Rate Limiting in SSH Connections

725 Nesvin KN July 22, 2024 Productivity & Efficiency Features 2495

How to implement rate limits on outbound SSH connections?

Overview: This article describes the importance of setting rate limits to manage SSH access to remote Linux devices. It provides detailed, step-by-step instructions on configuring **Remote Login Throttle Delay (RLTD)** within Ezeelogin, highlighting its role in enhancing security and optimizing server management practices.

How to set Remote Login Throttle Delay (RLTD) in Ezeelogin?

Throttle delay in SSH is a method to manage and restrict the active SSH sessions or login attempts to remote Linux devices. **Remote Login Throttle Delay (RLTD)** feature help the System Administrator to limit the users active ssh sessions to a remote server. For example, If the **RLTD** is configured to 60 seconds, the SSH gateway user will be temporarily restricted from establishing additional SSH connections to the remote servers. They must wait for 60 seconds to login again to the remote server.

Let's see how we can implement the outbound SSH rate limits for the SysAdmin Alex (gateway

Step 1: Login to **Ezeelogin GUI** -> **Settings** -> **General** -> **Security** -> **Remote Login Throttle Delay** -> **set the time(60 seconds).**

user).



Step 2: To configure **RLTD** (**throttle delay**) **for the individual user 'Alex'**, proceed with **step 2.a**, or alternatively, proceed directly to **step 2.b** to configure **RLTD for the user group 'Sysadmin'**."

Step 2.a: How to set RLTD for a specific user?

Enable 'Throttle remote logins' for the user 'Alex' using the 'user-action' option available under 'Access Control'.

| Servers > | | |
|-----------------------------|--|--|
| Web Portals | Control the access of a user to specific actions | |
| Users | User alex \$ | |
| Access Control | Actions | |
| Access Control | Expand all - Collapse all - Select all - Topgle selection | |
| | 🕆 🗋 🗅 Gateway (aka Bastion Host) | |
| | P II Servers | |
| | Add Server | |
| | | |
| | Delete Server Delete Server Delete Server | |
| | View Server Details | |
| | - 🖸 🗅 View Super Groups | |
| User-Action | Add Private Key | |
| User-SSHKey | Contraction Contra | |
| 55G-55Fill(5) | | |
| Settings 🕨 🕨 | B B Web SSH Console | |
| | Web File Transfer Web Credential History | |
| | - 🗹 🗅 Throttle Remote Logins | |
| Command Guard | Limit Concurrent Remote Logins | |
| | 🗘 🗘 🗅 🗅 Users | |
| Account 🕨 | Controls Controls Description: Controls Description: Controls | |
| Help | | |
| | | |
| | Image: Cluster Image: C | |
| | | |
| | Authorization Password 🕖 | |
| Pawered by ezeelogin.com | | |

Step 2.b: How to set 'RLTD' for a the user group 'Sysadmins'?

Enable 'Throttle remote logins' for the user group 'Sysadmins' using the 'usergroup-action' option available under 'Access Control'.

| Ezeelogin | Welcome, Administrator Logout |
|---------------------------------|--|
| 🗄 Servers 🔹 🕨 | Control the access of a user group to specific actions |
| 🖬 Web Portals 🔹 🕨 | User Group |
| 🏦 Users 🕨 🕨 | Sysadmins 🛊 |
| 🗭 Access Control 🛛 🔻 | Actions |
| ▶ UserGroup-ServerGroup | Expand all - Collapse all - Select all - Ioggle selection |
| ▶ User-ServerGroup | ■ Servers |
| User-Server | Add Server |
| ▶ UserGroup-PortalGroup | Edit Server |
| User-PortalGroup | Delete Server Delete Server Diverses |
| ► User-Portal | With the Address |
| UserGroup-Action | - 🖸 🗅 View Super Groups |
| User-Action | C View Password |
| User-SSHKey | C View SSH Private Key and Passphrase C Add Private Key |
| User-SSHKey | |
| 🍫 Settings 🕒 🕨 | 🗌 🗅 Delete Private Key |
| | C SSH Tunnel Web SSH Console |
| 🛞 Cluster | Web Sant Console |
| Command Guard | View Credential History |
| Command Guard | - C Trattle Remote Logins |
| 😭 Account 🔹 🕨 | |
| • | Image: State |
| 🛇 Help 🕨 🕨 | + 🗅 Settings |
| License | Command Guard Manager |
| | ⊕ □ □ Help ⊕ □ □ Cluster |
| | € □ û Web Portais |
| | Authorization Password |
| Powered by ezeelogin.com | |
| | |
| | Cancel Save |

Step 3: - When the user 'Alex' tries to establish more than one SSH sessions from the gateway server to

a remote server, will get a prompt displaying *"Please wait 60 seconds before you can login again"*. The user 'Alex' has to wait for 60 seconds (RLTD) to log back into the server.

| ubuntu.server.com 192.168.1.35 (prod server) | | | | |
|---|---------------|---------|--|--|
| Message | | | | |
| Please wait 57 seconds before you can login agai | n. | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Press any key to continue | | | | |
| | | | | |
| | | / | | |
| | | | | |
| | | | | |
| | | | | |
| ERVERS [prod server] (group) [Normal /] {User: ale | x} | | | |
| tart typing name to locate. ESC: Clear search, F1/+ | : Help, F4/!: | : Exit. | | |

In conclusion, **rate limiting in SSH** using RLTD provides comprehensive protection against brute force attacks, optimizes resource utilization, ensures compliance with security standards, enhances monitoring capabilities, and strengthens overall security defenses for SSH servers.

Note:

- 1. This feature is available from **Ezeelogin version 7.38.0.** To update your existing Ezeelogin to the latest version, refer to the <u>article</u>.
- 2. **Parallel shell** and **secure copy to remote server group using Ezeelogin shell** feature **will not work** when 'RTLD' is enabled.
- 3. Superadmin user (user created at the time of Ezeelogin installation) is not affected by RLTD.

Related Articles:

How to manage concurrent SSH sessions?

- Parallel Shell How to use it?
- How to use multi-server interactive shell?
- How to grant Parallel Shell privilege for a user?
- How to copy a file to a remote server or group of servers behind the ssh jumphost?
- Role Based Access Control (RBAC) Explained

Online URL: https://www.ezeelogin.com/kb/article/rate-limiting-in-ssh-connections-725.html