

# Introduction to the Netos NetOps Project

## Introduction

Our goal with our Semaphore projects is to deliver a framework that makes it simple and fast to deploy and manage open-source enterprise networking applications and tools.

- Quickly spin up an enterprise grade application stack (in minutes).
- Deal with all the critical yet time consuming platform engineering at the click of a button.
- Deal with the boring but important stuff like backups, restores, and maintenance.
- Fast track to the interesting stuff like playing with the tools and dev/test.

Over time we will publish more projects with associated playbooks. Currently available is:

- **Netos NetOps** - A simple wrapper project for managing the underlying Semaphore instance.
- **Netos NetBox** - Contains all the playbooks to deploy and operate NetBox.

## Ansible Semaphore

Semaphore UI is a simple and easy to use alternative to Ansible AWX. Netos have used it for over a year without issues to run thousands of playbooks and manage all of our infrastructure.

“ It is convenient and easy to use - user friendly web interface for executing Ansible playbooks, Terraform, OpenTofu, Pulumi code and Bash scripts. It is designed to make your automation tasks easier and more enjoyable.

## Playbooks

At a click of a button you can perform complex installations, like installing NetBox, and a lot more.

### B1.0 NetBox New Deployment v3.7.8 > Task #2691 ✕

Success	Author	Started	Duration
<span>✓</span>	Admin User	15 hours ago	3 minutes

```
8:51:17 PM changed: [127.0.0.1] => (item=netbox)
8:51:17 PM changed: [127.0.0.1] => (item=netbox-rq)
8:51:17 PM TASK [netbox-deploy : Add Postgresql ubuntu apt key] *****
8:51:19 PM ok: [127.0.0.1]
8:51:19 PM TASK [netbox-deploy : Get lsb_release version for Ubuntu] *****
8:51:19 PM changed: [127.0.0.1]
8:51:19 PM TASK [netbox-deploy : Add Postgresql Repository for noble] *****
8:51:20 PM ok: [127.0.0.1]
8:51:20 PM TASK [netbox-deploy : Ensure postgresql client is installed] *****
8:51:20 PM ok: [127.0.0.1]
8:51:20 PM TASK [netbox-deploy : Ensure requisite directories are created] *****
8:51:20 PM ok: [127.0.0.1] => (item=/netos/backups)
8:51:21 PM ok: [127.0.0.1] => (item=/netos/backups/netbox)
8:51:21 PM TASK [netbox-deploy : ensure .pgpass file is created] *****
8:51:21 PM ok: [127.0.0.1]
8:51:21 PM TASK [netbox-csrf : Modify the CSRF_TRUSTED_ORIGINS Setting in settings.py] ****
8:51:21 PM changed: [127.0.0.1]
8:51:21 PM RUNNING HANDLER [database-deploy : restart postgresql] *****
8:51:24 PM changed: [127.0.0.1]
8:51:24 PM RUNNING HANDLER [netbox-csrf : restart netbox services] *****
8:51:26 PM changed: [127.0.0.1] => (item=netbox)
8:51:28 PM changed: [127.0.0.1] => (item=netbox-rq)
8:51:28 PM PLAY RECAP *****
```

## Views

Views group together different playbooks, for example, below you can the tasks that deploy NetBox:

**Task Templates** NEW TEMPLATE ▾ ⚙️

ALL   A. OPERATIONS   **B. NETBOX DEPLOY**   C. NETBOX PLUGINS   D. NETOS   E. SYSTEM   ✎

NAME	VERSION	STATUS	LAST TASK	PLAYBOOK	INVENTORY	ENVIRONM
▼ ⓐ ⚙️ B1.0 NetBox New Deployment v3.7.8	—	Success	#2576 by Admin User	netbox-deploy.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B1.1 NetBox New Deployment v4.0.11	—	Not launched		netbox-deploy.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B2.0 NetBox New Deployment Custom Version	—	Not launched		netbox-deploy.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B3.0 NetBox Upgrade Check Path	—	Success	#2593 by Admin User	netbox-deploy-check-path.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B3.1 NetBox Upgrade to Next Suitable Version	—	Success	#2573 by Admin User	netbox-deploy-upgrade.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B4.0 Deploy NetBox CSRF Domain Settings	—	Success	#2574 by Admin User	netbox-csrf.yml	Localhost	NetBox Glo
▼ ⓐ ⚙️ B5.0 Remove NetBox App and Database	—	Success	#2575 by Admin User	netbox-remove.yml	Localhost	NetBox Bac

## Semaphore Projects

Finally, we group everything together into different projects.

The screenshot shows the Semaphore interface. On the left is a sidebar with project selection options: NetBox (NE), NetOps (NO), and Netos Pod (NP), which are highlighted with a red box. Below these are options for 'New project...', 'Restore Project...', 'Environment', 'Key Store', 'Repositories', 'Integrations', and 'Team'. The main area is titled 'Task Templates' and shows a list of tasks under the 'B. SYSTEM' category. A red arrow points from the 'Netos Pod' project in the sidebar to the task list.

**Task Templates**

ALL   A. OPERATIONS   **B. SYSTEM**   ✎

NAME	VERSION	STATUS
▼ ⓐ ⚙️ A2.0 Semaphore Backup	—	Not launched
▼ ⓐ ⚙️ B1.0 Deploy Semaphore NGINX & Self-Signed Cert	—	Not launched
▼ ⓐ ⚙️ B1.1 Deploy Semaphore NGINX & Custom Cert	—	Not launched
▼ ⓐ ⚙️ B2.0 Git Pull Netos NetOps Repo	—	Not launched

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