I'm not a bot

Luckily, help is available. A quick Google search should turn up a raft of free resources for organizations to use in the DR planning process, including disaster recovery plan templates that span a broad spectrum in terms of length and complexity. Weve even created one of our own: the Ontrack disaster recovery plan template. Protecting your business with a disaster recovery planNo matter how big or small your business, its probably fair to say that you rely on IT to function. And all IT, whether it comes in the form of a mobile device, an email server or a cloud-based application, is susceptible to failure.This is an increasingly big deal. According to research published byStatista, downtime costs companies worldwide, on average $400,000 an hour. Moreover, a 2018 study by Ponemon Institute found that the global average cost of data loss was a staggering $3.6 million, or approximately $141 per data record. In todays data-dependent world, the failure to bounce back from an IT outage could be enough to kill your business.What is a disaster recovery plan, anyway?A disaster recovery plan consists of the policies and procedures that a given entity in your case, your business will follow when IT services are disrupted. This could happen because of a natural disaster, technological failure or human factors such as sabotage or terrorism. The basic idea is to restore the affected business processes as quickly as possible, whether by bringing disrupted services back online or by switching to a contingency system.Your disaster recovery plan should take into account the following:IT services:Which business processes are supported by which systems? What are the risksPeople:Who are the stakeholders, on both the business and IT side, in a given DR process?Suppliers:Which external suppliers would you need to contact in the event of an IT outage? Your data recovery provider, for example.Locations:Where will you work if your standard premises are rendered inaccessible?Testing:How will you test the DR plan?Training:What training and documentation will you provide to end-users?At the centre of most DR plans are two all-important KPIs, which are typically applied individually to different IT services: recovery point objective (RPO) and recovery time objective (RTO). Dont be confused by the jargon, because theyre very simple:RPO:The maximum age of a backup before it ceases to be useful. If you can afford to lose a days worth of data in a given system, you set an RPO of 24 hours.RTO:The maximum amount of time that should be allowed to elapse before the backup is implemented and normal services are resumed.Structuring the perfect disaster recovery planEven a small business DR plan can be a lengthy and complex document. However, most follow a similar structure, encompassing definitions, duties, step-by-step response procedures and maintenance activities. In our template, weve used the following outline:Introduction:A summary of the objectives and scope of the plan, including IT services and locations covered, RPOs and RTOs for different services, and testing and maintenance activities. Also includes a revision history to track changes.Roles and responsibilities:A list of the internal and external stakeholders involved in each DR process covered, complete with their contact details and a description of their duties.Incident response:When should the DR plan be triggered, and how and when should employees, management, partners and customers be notified?DR procedures:Once the DR plan is triggered, the stakeholders can start to action a DR process for each affected IT service. In this section, those procedures are set out step-by-step.Appendices:A collection of any other lists, forms and documents relevant to the DR plan, such as details on alternate work locations, insurance policies, and the storage and distribution of DR resources.Keeping your disaster recovery plan aliveLike any policy document, a DR plan is useless if it spends most of its life sitting in a drawer somewhere. Theres no point in creating one if youre not going to allocate sufficient resources to training staff on the existence of the plan, as well as what their roles and responsibilities would be in the event of an IT outage.Keeping it up to date is essential, too. As time passes and your business grows, youll need to accommodate new systems and IT services in your DR plan. Be sure to notify any affected stakeholders when you do this.Test, test, test!Finally, you must test your DR plan and know whether your RPO and RTO KPIs are viable, or even whether your procedures are fit for purpose at all. It can be tempting to test your DR plan in stages, but dont neglect to test it in its entirety from time to time, too itll show you if different processes cause friction when they run concurrently, as well as if theres anything youve failed to account for.Download our disaster recovery template here. A virtualized disaster recovery plan leverages virtualization technologies to create a more flexible and efficient recovery process. By abstracting physical hardware through virtual machines (VMs), organizations can easily replicate and recover entire systems. In the event of a disaster, these VMs can be quickly restored on different physical servers, reducing downtime significantly.Network disaster recovery planA network disaster recovery plan focuses on maintaining and restoring network operations after a disruption. This involves strategies for recovering data communication links, network equipment, and essential network services. Key components include redundancy in network pathways, regular backups of network configurations, and the use of failover mechanisms to switch traffic to alternate routes seamlessly.Cloud disaster recovery planCloud disaster recovery plans utilize cloud services to back up and restore data and applications. This approach benefits from the clouds inherent flexibility, scalability, and accessibility. Data is replicated to cloud storage, and cloud-based recovery environments can be activated quickly in response to an incident. Cloud DR plans are cost-effective, as they reduce the need for maintaining physical infrastructure dedicated solely to disaster recovery.Data center disaster recovery planA data center disaster recovery plan is designed to restore the operations of a physical data center after a disaster. This involves strategies for recovering hardware, software, data, and network connectivity within the data center. Key elements include establishing an alternate data center location, ensuring data redundancy across sites, and having a clear sequence of steps for rebuilding the IT environment.DRaaSDisaster Recovery as a Service (DRaaS) offers a managed approach to disaster recovery, where a third-party provider handles the recovery process on behalf of the organization. DRaaS solutions typically include continuous data replication, automated failover, and comprehensive recovery planning. This service model is particularly attractive to organizations with limited internal resources. Benjamin Franklin was right. "If you fail to plan, you are planning to fail." This is especially true of disasters that threaten to disrupt your business operationsor bring them to a complete halt. So, you need a strategy and plan for disaster recovery. To maximize protection and minimize disruption, you need clear, comprehensive, and practical plans to address multiple types of disasters. Each plan should be structured using a simple disaster recovery plan example, ideally following a template utilized throughout your company. Additionally, the disaster recovery plan format should adhere to proven best practices and be tailored to address your unique business needs and priorities. This article explains disaster recovery plans and their importance and provides examples to help jump-start your efforts to protect your business. It also offers guidance on best practices for disaster recovery and invites you to explore the features of Jira Service Management that can simplify and improve your disaster recovery planning efforts. A wide range of potential disasters can threaten your business, and any of them could disrupt or completely halt your business operations. The cost of downtime can be as high as hundreds or thousands of dollars per minute. Your disaster recovery plans are critical to your company's business continuity strategy and long-term survival and success. Your current IT service management (ITSM) and DevOps support processes can help you craft effective disaster recovery plans. Features of your chosen ITSM software may also help with your disaster recovery planning. IT incidents can quickly become disasters, and how well your business handles incident response and incident communication, including postmortem reports, can inform and support your disaster recovery planning efforts. What you choose to include in your disaster recovery plans depends on the type of disaster that plan aims to address and your businesss unique needs. However, all effective disaster recovery plans share two common goals: to prevent disasters whenever possible and to outline the steps to recover as quickly as possible when necessary. Below is a disaster recovery plan example for each of the most common and challenging disaster types. Your business should craft and maintain a plan for each of these. Disaster recovery planning should include multiple types of disasters to maximize the protection of your business operations. Here are examples of the most prevalent types, but you may need to plan for additional types depending on your business's unique characteristics. When starting your cybersecurity disaster recovery plan, you should carefully assess the risk and effect of a cybersecurity breach. A great cybersecurity plan includes the following elements: Your plan should establish recovery objectives by specifying the time needed to restore basic and then full operations or by indicating the maximum acceptable amount of data loss. These are known respectively as recovery time objectives (RTOs) and recovery point objectives (RPOs). It should detail your business data backup and protection measures, as well as your recovery strategies and solutions. It should describe what the recovery team should communicate to those affected and involved and how they should disseminate that information. It should include information about relevant documentation, maintenance activities, employee and stakeholder training, and regular testing of the plan itself. PPRR, prevention, preparedness, response, and recovery, is a popular supply chain risk management approach. Your supply chain disruption recovery plan must address all four elements for maximum effectiveness and minimal business disruption. To address prevention and preparedness, you should map each critical supply chain, highlighting which suppliers have alternatives in place and which do not. Where you can access alternatives, your plan must detail how to invoke those alternatives and which stakeholders to notify. Where no alternatives are available, you and your colleagues must ensure that your plan details which operations and teams are affected. You must also ensure your plan includes steps to inform those affected and advise them of specific actions to take in response to the disruption. Your plan should also guide rapid recovery once you have restored a supplier connection. Your IT infrastructure failure recovery plan should mirror and complement your cybersecurity breach recovery plan. It must identify your critical infrastructure elements and include up-to-date, accurate, and complete details about hardware, software, and network configurations. This plan should include information about alternatives, workarounds, and employees' actions when infrastructure fails. You should also include information about recovery from the failure of physical, non-IT infrastructure. Enterprises often designate critical data centers as automatically invoked "hot spare" or manually accessible "warm spare" backups. Your data center outage recovery plan must detail available backups for your critical data centers and explain how to access those backups. Every natural disaster recovery plan should begin with detailed information about how and where critical data backups are stored and updated. Your company should store at least one backup offsite, preferably far enough away that a natural disaster affecting your business does not also affect your backup. You need to be able to securely access your offsite backups remotely, as natural disasters can hamper travel. You should determine the types of natural disasters most likely to affect your business and plan for them. Local government agencies and online weather and climate resources can be valuable sources of information for the planning process. Regardless of the plan you are creating, you should build it on these best practices. Identify and prioritize the disasters and threats your business is most vulnerable to. Prioritize your most critical operations so your recovery efforts focus on restoring those operations first. Define acceptable recovery objectives. You can express these in terms of acceptable data loss and operational disruption (recovery point objective) or time to restore operations (recovery time objective). Implement robust backup and recovery processes for critical business data. Keep at least one backup in a secure, offsite location and align access and recovery processes with your recovery objectives. Assemble a team to implement each recovery plan. Ensure that each team includes people with the necessary skills to achieve rapid, effective recovery from even the most serious disasters. Also include people who can communicate with and reassure stakeholders throughout recovery. Test and update your plans regularly. A disaster recovery plan that sits on a shelf will likely fail to meet your recovery objectives. Review and test your plans regularly to keep them current with evolving threats and business needs. Also, include plans for frequent and regular stakeholder education and training efforts as appropriate. As you've read above, disaster recovery planning is a challenging, critical, multifaceted element of business continuity planning. Multiple Jira Service Management features can simplify disaster recovery planning and make it more effective for you, your colleagues, and your business. Jira Service Management provides a central platform to track tasks, incidents, and requests related to the disaster recovery process. This can speed collaboration among your disaster recovery team members and improve stakeholder communication. Issue tracking and reporting features help you monitor each recovery effort and modify them if and as needed. Jira Service Management also allows you to create disaster recovery information knowledge bases, allowing all team members to access the information quickly. Below are some basic steps to create a recovery plan for each disaster type relevant to your business. Work with IT decision-makers and other stakeholders to identify, assess, and prioritize possible disasters and their associated risks. Align these with your most critical business operationsdocument recovery objectives for each. Describe how backup and recovery address these risks and objectives. Highlight any known gaps or shortcomings in current backup and recovery practices or solutions. List and briefly describe the members of the disaster recovery team and the role each member plays. Describe the testing schedule for the recovery plan and how you will measure each plan's test performance. Share the plan with all stakeholders and seek input and feedback during and after plan creation, testing, and implementation. At a minimum, you should include the following elements in every disaster recovery plan. Create a prioritized list of your most critical business operations and the disaster-related threats each face. Write a brief description of your current backup and recovery policies, processes, and technologies, highlighting any known shortcomings or gaps. Describe how current practices and solutions address the identified vulnerabilities. Create a disaster recovery team membership roster with a brief description of each member and their role. Write a schedule for regular plan testing and briefly describe how you will address any identified issues. Invite questions, comments, and suggestions from key stakeholders. Disaster recovery plans should address as many disaster scenarios threatening your business operations as possible. This article addresses areas you and your colleagues should consider mandatory for your business. Depending on the specific characteristics of your business and markets, you may also need to plan for additional disaster types. In a time when threats range from natural disasters to cyberattacks, small businesses must prepare for the unexpected. Developing a comprehensive Disaster Recovery plan is not just a safety measure; its a vital part of ensuring your businesss resilience and stability. In this guide, we will explore the essential steps and measures a small business must take to not only anticipate, but also navigate through such crises. Well discuss essential tools and strategies to ensure IT continuity during and after a disaster. A disaster recovery plan is a formal process that documents the steps your IT department needs to take to mitigate the effects of a disaster and to resume normal business operations in the shortest practical time. More than ever, small businesses rely on IT systems to run and manage their systems. These include systems for sales and marketing, procurement, payments, finance, and human resources. Technological SMBs also use them in design and manufacturing. Unplanned downtime and loss of data following a disaster have a significant impact on an SMBs ability to survive, especially as most have limited financial resources. Risks include natural disasters such as storms, tornadoes, and flooding as well as cyberattacks that may include data theft, encryption, and small business ransomware. In the United Kingdom, almost half of all SMEs experienced a cyberattack in 2023. The 2024 Data Breach Investigations Report from Verizon noted that ransomware and extortion featured in 62 % of financially motivated incidents of cybercrime, resulting in a median loss of $46,000 per breach. To survive, you need a disaster recovery plan for small businesses. According to the Federal Emergency Management Agency (FEMA), 40% of small businesses never reopen after a disaster and another 25% fail within one year. To effectively manage these risks, small businesses must first conduct a comprehensive assessment of potential threats. This involves: As previously stated, the spectrum of threats encompasses a wide range, spanning from natural disasters such as earthquakes, floods, and storms to challenges like supply chain disruptions, cyberattacks, and technological disasters. Identifying these potential disasters is critical in preparing an effective response. A business impact analysis (BIA) helps in understanding the potential impact of a disruption on your business. This analysis focuses on critical business functions (such as Operations, Product/Service Development, Financial Management, etc.) and helps in prioritizing recovery objectives and possible consequences. Here is an overview of what a business impact analysis involves: Identifying critical business functions Identify potential disruptions Assess impact severity Set recovery time objectives Prioritize critical functions Identify dependencies Gather data and input Document BIA results Developing a business continuity plan Regular review and updates For small businesses, the key is to keep the process simple, practical, and focused on the most critical aspects of your operation. While the scale may be smaller, the goal remains the same: to ensure that your business can continue functioning in the face of unexpected challenges or disasters. In a small business, some team members may wear multiple hats, and roles may be adapted to fit specific organizational needs. The key is to ensure that responsibilities are clearly defined, and team members are trained and prepared to respond effectively to disasters or disruptions. Communication and coordination within the team are essential for a successful disaster recovery effort. Team training is a crucial aspect of forming a disaster recovery team. Points to consider include: Familiarization with the disaster recovery plan Role-specific training Training for different scenarios Cross-training to ensure team members can fulfill different roles in an emergency Disaster planning documentation Disaster simulation drills Typical roles and responsibilities are outlined in this table. RoleResponsibilityRoleResponsibilityDisaster Recovery LeaderThe point person responsible for overseeing and managing the overall disaster recovery effort.HR and Employee SupportCoordinates employee well-being and support during a disaster.IT Specialist Responsible for IT systems, networks, and data recovery.Also ensures that critical IT systems are restored within defined RTOs and RPOs.Finance and Resource ManagerManages the financial aspects of the recovery process, including budget allocation and expense tracking.Data Backup and Recovery SpecialistFocuses on maintaining and restoring data backups.Documentation and Records ManagerMaintains detailed records of all DRP activities, including test results, incident reports, and updates.Communication CoordinatorManages both internal & external communications during and after a disaster.Vendor and Supplier LiaisonMaintains relationships with key vendors and suppliers, and ensures vendors have their own disaster recovery plans in place.Facilities and Physical Asset ManagerOversees the recovery of physical assets, facilities, and infrastructure.Logistics and Resource CoordinatorManages recovery efforts logistics, including transportation, accommodation, and supply chain management. Create a comprehensive list of infrastructure components that are critical for your recovery and recommencement of normal business operations. Identify each component and its associated software. Items to consider include: On-premises and cloud infrastructure Data backup and storage Software inventory Business continuity software Security software Customer communication systems and tools Backup power solutions Physical infrastructure and its security Emergency response plan Financial plan To streamline communication protocols during and after disasters, developing a comprehensive plan that outlines roles and responsibilities is vital. You should maintain updated emergency contact lists and use multiple communication channels. Prioritizing message types is crucial. Invest in communication tools, conduct regular system tests, and designate a spokesperson for external communications. Establish a clear chain of command, create remote work policies, and train employees. Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs) are essential components of a disaster recovery plan for small businesses. They help determine how quickly you need to recover your systems and data following a disruption. Recovery Time Objective: This is the maximum acceptable downtime for your critical business functions and systems. It represents the time within which these functions and systems should be restored after a disaster. Recovery Point Objective: This is the maximum allowable data loss in terms of time. It defines the point in time to which data must be recovered after a disaster. The choice of RPO should consider data value, storage capacity, and backup frequency. The RTO and RPO should align with your businesss unique needs, risks, and resources. Striking the right balance between downtime and data loss and what your business can realistically achieve is essential for an effective disaster recovery plan. Now that weve covered the basics of a disaster recovery plan, risk assessment, and assembling a disaster recovery team, its time to focus on developing the actual recovery plan. Heres a straightforward, step-by-step guide to help you create an effective disaster recovery plan for your small business: Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs) are essential components of a disaster recovery plan for small businesses. They help determine how quickly you need to recover your systems and data following a disruption. Recovery Time Objective: Is the maximum acceptable downtime for your critical business functions and systems. It represents the time within which these functions and systems should be restored after a disaster. Recovery Point Objective: Is the maximum allowable data loss in terms of time. It defines the point in time to which data must be recovered after a disaster. The choice of RPO should consider data value, storage capacity, and backup frequency. RTOs and RPOs should align with your businesss unique needs, risks, and resources. Striking the right balance between minimal downtime and data loss and what your business can realistically achieve is essential for an effective disaster recovery plan. For small businesses, documenting a disaster recovery plan is as significant as it is for larger organizations. It can be argued that its even more critical for small businesses due to their limited resources and greater vulnerabilities. A small business disaster recovery plan template ensures the efficient allocation of resources, aids in survival during crises, maintains customer trust, helps with compliance, supports employees, and preserves critical relationships with suppliers and partners. Additionally, it can ease obtaining insurance coverage or financing, mitigate the impact on the local community, and facilitate smooth transitions in ownership or management. A documented disaster recovery plan is a cornerstone of small business resilience, safeguarding operations, assets, and reputation in times of adversity. Integrating business continuity planning into a disaster recovery plan is especially crucial for small businesses. It means addressing not only IT recovery but also the entire organizations ability to continue essential operations during and after a disaster. This holistic approach minimizes downtime for both technology and critical business functions and ensures that limited resources are allocated effectively. It enhances communication, flexibility, and adaptability in managing crises. Compliance and resilience improve stakeholder confidence. For small businesses, this integration is a cost-effective way to safeguard operations, build trust, and enhance long-term sustainability in the face of unplanned disruptions and disasters. Regularly testing and updating an organizations disaster recovery plan ensures its effectiveness during a crisis. Testing identifies weaknesses and helps employees become familiar with their roles during an emergency. Common exercises include tabletop exercises, where team members discuss hypothetical scenarios and their responses, and full-scale simulations, which mimic actual disaster situations. These tests evaluate the plans strengths and uncover areas for improvement. However, its crucial to base these exercises on realistic scenarios and to review them periodically to address evolving threats. Post-exercise debriefs, and incident reviews should be conducted to analyze what went well and what needs improvement. This feedback loop allows for continuous enhancement of the disaster recovery plan by incorporating lessons learned from testing and real incident outcomes. Rigorous and regular testing of the disaster recovery plan helps to better protect the business and its stakeholders in the face of cyberattacks and natural disasters. Budgeting for disaster recovery is a critical aspect of small business preparedness. Small businesses should set aside a specific part of their annual budget for disaster recovery. This money should cover creating and maintaining a disaster plan, as well as training and equipment. Its important to focus on protecting the most crucial parts of the business. Small businesses should also investigate insurance options like business interruption, property, or cyber insurance to help cover costs in case of a disaster. While insurance premiums may be an extra cost, they can provide financial help when a disaster strikes. A well-planned disaster recovery budget helps small businesses prepare and reduce financial stress during emergencies. But what about those small businesses with limited budgets and resources? Outsourcing your disaster recovery plan and solution to a managed service provider (MSP) is a great alternative. MSPs can provide specialized expertise and a deep understanding of industry best practices, cutting-edge technologies, and evolving security threats, allowing small businesses to benefit from a tailored disaster recovery strategy without the need for extensive internal investments. Additionally, outsourcing to an MSP can enhance the efficiency and reliability of a disaster recovery process, ensuring quick response times and minimizing downtime in the event of a disruption. We encourage small businesses to prioritize disaster recovery planning. At Veeam, our mission is to help every company bounce forward. As part of that, we have put together a range of solutions tailored to small businesses needs, including Veeam-powered DRaaS, and managed backup & DR services. Veeam-Powered DRaaS: Allows you to work with trusted service providers to customize a disaster recovery plan that fits your needs and budget. Built on the Veeam Data Platform, our partners support customers disaster recovery services for small businesses from plan development to testing, documentation, and full management. SMB Backup and Recovery Solutions: Gives you the freedom to manage and shift your infrastructure, storage, and backup restores as needed, while giving you the confidence to recover any data you need, even from cross-platform workloads instantly. Managed Backup and Disaster Recovery Services: Delivered through our VCSP partners, this solution gives you access to experts to proactively manage your data protection, accelerate time-to-value, and reduce the complexity of daily IT operations. Start developing your disaster recovery plan today with Veeams expert support and bounce forward knowing you have a trusted partner to keep your business running smoothly. Start developing your disaster recovery plan today with Veeams expert support. by Scott JackContent Contributor, E-N Computers7+ years experience in healthcare IT and tech support. Updated August 14, 2023If youre a small business looking for a realistic, simple backup and disaster recovery plan, we can help. Well outline everything you need to know for backup and disaster recovery. And then we provide a sample plan template you can download to create your own backup and disaster recovery plan.Over the years, weve helped hundreds of small businesses develop a workable, affordable and reliable backup and disaster recovery plan.Its an essential but often overlooked aspect of building a successful business. Recent reports show how businesses have been hit hard by power outages, ransomware attacks, natural disasters, and pandemics.Proactively developing plans for business continuity as well as backup and disaster recovery is an investment that can protect your business revenue and reputation.Backup and Disaster Recovery (BDR) is the process of planning for and recovering from incidents that affect IT systems and data. BDR involves creating, verifying, and storing backups, as well as ensuring that key systems can be accessed in the event of a physical or virtual disaster. BDR planning is one part of a business continuity plan.Backup and disaster recovery is a broad term that describes the processes and systems that protect data and services against loss and enable their recovery after an adverse event. This includes making backups, monitoring and verifying backups, and testing restore and recovery features to make sure they will work as expected. It can also include keeping spare hardware on hand, or even systems that allow for seamless, real-time failover from one system to another.As well discuss, the level of sophistication and the expense involved in backup and disaster recovery depends on the specific needs of your business.Part of a Business Continuity PlanA business continuity plan describes how the business will operate during and immediately after a disaster. It begins with an analysis that identifies key business functions, then prioritizes their impact on operations and finances. The plan documents resources needed to maintain these key functions, such as alternate work locations, vital records, equipment, inventory, and utilities. Because of the integral role IT systems have in business operations, a backup and disaster recovery plan often plays a complementary role; it focuses on fully restoring data and services after a major disruption.Understanding services and dataData and services must be considered equally important when formulating a backup and disaster recovery plan. Data is the information you are working with. A service is the combination of hardware, software, configuration, and other details that make data available to a user or another service.Take examples of two adverse events: malicious data manipulation and network switch failure. If an attacker manipulates your data to render it unreliable, it does not matter if your users can access the data. Conversely, if you have reliable data stored on a server, but a network switch stops working, your users will not be able to do anything with it. These two examples help to illustrate that data and services are completely interdependent; both must remain available for your business to operate.Whats the difference between backups and archives?To make it more likely that data can be fully restored, copies of important data are made. Backups are copies of current working data taken at regular intervals and stored in a way that makes them accessible relatively quickly. How they are made and where they are stored will depend on the system and data.Archives are copies of data meant for long-term storage; this can be for compliance and regulatory purposes or to recover from a failure of both the primary system and backups. Restoring from an archive may take longer because of its size or format.What is disaster recovery?Meanwhile, disaster recovery aims for full restoration of services usually with a target recovery time. In addition to having working backups, disaster recovery involves having the resources needed to keep your services running. For example, it may include having a spare server or network switch on hand, a backup power source, or a secondary internet connection.In addition, some infrastructure techniques can increase reliability and reduce recovery times. Two such techniques include failover and fault-tolerance. A failover, or high availability, system shares resources in order to meet an acceptable amount of downtime. On the other hand, fault-tolerant systems use redundant systems to guarantee no downtime at all.Importantly, these techniques are primarily intended to maintain service availability. They do not necessarily protect against data loss, nor do they protect against all possible failures. For example, a fire or flood can destroy all the shared resources or redundant systems located in a single physical location. Or, failure of a key component could inadvertently overload other parts of the system, causing a larger cascading effect.Cloud service considerationsThough cloud storage and services often provide high availability, they are not immune to disasters and should be considered in your backup and disaster recovery plan. If your cloud provider experiences an extended outage or reliability issues, or your data becomes corrupted or deleted, you will want a backup of your data either locally or with another online provider.While it is often relatively fast and easy to upload your data to them, retrieving it can take a long time and be expensive. Additionally, a cloud provider may close down or terminate your service at any time; without a backup and recovery plan, you can be left scrambling.With these various factors in mind, the rest of this article will focus on how to develop a backup and disaster recovery plan. Backup and disaster recovery is complicated for small businesses but weve made it easy to get started with our free backup and discovery planning guide and template. Click below to get your copy.First, fill out the Planning Guide to identify the threats facing your business and the IT systems that you need to protect. Then, fill out one BDR Plan Template for each service or system you identified.Dont have time to fill out the templates right now? Enter your email address (totally optional!) and well send you a link so you can download it later or share it with your team. Building a backup and disaster recovery plan can be divided into several steps. They are 1) identify key systems, 2) set recovery time objectives, 3) identify where and how your data is stored, 4) set recovery point objectives, 5) determine archival requirements, 6) identify failure modes and recovery paths, 7) and testing. Lets briefly review what is involved in each.Identify key systems and servicesThe first step in building your disaster recovery plan (BDR) isidentifying your key systems and servicesand their dependencies. Maybe information passes through multiple applications as you work on it, or applications update one another with changes. Perhaps you have machinery that is controlled by a workstation with a specific combination of hardware and software. Even logging onto your workstations is likely dependent on being connected to a domain controller server. Documenting these dependencies helps avoid longer recovery times that result from overlooking essential pieces of your services.Determine recovery time objectivesSecond, you will need todetermine your recovery time objective (RTO). This is a target for how quickly key services should be fully operational following a disaster. It will be influenced by the cost of downtime for each system as well as what you can budget for disaster recovery. Fault-tolerant and failover systems are the most expensive BDR options. A less expensive and fairly standard target recovery timeframe is 1 business day; this is the default RTO included in ENCs backup and disaster recovery plan. And in the middle range for cost, you have recovery times of a few hours.Identifying data locations & typesThird, it is important toidentify where and how data is stored. For each service, document whether its data is stored locally, such as on a workstation or your own server, or online such as with a hosted web application or cloud storage provider. You should also know whether it is in the form of a database, a proprietary filetype, or an open, plain filetype such as comma-separated value (CSV). Once you have this information it is easier to determine the best backup and restore solution.Selecting the right backup and restore solution is a balancing act. Backing up your data on-site requires additional storage capacity on your network. It may require an upfront investment in storage devices and spare hard disks. You can calculate how much storage is needed by multiplying the amount of data to back up by your backup interval and retention period. For example, 50GB of full backups once daily for a month could require as much as 2TB of backup storage space.Backing up offsite incurs a subscription fee for online storage based on the amount of storage you use. It also uses internet bandwidth; depending on the size and frequency of your backups, a dedicated internet connection may be necessary. In both cases, backups travel over your internal network. This may require additional investment so that network performance is not impacted.Recovery point objectivesFourth,set the recovery point objective (RPO)for each service. The RPO describes how much data loss is acceptable, which determines the frequency of your backups. If absolutely no data loss is acceptable, all changes have to be replicated immediately; this requires very expensive solutions that are usually only seen at the enterprise level. Intraday backups, taken on some hourly interval, are likewise quite expensive. For most small businesses, E-N Computers recommends daily backups of the past 30 days for a balance of affordability and limited data loss.Archiving dataFifth,determine your archival requirements. For some businesses, having the last 30 days of working files is enough; this is included in ENCs standard plan. We can also include periodic archival of this data, such as archiving last years accounting data at the start of a new year. However, for regulatory and compliance reasons, archives going further back may be necessary. The cost of these archives will increase with how frequently they are created (i.e., each week, month, quarter, or year) and how far back they go.Creating the backup planThe details discussed above should all be recorded in one place. Consider the following example, then adapt the italicized portions to your own needs.Accountingdata needs to be backed updaily. These backups should be available for the past30 days.Archives of this data should be createdquarterly and should be available forseven years.Backups should be storedon-site,and archives should be storedoff-site.When deciding on the frequency of your backups, keep in mind that more frequent intervals require additional resources. These include processing power, disk space, disk speed, internal network bandwidth, and internet bandwidth in the case of off-site backups. This may require more advanced engineering, introduce complexity, and significantly increase both the initial and ongoing costs of your BDR solution.Failure modes and recovery pathsThe sixth step in developing your BDR isidentifying failure modes and recovery paths. During this stage, the goal is to document various adverse events and how to go about recovering from them.Failure modes can be grouped into several categories: equipment, service, environmental, cybersecurity, and internal. For example:An equipment failure could include a servers power supply dying or a network switch becoming non-functional.Service failures run the gamut from an internet outage to a web application shutting down or a cloud provider terminating your account.Environmental failures include natural disasters, flood, fire, and burglary.Cybersecurity failures might be a ransomware attack, someone gaining unauthorized access to your systems, or one of your cloud service providers being hacked.Finally, there are internal threats to consider. Data may be deleted either maliciously or accidentally; simple mistakes or misconfigurations could also result in data loss.When considering potential scenarios, also estimate the likelihood of each compared to the potential impact. For example, equipment failures are relatively common, but modern redundant hardware can minimize the impact of many types of failures. A fire or flood may be rare, but its impact on your business could be catastrophic.After coming up with a list of scenarios and their likeliness, you are ready to plan how you will recover from each. Keeping spares of critical equipment on site can help reduce recovery time.Though this can apply to other equipment, lets use storage as an example. In a network attached storage (NAS) device, drives can be grouped and configured to improve reliability. The NAS may also have room for a hot spare; when one of the active drives begins to degrade, the NAS automatically begins copying its data to this spare so that the eventual drive failure is less likely to cause a business interruption.In other designs, it can be more practical to keep a cold spare on hand that is manually installed after a failure and may require a reboot for proper configuration. Without spares, you may be left waiting weeks or longer for critical equipment, or you may discover that a part is no longer available. Spares can be a more affordable form of redundancy.Geo-redundancy is also available, but it is complex and expensive. With geo-redundancy, you have a duplicate system ready to go that is hosted in another region of the country or world. This is particularly useful if environmental failures like fire, flood, extended power outages, or natural disasters are a prominent concern. If your primary system fails, the duplicate can be manually set up to take over the workload. A more advanced setup can detect when your primary system goes down and automatically reroute to the redundant system.Testing backups and disaster recoveryThe seventh and final stage, after all your backup and disaster recovery plans have been implemented, istesting. The only thing worse than no backup is a bad backup.In most cases, a partial restore from your backups is sufficient to verify that it will work when you need it; this is what ENC includes in our managed services. A full restoration and disaster recovery drill is considerably more expensive but will need to be done for complex recovery scenarios that depend on automated failover systems to work correctly.Compiling your BDR planTo make compiling all the information you need for your BDR plan easier, we have prepared two templates for you. The Backup and Disaster Recovery Planning Guide will help you evaluate the overall risks and recovery paths that your business needs to plan for. Then, complete one BDR Plan Template for each service or system that needs to be backed up. It will walk you through determining the best backup, archive, and recovery options for each critical part of your IT infrastructure. Your plan should be reviewed and updated annually so that it continues to meet business needs.Realistically, the most advanced and immediate forms of backup and disaster recovery are not viable for small businesses. They are employed by large enterprises that lose thousands of dollars per minute when systems fail. To help put your BDR plan in perspective, consider these example tiers.Platinum TierWho its for:Large enterprises with over $1 billion in annual revenueDowntime costs:$2,000 or more per minuteWhat it includes:Fully redundant infrastructure in high-end datacenters in multiple regions; real-time or hourly data replication; recovery points going back months or yearsCosts:If you have to ask, you dont want to know.Gold TierWho its for:Medium enterprises with between $50 million and $1 billion in annual revenueDowntime costs:$5,000 to $10,000 per hourWhat it includes:Fully redundant infrastructure, but not geo-redundant; real-time or hourly on-site backups; daily off-site backups; long-term off-site archivingCosts:$100,000 to $1 million annually in expenses and capital expendituresSilver TierWho its for:Small enterprises with between $10 million and $50 million in annual revenueDowntime costs:$30,000 to $100,000 per dayWhat it includes:Mostly redundant infrastructure, but not geo-redundant; hourly or twice daily on-site backups; archiving of key dataCosts:$10,000 to $100,000 annually in expenses and capital expendituresBronze TierWho its for:Small business with less than $10 million in annual revenueDowntime costs:$3,000 to $30,000 per dayWhat it includes:Spares of basic server hardware like disks and power supplies; daily on-site and off-site backups going back 30 days; most recovery requires manual interventionCosts:less than $10,000 per year (included with ENC managed services)Next steps: Backups and disaster recovery planningREAD:What is the cost of IT downtime for small businesses in 2024?DOWNLOAD: Backup and Disaster Recovery Planning Guide and TemplateBuilding a backup and disaster recovery plan from nothing can seem daunting, but it doesnt have to be. Experts at E-N Computers can help you set up and manage it along with other aspects of your business IT so that you can focus on your core operations. Unexpected system failures are not completely avoidable, but by proactively developing a BDR plan, you strengthen your business position and minimize potential disruption. To learn about how disruptions and downtime can affect your bottom line, read the articleWhat is the Cost of Downtime for Small Businesses in 2023?If you are ready to create a plan, download the linked templates and get started. If you have questions about E-N Computers managed IT services, which include basic backup and disaster recovery, pleasecontact us. We look forward to talking with you.Is your business ready to overcome a natural disaster or cybersecurity incident? Take our free IT Maturity Assessment to find out. It will help you evaluate your IT partnerships, strategy, and systems to see how theyre meeting your business goals and objectives.Youll get personalized action items that you can use to make improvements right away. Plus, youll have the opportunity to book a no-obligation IT strategy session to get even more insights into your IT needs. Businesses are prone to emergencies, especially for those that specialize in information technology. The latter line of business handles networks and data centers or data inventory that play crucial roles in performing processes like cloud computing, data storage, and more. In times of crisis, a loss or damage in one of these data centers would mean a loss and damage to important data for the company and its clientele. This is why most of the IT industry players always have disaster recovery plans or backup plans on hand to secure their business continuity. This project or procedure is used by both small businesses and established ones to describe various risk assessments, checklists, and others. To know more about such a document, check out our examples, and read our article below. 10+ Disaster Recovery Plan Examples1. Disaster Recovery Plan TemplateMS WordPagesGoogle DocsSize: A4, USDownload2. Disaster Recovery Plan Developmentscitechconnect.elsevier.com Size: 189 KBDownload3. Sample Disaster Recovery Plansmartsheet.com Size: 108 KBDownload4. IT Disaster Recovery Planberry.edu Size: 822 KBDownload5. Agency Disaster Recovery Planokdhs.org Size: 578 KBDownload6. Disaster Recovery Plan Exampleallenstownnh.gov Size: 1 MBDownload7. IT Disaster Recovery Plan Templatehopone.net Size: 871 KBDownload8. Business Disaster Recovery Plansantarosa.fl.gov Size: 852 KBDownload9. Health Center Disaster Recovery Plancoloradohealth.org Size: 2 MBDownload10. IT Disaster Recovery Plan in PDFmpc.edu Size: 211 KBDownload11. Simple Disaster Recovery Planeducation.uiowa.edu Size: 362 KBDownloadWhat Is a Disaster Recovery Plan?A disaster recovery plan is a process document that thoroughly discusses how an organization can regain control of unwanted events negative effects. According to TechTarget, it consists of precautionary activities to let companies carry on with their normal operations as soon as the adversities are resolved. The very same source stated that a thorough and well-researched disaster recovery plan can reduce the downtime of a company while reducing its financial and reputational damages. However, Techopedia shared that aside from developing one, organizations should also consider testing it out before actual disasters happen.Different Types of Disaster Recovery Plans for ITIT companies have a lot to consider when making a disaster recovery plan (DRP). Each consideration has unique processes that must be approached appropriately. The following are the types of disaster recovery plans for IT companies.1. Virtualized Disaster Recovery Plan Virtualization helps IT companies to better understand how a certain disaster happens and how it can be prevented.2. Network Disaster Recovery Plan Networks have complex structures. This type specifically details every part of the networks risks and precautions.3. Cloud Disaster Recovery Plan For this type, IT companies will focus the DRP on making data copies unto online storage.4. Data Center Disaster Recovery Plan This type focuses more on securing the physical aspect of IT companies, such as location, power systems, and office space.How To Create a Disaster Recovery PlanMany say that preparation is the best prevention against the forces that are out of anyones control, and theyre not wrong. However, simply gathering and setting aside the necessities isnt going to work. You need to arrange them in proper order and implement them accordingly when the right time comes. To guide you in sequencing your activities properly, we have prepared our ready-made outline. Here is the step-by-step process of creating your much-needed plan.1. Make an Emergency Response PlanWell never know when disasters strike. For that reason, your company has to make an emergency plan as soon as possible. Unlike a DRP whose specifications are applicable after damages have been made, this plans activities focus more on the moment that the disasters will be happening.2. Organize a Business Continuity PlanA business continuity plan is a process document in which the DRP is under. In other words, it is more general compared to DRP. Aside from the latter plan, its other segments are composed of impact analysis, plan development, and test-runs.3. Study Your Insurance PolicyYour companys insurance policy is very much helpful during crises. They help secure the emergency fund so that it will be used for emergency purposes only. In view of that fact, it is important to study what your insurance policy covers.4. Prepare the EssentialsKnow what you and your companys employees will be needing during emergencies by handing them out a safety culture survey. Once the necessities are identified, put them in a checklist and start gathering them as soon as possible.5. List Important Contact InformationBe sure that you know who to call during and after unwanted circumstances occur. Make a list of the closest emergency response bodies in your area, as well as repair contractors. The faster these organizations take action, the faster your company will recover.6. Strategize Your CommunicationNever forget to make acommunication plan for stakeholders and employees. Proper internal communication can smoothen the implementation of your DRPs activities. Not only that, but it can also assist in relaying any early detection of risks to people who should take responsibility.7. Discuss With Other PartiesYour companys product retailers, distribution channels, investors, partners, and clients will also be affected when your company is in crisis. And just like your company, they have to recover, as well. This is why you must also develop a communication strategy plan dedicated to them.8. Create Copies of Data and RecordsLastly, develop a data management plan. Keep in mind that paperwork can be burnt, and digital files can be deleted. To make sure you protect your data and records, store them both in their respective storage and make copies.FAQs: There are three techniques for your disaster recovery. They include synchronous replication, asynchronous replication, and mixed technique.Synchronous Replication Data and operational systems are replicated to another site not further than 100 kilometers.Asynchronous Replication Functions the same as synchronous replication but with no limitations when it comes to distance.Mixed Technique As the name implies, it is a mixture of both synchronous and asynchronous replication. Data and operational systems are replicated in a short-distance site and long-distance site. The four phases of disaster recovery consist of mitigation, preparation, response, and recovery. Backing up is the process of making actual copies of data, while a disaster recovery plan is the process of strategizing response to unwanted events and utilizing the copies to continue business operations.It is important for businesses to be prepared to make a comeback after being struck by a disaster. A disaster recovery plan is a perfect tool to assist these enterprises in doing so. Not only that, it helps a business in recovering from post-tragedies, but also anticipates what other risks that may take place. Theres a Malay proverb that goes, Just because the river is quiet, does not mean the crocodiles have left. Always make your company prepared. Create your disaster recovery plan right away. A landmark study found that only 54% of organizations have a company-wide disaster recovery plan in place. This percentage is even lower for healthcare organizations (37%) and government IT departments (36%) despite the proliferation of ransomware and other cyber threats.Not having a documented disaster recovery plan can seriously hamper an organizations ability to recover lost data and restore its critical systems. This can result in significantly higher financial losses and reputational damage.To help ensure your organization can recover from disaster as swiftly and easily as possible, learn what exactly a disaster recovery plan is and how to write one. Plus, find some examples and a template to help get you started.A disaster recovery plan (DRP) is a contingency planning document that outlines the procedures an organization will follow to recover and restore its critical systems, operations, and data after a disaster.Cyber attacks, natural disasters, and human errors are all examples of disasters that may disrupt the continuity of product or service delivery over a period of hours or days. Well discuss these more in depth below.A disaster recovery plan (DRP) is invoked when an event severely impacts an organization's ability to function for an extended period of time.Common examples of disasters are:Cyber attacks: Distributed denial-of-service (DDoS), ransomware, social engineering, and other types of cyber attacks can compromise sensitive data, disrupt services, and result in system downtime. In response, organizations may need to isolate affected systems, restore backups, and reinforce security measures.Natural disasters: Earthquakes, floods, hurricanes, or fires can physically damage data centers, offices, and communication networks, preventing normal business operations. Recovery may involve relocating to alternative sites, restoring backups, and ensuring employee safety.Power outages: Extended power failures can disrupt servers, networking equipment, and cloud services, leading to downtime and potential data corruption. To recover from an outage, an organization may need to deploy backup generators, use uninterruptible power supplies (UPS), and ensure failover data centers are available.Hardware and system failures: Critical server crashes, storage failures, or database corruption can interrupt applications and prevent users from accessing critical services. Recovery typically involves hardware replacement, system restoration from backups, or redundancy measures to prevent recurrence.Human errors: Accidental data deletion, misconfigurations, or insider threats can lead to operational failures and security breaches. In response, an organization may need to restore data from backups, implement stricter access controls, and provide employee training to prevent future incidents.When an event occurs, a disaster recovery team typically assesses the severity of the event to determine whether the recovery plan should be activated. If it is a disaster event, then the team follows the predefined steps in the DRP to restore operations.The ultimate goal of disaster recovery planning is to minimize the impact of a disaster, and ensure business continuity. Having a disaster recovery plan in place that is well-designed and regularly maintained can help organizations:Minimize downtime: Reduce the time systems and services remain non-operational by implementing rapid recovery processes.Reduce financial losses: Prevent revenue loss by ensuring business-critical operations can resume as quickly as possible.Protect critical applications against data loss: Implementing backup solutions and failover mechanisms ensures that essential data is not lost or compromised during a disaster.Resume operations quickly: Establish clear recovery time objectives (RTOs) and procedures to bring systems back online with minimal disruption.Maintain service level agreements (SLAs): Meet contractual obligations and prevent penalties by ensuring service restoration within agreed timeframes.Provide peace of mind for employees: Equip employees with a structured response plan, reducing stress and uncertainty in the event of a disaster.Protect reputation: Minimize damage to brand image and customer trust by ensuring rapid and effective disaster response.Meet compliance requirements: Many security and privacy frameworks, including but not limited to SOC 2, ISO 27001, HIPAA, PCI DSS, and GDPR, mandate that organizations have disaster recovery processes in place and formalized in a DRP.A disaster recovery plan and business continuity plan both take a proactive approach to minimize the impact of a disaster before it occurs and may even be combined into a single document as a result.However, the key difference is that a disaster recovery plan focuses on limiting abnormal or inefficient system function by restoring it as quickly as possible after a disaster, whereas a business continuity plan focuses on limiting operational downtime by maintaining operations during a disaster.In other words, a disaster recovery strategy helps to ensure an organization returns to full functionality after a disaster occurs. A business continuity plan helps an organization keep operating at some capacity during a disaster. Thats why organizations need to have both documents in place, or need to incorporate disaster recovery strategies as part of their overall business continuity plan.Here's a template that includes both. Just as no two businesses are the same, no two disaster recovery plans are. However, they do typically include some common measures. These are detailed below.Data backup and recoveryA section of a DRP should be dedicated to data backup and recovery. This should list backup methods, frequency of backups, the storage locations, and the procedures for data protection and restoration.Redundant systems and infrastructureAnother section may explain how the organization implements redundant systems and IT infrastructure to ensure high availability and minimize downtime if a disaster occurs. This may involve duplicating critical servers, network equipment, power supplies, and storage devices using clustering, load balancing, failover mechanisms, virtualization technologies, or other measures.Alternate worksiteA DRP may identify disaster recovery sites or recovery locations where the organization can operate if the primary site becomes inaccessible. This section should also define procedures and infrastructure needed to quickly transition operations to the identified alternate sites.Communication and notificationAnother part of DRP may define communication protocols and notification procedures to ensure communication during and after a disaster. Protocols and procedures typically include:Notifying management teams, employees, customers, vendors, and stakeholders about the disasterProviding updates on recovery progressMaintaining contact information for key personnel and emergency servicesRecovery objectivesA DRP may set acceptable time frames for recovering systems and data in terms of recovery time objectives (RTO) and recovery point objectives (RPO). These objectives should be based on the criticality of systems and shape recovery strategies accordingly.RTO: The maximum amount of downtime allowedRPO: The maximum data loss accepted (measured in time)Writing and maintaining a disaster recovery plan requires collaboration and coordination among key stakeholders across an organization and can seem intimidating. Below well outline the process step by step to help you get started.1. Define the plans objectives and scopeTo start, define the objectives and scope of your disaster recovery plan.Objectives may include:safeguarding employees lives and company assetsmaking a financial and operational assessmentsecuring dataquickly recovering connectivity and operationsNext, identify what and who the plan applies. Typically, assets utilized by employees and contractors acting on behalf of the company or accessing its applications, infrastructure, systems, or data fall within the scope of the disaster recovery plan. In this case, employees and contractors are required to review and accept the plan.2. Perform a risk assessmentIdentify potential risks and vulnerabilities that could lead to a disaster, both internal and external to the organization. This should involve evaluating your reliance on external vendors, cloud service providers, and suppliers for critical services or resources and assessing their own disaster recovery solutions to ensure they align with your organization's requirements.3. Perform a business impact analysisNext, determine the business functions, business processes, information systems, and sensitive data that are essential for your organization's normal business operations. For each critical component, establish recovery time objectives and recovery point objectives.Here's a template you can use.4. Define recovery measures and proceduresDefine the appropriate measures and step-by-step procedures for disaster recovery based on the risks and business impact you identified. This includes identifying the individuals or disaster recovery team members responsible for recovery tasks, the resources required, and the order of recovery tasks.As stated above, these recovery tasks may fall into the following categories:Data backup and recoveryRedundant systems and infrastructureAlternative worksitesCommunication and notificationYou may also want to outline specific disaster recovery procedures. These are the actions that should be taken during and immediately after a disaster strikes, and may include evacuation plans and communication protocols and coordination with emergency services.5. Conduct testing and training regularlyTo ensure the plans effectiveness and identify any potential gaps or weaknesses, test your DRP through regular tabletop exercises where key stakeholders simulate their response to various disaster scenarios. These exercises help identify weaknesses in the plan and ensure teams are familiar with their roles.You should also conduct training sessions to ensure employees can execute the plan effectively when needed.6. Review and update the plan regularlyReview and update the disaster recovery plan periodically to incorporate changes in technology, business operations, and potential risks. Ensure that contact information, system configurations, and other relevant details are up to date.Protect your business with a comprehensive disaster recovery plan! Download our free, customizable template to ensure your team is prepared for any emergency. Start building resilience todayget your template below.Use this template to kick off your disaster recovery planning and customize it based on your organization's specific risks and objectives. Below you can find examples of disaster recovery strategies and procedures from disaster recovery plans created and maintained by universities and other organizations. This should help you in brainstorming and documenting your own recovery strategies and plans for different services, environments, and types of disasters.1. IT disaster recovery planSouthern Oregon University has a comprehensive disaster recovery plan specifically for its IT services because they are so heavily relied upon by faculty, staff, and students. There are disaster recovery processes and procedures outlined for various IT services and infrastructure, including its data center, network infrastructure, enterprise systems, desktop hardware, client applications, classrooms, and labs.Some of the IT disaster recovery processes and procedures outlined in the plan are:Secure facility as necessary to prevent personnel injury and further damage to IT systems and data management systems.Coordinate hardware and software replacement with vendorsVerify operational ability of all equipment on-site in the affected area (servers, network equipment, ancillary equipment, etc.). If equipment is not operational, initiate actions to repair or replace as needed.If the data center is not operational or recoverable, contact personnel responsible for the alternate data center and take necessary steps to ready the facility.Retrieve most recent on-site or off-site back-up media for previous three back-ups. Prepare back-up media for transfer to primary or secondary datacenter, as determined during the initial assessment.2. AWS disaster recovery planAWS walks through disaster recovery options in the cloud in this whitepaper. It explains four primary approaches to cloud disaster recovery:Backup and restore: Backup the data, infrastructure, configuration, and application code of your primary Region and redeploy them in the recovery Region. This is the least costly and complex approach.Pilot light: Replicate your data from one Region to another and provision a copy of your core workload infrastructure so that you can quickly provision a full scale production environment by switching on and scaling out your application servers if a disaster occurs. This simplifies recovery at the time of a disaster and also minimizes the ongoing cost of disaster recovery by switching off some resources until theyre needed.Warm standby: Create and maintain a scaled down, but fully functional, copy of your production environment in another Region. This decreases the time to recovery compared to the pilot light approach, but is more costly because it requires more active resources.Multi-site active/active: Run your workload simultaneously in multiple Regions so users are able to access your workload in any of the Regions in which it is deployed, which reduces your recovery time to near zero for most disasters. This is the most costly and complex approach.3. Data center disaster recovery planThe University of Iowa also has a comprehensive disaster recovery plan, which includes several processes and procedures for recovering from a disaster that affects its data center. Some of these include:Have large tarps or plastic sheeting available in the data center ready to cover sensitive electronic equipment in case the building is damaged due to natural disasters like tornadoes, floods, and earthquakes.If replacement equipment is required, make every attempt to replicate the current system configuration.If data is lost, then request that the IT department recover it from an off-site backup or cloud deep archive storage.4. Cloud computing disaster recovery planThe Cloud Architecture Center has a whole blog series on disaster recovery planning in Google Cloud. Key recommendations from the first blog are:Design for end-to-end recovery: A DR plan should cover the entire recovery process, not just data backups. Ensure that all stepsfrom backup creation to restoration and cleanupare well-defined and regularly tested to guarantee smooth recovery operations.Make tasks specific: Avoid vague instructions by defining clear, actionable steps for recovery. Instead of general directions like "Run the restore script," specify "Open a shell and run /home/example/restore.sh" to eliminate confusion and ensure efficiency during an emergency.Prepare your software: Ensure all application software is installable and properly licensed in your recovery environment. Preallocate Compute Engine resources as needed to minimize recovery delays. Your continuous deployment (CD) strategy should also be designed for rapid deployment in the DR environment.Train users: Educate team members on how to access and operate within the Google Cloud DR environment. Simulate real-world scenarios so they are familiar with logging in, managing resources, and troubleshooting security concerns.Treat recovered data like production data: Apply the same security, encryption, and access controls to recovered data as you do to production data. Maintain audit trails of who accessed backup data and ensure all recovery actions are logged and verifiable.Ensure DR plan effectiveness: Have multiple data recovery paths in case your primary connection to Google Cloud fails. Regularly test your DR plan with automated provisioning (Terraform), simulated disasters, and Google Cloud Observability monitoring to confirm its reliability.Secureframes automation compliance platform and in-house compliance expertise can help ensure your organization has the policies, controls, and expertise in place to protect entire systems proactively from business disaster and to recover if they do occur. Request a demo to learn how. What are the 5 steps of disaster recovery planning?The five steps of disaster recovery planning are prevention, mitigation, preparedness, emergency response, and recovery. That means when planning, you should identify measures and actions to:avoid or prevent a disaster from occurringreduce the chances of a disaster occurring or the impact of itenhance your ability to respond in the event of a disaster be carried out immediately before, during, and after disruptive eventsrestore your normal operations as quickly as possibleWhat are the 4 C's of disaster recovery?The 4 C's of disaster recovery are communication, coordination, collaboration, and cooperation. Below are brief definitions of each:Communication- developing and maintaining effective channels for sharing information before, during, and after disastersCoordination- aligning actions to other parts of an organization or other organization to prepare for and respond to disastersCooperation- working with internal or external parties that share the same goal (ie. responding to and recovering from disasters) and strategies for achieving it Collaboration - partnering with internal or external parties to identify challenges and responsibilities to recover from a disaster as quickly as possibleWhat are the three types of disaster recovery plans?A disaster recovery or DR plan can be tailored to different services, environments, and types of disasters. So types of disaster recovery plans include ones for IT services, data centers, and cloud environments.How do you create a good disaster recovery plan?Creating a good disaster recovery plan requires a few key steps such as:Performing a risk assessment and business impact analysisSetting objectives, including data retention objectives, recovery time objectives (RTO) and recovery point objectives (RPO) Creating an inventory of critical assetsDefining data backup procedures and recovery strategiesEstablishing alternate communication methodsAssigning specific roles and responsibilities What are the key elements of a disaster recovery plan?Key elements of a disaster recovery plan are:Objectives and goalsRecovery measures and proceduresTesting processesA communication planDefined disaster recovery stagesWhy is a disaster recovery plan important?A disaster recovery plan is important for minimizing downtime, reducing financial losses, and protecting critical data and infrastructure after a disaster. Without a structured recovery plan, organizations risk prolonged outages, reputational damage, compliance violations, and other consequences.How often should a disaster recovery plan be tested?A disaster recovery plan should be tested at least annually. However, organizations in high-risk industries or those with frequent system changes should conduct quarterly or biannual tests. Testing ensures the plan remains effective, identifies gaps, and keeps employees prepared for real incidents.Why are detection measures included in a disaster recovery plan?While detection measures dont have to be included in a disaster recovery plan, it can help mitigate the impact of the disaster event and simplify the recovery process. Examples of detection measures include:Monitoring systems for anomalies: Utilizing security information and event management (SIEM) tools to detect unauthorized access, unusual system activity, or hardware failures.Implementing automated alerts: Setting up alerts for suspicious behavior, performance degradation, and infrastructure failures to enable immediate response.Conducting regular vulnerability assessments: Identifying weaknesses in IT systems that could be exploited and lead to data loss or operational downtime.Maintaining log analysis and forensic tools: Ensuring that logs from various systems are analyzed for early indicators of potential disruptions.

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