

Provisioning on Container

Group Project 1

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Objective

Objective of this project is to implement HPC on containers.

Features of warewulf v4

- stateless nodes based on container
- rapid development
- only one command to control everything (`wwctl`)

Workflow

- first nodes get boots up
- DHCP gives ip address to the given node
- then ipxe file get transferred over the network
- then kernel is transferred over the network
- then runtime overlays are transferred to the node
- then nodes get booted up

Warewulf v4

Services

Warewulfd

Ports

9867

Dependencies

DHCPd,tftpd, nfs-server

Description

Warewulf is a provisioning tool which uses
Containers

SLURM

Services

slurmctld,slurmdbd,slurmd

Ports

6817,6819,6818

Dependencies

Build Tools & Libraries,db,Python,Perl,Numactl,munge,LDAP or PAM,Optional Libraries/Components/Languages

Version

Slurm 20.11.8, which was released on August 3, 2021.

Description

SLURM, which stands for "Simple Linux Utility for Resource Management," is an open-source job scheduler and resource management system commonly used in high-performance computing (HPC) clusters and supercomputers.

Ganglia

Services	Gmetad,Gmond
Ports	8651,8649
Dependencies	PHP , httpd
Description	Ganglia is a popular open-source monitoring and performance measurement system.