GEIST

Future Thinking • Solutions Today

ENVIRONET

Admin | Settings | Studio | Help | Logout

GEIST

Edit • Map ○ Connections

World ▸ United States ▸ Colorado ▸ Fort Collins ▸ 2900 S College ▸ Fort Collins Data Center ▸

Discovered Devices [0]
World [4]
  Australia [1]
  Greenland [1]
    Qeqqata [1]
      Sisimiut [1]
        Green Corp. [1]
          1st Floor [3]
            Area 1 [10]
            Gen Yard [6]
            test area [0]
  Singapore [1]
  United States [4]
    Colorado [2]
      Denver [2]
        DC [1]
          DR Data Center [1]
            Closet A [5]
        DC2 [0]
      Fort Collins [2]
        2900 S College [1]
          Fort Collins Data Cei
            DCA [8]
              DCA-Row-A [12]
              DCA-Row-B [12]
              DCA-Row-C [12]
              DCA-Row-D [12]
              DCA-Row-E [16]
              DCA-Row-F [16]
              DCA-Row-G [16]
              DCA-Row-H [16]
              DCA-Row-I [8]
            DCB [8]
              DCB-Row-A [10]

Device Counts

Number of Racks	273
Number of Servers	350
Number of Enclosures (Server / Switch)	52 3
Number of Switches	43

Power

Server Actual (W)	0.00
Server Derated (kW)	1.51
Enclosure Actual (W)	0.00
Enclosure Derated (kW)	46.80

Server Utilization

CPU Utilization < 20%	0
CPU Utilization > 70%	0
Memory Utilization > 80%	0

GEIST
DCIM

A single point of access for managing mission-critical hardware.

Description

Managing data centers can be complex, but Geist DCIM is here to simplify the process. Data Center Infrastructure Management (DCIM) consolidates numerous equipment data points into one comprehensive system. DCIM can help cut costs and provide peace-of-mind to managers knowing that the data center is fully monitored. DCIM helps reduce data center down-time due to unexpected incidents.

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. Whether a data center needs extensive monitoring services, automation control, or asset management, Geist has the solutions to get the most out of data center processes.

DCIM Product Line

Environet Facility - Provides the data granularity required for efficient management of the enterprise data center. Access to real-time, holistic information about power, environment, and process empowers users to proactively manage moves, adds, and changes. With unprecedented visibility and management over environmentals, power consumption and cooling, Environet Facility is the ultimate data center management solution.

Environet Asset - Simplifies the process of visualization and management of both the logical and physical data center infrastructure. The intuitive design utilizes enterprise visualizations, connection mapping, capacity and workflow management, and dashboards and reports to provide users with the information they need to effectively manage assets, networks, power and space.

Racknet - Optimizes manual processes in the data center and serves as a single access point to consolidate data center information. With comprehensive alarming and reporting functions, Racknet is the perfect tool to monitor SNMP devices.

Racknet Node Manager - A simple, entry-level DCIM solution for managing Geist devices. This low-cost solution provides a single aggregation point for real-time monitoring and trending.

Volkswagen uses Environet Facility® to monitor data centers 24/7

Two Locations:
Michigan | Ontario

Additional Managed Locations:
33 IT Rooms

Purpose:
To monitor data center assets and reduce the length of business interruptions by immediately alerting as issues arise.

Volkswagen Group of America, Inc. is a wholly owned subsidiary of Volkswagen AG, one of the world's leading automobile manufacturers and the largest carmaker in Europe. With a worldwide family of distinguished brands including Audi, Bentley, Bugatti, Lamborghini and Volkswagen, the global company provides exciting automobile options to customers around the world.

Before Environet Facility, Volkswagen didn't have a practical way to monitor and alert on critical assets in its data centers or remote sites. This is why Ed Dirnberger, IT Facilities Manager at Volkswagen Group of America, Inc., decided to research and install DCIM software. "There wasn't much in place to track or monitor assets in the data center or remote sites. We had limited network monitoring into our remote site environment," Ed explains.

Ed's main criteria for selecting a DCIM system included a solution that is scalable and simple to use. Geist DCIM worked hand-in-hand with Volkswagen to produce a solution that met all of their data center needs.

Immediate Action

Volkswagen faced response-time concerns prior to implementing Environet Facility. Without a reliable notification system, the possibility of problems going undiscovered when employees weren't present became apparent. One key reason Volkswagen decided to implement Environet Facility was to add the ability to respond quicker to incidents and reduce the impact to business operations. Ed explains, "A remote site would go offline due to a power outage or water leak and IT wouldn't know about it until the user returned to the office. This caused several business interruptions."

Environet Facility now provides 24/7 monitoring and alerting in the Volkswagen data centers and IT rooms. The system immediately notifies the data center team if there is a potential issue, ensuring that staff are up to date with data center alerts and alarms. Each monitoring point has six unique alarm levels, which allows for notifications to be sent to different individuals based on the alarm settings. Environet Facility permits users to remotely access the system to acknowledge alarms, so the Volkswagen team doesn't always need to be in the office to manage the system. Ed says that Environet Facility's notification system is especially helpful because Environet detects problems before other monitoring tools.

Geist DCIM is committed to providing reliable, cost efficient DCIM solutions to customers around the world. It is important Volkswagen's customers are never negatively affected by a data center or IT room incident, and implementing Environet Facility has helped make this a reality. Ed says he plans to include Environet Facility in all new IT room projects.

The ultimate solution to monitoring and managing facilities

Environet Facility

Environet Facility is the comprehensive infrastructure management tool used to improve processes in the data center. Using unparalleled real-time monitoring techniques, Environet Facility transforms complexity into simplicity. Its interactive interface delivers critical information to drive knowledge-based decision making. Access to holistic information about assets, power, environment and process empowers users to proactively manage moves, adds and changes. With Environet Facility, decisions are made with speed and confidence, not guesswork.

Environet Facility's graphically rich interface and intuitive design make monitoring the data center easier than ever before. With SNMP, Modbus, BACnet and LONworks capability, Environet Facility communicates in real-time with a variety of equipment from many manufacturers. Users can access the interface remotely through a Web-based browser and sends immediate notifications when an alarm condition is triggered.

Environet Facility Core Features

Real-Time Monitoring

Environet ensures users are aware of critical issues by activating alerts immediately. In a single mouse click, the details and exact location of the issue are determined so actions can be taken to address the problem.

Global Visualization

View the global enterprise using one comprehensive view. Perform quick health checks on data centers without having to delve into individuals locations.

Analytics and Reports

Create unique reports and dashboards to turn complex data into simple visualizations. Report on all devices and points in the Environet system to create data for critical business decisions.

Capacity Planning

Whether it's power, cooling or physical space issues, Environet Facility gives users the ability to visualize and simulate the requirements for a data center expansion before actually moving a single cabinet or device.

Tenant Management

Efficiently pull up key tenant performance indicators and keep track of all critical tenant information. The tenant portal allows tenants to see power usage without having access to the entire system.

Automation Control

With the ability to address multiple protocols, Environet Facility connects facility infrastructure equipment like CRAC units with environmental sensors to automatically respond to data center conditions.
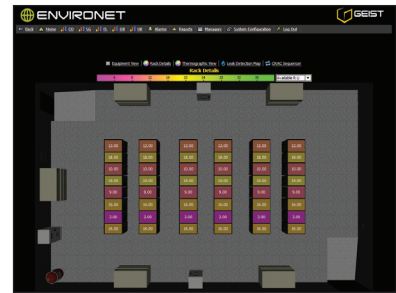
Environet Facility Interactive Views
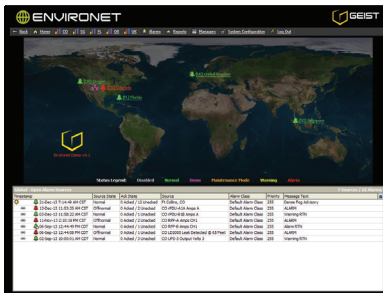
Global View
Shows the status of facilities around the world. Displays active alarms throughout the enterprise.
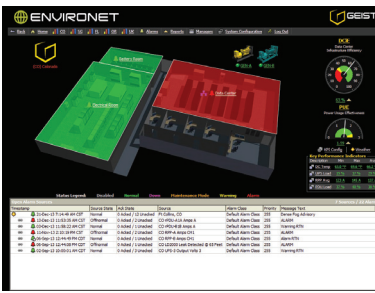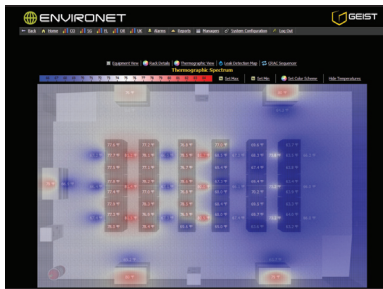

Dashboard View
Displays the top level of a facility. Includes alarm sources, facility layout, company brandings, weather conditions and key performance indicators.
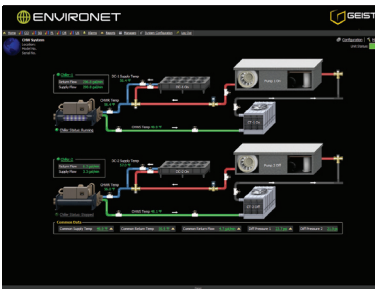

Floor Plan View
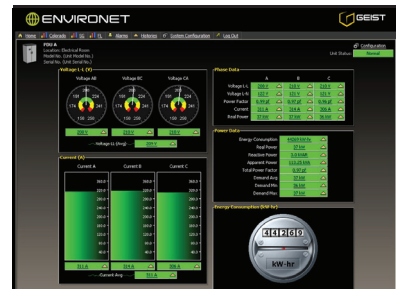Depicts important rack details from a graphical top-level view. Information on available U space, kW and temperature are a click away.

Thermographic View
Displays floor plans with color-coded temperature values to highlight hot-spots.

Equipment Diagram View
Shows critical equipment and connection data using detailed graphics.

Single Device View
Represents each device with six different status colors for at-a-glance monitoring.
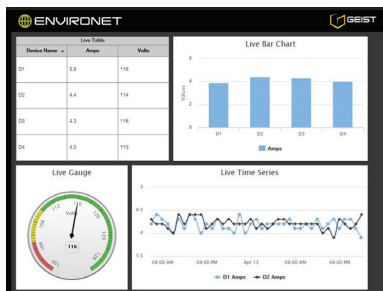
Report View
Compare trended information regarding capacity, load balancing and efficiencies across devices and sites.
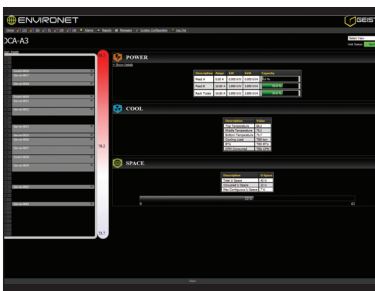
Rack View
Quickly visualize critical power, cooling and space data at the rack level. Drag-and-drop functionality makes placing assets in the rack simple.
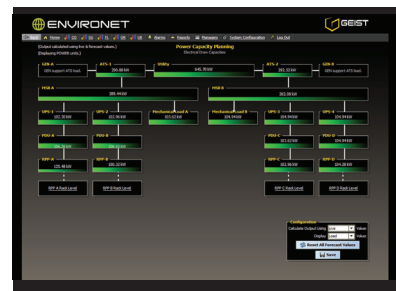
Capacity Planning
Allows assumptive loads and creates simulated views of the effects.

The future of Asset Management

Environet Asset

Environet Asset provides a simple, robust solution to manage data center assets. The sophisticated system allows for easy asset location and efficient auditing. All of the asset data is in one convenient place for quick access to asset lifecycle information. Customized dashboards and reports provide the knowledge to effectively manage the data center.

Environet Asset gathers critical information to intelligently plan for the future and understand how

new assets will affect power and space in the data center. As the data center evolves, simply add new assets to the comprehensive 3D floorplan. Environet Asset shows the effect of planned assets on the network with the change impact feature, helping plan for the future. The workflow management feature makes the data center more efficient, utilizing an easy-to-use task manager to help get the most out of the data center.

Environet Asset Core Features

Asset Management

Know exactly where assets lie in the data center, and quickly locate asset lifecycle information. Search for the ideal placements when adding individual assets.

Connections Mapping

Visualize critical power and network connections. Environet Asset's drag-and-drop functionality makes connecting devices simple. Immediately understand how additions may impact power and network requirements.

Workflow Management

Utilize work orders to manage the entire asset lifecycle effectively. Improved operational awareness and process management allows for and streamlined implementation.

Capacity Planning

Understand where available capacity exists. Generate change impact reports and graphics to intelligently plan for the future.
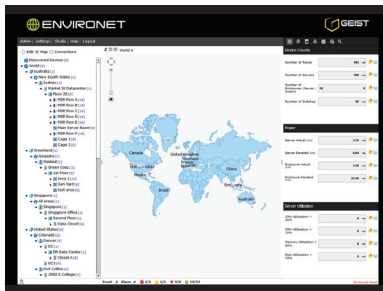
Enterprise Visualizations

Easily navigate the entire enterprise—from the site level down to each individual connection. Manage data center details using 3D graphical views. Utilize a single pane of glass to manage all aspects of the critical infrastructure.

Dashboards and Reports

User configurable dashboards and reports provide real-time visuals for what is happening within the data center and facility infrastructure. Environet Asset provides an at-a-glance confirmation of key metrics across the enterprise.
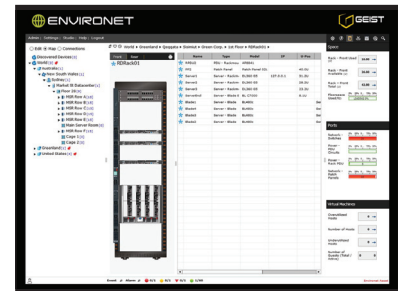
Environet Asset Interactive Views

Global View
Navigate quickly throughout the entire enterprise. View key metrics for all locations.
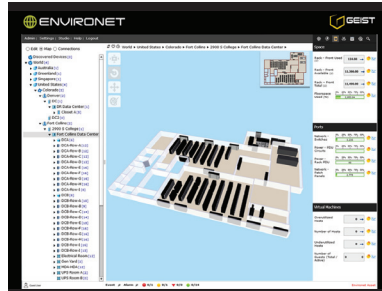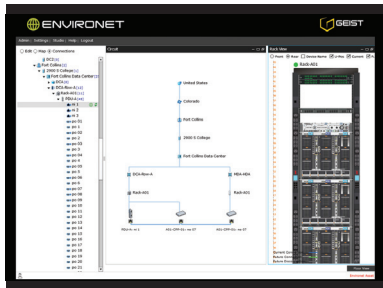

Floorplan View
Shows the data center using 3D graphical views. Manipulate reportlets to give vital data center information.
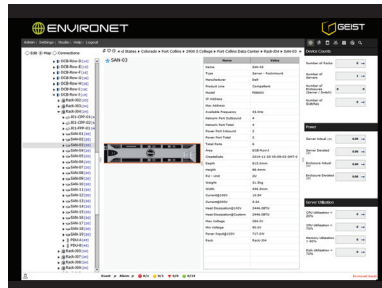

Rack View
Visualize an entire rack, and see individual asset locations, weights, models, and more.
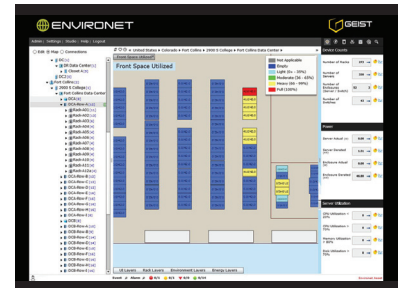

Connection Mapping View
Displays asset connections within the system, making it easier to make data canter changes.

Device View
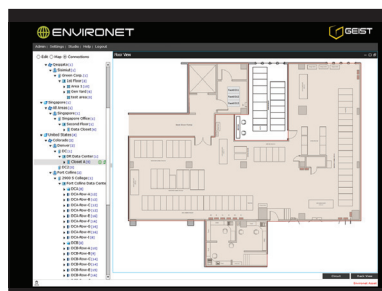View individual asset ports along with all other key asset attributes.

Capacity Planning View
Quickly see where free space exists in the data center and use capacity reports to plan intelligently.
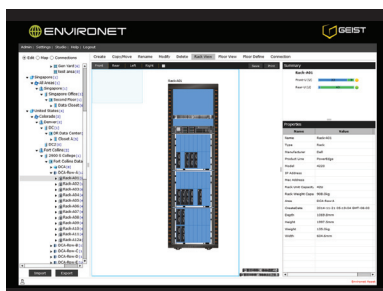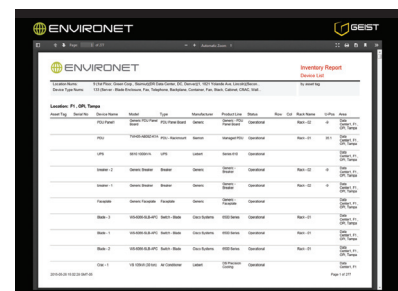

Edit Rack View
Use the edit feature to add new assets into the system with ease.

2D Floorplan View
Depicts the data center in an easy-to-understand floorplan, making it easy to add racks or other infrastructure.

Report View
Generate unique reports using the report manager and export files into larger management systems.

The versatile DCIM solution

Racknet

Racknet helps optimize manual processes in the data center and serves as a single access point to consolidate data center information. With comprehensive alarming and reporting functions, Racknet is the perfect tool to monitor SNMP devices. The notification system sends alarms and alerts based on user-defined thresholds, and has multiple escalation levels. The auto-discovery feature makes adding devices simple and the intuitive interface allows users to quickly drill into specific rooms to visualize any part of the data center. Utilizing drag and drop capabilities, Racknet is highly customizable, providing businesses with a flexible DCIM solution.

Quickly manipulate user-defined collections of data in Racknet. Customizable math functions provide the unique information businesses needs to efficiently run the data center. With Report Manager, report on vital data center information using unique charts and graphs. To help understand overhead expenses, use the energy cost analysis to provide vital power consumption information. All Racknet information can be communicated out via SNMP and BACnet, making Racknet a versatile DCIM solution.

Racknet Core Features

Aggregated Views of Data

Display one view of all monitored equipment with user defined graphics to create a holistic view of enterprises and highlight areas to improve efficiency.

Math Functions

Generate live views such as highs, lows, averages, costs, usages, etc. and associate them with dashboards and other views.

Real-Time Monitoring

User-defined thresholds provide quick alarm notification with three escalation levels. Recognize problems before they become catastrophic.

Dashboards and Reports

Build and generate unique reports (e.g., customer monthly power usage, high/low/ average temperatures, monthly PUE/DCiE). Visually display data in various chart types for easy interpretation. Save time by automatically generating the reports.
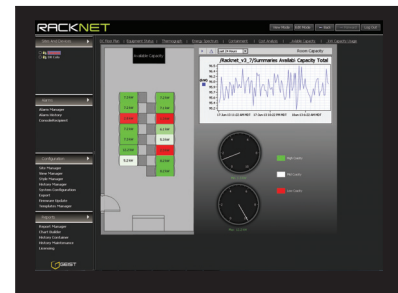
Racknet Interactive Views

Campus View
View the health of each location and quickly drill down into individual rooms to view alarms.
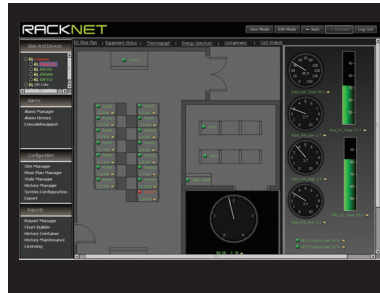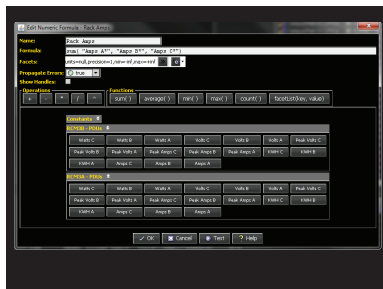

Floorplan View
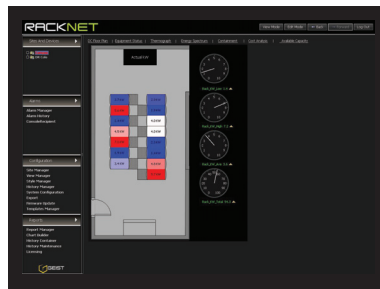Displays key data center infrastructure and provides charts and graphs to simplify information.

Capacity Planning View
Efficiently plan for the future using comprehensive visuals. View the effects of adding new assets.
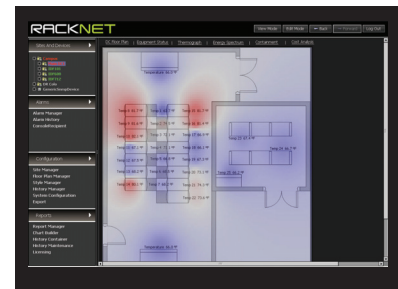

Function View
Allows user to manipulate math functions to create unique collections of data.

Energy Spectrum View
Provides energy usage visuals to help users understand what equipment is power-taxing, and where new assets can be placed.

Thermographic View
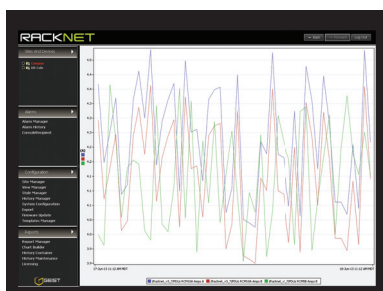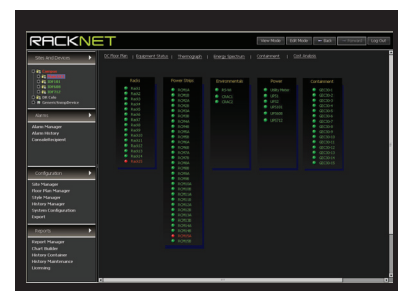Quickly see hot and cold points in the data center.

Chart Builder View
Create current and past charts to see how key infrastructure compares to each other.

Cost Analysis View
Estimates monthly power costs, giving users information necessary to plan intelligently for the future.

Equipment View
Depicts all of the data center's equipment in one view and allows users to see current alarms.

The simple solution for businesses looking to implement critical DCIM

Racknet Node Manager

Racknet Node Manager (NM) provides a simple solution for managing only Geist devices. This low-cost solution provides a single aggregation point for real-time monitoring and trending.

Racknet-NM manages the data center white space with a single point of integration. Racknet-NM is designed to support Geist equipment in a single interface and allows for user defined alarms, alerts and history trending, creating a single view of critical Geist infrastructure. See the comparison chart below to see how Racknet-NM compares to the standard Racknet solution.

Racknet vs Racknet Node Manager

Features and Benefits	Racknet	Racknet Node Manager
Support for all Geist hardware	✔	✔
Support for all 3rd party power strips	✔	
Support for all 3rd party SNMP devices	✔	
Optional Geist Network (GNET)	✔	✔
SNMP and BACnet output of all collected data optional	✔	✔
Support for up to 1,000 devices	✔	✔
Geist equipment global firmware updates	✔	✔
Alarming and trending	✔	✔
Report Manager	✔	
User defined graphical views (one customizable view for NM)	✔	✔
User defined collection objects for associations of data	✔	
HTTP pass-through of all GNET devices	✔	✔
Appliance form factor	✔	
Virtual Machine option	✔	✔

Racknet Application Diagram
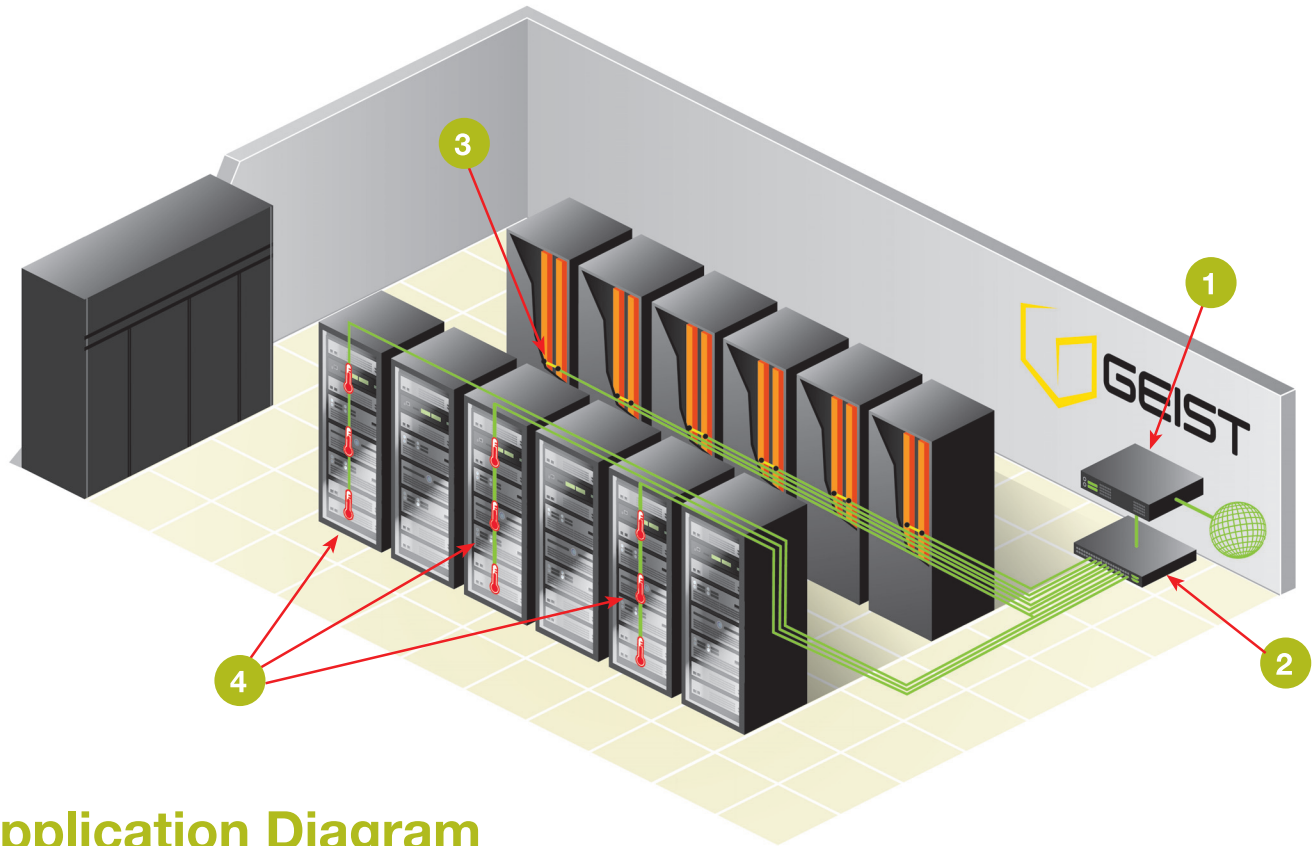
Application Diagram

1. **Racknet** – Collects data from specified equipment then stores, aggregates, reports and displays the data on a secure Internet connection for multiple user remote access. Captures data from up to 48 unique Ethernet connections. Allows users to create an independent network to collect intelligent PDU and environmental sensor data without connecting to the data center network.

2. **Concentrator** – Combines up to 48 unique Ethernet lines to deliver a single data line to Racknet. By utilizing multiple Concentrators users can target thousands of unique points to create a sophisticated monitoring network for large data centers.

3. **Intelligent PDUs** – Supplies power to critical data center equipment. In addition, the intelligent PDU sends performance metrics as well as data captured from environmental sensors to Racknet for collection.

4. **Temperature/Humidity/Dewpoint Sensors (GBB15/GTH3D)** – Measure critical environmental elements and send data through intelligent PDU ports.

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