

TSP 3.5.1

Release Notes

1 Table of Contents

Release Notes	1
1 Table of Contents	2
2 Executive Summary	3
3 New Features	4
3.1 Multi-Version Support.....	4
3.2 Integrated Telephony Authentication Server (TAS)	5
3.3 Conference Heartbeat.....	5
4 Operational Enhancements	6
4.1 Hardware and OS Compatibility Update.....	6
4.2 Logging Improvements.....	6
4.3 Monitoring Changes.....	6
4.4 Servlet Resiliency	6
5 Bug Fixes	7
5.1 "KeepAlive" Attribute Fix	7
5.2 TSP Server Crash on Hardware 3.0	7
5.3 TSP Server Crash on HTTPS	7

2 Executive Summary

TSP 3.5.1 is a mid-train release that is designed to solidify the WebEx audio integration architecture. This release contains no new features or functionality from a product standpoint. All changes made in TSP 3.5.1 are fortifying in nature and will not result in any changes to the external facing API/Schema.

3 New Features

This section covers on the new features that were added to TSP 3.5.1.

3.1 Multi-Version Support

The nature of WebEx audio integration is fairly different from the main stream deployment model used with most APIs. New versions are not pushed upon partners, making upgrade mandatory. With WebEx TSP APIs, Service Providers request an update after performing extensive testing for large scale usage. This paradigm is in no way going to change anytime soon and it unfortunately results in single, isolated server deployments that are not scalable.

In order for WebEx to create a scalable audio integration infrastructure, TSP servers must be arranged into large pools that are utilized by all service providers. Allowing TSP server hardware to host multiple TSP web services will bring WebEx one step closer to accomplishing this.

Benefits to TSP Pool Architecture:

- Higher Redundancy – There will ultimately be more TSP servers available to partners.
- Datacenter Failover – Today's primary and backup server model does not provide the capability to fail over to a different WebEx datacenter when required.
- More Efficient Utilization – Today's TSP servers are not being used anywhere near their capacity level.

Beginning with TSP 3.5.1, all subsequent versions of TSP will be capable of running simultaneously on the same hardware, each running under its own application thread/s. Each version will be assigned its own IP address at the individual TSP server level. Additionally, a single Virtual IP (VIP) will represent a TSP version, and will distribute the load of TSP traffic to the appropriate IP addresses for that version.

The version of TSP deployed on a partner integration will be controlled via the VIP address that is configured in the WebEx Telephony Domain.

Note: Multi-Version Support is only one component that enables WebEx to move TSP into a pool environment. The addition of this feature does not mean that your server deployment will change when upgrading to TSP 3.5. The transition to pools will be performed in the future and you will be notified well in advance before any changes are made.

3.2 Integrated Telephony Authentication Server (TAS)

The Telephony Authentication Server (TAS) is used as the Web Zone gateway to TSP. Any request that comes to TSP through HTTP goes through TAS. The current audio integration platform utilizes stand alone TAS servers. This implementation has the following problems:

- TAS Servers are on old hardware
- TAS Code base is not tested for new hardware compatibility
- TAS server functionality does not warrant a separate server
- There are a limited number of TAS servers

This version of TSP includes a built in TAS server, which the WebEx page can not call to authenticate TSP accounts. This integrated TAS server is planned to be phased in during WBS28, and the stand-alone servers will be phased out.

3.3 Conference Heartbeat

Audio service providers encountered situations where they missed the *W2A_CloseConference* message that is sent at the end of an integrated WebEx Meeting, which resulted in conferences running on too long and taking up bridge/adaptor resources.

In order to prevent rogue conferences from running on the adapter or bridge, a heartbeat feature was created. The Conference heartbeat feature can be turned on in the TSP server configuration via the *ConfLevelKeepAlive* setting. If enabled, the *W2A_UpdateConference* message is used to send a heartbeat notification to the partner adapter every 30 minutes. This message contains the *ActionCode* attribute with a value of 101, and ensures that the adapter keeps the conference running. The adapter is expected to implement logic to clean up rogue conferences at an interval of the partner's choosing.

4 Operational Enhancements

The following changes were made to TSP 3.5.1 for the purpose of improving the manageability of TSP.

4.1 Hardware and OS Compatibility Update

As any company that maintains a datacenter, there are efforts to ensure uniformity in hardware and OS. TSP was previously only certified on the WebEx Hardware 2.0 platform, but is now supported on Hardware 3.0, which includes the use of a new OS.

4.2 Logging Improvements

The TSP logs were being overrun with log data that is not pertinent to troubleshooting. These log messages have been removed to improve troubleshooting capabilities and to reduce log space in the file system.

4.3 Monitoring Changes

Improvements were made to the logic used to monitor TSP servers. Data Center Operations personnel will no longer receive false alerts.

4.4 Servlet Resiliency

A servlet runs on the TSP server that is responsible for taking inbound communication. A new thread runs in the background on the TSP server for the purpose of ensuring the servlet is running. This thread runs separately from the main TSP server thread.

5 Bug Fixes

5.1 “KeepAlive” Attribute Fix

TSP 3.4, which correlates to WBS27, had one feature that made a change to the TSP schema, which is used for the Conference Keep-Alive feature. A new optional attribute was added to the `W2A_CloseConference` command that indicates to the partner adapter whether the audio portion of the conference should be extended beyond the duration of the WebEx Meeting.

For forward compatibility reasons, the *KeepAlive* attribute was to only be included in the `W2A_CloseConference` message if the conference was to be extended (*KeepAlive*="1"). This allows partners to upgrade to WBS27 without making an immediate TSP code change. This logic was not correctly implemented in TSP 3.4, so the issue was fixed in TSP 3.5.

5.2 TSP Server Crash on Hardware 3.0

TSP servers running version 4.0 on the WebEx Hardware 3.0 platform experienced a crash. This bug was resolved in TSP 3.5.

5.3 TSP Server Crash on HTTPS

When a TSP server is set to run in HTTPS mode, random crashes were being observed. This bug was resolved in TSP 3.5.1