


```
root@desktop:$ ssh -p <portnumber> <admin_user>@<gateway-ip>
```

Web Shell will work only if the web interface is accessed via HTTPS and uses 2FA to log in. Refer to [Enforce 2FA](#) or [Enable 2FA](#) and [install SSL Certificates](#) and [Enforce Https](#).

1. White list your IP address from which you are accessing, as certain firewall programs may detect the traffic to the port (52222) (set it up as shown below in the article) as an anomaly and block your IP, thus blocking your access to the SSH gateway.

2. If upgrading from Ezeelogin versions below 7.4.0, [reset the gateway user's password](#) within the GUI to avoid encountering a [blank screen](#) issue on accessing the webSSH console.

1. Install the NODE JS Application on the Jumphost server.

Step 1(A): On Centos 7

```
root@gateway:~# yum install epel-release
```

```
root@gateway:~# yum install npm
```

Step 1(B): On Ubuntu 16/18 and Debian 10

```
root@gateway:~# apt install npm
```

Step 1(C): On Ubuntu 20/22

```
root@gateway:~# apt-get update
```

```
root@gateway:~# apt install npm
```

2. Install n, Node's version manager

Step 2(A): If you are not using SSL, you need to set the repo to HTTP by running :

```
root@gateway:~# npm config set registry http://registry.npmjs.org/
root@gateway:~# npm install -g n
```

3. Install node

Step 3(A): To install the latest version:

```
root@gateway:~# n latest
```

Step 3(B): To install the **corresponding version** :

```
root@gateway:~# n version.number
```

For example, the below command will install **node 19**

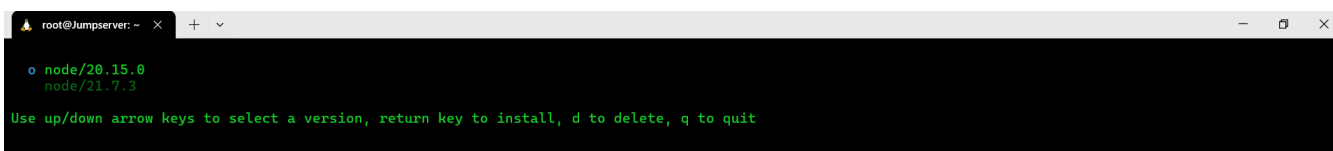
```
root@gateway:~# n 19
```

Step 3(C): Run the following command to install the **node without SSL**

```
root@gateway:~# n --insecure latest
```

Step 3(D): To **switch between node versions** run the following command and refer to the given screenshot.

```
root@gateway:~# n
```



[Install node using NPM or NVM in Ezeelogin.](#)

4. Install NodeJS module dependencies

Step 4(A): Install the NodeJS module dependencies for the WebSSH Console Application.

```
root@gateway:~# php /usr/local/ezlogin/eztool.php --  
-install_node_modules -node_component webssh
```

OR

```
root@gateway:~# cd $(awk '/^system_folder/ {print $2}'  
/usr/local/etc/ezlogin/ez.conf)/application/external/webssh/&& npm  
install
```

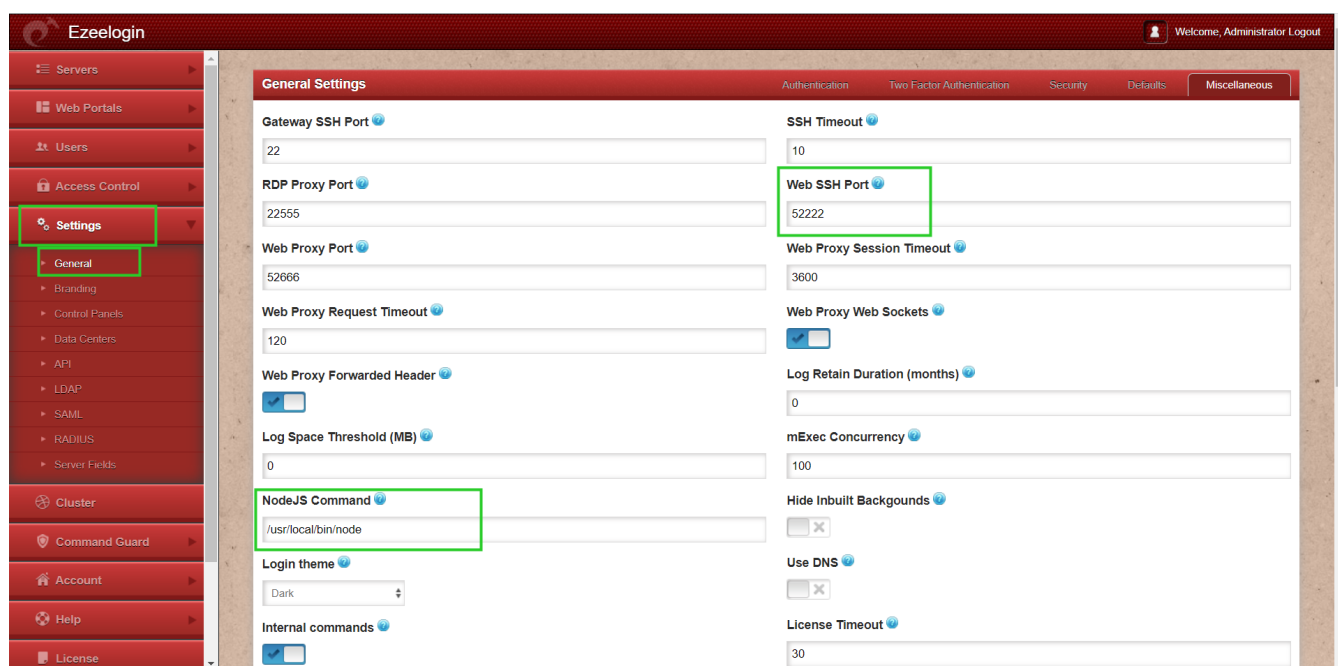
5. Update Settings

Step 5(A): The nodejs command field should have the path to the node or nodejs binary which usually is /usr/bin/node in the case

of Centos7 and /usr/bin/nodejs in the case of Ubuntu 14-04. Run below commands to get the path to the node binary.

```
root@gateway:~# which node or which nodejs or whereis nodejs or whereis node
```

Step 5(B): Specify the path to the node binary correctly under **Settings -> General -> Miscellaneous -> Nodejs Command** and the **Web SSH Port** variable is **configurable**. Ensure that the port entered here is open for **inbound traffic** as well.



Ensure that inbound TCP traffic on port 52222 is open as nodejs server listens on this port.

6. SSL for the browser.

Step 6(A): Install the Certificates for the Web SSH Console to work. Generate a self-signed cert with the following command. Web Shell will work only if the web interface is accessed via [HTTPS](https://)

```
root@gateway:~# openssl req -new -days 365 -x509 -nodes -newkey  
rsa:2048 -out /usr/local/etc/ezlogin/tls_cert.pem -keyout  
/usr/local/etc/ezlogin/tls_key.pem
```

Make sure to install [SSL](#) (self-signed or a valid cert) even if you have installed an SSL certificate on the Load balancer (ELB/ALB).

Also, make sure to add a listener and routing for the port RDP Proxy Port 22555

Step 6(B): Or put a valid ca, cert, and key in the files: `/usr/local/etc/ezlogin/tls_ca.pem`, `/usr/local/etc/ezlogin/tls_cert.pem` & `/usr/local/etc/ezlogin/tls_key.pem` respectively. You can rename your current `.cert` / `.key` file to `.pem` file.

Restart the node process after replacing the certificates. Run the command "**kill -9 node**" to stop the node process and it will be restarted by clicking the "Open Web SSH console" icon in the servers tab in GUI.

You can use the OpenSSL `s_client` commands to test SSL connectivity if you get any SSL connectivity error for web ssh / Ezeelogin GUI

```
root@desktop:~# openssl s_client -connect bastion.eznoc.com:52222
-showcerts

root@desktop:~# openssl s_client -connect bastion.eznoc.com:443
-showcerts
```

Step 6(C): Make sure that the `.pem` files are readable by the webserver user such as `nobody/www-root/apache`, etc. Run the below command on the gateway server to grant the web user **read privileges**.

```
root@gateway:~# chmod 644 /usr/local/etc/ezlogin/*.pem
```

7. Enable [two factor authentication](#)

Step 7(A): Make sure to [enable 2-factor authentication](#) for web SSH to work.

8. Verify SSHD configuration file

Step 8(A): Ensure that password authentication is enabled from the local host alone in the `sshd` configuration file (`/etc/ssh/sshd_config`) on the jump server. Add the following parameters to the end of `/etc/ssh/sshd_config` file.

```
root@gateway:~# vi /etc/ssh/sshd_config

Match Address 127.0.0.1

PermitRootLogin yes
```

PubkeyAuthentication yes

PasswordAuthentication yes

9. Granting access

Step 9(A): Ensure that the **user** or the **usergroup** has the [privilege to access the web shell feature](#). Grant it as follows, navigate to **Access Control -> UserGroup-Action -> <select user group> -> Servers -> web ssh Console**

The screenshot shows the Ezeelogin web interface. On the left, the 'Access Control' menu is expanded to 'UserGroup-Action'. The main panel is titled 'Control the access of a user group to specific actions'. The 'User Group' dropdown is set to 'Admins'. Under the 'Actions' section, a tree view shows 'Gateway (aka Bastion Host)' expanded, with 'Servers' checked. Below this, another tree view shows 'Web SSH Console' checked. The 'Authorization Password' field is empty. 'Cancel' and 'Save' buttons are visible at the bottom of the configuration area.

10. Access web SSH console

Step 10(A): Click on the **Web SSH Console** feature under the **Servers** tab.

The screenshot shows the Ezeelogin web interface with the 'Servers' tab selected. The 'Servers' table is visible, with columns for Name, IP Address, Server Group, SSH Port, Description, and Actions. The 'Web SSH Console' feature is highlighted in the top right corner of the interface.

Name	IP Address	Server Group	SSH Port	Description	Actions
+ Ubuntu 76	192.168.1.13	Testing Server	22		
+ Ubuntu 16.04 LTS	192.168.1.10	Testing	22		

Step 10(B): The web ssh console will open on the browser tab and will look as shown below.

```
*client.testing Portals
Production.servers Online gateway server
Testing.Server Testing
All servers List of all accessible servers

GROUPS [Normal / ]
Start typing string to locate. ESC: Clear search, F1/+: Help, F4/!: Exit.
Menu Ezeelogin SSH CONNECTION ESTABLISHED
```

WEB SSH Console feature is available within the GUI from Ezeelogin version **7.4.1** and **above** only.

Troubleshooting Steps:

1. Ensure that the Node version is above 19 and the NPM Version is ≥ 6

```
root@gateway:~# npm -v
6.14.6
root@gateway:~# node -v
v19.0.0
```

2. To get more detailed errors, append `log_level trace` in `ez.conf`.

How to get detailed errors from Ezeelogin error logs?

3. Access the web SSH and check the [application logs](#) under `{system folder}/application/logs/`, (for example, `/var/www/ezlogin/application/logs/log-2020-12-16.php`). Append `DEBUG=*` at the beginning of the command which you got from the application logs to manually start the web SSH.

Example:

```
root@gateway:~# DEBUG=* PORT=52222 node $(awk '/^system_folder/{print $2}' /usr/local/etc/ezlogin/ez.conf)/application/external/webssh/index.js
```

4. Install the Node modules required by the node application

```
root@gateway:~# cd $(awk '/^system_folder/{print $2}' /usr/local/etc/ezlogin/ez.conf)/application/external/webssh/ && npm install
```

If you have received the following **ERROR:Segmentation fault (core dumped)**, make sure to delete the node modules in the webSSH application directory and re-update them again using the following commands:

```
root@gateway:~# cd $(awk '/^system_folder/{print $2}' /usr/local/etc/ezlogin/ez.conf)/application/external/webssh/ && rm -rf node_modules && npm install && pkill -9 node
```

Related articles:

[Could Not set up Ezeelogin Web SSH Service.](#)

[Blank Page in Web SSH SSH Console.](#)

Online URL:

<https://www.ezeelogin.com/kb/article/setup-web-ssh-console-in-ezeelogin-and-ssh-via-browser-180.html>

