

数据备份策略

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t Data Backup Strategy

四川科道芯国智能技术股份有限公司

Sichuan Keydom Smart Technology Co., Ltd

标准文件

Standard File

数据备份策略 Data Backup Strategy

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数据备份策略 Data Backup Strategy

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修改记录表 Document Changes

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1目的

1 Purpose

为了规范公司对数据和系统的备份管理,防止公司数据损坏遗失,为公司数据容灾和系统恢复提供基础,特制定本策略。

In order to standardize the company's management of the backup of data and systems, prevent the data loss, and provide a basis for company's data disaster tolerance and system recovery, this strategy is specifically formulated.

2 范围

2. Scope

适用于公司数据和系统的备份管理。

Applicable to the management of the backup of company's data and systems.

3 职责

3 Responsibilities

3.1 公司高层

3.1 Company's Senior Management

针对备份文件和备份记录进行审查。

Review backup files and backup records.

3.2 安全策略部

3.2 Security Strategy Department

负责对公司数据和系统进行整体备份,制定备份策略和备份方案。

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Data Backup Strategy

Responsible for the overall backup of company's data and systems, developing backup strategies and plans.

3.3 各部门

3.3 Other Departments

负责各部门内部数据备份。

Responsible for internal data backup of each department.

级文件

4备份方案

4 Backup Scheme

4.1 备份内容分类

4.1 Classification of Backup Content

公司备份内容分为数据、配置和日志,数据由细分为各部门重要数据、应用系统数据库数据,配置分为硬件系统配置和软件系统配置,日志主要包括各种数据库日志、系统日志、操作日志等。公司根据备份内容不同单独制定不同备份规则,如有特殊需求应根据需求制定单独的备份方案,采购备份相关设备。表 1为公司备份内容划分标准。

The company's backup content is divided into data, configuration and logs. The data are subdivided into important data of each department and the database data of application system. The configuration is divided into hardware system configuration and software system configuration. The logs mainly include various database logs, system logs and operation logs, etc. The company makes different backup rules according to different backup content. If there are special requirements, separate backup plan should be developed according to the requirements, and the backup-related equipment should be purchased. Table 1 shows the standard for the

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division of company's backup content.

		各部门重要数	包括各部门重要文档资料、开发	
		据	源代码等	
		Important data	Including important documents,	
		of each	development source code, etc. of	
		department	each department	
		系统数据库	公司应用系统数据库数据,包括	
		System	CPS 数据库、ERP、OA、网站 TSM 等	
		Database		
	数据		Company's application system	
	Data		database data, including CPS	
			database, ERP, OA, website	
备份内容			TSM, etc.	
Backup		生产数据	除非客户提供书面要求进行数	
content		Production data	据备份,其他情况不备份	
			Unless the customer provides a	
			written request for data backup,	
			the data will not be backed up	
			under other conditions	
		硬件系统配置	包括防火墙、交换机、路由器、	
		Hardware	入侵防御检测、上网行为管理、 服务器系统配置等	
	配置 Configuration	system		
		configuration	Including firewalls, switches,	
			routers, intrusion -prevention	
			detection, online behavior	
			management, server system	

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		configuration, etc.	
	 软件系统配置	包括应用系统安装包;	
	Software system Including the application system		
	configuration installation package;		
	应用系统配置部署镜像等;		
	image of the application system		
		configuration deployment, etc.	
		用户配置	
	User Configuration		
	包括各系统数据库日志;		
	Including database logs of each system;		
	数据接收服务器日志;		
	logs of data receiv	ving server;	
日志	数据准备服务器	日志;	
Logs	logs of data preparation server;		
	防火墙日志;		
	firewall logs;		
	入侵防御检测系统日志		
	logs of intrusion prevention and detection system		

4.2 备份介质

4.2 Backup Media

本地硬盘:进行本地备份时所用的存储介质。

Local hard disk: the storage media used for local backup.

备份服务器硬盘或磁盘阵列:进行灾备时所用的存储介质。

Backup server hard disk or RAID: the storage media used in backup for disaster

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recovery.

移动存储介质: 进行异地灾备时所用的存储介质

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Mobile storage media: the storage media used for remote disaster recovery 所有与生产有关的备份数据存放在生产机房备份服务器中。

All production-related backup data are stored in the backup server of the production room.

4.3 备份策略

4.3 Backup Strategy

备份策略针对备份文件命名方式、备份规则、备份时间进行规定,备份必须 在规定时间段,严格执行双人双控原则并在不影响正常业务或者业务量影响较小 的时间节点进行。

The backup strategy specifies the naming method of backup file, backup rules and backup time. The backup shall be performed within the specified time period, and the double-control principle shall be strictly enforced at the time node when normal services will not be affected or the impact on traffic volume is small.

4.3.1 备份命名规则

4.3.1 Naming Rules of Backup

- 1)备份文件命名规则为(备份主机名)-(备份系统简写)-(备份对象)-(备份时间组成)。
- 1) The backup file shall be named as (backup host name) (backup system abbreviation) (backup object) (backup time composition).

备份主机名:能够识别备份文件所在主机,如IP地址、设备资产名称等 Backup host name: for the identification of the host where the backup file is located, such as IP address, device asset name, etc.

备份系统:能够识别备份文件所在系统,如系统名称、数据库名称、设备品本文所包含内容所有权归属《四川科道芯国智能技术股份有限公司》。未经《四川科道芯国智能技术股份有限公司》书面许可,任何人不得对此机密档的全部或部份进行复制、出版或交第三方使用。

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Backup system: can identify the system where the backup file is located, such as system name, database name, device brand model, etc.

备份对象:主要是被备份文件对应的对象,分为数据(DATA)、配(CFG)、日志(LOG)。

Backup objects: mainly the objects corresponding to the backup files, which are divided into data (DATA), configuration (CFG), and log (LOG).

备份时间: 主要识别备份时间, 无特别要求精确到分钟。

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Backup time: mainly identifies the backup time, and if there is no special requirement, the time shall be accurate to minute.

如SVN服务器数据备份命名为: 192.168.4.104-SVN-DATA-201601121635 For example, the backup of the SVN server data is named as:

192.168.4.104-SVN-DATA-201601121635

4.3.2 备份方式

4.3.2 Backup Methods

按照备份的数据量来分,有以下4种备份方式:

According to the volume of data backed up, there are four backup methods:

- 1)全备份。备份系统中所有的数据。优点是恢复时间最短,操作最方便,也最可靠;缺点是备份数据量大,数据多时可能做一次全备份需很长时间。全备份也可以称为完全备份。
- 1) Full backup. Back up all the data in the system. The advantages are that the recovery time is the shortest, and the operation is the most convenient and reliable; the disadvantage is the large volume of backup data, and it may take a long time to make a full backup when the data volume is large. Full backup can also be called complete backup.
- 2)增量备份。备份上一次备份以后更新的所有数据,其优点是每次备份的数

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据量少,占用空间少,备份时间短;缺点是恢复时需要全备份及多份增量备份。

- 2) Incremental backup. Backing up all the data updated after the last backup. The advantages are the small data volume for backup, less space and short backup time; the disadvantage is that full backup and multiple incremental backups are required for recovery.
- 3)差分备份。备份上一次全备份以后更新的所有数据,其优缺点介于全备份 和增量备份两者之间。
- 3) Differential backup. Backing up all the data updated after the last full backup. The advantages and disadvantages are between those of the full backup and the incremental backup.
- 4)按需备份。根据临时需要有选择地进行备份。
- 4) On-demand backup. Selectively performing backup based on temporary needs.

4.3.3 备份规则

4.3.3 Backup Rules

- 1)当有系统升级或者配置变更时,必须在升级或者变更前对系统、数据进行全量备份,在升级或者变更完成后对系统、数据、日志进行全量备份。
- 1) When there is system upgrade or configuration change, full backup shall be performed for the system and data before the upgrade or change; after the upgrade or change is completed, full backup is performed for the system, data, and logs.
- 2)针对公司各部门的重要数据通过SVN系统进行网络备份,各个部门针对实际情况按需备份。安全策略部逻辑安全管理员管理员每月最后一个工作日对SVN服务器进行数据全量备份,每季度最后一个工作日进行日志增量备份。
- 2) For the important data of each department of the company, the SVN system is used for network backup, and each department backs up data according to the actual needs. The logical security administrator of the security policy department

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performs full backup for the SVN server on the last working day of each month, and performs incremental backup for logs on the last working day of each quarter. 3)针对公司各系统数据库,设置数据库自动备份策略,每天定时自动备份。安全策略部逻辑安全管理员每月最后一个工作日对数据库数据进行全量备份,每季度最后一个工作日进行日志增量备份。

- 3) Set automatic backup strategy for each system database of the company, and the backup is performed automatically every day. The logical security administrator of the security policy department performs full backup for the database data on the last working day of each month, and performs incremental backup for logs on the last working day of each quarter.
- 4)针对公司硬件系统配置,安全策略部逻辑安全管理员每月最后一个工作日对配置进行全量备份,每季度最后一个工作日进行日志增量备份。
- 4) For the company's hardware system configuration, the logical security administrator of the security policy department performs full backup for the configuration on the last working day of each month, and performs incremental backup for logs on the last working day of each quarter.
- 5)针对公司软件系统配置,安全策略部逻辑安全管理员每季度最后一个工作日进行配置的全量备份,日志增量备份。
- 5) For the company's software system configuration, the logical security administrator of the security policy department performs full backup for the configuration and incremental backup for logs on the last working day of each quarter.
- 6)针对生产机房的数据、日志、配置的备份频率为每周备份。
- 6) The data, log and configuration of the production room is backed up weekly.
- 6)以上策略包括本地硬盘备份和备份服务器备份。
- 6) The above strategies include backup of local hard disk and backup server.
 - 7)每个季度第二个工作日通过移动介质进行异地灾备。

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- 7) Remote disaster recovery is performed on the second working day of each quarter through mobile media.
 - 8) 如有针对单独系统的备份规则以该规则为准。
- 8) If there are backup rules for separate system, the rules shall prevail.

4.4 保存期限

Expiration Time

- 1) 本地硬盘中备份文件的保存期为1年,1年前的文件没有特别说明、没有 人员提出使用,将做删除处理;
- 1) The storage period of the backup files in the local hard disk is 1 year. For the files of 1 year ago, if there are no special notes, or no one has proposed to use, the files will be deleted.
- 2)备份服务器中备份文件的保存期限1年,1年前的文件没有特别说明、没 有人员提出使用,将做删除处理;
- 2) The storage period of the backup files in the backup server is 1 year. For the files of 1 year ago, if there are no special notes, or no one has proposed to use, the files will be deleted.
- 3) 异地灾备的备份文件的保存期限为1年,1年前的文件没有特别说明、没 有人员提出使用,将做删除处理;
- 3) The storage period of the backup files of remote disaster recovery is 1 year. For the files of 1 year ago, if there are no special notes, or no one has proposed to use, the files will be deleted.
- 4)备份记录和审查记录无特殊情况永久保留。
- 4) Backup records and review records shall be permanently retained if there are no special circumstances.

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4.5 审查机制

4.5 Review Mechanism

各部门数据备份由部门助理每周最后一个工作日审查,每季度第一个工作日 公司管理代表对备份文件和记录进行审查。

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The data backup of each department is reviewed by the department assistant on the last working day of each week. The company's management representative reviews the backup files and records on the first working day of each quarter.

4.6 恢复策略

4.6 Recovery Strategy

安全策略部每个月针对备份文件进行一次恢复测试,保障备份文件的可用性。 备份恢复时间控制在2小时之内。

The Security Policy Department performs a recovery test on the backup files each month to ensure the availability of backup files. The backup recovery time is controlled within 2 hours.

在实行备份数据的恢复时,由直接备份人员进行操作,针对有特殊安全等级的备份数据需由有数据访问权限的人员监督之下完成。

The recovery of backup data is operated by the direct backup personnel. The recovery of backup data with special security level needs to be supervised by the person with data access authority.

完成数据的恢复后,需检验所有被恢复对象的可用性,整个数据恢复的过程 和结果必须详细记录到《数据恢复报告》中。

After the data are restored, the availability of all recovered objects needs to be verified. The entire process of data recovery and results shall be recorded in detail in the *Data Recovery Report*.

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5 相关表格

5 Related Forms

《数据备份记录表》

Data Backup Record Form

《数据恢复报告》

Data Recovery Record

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