

The side of the cold aisle next to the server rack



Overview

The hot aisle is located adjacent to the cold aisle. The cold aisle layout is the most common starting point in data center design. Cold air is delivered into this aisle through: Servers pull this cold air into their front. The hot aisle /cold aisle data center layout was originated by IBM in 1992 and it is one of the oldest ways to save energy in the data center. We're essentially putting those servers back-to-back, we're putting them front-to-front, if you will, on these servers. And the cold air is moving up, and because it's the front of the server, the server is now pulling that. In this layout, server racks are arranged in alternating rows, with the fronts of servers facing each other (Cold Aisles) and the backs facing each other (Hot Aisles).



Article Content

Hot & Cold Aisle Containment Explained | AMCO Guide

Alternating Aisles A look at the science behind hot and cold containment aisles reveals that server racks stand in rows and alternate the way they face. One row

A Guide to Hot and Cold Aisle Containment for Optimizing Server

Racks should be arranged so that the front sides (intake side) of the racks face each other, forming a cold aisle. Conversely, the back sides (exhaust side) of the racks should face each other to form a

Hot Aisle / Cold Aisle Cooling Explained

Keep an eye out for our next posts about Cold / Hot aisle containment systems and In Row cooling. In the mean time if you would like advice about how to cool your server racks, how to

Hot Aisle vs Cold Aisle Containment Explained (Data Center Cooling ...

Hot aisle and cold aisle containment are foundational concepts in data center design. When implemented correctly, they improve efficiency, reduce energy consumption, extend

Hot and Cold Aisles - CompTIA Security+ SY0-401: 2.7

When we talk about hot aisles and cold aisles, we're talking about the way that we're engineering our data centers- where we're putting our servers, and in which rack

Hot and Cold Aisles - CompTIA Security+ SY0-401: 2.7

And the cold air is moving up, and because it's the front of the server, the server is now pulling that cold air through the system using its fans. On the other side of

Hot Aisle/Cold Aisle

Hot aisle/cold aisle is a data center cooling strategy that involves organizing server racks in a specific configuration to optimize airflow and temperature consistency. This layout arranges

Hot vs. Cold H

Hot aisle or cold aisle containment is a layout design for server racks and other computing data center. The aisle/cold aisle containment configuration is to conserve energy and lower cooling costs by

The Basics of Hot Aisle, Cold Aisle Data Center Configurations

Though hot aisle, cold aisle configurations have a number of variations, at their most simplest it consists of server racks in rows with cold air intakes facing one way and hot air exhausts

The Data Center Hot/Cold Aisle Containment Debate

Optimizing air flow in your data center has several key benefits, including reductions in energy cost and carbon footprint. Most server equipment manufactured today is designed to draw in

A Cold Aisle vs. A Hot Aisle

In a cold aisle system, the server racks are arranged with their fronts facing each other, creating a corridor of cold air. In a hot aisle system, the server racks are arranged with their backs facing each

Hot Aisle vs Cold Aisle Containment Explained (Data Center Cooling ...

In cold aisle containment, the cold aisle is enclosed. This traps the cold air directly in front of the racks, ensuring that servers always receive consistent inlet temperatures.

Data Centre Cooling: Hot Aisle and Cold Aisle Design

Hot Aisle: The hot aisle is located adjacent to the cold aisle. In this aisle, the backs of server racks face each other. Hot air generated by the servers in the cold aisle is

What is Hot Aisle/Cold Aisle

Enhanced Understanding of Hot Aisle/Cold Aisle Configuration Introduction The hot aisle/cold aisle is an innovative design strategy implemented in data centers worldwide to enhance cooling efficiency and

Liquid vs Air Cooling for Data Centers 2026: Cost & Efficiency Analysis

Traditional Air Cooling: Hot-Aisle/Cold-Aisle Containment Conventional raised-floor data centers use computer room air conditioning (CRAC) or computer room air handler (CRAH) units to

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