Terminal Services (TS) Agent Release Notes
Release 8.1
# Table of Contents

**Terminal Services (TS) Agent 8.1 Release Information** .............................................. 5  
  Features Introduced in TS Agent 8.1 .................................................................................... 7  
  Features Introduced in TS Agent 8.1.1 .................................................................................. 7  
  Features Introduced in TS Agent 8.1.0 .................................................................................. 7  
**System Requirements** ....................................................................................................... 8  
**Operating System (OS) Compatibility** ............................................................................. 9  
**Known Issues in TS Agent 8.1** ......................................................................................... 10  
**Terminal Services (TS) Agent 8.1 Addressed Issues** .................................................... 11  
  TS Agent 8.1.10 Addressed Issues ......................................................................................... 11  
  TS Agent 8.1.9 Addressed Issues ......................................................................................... 11  
  TS Agent 8.1.8 Addressed Issues ......................................................................................... 11  
  TS Agent 8.1.7 Addressed Issues ......................................................................................... 11  
  TS Agent 8.1.6 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.5 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.4 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.3 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.2 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.1 Addressed Issues ......................................................................................... 12  
  TS Agent 8.1.0 Addressed Issues ......................................................................................... 12  
**Getting Help** ................................................................................................................... 13  
  Related Documentation ........................................................................................................ 15  
  Requesting Support ............................................................................................................. 16
Terminal Services (TS) Agent 8.1 Release Information

Revision Date: June 28, 2019

Review important information about Palo Alto Networks Terminal Services (TS) agent software, including new features introduced, workarounds for open issues, and issues that are addressed in TS agent 8.1 releases.

To ensure you have the most current version of this document, please refer to the online version on the TechDocs portal.

> Features Introduced in TS Agent 8.1
> System Requirements
> Operating System (OS) Compatibility
> Known Issues in TS Agent 8.1
> Terminal Services (TS) Agent 8.1 Addressed Issues
> Getting Help
Features Introduced in TS Agent 8.1

No new features introduced for the TS agent since the TS agent 8.1.1 release.

- Features Introduced in TS Agent 8.1.1
- Features Introduced in TS Agent 8.1.0

For new User-ID™ features in the PAN-OS® 8.1 release, see the PAN-OS 8.1 Release Notes.

Features Introduced in TS Agent 8.1.1

The following feature is introduced in TS agent 8.1.1.

<table>
<thead>
<tr>
<th>New Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Server 2016</td>
<td>You can now install the TS agent on terminal servers that run the Windows 2016 operating system.</td>
</tr>
</tbody>
</table>

Features Introduced in TS Agent 8.1.0

The TS agent 8.1.0 release has no new features. TS agent 8.1.0 was created to keep release numbering in sync with the User-ID™ agent.
System Requirements

The system where you install Terminal Services (TS) agent 8.1 has the following minimum requirements:

- **CPU**—4 cores
- **Hard disk space**—10MB
- **Memory**—4GB RAM
Operating System (OS) Compatibility

The Terminal Services (TS) agent is compatible with PAN-OS® 8.1 and earlier PAN-OS releases that Palo Alto Networks® still supports. To see where you can install TS agents, refer to the Terminal Services (TS) agent compatibility information in the Palo Alto Networks Compatibility Matrix.
## Known Issues in TS Agent 8.1

Use the following list to find the known issues in Terminal Services (TS) agent 8.1.


<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
</table>
| WINAGENT-430 | *(Citrix PVS only)* There is an issue when running a TS agent 8.1 release on Windows Server where the server stops responding when you attempt to shut it down.  
**Workaround:** A manual fix is provided in TS agent 8.1.9. Contact Customer Support for details and for help to work around this issue. |
| WINAGENT-319 | When you install the TS agent on a Windows Server 2008/R2 server, the TS agent displays a driver failure error *(Service is stopped. Check log file for detailed reason)* and firewalls can’t connect to the agent. |
| WINAGENT-292 | The firewall intermittently fails to receive updated IP address-to-port user mappings from the TS agent.  
**Workaround:** Run the `debug user-id reset ts-agent <ts-agent>` CLI command on the firewall to reconnect to the TS agent. |
Terminal Services (TS) Agent 8.1 Addressed Issues

The following tables list the issues that are fixed in TS agent 8.1 releases. For new features, associated software versions, known issues, or changes in default behavior, see Terminal Services (TS) Agent 8.1 Release Information.

• TS Agent 8.1.10 Addressed Issues
• TS Agent 8.1.9 Addressed Issues
• TS Agent 8.1.8 Addressed Issues
• TS Agent 8.1.7 Addressed Issues
• TS Agent 8.1.6 Addressed Issues
• TS Agent 8.1.5 Addressed Issues
• TS Agent 8.1.4 Addressed Issues
• TS Agent 8.1.3 Addressed Issues
• TS Agent 8.1.2 Addressed Issues
• TS Agent 8.1.1 Addressed Issues
• TS Agent 8.1.0 Addressed Issues

For recent updates to addressed issues for a given PAN-OS release, refer to live.paloaltonetworks.com/t5/Articles/Critical-Issues-Addressed-in-PAN-OS-Releases/tap/52882.

TS Agent 8.1.10 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.10 release was provided to maintain parity with User-ID™ agent 8.1 releases.

TS Agent 8.1.9 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.9 release was provided to maintain parity with User-ID™ agent 8.1 releases.

TS Agent 8.1.8 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.8 release was provided to maintain parity with User-ID™ agent 8.1 releases.

TS Agent 8.1.7 Addressed Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINAGENT-397</td>
<td>Fixed an issue where User-ID information for TS agents was not displayed on the firewall web interface when the &quot;Server queue send error 1!&quot; error was logged in the TS agent debug output.</td>
</tr>
</tbody>
</table>
TS Agent 8.1.6 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.6 release was provided to maintain parity with User-ID agent 8.1 releases.

TS Agent 8.1.5 Addressed Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINAGENT-446</td>
<td>Fixed an intermittent issue on the TS agent where not all login events were recorded when there were parallel login events, which caused port allocation.</td>
</tr>
</tbody>
</table>

TS Agent 8.1.4 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.4 release was provided to maintain parity with User-ID agent 8.1 releases.

TS Agent 8.1.3 Addressed Issues

This TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.3 release was provided to maintain parity with User-ID agent 8.1 releases.

TS Agent 8.1.2 Addressed Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINAGENT-326</td>
<td>Fixed an issue where installing and configuring the Terminal Services (TS) agent on a Windows server resulted in a BSOD due to a reserved port range conflict.</td>
</tr>
</tbody>
</table>

TS Agent 8.1.1 Addressed Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINAGENT-224</td>
<td>Fixed an issue where firewalls running PAN-OS 6.1 couldn't connect to TS agent 8.1.0 because the agent didn't allow TLSv1.0 connections. With this fix, TS agent 8.1.1 and later versions allow TLSv1.0 connections with firewalls running PAN-OS 6.1.</td>
</tr>
</tbody>
</table>

TS Agent 8.1.0 Addressed Issues

This initial TS agent 8.1 release has no updates or addressed issues. The TS agent 8.1.0 release was provided to maintain parity with User-ID agent 8.1 releases.
Getting Help

The following topics provide information on where to find more about our products and how to request support:

> Related Documentation
> Requesting Support
Related Documentation

Refer to the following PAN-OS® 8.1 documentation on the Technical Documentation portal at https://docs.paloaltonetworks.com for more information about the Palo Alto Networks® Next-Generation Security Platform:

- **PAN-OS 8.1 Administrator's Guide**—Provides the concepts and solutions to get the most out of your Palo Alto Networks next-generation firewalls. This includes taking you through the initial configuration and basic set up on your Palo Alto Networks firewalls.
- **PAN-OS 8.1 Web Interface Reference Guide**—Describes how to administer the Palo Alto Networks firewall using the device's web interface. The guide is intended for system administrators responsible for deploying, operating, and maintaining the firewall.
- **Palo Alto Networks Compatibility Matrix**—Provides operating system and other compatibility information for Palo Alto Networks next-generation firewalls, appliances, and agents, including on which operating systems you can install the TS agent.
Requesting Support

For contacting support, for information on support programs, to manage your account or devices, or to open a support case, refer to https://www.paloaltonetworks.com/support/tabs/overview.html.

For the most current PAN-OS® and Panorama™ 8.1 release notes, go to docs.paloaltonetworks.com/pan-os/8-1/pan-os-release-notes.html.

To provide feedback on the documentation, please write to us at: documentation@paloaltonetworks.com.