



Pexip Infinity v19

Release Notes

Contents

| | |
|--|---|
| Introduction | 1 |
| Upgrading to version 19 | 2 |
| New features and improvements in this release..... | 4 |
| Changes in functionality in this release..... | 5 |
| Issues fixed in version 19..... | 5 |
| Known limitations..... | 7 |

Introduction

This document contains the release notes for Pexip Infinity version 19.

Complete information about how to install and operate Pexip Infinity is available from the Pexip technical documentation website at docs.pexip.com.

The website also contains comprehensive documentation on all aspects of deploying the Pexip Infinity platform. This includes how to use the Infinity Connect client suite, and how to integrate Pexip Infinity with other third-party systems and call control solutions including Microsoft Lync, Cisco Unified Communications Manager, Cisco VCS and Polycom DMA.

Management Node host server sizing information

You must ensure that the Management Node host server has 2 cores and 4 GB of RAM for any deployments with more than 10 Conferencing Nodes. We recommend 4 cores and 6 GB of RAM for any deployments with more than 30 Conferencing Nodes.

Upgrading to version 19

Upgrading from version 13 or later to version 19

When the upgrade process starts, the Management Node is upgraded first. Then up to 5 Conferencing Nodes are selected and are automatically placed into maintenance mode. When all calls have finished on a node that is in maintenance mode, that node is upgraded and then put back into active service. Another Conferencing Node is then selected, placed into maintenance mode and upgraded, and so on until all Conferencing Nodes have been upgraded.

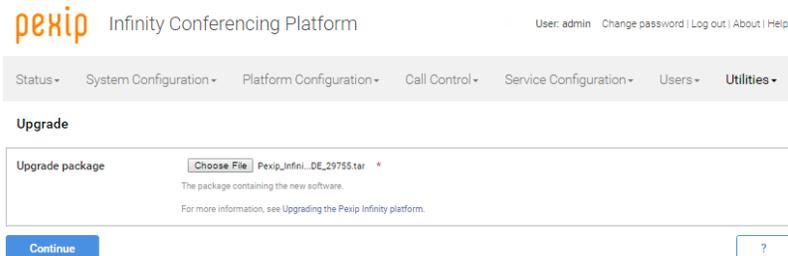
If all of the calls on a Conferencing Node that is in maintenance mode have not cleared after 1 hour, the node is taken out of maintenance mode and put at the back of the queue of nodes to be upgraded. A further attempt to upgrade that node will be made after all other nodes have been upgraded (or had upgrade attempts made). Up to 5 Conferencing Nodes may simultaneously be in maintenance mode or in the process of being upgraded at any one time.

Alternatively, to avoid unpredictable system behavior due to Conferencing Nodes running conflicting software versions, you may want to manually put **all** of your Conferencing Nodes into maintenance mode before initiating the upgrade process. This will allow all existing calls to finish, but will not admit **any** new calls. You should then actively monitor your Conferencing Nodes' status and manually take each node out of maintenance mode after it has been upgraded to the new software version, so that the system can start taking new calls again on those upgraded nodes.

i Upgrades to v19 from versions prior to v16 may take slightly longer than previous upgrades that spanned multiple versions.

To upgrade Pexip Infinity software from v13 or later to v19:

1. Before upgrading an on-premises deployment, we recommend that you use your hypervisor's snapshot functionality to take a full VMware/Hyper-V snapshot of the Management Node. You may also want to take a snapshot of each Conferencing Node, although depending on the size and complexity of your deployment it may be easier to simply redeploy these from the Management Node (after it has been rolled back) in the unlikely event that this is required.
Before upgrading a cloud-based deployment (Azure, AWS or GCP), you should backup the Management Node via Pexip Infinity's inbuilt mechanism (**Utilities > Backup/Restore**).
2. Download the Pexip Infinity upgrade package for v19 from [the Pexip support site](#).
3. From the Pexip Infinity Administrator interface, go to **Utilities > Upgrade**.
4. Select **Choose File** and browse to the location of the upgrade package.



5. Select **Continue**. There will be a short delay while the upgrade package is uploaded.
After the upgrade package has been uploaded, you are presented with a confirmation page showing details of the existing software version and the upgrade version.
6. To proceed, select **Start upgrade**.
You are taken to the **Upgrade Status** page, showing the current upgrade status of the Management Node and all Conferencing Nodes. This page automatically refreshes every 5 seconds.
7. When the upgrade completes, all nodes will show a status of **No upgrade in progress** and have the new **Installed version**.
If a Conferencing Node fails to upgrade, for example if it remains on a **Waiting for calls to clear** status, it should be rebooted. The upgrade process will then continue as expected.

If you are using VMware snapshots for backup purposes, we recommend that you delete those snapshots after approximately two weeks, providing your upgraded system is operating as expected. This is because Virtual Machines, in general, should not run with snapshots over time.

For full details on upgrading Pexip Infinity, see [Upgrading the Pexip Infinity platform](#).

Upgrading from version 12 or earlier to version 19

Upgrading from versions 8-12 to version 19

If you are running a Pexip Infinity software version between v8 and v12 inclusive, you must first upgrade to version 13 and then upgrade again to version 19. To do this:

1. Download the Pexip Infinity **v13** [upgrade file](#).
2. Follow the steps outlined in [Upgrading to version 19](#), but when asked to **Choose File** browse to the location of the **v13** upgrade file.
3. Verify that the upgrade has completed successfully.
4. Download the Pexip Infinity **v19** upgrade file.
5. Follow the steps outlined in [Upgrading to version 19](#), and when asked to **Choose File** browse to the location of the **v19** upgrade file.

Note that if you are upgrading from v8, due to incompatibilities resolved in v8.1, ensure that you take a non-quiescing snapshot when backing up your Management Node prior to upgrade.

Upgrading from versions 3-7 to version 19

If you are running a Pexip Infinity software version between v3 and v7 inclusive, you must first upgrade to version 8 (contact your Pexip authorized support representative for the link to the v8 upgrade file), then upgrade to v13, and then finally upgrade again to v19 as described above.

New features and improvements in this release

You can go to https://docs.pexip.com/admin/whats_new.htm and follow the relevant links for more information about all of these features.

Version 19

Pexip Infinity platform

| Feature | Description |
|--|---|
| Video interoperability with Google Hangouts Meet | <p>The Pexip Distributed Gateway provides any-to-any video interoperability with Google Hangouts Meet.</p> <p>Third-party systems can connect to Hangouts Meet conferences via the Pexip Distributed Gateway either by dialing the conference directly or via a Virtual Reception (IVR).</p> |
| Skype for Business Video-based Screen Sharing (VbSS) | <p>Pexip Infinity supports sending and receiving content via VbSS to and from Skype for Business meetings, and to and from Skype for Business clients that are either calling another endpoint via the Pexip Distributed Gateway, or calling into a Virtual Meeting Room.</p> <p>Note that VbSS is disabled by default on Pexip Infinity. It can be enabled via Platform Configuration > Global Settings.</p> <p>(VbSS was previously available as technology preview in earlier versions.)</p> |
| Improved video quality in low bandwidth scenarios | <p>Participants now experience improved video quality in low bandwidth network scenarios, and when endpoints can only support low resolutions.</p> <p>Pexip Infinity prioritizes image sharpness over high frame rates, and now sends video at lower frame rates if 30 fps is not achievable.</p> |
| Enhancements to Live View | <p>The Live View summary contains the following enhancements when showing active conferences:</p> <ul style="list-style-type: none"> Highlights any issues with backplane links between nodes when viewing a conference. Displays links to an externally-hosted conference, such as Google Hangouts Meet or a Skype for Business / Lync meeting. |

Infinity Connect web app

The Infinity Connect web app is embedded in the Infinity Connect software, so its features are updated with each release of Infinity Connect.

Following are the changes to the Infinity Connect web app in Pexip Infinity version 19:

| Feature | Description |
|--|---|
| Ability to force a call protocol when adding a participant to a conference | <p>When adding a participant to a conference, you have the option to force a specific dial out protocol by prefixing the destination address with <code>sip:</code> or <code>mssip:</code> or <code>h323:</code> or <code>rtmp:</code> (which can be used to support dial out to streaming services).</p> <p>When a protocol has been explicitly added to the address, a Call Routing Rule is not required for the call to be placed.</p> |
| Diagnostics | The About this app menu now has an option to copy logs to the clipboard. |

Changes in functionality in this release

| Feature | Description |
|---|--|
| Consistent display of participant names in overlays | The way in which participant names are shown as text overlays within a conference has been standardized. Any protocol or trailing IP address and port information is stripped from the displayed name/alias. For example, alice@example.com is now shown instead of sip:alice@example.com. |
| Administrative modifications | This release contains the following administrative modifications: <ul style="list-style-type: none"> Two new audio files are included in the Base theme: <code>conf-streaming_started_48kHz_mono.wav</code> and <code>conf-streaming_stopped_48kHz_mono.wav</code>. These audio files are only played to callers who are gatewayed via Pexip Infinity into a Google Hangouts Meet conference. The Administrator interface uses color coding when reporting media statistics, such as perceived call quality, packet loss and jitter. In general, statistics that are shown in green represent good quality, orange represents intermediate quality, and red is used for bad quality. |

Issues fixed in version 19

Pexip

| Ref # | Limitation |
|-------|--|
| 13304 | Packet captures can now be deleted via the Administrator interface. |
| 13258 | Resolved an issue where a participant was permitted to join a locked conference but sometimes remained in the "Waiting for Host" screen. |
| 13239 | Resolved some occasional issues with re-establishing node connectivity after a network outage, that led to failures including ADPs failing to dial and stalled nodes. |
| 13025 | The Pexip Infinity Administrator Guide that is available in the Administrator interface now includes the list of events that are reported by the next-generation Infinity Connect clients when usage reporting is enabled. |
| 12956 | RTMP calls are no longer fixed at a bandwidth of 2 Mbps. |
| 12944 | Video users transferring to an audio-only Virtual Meeting Room via a video-enabled Virtual Reception will now join the VMR with audio only (not audio and video as previously). |

Microsoft

Microsoft Skype for Business and Lync

| Ref # | Limitation |
|-------|---|
| 12927 | Resolved an issue in version 18 where Skype for Business clients would not receive presentation content when connected to VMRs or Virtual Auditoriums that were restricted to only allow Hosts to present content. |
| 12882 | Resolved an occasional issue where a Skype for Business client is presenting PowerPoint slides in a Skype for Business meeting and the second and subsequent slide transitions were not sent to standards-based endpoints that are gatewayed into that meeting. |

Chrome browsers

| Ref # | Limitation |
|-------|---|
| 13113 | Version 19 of Pexip Infinity is required to use the legacy Infinity Connect web app with Chrome version 71 or later, and Firefox version 62 or later. |

Known limitations

Pexip

| Ref # | Limitation |
|-------|--|
| 13325 | Pexip Distributed Gateway calls to RTMP destinations will not send any video. A workaround is to call a VMR instead that has an associated Automatically Dialed Participant that is configured to dial the RTMP service. |
| 13200 | When automatically deploying a Conferencing Node to a VMware host that is part of a cluster, but where the storage is local to each host, the datastore of the first host in the cluster will always be used. To resolve this, ensure that you are using a datastore cluster. |
| 12619 | When using RTMP dual streaming, the second presentation stream/camera incorrectly sends a broken camera image (instead of an image of an easel) if there is no current presentation. |
| 11351 | When a cloud bursting Conferencing Node starts or stops, the other nodes might temporarily show a warning that they cannot communicate to the node that is starting/stopping. This will be addressed in a future release. |
| 10337 | Pexip Infinity will only latch for incoming media once, unless there has been a re-INVITE. This means that in some cases, when the NAT binding at the client has timed out and the source port has changed, Pexip Infinity will continue to send presentation media to the old port. |
| 7906 | If a caller dials into a Virtual Reception and enters the number of the conference they want to join, but there are insufficient hardware resources available to join the caller to that conference, the caller is disconnected from the Virtual Reception. |
| 6739 | Any changes made to VMR configuration — such as updating the participant limit — while the conference is ongoing do not take immediate effect, and may result in conference separation (i.e. new participants will join a separate VMR from those that are currently connected). All participants must disconnect from the conference for the change to take effect. |
| 5601 | When changing the certificates in a chain, a reboot of the associated Conferencing Nodes may be required if the changes do not produce the desired effect. |
| 4312 | Occasionally, group chat messages may not be displayed to Infinity Connect web app participants who are using Internet Explorer. |

Cisco

| Ref # | Limitation |
|-------|--|
| 4142 | If the presentation channel already active from an MXP is taken by another connected participant, the MXP may not properly receive presentation content. |

Microsoft

Microsoft Skype for Business and Lync

| Ref # | Limitation |
|-------|---|
| 13201 | When a Skype for Business client is presenting PowerPoint slides in a Skype for Business meeting, sometimes only the first slide is sent to standards-based endpoints that are gatewayed into that meeting. |

| Ref # | Limitation |
|-------|--|
| 13168 | In a situation where VbSS is enabled, and a Skype for Business client is connected to a VMR and is currently receiving a presentation from another participant, then if the SfB client starts presenting its own desktop, it takes control of the presentation stream as expected. But, if the same SfB client then switches to presenting an application window, the new presentation is not sent, and the other endpoints in the conference continue to see the last frame of the desktop sharing. Note that if the SfB client stops and starts presenting again, then the correct presentation is sent. |
| 13026 | At certain window sizes the video shown by a Skype for Business / Lync client may appear to pulse. Changing the size of the window resolves the issue. |
| 9390 | If a Skype for Business client running on Windows 7 attempts to record a Skype for Business / Lync meeting, the recording will not include any content from Pexip participants calling into the meeting through the Pexip Distributed Gateway. |
| 8171 | If a Lync 2010 client in a call with Pexip Infinity puts the call on hold, video does not properly resume when the call is resumed. |
| 5100 | If a Conferencing Node being used as a gateway into a SfB/Lync meeting is near processor capacity and another endpoint in the SfB/Lync meeting starts sending content, a participant may be inadvertently disconnected from the conference. To resolve this, the endpoint can dial back into the conference. |
| 4926 | Participants calling into Skype for Business / Lync through the Pexip Distributed Gateway may experience inconsistent call rejection messages if a Conferencing Node is placed into maintenance mode. |
| 4812 | In some instances, one of two messages sent to a VMR from two SfB/Lync clients not previously connected may not be properly retained by the VMR. To resolve, re-send the message. |
| 4195 | Participants connected via the Pexip Distributed Gateway into a SfB/Lync meeting may not receive presentation content from SfB/Lync participants. This occurs if the SfB/Lync user has a screen resolution where the width is an odd number of pixels, such as a resolution of 1437x758. If this occurs, one workaround is for the user to share an application rather than their full desktop. |

Microsoft Edge browsers

| Ref # | Limitation |
|-------|--|
| 6411 | Microsoft Edge browsers (which are WebRTC-compatible) cannot currently use STUN and thus cannot send media to Pexip Infinity via a TURN server. This means that Microsoft Edge users connecting to a conference from outside your network (via a reverse proxy) will not be able to send or receive audio/video. |

Chrome browsers

| Ref # | Limitation |
|-------|---|
| 10545 | Network connection interruptions of longer than 10 seconds may require Chrome participants to manually reconnect to a conference. |