Enjoying both Worlds Serverless on Bare-metal

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Lessons from Hyperscale

Exploring unfair advantages from the intersection of hardware, software, and networks.
Why Bare-metal?
Bare-metal benefits

1- Full control
2- Single tenant (No noisy neighbour effect)
3- Dedicated resource (no virtualization)
4- Performance (tuning)
5- Full hardware control
6- Can choose everything (hard drive, processor, build machine).
7- Preferred costs
Why Serverless?
Serverless benefits

1- **Ease of use** (No need to know how to control)
2- **No devops**
3- **Pay-as-you-go**
4- **Faster deployments** (Engineers focus on code and data rather than on infrastructure → Time-to-market)
Bare-metal

Serverless
Why Serverless on Bare-metal?
Traditional Serverless & Bare-metal has Problems
Traditional Serverless & Bare-metal has Problems

Serverless Limitations

1- Performance issues due to multi-tenancy
2- Spin up time
3- Limits on requests, code size, duration.

Bare Metal Limitations

1- Get a bare machine
2- Need to choose everything (hard drive, processor, build machine).
3- Need to know everything to spin it up.
Enhanced Serverless On Better Bare-metal
Dis.co is a serverless computing platform to easily parallelize and optimize compute jobs on any CPU/GPU.

Out-of-the-Box Integration with Packet
Packet empowers developer-driven enterprises to deploy physical infrastructure at global scale.

22+ Global Locations. “Go-Anywhere” for Edge Infrastructure

Solutions Overview
We automate infrastructure regardless of what it is, where it is or who owns it.

- **CLOUD**
  A bare metal public cloud built for developers. Deploys in minutes in 22+ global locations.

- **ON-PREMISES**
  A software-only solution for on-premises environments with 5,000+ servers.

- **EDGE**
  A “go-anywhere” model for automated Enterprise-grade infrastructure.
Dis.co Benefits

1. No limits on requests, code size, duration.
2. Run long-running compute jobs
3. We set up server and think about maintenance

Packet Benefits

1. Bare-metal on global locations & edge
2. Automated infrastructure
3. Cost
Why Serverless on Bare-metal?

Serverless on Bare-metal benefits

1- Quick to scale
2- Parallelization
3- Ease of use (Set up you machines once)
Use Cases for Dis.co on Packet

Smart City / Municipal

- Joint enablement of edge infrastructure with city resources.
- Automated infrastructure for local CBRS spectrum.
- Deployment of small cell spectrum controllers and Private LTE/5G.
- IPU/GPU for local inference.

AI Model training

1- Video Object detection for municipal security cameras (traffic cams, sidewalk cams)

Smart Retail

- Enable retail with smarter, extensible infrastructure.
- In-store analytics.
- Cashierless checkouts.
- IPU/GPU for local inference.
- Compute and assets for in-store experiential.

Data & Analytics

Object detection for municipal security cameras (traffic cams, sidewalk cams)
Get Started for Free
3 simple steps

1- Go to ifx.dis.co or visit us in the Cabana

2- Get set up with a free account

3- Add your jobs, your first 500 hours of compute time are free
Thank you