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**Distributed database technology financial application  
specification Disaster recovery requirements  
(English Translation)**

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### Foreword

This document starts from the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" grass.

This document was submitted by the People's Bank of China. Please note that some of the contents of this document may involve patents. The issuing agency of this document is not responsible for Don't be responsible for these patents.

This document is under the jurisdiction of the National Financial Standardization Technical Committee (SAC/TC 180).

### Introduction

With the transformation and upgrading of the distributed architecture in the financial field, the application of distributed database technology in the financial field has gradually deepened. Distributed for the specification Application of database technology in the financial field, strengthen the technical support of distributed database technology for financial services, and improve the performance of distributed database technology this document is specially prepared for business continuity and information security assurance capabilities.

This document is one of the distributed database technology financial application series standards. The distributed database technology financial application series standards include.

- "Technical Framework of Distributed Database Technology Financial Application

Specification";

- "Distributed Database Technology Financial Application Specification Security Technical Requirements";

- "Disaster Recovery Requirements for Distributed Database Technology Financial Application Specification".

Distributed database technology financial application specification disaster recovery requirements

## 1 Scope

This document specifies the disaster recovery requirements for distributed transaction databases in the financial sector, covering disaster tolerance grading, disaster preparedness technical requirements, and disaster recovery requirements.

Preparation management process.

This document is applicable to the research and development, testing, evaluation, application, operation and maintenance and management of distributed transaction databases in the financial field.

## 2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated reference documents, Only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document file.

GB/T 20988-2007 Information Security Technology Information System Disaster Recovery Specification  
GB/T 22240-2008 Information Security Technology Information System Security Level Protection Rating Guidelines  
GB/T 30146-2013 Public safety business continuity management system requirements  
JR/T 0044-2008 Banking Industry Information System Disaster Recovery Management Specification  
JR/T 0203-2020 Distributed database technology financial application specification technical architecture

## 3 Terms and definitions

The terms and definitions defined by JR/T 0203-2020 and the following are applicable to this document.

Disaster

Due to man-made or natural reasons, the information system is seriously malfunctioning, paralyzed, or its data is severely damaged, so that the information system supports the

business Sudden event where the function is suspended or the service level reaches an unacceptable level and lasts for a specific period of time.

[Source. JR/T 0044-2008, 3.2] 3.2 Disaster recovery in order to restore the information system from the non-operational or unacceptable state caused by the disaster to the normal operational state, and to support the Activities and processes designed to restore business functions from an abnormal state caused by a disaster to an acceptable state.

[Source. JR/T 0044-2008, 3.3] 3.3 Disaster recovery capability the ability to use disaster recovery resources and disaster recovery plans to recover and continue operations in a timely manner after a disaster occurs.

Disaster recovery plan Documents that define the tasks, actions, data, and resources required in the disaster recovery process of an information system.

**Note:** It is used to guide relevant personnel to restore the key business functions supported by the information system within the predetermined disaster recovery target.

[Source. JR/T 0044-2008, 3.14] 3.5 Risk analysis Determine the risks that affect the normal operation of the information system, evaluate the functions that are essential to the unit's business operations, and define the control to reduce potential risks the flow of the means.

**Note:** Risk analysis often involves the assessment of the probability of occurrence of special events.

[Source. JR/T 0044-2008, 3.6] 3.6 Business impact analysis Analyze business functions and related information system resources, evaluate the impact of specific disasters on each business function, and determine the acceptable level of the information system RTO and RPO goals.

[Source. JR/T 0044-2008, 3.7] 3.7 Business continuity After an interruption event occurs, the organization's ability to continuously deliver products or provide services at a predetermined acceptable level.

[Source. GB/T 30146-2013, 3.3] 3.8 Recovery time objective; RTO After a disaster, the time required for the information system to recover from a standstill.

[Source. JR/T 0044-2008, 3.17] 3.9 Recovery point objective; RPO After a disaster, the data must be restored to the point in time required.

[Source. JR/T 0044-2008, 3.18] 3.10 System availability on the premise that the required external resources are guaranteed, the distributed transaction database is under the specified conditions and at the specified time or time interval the ability to be in a state where the specified functions can be performed within (excluding the planned service interruption time).

**Note:** Generally, it is measured by the allowable unplanned annual service interruption time and the availability of at least "n nines".

### 3.11

#### Production system

The information system that supports the production and operation of the unit under normal circumstances. Including main data, main data processing system and main network.

[Source. JR/T 0044-2008, 3.9] 3.12 Production center the data center where the production system is located.

[Source. JR/T 0044-2008, 3.10] 3.13 Data center in the same city Able to withstand data that is simultaneously affected by disasters such as power supply interruption, flooding, fire, network failure, hardware damage, traffic interruption, etc.

heart.

**Note:** Generally, the distance from the production center is within tens of kilometers.

### 3.14

Data center in the different city Data centers that can withstand the simultaneous impact of large-scale regional disasters such as wars, floods, tsunamis, typhoons, and earthquakes.

**Note:** Generally, the distance from the production center is more than hundreds of kilometers.

### 3.15

#### Exercise

Exercises based on disaster recovery plans.

**Note:** Forms include tabletop exercises, simulation exercises, actual combat exercises, etc.

## 4 Abbreviations

The following symbols and abbreviations apply to this document.

RPO. Recovery Point Objective RTO. Recovery Time Objective

## 5 Overview

In recent years, the application of distributed transaction database technology in the financial field has continued to deepen, profoundly affecting and changing the technical architecture, Service models and business processes have also brought new challenges to disaster recovery. Distributed transaction database in disaster recovery impact assessment, key There are many differences between the indicators, technical requirements, and organization and management from the traditional structure, which should be focused on and properly dealt with. To protect the application industry Business continuity, to ensure that the reliability of data meets the requirements of management specifications, and the possible impact of specific business failures or disasters should be evaluated.