

# ASHBURN, VA CAMPUS OVERVIEW

Vantage offers unique value through our commitment to exceptional customer service. We operate campuses in Silicon Valley and Quincy, Washington. We engineer our data center solutions to meet the unique requirements of enterprises, technology companies and service providers.

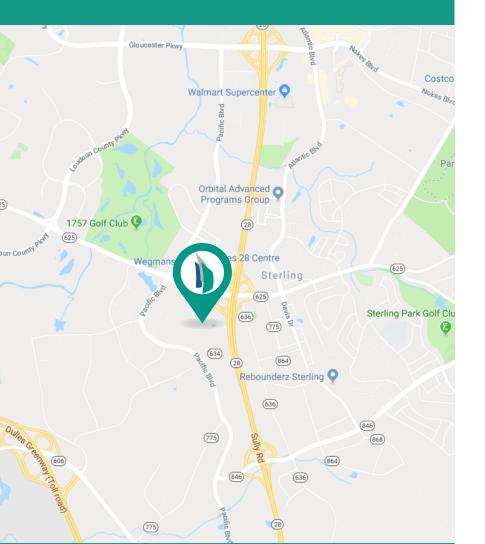


Vantage Data Centers is aggressively expanding in multiple locations. We recently completed our sixth data center on our existing Santa Clara campus and began construction on a second 69MW campus. We are also well underway with construction on a massive 142MW campus in Northern Virginia - bringing our expertise and skill to the east coast.



# Vantage Has Big Plans in Virginia

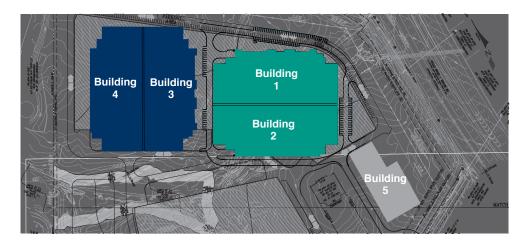
Vantage Data Centers already operates the best data centers in Silicon Valley. We are bringing our expertise, operational excellence and a planned \$1 billion 142MW campus to the largest data center market on the planet, Northern Virginia. We are committed to large-scale development to support our customers' needs now and into the future.



## **Campus Overview**

Vantage's brand-new 42-acre Ashburn campus will include modern data center designs, class-A amenities and a superior in-house operations team dedicated to supporting you every step of the way. Vantage Ashburn will be located less than two miles from MAE-east, the densest interconnection point on the east coast.

The first phase of a 30MW building will bring 6MW of critical IT load to market in Q119.



#### **CAMPUS DETAILS**

- 5 planned buildings on 42 acres
- 720,000 sq.ft of planned data center space
- Two-story data centers maximizing space and efficiency
- Raised floor designs in Phase I
- N+1 electrical and mechanical redundancy at a minimum
- Building 1 is 30MW
- Buildings 2-4 are 32MW each

- Building 5 is 16MW
- 200W/sq.ft. average densities across campus with the capability to support high-density applications
- Sustainable features include solar and wind energy sources onsite, the first of its kind in Northern Virginia, as well as EV charging stations and an industry leading water usage effectiveness (WUE)
- Lower TCO through tax incentives



# An Efficient and Reliable Technology Plan

### **Mechanical Overview**

Vantage's Ashburn Campus will use a highly efficient closed-loop chilled water system generated through air-cooled chillers located on the roof. The cooling system will also include an integral economizer capability that allows reduced compressor energy based on outside ambient temperature. Each data hall will have its own Computer Room Air Handling (CRAH) units located in two galleries on opposite sides of the module.

#### **Concurrent Maintainability**

We designed the chilled water system to include multiple redundant chillers, pumps and CRAHs chilled water distribution giving maximum reliability. Concurrent maintainability extends all the way from system components like chillers and CRAHs to isolation valves and independent sections of piping. Isolation valves allow us to service any piece of equipment without impacting the overall cooling capacity of the system.

#### **Critical Mechanical System Redundancy**

- Chillers N+2
- CRAH Units N+2 per data module

### **Electrical Overview**

Vantage's Ashburn Campus will be able to support 142MW of IT load. Our standard electrical block is 6MW of critical IT load. The systems deployed are some of the most efficient UPSs and transformers available on the market while still utilizing double conversion at the UPS. LED lighting further provides energy savings.

#### **Concurrent Maintainability**

Every capacity component and element in the distribution paths can be removed from service on a planned basis without de-energizing any of the computer equipment or the required mechanical equipment.

#### **Critical Electrical System Redundancy**

- IT UPS N+1 distributed redundant for critical IT Loads
- House UPS N+1 System Block for House and MMR Loads
- PDU 2N to enable critical load to be dual corded



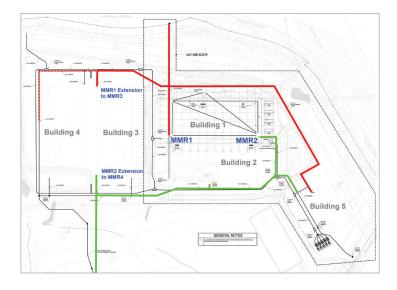
## A Multi-Layered Security Approach

Vantage uses a multi-layered approach to security so our customers and facilities are secure 24x7. Our standard security systems include:

- On-site Security Operations Center with patrols 24x7x365
- Perimeter security gates and fencing
- CCTV on all access control and fire doors
- PTZ and fixed Axis cameras with 90-day video archiving
- Visitor Management System with controlled and monitored access points and stringent access control policy
- Physical access badges required via Lenel access control system and LNVRs
- RK40 card/pin readers
- Dual authentication (access badge/PIN and biometric readers) for customer and critical infrastructure areas
- The external campus perimeter, building perimeter, and plant are all monitored 24x7x365

## **Vast Connectivity Options**

Over 70% of the global internet traffic traverses through Loudon County. There is no other place like NOVA (Northern Virginia) on earth, at least when it comes to data centers, cloud providers and the infrastructure that supports them. Vantage is well positioned with its new campus to tap into the fiber network to provide its customers multiple options in managing their network with the new Vantage Ashburn campus.



- There are more than 20 fiber-based service providers operating within 2 miles of the Vantage campus
- Most of the infrastructure in the area utilizes underground deployment topologies
- Vantage will operate multiple MMRs throughout the campus, allowing for diverse paths and multiple connectivity options
- There will be four points of entry (POEs) for the campus ensuring maximum path diversity for inbound carriers
- All major carriers will be available within the Vantage campus, with our carrier neutrality allowing for others to be added as needed
- Diverse conduit pathways into the campus from Pacific Blvd. and Waxpool Rd.

# We Don't Outsource Operations and Support

Our Operations Team has developed the best procedures and plans in the business. Plus, our team is built in-house, not outsourced, so you're guaranteed to have knowledgeable, fast service on campus at all times. We pride ourselves on being easy to work with, communicative every step of the way and ceaselessly responsive to customer needs. We treat you like the data center co-creator you are. You'll work together with an operations team dedicated to you at our campus. You stay in control of your infrastructure while we provide on-premises support so you can focus on your business. Let us worry about the data center while you concentrate on your job.

### We're Obsessive About Transparency

With quarterly client reviews and tools like the customer portal, we give you all the data and insights relevant to your space, and we'll work with you to resolve issues.

### We Give Expert Guidance 24x7

From architecture and engineering to design, security and maintenance, our industry-leading team of operational experts will work with you day or night.

### We Keep Raising the Bar

Continuous improvement is our ethos. We always look for ways to enhance data center performance and increase efficiency.



## A Data Center You Will Love to Be In

One reason Vantage is a leader in the data center space is our commitment to providing a superior environment for our customers. We know that our customers spend a lot of time in the data center, and having space to work, relax and recharge is essential. Vantage Ashburn will include offices and conference rooms to keep teams working efficiently, as well as extensive break room facilities to relax and unwind.





Vantage Ashburn is close to local amenities as well, including:

- Proximity to the airport (Less than 10 minutes from IAD)
- 30 minutes to Washington, DC
- Reston Town Center
- One Loudoun (shops and restaurants)
- Several hotels

