**CASE STUDY** 

# **XTREME-D**

# **Overview**

XTREME-D Inc. is an award-winning, venture-backed company founded in January 2015 to make HPC cloud computing access easy, fast, efficient, and economical. Our leadership team has 25 years of experience in HPC and cloud technologies, and aims to create an industry-standard platform that enables users to easily and cost-effectively use supercomputers.

XTREME-D's cloud-based, automated, supercomputing-on-demand service, XTREME-DNA, debuted in November 2016 using public cloud. It delivered an easy-to-use customer experience through a robust UI/UX and cloud management features. More recently we launched our own "Supercomputing as a Service" platform, AXXE-L by XTREME-D (formerly known as XTREME-Stargate), in collaboration with our customers and partners.

XTREME-D's key team members consist of architects with many years of experience with supercomputing, and cloud services and management professionals. We're focused on HPC and cloud application development, professional services, and consulting, and with these key members at our core, we pursue innovation on a daily basis.

XTREME-D was able to meet its objectives and has positioned itself for further growth by partnering with Digital Realty and leveraging PlatformDIGITAL®, a global datacenter platform to host critical infrastructure and interconnect digital ecosystems. And will continue its research and development with the goal of creating an all-in-one solution that provides immediate access to supercomputers at any time.

## **Well Suited for Hybrid Solutions**

Many of XTREME-D's potential customers use both public and private clouds. PlatformDIGITAL® makes it easy to connect XTREME-D's software-defined network to major public clouds, offering a hybrid cloud solution. Some of XTREME-D's customers already store huge data sets in major public clouds, and PlatformDIGITAL® removes data gravity barriers and creates centers of data exchange to scale digital business. By leveraging Digital Realty's global network of data centers, XTREME-D is able to operate deployments as a seamless extension with consistent experience, security and resiliency in countries around the world.

#### **Poised for Growth**

XTREME-D had set its sights on expanding the number of clients to 50 by the end of 2020, but its infrastructure-as-aservice capacity was limited to fewer than 20 users. Digital Realty provided a flexible ramp-up that allowed XTREME-D to boost capacity in line with number of customers, including those with extremely large usage volumes. Now, XTREME-D already has capacity to provide its HPC customers with more than 100 servers in Japan, with over one petabyte of storage products. Digital Realty provided an environment that localizes data aggregation and improves performance when supporting exploding volume, variability and velocity of data creation, which is optimal for building a supercomputer infrastructure. Digital Realty's global data center platform has been a key selling point for XTREME-D in order to support mixed configurations (from single racks to multi-MW deployments with different density requirements) and host critical infrastructure in proximity to users, networks, clouds and things to address data gravity and compliance.

"We use Digital Realty's high-performance, highly secure data center to provide high-quality HPC infrastructure-as-a-service and platform-as-a-service products to our enterprise customers."

NAOKI SHIBATA, FOUNDER AND CEO, XTREME-D







# XTREME-D COMPANY PROFILE

### **Objectives**

- Enable hybrid solutions
- Obtain access that can scale in line with enterprise customer needs
- Set the scene for future growth

#### **Key Results**

- Source: XTREME-D
- PlatformDIGITAL® facilitating hybrid cloud solutions
- Enable global distributed workflows at centers of data exchange to remove data gravity barriers and scale digital business by enabling more customers
- Tailor infrastructure deployments and controls to match business needs on both the technical and marketing fronts

"Digital Realty provided us with colocation services (meaning we could start with a one- or two-rack solution as a small company). This allowed us to take advantage of an excellent, secure data center and include that in our service to enterprise customers."

NAOKI SHIBATA, FOUNDER AND CEO, XTREME-D

# Partnering for the Future

As a young startup company, XTREME-D is tapping into the potential for collaborating with Digital Realty on both the technical and marketing fronts. On the technical side, XTREME-D is starting to use PlatformDIGITAL® middleware, setting the scene for the development of original server products to harness HPC technology for the AI, deep learning, and data analysis markets. On the marketing front, Digital Realty's solid partnership in Japan provides a robust framework for trust with a client base that includes major Japanese manufacturers.

XTREME-D is also starting up business in the United States and has decided to use Digital Realty for its data center there. The company notes that, "It is easy for the XTREME-D technical team to migrate infrastructure-as-a-service technology to our US data center, using our same technology, using PlatformDIGITAL® Also, if our Japanese customers have subsidiaries in the United States, we can propose a very secure internal HPC as a service connected from Japan to the United States."

#### **About**

Digital Realty supports the data center, colocation and interconnection strategies of more than 2,300 firms across its secure, network-rich portfolio of data centers located throughout North America, Europe, Asia and Australia. Digital Realty's clients include domestic and international companies of all sizes, ranging from cloud and information technology services, communications and social networking to financial services, manufacturing, energy, healthcare and consumer products. Digital Realty has the ability to replicate customer environments at multiple locations through its presence with 275 data centers in 44 metro areas.

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