



GEIST

Future Thinking • Solutions Today



Geist **Worldwide**

Headquartered in Lincoln, Nebraska, Geist designs and manufactures industry-leading technology and software for powering, monitoring, cooling and managing critical data center infrastructure.

We produce affordable, quality products while providing our clients with superior service. Whether it's enhancing customer care or implementing new technologies, Geist promotes innovation, quality and satisfaction in all aspects of business.



Geist **EMEA**

Geist **USA**

Geist **APAC**



Product **Design**

In-house engineering department includes mechanical, electrical, board layout and software specialists.

Metal Stamping, **Bending** and **Powder Coating**

Each product starts in our own metal works, where the chassis is constructed and painted.



Assembly and **Testing**

Geist's on-site engineering, reliability, conformance and compliance labs allow us to design, manufacture and ship PDUs in as few as 3 days.

Each new unit is built and approved in our labs before being released to production.



Fully Compliant - **Worldwide Approvals**

On-site conformance labs and dedicated compliance and reliability engineering team allow Geist to ensure conformance to global standards for safety, reliability and accuracy.



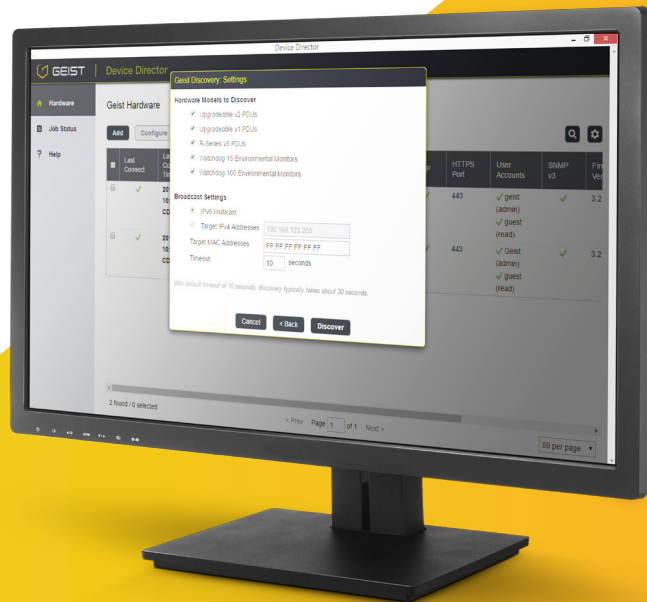
Device Director

Device Director is a comprehensive, Windows-based utility that is used to install, configure, and maintain multiple Geist devices within a single interface.

The suite of useful tools helps users set the IP addresses of multiple devices, configure user accounts, modify network settings, update firmware, export/import configuration settings and validate device connectivity.

Device Director gives installers a powerful and easy way to mass configure Geist devices, and it effectively reduces setup time and maintenance cost.

- Automatic discovery of Geist devices on the network
- Mass configuration of device and network settings
- Bulk firmware updates



Geist Mobile

VLC (Visible Light Communication) is a protocol Geist has included in its Upgradeable PDUs. VLC provides DC installers, commissioners, technicians, managers and customers with full visibility of PDU status and activity at their fingertips.

Via VLC, optical data is transmitted from the PDU to the Geist Mobile App on a handheld device. This allows the user to rapidly access comprehensive power consumption data down to phase and circuit level, providing the most secure, reliable and convenient real-time physical data capture solution in the industry.

- Real-time capture of comprehensive PDU data
- Automation of PDU inventory management
- Secure & interference free wireless data transmission
- Air-gapping



The Broadest Range of PDUs and Custom Options Available

Keep on top of your business power needs with the help of Geist. The extensive selection of data center PDU power products includes solutions such as upgradeable power distribution units, monitoring sensors, low profile breakers and satellite power. Whether you are in need of basic products, such as transfer switches, or monitored power to help prevent circuits from overloading, put your trust in Geist.

Basic PDUs

Basic PDUs offer reliable power distribution to the cabinet to help manage power capacity and increase functionality. Get instant power usage feedback by adding a local display to avoid overloads and costly downtime.

Monitored PDUs

Power monitoring provides a comprehensive view of power usage in a data center. The local display, combined with remote power monitoring, offer quick access to the PDU's current, volts, real power, apparent power, power factor, and kilowatt hours.







Metered PDUs

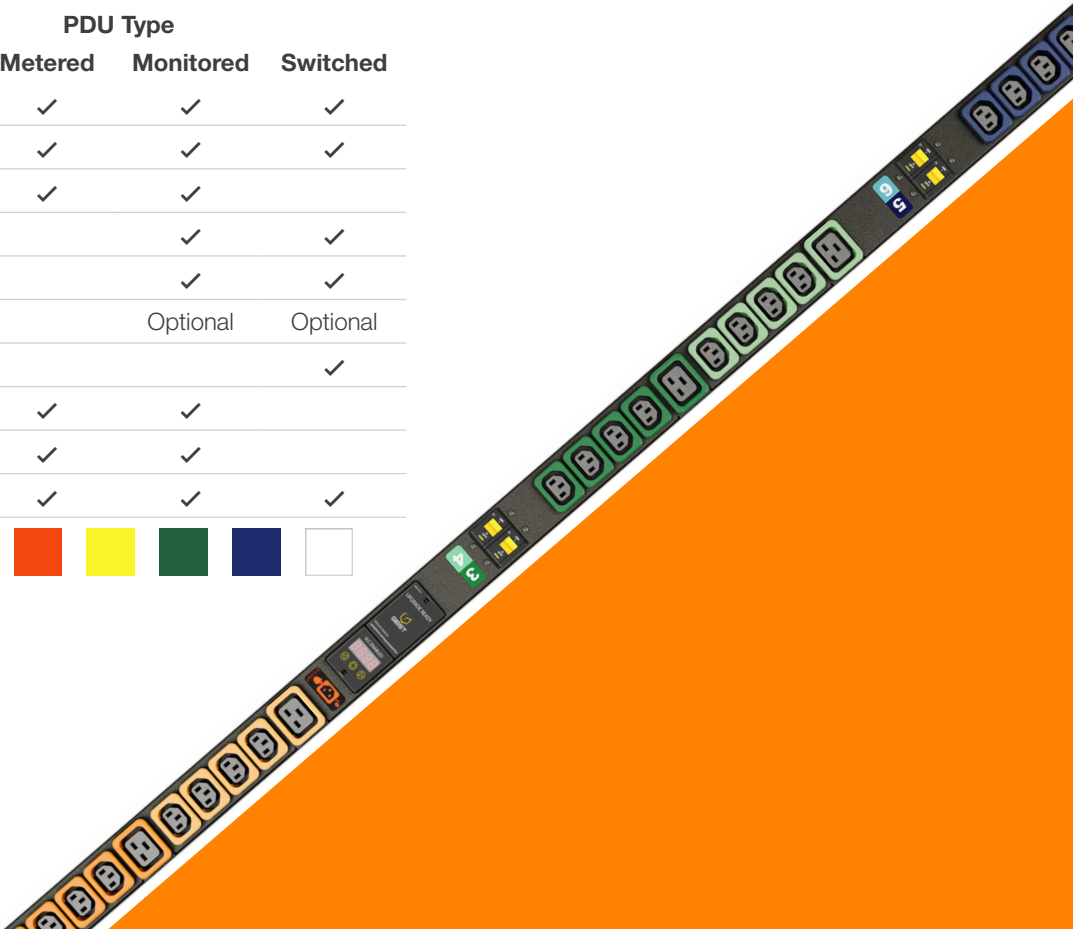
Improve reliability, energy efficiency, and prevent crippling downtime caused by overloads using Metered PDUs. Equipped with local digital displays, our Metered PDUs provide power consumption metrics instantly.

Switched PDUs

Switched PDUs offer the ability to monitor data locally and remotely and disable individual power outlets, as necessary. Disable problem equipment by cutting power to specific outlets and reboot equipment remotely by cycling power.

Finding the Right PDU

Feature	PDU Type					
	Basic	Metered	Monitored	Switched		
Power Distribution	✓	✓	✓	✓		
Current Meter(s)		✓	✓	✓		
VLC Enabled		✓	✓			
Network Interface			✓	✓		
Environmental Monitoring			✓	✓		
Outlet-Level Monitoring			Optional	Optional		
Outlet-Level Switching				✓		
Upgradeable	✓	✓	✓			
U-Lock Outlets	✓	✓	✓			
1U and Zero U Configurations	✓	✓	✓	✓		
Color Coded PDUs						



Upgradeable PDUs Power with Flexibility

Geist Upgradeable PDUs give data center managers the flexibility to install the intelligence they require today with the option to upgrade technology as needs evolve. From basic power to sophisticated power monitoring with remote sensors, the Geist Upgradeable product line adapts to your business well into the future.

Upgradeable Monitoring

Begin with the level of technology you need today and upgrade as your needs evolve, without replacing the entire PDU.

Remote Sensor Port

Monitor environmental conditions such as airflow, temperature, humidity and dew point with the use of a Geist remote sensor.

U-Lock Receptacles

Securely lock cords in place using the patented U-Lock technology. Each receptacle is color injected to assure load balancing is easily achieved.

Hot-Swappable

Add, remove or switch Interchangeable Monitoring Devices (IMD) without interrupting power to critical equipment.

Input Power Monitoring 1% Accuracy (ANSI and IEC)

Allows data center managers to accurately reconcile power usage.

Red LED Rotatable Display

Read power data easily in dimly lit areas and rotate the display to match the mounting configuration.

High Temperature Grade

60°C working ambient variants for high temperature environments.

Fault-Tolerant Daisy Chaining

Simplifies intelligent PDU connectivity and ensures data is reported, even with a break in the chain.

Low-Profile Breakers

Compact profile to install in tight spaces for units requiring breakers.



Upgrade Path



There is a clear route to upgraded functionality of your Geist PDUs. Simply choose the functionality that suits your requirements today and our future solutions approach allows you to upgrade to the next, most sophisticated level at a later date.



Basic

Start with the basic upgradeable unit if your facility is not yet ready for power monitoring, but there are future development plans. With the technology built in, you can add functionality when the timing is right.



Metered

Metered PDUs offer local power monitoring and support VLC technology using the Geist Mobile App.



Power Monitoring

Offers local and remote power monitoring: the perfect first step towards increasing PDU functionality.



Power Monitoring + Remote Sensing

The IMD allows remote power monitoring that adds the ability to connect up to four remote sensors - ideal for installations requiring environmental monitoring.

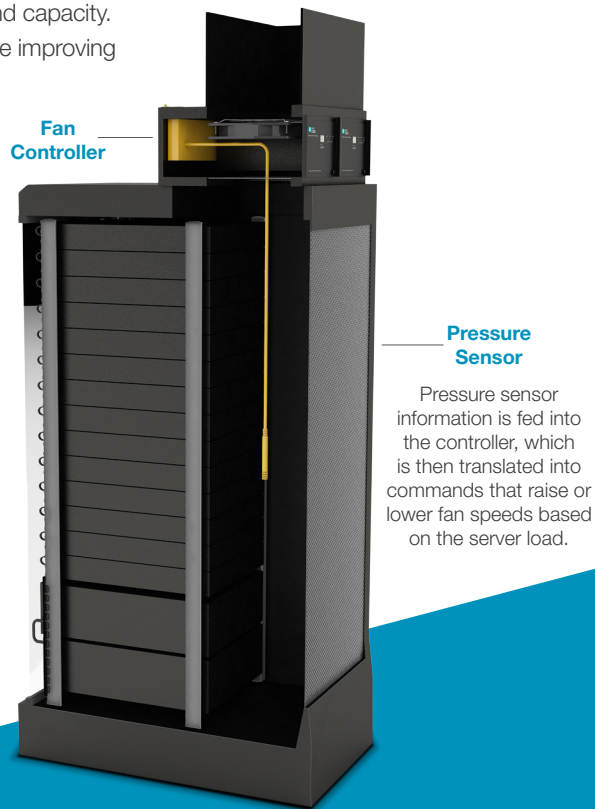
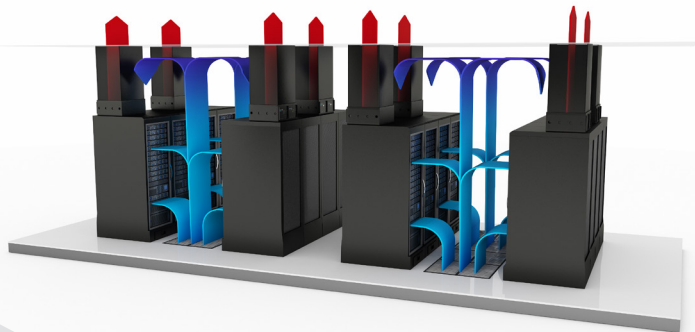
Maximize Cooling Efficiency

Geist Cool solutions offer sophisticated airflow management to data centers of any size and capacity. By containing and directing hot air, the Geist Cool line delivers significant cost savings while improving the long-term reliability of mission-critical IT equipment.

ActiveAir™ Intelligent Airflow Management

ActiveAir Containment System centers on two critical components:

1) containing heat and 2) expelling heat directly to the CRAC units. This two-step focus maintains and stabilizes the ideal temperature for data center equipment.



Say Goodbye to Fried Switches

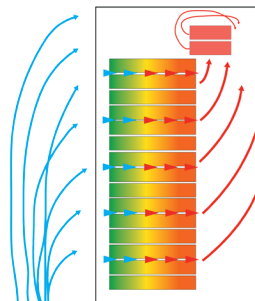


SwitchAir® Cooling Network Switch Management

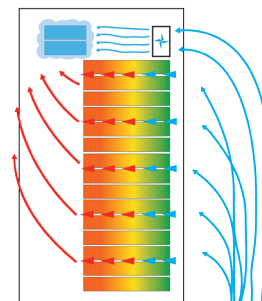
Deliver cool air to network devices regardless of where they are mounted. Network switches, load balancers and routers are often mounted in the back of a cabinet for more convenient cabling connections.

Unfortunately, devices installed at the back of cabinets can be critically damaged or may go offline when they are fed pre-heated air from the servers.

Designed to work with 1U to 9U devices and beyond, SwitchAir products channel cool air to every kind of intake/exhaust configuration imaginable.



Network switches mounted at the top and rear of the rack are susceptible to heated air from the servers. This hot air is recirculated, putting stress on the device.



SwitchAir products direct cool air to the network switches, significantly lowering operating temperatures.

Active



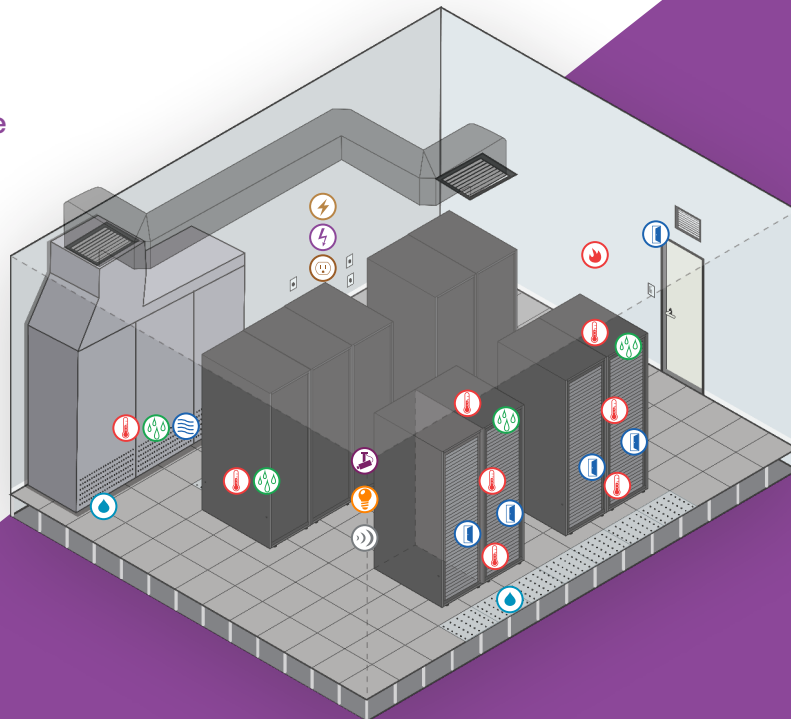
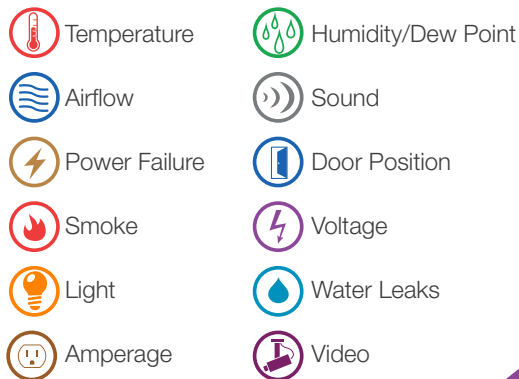
Passive



Strategically Monitor to Prevent Downtime

Physical dangers are just as important as cyber-threats. Your Watchdog can pick up any trends within your data center with its logging and graphing features and can be configured to automate external processes on alarm or manually over the web.

Keep an eye on environmental conditions surrounding our mission critical infrastructure



♀ Watchdog 100/100P

The Watchdog 100 combines climate monitoring with remote relay control. The relay outputs can be tied to alarm settings or triggered manually. The unit comes equipped with on-board temperature, humidity sensor and optional built-in Power-over-Ethernet (PoE).

On-Board Sensors:

Temperature, Humidity, Dew Point

Firmware:

SNMP (v1, V2c, v3), email & email-to-SMS alerts, alarm escalations, logging, CSV logs, 3 access account levels, interfaces IP cameras

Ports:

Digital: 1, Analog: 4, Relay Output: 1



♀ Watchdog 15/15P

The Watchdog 15 is a self-contained environment monitor with an on-board temperature and humidity sensor. Equipped with two digital sensor ports, the Watchdog can support up to four external sensors using a splitter. The Watchdog 15 is the most cost-effective solution in the market for monitoring temperature, humidity and other environmental parameters.



GTHD/GT3HD

Temperature, Humidity, Dew Point Sensor Kit

The GT3HD is an enhanced version of the Temperature, Humidity, Dew Point Sensor (THD) with four 6P6C modular jacks (aka RJ12), one for output to the appliance and a supplementary input for daisy-chaining. Two additional inputs are strictly compatible with the temperature sensors. The unit comes kitted with 3' and 6' temperature sensors and is ideal for monitoring top, middle and bottom of a server rack.



Easy. Intuitive. Effective. Simply Intelligent DCIM

Data center management can be complex, but Geist DCIM's solutions simplify the process. Data Center Infrastructure Management (DCIM) consolidates disparate systems into one comprehensive pane of glass. With the Environet and Racknet product lines, Geist DCIM is committed to providing high quality data center solutions as well as industry-leading customer service.

Environet Facility The Ultimate Monitoring and Management Solution

Environet Facility simplifies monitoring by integrating multiple communication protocols into one complete system. It provides the data granularity required for efficient management of both the facility and the data center infrastructure. Complexity is transformed into simplicity with unprecedented visibility and management over environmentals, power consumption and cooling.



Real-Time Monitoring

Receive alerts for urgent warnings and alarms the second they occur.

Extensive Toolset

Feature rich tools such as tenant management, power one-lines and capacity planning help make intelligent decisions to improve data center performance.

Analytics and Reports

Report on all devices and points in the Environet system to compile meaningful data for critical business decisions.

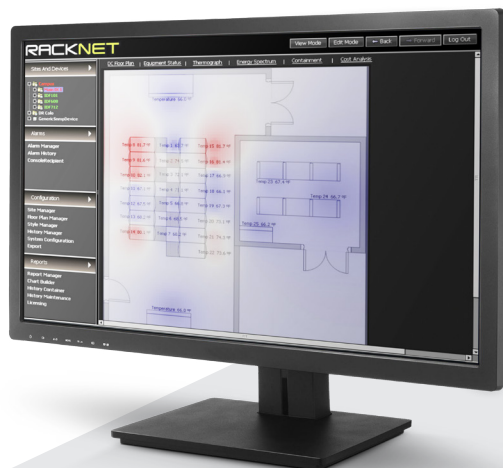
API and Integration

Geist's RESTful API provides a simple, reliable and scalable solution for businesses looking to share information between multiple software systems.

Racknet A Versatile DCIM Solution

A standalone, entry-level DCIM solution, Racknet can be implemented with an appliance or as a virtual machine. The Racknet solution provides a comprehensive set of products for managing rack level data with a single point of integration.

Its auto-discovery feature makes installation fast and simple. The intuitive interface allows for easy drag and drop configurations, giving complete in-house customization capability. Once integrated, all communicating devices and points can be trended and reported on.



		Environet	Racknet
Communication	SNMP	•	•
	BACnet	•	-
	Modbus	•	-
	LONworks	•	-
	Hardwired I/O	•	-
	API	•	•
Design	System Configuration	turn-key	user
	Vendor Neutral	•	•
	Consulting Services	•	optional
	Professional Installation	•	optional
	Support Contract	•	•
Features	Real-time Monitoring	•	•
	Notifications and Alarms	•	•
	Business Analytics	•	•
	Energy Cost Analysis	•	*
	Power One Line	•	-
	PUE/DCIE	•	*
	Unique Floor Plans and Views	•	*
	Key Performance Indicators	•	*
	Power Capacity Planning	•	-
	Asset Management	•	-
	Raised Floor/White Space	•	•
Integration	Electrical/Mechanical Rooms	•	*
	Fire Suppression Systems	•	*
	Building Management Systems	•	*
	Security Systems	•	*
	Other Custom Systems	•	-
	Workflow Management Systems	•	-

*Contact Geist DCIM about customized product options



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