

Disruptive Technologies Panel IDC HPC Forum, Tucson

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HP-Labs Research – Disruptive in 2010, and Now

IT Ecosystem of the Future that delivers orders of magnitude computing performance and cost improvements

CeNSE

- Networks of billions of low-cost, self-powered, nano-scale sensors

Sustainable Data Center

- Net-zero energy
- Least material, least energy
- Adaptive control

Memristor

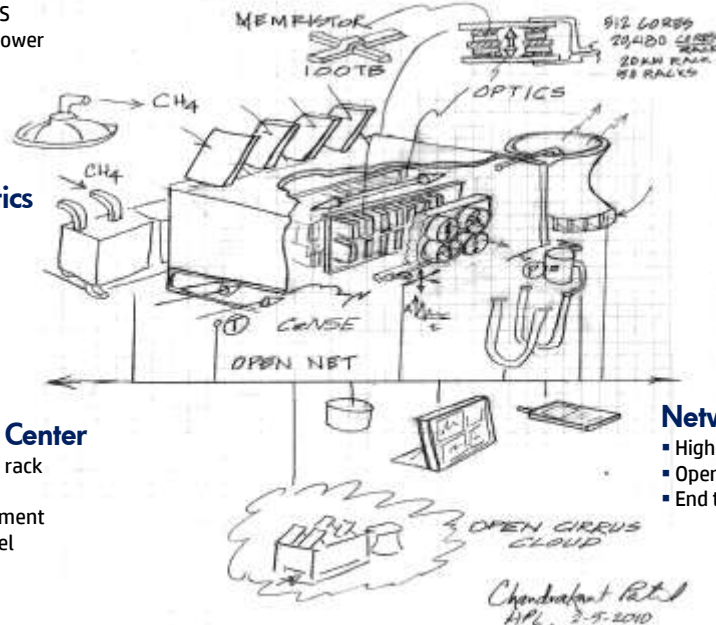
- 100x DRAM on CMOS
- Non volatile, Low power
- Synaptic/analog computing

Photonics/Optics

- 10,000x BW
- 1/10th mass
- On chip rings
- Photonic Bus

Exascale Data Center

- 20K processor core rack
- 2M node DC cell
- Federated management
- Programming model



Scalable Storage

- 1 Exabyte store
- New access methods
- Fault resilience

Networking

- High-radix NW
- Open Fabric API
- End to end QoS



Thank you

