GUIDE
Cockpit Secure System Administration

v1.0.0

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Cockpit Secure Administration Lab

Installed and configured Cockpit on Ubuntu 24.04 to manage Linux systems through a web-based interface. Identified and controlled system services, managed user accounts, executed administrative commands, and demonstrated multi-host management using secure SSH connections.

REVISION HISTORY

Version	Date	Author	Description of Changes
v1.0.0	01/27/2026	Eldon G.	Initial draft.

Overview

This guide documents the installation, configuration, and practical use of Cockpit, a web-based Linux system administration tool. It covers service management, user visibility, multi-host management, and access validation on Ubuntu systems.

Target OS: Ubuntu 24.04 (Debian-based systems noted where applicable)

Scope: Installation, access verification, service management, user identification, and multi-host administration

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1.0 Cockpit Installation & Service Management

1.1 Install Cockpit

```
sudo apt update
```

```
sudo apt install cockpit -y
```

1.2 Enable and Start Cockpit

```
sudo systemctl enable --now cockpit.socket
```

1.3 Verify Cockpit Service

```
sudo systemctl status cockpit.socket
```

2.0 Access & Network Verification

2.1 Default Access URL

```
https://<VM-IP>:9090
```

Cockpit uses **port 9090** over HTTPS by default.

2.2 Confirm Cockpit Listening Port

```
sudo ss -tulpn | grep 9090
```

2.3 Firewall Check (UFW)

```
sudo ufw status
```

Allow Cockpit if needed:

```
sudo ufw allow 9090/tcp
```

3.0 Using Cockpit to Identify Running Services

3.1 Navigate to Services

In the Cockpit web interface:

System → Services

3.2 Identify Services

From the Services page, you can:

- View running, stopped, and disabled services
- Identify core services such as:
  - `ssh`
  - `cron`
  - `systemd-journald`
  - `NetworkManager`

3.3 Start / Stop Services

Select a service and toggle between:

- *Start and Enable*
- *Disable*

4.0 User Account Identification

4.1 View User Accounts

Navigate to:

Accounts

Cockpit displays:

- Local system users
- UID information
- Group membership
- Login permissions

4.2 Expected Behavior

- Any user created previously on the system will appear here
- Users persist across clones unless manually deleted
- Cockpit reads system users directly from `/etc/passwd`

5.0 Command Execution via Cockpit

5.1 Open Terminal

Navigate to:

Terminal

5.2 Execute Commands

Example:

- `uptime`
- `whoami`
- `ip a`

6.0 Managing Multiple Linux Hosts with Cockpit

6.1 Requirements for Secondary VM

The second Linux VM must have:

- SSH is installed and running

```
sudo apt install openssh-server -y
```

```
sudo systemctl enable --now ssh
```

- Network connectivity to the primary **Cockpit** host
- A valid local user account with a password

6.2 Add Remote Host

In **Cockpit**:

Dashboard → *Add new host*

Provide:

- **IP address** of secondary VM
- Username on secondary VM or leave empty to connect with the current user
- Password or SSH key

6.3 Verify Multi-Host Management

Once connected, demonstrate:

- Switching between hosts
- Viewing services on the second VM
- Running commands on the second VM
- Viewing user accounts on the second VM

7.0 Logs & Troubleshooting

7.1 View System Logs

Logs

Cockpit provides:

- `systemd` journal access
- Service-specific logs
- Filtering by severity and service

7.2 Common Issues

- **Connection timeout:** SSH not reachable on secondary VM
- **Auth failure:** PasswordAuthentication disabled in `sshd`
- **Host unreachable:** Incorrect network mode or **IP**

8.0 Security Notes

- **Cockpit** runs with system privileges via authenticated users
- Multi-host mode uses SSH and loads remote web components
- Only connect to **trusted systems**
- Keep **Cockpit** updated via system updates

9.0 Validation Checklist

✔ **Cockpit** installed and accessible via browser

✔ **Services** identified and managed via **Cockpit**

✔ **User account**s identified via **Cockpit**

✔ Commands executed via the **Cockpit Terminal**

✔ Secondary Linux VM added and managed

✔ Multi-host administration demonstrated

Conclusion

This guide demonstrates practical system administration using **Cockpit** on Ubuntu 24.04. It shows how a web-based interface can be used to manage services, users, and multiple Linux hosts securely and efficiently, aligning with foundational system administration and cybersecurity principles.