AVAILABILITY CHALLENGES

The global penetration of technology has caused consumers to expect round-the-clock product and service availability. Whether it’s for employees requiring always-on business services or customers that heavily influence the success or failure of a business, the IT organization is under constant pressure to deliver the highest levels of availability for its most critical IT services. Organizations run enterprise applications and databases, custom applications and complex, multitier IT services that span multiple operating systems, storage infrastructure, physical and virtual technologies. Regardless of how IT services are deployed, a reliable application availability and disaster recovery solution is key for providing a positive end user experience.

VERITAS INFOSCALE

Veritas InfoScale is a software-defined infrastructure solution that is integrated directly with applications to provide high availability and disaster recovery for critical business services, including databases, customer applications and multitiered business services. It delivers a common availability platform that manages high availability and disaster recovery for physical, virtual and all major public cloud platforms, providing the flexibility to optimize availability for any platform based on business requirements. InfoScale features provide:

- Predictability—Meet all Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).
- Compliance—Be compliant with business continuity mandates with audit reports and non-disruptive recovery rehearsals.
- Automation—Recovery run books that automate failover and recovery orchestration for multi-tier applications, thus reducing manual interventions and making failover actions deterministic.
- Mobility—Move workloads between platforms without time-consuming data conversions.
- Flexibility—Easily integrate into existing on-premises environments and cloud technologies with broad support for physical, virtual and cloud infrastructures.

Bottom line: InfoScale is the only solution in the industry that manages application availability based on the underlying platform and the data it needs to access, regardless of where that data resides.

APPLICATION-AWARE AVAILABILITY

Typically, all applications accessing data from a storage pool are subject to the same level of storage performance. However, not all applications are “born equal”—some are more mission-critical than others. InfoScale is application-aware: It allows administrators to match the quality of service to the importance of the application, essentially fine-tuning the infrastructure to hit important service-level agreements (SLAs) while minimizing overprovisioning of resources. Admins can enable protection at the block or file level to satisfy SLAs and application performance characteristics without manipulating the application architecture and with no requirement for downtime.
InfoScale helps ensure physical and virtualized IT services are protected against unplanned downtime through application monitoring, visibility and insight. This capability is based on a unique feature called the Intelligent Monitoring Framework (IMF), which uses asynchronous monitoring to detect failures instantaneously and eliminate the CPU overhead associated with legacy, poll-based monitoring. Optimal asset utilization is provided within any N+M cluster with dynamic failover target selection based on available capacity in terms of CPU, memory and storage. Data integrity in clusters is ensured and failover target selection provides protection against split-brain scenarios through advanced coordination between InfoScale nodes.

ON-PREMISES, HYBRID AND MULTI-CLOUD

InfoScale provides the high availability and disaster recovery solution required to confidently run mission-critical applications in the cloud. It manages cloud infrastructure components to ensure the application stack deployed on any platform is highly available and can be managed to avoid application downtime in the event of a service disruption or outage—on-premises, hybrid or cloud-to-cloud.

InfoScale’s instant fault detection reduces RPO and can be configured for high availability across cloud availability zones and regions, minimizing the likelihood of application downtime in the event of a local or regional outage. It manages the data movement between availability zones and regions with a zero-data-loss architecture and flexible configuration options that minimize resource utilization.

AVAILABILITY FOR COMPLEX, MULTITIER IT SERVICES

IT services are no longer stand-alone applications running on single servers. Multitier business services make up most of an IT organization’s critical services, with different components of the business service running on different tiers of infrastructure with unique availability needs. A failure at any tier can bring down the entire business service; managing the recovery is time-consuming and complex. InfoScale provides application-aware availability by monitoring services and resources across all infrastructure tiers. (See Figure 1.)

Figure 1. InfoScale provides application-aware availability by monitoring services and resources across all infrastructure tiers.
InfoScale monitors the “stack” of application services across the infrastructure through service groups. Service groups are administrator-defined collections of monitorable entities (“agents”)—from physical components (like network interface cards) to operating system processes to the application level (database management applications). Agents not only monitor simple states—like “off/on,” they can also monitor the effectiveness of a component like a database management system—“Is it meeting data delivery SLAs?” Agents exist for all major data base management systems, partner applications, and hardware and software platforms.

A change of state in an agent in a service group will initiate failover processes—from simply restarting an application to initiating a complete disaster recovery process—across sites on-premises, geographically dispersed or cloud-based. The result is faster and more automated recovery with minimal downtime. (See Figure 2.)

**PREDICTABLE IT SERVICE CONTINUITY ACROSS ANY DISTANCE**

InfoScale enables predictable recovery times for business services by providing single-click recovery options locally (high availability), in a metro region (through campus clusters) and globally (through wide-area disaster recovery). InfoScale clusters have integrated intelligence and the ability to failover all service groups associated with a business service. Site-based priority determines the preferred site for failover. It automates the process of replication management and application startup at the remote site without the need for complicated manual recovery procedures requiring storage and application administrators.

InfoScale also helps an IT organization foolproof its business continuity strategy with non-disruptive recovery testing through “Fire Drill.” Fire Drill gives an IT organization the ability to simulate disaster recovery operations and anticipate recovery readiness without disrupting production environments.
COMPREHENSIVE HARDWARE AND PLATFORM SUPPORT

Deploying applications across multiple platforms with multiple high-availability and disaster recovery tools creates a complex IT environment that is error-prone, expensive to operate and can present a higher risk of unplanned application downtime. InfoScale mitigates this complexity by supporting all leading operating systems and platforms such as Windows®, Linux®, Cisco® UCS Servers, VMware® ESX®, Red Hat® Enterprise Virtualization, Oracle® VM and Microsoft Hyper-V® and major public cloud vendors Amazon Web Services (AWS), Google Cloud Platform and Microsoft Azure.

SUMMARY

Businesses that run mission-critical enterprise applications and databases, custom applications and complex, multitier IT services can deploy InfoScale as a reliable application availability and disaster recovery solution. InfoScale's software-defined infrastructure integrates directly with applications to provide application-aware high availability and disaster recovery. It delivers a common availability platform that manages high availability and disaster recovery across physical, virtual, all major operating systems and all major public cloud platforms. By supporting a diverse array of platforms, InfoScale gives IT executives the flexibility to optimize availability on any platform based on business requirements.

THESE BUSINESSES RELY ON VERITAS AVAILABILITY

- 10 of the top 10 Financial Institutions
- 11 of the world’s top 12 Investment Banks
- 10 of the top 10 Telco Companies
- 10 of the top 10 Healthcare Organizations

ABOUT VERITAS

Veritas Technologies is a global leader in data protection and availability. Over 50,000 enterprises—including 99 of the Fortune 100—rely on us to abstract IT complexity and simplify data management. Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas supports more than 500 data sources and over 150 storage targets, including 60 clouds. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.