Extending the Value of Microsoft SQL through Copy Data Virtualization
Actifio Extends the Value of Microsoft SQL Through Copy Data Virtualization

THE DATA MANAGEMENT CHALLENGE

IDC estimates that in 2013, businesses spent $44 billion to store multiple, unnecessary copies of their data. Organizations are experiencing an explosion of data due to the creation of separate copies of production data in order to protect and run the business. Backup, disaster recovery, test & development, compliance, and analytic data are all business operations that compound the copy data growth problem. The vast majority of IT organizations deploy separate tools to perform the same basic four operations; copy, store, move and optimize data. The result can range from 13 to 120 duplicate copies of data that cost the business as much as five times more for additional infrastructure and management than it costs for production data.

ACTIFIO SOLUTION FOR COPY DATA MANAGEMENT

Actifio Virtual Data Pipeline™ (VDP) technology delivers an application-centric, SLA-driven solution that decouples the management of data from storage, network and server infrastructure. The result is a single, radically simple solution—efficiently virtualizing all copies of production data for instant backup, disaster recovery, application test and development, and more.

Traditional Microsoft SQL Data Management Challenges

SQL Server forms the core of many companies’ business information systems. Protecting this data and making it accessible whenever and wherever needed has traditionally been complex and expensive. Legacy SQL database management approaches deploy complex, expensive infrastructure silos built with point tools for backup, disaster recovery, business continuity, test & development, analytics, compliance or other applications—resulting in far too many redundant copies of data.

Radically Simple Copy Data Virtualization

Actifio VDP virtualizes SQL data, allowing IT administrators to provide data protection, test & development, analytics, as well as disaster recovery and business continuity all through a single storage platform, from only one golden copy of your production data. Actifio allows IT administrators to access a single, any point-in-time copy of your primary data, through a mount, clone, LiveClone™, or restore operation. The approach to properly Capture, Manage, and Use data is Radically Simple.

CAPTURE

Actifio VDP performs a deep discovery of applications, databases, volumes and file systems. Actifio uses snapshots with changed-block-tracking technology to instantly capture application-consistent copies of data. This technology is the industry’s fastest, most efficient and scalable method of data capture, eliminating the traditional “backup window” while delivering data protection efficiency previously impossible using traditional technology.

VDP is incremental-forever architecture. An application consistent “golden image” will be created and maintained and only changed blocks will be sent to Actifio VDP based on administrator defined Service Level Agreements (SLAs). VDP will hold the virtual image in its native format for efficient usability.
MANAGE

Once a golden image is captured, this image can be placed into a ready-state for immediate use, de-duplicated for long term retention, or sent to a remote location for disaster recovery purposes. By consolidating the silos of data management services, managing the data becomes simple, consistent, efficient, and removes business risk.

Consistency groups and Actifio LogSmart™ gives you the ability to completely manage your applications. Not only do you achieve full stack application management and provisioning, VDP also delivers automated log rolling for instant point-in-time recovery and/or provisioning.

USE

Actifio VDP delivers the unique capability of enabling applications to directly use point-in-time copy data, without the need for a traditional “restore” operation. Application data from any point-in-time copy can be accessed on any system for recovery, development, testing, analytics or dozens of other common use cases. Actifio VDP offers vast flexibility when accessing data with options for secure, roles-based control of data management for multi-tenancy, virtual images from any point-in-time, and various image types including:

- **Mount**—Snapshots can instantly be mounted to any authorized system in the environment using efficient block-level iSCSI and Fibre Channel protocol.
- **Restore**—The restore function will effectively revert the production data to look exactly as it did at the time of the data collection point. This function is typically used to recover an entire server or application to a valid state after a massive data corruption or array failure.
- **Clone**—The clone function is used to create an independent copy of a data set for any number of use cases. Applications and application consistent data sets can be copied from any point in the system to a separate location anywhere in the environment.
- **LiveClone™**—The LiveClone function is used in a similar fashion to clone. However, when copies of the data need to be updated and available on a regular basis, LiveClone allows an independent copy of a data set to be mounted, but then allows a fresh copy of the data to be maintained as the data in the primary data is refreshed.

WORKFLOW

Using Actifio VDP Workflows allows the administrator to schedule and automate the complete data flow. Actifio RESTful APIs, allows integration with masking software to protect sensitive data. Administrators can configure workflow that automates capture based on an SLA, mask the data, leverage existing custom pre- and/or post-process scripts and LiveClone operations for a powerful, automated, and complete copy data lifecycle.

USE CASES

- Application Protection
- Data Protection
- Business Continuity
- Application Dev & Test
- Pre-Production Testing
- Analytics
- Compliance
- Data Mobility/Migration
- Application Retirement

ACTIFIO CAPTURES APPLICATION CONSISTENT SQL DATA

- SQL Databases
- From Hyper-V or VMware
- SQL Clusters
- SQL Applications
- SharePoint

CASE STUDY

To illustrate the inefficiencies of the legacy approach, let’s examine a case study for a SQL environment with 10 TB of production storage and the following business requirements:

- Database backups daily, retaining daily backups for 1 month and weekly backups for 2 months
- All backups are replicated to a remote site for Disaster Recovery
- Database replication to a remote site for Business Continuity

In this typical scenario, a 10 TB database environment requires 80 TB of copy data storage, making the cost of managing the copy data well over 5 times the cost of the production environment. Time is also a factor when responding to business change requests. Attaining a single copy for development or database refresh cycles can take weeks from the change management request, provisioning, masking, etc.

Would you like to learn more about how Actifio works?
Visit [www.actifio.com/technology](http://www.actifio.com/technology) to get our latest information.
WORLD HEADQUARTERS
Actifio, Inc.
333 Wyman Street
Waltham, MA 02451 USA
P +1.855.886.8997
E info@actifio.com

INDIA DEVELOPMENT CENTER
Actifio Technologies (I) Pvt. Ltd.
Level 5, Wing 1-B, D Block, Cyber Gateway Software Units Layout, Madhapur
Hyderabad—500081, A.P., India
P +91.40.66501030

AUSTRALIA/NEW ZEALAND
Actifio ANZ Pty. Ltd.
Level 14, 309 Kent Street
Sydney NSW 2000
P +61 1300 ACTIFIO
 +61 1300 2284346
F +61 2 9994 8008
E ANZinfo@actifio.com

KOREA
Actifio Korea, Inc.
Level 5, U-Space 2A
670 Daewang Pangyo-Ro
Sampyang-dong, Bundang-gu
Seongnam-si, Gyeonggi-do
P +82-31-628-6170
F +82-31-628-6179

GERMANY
Actifio GmbH
Herriotstraße 1
D-60528 Frankfurt
P +49 (69) 677 33 558

ISRAEL
Actifio M.E. Ltd.
Ayalon House, 16th Floor
12 Abba Hillel Street
Ramat-Gan 52136, Israel
P +972 3 754 1274
F +972 3 754 1100

JAPAN
Actifio Japan K.K.
201 BUREX Kojimachi
3-5-2 Kojimachi, Chiyoda-ku
Tokyo 102-0083
P +81-3-6272-5233

NETHERLANDS
Actifio, Inc.
Dr. Lelykade 22a
PO Box 84037
2508 AA Den Haag
P +31 (70) 416 17 56

UNITED KINGDOM
Actifio, Ltd.
16 St Martin’s Le Grand, St Paul’s
London, EC1A 4EN
P 0203 551 2559
F +44 (0) 207 956 2001
E info@actifio.com