A Model for Resilience

THREE STEPS TO CREATING A RESILIENT, CHANGE-READY ENTERPRISE

Business resilience is the ability to anticipate risk, mitigate the impact and move forward with confidence as you transform your business. Ultimately, it's about adapting well in the face of unprecedented change and unforeseen adversity, ensuring critical applications and data are always available.

It's not an overnight process, as true transformation never is. However, this three-step model provides clearly defined steps towards achieving and attaining the resilience and agility you need.

STEP 1	Assess your resilience
STEP 2	Design and implement
STEP 3	Manage and test

This crucial first step lays your resilience foundation and its importance cannot be stressed enough: The more thorough you are with your assessment, the more resilient, recoverable and agile you will be.

IDENTIFY ALL APPLICATIONS AND WORKLOADS

- Since you can't recover, transform or protect what you can't see or don't know about, it's important to get a full, accurate picture of your entire IT ecosystem.

- Ensure your IT snapshot captures apps and workloads that run across a mix of physical, cloud, internal and external production environments, which may be sprawled across a vast IT landscape.

- Include shadow IT in your search, the devices and apps employees may use and download without your knowledge.

- Be aware that there are multiple ways to find and identify the apps, workloads and IT assets that make up your environment. To save time and streamline the process, there are tools that automatically scan and discover your IT resources— giving you the visibility you need.

DEFINE DEPENDENCIES

Enterprise apps and workloads don't typically run in isolation. In fact, their value is increased when they work in unison to integrate business processes or share common data — delivering more results than any single app or workload could. To improve resiliency and prevent interruptions in data flows and business processes, whether caused by disaster or your transformation initiatives:

- Understand that, with so many dependencies, one small change or disruption can ripple across the entire IT ecosystem.

- Map the dependencies between each app and between each workload. How do they work together to deliver your key business operations?

- Identify the IT assets they depend on. Knowing where they run will help you identify which systems should be first priority to recover if disruption occurs.

- Leverage available tools to automatically document app, workload and system dependencies to speed and ease the process for you.

DETERMINE APPS AND WORKLOADS CRITICAL TO CONTINUITY AND TRANSFORMATION

Certain apps and workloads are crucial to business continuity and transformation. Identifying their importance upfront lets you know where to devote time, resources and staff so you can be more prepared to respond, recover and adapt to change or disruption as it occurs.

- Prioritize applications according to their criticality to your business.

- Categorize essential apps and workloads as tier 1, those most important to your everyday operations or key to maintaining operations if disaster occurs.

- Continue to tier other apps and workloads, identifying which are less essential to your business or recovery, so you can target efforts in the right places.

- Beyond continuity, target the workloads and apps that are key to making your business operations more agile, so you can benefit from market opportunities and technology change, such as the advantages offered by digital transformation.

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Now that you've assessed your resilience readiness, the next step is to match the requirements of each app and workload with the infrastructure that best aligns with their resiliency and recovery goals.

DESIGN WITH ARCHITECTURAL CONSIDERATIONS

- Explore the performance, availability, cost and agility attributes of the different infrastructures available to you, from physical to virtual resources, provided in-house or by external providers.

- Give close attention to the security and regulatory compliance requirements of each app and workload in your platform decision.

- Design a technology platform that is flexible, responsive and agile to support the dependencies of each app and workload, as well as the specific SLAs for each app.

- Tailor your platform choice to the specific requirements and mission criticality of each app and workload.

THINK ABOUT THE CLOUD'S AGILITY

- Consider cloud services in situations calling for a high level of agility and availability and rapid scalability.

- Avoid a "one size fits all" cloud strategy, as different applications and workloads call for different cloud approaches.

- Software as a Service (SaaS) works well for off-the-shelf applications needing to scale up and down based on demand or seasonal changes.

- Infrastructure as a Service (IaaS), such as Amazon Web Services, is good for variable demand applications that have unique features for your business, such as billing or online ordering systems or website applications.

- Hosted Private cloud is better for applications requiring greater privacy, or those that have specific/non-standard design, compliance or security requirements.

LEVERAGE EXISTING INFRASTRUCTURES.

- Colocation or hosted data center services are suited for applications not built to run in virtualized or cloud-style computing environments, such as legacy applications.

- Recovery solutions also need different approaches, depending on how mission critical they are or their required recovery SLAs. For example, cloud-based recovery is fast and efficient when applied to a single workload, but when the applications have dependencies on other workloads, cloud recovery often represents only part of a wider recovery program.

- Evaluate the pros and cons of single source solutions versus multiple vendors or departments. Implement the design that will ensure all objectives and SLAs are met.

| **STEP 3** | Manage and test |

As you connect infrastructures, apps, workloads and people to internal or third-party IT services, implement a "manage and test" process throughout to eliminate surprises in the go-live stage. In addition, set up a routine testing schedule to spot problems and look for improvement opportunities.

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VIEW AND CONTROL

As you connect infrastructures, apps, workloads and people to internal or third-party IT services:

- Implement a "manage and test" process throughout to eliminate surprises in the go-live stage.

- Take advantage of management tools that provide a "single pane of glass" view into—and control over—the multiple IT environments you access.

- Manage and update protection at multiple levels to ensure technical security, business continuity and recovery is integrated into your methodology for policy, process and controls.

- Document recovery processes and conduct training in emergency management. Engage internal and external IT teams, carefully outlining who is responsible for what action, where and when.

- Be better prepared for disruption and disaster with tools that automate and manage the recovery process, reducing the potential for missed steps or human errors, so you can resume operations more quickly.

- As you optimize apps and workloads on a mix of infrastructures, consider designating an external source as a service management integration layer, providing internal staff with a single face for external services and reducing the complexity of using multiple providers.

PLAN FOR CONTINUOUS IMPROVEMENT

Keep in mind that the comprehensive picture of your environment created during the assessment phase is only as current as your last scan. A single change to any app, workload or infrastructure can cause a domino effect across the interdependent ecosystem, disrupting business operations and your transformation program.

- Think about using a tool that automatically finds changes in your production environment to keep it aligned with recovery resources.

- Prioritize routine testing and auditing to create a program for continuous improvement, identifying issues that could impact continuity and business resilience.

- Consider your customers, employees and the media by creating a crisis communication plan that demonstrates your resilience, including how you respond to, recover from and resume business operations if an adverse situation occurs.

Make Resilience Real

Being ready for the everyday and the unexpected isn't just about reaching resilience, it's about retaining it over the long-term. Use this transformation model as a guide and find out more about how we can help make resilience a reality in your organization at www.sungardas.com.

Sungard Availability Services transforms IT to deliver resilient and recoverable production environments. We leverage our experience across a broad range of IT landscapes to align the right workloads with the right infrastructures. As a result, our customers can streamline and manage complexity, minimize risk and adapt to change as they make downtime history.

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