

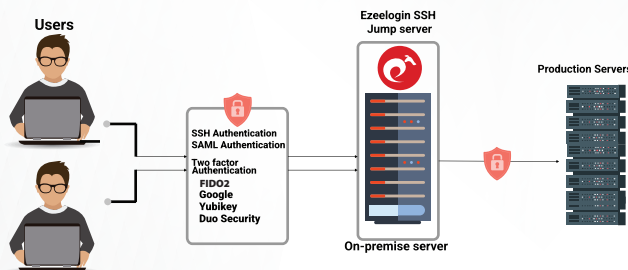
# SSH Jump Server Software

## What is Ezeelogin?

It is an SSH jump server solution designed to deploy an on-premise intermediate SSH gateway. This setup requires all staff, employees, and system administrators to first connect via SSH to this intermediary server before accessing remote servers, routers, and network switches. By implementing this SSH gateway, the primary objectives are to enhance security within your IT infrastructure and to meet various security compliance standards, including PCI DSS, ISO 27001, ISO 9001, GDPR and more. Additionally, it enhances operational efficiency and ensures better accountability.

\*SSH, also known as Secure Shell or Secure Socket Shell, is a network protocol that gives system administrators a secure way to access a computer over an unsecured network.

## How does it work?



## Functional Highlights

- ★ Centralized SSH access to servers to improve security and employee productivity
- ★ Multi Factor Authentication ( MFA ) in SSH:
- ★ Record and track user's SSH sessions
- ★ Detailed logs and reporting to meet various security compliances
- ★ Integrate with Active Directory/LDAP for easier user management
- ★ No agent installation / custom modification on the remote machines
- ★ Works with all Linux distributions



## Features & Specifications

**Remote Devices supported:**

Linux servers, Cloud instances, switches, and routers or any devices with sshd protocol enabled

**License types:**

Standalone  
Internet based  
licenses

**Access types:**

SSH , HTTPS , RDP

**Supported SSH Protocol:**

Version 1 , 2

**Authentication method supported:**

AD/LDAP  
SSO/SAML  
Internal

**Client Authentication in Web:**

http, https based authentication  
RADIUS,AD/LDAP,SAML

**Client Authentication in SSH:**

Password based  
Public Key based (RSA/DSA)  
RADIUS  
Pluggable Auth Modules (PAM)

**Audit (Recording):**

SSH

**Compliances that can be met:**

PCI DSS, ISO 27001, GDPR, HIPPA, NIST and many more

**Multi Factor Authentication ( MFA ) in SSH:**

Google Authenticator, Yubikey, Duo Security, RADIUS, FIDO2

**Supported LDAP integrations:**

Windows AD 2008, 2012, 2016, 2018, and Openldap 2.x for centralized authentication and management of users.

**Supported Ciphers:**

3des-cbc,blowfish-cbc  
cast128-cbc, arcfour  
arcfour128, arcfour256  
aes128-cbc,aes192-cbc  
aes256-cbc  
rijndael-cbc@lysator.liu.se  
aes128-ctr,aes192-ctr  
aes256-ctr  
aes128-gcm@openssh.com  
aes256-gcm@openssh.com  
chacha20-poly1305@openssh.com

**Supported Key Exchange Algorithms:**

diffie-hellman-group1-sha1  
diffie-hellman-group14-sha1  
diffie-hellman-group14-sha256  
diffie-hellman-group16-sha512  
diffie-hellman-group18-sha512  
diffie-hellman-group-exchange-sha1  
diffie-hellman-group-exchange-sha256  
ecdh-sha2-nistp256  
ecdh-sha2-nistp384  
ecdh-sha2-nistp521  
curve25519-sha256  
curve25519-sha256

**Client Tool:**

Most SSH Clients ( Terminal, Putty, Konsole, etc)  
Standard Browser



Single Sign-On	Microsoft Azure SSO, GSuite SSO, Okta, OneLogin, AWS SSO, SSO using SAML 2.0 protocol
Record SSH Sessions	Maintain SSH log records with date and timestamps to track employees access to devices.
Detailed Logs & Reporting	Generate detailed user SSH access reports, including login/logout times to facilitate forensic analysis, cybersecurity audits, and to meet various compliance standards like PCI DSS, HIPAA, NIST, ISO 27001 and more
SSH Key Management	Configure user SSH Key expiry. Rotate SSH Keys periodically
Master-Slave cluster for high availability	Avoid lock out and single point failure.
Role Based Access Control (RBAC) for ssh user access	Group users and devices into different categories and grant access based on their role.
Privileged Access Management ( PAM )	Grant the login privileges with which an SSH user would login into a remote device.
Password management for users	Enforce user password expiry User account disabled based on inactivity SSH user password rotation Enforce password strength
Parallel Shell	Execute commands on multiple servers simultaneously
Intuitive and secure CLI interface	Secure and efficient access to Linux servers, switches, and routers.

## System Requirements

### Hardware Requirements

Minimum 2GB Ram  
Minimum 3 Ghz processing power  
80GB Storage  
Virtual Server or Dedicated server

### Software Requirements

- ★ OS Architecture (64 bit Linux[Centos/RHEL/Ubuntu /Debian])
- ★ Web server (apache, lighttpd, nginx etc.)
- ★ MySQL server
- ★ PHP (from version 5.6.x to 7.4)
- ★ Ioncube loader version 10 and above for PHP
- ★ MySQLi extension for PHP
- ★ JSON extension for PHP
- ★ Mcrypt extension for PHP
- ★ LDAP extension for PHP (for LDAP web panel authentication)
- ★ DOM extension for PHP (for SAML authentication)
- ★ OpenSSL
- ★ NPM,GIT,LibX11, Linux Kernel >=4.4 ( This is required only if Use Proxy function in webportal is used.)
- ★ NodeJS (from version 12.x and above) ( This is required only if WebSSH or WebRDP is used.)
- ★ Outbound host and Port to be opened in firewall ( not required for standalone license):  
license2.ezeelogin.com TCP 443

## Our Happy Customers



**India Office** |  **ADMOD**  
Technologies Pvt. Ltd  
AN ISO 27001 CERTIFIED COMPANY

Building No 27/309(A,B) Maveli Nagar,  
Pipeline Road, Cochin  
University PO , Kochi-682022, Kerala, India  
Phone: +91 9567867452  
Email: support@ezeelogin.com

## USA Office

ADMOD, Inc, 2093 Philadelphia  
Pike, Claymont, New Castle,  
19703 Delaware  
Phone: +1 (302) 357-9527,  
+1 (302) 357-9007  
Email: support@ezeelogin.com

## Encryption Technologies used

- ★ Hashing Algorithms used to hash web user credentials in the order of availability are SHA 512, SHA256, Blowfish, and DES
- ★ Hashing Algorithm used to hash the system user credentials in UNIX backend is CRYPT
- ★ Encryption Algorithm used for encrypting the ssh users log recorded in the file system is RC4
- ★ Encryption algorithm used for encrypting sensitive information is 4096 bit RSA

## Deployment Diagram

