrade--double commit
—	US29935 - Cannot add a bare-metal infra-provider in V2PC 3.4
CSCve48461	US28987_MPE_docker_CD_setup_on_k8s
—	US29429, US29448: change live/vod workflow template to support containerlized mpe
CSCvg04248	V2PC-Platform: Failover of zookeeper service
CSCvg06153	V2PC Platform: unable to log on V2PC GUI
CSCvg08440	V2PC Platform: v2p-ui request can not be received by SM

Upgrading from V2PC Release 3.2.x to 3.3.x

For full instructions on upgrading from V2PC Release 3.2.x to V2PC Release 3.3.2.x, see the **V2PC Upgrade** section of the *Cisco Virtualized Video Processing Controller Deployment Guide*.

Upgrade Enhancement for V2PC Release 3.3.2

V2PC Release 3.3.2 supports the option of specifying the worker nodes to be upgraded by their IP addresses. To add such a list, include the following line in the **platform_upgrade.json** file:

"workerIp": ["<worker_ip1>", “<worker_ip2>”, . . . “<worker_ipn>”]

where **<worker_ip1>** and so on are the IP addresses of the specific worker nodes to be upgraded.

If this line is omitted, the upgrade process defaults to the behavior of earlier releases and updates all worker nodes.

Related Documentation

V2PC Documentation

Refer to the following documents for additional information about V2PC:

- *Cisco Virtualized Video Processing Controller User Guide*
- *Cisco Virtualized Video Processing Controller Deployment Guide*
- *Cisco Virtualized Video Processing Controller API Guide*
- *Cisco Virtualized Video Processing Controller API Service Guide*
- *Cisco Virtualized Video Processing Controller Open Source*

Obtain Documentation and Submit a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation.

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