MANTLE 2.0

Datacenter Builds Quick Start Guide

VMware and Enterprise Linux

BEFORE YOU BEGIN

- Confirm Mantle can reach the PXE-facing network for every target server.
- Have host inventory, management IPs, hostnames, and credentials ready.
- Know the required DNS, NTP, gateway, subnet, VLAN, and MTU values.
- Select the platform versions, licenses, templates, and datastore names you intend to use.

OPTIONAL ASSETS

- Upload any OVAs, ISO files, kickstart templates, VM configs, or playbooks before you start.
- Use post-install actions only when you want Mantle to deploy VMs, OVAs, or run follow-on automation.
- Keep a serial console path available when BIOS or console-driven automation is required.

Workflow at a glance

The two build paths share the same launch pattern, then diverge by platform-specific configuration.

VMWARE DATACENTER BUILD

- New Build → Datacenter Build → VMware
- Configure BIOS, ESXi hosts, VCSA & optional vSAN
- Optionally add post-install VMs, OVAs, and playbooks
- Review, deploy, track progress, and wait for host readiness and success status

ENTERPRISE LINUX DATACENTER BUILD

- New Build → Datacenter Build → Enterprise Linux
- Configure BIOS, platform version, kickstart template, hosts, bridges, and serial console
- Optionally enable virtualization settings and playbooks
- Review, deploy, track progress, wait for PXE, reboot, SSH completion, and success status

MANTLE 2.0 DATACENTER BUILDS QUICK START

VMware Datacenter Build

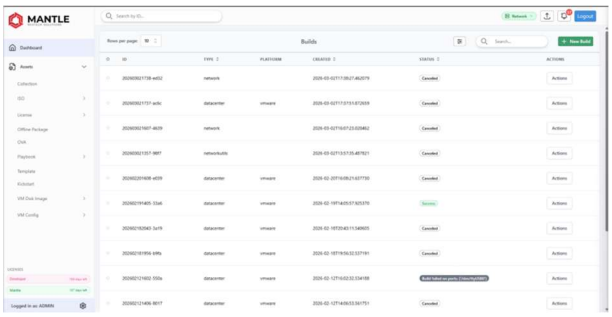
Launch the build and select the VMware path.

Step 1 - 4: Start a new VMware datacenter build.

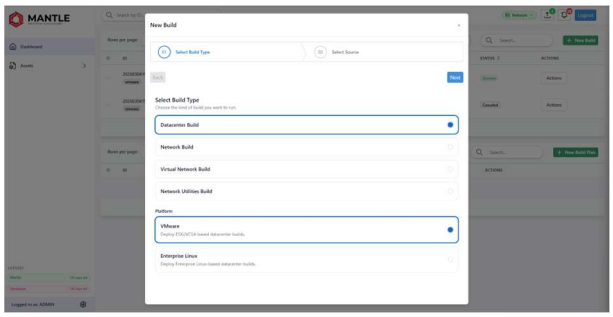
Create the build, choose VMware, select a new source, and set the target device and BIOS automation options.

USE THIS PAGE TO

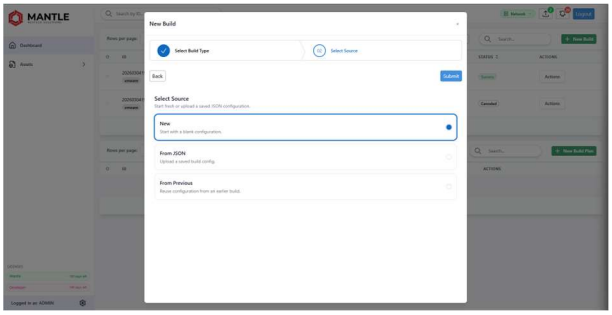
- Create a new build from the Builds view.
- Select Datacenter Build as the build type and VMware as the platform.
- Choose New under Select Source.
- Set the device type and serial port in BIOS, or disable BIOS when it is not required.



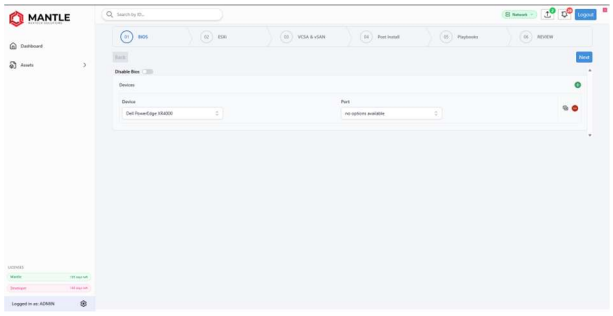
Step 1 — From Builds, select + New Build.



Step 2 — Choose Datacenter Build and VMware.



Step 3 — Select New under Select Source.



Step 4 — Set the device and serial port for BIOS automation.

VMware Datacenter Build

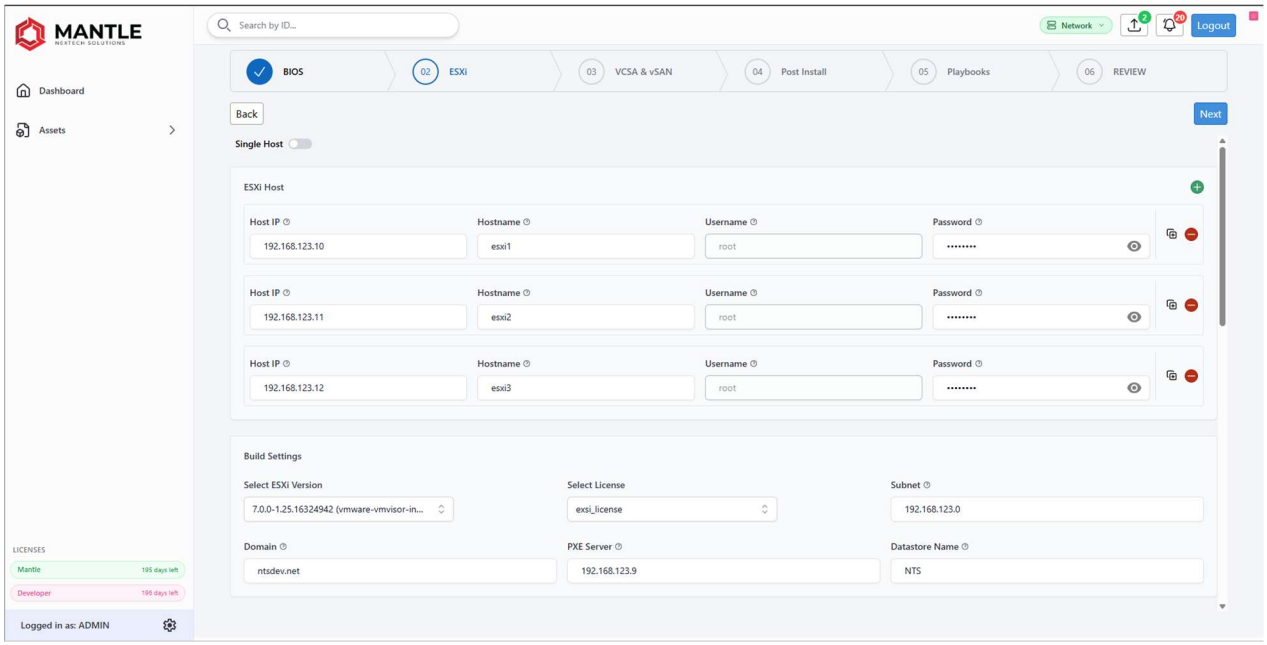
Configure ESXi hosts and the base build settings.

Step 5: Complete the ESXi host and build settings sections.

Add every ESXi host that will be provisioned, then set the common build values for the cluster.

HAVE THESE VALUES READY

- Host IP, hostname, username, and password for each ESXi host.
- ESXi version and license selection.
- Management subnet, domain, PXE server, and datastore name.

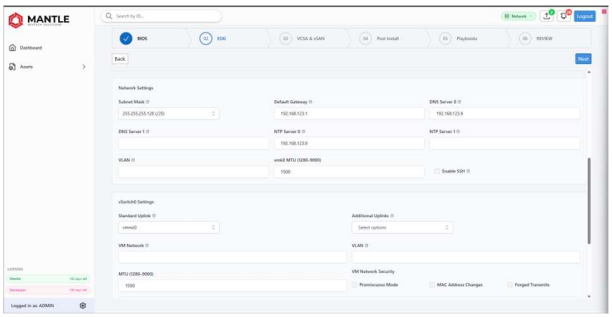


Add all ESXi hosts, then complete the shared build settings below the host list.

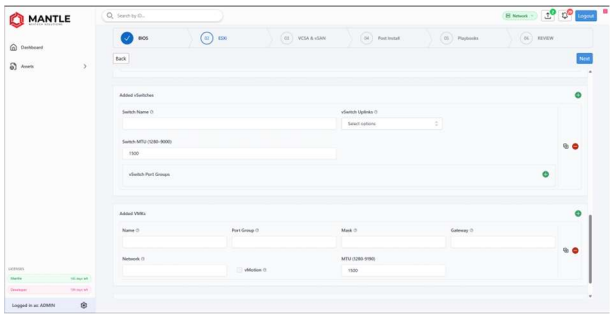
VMware Datacenter Build
Complete the ESXi networking sections.

Step 5 (continued): Set management networking, vSwitches, and VMkernel adapters.
Use the ESXi page to define management networking, vSwitch0, any extra vSwitches, VMkernel adapters, and optional kickstart overrides.

CONFIRM THE FOLLOWING
- Subnet mask, gateway, DNS, NTP, VLAN, and vmk0 MTU values.
- vSwitch0 uplinks, VM Network details, MTU, and any security settings.
- Any additional vSwitches, port groups, VMkernel adapters, or extra kickstart commands required by your environment.



Management network and vSwitch0 settings.

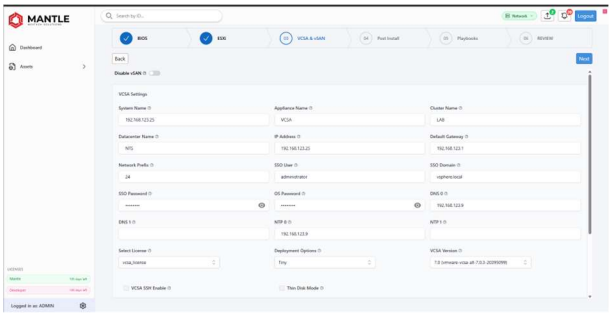


Additional vSwitch and VMkernel configuration.

VMware Datacenter Build
Configure vCenter and optional vSAN settings.

Step 6: Complete the VCSA & vSAN form.
Define the vCenter appliance, cluster, datacenter, management networking, SSO credentials, version, license, and optional vSAN settings.

CORE INPUTS
- System name, appliance name, cluster name, and datacenter name.
- VCSA IP address, gateway, network prefix, DNS, and NTP values.
- SSO user, SSO domain, SSO password, and the VCSA OS password.
- VCSA version, deployment size, SSH preference, and license.
- Optional vSAN VMkernel interface, datastore name, and vSAN license.



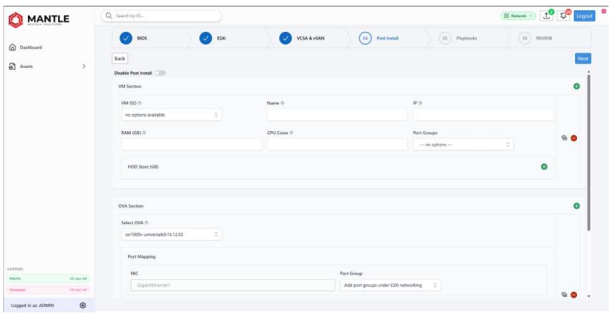
VCSA settings.

Optional vSAN settings.

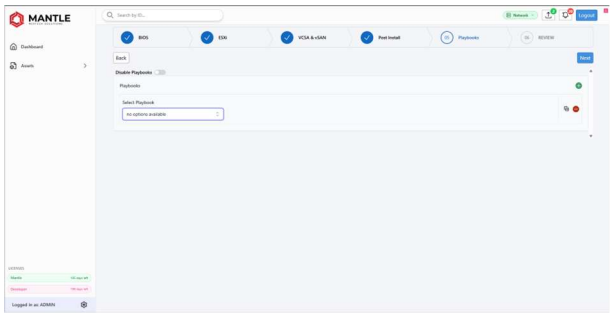
VMware Datacenter Build
Configure optional post-install actions.

Step 7 - 8: Add optional post-install tasks and playbooks.
Use Post Install to add VMs or deploy OVAs after the datacenter stands up, then select any automation playbooks that should run afterward.

TYPICAL POST-INSTALL USE
- Create one or more post-install VMs with the required ISO, CPU, RAM, disks, and port groups.
- Deploy OVAs and map every appliance NIC to the correct port group.
- Select playbooks in the order you want them executed after infrastructure deployment completes.



Post Install supports VM creation and OVA deployment with port mappings.

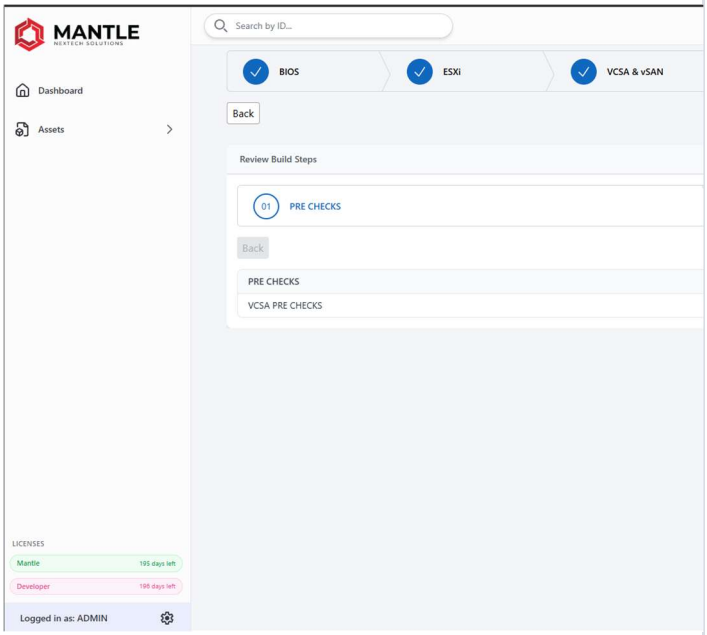


Playbooks run after the build and any post-install tasks finish.

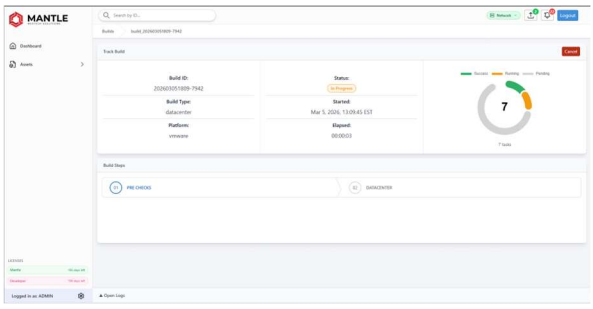
VMware Datacenter Build
Review the plan, deploy, and open the Track Build page.

Step 9 - 12: Review the workflow, deploy the build, and start tracking progress.
Validate the generated steps, select Deploy, open Track Build, and power on the servers so PXE and provisioning can begin.

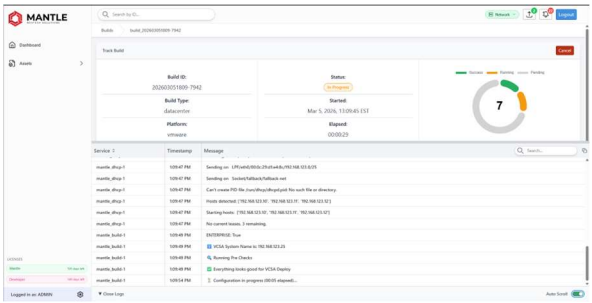
WHAT TO WATCH FOR
- Use Review Build Steps to confirm the workflow before starting.
- Track Build shows overall status, elapsed time, and the live log stream.
- Power on the servers only after the deployment has been started from Mantle.



Review Build Steps before deployment.



Track Build after deployment starts.



Expand the logs to follow VMware deployment progress.

VMware Datacenter Build

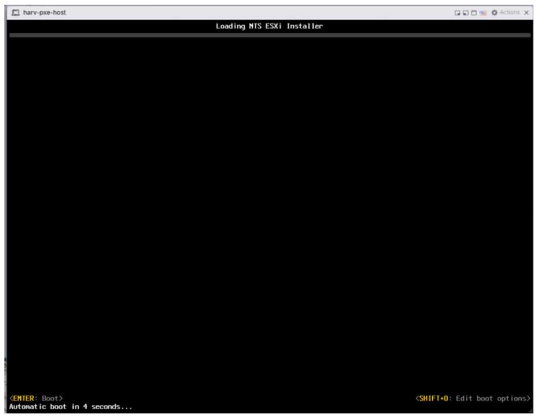
Observe the ESXi installation as it runs.

Step 13 - 16: Watch the host console as ESXi installs and reboots.

During deployment, the host console will move through the custom ESXi install, harmless warning screens, reboot, and the DoD banner at the end of the build.

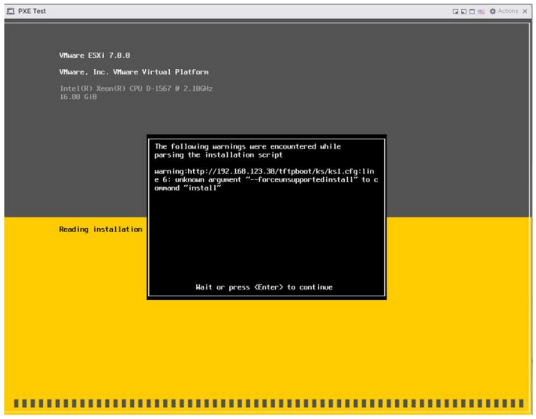
IMPORTANT REMINDERS

- Some console warnings shown during the install can be ignored.
- A reboot after ESXi installation does not mean the overall datacenter build is complete.
- Wait for Mantle to finish the remaining automation and report final success.

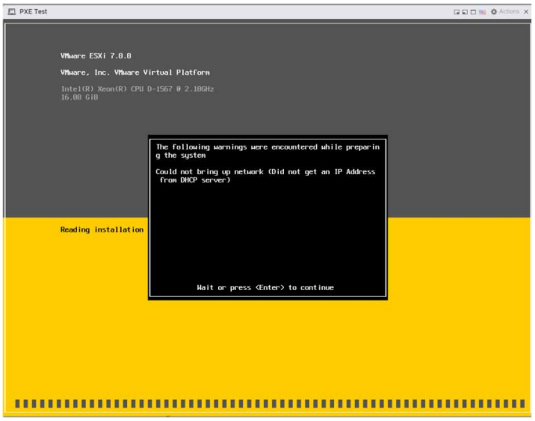


Custom ESXi installation begins.

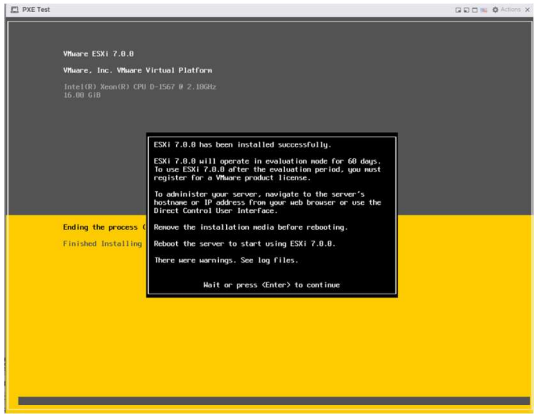
Example warning screen during install.



Additional warning dialog example.



Another harmless install message.



Reboot/transition screen after ESXi install.

VMware Datacenter Build

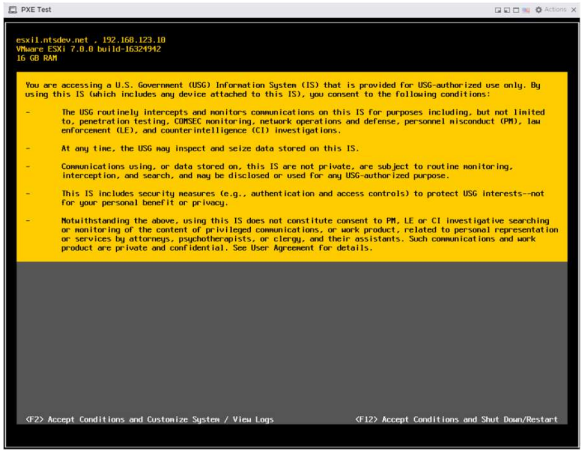
Use the logs to confirm readiness and completion.

Step 17 - 21: Look for host readiness and final success in the logs.

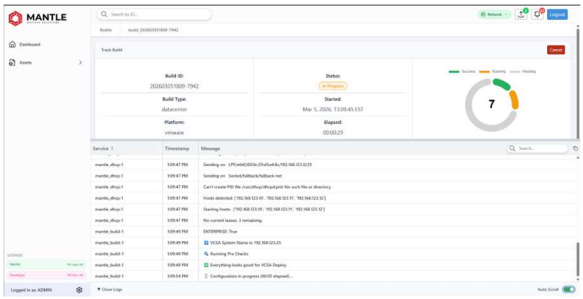
The final milestones appear in the Mantle log stream and build summary. When every host is ready and the status turns green, the build is complete.

COMPLETION CHECKLIST

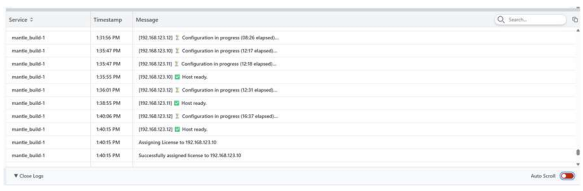
- Expand the logs and monitor the current deployment stage.
- Look for each ESXi host to show Ready in the message stream.
- Confirm the build status turns green and reads Success.
- Download artifacts or run follow-on playbooks from the completed build.



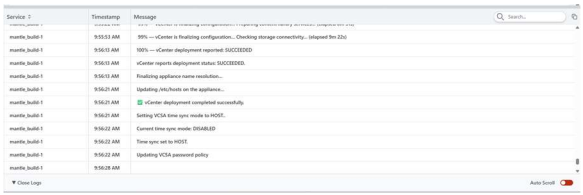
DoD security banner near the end of the build.



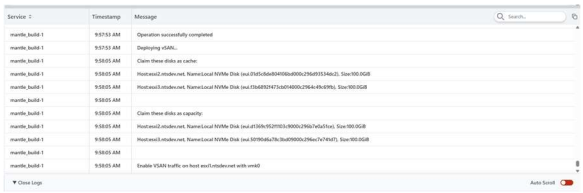
Track Build continues to show progress updates.



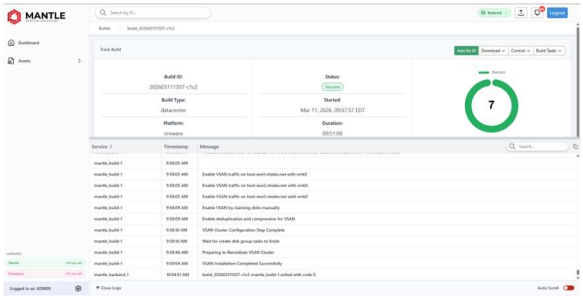
Log entries show host readiness milestones.



Continue monitoring the live log stream.



Additional readiness and license steps.



The build turns green when all tasks succeed.

Enterprise Linux Datacenter Build

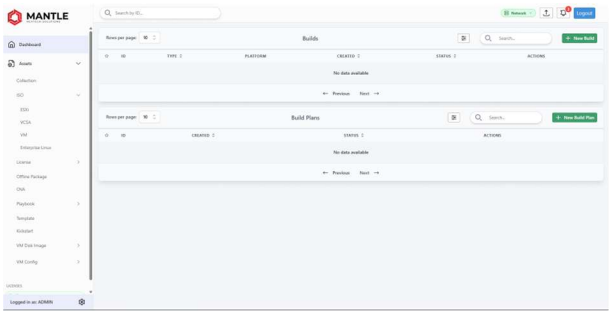
Launch the build and select the Enterprise Linux path.

Step 1 - 4: Start a new Enterprise Linux datacenter build.

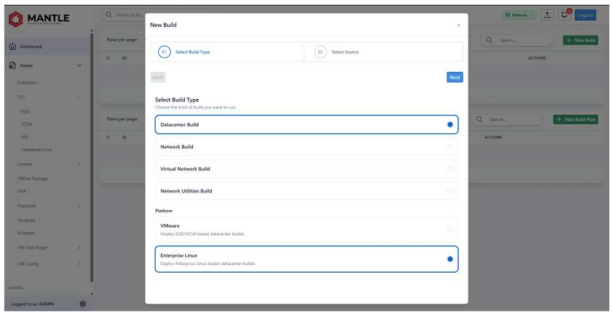
Create the build, choose Enterprise Linux, select a new source, and set the target device and serial port for BIOS automation when needed.

USE THIS PAGE TO

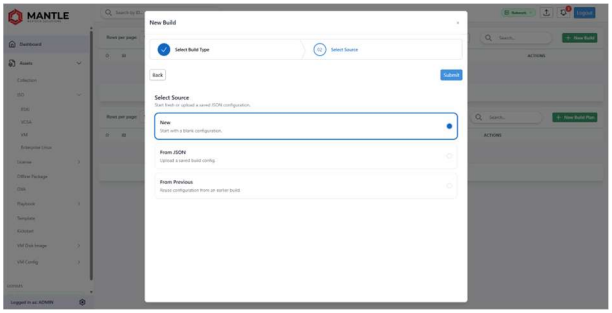
- Create a new build from the Builds view.
- Select Datacenter Build as the build type and Enterprise Linux as the platform.
- Choose New under Select Source and submit.
- Set the target device and serial port, or skip BIOS automation if it is not required.



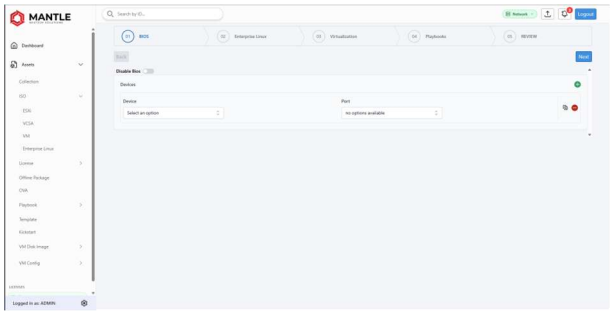
Step 1 — From Builds, select + New Build.



Step 2 — Choose Datacenter Build and Enterprise Linux.



Step 3 — Select New under Select Source.



Step 4 — Set the target device and serial port for BIOS.

Enterprise Linux Datacenter Build

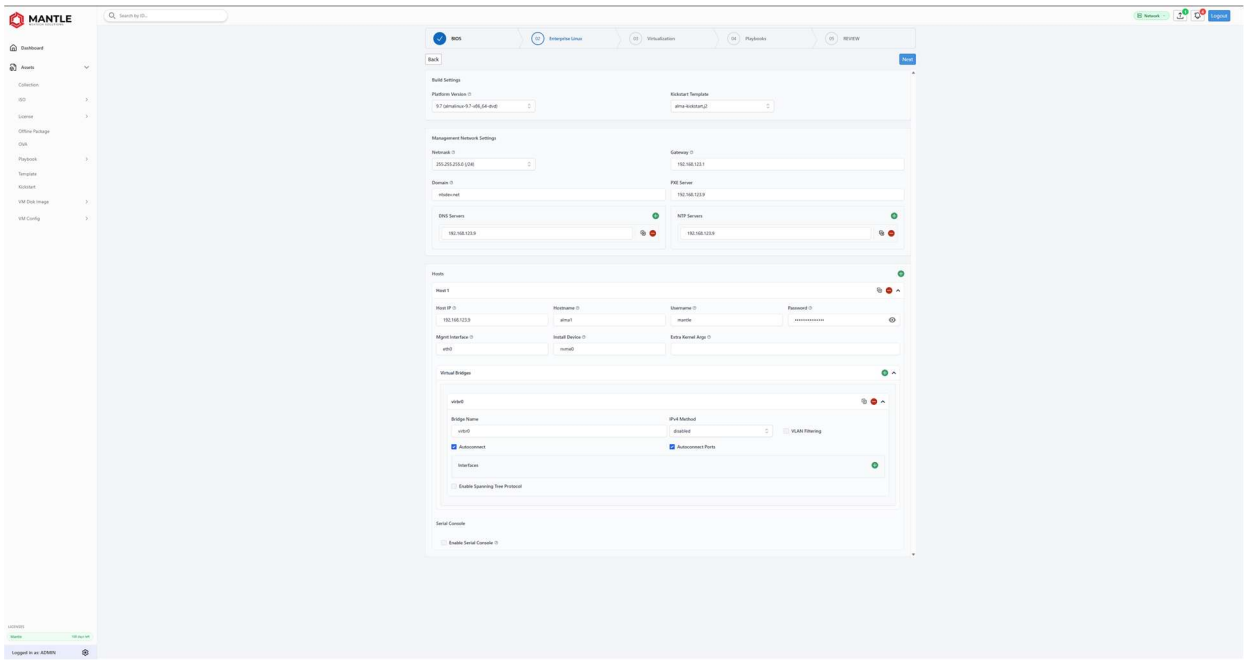
Complete the Enterprise Linux build settings form.

Step 5: Fill out the Enterprise Linux settings page.

Select the platform version and kickstart template, define management networking, add hosts, create any bridges, and enable serial console access when required.

HAVE THESE VALUES READY

- Platform version and kickstart template.
- Netmask, gateway, domain, PXE server, DNS servers, and NTP servers.
- Host IP, hostname, username, password, management interface, install device, and any extra kernel arguments.
- Any virtual bridges and whether serial console should be enabled.



The Enterprise Linux form captures build settings, network settings, hosts, bridges, and serial console options.

Enterprise Linux Datacenter Build

Optionally configure virtualization settings.

Step 6: Enable virtualization settings only when you need KVM resources created as part of the build.

The Virtualization tab is used for KVM hosts, storage pools, and any predefined virtual machines that should exist after deployment.

WHEN TO USE THIS STEP

- Enable virtualization settings when the Enterprise Linux host will also serve as a KVM hypervisor.
- Skip this section when you only need the operating system and network configuration.

KVM HOSTS	STORAGE POOLS	VIRTUAL MACHINES
• Select the Linux host that will act as the KVM hypervisor. • Add more hosts only when multiple virtualization hosts are required.	• Define pool name, pool type, target path, ownership, permissions, availability, and autostart. • Use storage pools to control where VM disks are stored.	• Choose the VM type and VM config template. • Set availability and autostart for any VM that should come up with the hypervisor.

Enterprise Linux Datacenter Build

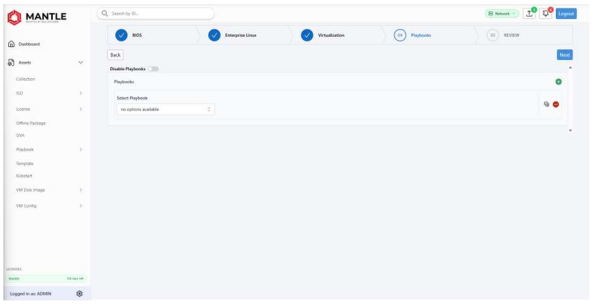
Select playbooks, review the plan, deploy, and open the Track Build page.

Step 7 - 10: Add playbooks, validate the workflow, deploy, and watch the Track Build page.

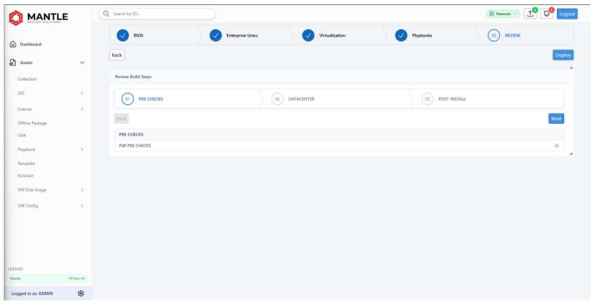
Choose any playbooks that should run after deployment, review the generated build steps, select Deploy, and monitor the live build view.

WHAT TO WATCH FOR

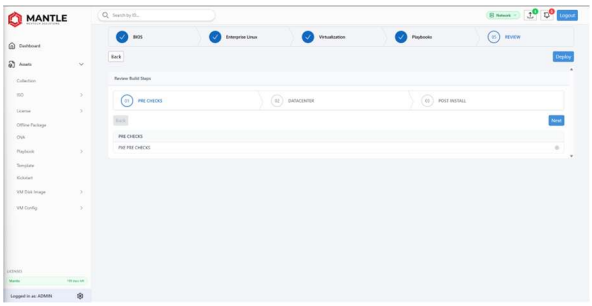
- Playbooks execute after the infrastructure deployment and any post-install tasks complete.
- Review Build Steps is the last checkpoint before deployment.
- Track Build shows overall status, elapsed time, and the log stream for the running job.



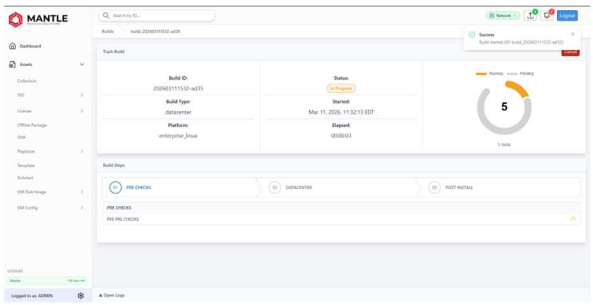
Select the playbooks that should run after deployment.



Review the generated Enterprise Linux workflow.



Deploy from the Review page when the workflow is correct.



Track Build shows the job after deployment begins.

Enterprise Linux Datacenter Build

Observe PXE boot and the early installation stages.

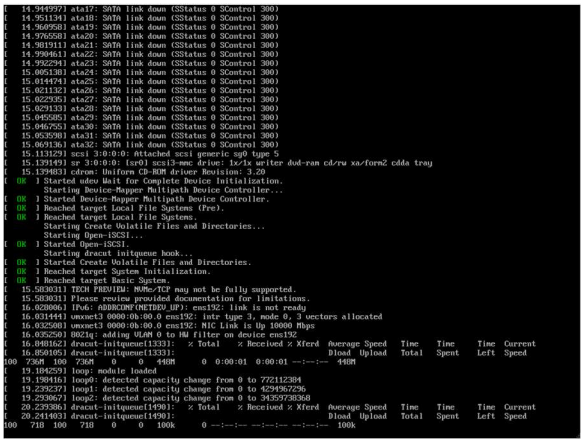
Step 11 - 12: Power on the server, select PXE boot, and follow the install through reboot and SSH completion.

After the job starts, the server will PXE boot, install Enterprise Linux, reboot, and then return to Mantle for the final SSH-driven automation.

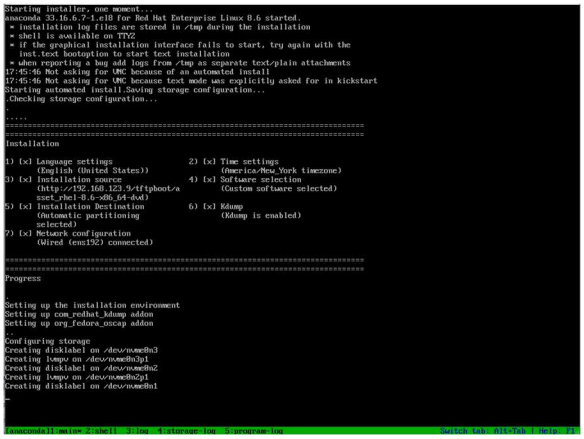
DURING INSTALLATION

- Select the PXE boot path on the target system when prompted.
- Keep the Track Build logs open while the host installs and reboots.
- Mantle will reconnect over SSH after reboot to finish the remaining configuration.

Initial PXE boot screen.



Early boot and install console output.



Installation continues through the console workflow.

Enterprise Linux Datacenter Build

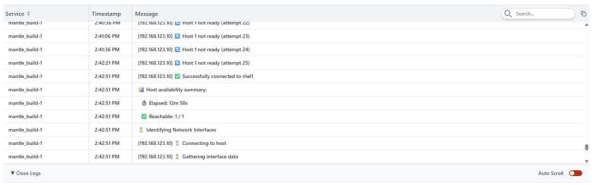
Confirm success and collect the finished build artifacts.

Step 13–15: Verify final success, then download artifacts or run follow-on actions.

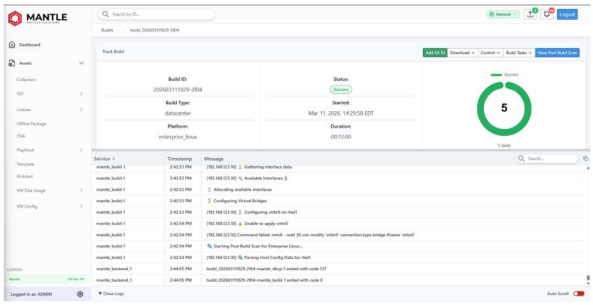
When the Linux build completes, Mantle marks the job successful and the finished build can be reused for downloads, review, or additional playbook execution.

COMPLETION CHECKLIST

- Confirm the build status turns green and reads Success.
- Download the build configuration and build object as needed.
- Run follow-on playbooks against the finished build when additional automation is required.



Track Build logs continue through the final SSH-driven steps.



The build turns green when all tasks succeed.