

## Introduction

Due to the complexity of protecting ever-changing infrastructures and the perception by some that disaster recovery planning and testing is “optional,” IT departments in companies of all sizes tend to be in a constant state of struggle. Key challenges include:

- Justifying and funding the proper disaster recovery infrastructure
- Updating and testing DR infrastructure
- Finding time to investigate and understand the various disaster recovery options.

However, these challenges are not insurmountable. Thanks to advancements in cloud computing and disaster recovery software, there are more choices than ever before for more simplified, cost effective datacenter protection.

## Welcome DRaaS

Disaster Recovery as a Service (DRaaS) is an option that is rapidly gaining popularity among organizations seeking a cost effective way to protect their data, applications and servers from disaster. DRaaS is offered by increasing numbers of Managed Service Providers (MSPs). Let's take a look at DRaaS in a bit more detail.

In the most generic form of DRaaS, a third-party Managed Service Provider (MSP) provides some type of remotely-hosted disaster recovery service to protect your data and applications. Each provider of DR services can define what is included in their DRaaS offering. As such, the services provided can vary greatly between providers. However, most involve a plan where the DR software is hosted by the provider and licensed to users on a subscription basis. Some providers will refer to this as a cloud offering.

One of the significant ways that DRaaS offerings can differ is the level of protection provided by the MSP. The protection can vary from just data files to one or more critical applications, an entire server, or every server in the data center. To achieve any level of protection one common factor must always be in place, and that is a method for maintaining a copy of your protected data at the MSP's disaster recovery site. The frequency with which that copy is maintained can vary from periodic snapshots of your data to real-time replication of each change to data, applications or server state.

The level of recovery capability can vary as well. Some offerings will allow you to restore data and applications to another server in the event of a disaster so that business can be resumed on the new server. Other offerings provide a recovery time in minutes by switching your operations to a hot standby server that is accurate in real time. If an MSP offers a service level agreement for a recovery time objective (RTO) in minutes, that requires technology that ensures that the recovery server is always an exact real-time replica of the production server and is ready to assume the production role at a moment's notice.

Most MSPs provide options that include both replication services for data protection and the ability to recover your most critical servers should those servers fail. How the data or servers are recovered, and especially how quickly they can be recovered, varies by the kind of service contracted.

## 5 Reasons to Consider DRaaS

**DRaaS solutions can provide five key benefits to your business:**

**1. Reduced Disaster Recovery Costs** – If you currently have a disaster recovery site in place, you are already familiar with the high costs associated with such an infrastructure. The costs don't stop at the unavoidable investment in replication software or the required software licenses for servers, storage and security. There are also significant additional costs that are involved, including the following:

- Owning your own building or leasing space for your secondary datacenter
- Alternatively, leasing a cabinet or cage at a datacenter provider
- Monthly costs associated with power, cooling and Internet bandwidth at the secondary site
- Purchase or lease of servers, storage and network equipment at the secondary site
- Travel to and from datacenters or on-site staff at the secondary datacenter

Most of these additional costs are effectively eliminated by using DRaaS through a service provider. They assume the costs of the second data center and its management, spreading the cost across many customers on a pay-as-you-go basis.

**2. Reduced Complexity** – Not only is building and maintaining a secondary DR site costly, but it can also be immensely complex. If all of that infrastructure could be eliminated, then the administration, upgrade requirements, maintenance contracts and more could be eliminated as well.

**3. Interoperability** – Beware of replication solutions that limit your ability to replicate between differing hardware, storage or IBM i operating system versions. Some solutions may even be specific to a particular application. DRaaS solutions are available that are hardware independent and able to replicate between different hardware, storage and operating system versions, as well as between servers residing on-premises and in the cloud. DRaaS solutions also enable you to expand protection to include new applications and data as your HA/DR needs change and grow.

**4. Time Savings** – By reducing complexity and simplifying the disaster recovery solution with a single provider, IT groups will save a tremendous amount of time as compared to managing their own disaster recovery site. Additionally, if you have yet to deploy your own DR site, you'll be able to deploy DRaaS within hours or days (depending on the number of servers) as compared to the weeks or months it can take to deploy your own site.

**5. Comprehensive DR Solution** – In many cases companies that implement their own DR sites have to do so in phases and only to protect their most critical production servers. This often results in never having the capability to protect all servers. DRaaS eliminates this problem and enables companies to not only protect their most vital applications, but also have all of their servers up and running immediately, providing a complete DR solution.

## Typical Challenges in Adopting Cloud and Managed Services

While the prospect of cloud and managed services is exciting to many companies, it doesn't come without some concern about challenges in adapting to this new model. Concerns include:

- Privacy and security of their data
- Loss of control and lack of self-service
- Availability, reliability and performance
- Migration to and from physical/partitioned to cloud and cloud to cloud

These are all valid concerns and topics that should be discussed with any managed service provider under consideration. These concerns should be addressed by the provider's infrastructure, policies, service level agreements (SLAs) and the DRaaS solution they employ.

## Best Practices in Selecting a DRaaS Solution

When evaluating the DRaaS solution or solutions offered by a service provider, you should be aware of seven must-have features and capabilities so you can assess an option's ability to meet your requirements and SLAs:

- 1. Multi-platform support** – Make sure that all of your on-premises and cloud-hosted production servers can be protected. Yes, you will have production in the cloud one day, if you don't already.
- 2. Ensured data integrity** – The solution should constantly validate the accuracy of the data on the recovery server to ensure that it is in sync with the production server. It should also provide virtual switch test tools that allow you to validate data and applications on the backup server without affecting production operations or data.
- 3. Recovery into the cloud** – Don't settle for just having a "recoverable backup image" in the cloud. There are providers that will allow you to actually switch operations to your cloud backup servers should disaster occur.
- 4. Flexible licensing** – Your technology provider should offer DR with subscription based, service-oriented licensing and billing options.
- 5. Real-time replication** – True real-time replication captures changes as they happen, eliminating the risk of losing critical data. Other solutions may have a window where data will be lost if an outage occurs.
- 6. Scalability** – Your DRaaS solution should be able to grow as you grow, whether you are a small business with just a few servers or your datacenter is expanding to thousands of servers.
- 7. Ease of operation and administration** – You should be able to participate in monitoring your solution through a browser-based interface if desired, and detailed reporting should be available regarding data protection and switch readiness.

## Recommendations

DRaaS options have advanced to the point that they are now realistic solutions for companies ranging from SMBs to large enterprises. Organizations that are currently un-protected or under-protected from the high cost of data loss and downtime, should investigate implementing DRaaS through a service provider.

## MIMIX: The Best Choice for a Scalable, Affordable DRaaS Solution

DRaaS solutions built on MIMIX give service providers the capability to respond to all of your IBM i data and application protection and recovery needs with a single, easy to manage solution. Because it is independent of hardware, storage and operating system versions, MIMIX is the solution of choice when implementing DRaaS in any IBM i environment. It provides real-time replication of data, applications and system values to a waiting DR server that can failover at a moment's notice. Comprehensive auditing of replicated data ensures that the DR server is a complete and accurate copy of your production server to ensure a successful failover of your production operations. Best of all, MIMIX is highly scalable. Offered as a DRaaS solution, it is affordable for the smallest of companies, while also being able to support the server workloads of the largest of enterprises.

## Easy. Affordable. Innovative. Vision Solutions.

Vision Solutions is a leading provider of business resilience solutions – high availability, disaster recovery, migration, data replication and security – for IBM Power Systems. For more than 25 years, customers and partners have trusted Vision to protect and modernize their environments, whether on-premises or in the cloud.

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15300 Barranca Parkway  
Irvine, CA 92618  
1.949.253.6500  
1.800.683.4667

[visionsolutions.com](http://visionsolutions.com)