

Servers: Powering the Cloud, Heating the Home

Written by Marco Attard
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The increasingly cloud-based modern era demands more and more data centers, each housing hundreds of servers. Servers demanding power to not only run, but also to stay cool (up to 50% of server power goes for cooling). What if we find good use for that wasted server-generated warmth-- like heating homes?



Researchers at the University of Virginia and Microsoft are presenting this concept in "The Data Furnace: Heating Up with Cloud Computing." The research paper suggests companies should place servers inside homes, replacing traditional furnaces-- thus the "data furnace" in the title.

The first of such data furnaces would probably find homes in office basements and apartment buildings, but the researchers have another proposal relating directly to the home-- the micro data center. A broadband-connected home could house 2 or 3 server cabinets instead of a furnace, with each cabinet holding enough motherboards to generate heating for colder climates.

However one would have to shut down the machines should temperatures reach over 35 degrees, in order to avoid overheating.

Some European countries are already getting into the data furnace act-- in Helsinki heat generated by data centers is distributed to neighbouring buildings via insulated pipes, while IBM Research-Zurich is also designing a system carrying server-generated heat through water pipes.

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Cheap-as-free heating thanks to the cloud? Sounds like a pretty good deal to us.

Go [The Data Furnace: Heating Up with Cloud Computing](#)