Rancher Kubernetes Management Starter Server by Code Creator

Simple Launch, First Login, and Validation Guide

IMPORTANT FIRST BOOT NOTE
Rancher initialization may take 5 to 10 minutes after the EC2 instance first launches.

During this time, /home/ubuntu/FIRST_LOGIN.txt may not exist yet.

Wait a few minutes, then run **cat /home/ubuntu/FIRST_LOGIN.txt** again. You can also check progress with **sudo systemctl status codecreator-rancher-firstboot.service --no-pager -l** and **sudo tail -f /var/log/codecreator-rancher-firstboot.log.**

What this server does

This AMI provides a ready to launch Rancher Manager starter server for managing Kubernetes environments through a browser based dashboard. It includes Ubuntu 24.04, K3s, Helm, cert manager, Rancher Manager, first boot URL generation, and customer login instructions.

Item	Details
Who this guide is for	AWS Marketplace subscribers, Kubernetes administrators, DevOps teams, cloud engineers, training users, and technical evaluators.
What success looks like	The instance launches, first boot completes, FIRST_LOGIN.txt is created, Rancher opens in a browser, and the admin login works.
Required AWS items	An AWS account, an EC2 key pair, a security group with the required ports, and a public IPv4 address.
External API keys required	None are required for the initial Rancher dashboard. Optional cloud provider credentials may be needed later if you import or manage external clusters.

Quick start

Step	What you do	Success looks like
1	Launch the AMI from AWS Marketplace or EC2.	The instance starts on Ubuntu 24.04 with Rancher services configured to start automatically.
2	Assign a public IPv4 address and use a security group with	SSH and browser access are

	TCP 22, TCP 80, and TCP 443 allowed as needed.	available.
3	Wait 5 to 10 minutes for first boot initialization.	The system generates the Rancher URL and admin password.
4	Connect to the instance using your Amazon private key and the ubuntu user.	You can view FIRST_LOGIN.txt and run status commands.
5	Open the Rancher URL from FIRST_LOGIN.txt in your browser.	The Rancher dashboard opens. A browser certificate warning may appear because Rancher generated certificates are used.
6	Login with username admin and the initial admin password from FIRST_LOGIN.txt.	The Rancher dashboard opens successfully.

Before you begin

- Launch the instance with a public IPv4 address so the public Rancher URL can be generated correctly.
- Use the OS user name ubuntu for SSH access.
- Use your Amazon EC2 private key for SSH access.
- Allow inbound TCP 443 for Rancher browser access.
- Allow inbound TCP 22 only from trusted administrator IP addresses when possible.
- Allow inbound TCP 80 if you want HTTP access or redirect behavior available through Traefik.
- Do not expect FIRST_LOGIN.txt to appear immediately. Rancher startup and password generation can take 5 to 10 minutes.

Recommended EC2 settings

Setting	Recommended value	Notes
Minimum evaluation size	t3.xlarge	Suitable for light testing and initial validation.
Recommended default	m6i.xlarge or m7i.xlarge	Better for steadier Rancher usage and smoother first boot initialization.
Larger use	m6i.2xlarge or larger	Use for heavier management activity or more demanding lab use.
Root volume	80 GB gp3	Recommended baseline root storage for this AMI.
Operating system user	ubuntu	Use this user when connecting by SSH.

Security group ports

Port	Purpose	Recommended access
TCP 22	SSH administration	Restrict to your trusted IP address when possible.
TCP 80	HTTP and Traefik web entry path	Allow if needed for browser access or redirect behavior.
TCP 443	Rancher HTTPS dashboard	Allow from administrator networks or trusted user networks.

Connect to the instance

Connect to your instance using your Amazon private key and the **ubuntu** user.

```
ssh -i /path/to/your-key.pem ubuntu@PUBLIC_IP
```

Replace PUBLIC_IP with the public IPv4 address assigned to your EC2 instance.

First login and Rancher URL

WAIT BEFORE CHECKING
Rancher initialization may take 5 to 10 minutes after launch. If the first command says the file does not exist, wait a few minutes and try again. This does not mean the instance is broken.

After SSH login, run:

```
cat /home/ubuntu/FIRST_LOGIN.txt
```

The file shows the Rancher URL, the username, and the initial admin password. It will look similar to this:

```
Rancher URL:
https://rancher-PUBLIC-IP-WITH-DASHES.sslip.io

Username:
admin

Initial admin password:
GENERATED_PASSWORD
```

You can also print only the Rancher URL with:

```
codecreator-rancher-url
```

Open the Rancher URL in your browser. The server uses Rancher generated TLS certificates, so your browser may show a certificate warning. Continue only if you trust this instance.

Check first boot progress

If FIRST_LOGIN.txt is not ready yet, check the first boot service and live log:

```
sudo systemctl status codecreator-rancher-firstboot.service --no-pager -l
sudo tail -f /var/log/codecreator-rancher-firstboot.log
```

When first boot is complete, the service should show active exited or success, and FIRST_LOGIN.txt should exist.

Validate Rancher after login

Run these checks from SSH after first boot completes:

```
codecreator-rancher-status
kubectl get nodes -o wide
kubectl -n cert-manager get pods
kubectl -n cattle-system get pods
kubectl -n cattle-system get ingress
curl -k -I $(codecreator-rancher-url)
```

Success means K3s is active, the Kubernetes node codecreator-rancher is Ready, Rancher pods are Running, and the Rancher URL returns an HTTPS response.

Useful commands

Command	Purpose
cat /home/ubuntu/FIRST_LOGIN.txt	Shows the Rancher URL, username, and initial admin password after first boot completes.
codecreator-rancher-url	Prints the generated Rancher URL.
codecreator-rancher-status	Shows system, K3s, cert manager, Rancher, ingress, and first login information.
codecreator-rancher-support-bundle	Creates a support summary file in /home/ubuntu for troubleshooting.
sudo systemctl status codecreator-rancher-firstboot.service --no-pager -l	Shows first boot initialization status.
sudo tail -f /var/log/codecreator-rancher-firstboot.log	Shows live first boot progress.

Common file locations

Path	Purpose
/home/ubuntu/FIRST_LOGIN.txt	Customer first login file with Rancher URL and initial admin password.

/root/FIRST_LOGIN.txt	Root copy of first login details.
/opt/codecreator-rancher	Code Creator Rancher metadata and generated runtime values.
/var/log/codecreator-rancher-firstboot.log	First boot initialization log.
/etc/update-motd.d/99-codecreator-rancher	Login banner shown when the ubuntu user connects by SSH.
/etc/rancher/k3s/k3s.yaml	K3s kubeconfig used locally by kubectl and Helm.

Troubleshooting

Issue	What to do
FIRST_LOGIN.txt does not exist immediately after SSH login	Wait 5 to 10 minutes. Then run cat /home/ubuntu/FIRST_LOGIN.txt again. Check the service and log if needed.
Browser shows a certificate warning	This starter server uses Rancher generated TLS certificates. Continue only if you trust this EC2 instance.
Rancher URL does not open	Confirm TCP 443 is open in the security group and that the instance has a public IPv4 address.
Rancher pods are not ready yet	Wait a few minutes and run codecreator-rancher-status again. Rancher can take time to initialize.
SSH does not work	Confirm you are using the ubuntu user, the correct private key, and an inbound TCP 22 rule from your IP address.
Rancher login fails	Use the exact admin password from /home/ubuntu/FIRST_LOGIN.txt. If copied manually, check for extra spaces.

Security notes

- Change the Rancher admin password after first login if your organization requires a different credential policy.
- Limit inbound SSH and Rancher access to trusted IP addresses whenever possible.
- Do not store long term cloud provider access keys on the instance if you can use IAM roles, kubeconfig files, or temporary credentials instead.
- If you import or manage external Kubernetes clusters, follow your organization security rules for kubeconfig and cloud credentials.
- This AMI is intended as a Rancher starter, lab, training, evaluation, and lightweight management server. For production high availability Rancher, use a multi node Rancher architecture.

Production and support note

This product provides a ready to launch Rancher starter server to reduce setup time for AWS Marketplace users. It is designed for first time usability, training, evaluation, development, and lightweight

management scenarios. For highly available production Rancher, use a multi node architecture and follow Rancher production guidance.

For troubleshooting, run the support bundle command and provide the generated file to your support contact:

```
codecreator-rancher-support-bundle
```