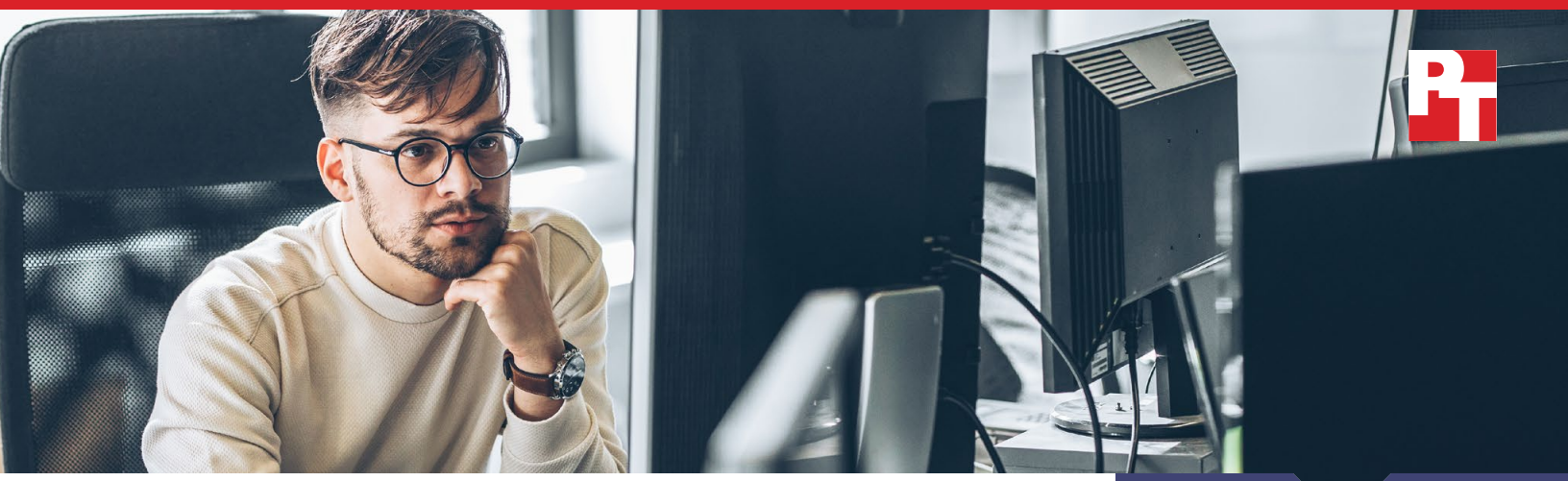


Faster and easier server installation with Dell ProDeploy Factory Configuration or ProDeploy for Infrastructure

IT installation services have a variety of requirements to meet. Some organizations want large-scale data center expansions or server refreshes while others want smaller installations that require hands-on, on-premises deployments of just a few servers. Dell Technologies™ can meet those requirements and anything in between for Dell™ PowerEdge™ servers via Dell ProDeploy Infrastructure Suite. For large server installations within organizations that have IT staff available to rack and stack servers, Dell ProDeploy Factory Configuration configures servers at the factory and ships them to customers just how they want them. For organizations without a robust IT staff, Dell ProDeploy for Infrastructure sends a Dell Technologies-certified engineer to deploy hardware and software on site.

To understand how much IT admin time the two ProDeploy services can save, we tasked one of our admins with configuring and deploying a Dell PowerEdge R750 server in two different scenarios. Each of the following two sections provides an overview of one of these scenarios.

Scenario 1: Server configuration – ProDeploy Factory Configuration
We ordered a PowerEdge R750 server with specific settings via Dell ProDeploy Factory Configuration. We then had our admin configure the same server and manually prepare it for deployment, which took 1 hour and 9 minutes—time that an organization could save per server if they used ProDeploy. By extrapolating the data to a 100-server installation, we found that an organization could bank over 115 IT admin hours.

Scenario 2: Server deployment – ProDeploy for Infrastructure
We tasked our admin with installing hardware in our data center. For one PowerEdge R750, our admin needed over two hours and 13 minutes to complete the deployment. Using Dell ProDeploy for Infrastructure for your on-site deployment frees up that admin time per server for other business-critical initiatives. It also can save your organization the additional overhead of planning and allocating resources for new data center deployments. By extrapolating the data to a 100-server installation, we found that an organization could save over 223 IT admin hours.

Save
69m
configuring one PowerEdge server

or over
115h
configuring 100 PowerEdge servers

Using ProDeploy Factory Configuration

vs. an in-house admin

Save over
133m
deploying one PowerEdge server

or over
223h
deploying 100 PowerEdge servers

Using ProDeploy for Infrastructure

vs. an in-house admin

How we tested

Scenario 1: Server configuration – ProDeploy Factory Configuration vs. in-house admin

Configuring servers can be tedious and time-consuming for IT staff, especially for larger server orders. **ProDeploy Factory Configuration allows you to acquire pre-configured servers that are ready to deploy in your environment out of the box.** Without the service, IT staff must configure settings themselves after receiving the servers.

We ordered one Dell PowerEdge R750 server with Intel® Xeon® Silver 4309Y processors, 16 GB of memory, PERC-enabled SSD storage, and an additional 25GbE network adapter through ProDeploy Factory Configuration.

When we placed our PowerEdge R750 server order, we provided the following:

- A list of desired hardware, including a PERC RAID controller and additional network adapter to allow for custom RAID, boot, and firmware settings
- An asset tag number and list of desired Asset Report fields
- A description of BIOS, iDRAC, firmware, and RAID settings that we wanted
- A custom disk image that we uploaded through the Dell online portal

Once we received the PowerEdge R750 and ensured that it met our specifications, we reset all settings. To see how much time the service can save for an IT admin configuring a single server, we completed and timed the tasks that Factory Configuration performed.

ProDeploy Factory Configuration key takeaways

Time savings: ProDeploy Factory Configuration saved 69 minutes of IT admin time by delivering a pre-configured server. The service could save nearly 115 hours (or approximately three working weeks) by pre-configuring 100 servers.

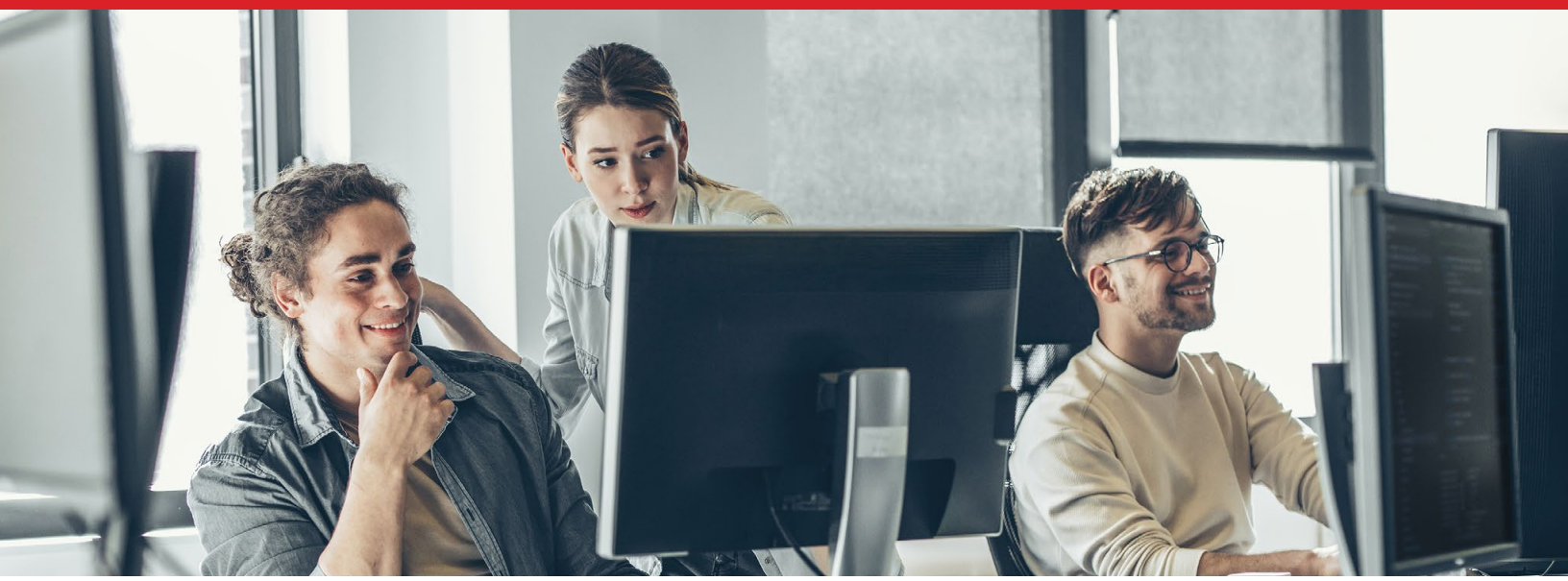
Simplified future orders: ProDeploy Factory Configuration keeps necessary information from orders, e.g., server settings, to help expedite subsequent orders.

Consistent configuration: ProDeploy Factory Configuration ensures all servers in a large order have the correct settings at scale upon delivery. Without the service, an admin configuring each server could make errors or apply the wrong settings (e.g., RAID 6 for a server running write-intensive workloads).

About Dell ProDeploy Factory Configuration

Dell ProDeploy Factory Configuration delivers ready-to-install, preconfigured servers to where customers need them, whether that's an enterprise data center, remote office, or somewhere in between. Factory Configuration provides asset tagging and reporting; RAID, BIOS, and iDRAC configuration; and OS and hypervisor installation and configuration.

For more information on Factory Configuration, visit **https://www.dell.com/en-us/dt/services/deployment-services/prodeploy-infrastructure-suite.htm**.



Scenario 2: Server deployment – ProDeploy for Infrastructure vs. in-house admin

Organizations without available IT staff can see serious delays when they need to deploy servers. **ProDeploy for Infrastructure tasks an experienced and knowledgeable Dell-certified engineer to deploy servers, including single server orders, on site for you.**

In another PT study,[1] we compared deployment time of a server, storage, and networking solution for ProDeploy for Infrastructure and one of our in-house admins. While deploying the solutions, we captured the time our admin needed to deploy a single Dell PowerEdge R750 server. We include that time in this report to show the time savings benefits for organizations considering on-site services for PowerEdge servers and to demonstrate that ProDeploy can save time for organizations performing server deployments at scale.

ProDeploy for Infrastructure key takeaways

Time savings: Deployment with Dell ProDeploy for Infrastructure can save over 133 minutes per server. The service could save over 223 hours when deploying 100 servers.

Flexibility to meet customized customer requirements: Whether it's meeting industry-specific compliance standards or dealing with limited rack space, the portfolio of ProDeploy services meets customers where they are.

Dell team expertise: ProDeploy for Infrastructure relies on engineers, architects, project managers, and others who have years of experience with Dell solutions and technology. Their expertise comes through in time savings while following best practices.

About ProDeploy for Infrastructure

Dell Technologies offers ProDeploy for Infrastructure for end-to-end, 24/7 service that provides skill and scale in a single point of contact for data center project management, site readiness review, onsite hardware installation, program management, and knowledge transfer. Customers can also get deployment verification.

To learn more about ProDeploy for Infrastructure, visit **https://www.dell.com/en-us/dt/services/deployment-services/prodeploy-infrastructure-suite.htm**.

What we found

Scenario 1: Server configuration – ProDeploy Factory Configuration vs. in-house admin

Get servers with the settings you need while saving time for admins

ProDeploy Factory Configuration completely configured the Dell PowerEdge R750 server before shipping it to us. The server was ready for deployment once we received it; we spent no additional time on configuration.

Figure 1 shows the total time and steps to complete the configuration tasks after resetting the PowerEdge server. To see the full list of tasks, see the **science behind this report**. Please note, using deployment tools when configuring servers on site could cause the time savings to vary.

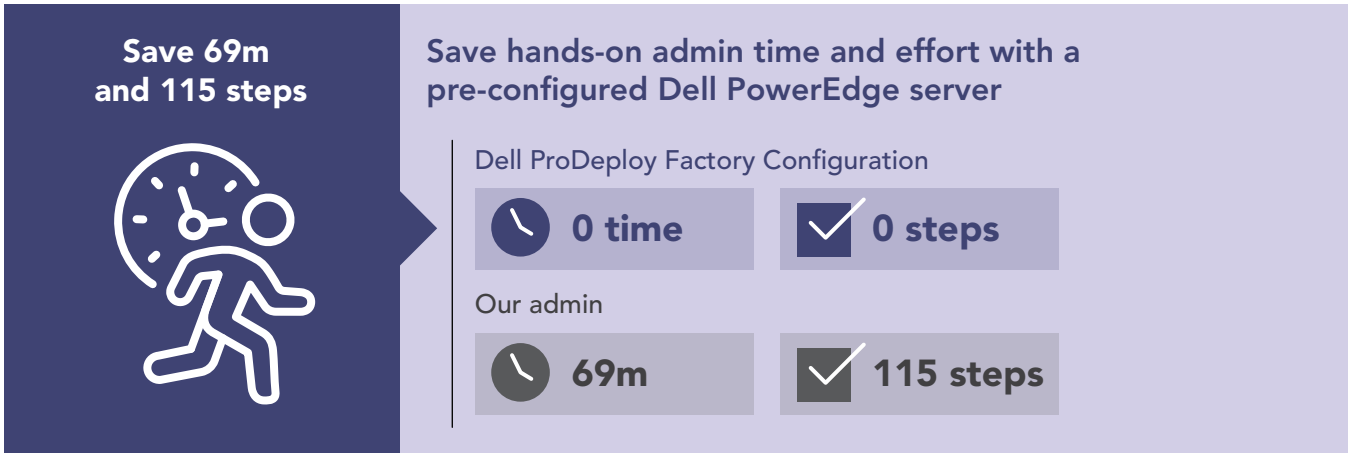


Figure 1: In-house admin time, in minutes, and steps to configure a single PowerEdge server. Lower is better.
Source: Principled Technologies.

Scale time savings for larger server installations

Enterprise-grade organizations often replace large quantities of servers, and sometimes need to deliver many consistently configured servers to multiple locations. Our first test scenario reflects these use cases and demonstrates perhaps a greater value of using ProDeploy Factory Configuration. To show how much time an organization could save using ProDeploy Factory Configuration on a large-scale server installation, we extrapolated the timings we captured from the single PowerEdge R750 server configuration to 100 servers. As Figure 2 shows, allowing the service to complete all configuration tasks for 100 servers (rather than having an admin complete them manually) could save approximately 115 hours while ensuring configuration remained consistent for each server throughout the installation.

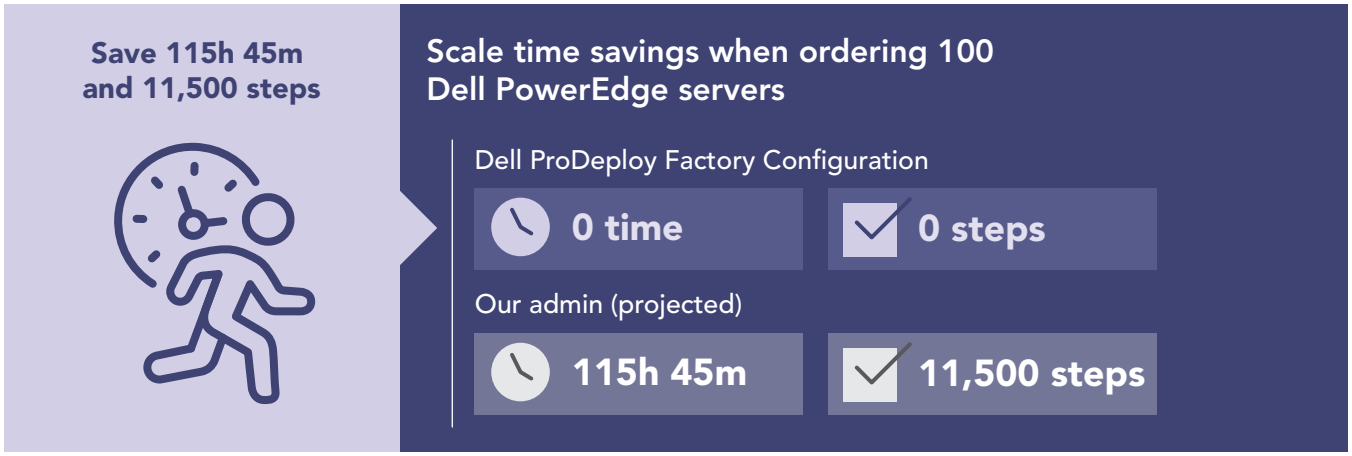
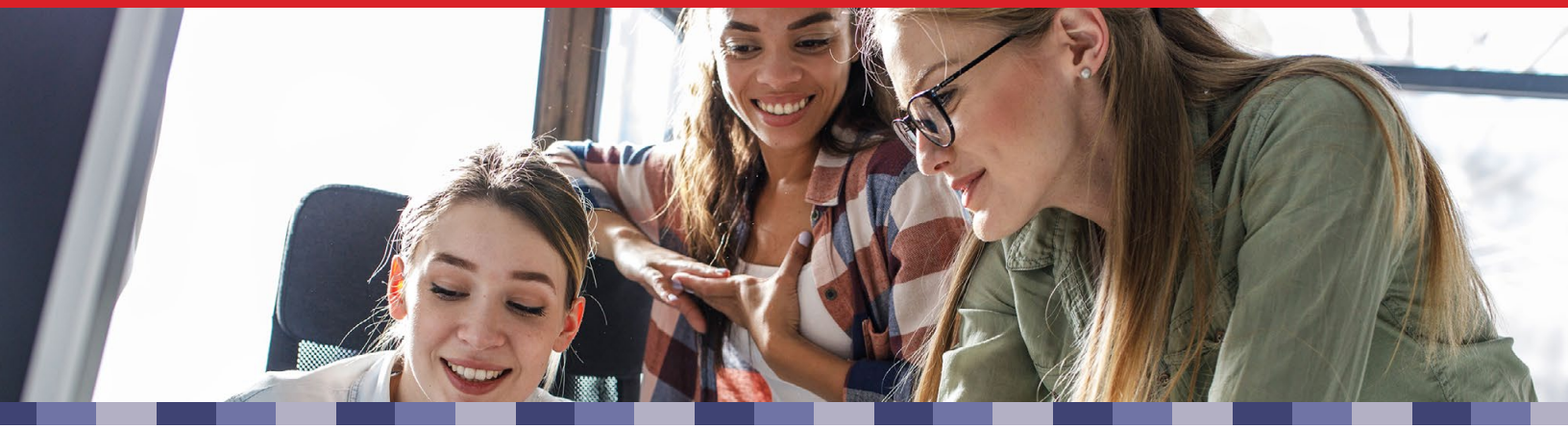


Figure 2: Extrapolated in-house admin time, in hours and minutes, and steps to configure 100 PowerEdge servers. Lower is better.
Source: Principled Technologies.



Scenario 2: Server deployment – ProDeploy for Infrastructure vs. in-house admin

Remove IT admin time from server deployment

Organizations with remote or regional data centers might not have the IT staff to deploy solutions on site when necessary. To address these kinds of situations, ProDeploy for Infrastructure can send a Dell-certified technician to leverage extensive Dell solutions expertise and deploy hardware on site, saving admin time (or in some instances, non-IT staff time). As Figure 3 shows, our admin needed over two hours and 13 minutes to deploy a single Dell PowerEdge R750—admin time that an organization could save with ProDeploy for Infrastructure. Installation requirements vary, but by using ProDeploy for Infrastructure, your organization could see additional savings by eliminating project planning, travel to the deployment site, and other time-based hurdles.

Figure 3: Time, in minutes, and steps to deploy a single PowerEdge server. Lower is better. Source: Principled Technologies.

Roll out a large server installation while saving admin time.

ProDeploy can also help with a large or multi-phase server rollout by deploying the servers for you. To show how much time an organization could save using ProDeploy for Infrastructure on a large-scale server installation, we extrapolated the captured timings from the single Dell PowerEdge R750 server deployment to 100 servers. As Figure 4 shows, allowing a Dell-certified engineer to deploy 100 PowerEdge servers for you could save over 223 hours compared to having an in-house admin deploy them.

Figure 4: Extrapolated time, in hours and minutes, and steps to deploy 100 PowerEdge servers. Lower is better. Source: Principled Technologies.

Conclusion

Saving any amount of time when configuring or deploying servers can help IT admins as well as your organization. Enterprise-grade organizations might feel the pressure of a large-scale Dell PowerEdge server rollout and want to save time with pre-configured servers or on-site installation. Smaller organizations might not have IT staff available to configure or deploy PowerEdge servers in a new data center. Dell ProDeploy can save you time in these scenarios and more.

By tasking one of our admins with configuration and deployment of a Dell PowerEdge R750 server, we found Dell ProDeploy Factory Configuration and ProDeploy for Infrastructure services can offer the following:

ProDeploy Factory Configuration

- **Eliminated hands-on IT admin involvement** in server configuration, **saving 1 hour and 9 minutes** of admin time **per server**
- Could **save over 115 hours** based on our extrapolated data for **100 servers**

ProDeploy for Infrastructure

- Could **save over 2 hours and 13 minutes** of admin time **per server**
- Could **save over 223 hours** based on our extrapolated data for **100 servers**
- Depending on installation requirements, could save additional time by eliminating planning, travel, and other admin tasks

Regardless of whether you're rolling out a hundred servers at once into an established IT infrastructure or needing on-site services installing new servers in a regional data center, using ProDeploy Infrastructure Suite can help your organization achieve critical business priorities and save time for your IT admins.

1. See "Using Dell ProDeploy Plus for Infrastructure can improve deployment times for Dell technology" at **https://facts.pt/5gOqYFB** for more information.

ProDeploy Configuration Services is now part of the ProDeploy Flex service.

Read the science behind this report at https://facts.pt/VM30HOj ►

Principled Technologies®

Facts matter.®

This project was commissioned by Dell Technologies.