Progress® Kemp®

Progress® Connection Manager for ObjectScale

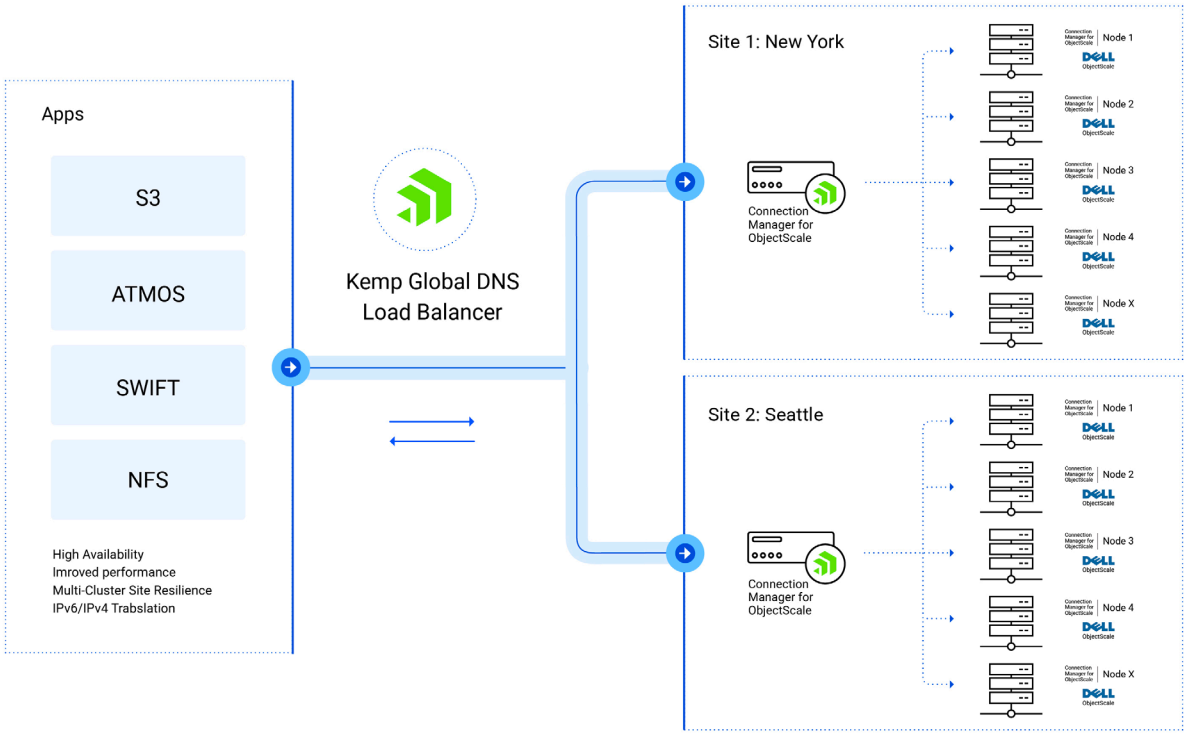
DATA SHEET

Introduction

Progress® Connection Manager for ObjectScale enhances the availability, performance and operation of Dell ObjectScale object storage environments by intelligently load balancing traffic across the ObjectScale infrastructure.

Scalable with Zero Downtime

With modern applications and the ever-increasing amount of data being stored, availability is of the utmost importance. Connection Manager for ObjectScale enhances the availability and performance of Dell ObjectScale next-generation software-defined storage therefore maximizing customers' infrastructure investment. Dell ObjectScale and Connection Manager for ObjectScale combine to deliver a cloud storage platform that supports the storage, manipulation, and analysis of unstructured data with massive scale. Connection Manager for ObjectScale hardware and virtual appliances are now available from Dell through the Select Partner Program.



Connection Manager for ObjectScale and Dell ObjectScale soution

Dell recommends Progress Connection Manager for ObjectScale to customers to provide enterprise-level high availability and performance expected in today's market. When non-interrupted access to data stored in Dell ObjectStorage is required, Connection Manager for ObjectScale provides advanced application-level health checking to ensure the ObjectScale nodes are healthy and ready to accept connections. In the event a node is offline whether unscheduled or during a maintenance window, Connection Manager for ObjectScale will mark that node as down and redirect traffic to the other healthy nodes. Using SSL/TLS offloading will provide greater performance by terminating the secure connection on the Connection Manager for ObjectScale and sending traffic back to ObjectScale unencrypted. This configuration eliminates the encryption processing overhead on the ObjectScale nodes and places it on the Connection Manager for ObjectScale which is optimized to handle this traffic. Organizations that have adopted IPv6 can leverage Connection Manager for ObjectScale as a gateway to allow for communication between the end points over IPv6 and Dell ObjectStorage over IPv4. This translation simplifies deployments in these mixed environments and still delivers the same high availability and performance.

Site Resilience with Connection Manager for ObjectScale

Providing high availability within a single Dell ObjectStorage cluster is essential, but it is not uncommon for organizations to distribute data across multiple clusters. These clusters are often in different data centers, deployed in an active/active configuration. The Global Server Load Balancing (GSLB) provides intelligent geographic distribution of traffic based on proximity which provides better performance and, in the event of a complete site failure, directs all traffic to a healthy datacenter. GSLB offers scheduling methods for directing traffic to sites hosting ObjectScale clusters, meeting the needs of every organization.

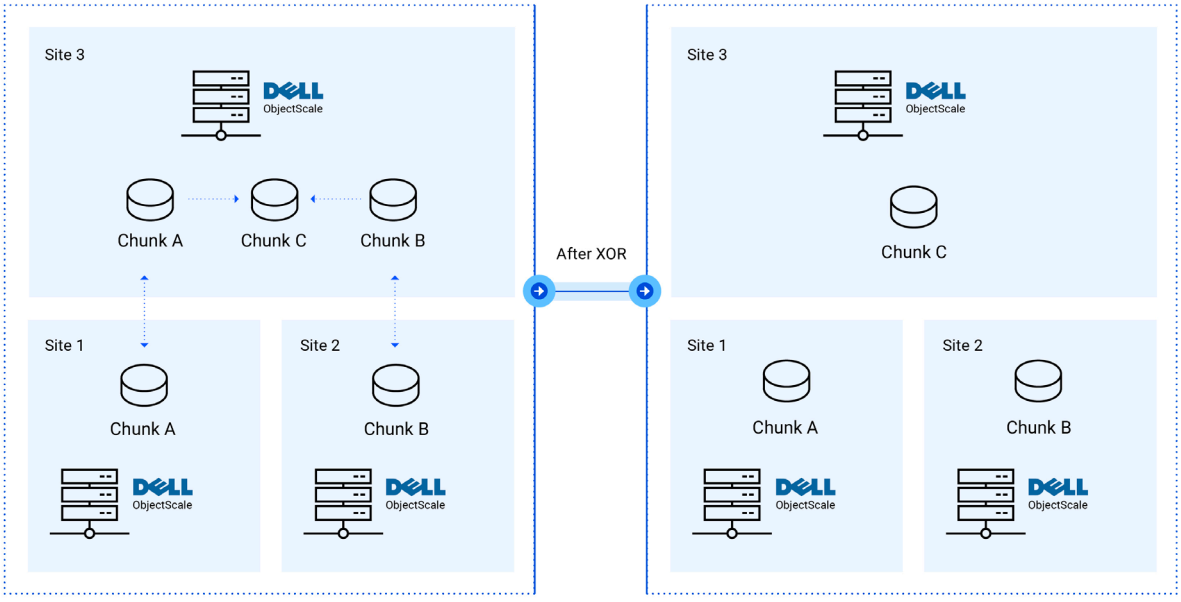
- Round Robin
- Weighted Round Robin
- Fixed Weighting
- Real Server Load
- Proximity
- Location Based

Maintaining Critical Application Performance with QoS

Connection Manager for ObjectScale implements QoS (Quality of Service) controls to rate limit connections and requests to Dell ObjectStorage platforms providing full control over the levels of service provided to applications and users. With QoS, administrators can implement fair and balanced allocation of service across multiple workloads and ensure critical applications are not impacted by excessive requests generated by rogue applications. QoS controls may be applied based on connection rate or request rate with the option of providing graceful throttling of requests with a HTTP 429 response (Too many requests) or with a 503 response (Service unavailable). For maximum flexibility controls can be applied based on the client (source) or on the ObjectScale resource (target) being accessed.

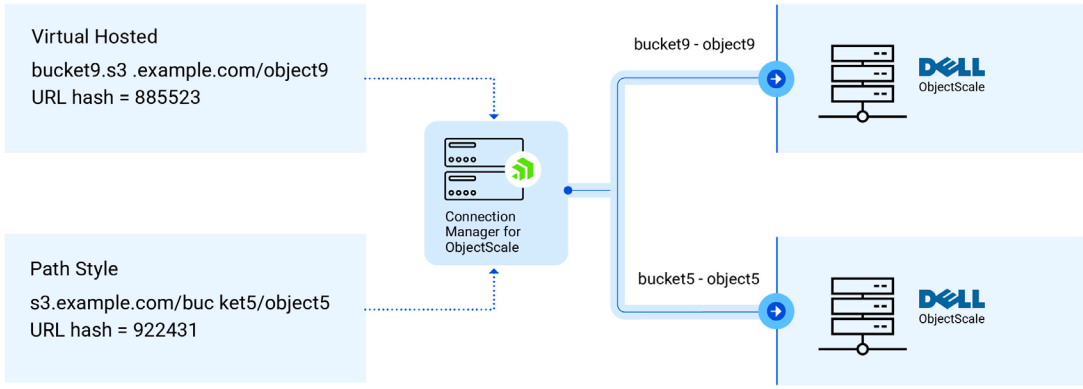
S3 Optimized Scheduling

Dell ObjectStorage "XOR" storage efficiency leverages the optimized scheduling component of Connection Manager for ObjectScale. This method utilizes a URL Hash algorithm to distributed writes evenly across multiple sites and sends all reads to the site owning the object. This reduces ObjectScale system overhead and WAN bandwidth providing greater performance and optimization of S3 traffic.



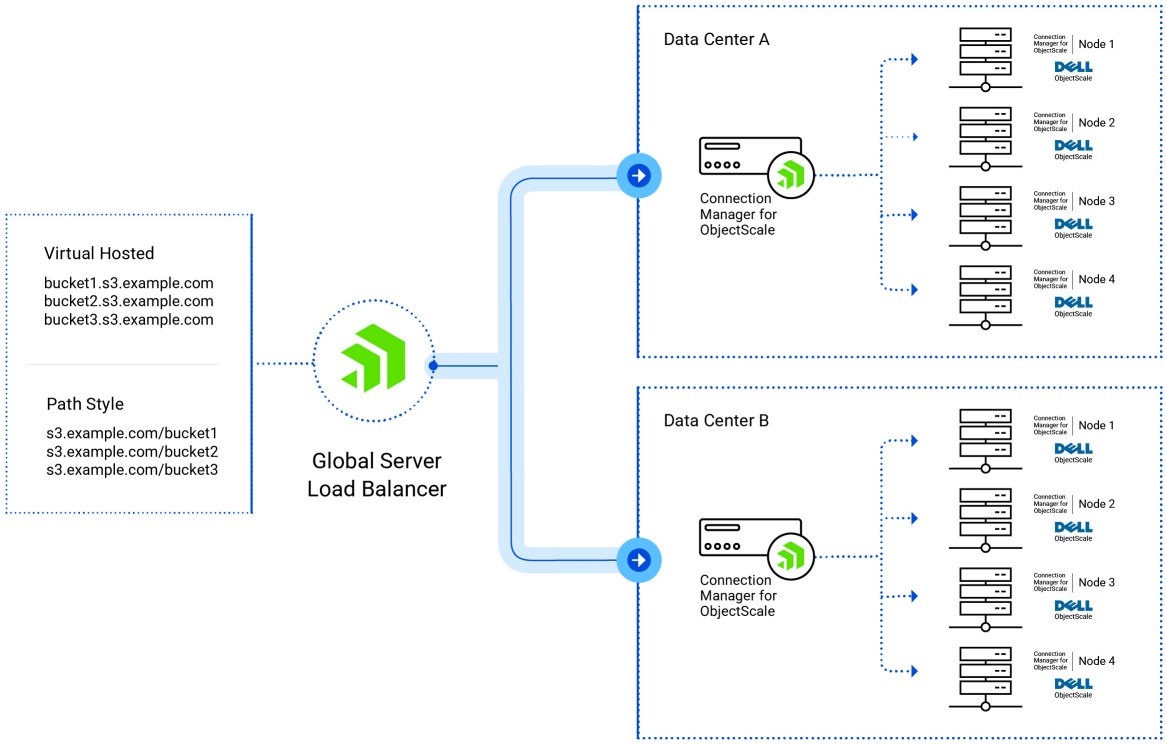
S3 Addressing Auto-Detection

ObjectScale currently supports two addressing methods, Path Style and Virtual Hosted Addressing. In most ObjectScale environments consisting of multiple sites that require the “XOR” storage efficiency and/or geographic distribution, the need to support both methods becomes essential. Connection Manager for ObjectScale delivers S3 Addressing Auto-Detection to simplify the configuration while providing the optimized distribution of objects throughout the ObjectScale solution using both addressing methods seamlessly.



Dynamic Global Host Resolution

Most ObjectScale deployments include multiple geographic locations providing the required site resilience for the object storage solution. The Global Server Load Balancing (GSLB) feature distributes traffic across these multiple locations with the use of intelligent DNS. The implementation of GSLB will be different contingent on whether the applications accessing the storage leverage Path Style or Virtual Hosted addressing methods. This is due to behavior of Virtual Hosted which now includes the S3 bucket names within the HTTP Host Header requiring DNS to support this dynamic addressing method. Connection Manager for ObjectScale takes this requirement and extends it to support Dynamic Global Host Resolution within GSLB to provide the flexible multi-site distribution and availability for ObjectScale deployments leveraging both Path Style and Virtual Hosted addressing.

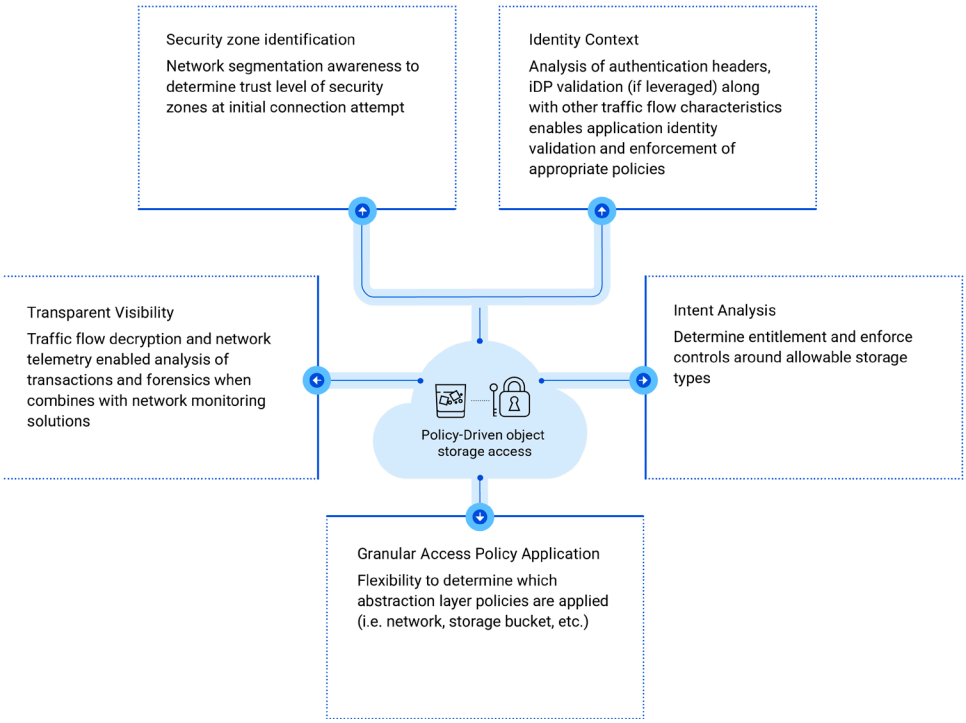


Zero Trust Access

Connection Manager for ObjectScale optimizes object storage environments by enforcing QoS policies, enabling distributed single namespace deployment, enhancing S3 traffic flow efficiency and providing frontend proxy optimization. When leveraged as a Zero Trust Access Gateway (ZTAG), Connection Manager for ObjectScale provides additional security features for object storage deployments.

Object storage helps customers streamline modern application deployment with improved economics, efficiency and more accessible data analytics. When proxying object storage deployments, Connection Manager for ObjectScale is in the optimal position to apply a zero trust security model for compliant, policy-based access control with the following key capabilities:

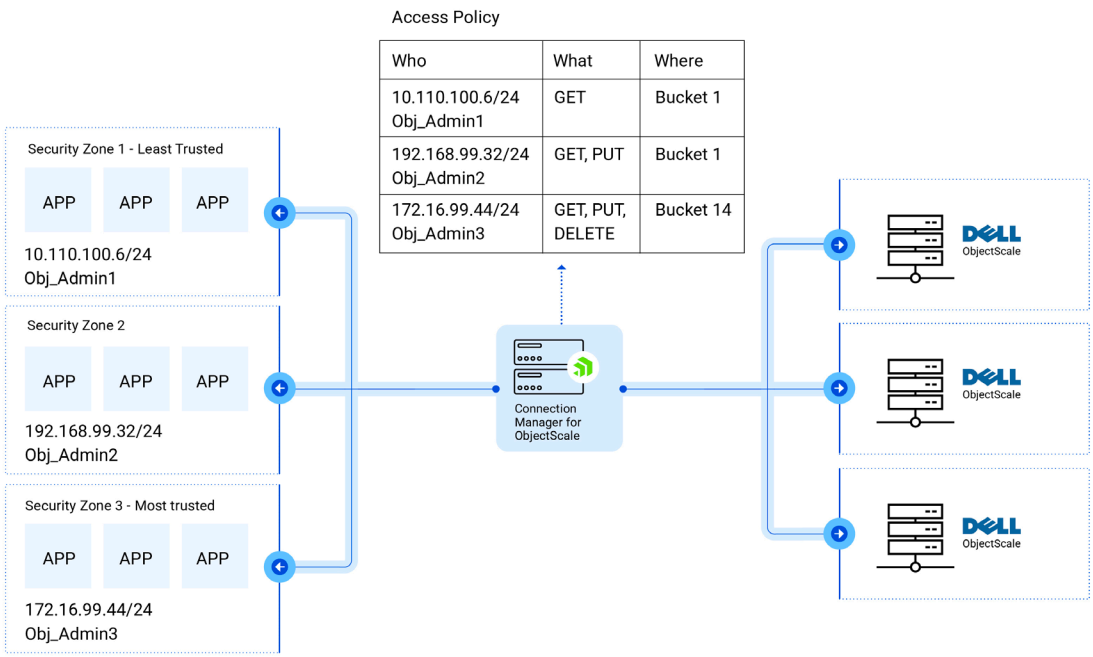
- Default least privileged security model
- Fine grain access control
- Security zone-based policy logic
- Bucket and object level policy application
- Storage operation awareness



Policy-Driven object storage access

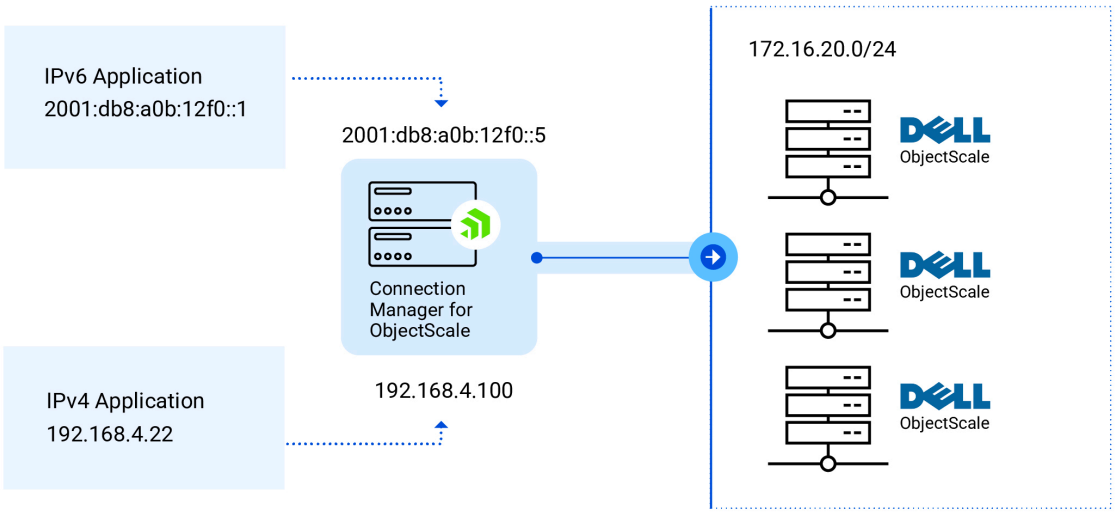
Deployment model

With a Zero Trust Access Gateway deployment model, object storage ecosystems are protected with per bucket access control for S3 operations. An infrastructure-as-code model for maintaining desired configuration state simplifies application and maintenance of complex object storage access policies.



IPv6 to IPv4 with Network Isolation

Connection Manager for ObjectScale extends the reach of ObjectScale services to multiple IPv6 and IPv4 networks while preserving network isolation. Enabling access from IPv6 networks to ObjectScale is as simple as adding the Connection Manager for ObjectScale to the IPv6 network and creating a service that points to the ObjectScale IPv4 infrastructure.



In the example above, the IPv6 and IPv4 applications have concurrent access to ObjectScale with the Connection Manager for ObjectScale providing network isolation. Multiple IPv6 and IPv4 networks may be supported with options to isolate using VLANs or with physically different network ports on hardware appliances.

Federal Information Processing Standards and IPv6 (USGv6)

Kemp LoadMaster is fully aware of federal mandates and public laws and has incorporated a FIPS 140-2 certified software encryption module into our core operating system and made it available to all Connection Manager for ObjectScale. This has become mandatory across most verticals to deliver the security and compliance for today's modern applications. Connection Manager for ObjectScale is also fully certified for IPv6 operation under NIST USGv6 Revision 1 specifications as required under Federal Acquisition Regulations.

Why Connection Manager for ObjectScale

Kemp LoadMaster powers always-on application experience (AX) for enterprises and service providers. LoadMaster's agile consumption model, predictive analytics, and automated issue resolution, radically simplifies how customers optimize, analyse and secure their applications across private and multi-cloud environments. Enterprise, healthcare, government or service provider customers running Dell ObjectStorage benefit from enhanced performance and availability by including Connection Manager for ObjectScale in their environment.

About Progress

Progress (Nasdaq: PRGS) empowers organizations to achieve transformational success in the face of disruptive change. Our software enables our customers to develop, deploy and manage responsible AI-powered applications and digital experiences with agility and ease. Customers get a trusted provider in Progress, with the products, expertise and vision they need to succeed. Over 4 million developers and technologists at hundreds of thousands of enterprises depend on Progress. Learn more at www.progress.com

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