WHITE PAPER

Business Continuity Management

Contents

"At SAS we develop enterprise-class analytics software that guides our customers' decisions about their business operations, their products and their customers. We also make an extraordinary investment in our employees, making us one of the top-ranked workplaces around the world. We extend this same vision and planning to manage risk in an increasingly interconnected and dynamic business environment. **SAS' Business Continuity Management initiative reflects our commitment to our employees, to our customers, and to all of the stakeholders in our global business community to be a responsible and reliable business partner.**"

– **Jim Goodnight**, CEO of SAS

Business Continuity Management (BCM) refers to an organization's plans and procedures aimed at protecting its key assets and continuing its critical business functions in the event of anticipated and unanticipated threats. BCM takes into consideration corporate governance, information security, and corporate social responsibility, the primary factors that customers consider when selecting the strategic vendors to which they entrust their business.

Program scope

SAS' BCM Program, initiated in 2004, helps inform operational resilience.

- SAS' BCM Program has responsibility for:
  - Incident/crisis management plan management activities for SAS' global offices.
  - Business resumption plan management activities by critical business functions.

- SAS' Cloud and Information Services (CIS) Division has responsibility for:
  - Technology resilience strategies.
  - Disaster Recovery (DR) planning for key infrastructure, such as servers, applications, data stores and communications assets.
  - Management of security incidents under the Security Incident Response Team (SIRT) Plan.

Note: This document speaks to the responsibilities under SAS' BCM Program.

Program governance

The global BCM Policy describes the layers of program governance, formal roles and responsibilities, and standard annually required BCM activities. The continuity of SAS' BCM Program is an ongoing task as each member of each entity identified in the policy provides input and provides input and supports program governance to help ensure alignment to company objectives.

Key program governance entities include:

- Executive Program Sponsorship and Management.
- Steering Committee.
- BCM Team (focused on response and recovery strategies).
- BCM Plan Owners/Administrators and Global Planning Coordinators.

At SAS' headquarters in Cary, NC, the BCM Program Office has two full-time employees dedicated to support the program and processes. Globally there are designated resources in SAS offices to develop incident management plans and business resumption plans as appropriate.

The program undergoes periodic independent review through customer assessments and/or internal audits/assessments in alignment with ISO standards (e.g., ISO 27001 and ISO 22301).

Core program components

SAS' BCM program continues to develop in alignment with industry best practices and standards for business continuity such as ISO 22301. Key components and annual activities of the program for both incident/crisis management and business resumption include:

- **Risk assessment** – to evaluate the likelihood of a specific threat and the related impact on business operations.
- **Business Impact Analysis (BIA)** – to understand business processes within the company, the effect that a business disruption might have on them (to derive their criticality) and their associated dependencies.
- **Plan development and maintenance** – documented and available through multiple formats to support incident management and business resumption strategies for critical business functions. A formal plan maintenance cycle ensures content reflects changes within the company and function, and external dependencies.
- **Training** – to raise awareness of SAS employees on the program and emergency procedures, and of function staff on their roles and responsibilities for response and recovery.
- **Exercises** – to validate business response and resumption strategies. Strategies are also validated in response to disruptive incidents. Business functions document and incorporate (into training and other relevant Program documentation) lessons learned from exercises and response to real incidents. Insights from each support continuous improvement.
- **Top management reviews** – for strategic input to risk management, the status of BCM activities for critical functions reporting in under an executive's division(s), and future initiatives for SAS' BCM Program in support of company goals.

Incident/crisis management

SAS' incident preparedness and response refers to any situation that might be, or could lead to, a disruption, loss, emergency or crisis.

- Companywide incident management is focused on protecting and recovering core business operations from threat impacts.
- Applying an all-hazards planning approach, Security, Facilities, CIS (IT), Communications, HR, Legal and the business units work together proactively to develop resilience and mitigation strategies. In a disruptive incident, they coordinate to provide overall guidance for managing the incident.
- Under SAS' Communicable Disease (CD) plan, additional subject matter experts are engaged with the areas named above to coordinate proactive response activities in accordance with applicable government guidance.

Business resumption

Business resumption refers to the strategies that enable SAS to deliver critical products and services at an acceptable pre-defined level established through the company's BIA process. Typical business resumption plans at SAS include:

- Incident notification/escalation process.
- Roles and responsibilities of response, recovery and business resumption staff.
- Internal and external call lists.
- Alternative site information.
- Application and system dependencies.
- Critical third-party supplier requirements and contacts.
- Business resumption strategies (for example, where appropriate, critical functions will use manual workarounds, staff can work from alternate locations, and critical function services can be provided from staff in other geographic locations).

A global approach to planning

SAS' BCM initiative extends to SAS' global offices to support a sustained minimum level of service for SAS customers. SAS' BCM methodology:

- **Is applied companywide.** SAS offices and regions are responsible for developing and implementing plans in accordance with corporate standards.
- **Informs a standard planning approach.** Use of standardized templates and processes for response, recovery and business resumption planning support a consistent level of service and support operational resilience. SAS offices and regions are responsible for developing and implementing plans in accordance with corporate standards to ensure an appropriate level of planning to meet business drivers while mitigating risks.
- **Enables global backup strategies.** Using knowledge and resources at the local, regional and headquarters office levels, a global collaborative approach to planning supports the identification, development and implementation of backup strategies for critical business processes. If required, support may be provided from another office or from SAS headquarters.

- **Supports global incident management.** Communication protocols are in place to support impact assessment and activation of local and regional incident management teams. For more significant disruptions, these protocols also direct communication between the impacted office(s) and SAS' corporate Emergency Operations Command (EOC), to alert and activate additional resources as needed.

Customer support

SAS is committed in its role as a strategic partner, to ensure its customers have the support they need to continue using SAS software on an ongoing basis. As such, SAS' BCM planning is focused on services that must continue after a disruptive incident occurs. SAS' global recovery strategies for several key customer-facing functions are summarized below:

- **Communications.** During an incident, SAS may communicate with customers through multiple channels including: company phone messaging, the corporate website, social media, email, instant messaging, video conferencing, personal contact with account managers and other staff, and through business partners and the media.
- **Licensing Operations.** SAS has designed and implemented measures to ensure that customer and software license key support will continue. This support can be provided through alternate methods and multiple channels that include recovery staff equipped to work from alternate locations.
- **Technical Support.** In daily operations, SAS Technical Support provides 24/7 support for critical problems by routing the issues to Technical Support staff around the world during their normal business hours. Additionally, Technical Support staff provide support for critical problems on weekends and global holidays. This "follow-the-sun" support model provides a baseline strategy for global support during an incident. In addition, if SAS headquarters becomes inoperable, business resumption strategies include local staff working remotely and the transfer of responsibility to regional and global technical support staff.
- **Professional Services (PS).** Supported by SAS employees and partners. PS plans identify strategies to offset impacts such as: engagement of additional staffing, procedures for remote work (if not performed at customer site) with continued attention to protecting the security and privacy of customer data, and replenishment of technology resources. Manual procedures can offset system outages. Especially during an incident, Professional Services' proactive customer communication ensures that impacts to project goals are mutually understood and managed.
- **SAS Cloud.** SAS provides hosted managed application services for enterprise SAS software solutions for customers worldwide who want to deploy SAS solutions rapidly. Residing in both public and private cloud secure data centers, these solutions are resilient to many types of potential incidents. As appropriate, regular off-site rotation of data backups or data replication is completed to allow for data restoration. For customers with more specific requirements, additional options such as off-site recovery offerings and recovery time guarantees are available. A Disaster Recovery as a Service process is designed to help customers arrive at a solution that is cost-effective for their needs.

Enhanced company resilience

In addition to supporting incident preparedness, the BCM program is also a catalyst for the ongoing improvement and increased resilience of SAS' operations. In the short term, key business processes are documented, internal and external dependencies are assessed, and, where appropriate, employees are cross-trained for key roles within the organization.

However, a long-term result of SAS' BCM program is the improvement of business processes and enhanced company resilience because the ability to quickly recover from unforeseen incidents is closely tied to more efficient and effective day-to-day operations.

For more information about the SAS Business Continuity Management (BCM) initiative, please email bcmprogramoffice@sas.com.