COLOCATION EBOOK

ScaleMatrix is a nationwide network of revolutionary data centers that ensures clients they can deploy any hardware, at any density, while benefitting from better performance and longer hardware life.

ScaleMatrix Data Centers provide the most secure, flexible, and future-proofed colocation offer in North America. Built around the revolutionary Dynamic Density Control™ (DDC) platform, our clients can deploy any hardware, in any quantity, at any time, without concerns for power, cooling, or airflow limitations. This extreme flexibility helps deliver better business agility, improves time-to-market, and provides our clients with a significant technological advantage.

About ScaleMatrix

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24/7/365 U.S. BASED PROFESSIONAL SUPPORT

888.349.9994 www.scalematrix.com
Our Nationwide Data Centers

ScaleMatrix operates proprietary, custom-built data centers designed to deliver unrivaled density capabilities, industry-leading PUE, and unmatched security.

SCHEDULE A DATA CENTER TOUR TODAY!

Phone: 888.349.9994
Email: sales@scalematrix.com

www.scalematrix.com

@scalematrix
As the first North American HPE CoE, ScaleMatrix combines the high-performance computing platform from HPE with our high-density data center to deliver faster outcomes for HPC workloads.

- Optimal combination of speed, security, agility, and ROI
- Breakthrough performance of HPE Apollo
- Early Access Program available

NVIDIA® DGX™-Ready Data Center Partner

With ScaleMatrix powered by DDC Cabinet Technology, you can deploy advanced computing solutions in any environment, at any density, while improving energy efficiency and ensuring maximum performance and uptime. It is now possible for any enterprise to have a supercomputing facility anywhere.

- Lowest operating cost for NVIDIA GPU Systems
- High Density
- Energy Efficient

Server hardware performs better at ScaleMatrix data centers due to ideal thermal conditions and lasts longer with fewer failures from dust, debris, and thermal variation – creating better ROI!

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www.scalematrix.com
ScaleMatrix has the largest high-density data center footprint in the U.S!

Supporting 52kW per 45U cabinet enclosure, each site boasts 24/7/365 Enhanced Remote Hands Support, Software Defined Network and Cloud On-Ramps, plus High-Performance Cloud, Backup, DaaS, HPCaaS, and GPUaaS.

- DDC cabinets provide surgical temperature management and guaranteed airflow (CFM) ensuring optimal hardware operation and maximum performance over time.
- Cabinet efficiency delivers PUE of 1.15 – 1.2, providing extremely competitive pricing.
- Cleanroom quality environmental controls mean server hardware lasts longer and has fewer failures over time.
- Biometric security at the cabinet level ensures compliance with all regulatory and security mandates.

**HIGHEST DENSITY**
Dynamic Density Control™ cabinet technology at all ScaleMatrix sites support 52kW of power density in each 45U cabinet.

**AIRFLOW / TEMP GUARANTEE**
DDC delivers unmatched supply-side airflow management, closed-loop thermal cooling, and clean-room quality air at the rack level.

**NO RESOURCE LIMITATIONS**
Our DDC-enabled data centers ensure IT hardware can run at peak performance at all times, without concerns for power, cooling, or resource limitation.

**MAXIMUM HARDWARE PERFORMANCE**
Server hardware performs better at ScaleMatrix Data Centers due to ideal thermal conditions and last longer with fewer failures from dust, debris, and thermal variation - creating better ROI!

**LARGEST HIGH-DENSITY FOOTPRINT**
Multiple data center locations include Southern California, Washington, Texas, North Carolina and Florida.

**EPIC SECURITY**
Unparalleled security at the cabinet level with biometric cabinet access, video security, and physical security checkpoints throughout our data centers.

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**EPIC SECURITY**
Unparalleled security at the cabinet level with biometric cabinet access, video security, and physical security checkpoints throughout our data centers.
Our DDC design provides industry-leading energy efficiency, allowing extremely competitive service pricing, regardless of the market or geography.

In traditional data centers, fire suppression, cooling, or other tenants can impact all facility occupants—the DDC design ensures true risk mitigation at the rack level.

Monitor power usage in real time, remotely reboot ports, and save thousands on power distribution equipment only at ScaleMatrix.

Our highly inclusive support offer is the opposite of nickel and diming. Live support is guaranteed; and 20 minutes or less is always included at no cost!

ScaleMatrix provides clients a quiet and comfortable work environment inside the data center. You will get more done and be more comfortable in our data centers than in any other facility worldwide.

Premium, fault tolerant, multi-homed bandwidth and next-gen DDoS protection are available. Clients may also choose from any number of neutral bandwidth carriers.

ScaleMatrix offers more high-density data center locations, with better PUE, and more aggressive pricing than any provider in the market.

Software based connections to any Cloud Service Provider, Data Center or Application Host are delivered in just seconds through our Megaport SDN!

"A Cloud for the Artificial Mind: This Data Center is Designed for Deep Learning"

"ScaleMatrix Builds Niche Solution in HPC for Genomics and AI"
TRADITIONAL DATA CENTERS VS THE DDC DATA CENTER

Engineering and Permitting
Utility Readiness
Reliable Power Supply
Power Distribution
Chiller / Cooling Supply

SAME

Engineering and Permitting
Utility Readiness
Reliable Power Supply
Power Distribution
Chiller / Cooling Supply

WHAT’S DIFFERENT?

Deploy at Any Density, Anywhere:
Data Floor, Raw Space, Warehouse,
Laboratory, Storage Area, etc.

Finished and Improved Data Center Space

Raised Floor System
Fire Suppression
Physical Security / Cabinet Security
Air Filtration / Environmental Management
HVAC Distribution and Air Handling
Data Center Thermal Management
Noise Management
Availability Zone Management

DYNAMIC DENSITY CONTROL CABINET ENCLOSURE PLATFORM

Highest Efficiency & Density
(Up to 52kW)

Simple, extreme density support for less than $1/watt

scalematrix.com/DDC | (888)349-9994 | DDC@scalematrix.com
Cirrascale provides its deep learning and HPC customers with the ability to support up to eight GPUs in a single server.

ScaleMatrix’ Dynamic Density Control™ (DDC) platform is designed to solve the density, efficiency, and cooling challenges presented by high-performance compute applications. Customers can colocate their HPC environment to any of our data centers across the country that utilize our DDC cabinets, or they can install the DDC enclosure platform in their facility to enjoy the flexibility and efficiency of deploying any rack-mountable hardware, at any density, for a fraction of the cost of alternative solutions.

Cirrascale supplies these servers as a bare metal cloud offering so that customers can rent GPUs as a service in the cloud.

Due to the fact that each GPU can draw up to 300W of power, each system can draw up to 3,000W of power.

Cirrascale needed a colocation facility with the power, cooling, and rack infrastructure to effectively and efficiently cool, and power their cloud service.

ScaleMatrix’ Dynamic Density Control™ Platform

ScaleMatrix delivers unmatched power density, energy efficiency, access control, fire suppression, risk-mitigation, and more through the Dynamic Density Control Platform (DDC). It is the advanced cabinet technology of DDC that delivers the resources needed to power and cool Cirrascale servers in a hosted environment or another location.

The proprietary enclosed cabinet design leverages localized heat exchange to dramatically improve density and efficiency. As thermal loads increase or decrease inside the cabinet, DDC automatically adjusts to the needs, and is able to cool up to 52kW per cabinet and maintains the cabinet temperature within 2 degrees of the desired set-point automatically using the world’s first liquid-air hybrid cooling platform.

ScaleMatrix provides an always-on infrastructure with secure, robust networking that is ideal for Cirrascale’s cloud service platform.
• Cirrascale uses the **GX8 Multi-GPU** Servers, along with Cirrascale **GX4 Multi-GPU** Servers.

• Perfectly scalable to maintain **extreme density and efficiencies** at all times.

• Dramatic **reduction of power and cooling costs** since there is no need to cool the room, as each DDC cabinet is individually cooled.

• Efficiency gains are incredible with Power Usage Effectiveness (PUE) **improvements up to 30%**. DDC delivers **PUE of 1.1** depending on the location.

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<tr>
<th>CABINET</th>
<th>CONTROLS</th>
<th>COOLING</th>
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<td>Modular variable speed 2500 CFM blower</td>
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<td>Operating Point 0% at 20°C 100% at 40°C</td>
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<td>Width</td>
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<td>24.0 in</td>
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<tr>
<td>Cooling Threshold</td>
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**BENEFITS TO CIRRASCALE**

- **COOLED GPU INFRASTRUCTURE**
- **EXCEPTIONAL DENSITY**
- **COMPETITIVE PRICING**

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REQUEST MORE INFORMATION  scalematrix.com  info@scalematrix.com
Cabinet Level Control and Mitigation

More companies are looking at Artificial Intelligence for their business and determining how to adjust their technology strategy to begin or scale AI. These intense workloads need a data center that is prepared for high-density demands. ScaleMatrix has been ahead of the curve efficiently cooling 52kW and beyond in a single rack. The colocation services from ScaleMatrix are faster, flexible, and more efficient than traditional data centers.

ScaleMatrix Data Centers provide the most secure, flexible, and future-proofed colocation offer in North America.

DDC Cabinet Technology Advantage

We are the only data centers with DDC™ (Dynamic Density Control) Cabinet Enclosures that enables our sites to support 1kW - 85kW of power density in a single cabinet enclosure.

Compliance Program

Our U.S. Data Centers meet the most stringent regulatory compliance guidelines and our compliance team makes us a valuable part of your overall IT strategy.

Cabinet Level Control and Mitigation

In traditional data centers, fire suppression, cooling, or other tenants can impact all facility occupants – the DDC cabinets ensure true risk mitigation at the single rack level.

Enhanced Security Control & Monitoring

Biometric security at the cabinet level ensures compliance with all regulatory and security mandates.

Increased Server Life

Cleanroom quality (NEMA 3) environmental controls mean server hardware lasts longer & has fewer failures over time.

Return on Investment

Full investment is gained when your IT runs at peak performance 100% of the time.

Efficiency and Competitive Pricing

Cabinet efficiency delivers PUE of 1.15-1.2, providing extremely competitive pricing due to energy savings.

Follow us on Social
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www.scalematrix.com

Choosing the right data center partner will help future-proof your IT investment