

Network Rack Design Examples



Overview

After successfully creating your network rack, it's time to share your server rack plan with your colleagues and print it.

Key Takeaways

A network rack layout typically organizes servers, switches, patch panels, and power units in a structured 19-inch rack, with each device assigned a specific rack unit (U) for efficient space and cable management.

Key Components of a Network Rack Layout

Rack Cabinet: Standard 19-inch width with numbered units (U) to indicate vertical placement of equipment, usually ranging from 6U to 52U.

Servers: Placed in the middle or lower sections for stability and airflow, each occupying a defined number of rack units.

Switches and Routers: Often positioned near the top for easy access to patch panels and network cabling.

Patch Panels: Installed at eye level or slightly below for convenient cable management and maintenance.

Power Units (UPS/PDU): Located at the top or bottom to distribute power efficiently and prevent overloads.

Cable Management: Horizontal and vertical cable organizers or retractable solutions like PATCHBOX help reduce clutter and improve airflow.

Example Layout

Top of Rack (U1-U4): Network switches and routers for connectivity.

Middle Section (U5-U20): Blade servers or rack-mounted servers.

Patch Panels (U21-U24): Centralized cabling for network organization.



Storage Arrays (U25–U30): NAS or SAN devices for data storage. Power Distribution (U31–U32): UPS units or PDUs for power management. Empty Units: Leave a few U spaces between devices for airflow and future expansion.

Tools for Creating Rack Diagrams

Creately: Offers editable rack diagram templates that can be exported in JPEG, PNG, SVG, or PDF formats.

PATCHBO

X Rack Planner: Free online tool to design and export rack layouts, including a variety of hardware components and cabling solutions.

Smart

Draw: Provides preformatted symbols for servers, switches, patch panels, and cabinets to create accurate, to-scale rack diagrams.

Best Practices

Place frequently accessed equipment at eye level for easier maintenance. Allocate space for airflow and cooling between devices. Document each device's U position and power source for troubleshooting.

Use visual paths for network and power cables to reduce clutter and simplify maintenance. This structured approach ensures efficient use of rack space, organized cabling, and easier maintenance, making it suitable for small office setups or large data centers.

Article Content

Rack Diagram: Definition, Uses, Examples, and How to Draw One

Learn what is a rack diagram along with its key components, types of rack diagrams, step-by-step drawing tips, and free templates for planning, documenting, and managing data center

Data Center Server Rack Guide (2026): Types, Design,

Learn everything about data center server racks—definitions, rack types, airflow design, power integration, cable management, and a full buying

Create a rack diagram with the best FREE Network Rack Planner

After successfully creating your network rack, it's time to share your server rack plan with your colleagues and print it. With our Server Rack Diagram Template, you can easily create a helpful

Rack Diagram

Browse SmartDraw's entire collection of rack diagram examples and templates. Discover why SmartDraw is the best rack diagram software today. Rack

Free Online Network Rack Diagram Tool

Plan and design your network or IT setup with our free online rack diagram tool. Create complex server layouts with ready-made templates, a rich symbol library,

Network Rack for Small Office (Build Guide)

If you run a home office or manage IT for a small office or business, this summary shows the workflow and gear that delivered a

Networking Rack Guide: Organizing Your Devices

Explore the essentials of networking racks: organizing tech with accessories, cable management solutions, and space-saving strategies.

Rack Diagram Software

We offer a rich set of standard rack diagram symbols that supports the representation of any rack structure. You can create rack diagrams with symbols like racks, servers, routers, switches, hubs,

Network Rack diagram | EdrawMax Template

Customize your network rack diagram by changing the symbols and shapes as required. With the easy drag-and-drop feature of EdrawMax Online, you can use all the relative elements from

Free Rack Diagram Software

Need a free Rack Diagram software? Visual Paradigm Online (VP Online) Free Edition, a FREE online diagram software that supports rack diagram, UML, org chart, family tree, ERD, floor plan, etc. With

Network Rack Diagrams 101

A network rack diagram helps in designing and documenting a rack of network equipment. This means you place and visualize various pieces of

Rack Diagrams | Rack Diagrams | Network Diagramming Software for Design ...

The Rack Diagrams solution, including a vector stencil library, a collection of samples and a quick-start template, can be useful for all who deal with computer networks. Choosing any of the 54 library's

Networking Rack Guide: Organizing Your Devices

In the realm of network infrastructure, efficient organization and accessibility of devices are paramount. This ultimate guide delves into the world of networking racks, essential structures

Guidelines for Server Rack Layouts and Designs

The experts at DataSpan have compiled important guidelines for server rack layouts and design. Contact us for more information on how to design server racks.

Rack Diagram

Rack diagrams are two-dimensional elevations allowing the organization of specific equipment on a rack. They are drawn to scale show elevations of the rack layout.

How To Layout A Server Rack

Learn how to properly layout a server rack for optimal organization and efficiency. Expert tips and techniques for maximizing space and reducing

Rack Diagram Templates

FREE Online Rack Diagram templates and examples. Draw professional Rack Diagram with online Rack Diagram maker. Sign up to create a free online workspace and start today.

Guidelines for Server Rack Organization

Without an effective rack cable management solution, the cables inside a server rack can quickly turn into a tangled mess, creating significant

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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