



Warewulf Pro delivers the tools you need to build, deploy, and scale High Performance Computing (HPC) clusters. Warewulf ensures your stack is consistent across every node and gives you the tools to manage and update your stack over time.

What is Warewulf?

Warewulf is an open source cluster provisioning system that enables stateless, diskless booting of compute nodes images over a network. It eliminates the need for local storage on compute nodes by serving the entire operating system, applications, and configuration through network protocols during the boot process.

Whether you're starting from scratch or upgrading an existing cluster, Warewulf Pro reduces deployment times from weeks to days and simplifies ongoing management and observability of your cluster.

Warewulf Pro

Warewulf Pro extends the open source project with key capabilities and support for your deployment. It includes the following:

In addition to the capabilities outlined above, you also get world-class support for issues, upgrades, and architecture help, and access to online training materials.



Web interface

An intuitive interface for configuration and management of an HPC cluster.



Prebuilt node images

Curated base images for common HPC use cases, including OpenHPC, Slurm, OpenPBS, and Fuzzball.



Custom node overlays

Pre-built overlays that can be configured to accelerate deployment for your exact requirements.



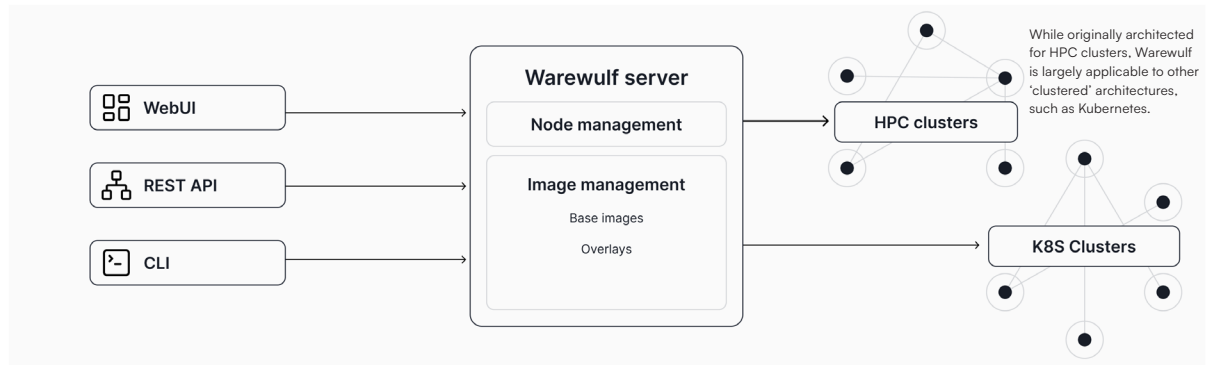
Warewulf packages

Production-ready Warewulf packages, direct from CIQ.



Apptainer packages

Production-ready Apptainer packages, direct from CIQ, allow you to package, deploy, and execute your apps as performant, portable HPC containers.



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A project administrator logs into the Warewulf Server using the CLI, a custom interface via REST or uses the Warewulf web interface.

②

Each cluster gets defined as a set of nodes, a base workload image, overlay configurations, and then the base kernel and filesystem.

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The cluster is deployed and all machines are configured exactly the same for the workload definition. Upon reboot they get the same image.

Why Warewulf Pro?

Define flexible clusters at scale

Warewulf Pro comes with pre-packaged base images and ready-to-apply overlays to quick-start and customize your deployment and ensures you'll have consistency throughout your environment, from a few nodes to massive, heterogeneous environments.

Deploy faster and more reliably

Warewulf allows you to automate and accelerate cluster deployment, eliminate complexity, and cut operational overhead, so you can focus on what you need to solve and not the infrastructure required.

Build expertise faster

Warewulf Pro includes an intuitive web interface that makes it easy to inspect, manage, and update your Warewulf cluster from within the familiar Cockpit management platform. The interface is pervasively populated with in-line documentation and contextual links to additional resources and best practices.

Future-proof your HPC Stack

Unlike many legacy solutions, Warewulf is an open source project, so you can be certain that ongoing updates and improvements will continue. CIQ is committed to continuously updating the pre-packaged images to keep you current.

Open Source, Enterprise Grade

The Warewulf community is active and always growing. You can adopt stateless provisioning using the core software freely; however, Warewulf Pro delivers a commercial open source offering. It offers advanced, enterprise features and commercial support.

Feature	Warewulf	Warewulf Pro
Stateless provisioning	✓	✓
Node images	Community-maintained base images	Pre-built and maintained for OpenHPC, Slurm, OpenPBS
Configuration overlays	Self-built	Catalog with app-specific and customer-focused overlays
Warewulf packages	Community-maintained	CIQ maintained and supported
Apptainer packages	Community-maintained	CIQ maintained and supported
Web interface	✗	✓
Support	Community only	CIQ enterprise support with expert assistance
Version upgrade guidance	Documentation only	Guided major version upgrade

The image shows a terminal window and a web browser displaying the Warewulf interface. The terminal window shows the command `wwctl node list --net` and its output, which lists four nodes (n1, n2, n3, n4) with their network details. The web browser shows the Warewulf web interface at `https://rocky.local:9090/warewulf`, displaying a sidebar with navigation options and a main content area showing a table of nodes.

```

[roo@rocky ~]# wwctl node list --net
NODE  NETWORK  HWADDR          IPADDR          GATEWAY          DEVICE
-----
n1    en1       6d:19:7c:0d:c1:bd  192.168.3.101   192.168.1.1     en1
n2    en1       2f:42:ec:33:7c:02  192.168.3.102   192.168.1.1     en1
n3    en1       09:39:70:3a:6f:a5  192.168.3.103   192.168.1.1     en1
n4    en1       81:26:03:34:4e:c7  192.168.3.104   192.168.1.1     en1
<nil> <nil>      <nil>            <nil>            <nil>            en1
<nil> <nil>      <nil>            <nil>            <nil>            en2
105   192.168.1.1 bond0
  
```

The web interface shows a sidebar with the following navigation options: Apps, Image Builder, Warewulf, System, Overview, Logs, Storage, Networking, and Podman containers. The main content area displays a table of nodes:

Name	Profiles	Image	System Overlays	Runtime Overlays
n1	3	rockylinux-9	14	2
n2	1	rockylinux-9	14	2
n3	1		14	2

“Warewulf has been one of the best decisions we’ve made. Cluster deployments take only 10 minutes, and we won’t build a new cluster without it.”

University of Alberta

CIQ: HPC experts

CIQ is a driving force behind Warewulf, Apptainer, and Rocky Linux—key components of modern HPC infrastructure. We offer not just products, but a partnership: expert knowledge, tailored services, and a commitment to your success.

Need help? CIQ can provide in person or live training from the experts and creators of the project, as well as hands-on professional services to help you design, build, deploy, and maintain your HPC environment.

Partner Ready

Whether you need external support from one of our partners or you are looking to include Warewulf Pro as part of your offering, CIQ makes it easy for third-party partners to deliver full-stack, production-ready clusters, backed with CIQ expertise.

Build Better, Faster, Smarter with Warewulf Pro

Get started today: talk to CIQ about Warewulf Pro and accelerate your HPC success.

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