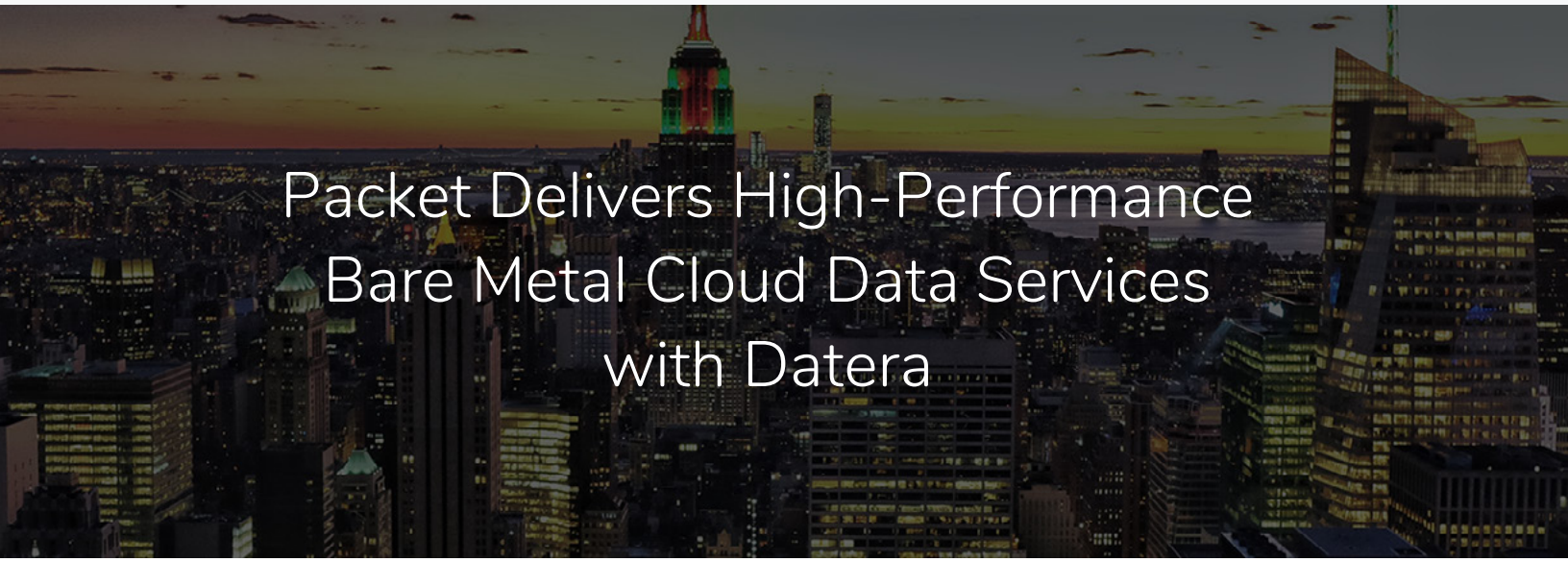

# Packet Delivers High-Performance Bare Metal Cloud Data Services with Datera

## Problems

- Diverse Customer Requirements
- Growing & Changing Environment
- Too Expensive
- Not Flexible
- Needed Orchestrator Integration

## Solution

- Datera Data Services Platform

## Results

- Consistent high performance
- 65% lower TCO
- Optimized and flexible services
- L3 networking
- API & policy-based control
- Simple management
- No-touch automation

## Future

- Grow customers on Datera
- Expand capacities across sites
- Enjoy consistent high performance
- Leverage new technologies for market advantage

In the modern business world, Public Cloud has become a viable option for large enterprises to keep pace with the velocity and growth of dynamic online workloads. Organizations may believe they need to choose between big-box clouds, where performance and operations are  dictated, or expensive managed infrastructure.

Enter Packet.

Founded in 2014 by a young, savvy team of entrepreneurial developers, Packet is an API-centric, bare-metal cloud infrastructure provider. While virtualized and bare-metal models both work for building cloud, bare metal can deliver greater value and efficiencies.

Packet brings automated, on-demand infrastructure with enterprise reliability and performance, and simple, economical pricing to bare metal. The company has a global presence, with over 7,000 customers and data centers in the US, The Netherlands and Japan.

“We deliver on the promise of cloud with bare metal, so our customers can innovate online and accelerate their business in the ways that matter to them. Packet provides the developer experience of public cloud without the burdens of multi-tenancy or virtualization,” says Zachary Smith, Packet CEO and Co-founder.

## The Challenge

**Deliver High Performance Block Data Services**

The initial challenge was how to provide affordable, block storage services to meet diverse demands amid rapid growth and changes in a cost-efficient and profitable way.

"To offer high-performance, persistent storage to customers, we needed an agile, data center aware solution capable of horizontal scale that could move at the speed of today's modern orchestration systems and DevOps needs. We were looking for definable, multi-tenant block storage with consistent I/O. In the end, it was important for us to remove any barriers to our customers effectively using our compute servers in production," Smith explains.

"To compete in the public cloud space, you have to be at the right price point. For us, we needed a storage vendor that could deliver IOPS on a per-volume basis with SSD-level performance yet at a much lower cost basis than the all-flash vendors," he furthers.

Smith considered potential vendors and an in-house option. "One vendor only offered flash and had no software-centric strategy. Building out a solution in house presented non-trivial technical issues around per volume IOPS control, since we don't proxy iSCSI through a hypervisor or other layer. We were discouraged by cost and limitations. Then, we discovered Datera."

## The Solution

**Adaptive, API-centric, 100% Software Data Services**

Capitalizing on the vision for smart, affordable, scale-out block storage, Packet selected Datera. Designed for next-generation cloud business demands, Datera is 100% software, API-driven, fully automated and delivers sub-200uS latency, high IOPS and throughput which scale with the system.

Future-ready, Datera enables a wide range of x86 server vendors and media choices, making it easy to mix and integrate new technologies on-the-fly. Automated data orchestration and predictive operations through policy-based data placement, simplify management and enables self-service provisioning.

"The Datera API-approach of offering a very innovative software stack with hardware independence is unique and highly aligned with our goals. Unlike other vendors focused on cost-per-box or lock-in, Datera's sweet spot is providing high-performance at excellent price points without compromising on reliability or innovation," notes Smith.

Packet leveraged the unique data center awareness of Datera to integrate with a range of VM and Container orchestrators. Tenancy resource isolation, flexible scalability and a subscription use-based pricing model were also important.

"Storage growth is inevitable, and cost matters. With Datera, we can leverage a horizontal scale model, use our pure Layer-3 network topology, add storage to clusters, and supply seamless upgrades to customers. It's a win-win situation," Smith says.

> "Datera has enabled Packet to deliver a high performance, consistent and profitable elastic block storage service to our customers. What makes Datera so unique is its software DNA."
>
> Zachary Smith, CEO and Co-founder, Packet

## Outcome

**Scale Innovation with Success Since deploying Datera**

"We manage one petabyte of storage. Ninety percent of our top customers are now using our Datera block storage in some way or another. We make it easy for them to provision and attach to any of their server instances. Packet offers guarantees of 500 IOPS, our standard option, or the premium option of 15,000 IOPS," Smith details.

Packet is using Datera on all-flash and hybrid-flash nodes for highly predictive performance and cost-efficiency.

"Datera has enabled Packet to deliver a high-performance, consistent and profitable elastic block storage service to our customers. What makes Datera so unique is its software DNA and key involvement in the Linux IO (LIO) project. With Datera, we can use a true APIdriven storage platform that can keep pace with our customers' dynamic workload requirements and our demanding automation needs. Datera Elastic Data Fabric self-describes and self-optimizes so we can easily and economically scale our storage service."

Growth is good for Packet. The company is balancing what works with what is to come. "We want folks to try Packet, whether they're undertaking a cloud-native landscape, private cloud, dev-test cycles or SaaS. People want to be close to where their workloads reside, where the action is happening. We're intent on mapping our data centers with L3 and Datera to work across any boundaries and networks with highest levels of reliability and scale. Availability is the differentiator for Datera, which enables us to continue delivering on scale. Bottom line: We innovate so our customers can, too," Smith concludes.

## About Datera

Datera is the only 100% software-based elastic data services platform that powers high performance, data-intensive applications @scale with breakthrough orchestration and automation in partnership with the leaders in server-based infrastructure, all at a 70% lower total cost of ownership and operation.

Datera is recognized by Network World as a Hot Storage Company to Watch, CRN as a Top Software-Defined Data Center Provider and the Telecom Council as a Service Provider Innovation Award winner. To learn more about Datera, our partners, and our solutions, visit www.datera.io, email info@datera.io, or call +1-844-4DATERA.

## About Packet

As the leading bare metal cloud for developers, Packet brings the benefits of public cloudstyle automation to dedicated, physical infrastructure.

Packet's proprietary technology automates "Layer 0" [e.g. the physical servers and networks that provide raw compute, storage and connectivity] without multitenancy, virtualization or overlays. This creates a consistent, secure, programmable, and costeffective infrastructure option that can be deployed anywhere.

Thousands of users from over 50 countries from developers and SaaS platforms to Fortune 100's currently deploy in Packet's global public cloud. The company is in beta with an "on premise" version of its product allowing enterprises and service providers to deploy automated physical infrastructure within their own facilities.