***7145-United Institute Of Technology***

***Disaster recovery with IBM cloud virtual server***

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**Introduction:**

In today's digital landscape, the ability to swiftly recover from unexpected disasters is paramount for the continuity of business operations. IBM Cloud Virtual Servers, as part of IBM Cloud's extensive infrastructure and services, offer a powerful platform for building a comprehensive disaster recovery strategy. With the ever-increasing risk of data loss, system failures, or natural disasters, organizations must be proactive in safeguarding their critical workloads and data.

This article delves into the essential steps for implementing disaster recovery with IBM Cloud Virtual Servers. It outlines a structured approach to ensure data resiliency, system redundancy, and minimal downtime in the face of unforeseen disruptions. From assessment and planning to the deployment of a secondary site and testing procedures, this guide provides insights into creating a robust disaster recovery plan using IBM Cloud's infrastructure and services. By the end, you will be equipped with the knowledge to fortify your business against potential disasters, with IBM Cloud Virtual Servers at the core of your contingency strategy.

**Innovation:**

Disaster recovery (DR) planning is a critical aspect of any IT infrastructure, including IBM Cloud Virtual Servers. IBM Cloud provides various services and tools to help you implement a robust disaster recovery strategy. Here are the steps to set up disaster recovery with IBM Cloud Virtual Servers:

1. **Assessment and Planning**:
   * Identify critical workloads and data that need to be protected.
   * Determine recovery time objectives (RTO) and recovery point objectives (RPO) for these workloads.
   * Assess the potential risks and threats that could lead to a disaster.
2. **Backup and Data Replication**:
   * Regularly back up your data and system configurations. IBM Cloud offers services like IBM Cloud Object Storage or IBM Cloud Block Storage that can be used for backups.
   * Implement data replication to ensure data consistency between your primary and secondary sites. This can be done using solutions like IBM Cloud Object Replication.
3. **Secondary Site**:
   * Set up a secondary site in a geographically different location to ensure data redundancy. IBM Cloud has multiple data centers in different regions.
   * Deploy virtual servers and storage resources at the secondary site to replicate your production environment.
4. **Network Connectivity**:
   * Establish a secure and reliable network connection between the primary and secondary sites. You can use IBM Cloud Direct Link or VPN connections for this purpose.
5. **Failover and Failback Plan**:
   * Define a clear failover plan for switching to the secondary site in case of a disaster. This plan should include steps for redirecting traffic and reconfiguring DNS.
   * Also, plan for failback procedures to return to the primary site once the disaster is resolved.
6. **Testing and Validation**:
   * Regularly test your disaster recovery plan to ensure that it works as expected.
   * Conduct both planned and unplanned failover tests to validate the effectiveness of your recovery procedures.
7. **Monitoring and Alerting**:
   * Implement monitoring and alerting tools to keep an eye on the health of your primary and secondary environments.
   * Set up automated notifications to alert your IT team when an incident occurs.
8. **Documentation**:
   * Maintain up-to-date documentation of your disaster recovery plan, including configurations, contact information, and step-by-step procedures.
9. **Security and Compliance**:
   * Ensure that your disaster recovery plan adheres to security and compliance standards relevant to your industry and location.
10. **IBM Cloud Services**:
    * Explore IBM Cloud services that can aid in disaster recovery, such as IBM Resiliency Orchestration for automation and orchestration, and IBM Cloud Bare Metal Servers for high-performance applications.
11. **Disaster Recovery as a Service (DRaaS)**:
    * Consider using IBM's Disaster Recovery as a Service (DRaaS) solutions, which can simplify the setup and management of your disaster recovery infrastructure.
12. **Regular Maintenance**:
    * Keep your disaster recovery plan up to date and adapt it as your infrastructure and business requirements change.

IBM Cloud Virtual Servers can play a crucial role in your disaster recovery strategy, and when used in conjunction with IBM's broader ecosystem of services and tools, you can build a robust and resilient infrastructure capable of handling unexpected disasters.

**Conclusion:**

Implementing a disaster recovery strategy with IBM Cloud Virtual Servers is a crucial investment in the resilience and continuity of your business operations. In this digital age, where data and system downtime can have significant consequences, having a well-defined plan in place is imperative.

In conclusion, disaster recovery with IBM Cloud Virtual Servers is a proactive approach that helps safeguard your business against potential calamities. By staying prepared and harnessing the capabilities of IBM Cloud, you can minimize downtime, protect your data, and ensure that your organization remains resilient in the face of adversity.