# Integrate Windows AD with CentOS using SSSD

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## How to integrate Windows AD with Centos 8 using SSSD

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**Overview:** This article provides a comprehensive guide on integrating Windows AD with Ezeelogin and RHEL 8, covering steps for LDAP configuration, authentication setup, and backend integration.

**Note:**

Ensure that the following ports on the RHEL host are open and accessible to the AD domain controllers.

DNS =53, LDAP =389, Kerberos 88 & 464, LDAP Global Catalog 3268 and NTP 123 (UDP)

**Note:**

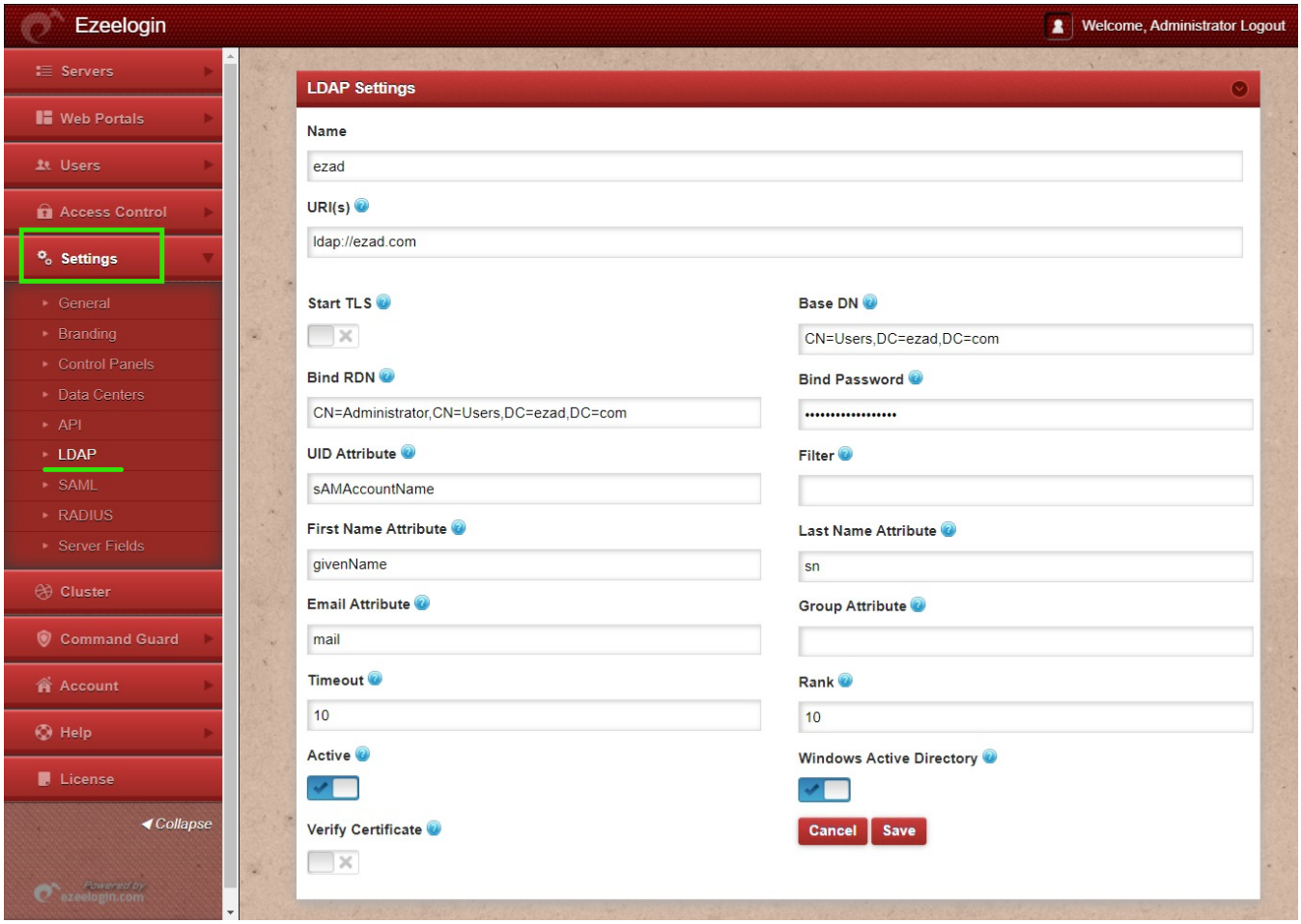
Verify that the system time on both systems is synchronized. This ensures that Kerberos is able to work correctly.

Refer article to correct server time in Centos, RHEL, Ubuntu, SUSE

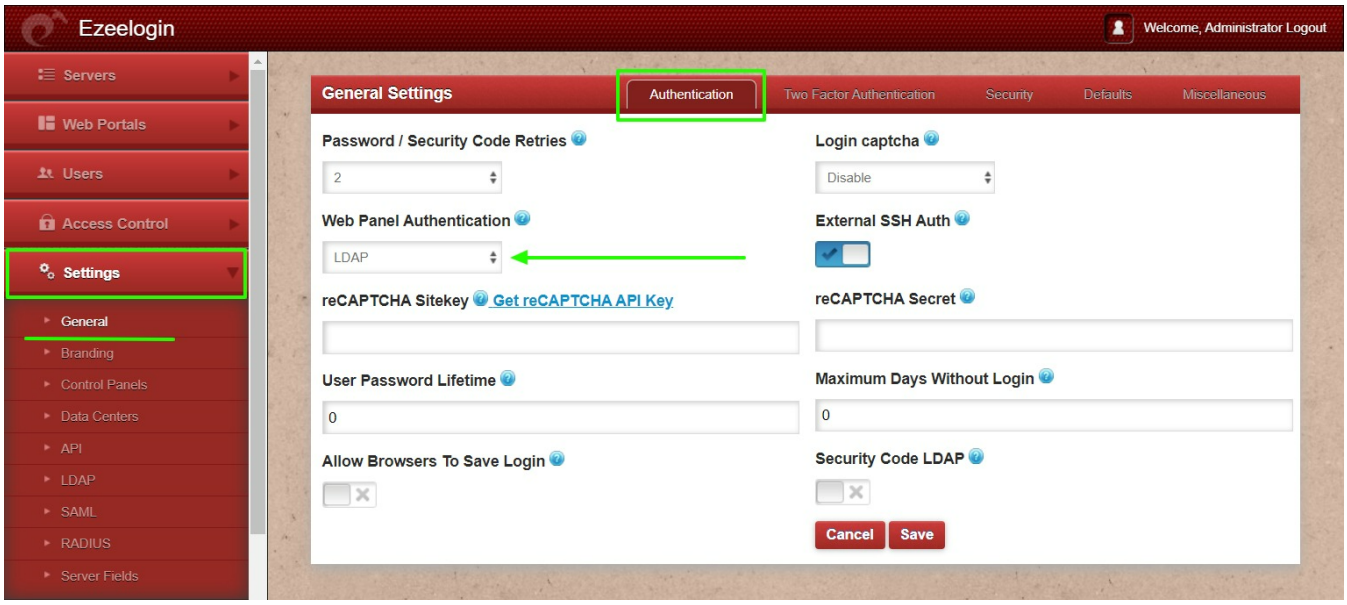
**Step 1.** Login to Ezeelogin Web GUI -> open settings -> Ldap

**How to find base DN and bind RDN**

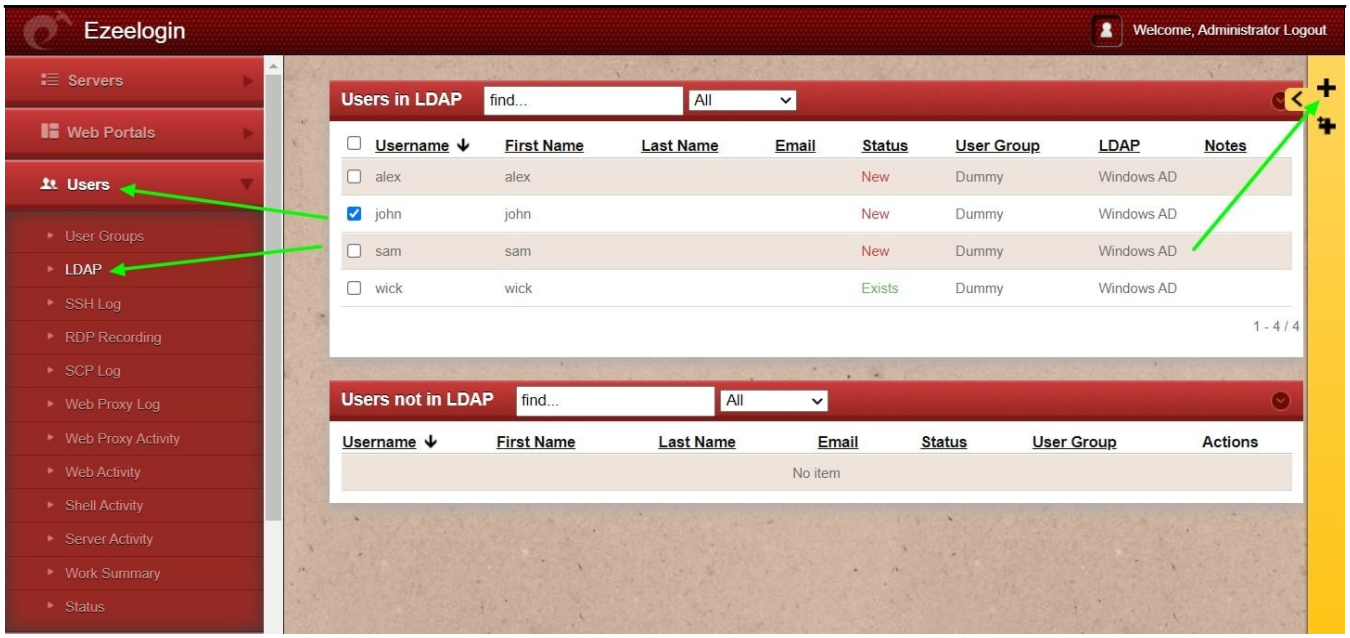
Add the details of LDAP configurations.




**Step 2.** Go to **Settings** -> **General** -> **Authentication** -> change **Web Panel Authentication** to **LDAP**

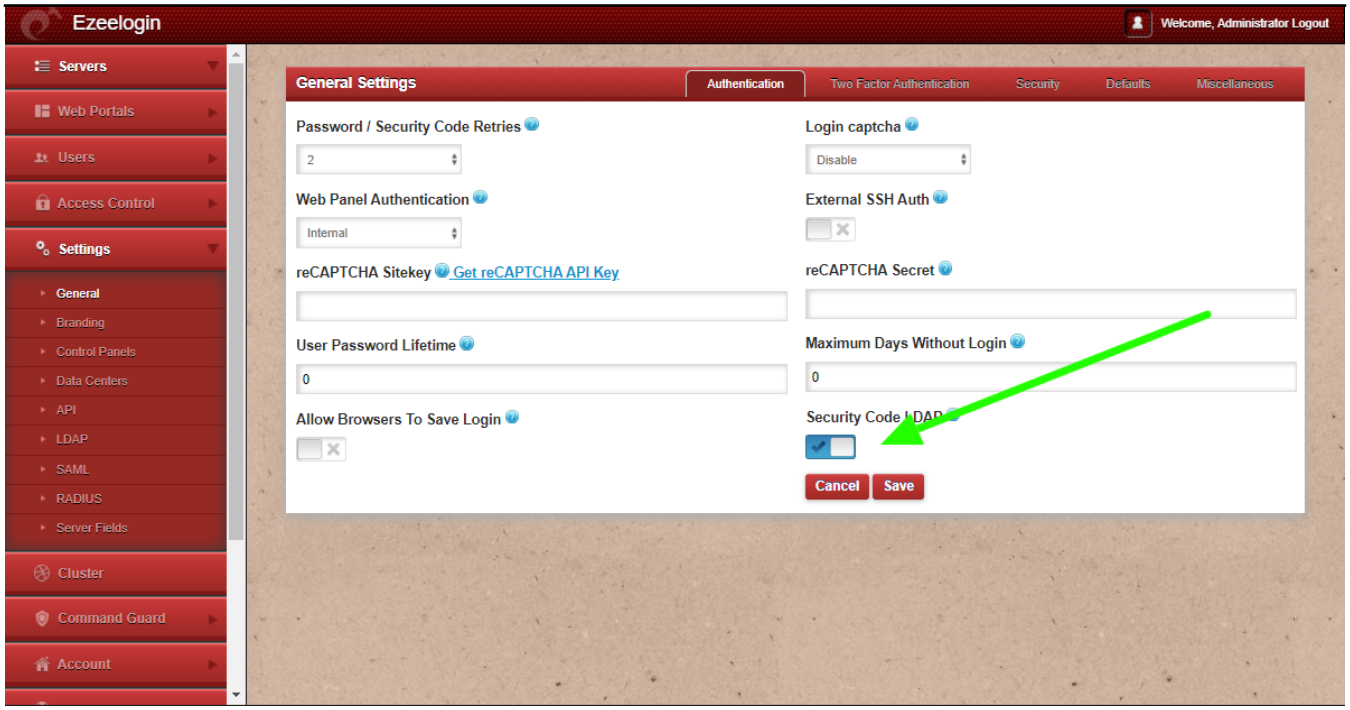



**Step 3.** Select the LDAP users and click on the button to  import users into Ezeelogin




You can confirm the imported LDAP users were listed in the Users tab in Ezeelogin GUI.  You will be able to log in to Ezeelogin GUI with windows user credentials.

**Step 4.** Enable Security Code LDAP option from Settings > General > Authentication, if the user does not want to login to Ezeelogin GUI to set up a security code.




## Backend configuration to integrate Windows with RHEL 8

**Step 1.** Install required packages.

```
root@gateway ~]# yum install realmd sssd oddjob oddjob-mkhomedir adcli samba-common samba-common-tools krb5-workstation authselect-compat nscd -y
```

**Step 2.** Provide Windows IP and Windows domain name in hosts file.

```
root@gateway ~]# vim /etc/hosts

windows_ip  windows_domain_name
```

**Step 3.** Provide Windows IP in resolv.conf  to resolve and discover AD domain.

```
root@gateway ~]# vim /etc/resolv.conf

nameserver  windows_ip
```

**Step 4.** Check if AD domain discovery is successful. Refer below example with ldapad.com

```
root@gateway ~]# realm discover ldapad.com

ldapad.com
type: kerberos
realm-name: LDAPAD.COM
domain-name: ldapad.com
configured: kerberos-member
server-software: active-directory
client-software: sssd
required-package: oddjob
required-package: oddjob-mkhomedir
required-package: sssd
required-package: adcli
required-package: samba-common-tools
login-formats: %U@ldapad.com
login-policy: allow-realm-logins
```

**Step 5.** Join CentOS 8  in Active Directory domain. Replace Admininstrator with Windows admin account.

```
root@gateway ~]# realm join ldapad.com -U Administrator

Password for Administrator:
```

**Step 6.** Confirm joining successful with realm list. Refer below example.

```
root@gateway ~]# realm list
ldapad.com
type: kerberos
realm-name: LDAPAD.COM
domain-name: ldapad.com
configured: kerberos-member
server-software: active-directory
client-software: sssd
required-package: oddjob
required-package: oddjob-mkhomedir
required-package: sssd
required-package: adcli
required-package: samba-common-tools
login-formats: %U@ldapad.com
login-policy: allow-realm-logins
```

**Step 7.** After successful joining you will get below sssd.conf and you need to change use_fully_qualified_names to False and shell to ezsh.

```
root@gateway ~]# vim /etc/sssd/sssd.conf

[sssd]
domains = ldapad.com
config_file_version = 2
services = nss, pam

[domain/ldapad.com]
ad_domain = ldapad.com
krb5_realm = LDAPAD.COM
realmd_tags = manages-system joined-with-adcli
cache_credentials = True
id_provider = ad
krb5_store_password_if_offline = True
default_shell = /bin/bash
ldap_id_mapping = True
use_fully_qualified_names = False
fallback_homedir = /home/%u@%d
access_provider = ad

override_shell = /usr/local/bin/ezsh
```

**Step 8.** Restart sssd and nscd using the below commands.

```
root@gateway ~]# service sssd restart && service nscd restart
```

**Step 9.** Run id username /getent passwd username and see AD user details.

```
root@gateway ~]# id john
uid=1701601108(john) gid=1701600513(domain users) groups=1701600513(domain users)

root@gateway ~]# getent passwd john
john:*:1701601108:1701600513:john user:/home/john@ldapad.com:/usr/local/bin/ezsh
```

**Note:**

Use the below command to clear the cache of the user.

**root@gateway ~]# sss_cache -u username**

**Note:**

Verify Certificate feature is only available from **Ezeelogin version 7.35.0**.

Refer **article to upgrade Ezeelogin to the latest version**.

Related Articles

Integrate Windows AD with RHEL 8 using SSSD

Integrate OpenLdap with Centos 8 using SSSD

Integrate Windows AD with Ubuntu using SSSD

Integrate OpenLdap with CentOS using SSSD