

Process Data Where No One Has Processed Data Before Shatter the Limits of Connectedness with VDAP

BENEFITS

- Transparently deploys into any environment, independent of storage, networking, applications, or cloud.
- Increases productivity by limiting time lag associated with data movement
- Improves Disaster Recovery RTO by enabling application recovery independent of data's location
- Reduces the total cost of ownership by eliminating storage at the edge for duplicate and cached data
- Accelerates cloud adoption without the necessity to first move or copy data into the cloud

Vcinity™ has made the impossible—possible. The old assumption that data must be collocated with the application has been shattered. Now, data can be accessed and processed in place regardless of distance or latency. The old adage “just-in-time equals time necessary to move data” has been replaced with “just-in-time equals real-time”. VDAP, Vcinity Data Access Platform™, developed to leverage a low latency protocol—RDMA—empowers organizations to enhance business outcomes by eliminating the dependency on data transport.

Welcome to the Connected Enterprise—datacenter, edge, and cloud—are all connected to work as one, delivering real-time insights, decisions, and outcomes.

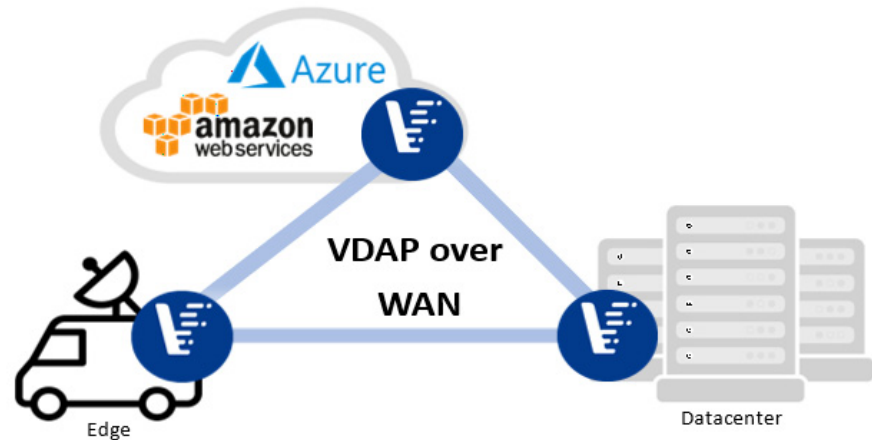


Figure 1. VDAP over WAN

Vcinity Data Access Platform™

VDAP connects geographically dispersed instances or compute and data. Where cloud delivered on the elasticity of infrastructure resources, VDAP delivers on the flexibility of deploying these infrastructure resources.

- **Data proximity**—Access data wherever it is from wherever the compute is without the time-lag penalty of distance and high latency.

- **Just-In-Time Results**—Increased productivity with the definition Just-in-Time as Real-Time. Process data at the point and time of creation.
- **Control over Data**—Moving and copying data exposes it to unintended security threats and liabilities. Keeping data in place allows organizations to better protect its valuable assets.
- **Secure Data Access**—Whether processing data in place or migrating data across the WAN, VDAP keeps data secure. Single or dual encryption with AES-GCM-256 and/or Lightweight SIMON 256. Each packet may be encrypted separately for ultimate security.
- **DataPrizm™**—Dispersing data across multiple (3–8) paths enables the use of these paths in aggregate throughput when a single path with adequate bandwidth is not available.
- **Choice of Network**—Point2point(s) full-rate or partial rate Ethernet service, layer 2 virtual private network service, MPLS-TE service, dark fiber. 1/10/40 Gb RoCE (RDMA over Converged Ethernet) and FDR InfiniBand interfaces aggregating concurrently to a single network service.
- **Standard Management Interfaces**—SNMP v2/3, NETCONF, REST API, HTTPS, SSH, CLI.

Solution Configurations

VDAP as a data access platform, must receive data via RDMA (IB or RoCe). In environments where there is RDMA, VDAP is deployed as a Vcinity Radical X™ instance. The instance uses a virtual machine, a PCIe card with FPGA, or a server appliance. A VDAP instance is required at each site where either an application or data reside.

In environments where there is no RDMA, VDAP is deployed with an instance of a parallel file system in a Vcinity Ultimate X™ instance. Ultimate X combines VDAP with a license of IBM Spectrum Scale™ in a virtual machine, PCIe, or server appliance form-factor. Ultimate X presents an NFS or an SMB mount for applications to interact.



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