



GEIST

DCiM Case Studies



manage

About Geist

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 services or implementing new technologies, Geist promotes innovation, quality, and satisfaction in all aspects of
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Environet Helps LightBound Deliver Even More to their Customers

One Location

Indiana

Managed Points

Over 8,000 points

Over 150 devices

Purpose

To design a data center management system that is intuitive for new users, vendor neutral, and easily expandable.



Established in 1994 as an Internet Service Provider, LightBound provides clients with a unique mixture of quality customer service, industry experience, and state-of-the-art technology. As one of Indiana's largest privately held colocation facilities, LightBound offers customers a robust set of solutions including managed services, disaster recovery, data backup, and cloud computing. LightBound's data centers implement only the best technology for monitoring, management, and cooling.

Most recently, LightBound implemented an Environet infrastructure management system. According to LightBound's data center manager, Dan Allen, LightBound's criteria for selecting a monitoring system was "intuitiveness, product compatibility, scalability, and support." Environet's intuitive web-based interface decreased the training time needed for employees and made the system accessible from remote locations, which means faster response time if an event occurs.

An Easy Choice

Investing in Environet was an easy choice for LightBound, "Environet was an easy sell for us; it was not just a graphical front end that was bolted onto our equipment. We immediately recognized that it was built from the ground up as an end-to-end solution specifically geared towards data centers," Allen explains.

The graphical floor plans were especially helpful for LightBound, especially the thermographic view. Environet's thermographic view incorporates temperature data from the probes mounted on the ceiling of LightBound's data center. The data is then displayed through Environet using gradient color coding over scaled floor plans creating a real time depiction of data center temperatures. In addition, Environet monitors the temperature data for unsafe highs and lows and sends immediate notification if one occurs. All these features allow LightBound to visualize hot spots in the data center and proactively manage their state-of-the-art cooling system.

According to Allen, a primary function that LightBound needed from a management system was to "quickly identify problem areas or status of any equipment in our facility despite where it is throughout the building." Environet's vendor neutral capability helped meet this requirement. Environet's ability to communicate with third party equipment meant no costly integration and equipment replacement costs. LightBound was able to connect and detect alarms with data center equipment throughout the facility regardless of manufacturer.

A True Collaboration

Working with LightBound proved beneficial for everyone involved. Director of Environet Sales, Steve Lewis, explains, "The project was truly a collaboration as LightBound introduced new philosophies and technologies to the Geist portfolio. The integration of Environet brought new features, views, and metrics that should be considered by all data center operators."



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LightBound's dedication to providing their customer's with premium service played a major role in the decision to implement Environet. The functionality of the Environet system meant that their customers' would have comprehensive management for their data. Efficient alarm notification was imperative for the facility. According to Allen, "We recognized that our new facility would be highly visible with the customers we were bringing online. Having the ability to spot trouble quickly with any system was very important to us." With Environet's alarm notification and escalations, LightBound can receive status updates in real time through the system via email, SMS, or even phone.

What truly sets LightBound apart is their focus on customer service. LightBound provides exceptional customer care and remains a highly customer focused company. With LightBound's emphasis on customer service it makes sense that they would appreciate another company with similar values. Geist focuses on serving the needs of each customer, which was a key benefit in LightBound's partnership with Environet. Lewis notes, "This new partnership is one that will continue to grow as we innovate and develop a solution that not only meets the needs of LightBound, but their clients as well."

LightBound couldn't agree more. Throughout the entire process, LightBound received excellent care from Geist. "The support staff has been a delight to work with every time. I simply state my problem or request and they jump on it right away, I spend very little time having to explain what I'm trying to accomplish," says Allen.

LightBound is extremely pleased with the results yielded from the first deployment of Environet in their data centers. This immediate success has led LightBound to pursue placing Environet in each of its data centers. "We are already making arrangement to add Environet to our legacy buildings in the very near future. Environet made such a positive impact on us; we have to have it now in every facility!" Allen explains.



Environet Gives Hosting.com the Flexibility They Need



Five Locations

- (1) Colorado
- (2) California
- (1) New Jersey
- (1) Kentucky

Managed Points

- Over 13,000 points
- Over 175 devices

Purpose

To design and implement a multiple site critical facilities infrastructure monitoring system that allows the end user to remotely view and manage multiple sites from one 'pane of glass', or single Web browser session.



Being responsible for the uptime of over 65,000 websites is no easy feat—and it's a responsibility that Hosting.com takes seriously. Established in 1997, Hosting.com provides hybrid hosting solutions, enterprise colocation, cloud and dedicated hosting, managed hosting, disaster recovery, and business continuity services to a global customer base.

For over 13 years Hosting.com has experienced steady growth primarily due to their commitment to quality service and strong word of mouth. This growth has resulted in the company expanding their hosting services to five data centers, nationwide. With this expansion came the need for consistency. Hosting.com's Data Center Facilities Director, Roman Flom, explains, "Company growth dictated the need to standardize on a single scalable platform that would allow our global NOC to monitor all of our locations using one interface." However, having five different data centers in four states across the nation, meant Hosting.com had some challenging requirements for their global NOC.

Staying Neutral

Hosting.com employs a diverse set of technologies from a number of equipment manufacturers. Finding a monitoring system that could successfully integrate different communication protocols was essential. Environet's vendor neutral platform allowed Hosting.com to integrate with their current technologies. Flom explains, "Communication types had both economic and operative perspectives in this decision making process." The Environet system allows Hosting.com to use current

equipment from a number of manufacturers without suffering the cost of equipment replacement. This vendor flexibility also allows Hosting.com to pick and choose equipment based on their needs rather than the system's needs. Environet gives them the freedom to choose the best technology for their data centers without compromising the quality of service they provide to their customers.



Intuitive Interface

With any technology, there is a learning curve. The quicker users can learn how to properly and efficiently use a technology, the faster that technology becomes valuable. An intuitive, easy-to-use interface decreases the need for extensive—and often times costly—staff



“The technicians and the project manager were clearly experienced professionals and demonstrated a real personal interest in making sure we were satisfied with the system in its full scope.”

training. “We wanted a simple to understand user interface”, says Flom, “The Environet interface was the most intuitive of the platforms we evaluated.” The drop down menus and icon-based interface made it easy for Hosting.com employees to navigate the system. In addition, the graphical layout and visual representations of data such as temperature, alerts, and energy usage makes recognizing problem areas fast and efficient.

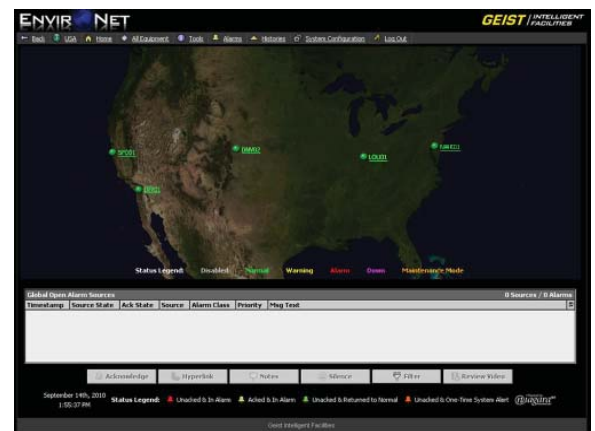
Deployment Cost

Installation costs for five data center sites can get expensive, quickly. Between technicians' time, travel costs, hardware purchases, and other expenses, deployment cost is an important factor when choosing a monitoring system. According to Flom, “Deployment cost was a significant factor. We conducted an extensive pricing exercise and Environet was consistently presented as the more competitive solution both for initial deployment and incremental growth costs.” Not only is Environet competitively priced for deployment, but it also has a fast return on investment. With features like Power Capacity Planning and the CRAC Sequencer, Environet provides a number of ways to decrease operational cost, while increasing data center efficiency.

Only the Best

Hosting.com knows quality service. As a company, it guarantees that all representatives are extensively trained in both the technical aspects of hosting solutions as well as customer service. They uphold superior standards for their customer relations which is why they have been able to rely on word of mouth and referrals to grow their business. Even with such high customer service standards, the Geist DCiM team was able to meet and surpass expectations.

“The technicians and the project manager we worked with during the implementation were clearly experienced professionals and demonstrated a real personal interest in making sure we were satisfied with the system in its full scope.” Flom continues, “Further, our project manager was always accessible and eager to answer questions or make adjustments during the course of the project – considering the complexity of tying together multiple sites with varied equipment platforms this was reassuring.”



Geist DCiM satisfied Hosting.com's numerous requirements. Environet monitors each Hosting.com facility while also providing a centralized monitoring platform that gives Hosting.com accurate, real-time visibility of all five data centers. And with a relationship that reflects the high standards and quality service of both companies, Hosting.com says they're sure to expand their Environet system as they continue to grow.

BCD Travel Finds a Solution with Environet

28 Locations

- (2) Georgia
- (1) Florida
- (1) Costa Rica
- (1) Missouri
- (23) Remote Locations

Managed Points

- Over 22,000 points
- Over 400 devices

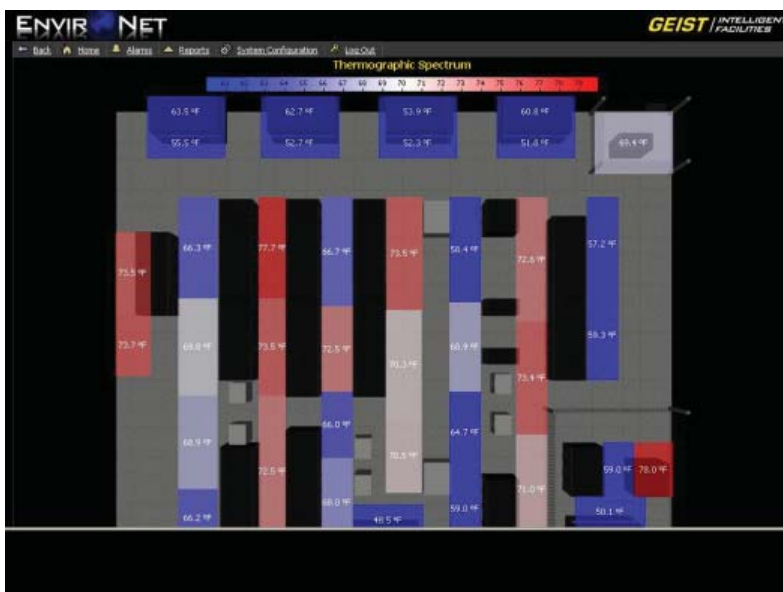
Purpose

To implement a proactive monitoring system capable of trending data integrating with multiple communication protocols while maintaining a visually pleasing and intuitive user interface.



For more than 30 years, BCD Travel has been a recognized leader in providing travel services in a variety of industries. With more than 13,000 professionals focusing on quality travel management, BCD Travel boasts a proven track record of superior service with a 95% client retention rate. With core services including travel management, meeting management, and travel industry consulting, BCD Travel is known for their empowered management practices, customer customization, and partnership approach to business.

Providing automated tools and processes ensure that their travel agents focus on service delivery not complex booking procedures. BCD Travel implements online booking tools and continually improves online adoption, centralized support, operational excellence, and workflow technologies to provide superior performance across borders. To maintain the quality service their clients have come to expect, BCD Travel relies on the upkeep of numerous data centers spanning multiple continents.



A New Addition

In 2008, BCD Travel decided to expand their data centers in North America by building a new data center in Atlanta, Georgia. To monitor this data center, BCD Travel needed a highly reliable, comprehensive system. Previously, the company's data centers employed rudimentary monitoring systems that used analog signals such as temperature and humidity as well as dry contacts for status of equipment.

Director of Data Center Operations, Tom Dileo says, "We began to search for a comprehensive product suite that would integrate with our new infrastructure through multiple protocols such as SNMP, Modbus, LONworks, etc. We also required a friendly Web based graphical interface which would present a clear view of the status of our entire infrastructure."



“ There is so much flexibility in the product’s ability to store data, warn, and alarm. These features allow us to perform trend analysis and to be proactive rather than reactive in monitoring growth. ”

Implementing a system that monitored their new data center efficiently, accurately, and comprehensively was imperative.

Dileo recalls that, “[BCD Travel’s] selection of Geist’s Environet solution was made based on the integration capabilities, intuitive interface, and for the company’s genuine desire to work with us to customize a solution based upon our needs, wants and desires.”

Flexible Monitoring

After implementing Environet, BCD Travel was impressed by the flexibility of the comprehensive system. “There is so much flexibility in the product’s ability to store data, warn, and alarm. These features allow us to perform trend analysis and to be proactive rather than reactive in monitoring growth.” Dileo notes.



The customization of the system allowed BCD Travel to make adjustments based on their needs. “I asked for an automated way to start/stop our individual HVAC units based on defined temperature thresholds. The team delivered this request without any hesitation or trouble”, says Dileo.

In addition to meeting BCD Travel’s customization and integration needs, Environet’s automated start/stop function for the HVAC system started showing a return on investment almost immediately. In just over a year, employing the automated CRAC Manager has decreased the six CRAC unit’s run time by approximately 20%. That translates into an annual savings of over \$23,000—and that’s just one of many ROI measures.

Not only did Geist provide a quality product and fast ROI, but working with the Geist team was an exceptional experience. “I consider our relationship with Geist a true partnership. They have been there for us right from the start, from design phase to providing a comprehensive solution at a reasonable price point.”

Environet and GameStop: A Win/Win Partnership

Ten Locations

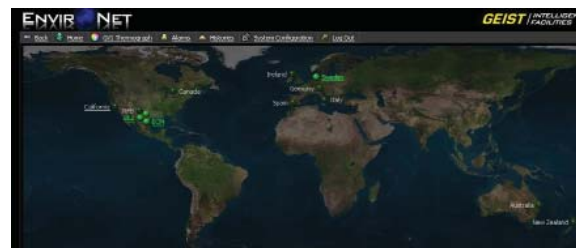
- (1) Australia (2) Mexico
- (1) Canada (1) Sweden
- (1) Germany (2) United States
- (2) Italy

Managed Points

- Over 12,500 points
- Over 75 devices

Purpose

To implement a centralized monitoring system that is globally accessible, seamless to integrate, and easy for new users to learn.



How does the world's largest video-game retailer stay on top of its game? With more than 6,100 brick-and-mortar stores throughout 18 countries, an international website, (GameStop.com) and a top ecommerce website for games (EBgames.com), GameStop faced a global challenge: How to effectively monitor the multifaceted divisions of its company without compromising security and reliability. To tackle this challenge, GameStop joined forces with Environet from Geist DCiM.

Like most companies today, GameStop supports its multitude of retail stores through regional head offices. Any one of these offices might be responsible for as many as 300 or more retail locations. Each regional office maintains its own Information Technology (IT) infrastructure to support sales, customer service and communications within its stores. The equipment, facilities and capabilities in each office vary depending on several factors:

Location. Environmental influences are major players in data center operations. An office in Australia might face challenges to keep equipment cool, whereas an office in Ireland might be concerned with humidity. In addition, some locations might face greater security concerns than others.

Workload. Hosting IT services for a multitude of individual branch locations requires the flexibility and scalability to handle the varied needs of those locations. While one region might add branch locations more quickly than others, another region may have to process more traffic. GameStop classifies its regional offices' IT facilities in three categories based on the level of each facility's IT support.

Staffing. GameStop's regional offices run lean with minimal personnel, so efficiency is mandatory. The offices aren't open 24/7, so issues that might crop up during night or weekend hours, such as power failures, floods or security breaches, can be detrimental.

This final factor was the starting point for GameStop's partnership with Geist DCiM. GameStop wanted to implement a centralized monitoring system, based in its global operations center, which is open around the clock. That way, GameStop could head off problems such as water damage, equipment damage or security lapses that might otherwise result from after-hours events such as flooding or power failures at a branch location. As GameStop's senior operations manager, Justin Newcom's challenge was finding a way to support all of the company's locations without disrupting individual office operations or burdening individual offices through additional IT demands.

Finding Global Solutions

GameStop's goal was twofold (1) Give GameStop the ability to manage its regional facilities by providing granular, robust notification and alarm systems that respond quickly, (2) implement a centralized monitoring system that works with existing



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equipment. “We don’t want to impose (on the regional offices),” Newcom explains. “We want to snap in what will help the most, which can be immensely different environmentally. Some offices already have security or cooling set up, so adaptability is important.”

Geist DCiM began by helping GameStop implement its Environet monitoring system at the retailer’s corporate data center. Using Environet, GameStop’s corporate IT can now monitor each region’s IT facility temperature, humidity, security, battery backup, and more for complete operational insight. According to Newcom, two factors played into GameStop’s decision to select Environet.

“One, we like the interface—the way it shows the datacenter layout, the simple red light/green light methodology,” he says. “Two, the solution is very scalable. We have Environet, and we hook in our other facility management systems, which give us information from the remote offices, and now we have a single pane of glass out to the other locations from our main system. We can then expand at our own pace.” GameStop is already making plans to install additional Environet systems in its regional offices.

Increasing Efficiency

Newcom plans to use Environet to help the company become even more efficient. Additional measurements such as data center infrastructure efficiency (DCiE) and power usage effectiveness (PUE) will be added so that GameStop can calculate costs from the facility level down to the server-cabinet level. The company can then use these calculations to realistically estimate the cost of projects, such as virtualization.

Newcom is pleased that Environet gives GameStop the ability to show all types of Return on Investment (ROI) and hardware costs. And he appreciates the first-rate customer service. Working with Geist DCiM is “more of a partnership,” he states. “They’re easy to contact and easy to work with. We run ideas by them, and they respond right away.”

As for the Environet solution: “It’s a phenomenal product, able to scale quickly and easily, and priced well. When we work with global projects we want to make it as easy as we can.”



Expedient Chooses Environet



Six Locations

- (1) Massachusetts
- (2) Pennsylvania
- (2) Ohio
- (1) Maryland

Managed Points

- Over 84,500 points
- Over 400 devices

Purpose

To implement a cost effective monitoring system that is scalable and easy to deploy.



Expedient and its affiliates operate a national network of eight data centers located in Baltimore, Boston, Cleveland, Indianapolis, Pittsburgh, and Columbus. The company boasts thousands of nationwide clients who use Expedient's secure and redundant data center facilities to fully manage their networks' critical applications.

Expedient also offers an array of fully managed network hosting services including Managed Backup for disaster recovery and Colocation Hosting. Backing up this management functionality is a powerful, extensive, award-winning Ethernet network. Equipment and facility monitoring can be crucial to round-the-clock operations at Expedient's multiple data centers. According to Ken Hill, Expedient's vice president of technical operations, equipment and facility monitoring is essential to his company.

"Our customers rely on our organization to provide reliable data-center services at all times," explains Hill. "It is imperative that we have in-depth visibility of our infrastructure systems and elements to ensure that we detect and resolve problems in a proactive and timely manner."



What led Expedient to Environet?

says Hill: "We had experience with several monitoring systems, and Environet was scalable, cost effective and relatively easy to deploy. The functionality surpassed other devices that we evaluated." Since making the decision to invest in Environet, Expedient has deployed its products in six of its eight data centers. Expedient uses Environet to monitor leak detection, BCMS, UPSs, generators, HVACs, switchgear, ATSS, humidity, wireless temperature systems, and more.

Expedient benefits from Environet in a number of ways. According to Hill, "Environet provides us with the ability to monitor and measure power consumption and watt densities within our data centers ... the product reduced our cabling costs and gave us flexibility with the placement of sensors. For example, the wireless temperature and humidity sensors can be placed



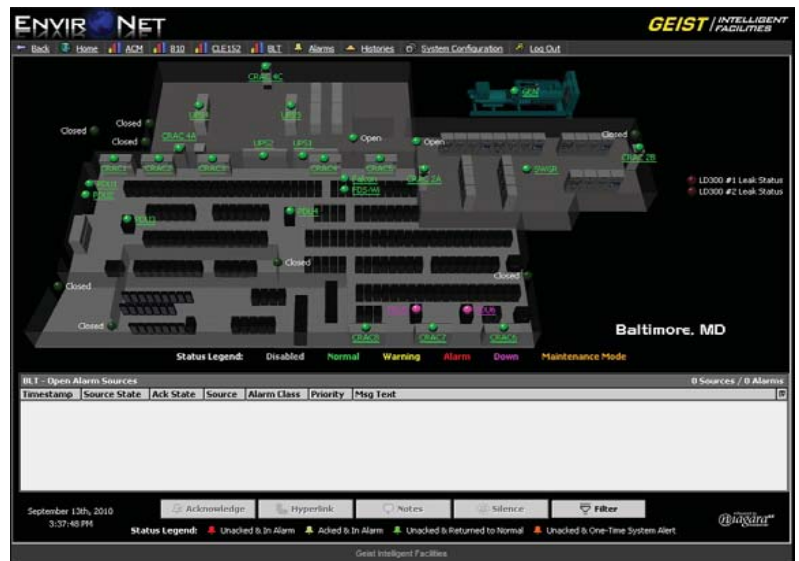
“The support staff have been excellent to work with over the past few years. Geist DCiM has a good understanding of our business, and they have been able to work with us to find technical solutions to meet our needs.”

anywhere within the facility in minutes. If we have a specific area of concern, we can install a sensor and collect environmental information immediately.”

Expedient replaced its previous monitoring system with Environet. Expedient has been extremely pleased with this solution. Initially, Expedient needed to integrate more temperature monitoring at its sites, but as the company learned more about Environet, its needs and scope began to steadily increase.

“Environet allows us to add modular components to meet our needs as we grow,” Hill says. “Some of the competing products carried a higher initial cost that consumed additional capital resources up front.”

“The support staff have been excellent to work with over the past few years,” Hill says. “Geist DCiM has a good understanding of our business, and they have been able to work with us to find technical solutions to meet our needs.”



Cosentry is Covered with Environet

Three Locations

Nebraska
Missouri
South Dakota



Managed Points

Over 65,500 points
Over 240 devices



Purpose

To integrate current technologies with an effective billing and SLA tracking module capable of generating custom reports and sending notifications when an alarm condition is met.

For over ten years, Cosentry has provided businesses with resiliency solutions from disaster recovery and managed technical services to hosting and data center services. As a top tier technology utility, Cosentry allows businesses to operate seamlessly if there is a small incident or a full-scale disaster.

With six regional facilities, Cosentry is responsible for protecting their clients' business operations. To make sure their clients are covered, Cosentry implemented Environet DCiM systems in their regional facilities.

Before implementing Environet, Cosentry took manual recordings, often referred to as "sneaker reports," to measure electrical circuits feeding customer servers. These manual recordings required personnel to walk to each meter, take a live recording, and then report the reading for billing verification purposes.

However, there are a number of downfalls to manual recording. Taking recordings manually can be time consuming for the personnel, costly for the company, and may lead to inaccuracies due to human error. In addition, manual reporting is an ineffective way to record data because it only provides a single measurement in time and does not provide data for other times of the day or month.

Cosentry began searching for an environmental monitoring system that could help combat these challenges. Above all, Cosentry wanted a monitoring system with the ability to display data in an easy-to-use, intuitive interface that could also be customized to their needs.

According to Dave Suhr, Bellevue Site Manager, "Customization was the number one factor. We needed the ability to display data on a product that was highly flexible, customizable, and easy for our employees to use."

Cosentry decided to implement a customized Environet system to gather live data per circuit and automatically generate bills for customers. Environet helped condense Cosentry's access points to make





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monitoring more efficient. Suhr says, “Environet provided a single location for all the information. Now thousands of points of information are available in real time. Reports are now based on actual real time measurements and are available at a click of the mouse.”

With no more sneaker reports, personnel can focus on other priorities, readings are highly accurate, and Cosentry can monitor their mission critical facilities with even more confidence. The most helpful feature according to Suhr is the notification. “Last night a customer lost power in a cabinet and I knew right away. That means fewer surprises for me when I get to work.”



Suhr also finds Environet’s reporting function useful.

Suhr runs reports to show power usage and overages of clients. “While the different unique views—from individual to summary pages are nice—the reporting function is especially helpful for our application.”

Suhr says his experience with both the Environet system and the Geist DCIM team has been a positive one. “The staff has been very helpful. They were able to make changes to suit our needs”, says Suhr. With all the features and functionality of the Environet system, Suhr sees future applications for Environet as Cosentry expands.



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