

# NHHTC / MIT Enterprise Forum of NH

## “How Cool RU?”

By Catherine Blake

Have you ever tried to manage air? AdaptivCool has and is banking their business on the ability to manage airflows inside data centers to eliminate hot spots and reduce energy consumption. Not a stranger to New Hampshire business, AdaptivCool is owned by DegreeC, an eleven-year old granite state company specializing in engineering airflow to take the heat out of electronics at chip, board, and chassis scales. Now they're expanding that expertise into the datacenter environment.

Did you know that datacenters are power suckers on a grand scale world-wide? In the U.S. alone, they use 2% of our overall power consumption, by 2012 they are projected to consume 4-5%. In Gartner Group's *Data Center and Cooling Challenge Survey*, it was reported that 93% of facilities will upgrade, expand, relocate, or renovate their facility to accommodate power and cooling needs over the next year. Furthermore, the two biggest problems with datacenter are 37% insufficient cooling and 43% insufficient power. The good news is that AdaptivCool can help on both fronts.

At last month's MIT Enterprise Forum, Eric Birch, Executive Vice President for DegreeC presented the case for AdaptivCool, a start-up division. AdaptivCool rearranges the airflow in datacenters to create consistency for temperature and

circulation eliminating hot spots and cold spots. Most datacenters have legacy tower HVAC units on the margins of floor space. Energy is wasted because there is an imbalance of temperature consistency and air flow. Units work overtime to compensate for inconsistencies using double digit percentages of wasted energy.

AdaptivCool's managed airflow with "Room Scale Intelligence" eliminates most of the localized variations in temperature allowing more computing power to be deployed safely in the same space.

AdaptivCool's intelligent, patented cooling-control system uses network-driven under-floor air supply and ceiling returns, sensors, hubs, CRAC (Computer Room AC) control. AdaptivCool™ Console is the thermal management software that scans the room and intelligently manages air flow giving you a real-time thermal display. What's more, they provide 24x7 remote monitoring at



A-COOL Network Operations Center. (They even have a cool sounding NOC name!)

So what's the benefit? Do you like to save money? Are you "going green"? AdaptivCool has measured a 20-30% reduction in cooling energy. Also, they allow you to reclaim 20-30% more computing in the same space by eliminating the need for legacy floor standing units. (How much are you paying per square foot?) They can totally eliminate hot spots and



Skydiver Brian Fasano, President, Moonset Studios

will not interrupt you "up time" because they never touch your racks and rows of equipment. What's better than a service model that requires no capital outlay and guarantees "thermal peace of mind"?

So what did our panel of experts think? We had the privilege of hearing from Bill True, Senior Director, Engineering Services, Fidelity Investments – Fidelity Real Estate Company, Paul Lentine, Senior Engineer, Energy Efficiency Services, PSNH, and Marc Berthiaume, President



Eric Birch, Executive Vice President, DegreeC

and CEO for MJB Technology Solutions. I later found out that Marc's experience includes responsibility for a \$2 billion financial services network of organizations and directing a world-class application service provider's 24x7 data and network operations center. Indeed this group would put Eric through the paces.

The panel was overall very impressed with Eric and AdaptivCool. The sentiments were that the timing is right, particularly since a recent survey from Search Data Center reported that 65% of Data Center operators say that they would never use liquid cooling in their data centers even though liquid cooling is hundreds of times more effective than air. Energy costs are on the rise and AdaptivCool cleverly provides a greener alternative. Finally, strike while the iron's hot: "move now before consolidation, virtualization, and relocation become the theme," was one panelist's sage advice. Gartner Group estimates that by 2011, in-rack and in-row cooling will emerge as the predominant cooling strategy for high density equipment. What makes this so viable is that the energy savings alone is music to the CFO's ears and is easily quantifiable.



Panelists Marc Berthiaume, MJB Technology Solutions; Bill True, Fidelity Investments – Fidelity Real Estate Company; and Paul Lentine, PSNH.

How cool are you? If you're not sure, Eric and his team at AdaptivCool can provide a baseline "thermal & air flow profile" to tell you exactly. Now that's cool! █

PS: Join us on April 29th for our next MIT Enterprise Forum. See you there.

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