

**TrendPoint Systems Releases EnviroCube — A Source of Advantage in the Datacenter Infrastructure Management Market**

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TrendPoint Systems, a 10-year-old smart metering and appliance manufacturer for the datacenter, released the [EnviroCube](#) on Monday, May 9, 2011. TrendPoint is based in San Ramon, California, and focuses on facilities remote monitoring for the datacenter. Their latest product is the EnviroCube, a [device meant to monitor, manage, and directly control cooling units on the datacenter floor](#).

The EnviroCube focuses on measuring all the relevant metrics on computer room air conditioners (CRACs) and computer room air handlers (CRAHs). These metrics include:

- CRAC/CRAH air flow in cubic feet per minute
- Temperature rise (return temperature minus supply temperature on the CRAC/CRAH unit)
- Voltage
- Amperage
- Power factor and wattage of each phase of power feeding unit

This introduction by TrendPoint is significant in that it offers visibility into datacenter cooling systems that today present a significant gap in facilities metrics. TrendPoint's EnviroCube feeds key real-time, accurate cooling information into their own HTML software and into datacenter infrastructure management (DCIM) software from their partners, CA Technologies and Schneider Electric. The metrics collected can significantly increase energy efficiency in the datacenter by identifying underperforming cooling infrastructure. Also, as the EnviroCube provides constant real-time data on system performance, datacenter managers can predict potential cooling system failures (such as motor failures) before they happen, decreasing the risk of downtime.

IDC finds that a key component of streamlined datacenter operations, which is currently missing in most datacenters, is analytics. The EnviroCube can help datacenter managers obtain data and provides actionable information about what is typically the least instrumented part of the datacenter — cooling.

One of the key features of the EnviroCube is the ability to add a variable frequency drive (VFD) to the CRAC/CRAH units. The VFD then relies on information regarding wattage (not temperature) from the cooling unit. TrendPoint's methodology is to measure the watts of heat removed from the datacenter (from the EnviroCube); then they use another product of theirs, the EnerSure, to get a reading on watts produced in the datacenter by the servers and racks. The VFD is then programmed to actively control the fan speed of CRACs and CRAHs to continually match watts produced and watts removed from the datacenter environment. TrendPoint believes that leveraging wattage versus temperature metrics prevents a serious potential circular reference problem. Using temperature readings to adjust temperature settings has, in their experience, created cooling system inefficiencies as CRACs and CRAHs are constantly reverberating past the efficient steady state.

TrendPoint's EnviroCube is an appliance that comes with their own simple HTML-based software to render live graphs of CRAC and CRAH metrics. The other route to market that TrendPoint is more focused on is to partner with datacenter infrastructure management vendors. DCIM is packaged software for monitoring, managing, and controlling facilities and IT equipment for optimal uptime and energy efficiency. The DCIM market (including corresponding, supporting services to enable software sales) is [estimated by IDC](#) to reach \$180 million in 2010.

TrendPoints' partnerships with CA Technologies and Schneider Electric are win-wins. This enables CA Technologies and Schneider Electric to be among the few DCIM vendors that cannot only "see" into cooling units on the datacenter floor, but can actually actively control the cooling units. Other DCIM vendors are taking different approaches to monitoring cooling, including application programming interfaces (APIs) and relying on preinstalled CRAC and CRAH vendor-specific software. To date, the EnviroCube is one of the only vendor-agnostic, real-time solutions IDC has seen with the ability to automatically control cooling output.

TrendPoint's challenge will be convincing customers they need to retrofit existing CRACs and CRAHs instead of buying new, more capable systems. A secondary, market-wide issue is that datacenter managers know very little about energy for their IT and power systems, let alone their cooling infrastructure. TrendPoint and their partners will need to convince facilities and IT staff that not only do they need to know more about their CRACs and CRAHs, but that this knowledge can save them money and prevent downtime.

The EnviroCube is currently available and is priced at \$2,295 per unit, not including the VFD.

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