

CentOS Stream 9 – DNF & tmux Installation

Overview

This project demonstrates basic Linux system administration on CentOS Stream 9, focusing on DNF repository management and package installation.

Summary

Cleaned and rebuilt DNF metadata.

Identified a misconfigured EPEL repository that failed to load.

Confirmed BaseOS, AppStream, and Extras repositories were operational.

Installed tmux from the BaseOS repository.

Verified installation with a version check.

Verification

```
tmux -V
```

```
Output: tmux 3.2a
```

Skills Demonstrated

DNF package management

Repository troubleshooting

Linux command-line verification

Outcome

tmux was successfully installed and verified, confirming proper package management despite a broken EPEL configuration.

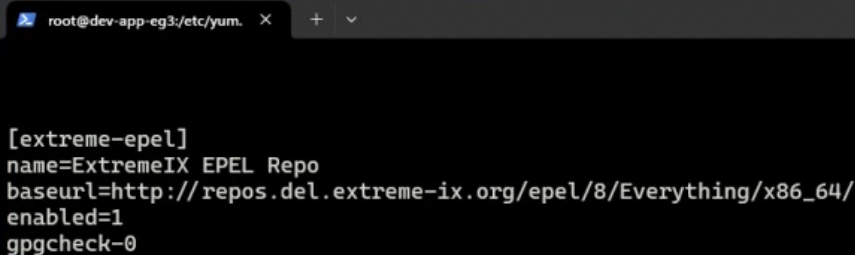
A custom YUM repository configuration is being edited as root, defining an ExtremeIX EPEL repo. The file sets the repo name, points baseurl to the ExtremeIX EPEL 8 x86_64 mirror, enables the repo, and disables GPG signature checking.

Quick notes (optional add-on):

enabled=1 means the repo is active.

gpgcheck=0 disables package signature verification (not recommended for production).

If this host is CentOS Stream 9, consider using an EPEL 9-compatible repo URL to avoid dependency issues



A terminal window with a dark background and light text. The window title bar shows 'root@dev-app-eg3:/etc/yum.' and standard window controls. The terminal content shows the configuration for a repository named 'extreme-epel'. The configuration lines are: 'name=ExtremeIX EPEL Repo', 'baseurl=http://repos.del.extreme-ix.org/epel/8/Everything/x86_64/', 'enabled=1', and 'gpgcheck=0'. Below these lines are several tilde characters (~) representing the rest of the file.

```
[extreme-epel]
name=ExtremeIX EPEL Repo
baseurl=http://repos.del.extreme-ix.org/epel/8/Everything/x86_64/
enabled=1
gpgcheck=0
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```

The system refreshes DNF metadata on CentOS Stream 9, but repeatedly skips the EPEL repository due to a misconfigured or unreadable `/etc/yum.repos.d/epel.repo` file. Core repositories (BaseOS, AppStream, Extras) load successfully, metadata is rebuilt, and `dnf repolist` confirms only the default CentOS Stream repos are active.

```
root@dev-app-eg3:/etc/yum. x + v
[root@dev-app-eg3 yum.repos.d]# dnf clean all
Warning: failed loading '/etc/yum.repos.d/Epel.repo', skipping.
21 files removed
[root@dev-app-eg3 yum.repos.d]# dnf makcache
No such command: makcache. Please use /usr/bin/dnf --help
It could be a DNF plugin command, try: "dnf install 'dnf-command(makcache)'"
[root@dev-app-eg3 yum.repos.d]# dnf makecache
Warning: failed loading '/etc/yum.repos.d/Epel.repo', skipping.
CentOS Stream 9 - BaseOS 1.6 MB/s | 8.8 MB 00:05
CentOS Stream 9 - AppStream 799 kB/s | 25 MB 00:31
CentOS Stream 9 - Extras packages 10 kB/s | 20 kB 00:01
Last metadata expiration check: 0:00:01 ago on Wed 17 Sep 2025 11:32:23 PM EDT.
Metadata cache created.
[root@dev-app-eg3 yum.repos.d]# dnf repolist
Warning: failed loading '/etc/yum.repos.d/Epel.repo', skipping.
repo id repo name
appstream CentOS Stream 9 - AppStream
baseos CentOS Stream 9 - BaseOS
extras-common CentOS Stream 9 - Extras packages
[root@dev-app-eg3 yum.repos.d]#
```

The tmux package is successfully installed on a CentOS Stream 9 system using DNF. Despite repeated warnings about a skipped EPEL repository, dependencies resolve correctly and tmux is pulled from the BaseOS repository, completing the transaction without errors.

```
root@dev-app-eg3:/etc/yum. X + v
[root@dev-app-eg3 yum.repos.d]# dnf install -y tmux
Warning: failed loading '/etc/yum.repos.d/Epel.repo', skipping.
Last metadata expiration check: 0:01:35 ago on Wed 17 Sep 2025 11:32:23 PM EDT.
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
Installing:				
tmux	x86_64	3.2a-5.el9	baseos	474 k

Transaction Summary

Install 1 Package				
Total download size: 474 k				
Installed size: 1.1 M				
Downloading Packages:				
tmux-3.2a-5.el9.x86_64.rpm			411 kB/s 474 kB	00:01
Total			311 kB/s 474 kB	00:01

Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction

Preparing	:		1/1
Installing	:	tmux-3.2a-5.el9.x86_64	1/1
Running scriptlet:	:	tmux-3.2a-5.el9.x86_64	1/1
Verifying	:	tmux-3.2a-5.el9.x86_64	1/1

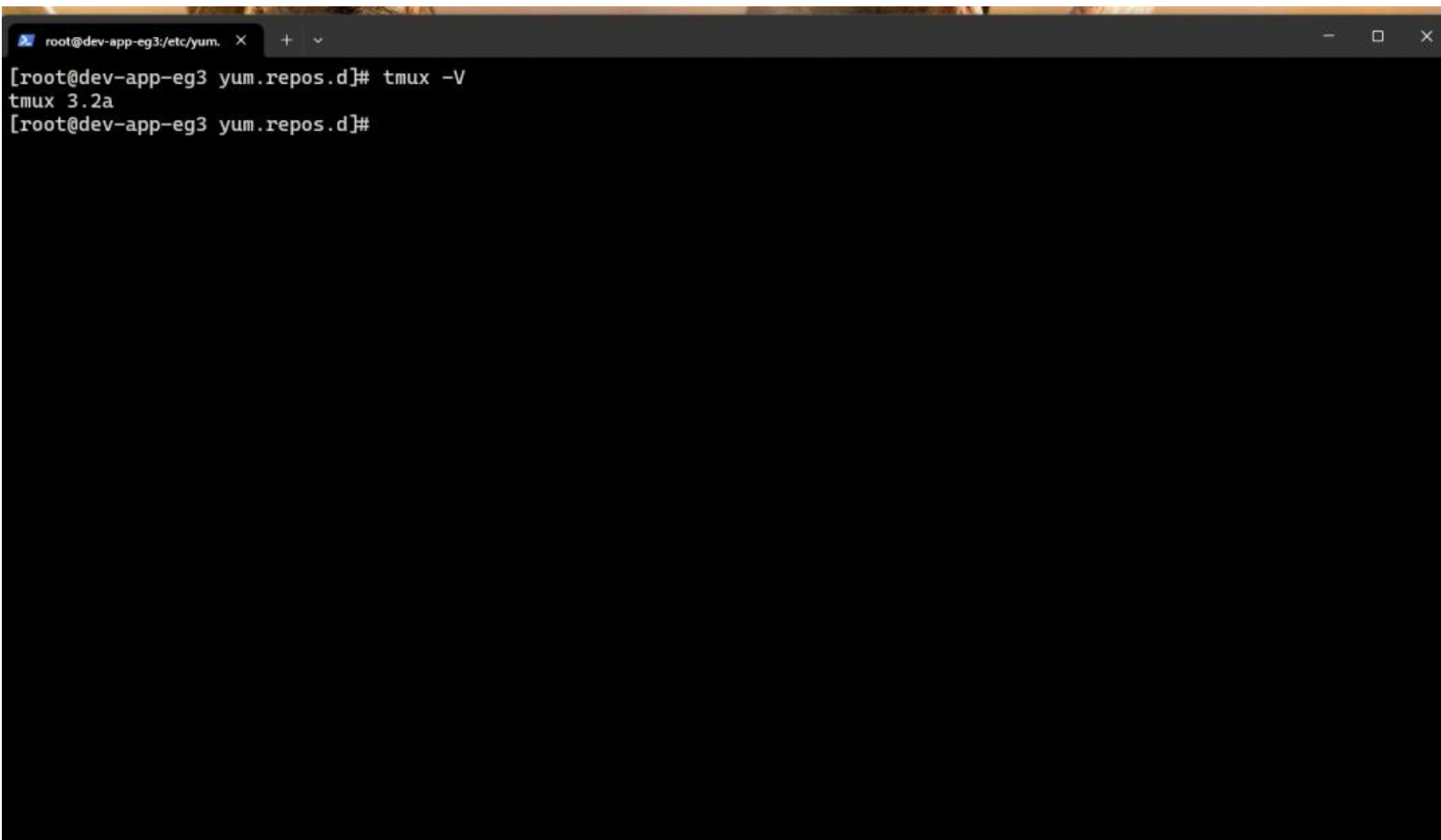
Installed:
tmux-3.2a-5.el9.x86_64

The tmux installation is verified successfully on CentOS Stream 9. Running `tmux -V` confirms the installed version as `tmux 3.2a`, validating that the package was installed correctly and is functioning as expected.

Outcome:

tmux is available system-wide

Version confirmation completes post-install verification

A terminal window with a dark background and light-colored text. The window title bar shows 'root@dev-app-eg3/etc/yum.' and standard window controls. The terminal content shows a root prompt at 'dev-app-eg3 yum.repos.d' where the command 'tmux -V' has been executed, resulting in the output 'tmux 3.2a'.

```
root@dev-app-eg3/etc/yum. X + v
[root@dev-app-eg3 yum.repos.d]# tmux -V
tmux 3.2a
[root@dev-app-eg3 yum.repos.d]#
```

Summary (last 4 screenshots):

A custom EPEL repository configuration is present but fails to load due to misconfiguration on CentOS Stream 9.

DNF cache is cleaned and rebuilt successfully using the default BaseOS, AppStream, and Extras repositories.

The tmux package installs successfully from the BaseOS repository despite EPEL being unavailable.

Installation is verified by checking the installed version, confirming tmux 3.2a is working correctly.