Alibaba Cloud
Apsara Stack Enterprise

Glossary

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Document conventions

Style	Description	Example
	A danger notice indicates a situation that will cause major system changes , faults, physical injuries, and other adverse results.	 **Danger:** Resetting will result in the loss of user configuration data.
	A warning notice indicates a situation that may cause major system changes , faults, physical injuries, and other adverse results.	 **Warning:** Restarting will cause business interruption. About 10 minutes are required to restart an instance.
	A caution notice indicates warning information, supplementary instructions , and other content that the user must understand.	 **Note:** If the weight is set to 0, the server no longer receives new requests.
	A note indicates supplemental instructions, best practices, tips, and other content.	 **Note:** You can use **Ctrl** + **A** to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings** > **Network** > **Set network type**.
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click **OK**.
`Courier font`	Courier font is used for commands.	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *`Instance_ID`*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig` *`[-all|-t]`*
{} or {a|b}	This format is used for a required value , where only one item can be selected.	`switch` *`{active|stand}`*

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A

AccessKey

A unique credential to call Apsara Stack or DAHO Networks APIs. An AccessKey consists of an AccessKey ID (used to identify the username) and AccessKey Secret (used to verify the password).

AK

additional read throughput

The actually consumed read throughput that exceeds the reserved read throughput. The statistics are collected per second.

additional write throughput

The actually consumed write throughput that exceeds the reserved write throughput. The statistics are collected per second.

Address Resolution Protocol

Address Resolution Protocol provides dynamic mapping of network addresses, such as IP addresses, to corresponding hardware addresses, such as MAC addresses.

ARP

adjoint analysis

Adjoint analysis is the detection mechanism that detects unknown objects that is active in the same time period or with the same behavior pattern of the target object. The purpose is to detect the criminal partner.

administrator

The most advanced user who has the highest administration permissions to systems or businesses.

administrator right

A user with the privilege of unrestricted access to a system, including the ability to create, edit, or delete any folders or files and change system settings.

aggregate function

A function where the values of multiple rows are grouped together to form a single value of more significant meaning or measurement such as a set, a bag, or a list.

Alibaba Cloud

Alibaba Cloud, the cloud computing brand of Alibaba Group. The world-class outstanding provider of cloud computing technology and services. Established in 2009 with multiple R&D research centers and operation institutions in Hangzhou, Beijing, and Silicon Valley.

Alibaba Cloud engine

Alibaba Cloud engine is the web-based managed environment based on cloud computing infrastructure. It simplifies the building and operations of web-based applications with scalability function of application load balancing.

Alibaba Cloud platform

You are in charge of the integrity and confidentiality of the data, token, password related to your Alibaba Cloud products and services managed and trusted by Alibaba Cloud platform.

analysis

The process of converting strings to terms. Depending on the used analyzer, phrases FOO BAR, Foo-Bar, and foo,bar may be converted to the terms foo and bar. These terms are stored in the index. Perform a full text index query (not a term query) on FoO:bAR. This phrase is also converted to the terms foo and bar, and matches the terms stored in the index.

AnalyticDB for PostgreSQL

- AnalyticDB for PostgreSQL is a data warehousing service that provides online Massively Parallel Processing (MPP). AnalyticDB for PostgreSQL is developed based on the Greenplum Open Source Database program and is enhanced with some in-depth extensions by Alibaba Cloud. It supports features including the OSS external table, JSON data type, and HyperLogLog estimation analysis. AnalyticDB for PostgreSQL provides flexible hybrid analysis functions through query and anticipation of SQL2008 standard and OLAP analytic and aggregate function; it also supports the hybrid storage of row storage and column storage, data compression technology to reduce the storage cost. AnalyticDB for PostgreSQL provides online scalability, backup, performance monitoring, and other services. Users do not have to manage complicated large-scale MPP clusters. AnalyticDB for PostgreSQL allows DBA,

developers, and data analysts to focus on how to enhance productivity through SQL and create enterprise core values.

- AnalyticDB for PostgreSQL is one of the most advanced open-source database. As the ancestor of the academic relational database management system, AnalyticDB for PostgreSQL features by the complete implementation of the SQL rules and abundant support of data types , including JSON data, IP data, geometric data, and etc. Most of these supported data types are not supported by most other commercial database. Except for functions like complete support of tasks, sub queries, multi-version control, data integrity check, AnalyticDB for PostgreSQL is integrated with key features like high availability and backup/restore to reduce the operation pressure. Current AnalyticDB for PostgreSQL also supports version 9.4.

anti-leech

A function used to block leech access of requests from other websites. Web Application Firewall (WAF) controls access based on the source URL. WAF checks the request for resources such as images or files from a client. If WAF detects that the request is from another website, WAF blocks the request. The use of anti-leech minimizes bandwidths consumed by leech requests to improve performance.

API reference

Besides widely known as the Application Programming Interface, API also refers to the documentation of an API, or a help document that provides instructions of request parameters and request samples for developers to quickly understand and use it.

application

An application program that is created using an image or an orchestration template. Each application can contain one or more services.

application hosting environment

The physical environment where application hosting services are offered from. Traditionally, organizations must build and maintain infrastructures to run applications locally. However, with software as a service (SaaS) model, businesses can use online hosted applications that enable them to reduce costs by paying by usage, enjoy seamless, easy upgrades, and easily integrate with other existing data and systems.

application migration to the cloud

The action of monitoring the real-time traffic and historical information of the application, which allows you to monitor the health status of the application and quickly detect and locate the issues.

Apsara

A hyper-scale and universal computing operating system that is independently developed by Alibaba Cloud and provides services for the world. It can connect millions of servers all around the world to form a supercomputer and provide computing capabilities for the community in the form of online public services. From the PC-based Internet to the mobile Internet and Internet of Everything, the Internet has become a new infrastructure in the world. Apsara intends to resolve the scaling, efficiency, and security problems in human computation. Apsara revolutionizes the three aspects of cloud computing to provide powerful, universal, and beneficial computing capabilities to everyone.

Apsara Distributed File System

Apsara Distributed File System is the file system component in the Apsara system. It connects the disks of the PC servers with no high availability as a whole to provide file storage capacity with stable and secure access.

Apsara Infrastructure Management Framework

Apsara Infrastructure Management Framework is a set of automatic management system for data centers, hardware lifecycle of management data centers, and various static resources (such as program, configuration, system image, data, and etc.). Apsara Infrastructure Management Framework provides a set of solutions such as version control, deployment, and hot upgrade for Apsara products and other Alibaba applications, which improves the automatic operation effects in the large-scale environment. It enhances the operation efficiency and system availability.

Apsara Name Service and Distributed Lock Synchronization System

The distributed coordination service (Apsara Name Service and Distributed Lock Synchronization System), similar to Paxos protocol, consists of multiple servers and similar file system to store data, provides user request capacity for users in need of high availability and high concurrency. As one of the significant basic components, it provides services related to distribution and consistency in the Apsara system. Compared to traditional products of the same kind, it allows high performance and supports horizontal expansion. The field counterparts are many, such as Zookeeper.

Apsara Stack

A proprietary, dedicated enterprise cloud platform that allows enterprises to improve utilization of their existing on-premises data center as well as install innovative services in security, and meet requirements in data sovereignty and compliance.

Apsara Stack Security

An end-to-end security service established based on the data analysis capability of Alibaba Cloud's cloud computing platform. It provides security vulnerability detection and web page Trojan detection for small to medium-sized websites. It also provides host intrusion detection and anti-DDoS for cloud server users.

ApsaraDB for MongoDB

The cluster version of ApsaraDB for MongoDB. You can purchase multiple Mongos and shard nodes, and combine them with a single ConfigServer to form a cluster version of ApsaraDB for MongoDB. This makes it easy to create a distributed MongoDB database system.

ApsaraDB for PPAS

A Postgres Plus Advanced Server (PPAS)-based database service. PPAS is a stable, secure, and scalable enterprise-class relational database. It is also the world's most advanced open-source database based on PostgreSQL. It delivers enhanced performance, application solutions, and compatibility, and provides the capability to run Oracle applications directly. You can run enterprise-class applications on PPAS stably and obtain cost-effective services. ApsaraDB for PPAS incorporates a number of advanced functions including account management, resource monitoring, backup recovery, and security control, and is updated and improved regularly. ApsaraDB for PPAS currently supports version 9.3.

ApsaraDB for RDS

An on-demand, stable, reliable, and scalable online relational database service. It has multiple security measures and perfect performance monitoring systems and provides professional database backup, recovery and optimization solutions. It enables you to focus on application development and business growth.

ApsaraDB for SQL Server

One of the earliest commercial database systems. It offers excellent performance for complex SQL queries. It fully supports .NET-based applications in Windows.

atomicity

Where transactions are an indivisible and irreducible series of database operations so that either all operations occur, or none occur. A guarantee of atomicity prevents updates to the database occurring only partially, which can cause greater problems than rejecting the whole series outright.

attribute

- The characteristics of object relations. For Graph Analytics, attributes belong to relation or entity, and can not exist alone. For instance, human being attributes such as height, weight, place of birth, name, etc; mobile phone attributes such as home location, operator. The main key is also one attribute, in the same way that ID is one of the human attributes, and mobile number is one of the mobile phone attributes.
- Data of the row where properties reside. No limit for the number of property columns in each row.

Aurora

The HA (high-availability) management system of ApsaraDB for RDS. It checks the status of the master database every three seconds. When it detects that the master database is down, it switches the SQL requests of users to the slave database quickly.

authentication

A group of processes where the confidence for user identities is established and presented via electronic methods to an information system.

authoritative DNS resolution

A service that resolves root domain names, top-level domain names, and domain names of other levels.

authority domain

Authority domain is the domain name that local DNS server resolves. The domain resolution data configuration and management is done in local DNS server.

authorization

A process in which permissions required to perform a certain job are granted to the related personnel. It is the key to organization operations.

authorized object

An attribute of the privilege group rule. In a VPC, it can be a separate IP address or network segment. In a classic network, it can only be a separate IP address (the intranet IP address of an ECS instance).

automatic snapshot policy

A rule that defines when the automatic snapshots are taken and how long they are retained.

B

backbone analysis

Backbone analysis is specific to group network. It adopts intelligent business algorithm to detect the core backbone node for relation network.

back-end server

A set of cloud servers that accept load-balanced distribution requests. Server Load Balancer forwards access requests to this set of servers based on the rules you set.

back-to-origin error

An error that occurs when the source site fails to respond to the request forwarded by Alibaba Cloud Anti-DDoS Pro because the IP address of the source site is blacklisted by the firewall.

backup

The process of backing up, refers to the copying into an archive file of computer data that is already in secondary storage—so that it may be used to restore the original after a data loss event. Backups have two distinct purposes. The primary purpose is to recover data after its loss, be it by data deletion or corruption. The secondary purpose of backups is to recover data from an earlier time, according to a user-defined data retention policy, typically configured within a backup application for how long copies of data are required. Since a backup system contains at least one copy of all data considered worth saving, the data storage requirements can be significant. Organizing this storage space and managing the backup process can be a complicated undertaking. A data repository model may be used to provide structure to the storage. Nowadays, there are many different types of data storage devices that are useful for making backups. There are also many different ways in which these devices can be arranged to provide geographic redundancy, data security, and portability.

backup system

The backup system takes charge of store a second copy of ally the database instance in the cluster, and store them in an integrated place.

basic cloud disk

Disks installed on the cloud server to support low I/O loads. It provides Elastic Compute Service (ECS) instances with the I/O performance of hundreds of IOPS.

bastion host

A host implemented based on the forward proxy protocol. It records data streams of typical O&M protocols, such as the Secure Shell (SSH) , Remote Desktop Protocol (RDP) for Windows, and SSH (or Secure) File Transfer Protocol (SFTP). Then, it reassembles the data for O&M and auditing.

behavior analysis

A method that displays time-based distribution frequency of an event.

BI report

The smart commercial suite for big data. It provides massive online data analysis through drag-drop operations and abundant visual effects meanwhile helps users with data analysis and detection effortlessly.

binary log file position

A method used in MySQL binary log files. Each line records a data change action. The position of the line is called the binary log (binlog) file position.

blank dispatch

Blank dispatch is generated during data scheduling, does not execute task script, and only get started in defined time period. It is successful by default.

block storage

A low-latency, persistent, high-reliability, and random block-level data storage provided for Elastic Compute Service (ECS) by Alibaba Cloud. It supports automatically copying your data in a zone, which avoids data unavailability caused by unexpected hardware faults and protects your business against the risk of component faults. Similar to a disk, you can format, create a file system, and persistently store the data on the block storage mounted to an ECS instance.

blood analysis

Blood analysis displays the blood relation between people according to the household number.

bridging

A computer networking device that creates a single aggregate network from multiple communication networks or network segments. This function is called network bridging. In the OSI model, bridging is performed in the data link layer (layer 2).If one or more segments of the bridged network are wireless, the device is known as a wireless bridge.

broadcast

The action of transmitting a packet that will be received by every device on the network.

broadcast table

These tables do not divide any data across data partitions. Each data partition has a copy of the data. Updates to the data are delivered to all partitions. It is usually only used for small data and must be included in the join table.

brute force password cracking

A type of attack used by attackers who keep trying to crack the password by continuously specifying the password ranges based on the password naming rules until all verifications are completed.

buffer pool

A cache of existing database connections. It allows applications to reuse database connections that already exist in the pool, and reduces repeated attempts to create new database connections. This technology can improve system performance and avoid the overhead of building a new connection.

Business Foundation System

Business Foundation System is the logic layer of the Alibaba Cloud product. It maintains the relation between cloud product instance and users, the relation between instances and logic cloud concept such as region/zone, buffer of the front-end request and mitigates the back-end pressure.

byte hit rate

The probability that a requested number of bytes hits the cache within a specified period.

C

canonicalized query string

A query string that has been converted into a "standard", "normal", or canonical form by concatenating the (=) sign with the ampersand sign (&) and parameter names in lexicographic order.

capacity bottleneck

Capacity bottleneck refers to the service barrier as the data volume and visit counts to the standalone database increases.

capacity instance

A cost-friendly instance type designed for storage as well as read and write.

capacity planning

A complicated and continuous performance study on resource consumption of softwares and hardwares in an existing system. Performance stress testing becomes a daily routine. Users in charge of applications can easily view application performance metrics and perform precise capacity planning for applications based on those metrics and the current system operating water level.

certificate

Certificates are used in HTTPS. After uploading a certificate to a Server Load Balancer, users can bind the certificate during HTTPS listener creation to provide HTTPS service. Certificates include both server-side and client-side certificates.

character encoding

Computing actions that represent a repertoire of characters by some kind of encoding system. Depending on the abstraction level and context, corresponding code points and the resulting code space may be regarded as bit patterns, octets, natural numbers, electrical pulses, and so on. ASCII is an example.

classic network

The Alibaba Cloud products of classic network are centrally deployed in the Alibaba Cloud infrastructure network. Alibaba Cloud plans and manages the network and is more suitable for customers that require more network feasibility.

classified protection (of information security)

An important aspect of information security and risk management is recognizing the value of information and defining appropriate procedures and protection requirements for the information. Apsara Stack service provides security protection to the customer information system through international and domestic certification of trusted cloud, classified protection, management system of information security, cloud security, and etc.

Classless Inter-Domain Routing

A method used to assign IP addresses to users and efficiently route IP packets on the Internet to classify the IP addresses.

CIDR

client

A program that establishes connections to send requests.

cloud compute

The mode that supplies and manages the shared physical and virtual resources in a self-help method through the network.

cloud computing ecosphere

The cloud computing ecosphere builds the cloud computing ecosphere for partners to create synergy.

cloud disk

An independent disk that can be mounted to any Elastic Compute Service (ECS) instance in the same region and zone. It can be classified into three types based on the performance: Ultra cloud disks, SSD cloud disks, and basic cloud disks.

cloud instance

Cloud Instances share one set of management system in the cloud platform. Generally speaking a cloud instance is divided into multiple regions according to its geographic site. One region is consisted of multiple AZones. In Apsara Stack one AZone physically corresponds one data center (IDC).

cloud security

Cloud security is the overall concept of hardware, user, institution, and secure cloud platform based on the commercial mode of cloud computing application.

CloudMonitor

A centralized monitoring platform for Alibaba operation engineers and developers, which monitors the devices, networks, databases, application clusters, and core services of Alibaba Group.

cluster

- A collection of cloud resources required to run containers. It is associated with several server nodes, SLB instances, VPC instances, and other cloud resources.
- A logical group of hosts. Hosts that are deployed in a cluster must have the same OS (VM monitor: Hypervisor) installed, and can share the same Layer-2 network connection and access the same primary storage. In data centers, a cluster typically corresponds to a rack.
- The ApsaraDB for MongoDB supports cluster versions. Users buy multiple Mongos, multiple shards, and one config server to build the cluster version, and easily obtain one distributed MongoDB database system.

command line

A command that runs in DOS.

common analysis

Common analysis is to search for the object across multiple space and time periods. The applied scenario is to search for the accomplice for certain case. It supports co-occurrence analysis in round, rectangular, and polygon shapes.

common neighbour analysis

An analysis on common contacts of a group of objects of the same type or different types.

compute node

A feature that allows you to compile and run Spark, Spark SQL, and Hive SQL tasks directly on the E-MapReduce console.

connection mode

A mode that defines the transmission path of data packages for ApsaraDB for RDS instances. Performance is the standard connection mode. Safety is the high security connection mode.

console

A graphical user interface for products that lets you perform common operations.

container

A runtime instance created from Docker. A node can run multiple containers.

Container Service

A high-performance and scalable container management service. It enables you to manage the lifecycle of containerized applications with Docker and Kubernetes. Container Service provides multiple application release methods and the continuous delivery capability. It supports micro service architectures. Container Service is an ideal cloud running environment for containers. It simplifies the setup of container clusters and integrates it with the capabilities of Alibaba Cloud such as virtualization, storage, network, and security.

content moderation

Based on in-depth learning technology and massive data accumulated by Alibaba over the years, Content Security provides photo, video, texts, and other multi-media content for intelligent recognition service. It helps user mitigate the default risk of porn, violence, politics, advertisement, abuse, and other negative user experience, and cuts down the massive manual check cost.

cookie

Data (usually encrypted) that websites store on your local terminal for identity identification and session tracking.

cool-down time

A period of locking time after a scaling operation in a scaling group. During the locking time, you cannot perform a scaling operation on the same scaling group.

cooperation & share

Cooperation & share is a new analysis mode provided by Graph Analytics product. It shares the one analysis result with others, pass on the thoughts and experience to other users, and combine the wisdom and experience of other users together to form the multi-operation, or group operation to propel the overall improvements. This will integrated the team members as one.

CPU usage

The amount of time for which a central processing unit (CPU) uses to process instructions of a computer program or operating system.

creating

The running status of a software or system. It indicates the software or system is being created.

cross-site scripting

A type of computer security vulnerability typically found in web applications. XSS enables attackers to inject client-side scripts into web pages viewed by other users. A cross-site scripting vulnerability may be used by attackers to bypass access controls such as the same-origin policy

XSS

custom image

Created by using snapshots. The created image can be used to create an Elastic Compute Service (ECS) instance.

cyber storm

A situation where messages broadcast on a network cause multiple hosts to respond simultaneously, and this consumes enough network resources to prevent normal traffic on the network.

D

dashboard

A visual that allows users to quickly and easily monitor data models and other details in an intuitive manner.

data application layer

An abstraction layer that defines and generates personalized and diversified data metrics applicable to multiple business requirement scenarios.

data center

A large group of resources (including regions and zones) used by Alibaba Cloud.

IDC

data cleansing

A disk (hard disk) that is installed on the device board where other disks are located. Do not insert, remove, or move the disk without permission. Generally, the disk includes the partition where the computer operating system resides and other partitions.

data common layer

Abstract common subject based on business data, with the common standard, specification, and can be shared. It is the bridge between infrastructure and application layer. Also known as common data center.

data compression

A technique that uses algorithms to reorganize data, reduce redundant data, and save storage space without loss of valid data. It can improve the data transmission, storage, and processing efficiency.

data consumed timestamp

A timestamp that records the last time subscription data was consumed by the downstream SDK. The SDK sends an ACK packet to the DTS server for each piece of consumed data. The DTS server updates and saves the respective timestamp. When the SDK restarts unexpectedly, the DTS server automatically pushes subscription data based on the latest timestamp.

data disk

A disk that contains only data, excluding the operating system.

data disk mounting

In Windows server system user accesses the disk data through SATA or SAS interface. In Linux system, the disk data is not available for direct access. It requires to perform mounting action to access the data.

data introduction

Data Introduction migrates data from one system to another system in batch. The migrated data includes structure, data, definition, and etc.

Data Management Service

A service that integrates a wide range of capabilities, such as data management, object management, resource inventorying, instance authorizations, security audits, data trends, data tracking, data graphs, performance and optimization, and server management. DMS can be used to manage NoSQL databases and relational databases such as MySQL, SQL Server, PostgreSQL, MongoDB, and Redis. It can also be used to manage Linux servers.

DMS

data mid-end

A framework and model of data construction, management, and application. It shields the complexity of business systems in the underlying hardware, processes and outputs standard, diversified, and converged data, and provides a variety of convenient data applications to support different business scenarios in the upper layer and drive business intelligence by using intelligent data.

data migration to the cloud

Migration of data from traditional architectures to the cloud.

data owner

The person in charge of a database or a table. They are responsible for the management and control of other users who use the database or table.

data persistence

A method to convert data between data models in the memory and storage models.

data protection mechanism

Data protection can be categorized by technology. The technologies involve two aspects: the mechanism and the components or entities to be executed. The mechanism describes how to implement protection and where to execute components. The mechanism is divided into external data protection, data transformation, and internal data protection based on the technologies it depends on.

data replication center

The infrastructure for real-time synchronization of the heterogeneous database.

Data Replication System for MySQL

Data Replication System for MySQL refers to the middleware for Alibaba Cloud database synchronization. Through the MetaQ message it senses the change of database binlog and replicates the database.

data scope

The scope of the timestamp for the incremental data stored in the prescription channel. The timestamp of the incremental data corresponds to the time stamp when the piece of incremental

data is applied and recorded by event log in the ApsaraDB for RDS instance. By default the prescription channel only stores the incremental data of one day. The data transmission service cleans the incremental data regularly, and update the data scope of prescription channel.

data sharding

The means of database partitioning that separates very large databases into smaller, more easily manageable parts called data shards.

Data Silos

Data Silos refers to the independent data storage system that cannot be connected for computing.

data source

Realtime data sources that access monitoring tasks, such as Elastic Compute Service (ECS) logs, LogHub, and Message Queue (MQ) topic.

data traffic

The amount of data moving across a network at a given point of time. Traffic in computer networks is mostly data encapsulated in network packets, which provide the load in the network.

Data Transmission Service

A service that helps migrate data between different data sources such as relational databases, NoSQL, and OLAP. DTS integrates data migration, data subscription, and real-time data synchronization. It is provides millisecond-level long-distance asynchronous data transmission in public cloud and hybrid cloud scenarios. Its underlying data stream uses the remote active-active infrastructure used for Double 11. The infrastructure has provided stable real-time data streaming for thousands of downstream applications for three years. You can use DTS to easily create secure, scalable, and highly available data architecture.

DTS

data update

A type of database update. Data updates only modify data. They do not modify the schema.

data warehouse

The database instance of ApsaraDB for Redis. It supports 256 instances of database and the data is firstly written to the DB 0 by default.

database

The database instance of ApsaraDB for Redis. It supports 256 instances of database and the data is firstly written to the DB 0 by default.

database engine

The core service used to store, process, and protect data. It provides controlled access and rapid transaction processing to meet the requirements of enterprise applications that process massive data. It can be used to create relational databases that process transactions and data analysis online. This includes the creation of tables that store data and database objects that are used to view, manage, and guarantee data security (such as indexes, views, and storage procedures).

DataHub

DataHub is the process platform for Streaming Data. It provides functions such as publish, subscribe and distribute for stream data and allows user to build data analysis and application specific for stream data. DataHub server is based on the Apsara Stack operation platform developed by Alibaba Cloud, which is featured by it high availability, low delay, extensibility, and large throughput.

dataset dimension

The key value that is used to aggregate a dataset when it is created. It is similar to the GroupBy column.

dataset indicator

A Solid-State Disk (SSD) that is installed on the device board where other disks are located. Unlike the basic cloud disk, data is not triplicated but the Redundant Array of Independent Disks (RAID) technology is used. Therefore, you cannot avoid the data loss if a single physical machine is down.

debugger

A computer program or tool that is used to debug other programs. The code to be examined can be alternatively run on an instruction set simulator (ISS) to check the running status and troubleshoot errors. This technology is useful when development is bottlenecked or problems cannot be located.

decoupling

A process that converts mathematical equations with multiple variables to an equation group with a single variable. This simplifies analytic calculation as the result of the equation is not directly affected by multiple variables. A multi-variable system can be converted to multiple independent single-variable systems by controlled variable selection and coordinate transformation, which means decoupling variables.

default forward

DoS Attack is such event that forwards the authority domain resolution that should be handled by non-local DNS server to another DNS server for resolution.

Denial of Service (DoS) attack

A type of attack in which the perpetrator seeks to make a machine or network resource unavailable to its intended users by flooding the targeted machine or resource with superfluous requests.

deployment

An update operation on Kubernetes clusters. Deployment is more widely applied than ReplicaSets (RSs). You can use the deployment to create a service, update a service, or perform a rolling update for a service. A new RS is created when you perform a rolling update for a service. The number of replicas in the new RS increases to the ideal status while the number of replicas in the original RS decreases to zero, which constitutes a compound operation. In this scenario, deployment is more suitable than an RS to describe the compound operation. We recommend that you do not mange the RS created by the deployment.

deployment set

Capabilities provided by Elastic Compute Service (ECS) that allow you to detect the physical topology of the host, rack, and switch and select a deployment policy that meets the business requirements according to your business type to improve the overall reliability or performance of your business.

Destination Network Address Translation

The action of translating the destination address of an IP packet to another address.

DNAT

developer

The resource consumer and data constructor in a project, who can edit and delete resource objects from a project.

diamond

The distributed configuration center. It provides real-time posting service.

digital city

The transformation of cities and urban areas through the use of modern technologies to provide novel and interactive city-wide services for governments, citizens, and business. It may also be referred to as a 'smart city'.

disk array

A data storage system designed to eliminate all single points of failure (SPOFs). Disk array components are generally hot-swappable.

Dispatch Period

Dispatch Period is the time interval generated by data scheduling.

Dispatch Timing

Dispatch Timing is the start-up time required by data scheduling.

distributed

A mode in which different services are distributed on different areas and devices, and each node performs a specific task.

Distributed Denial of Service

A cyber-attack that an attacker sends a large number of valid requests to make the network become unavailable by consuming huge network resources. The attack can be divided into the following types: Attacks that interrupt or even block normal network communication by overloading the network. Attacks that overload servers by submitting massive requests to the servers. Attacks that prevent an authorized user from accessing a server. Attacks that prevent a service from communicating with a specific system or individual.

DDoS

Distributed Denial of Service (DDoS) attack

A type of DoS attack in which an attacker makes a target network unavailable by overwhelming it with valid requests from multiple sources. Types of DDoS attacks are listed as follows: attacks that interrupt or even prevent normal network communications by overloading networks; attacks that overload servers by sending a large number of requests to the servers; attacks that prevent an authorized user from accessing a server; attacks that prevent a service from communicating with a specific system or user.

DDoS

Distributed File System

A client/server-based application that allows clients to access and process data stored on the server as if it were on their own computer. When a user accesses a file on the server, the server sends the user a copy of the file, which is cached on the user's computer while the data is being processed and is then returned to the server.

distributed index

The use of a distributed indexing algorithm to construct indexes that are partitioned across several machines.

distributed SQL engine

Distribute the data to multiple data nodes (different database and different tables) according to data condition. Optimize the data SQL operation distribution, and get optimized execution efficiency.

Distributed System Performance Monitor

Distributed System Performance Monitor is the system component to collect, monitor, and diagnose information. It deploys light-weighted information collection model on each physical machine to obtain the performance, operation status of the operating system and application software and monitors the cluster fault. Through the analysis of the Apsara operation status it evaluates the overall system.

distribution key

A distribution key is a column (or group of columns) that is used to determine the database partition in which a particular row of data is stored.

docker image

A standard packaging format of a containerized application in Docker. You can specify an image to deploy containerized applications. The image can be from Docker Hub, Alibaba Cloud Container Hub, or your registry. An image ID is uniquely identified by the URI of the image repository and the image tag (latest by default).

document

Jason file, stored is ES, similar to the row in relational database. Each document is reserved in the index, belongs to a type, with one ID field. Document refers to json object (in other languages it is hash/hashmap/accociated array), it contains 0 or multiple fields, or key-value pair. The indexed json file will be store in _source field. When executing getting or searching operations, it returns this field.

docvalues

Docvalues are one column of stored data with index. It is used to speed up the aggregation and ordering.

domain name resolution

A function of mapping a domain name to a corresponding IP address based on DNS.

down

The scenario that operation system cannot recover from a serious systematic mistake, with prolonged system response, therefore, the system has to be restarted.

downstream traffic

The number of bytes that are downloaded from the Internet.

E

ECS Bare Metal Instance

A new computing server product that combines the elasticity of virtual machines and the performance and features of physical machines, which is built based on the next-generation virtualization technology that is independently developed by Alibaba Cloud.

ECS Operations and Maintenance System

The operations and maintenance system of ECS.

ECS Server Controller

Resource scheduling system of ECS.

ECS/VPC Deployment System

The deployment tool for ECS and VPC.

Elastic Compute Service

A simple and efficient cloud computing service that features elastic processing capabilities. It supports many operating systems, such as Linux and Windows.

ECS

Elastic Network Interface

Also known as secondary ENI. You can create a secondary ENI and attach/detach it to/from an instance. The ENI created by default when the Virtual Private Cloud (VPC) instance is created is a primary ENI. The lifecycle of the primary ENI is the same as that of the instance. You cannot detach the primary ENI from the instance.

ENI

E-MapReduce

A service that is built on Apsara Stack ECS instances. It uses resources from open-source big data ecosystems such as Hadoop, Spark, and HBase to provide an end-to-end big data processing and analysis service. You can use E-MapReduce to manage your clusters, jobs, and data.

E-MapReduce job

A basic business unit for implementing a specific big data processing and analysis service.

endpoint

The connection URL that corresponds to an instance. You must specify an endpoint before you can perform any operations on tables and data.

envelope encryption

The practice of encrypting plain-text data with a unique data key, and then encrypting the data key with the CMK.

error code

In order to locate the issue, establish the association between error type and error code. When error occurred in either hardware or software, report to administrator by display of error code. Administrator locates the specific reason that lead to the software or hardware fault.

eviction policy

A policy used to eject infrequently used data. It is consistent with Redis eviction policy behaviors.

exclusive virtual host

Exclusive Virtual Host is the complete server resource with no fight for the resource, which makes it more stable,with no limit of traffic, which make it more speedy, with independent IP, which makes it easier to promote. It suits more for the enterprise website project.

existing data synchronization

Initialization of the historical data of the synchronization object to the target instance before the link incremental data is synchronized.

expansion partition

Expansion partition is achieved through split. When splitting, the ShardID in read/write status and one MD5 are required. The MD5 must be larger than the inclusiveBeginKey and less than the exclusiveEndKey.

extension analysis/associated query

Extension analysis/associated query implements unlimited relation analysis for single or a batch of objects. Associated query helps realize the unlimited association of informations. The key of intelligence analysis work is to detect critical part of leads and significant information from massive,unassociated pool of information, that is to transform the information into operable intelligence process. The associated query provides two methods: simple and advanced.

F

field

Field contains a series of fields, or key-value pair. Each value is either a single value (string, intger, data) or array-like nested structure or object. Field is similar to the column of relational database. It is different from document type.

field data

Field data stores a field of data with index. It is used to step up aggregation and sequence order. Unlike docvalues, data field stores the terms following text field, but not field data.

firewall

A network security system used to separate intranets from public networks. It monitors and controls incoming and outgoing network traffic based on predetermined security rules.

forward compatibility

A design characteristic that allows earlier versions to support data generated by later versions.

forwarded domain name

A domain name that is resolved by the local DNS server. Domain name resolved data is configured and managed on the local DNS server. The local DNS server forwards domain name resolution results to another DNS server for further resolution.

forwarding weight

The weight for traffic forwarding that you can specify for each Elastic Compute Service (ECS) instance in the backend server pool according to the external service capabilities and situations of the backend ECS instance. The higher the weight is, the more access requests are assigned to the ECS instance.

FPGA Cloud Server

FPGA Cloud Server provides computing instance with FPGA function. Based on Alibaba elastic computing framework, user can creates FPGA instance within minutes, and creates self defined hardware accelerator.

fragmented storage

Splits files into multiple fragments and multiple copies across multiple storage disks.

FreeBSD image

An Elastic Compute Service (ECS) instance environment based on the FreeBSD operating system. Currently, the supported versions include 10.1 (64 bit).

full backup

The process of backing up all data or applications at a time point.

full data migration

A type of migration task. It refers to the migration of all data except Data Definition Language (DDL) from the source instance database to the target instance. If you select only full data migration but not incremental data migration when you create a migration task, the data newly added to the source instance will not be migrated to the target instance during the migration process.

full migration

A mode of data migration. Within the specified period, all data is migrated from the source system to the target system in a way data consistency is guaranteed.

full snapshot

The first created snapshot of a disk that saves all the disk data.

G

geo-bubble chart

A style of rendering where circles are positioned on specified locations on a geo chart with defined colors and sizes.

geo-chart

A map of a country, a continent, or a region with areas identified according to specified data.

geo-disaster recovery

- Disaster recovery involves a set of policies, tools and procedures to enable the recovery or continuation of vital technology infrastructure and systems following a natural or human-induced disaster. A remote disaster recovery location produces backups on a regular basis. Backups can be made to an on-premise, internal backup server, or to a cloud based service.
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glitch

A short-lived fault in a system, such as a transient fault that corrects itself, making it difficult to troubleshoot.

GPU cloud server

GPU cloud server is based on the computing service of GPU application. It is used in application scenarios such as video resolution, graphics rendering, deep learning, scientific computing, and etc. This product features by real time high speed computation with floating point computing ability.

group analysis

A method that analyzes the relationships among objects of the same type or different types. The relationships include direct and indirect relationships.

group ID

Identifies sets of logically shared nodes that represent classes of devices with identical functions.

guest

A participant of a project who can view resource objects of a project, but cannot edit or delete them.

H

hash

Function that can be used to map data of arbitrary size onto data of a fixed size. The values returned by a hash function are called hash values, hash codes, digests, or simply hashes. Hash functions are often used in combination with a hash table, a common data structure used in computer software for rapid data lookup. Hash functions accelerate table or database lookup by detecting duplicated records in a large file.

health check

A basic function of Server Load Balancer, which is used to check the business availability of the back-end servers (Elastic Compute Service (ECS) instances), improve the overall availability of the front-end business, and avoid the effect on the overall services caused by the abnormal back-end ECS instances.

High Availability

A characteristic of system and application durability in which downtime for users due to regular maintenance operations (planned) and sudden system crashes (unplanned) is minimized. A highly available system is likely to operate continuously without failure for a desirably long time.

HA

high concurrency

A factor that must be considered in the distributed system architecture design of Internet. It uses a method to make sure that the system can handle large numbers of requests concurrently.

high-availability control system

Responsible for monitoring system health and real-time handovers between all database instances to ensure high availability (up to 99.99%).

High-Availability Virtual IP Address

An intranet IP resource that can be created and released independently. You can use the ARP protocol on the Elastic Compute Service (ECS) instances to declare the IP.

HAVIP

highly available cluster

A server cluster technology that reduces service interruptions. It protects your business programs to provide uninterrupted services and minimizes the impact caused by softwares, hardware, or human errors.

high-performance cluster instance

A collection of high performance instances that can connect to a single database.

high-performance instance

High-performance Instance is the instance with high read/write performance.

host intrusion detection

Apsara Stack Security performs security analysis on the host log records, and detects and reports aggressive behavior in real time, such as system password cracking and log-ons from abnormal IP addresses.

host intrusion prevent system

A method that Alibaba Cloud Security uses to perform security analysis on the host logs, detect and report the aggressive behaviors in real time, such as system password cracking and log-ons from abnormal IP addresses.

HyperText Transfer Protocol

A universal, stateless, and application-oriented protocol for distributed, collaborative, and hypermedia information systems.

HTTP

I

ID

The ID used to identify a document. The index, type, and ID of a document must be unique. The ID is automatically generated if not provided.

Idempotence

It describes an operation that produces the same results no matter how many times a client makes it. Note that while idempotent operations produce the same result on the server (no side effects), the response itself may not be the same (for example, a resource's state may change between requests).

identity credential

Authentication you must provide when you log on to a user account. For example, a password, AccessKey, or an MFA code.

image

An image template for VM instances. There are two types of images: OS and pre-installed software images. You can upload local images to Alibaba Cloud through ZStack and use images on Alibaba Cloud.

image sharing

The action that allows you to share your custom image with other Alibaba Cloud accounts. Then, these accounts can use the shared custom image to create instances and change the system disk.

inbound traffic

Traffic that comes inside your machine.

incremental backup

A type of backup that only copies files that have changed since the previous backup.

incremental data migration

A type of data migration. It synchronizes the incremental data from the source instance to the target instance during the migration process. If you select both full data migration and incremental data migration when you create a migration task, DTS first performs static snapshot on the source instance, migrates the snapshot data to the target instance, and then synchronizes the incremental data written to the source instance to the target instance during the migration process. Incremental data migration is a process of real-time data synchronization between the source and target instances. It does not end automatically. If you want to terminate the migration, terminate it manually on the console.

incremental migration

A type of data migration. It synchronizes part of data changes (addition, deletion, and modification) in a certain period from the source system to the target system to ensure data consistency. In some systems, transactional tables are locked during dynamic incremental migration, causing a data write failure during the migration. Exercise caution when using dynamic incremental migration.

index

A table in a relational database. It contains a mapping that defines different types of index fields. An index is a logical namespace that maps to one or more primary shards and zero or more replica shards.

information cube

Behavior analysis: Displays time-based distribution frequency of an event.

Infrastructure as Code

The process where you can perform operations on Alibaba Cloud resources by using templates, APIs, and SDKs, which is similar to writing codes.

IaC

Ingress

A collection of rules that authorize the inbound access to the cluster. You can provide the externally accessible URL, Server Load Balancer, SSL, and name-based virtual host by using the Ingress configurations. You can request Ingress by posting Ingress resources to API servers. Normally, the Ingress Controller is used to implement Ingress by using Server Load Balancer. It

can configure the edge router and other front-ends, which helps you handle the traffic in the HA method.

InnoDB buffer pool

InnoDB keeps a buffer pool in its memory for data buffer and index. The buffer pool is divided into two sections, section of sublist of new blocks (frequently visited data-hot data), section of sublist of old blocks (infrequently visited data). When the user visits data and the data is available from buffer pool, it is returned directly, otherwise the disk data will be loaded to the buffer pool of sublist of old blocks section first and then move to the sublist of new blocks seciton. The data from sublist of old blocks section get flushed according to its access frequency through LRU.

Input/Output Operations Per Second

- The total number of Input/Output Operations Per Second (when performing a mix of read and write tests). An I/O performance measurement for computer storage devices is frequently mischaracterized as a benchmark, however, IOPS numbers do not relate to real-world application performance.
- The request counts for read/write the instance within one second. Also the maximum counts of read/write to the block device per second, in unit of 4KB.

IOPS

instance

An independent resource entity that contains basic resource elements.

instance ID

The ID for the instances you have purchased. It can be viewed on the console. ApsaraDB for Redis limits connection quantities, bandwidth, CPU specifications, and other aspects based on capacity specifications of individual corresponding instances.

instance type

The type of instance. Each instance provides customer with relevant computing ability according to certain specifications.

intelligent data R&D

The system can perform optimal data calculation and storage based on user input to automatically implement data R&D.

interface

A shared boundary across which two or more separate components of a computer system exchange information. The exchange can be between software, computer hardware, peripheral devices, humans and combinations of these.

Internet

Also known as WAN, wide area network, the global system of interconnected computer networks that use the Internet protocol suite (TCP/IP) to link devices worldwide. It is a network of networks that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and file sharing.

Internet Gateway

The ID used to identify a document. The index, type, and ID of a document must be unique. The ID is automatically generated if not provided.

IGW

Internet Protocol

The principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries. Its routing function enables internet working, and essentially establishes the Internet.

IP

intranet

The network within an organization. It is usually a local area network (LAN). A LAN is a computer communication network that interconnects computers, external electronic devices, and databases within a limited geographical area. The LAN is connected to the databases, LANs, or processing centers in other regions by using data communication networks or dedicated data circuits, which forms an information processing system that covers a wide geographic area.

invocation method

The method to invoke the function, mainly in form of C, Pascal.

IP whitelist

The list of assigned IP addresses that can access DRDS.

J

Job Scheduler

Distributed resource management and task scheduling system. The field counterparts are many, such as Kubernetes.

K

Keepalived

An open-source software that guarantees the high availability of clusters and detects the status of Web servers. If it detects that a Web server is down or has an error, the Web server is automatically removed from the system. The removed Web server is automatically added after resuming the normal work.

Key Management Service

A secure and easy-to-use service to create, control, and manage encryption keys. With KMS, you no longer have to focus your efforts to protect the confidentiality, integrity, and availability of your keys. You can use keys securely and conveniently, and focus on developing encryption and decryption function scenarios.

KMS

key pair

Public-key cryptography, or asymmetric cryptography, is a cryptographic system that uses pairs of keys: public keys which may be disseminated widely, and private keys which are known only to the owner. The generation of such keys depends on cryptographic algorithms based on mathematical problems to produce one-way functions. Effective security only requires keeping the private key private; the public key can be openly distributed without compromising security.

Kubernetes node

Nodes in Kubernetes clusters that provide the computing power and are the active servers where all the pods are running. The active servers can be hosts or virtual machines. Containers running on the kubelet management nodes must run on the active servers.

Kubernetes volume

The volumes in Kubernetes clusters that are similar to Docker volumes. The only difference is that the range of Docker volumes is a container, while the lifecycle and range of Kubernetes volumes are a pod. The volumes declared in each pod are shared by all the containers in the pod. The actual back-end storage technology is irrelevant when you use Persistent Volume Claim (PVC) logical storage. The specific configurations about Persistent Volume (PV) are completed by the storage administrator.

KVStore for Memcache

KVStore for Memcache is the cache service based on memory. It supports high speed visit of massive small data. The KVStore for Memcache alleviates huge pressure of back-end storage, improves the response time for website and application. The KVStore for Memcache supports key-value data structure. It is also compliant with client end Memcache client end and communicates with KVStore for Memcache.

KVStore for Redis

An online storage service that adopts a key-value pair format and is compatible with the open-source Redis protocol. It supports multiple data types, including string, list, set, SortedSet, and Hash, and provides advanced functions such as transactions, message subscription, and message publishing. With the storage method "memory + hard disk", it provides high-speed data read and write capabilities and meets the requirements of data persistence.

L

label

A collection of key-value pairs that are attached to the resource objects. Labels are used to specify the attributes of objects for users. Labels do not affect the kernel systems. You can add a label directly when you create an object or modify the label at any time. Each object can have multiple labels, but the key value must be unique.

label statistics

Label statistics is the information of object node labels in the relational networks. In Graph Analytics system, labels are divided into two groups: system label and user label. System label is the label defined for nodes of the business system, such as the red list or the black list, while user label is added for system nodes by each Graph Analytics users through the Graph Analytics system.

latency

The delay before a transfer of data begins following an instruction for its transfer.

Layer-4 Server Load Balancer

A service that uses the information defined at the network transport layer (layer 4) as the basis for deciding how to distribute client requests across a group of servers. For Internet traffic, it makes the load balancing policy based on the source and destination IP addresses and ports recorded in the packet header, without considering the contents of the packet.

Layer-7 Server Load Balancer

A service that provides load balancing for services at the application level, such as HTTP services. It determines the routing based on the characteristics of the HTTP header and the actual contents of the message, such as the URL, data type (text, video, and graphics), and information in the cookie.

link

The relationship between two or more objects, in scenarios such as citizens' training trips, hotel checkins, netcafe visits, or criminal cases.

Linux Virtual Server

A cluster technology that supports the IP load balancing and content-based request distribution techniques.

LVS

listener

A concept used in Server Load Balancer instances. A listener defines how the incoming requests are distributed. You must add at least one listener to a Server Load Balancer instance. It includes frontend ports, backend ports, Server Load Balancer policies, and health check configurations. Each listener corresponds to a backend application service.

live migration

Also known as real-time migration. It refers to the process of migrating a running VM or application between different hosts without disrupting its normal operation. Its logic migration procedure is almost the same as that of offline migration. The difference is that live migration results in a very short downtime to ensure that VMs can provide services normally. During the early stage of migration, the services run on the source host. When the migration reaches a certain stage,

the target host has the necessary resources to run the system. After a transient switchover, the source host takes services over from the target host, ensuring service continuity. For services, users are not aware of the service interruption because the switchover is transient. Live migration applies to scenarios that require high service availability.

locking mechanism

The locking mechanism of ApsaraDB for RDS. If the storage space of your instance is full, the system will lock your instance into the read-only status.

logical backup

The process of using SQL statements to extract data from databases and then saving it in binary files.

M

machine learning

Through the machine learning service, developers performs analysis and detection of massive data, and predicts the customer behavior and industry trends. Graphic programming enables users drag and drop standard components, connection components, configuration parameters to complete the application development with no need of coding.

Machine Learning Platform for AI

Machine Learning Platform for AI is constructed on layer of MaxCompute. As the machine learning platform integrated with functions of data processing, modeling, offline anticipation, and online anticipation, it provides developers with abundant programming frameworks such as MPI, PS, and BSP, multiple data storage interfaces, and management console for web-based IDE (Integrated Development Environment) and visual experiments.

Manual Gateway

A user-created dedicated gateway.

MGW

mapping

Mapping is like the schema in relational database. Each index has one mapping, which defines the type of the index, and a series of index level selections. Mapping can be automatically generated during definition display or indexing.

Massively Parallel Processing

A distributed shared-nothing computing architecture, where each node is completely independent of other nodes and multiple nodes perform concurrent computing to improve performance.

MPP

master node

Master node executes the light-weighted cluster operation. For instance, create/delete the index, trace the node, schedule node dispatchment. Each cluster has one master node and none or multiple candidate master node.

master-slave dual node

An instance configured according to master-slave architecture.

max versions

The maximum number of versions that can be stored in the attribute column for data.

MaxCompute

A big data processing platform mainly used for batch structural data storage and processing to provide massive data warehouse solutions and big data modeling.

MaxCompute object

Objects are the basic unit used for MaxCompute user authorization. Users are given operation rights for objects.

maximum version offset

The maximum allowed deviation between the version number of the attribute column and current time, in seconds.

memory

Internal storage where the computing data in CPUs and the data exchanged with external storages, such as devices and hard disks, are temporarily stored.

merge sort

An efficient, general-purpose, comparison-based sorting algorithm.

message ID

The globally unique identifier of a message, which is automatically generated by the Message Queue (MQ) system and uniquely identifies a message.

message key

The business identifier of a message, which is set by the message producer and uniquely identifies a business logic.

metadata

Also known as data about data. It defines data properties.

metadatabase

The database where data is organized, stored, and managed based on the data structure.

Meta Service

A service that allows you to access Alibaba Cloud resources in the E-MapReduce cluster without using AccessKey.

metrics

The variable measured in a time series. For example, a time series of stock prices (the metric) may be called a price curve.

Mongos

The MongoDB cluster request entry. All requests are coordinated through Mongos. Mongos forwards data entry requests from MongoDB clusters to the corresponding shard server. Multiple Mongos can be selected as the entry request. This prevents MongoDB failure caused by one failed MongoDB request.

mount point

An access destination address of a DFS instance in the Virtual Private Cloud (VPC) or classic network. Each mount point corresponds to a domain name. You can specify the domain name of the mount point to mount the corresponding DFS file system to the local system.

multicast

Group communication where data transmission is addressed to a group of destination computers simultaneously and is often employed in IP applications of streaming media.

Multi-Service Transmission Platform

A unified network management platform for multi-service nodes based on SDH, which supports access, processing, and transmission of TDM, ATM, Ethernet, and other services.

MSTP

multi-tenant isolation

A system where the OS or programs are shared by users, but user data is isolated.

multi-zone

An area composed of multiple zones, which is deployed in different regions by Alibaba Cloud Server Load Balancer to achieve disaster recovery across data centers in the same region. If the data center in the active zone malfunctions or becomes unavailable, Server Load Balancer rapidly switches to the data center in the standby zone to restore its service capabilities within 30s. When the active zone is restored, Server Load Balancer automatically switches back to the data center in the active zone to provide services.

multiple zones

An area composed of multiple zones, which is deployed in different regions by Alibaba Cloud Server Load Balancer to achieve disaster recovery across data centers in the same region. If the data center in the active zone malfunctions or becomes unavailable, Server Load Balancer rapidly switches to the data center in the standby zone to restore its service capabilities within 30s. When the active zone is restored, Server Load Balancer automatically switches back to the data center in the active zone to provide services.

N

namespace

A feature that provides virtual isolation for Kubernetes clusters. Kubernetes clusters have three namespaces by default: default, kube-system, and kube-public. Administrators can create new namespaces based on their requirements.

network analytics

Network analysis is to analyze the network graph's position, activity, and realtion from different aspects of aglorithm, and then highlight the result nodes.

Network Attached Storage

A distributed file system that provides file storage services for compute nodes such as Apsara Stack ECS instances, E-HPC, and Docker. NAS provides a standard file access protocol and allows multiple users to access files. NAS features unlimited capacity and scalable performance, a single namespace, high reliability, and high availability. You can use all these features without the need to modify your existing applications.

NAS

network baseline

Network baseline is a set of the meta data file (currently yaml format) that describes the network topology, network port connection, configuration file of the various network devices. It calculates the detailed solution of the Apsara Stack network solution according to the required input (such as IP pool, product, and server scale).

network device type group

Network device type group is the network device specifications verified and confirmed by Apsara Stack platform, including machine names, hardware configurations, and manufacturer models.

network latency

The number of physical SQL queries per second that DRDS executes on ApsaraDB for RDS.

network type

The number of database transactions per second.

node

A server (either an Elastic Compute Service (ECS) instance or a physical server) that has a Docker Engine installed. It is used to deploy and manage containers. The Agent program of Container Service is installed on a node and registered to a cluster. The number of nodes in a cluster is scalable.

O

object

- The objects that exist in the real world, such as human, cell phone number, car. The objects in Graph Analytics requries a unique object that is identified by the main key, such as the ID number of human, cell phone number of cell phone, plate number of a car.

- The analysis object, also the abstraction of the outside physical object, in scenarios such as citizens' training trips, hotel check-ins, net cafe visits, or criminal cases.

offline computation

A computing process that is performed after the generated data is stored.

OLT

OLT data modeling.

open API

The management and control tool provided for customers to realize relevant resource management and operation.

open source

A certification mark registered by and an official definition given by the Open Source Initiative (OSI). Softwares that bear this mark are open source. An open source software can be used, modified, and released without license restrictions, and its source code is available for public use.

Open Source Ecosystem Building

Open Source Ecosystem Building: Hadoop, HBase, Spark, Hive, Pig, Swoop, Hue, and Zeppelin. It support monthly and annual payment and pay-as-you-go payment.

open source software

A type of computer software in which source code is released under a license in which the copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner. Open-source software is a prominent example of open collaboration.

Operating System

Operating system is the system software that manages the computing hardware and software resources.

OS

operation log

Operation log is the record of all the operations, including the time and content of each operation.

outbound traffic

Traffic that goes outside your machine.

owner

The person responsible for setting and controlling the permissions of objects, and who can grant such permissions to other users.

P

packet loss

An event where one or more packets of data traveling across a computer network fail to reach their destination.

packet loss rate

The ratio of packets lost with respect to packets sent, generally measured as a percentage value.

page view

The view counts or click rate of certain page. Each visit of the web page is recorded as one count.

parallel computing

Parallel computing refers to the computing mode in which multiple commands are executed at the same time. In condition that commands are executed simultaneously, the computing process are divided into multiple minor parts and processed in parallel computing mode.

peak bandwidth

The maximum permitted traffic burst that a site can sustain.

performance

The amount of useful work accomplished by a computer system. Outside of specific contexts, computer performance is estimated in terms of accuracy, efficiency and speed of executing computer program instructions.

permission group

A group that defines access permissions based on a whitelist (IP addresses or network segments). It is used to control access to Network Attached Storage (NAS). Each mount point must be bound to a permission group.

persistent connection

A connection used to send multiple data packets continuously. During the connection, both parties must send link detection packets if no data packets are sent.

Persistent Volume

A storage resource provider that varies with the infrastructure of clusters. PVs are configured by the administrator of Kubernetes clusters.

PV

Persistent Volume Claim

A storage resource user that varies with the requirements of business services. PVCs are configured by the user (namely, service administrator) of Kubernetes clusters.

PVC

physical backup

Dump of physical files, such as data files, control files, and archived logs. These files can be used to restore abnormal databases.

project administrator

The manager of the data project space.

port

A port is an endpoint of communication in computer networking. This can be hardware port, a logical port, or both. TCP and UDP ports are identified by their port number (an integer from 0 to 65535).

port forwarding

A method provided by SSH for secure network communications. It forwards the behavior of a network port from one network node to another. It allows an external user to access a port of a private internal IP address from the external by passing an activated NAT router.

pre-check

A mandatory phase before the start of a migration task. It checks the preconditions that will affect the migration, such as connectivity of the source instance, the permissions of the migrating account, etc. If it fails, make the appropriate changes and try again.

pressure test

Pressure test is the test method that verifies the system stability. Normally the test covers scenarios that are out of normal condition to observe the function extremes and hidden risks.

primary key

The unique identifier of each row in a table. It consists of one to four primary key columns. When a table is created, the primary key must be defined. To define a primary key, provide the column name and data type of each primary key column, and the fixed sequence of the primary key columns. The data types of the primary key column can only be String, Integer, and Binary. For a primary key column of String or Binary data type, the size of the column value must not exceed 1 KB.

primary shard

Each document is stored on a single primary shard. When you index a document, it is indexed on the primary shard first and then on all replicas of the primary shard. An index consists of five primary shards by default. You can add or remove primary shards based on the number of documents that the index can handle. After an index is created, the number of primary shards cannot be changed.

private key

The unique identifier of each row in a table. It consists of one to four columns. When a table is created, the primary key must be defined. To define a primary key, make sure that the name and data type of each primary key column, and the fixed sequence of the primary key columns are available. The data types of primary key columns can only be String, Integer, and Binary. If the data type is String or Binary, the size of the column value cannot exceed 1 KB.

private network

The internal network used for VM instance connections.

process number

The session count. Session is the operation activity of the computing program related to one data set. It is the basic unit of system resource allocation and scheduling and also the basic unit of operation system.

product baseline

The deployment meta data of Apsara Stack products. It contains a suite of software components and the standard mode for hardware compliance. The Apsara Stack team, including PD from various product line, R&D developers define the format of the product baseline and the Shuguang team verifies and finalizes the product baseline. Each Apsara Stack version corresponds to one suite of product baselines.

product introduction

Product Introduction is the key part of product manual and explains the product family to which the product belongs.

product summary

The overview and summary about what a product is, what it does, and how it works.

programming model

A style of programming where execution is invoked by making what appear to be library calls.

project

- The project is the resource management unit in Log Service and is used to isolate and control resources. You can manage all the logs and the related log sources of an application by using projects. Projects manage the information of all your Logstores and the log collection machine configuration, and serve as the portals where you can access the Log Service resources.
- The basic organization unit of DataHub data. It has multiple topics. Note that the projects of DataHub are independent from those of MaxCompute. A project created in MaxCompute cannot be reused in DataHub. You must create a new one in DataHub.
- After entering a project, you can directly perform operations on all objects in it.

project version

Project plans are not completed at once. After multiple solution comparison and involvement of different solutions, the final solution is sealed. Therefore, each project version relates to a set of independent plan and implementation solution. Each available version is named as backup and the version that customer selects is the finalized version.

proprietary intellectual property right

Ownership of intellectual property which may include financial information, intellectual property (concepts, designs, techniques), technical documentation, artwork, and so on, and which are protected under law.

public address

A connection address to access a host on a public network. Public addresses are assigned by InterNIC and consist of class-based network IDs or blocks of CIDR-based addresses that are guaranteed to be globally unique to the Internet.

public data center

The data center that abstracts public topics from all service data to develop standardized and shareable data.

public parameter

Public parameter is the parameter that is required by each interface.

public request parameter

Request parameters used for all interfaces

public return parameter

Each time you send an interface call request, the system returns a unique identification code (RequestId) regardless of whether the request is successful or not.

push

A proactive action to send resources from the origin site to edge nodes. You can directly hit cache when accessing resources, which lightens the pressure of the origin site caused by bursts in the traffic back to the origin.

Q

query per second

Query per second (QPS) is a common measure of the amount of search traffic an information retrieval system, such as a search engine or a database, receives during one second.

QPS

Quick BI

A new generation of Business Intelligence services on the cloud.

R

rack

A physical steel and electronic framework that is designed to house servers, networking devices, cables and other data center computing equipment. This physical structure provides equipment placement and orchestration within a data center facility. It generally measures 42U in height.

RDS Operations and Maintenance System

The operations and maintenance system of ApsaraDB for RDS.

read timeout

When calling a constructor using the SDK, it specifies the period of time that the SDK waits when attempting to read data from an API response before timing out.

read weight proportioning

The proportional load balancing of read-only instances in ApsaraDB for RDS to achieve real-time read throttling.

read/write capacity unit

The smallest billing unit for data read and write operations. A read/write capacity unit (CU) is 4 KB. The read or written data volume that is smaller than a CU is rounded up. For example, writing 7.6 KB data is counted two write CUs. Reading 0.1 KB data is counted as one read CU.

read-only instance

An instance type in which data in the instance can be accessed but not modified. There are two types of physical database types based on whether the write is allowed: the primary instance that allows read and write and the read-only instance that only allows read. The primary instance applies to the primary MySQL instance in Apsara Stack and primary ApsaraDB for RDS instance in Alibaba Cloud public cloud. The read-only instance applies to the secondary MySQL instance in Apsara Stack and ApsaraDB for RDS instances in Alibaba Cloud public cloud.

Realtime Analytics

Realtime Analytics refers to the analysis of parameter process time during a dynamic process during the operation.

realtime computation

Compute during data generation.

record

The basic unit for the data transaction between user data and DataHub.

RecordType

The data type of topic, currently supports two topics, Tuple and Blob. Topic of tuple supports the database record data. Each record contains multiple columns. Topic of Blob supports write operation of one binary block.

Recovery Point Objective

The amount of data at risk, which is determined by the amount of time between data protection events and reflects the amount of data that potentially could be lost during a disaster recovery.

RPO

recursive analysis

Domain resolution service through local cache query and service system of authority resolution. Recursive resolution resolves internet domain names.

Redis database

A cloud-based version of Redis. Redis is an open-source in-memory database that implements a distributed, in-memory key-value store with optional durability. It supports 256 DB. By default, it writes to the 0 DB.

reference manual

A help document for users. It contains all reference contents that users need to know when they use the product.

region

Different regions are geographically far apart from each other, perhaps in different cities. Each zone belongs to certain region.

relation

The interactive relation between objects. In Graph Analytics, relation refers to the associations between objects, such as the phone calls and messages are relations between mobile accounts, while relation between the user and the mobile account is the fact that the mobile accounts belongs to the user.

relation analysis

An analysis method that focuses on mining small numbers of relevant clues and intelligence from large amounts of unrelated information. It is a process of converting information into actionable intelligence. It helps you implement the unlimited association of information.

relation detail list

Displays the specific attribute of relations for one or more objects.

Relational Database Service

A stable, reliable, and elastically scalable online database service. Based on Apsara distributed system and high-performance storage, Relational Database Service supports the MySQL, PPAS, and PostgreSQL engines. It provides a complete set of solutions for disaster recovery, backup, recovery, monitoring, and migration to free you from worries about database O&M.

RDS

relational network analytics

The visualized data analysis platform for big data based on relation network. It is applied in risk control business such as anti-theft, anti-cheating, anti-money laundering. It detects the scenarios according to internet industry data clues, such as anti-cheating marketing, false transaction judgement and research, anti-insurance fraud, enterprise internal auditing, enterprise relation analysis, and etc.

release cluster

An operation that releases a cluster. You can release a cluster after offline jobs are completed. You can also dynamically add nodes.

remote logon reminder

Server Guard analyzes and compares logon logs on the cloud. An alarm is triggered when Server Guard detects an unfamiliar remote logon.

Replica Set

The upgraded version of Replication Controller (RC). Compared with RC, RS supports more selector types. RS objects are not used independently, but are used as the deployment parameters in the ideal status.

RS

replica shard

Each primary shard has one or more replica shards. Replica shards are the copies of primary shards. The purpose of replica shards are: 1. Improve fault-tolerance. When the primary shards are not available, the replica shards replaces the primary shards. 2. Improve performance. Requests such as GET and SEARCH can be processed by primary shards and replica shards. Each primary shard has one replica shard that dynamically modifies replica shard number. Do not store the primary shard and the replica shard in the same node.

Replication Controller

A feature that ensures that a specified number of pod replicas are running in the Kubernetes cluster at any time. It achieves this by monitoring the number of running pods. One or more pod replicas can be specified. If the number of pod replicas is smaller than the specified value, an RC starts new pod replicas. If the number of pod replicas exceeds the specified value, the RC stops the redundant pod replicas.

RC

required parameter

The required parameter as defined by Alibaba Cloud.

reserved read throughput

A table attribute. Table Store reserves certain resources for access. The access within the reserved read throughput consumes less resources.

reserved read/write throughput

An attribute of table. Table Store reserves certain resources for access. The access within the reserved read/write throughput consumes less resources.

reserved write throughput

A table attribute. Table Store reserves certain resources for access. The access within the reserved write throughput consumes less resources.

resize

A method used to scale up the capacity of a disk attached to an ECS instance.

resize cluster

You are allowed to resize your cluster horizontally when your cluster resources (such as computing resource and storage resource) are not sufficient.

restart

The process by which a running computer system is restarted, either intentionally or unintentionally.

role

A set of permissions. It is generated when a dimension is associated with foreign keys to produce a star or snowflake model. One role is generated every time a same dimension is associated with different tables. When a dimension is associated with two foreign keys in a logical table, different aliases are required to uniquely indicate the roles of this dimension in the table.

rollback

The action of restoring a disk to a state and setting from a previous point in time.

Round-robin Scheduling

A scheduling algorithm that Server Load Balancer uses to distribute the traffic. Requests are sequentially distributed to the back-end servers.

RR

route calculation

A calculation method that powers routing protocol functions and reduces routing overhead.

route entry

Each item in the route table, which defines the next hop address for the network traffic destined to a specific destination Classless Inter-Domain Routing (CIDR) block.

route table

A list of route entries in a VRouter.

routing

When you index a document, it is stored on a single primary shard and mapped to a shard by hashing the routing value. By default, the routing value is derived from the document ID or ID of the parent document (make sure that the child document and parent document are stored on the same shard). This value can be modified by specifying a routing parameter during the index, or using a routing field in the mapping.

RPS

The number of SQL statements performed each second, including begin, commit, insert, delete, and create table.

running

The normal operating status of instances. You can run your services on instances that are in this status.

S

scaling activity

An activity generated after scaling rules are successfully triggered. The activity is mainly used to describe the changes of Elastic Compute Service (ECS) instances in the scaling group.

scaling configuration

It defines the configurations of Elastic Compute Service (ECS) instances used for Auto Scaling.

scaling group

A collection of Elastic Compute Service (ECS) instances with the same scenario. It defines the maximum and minimum number of ECS instances in the group, associated Server Load Balancer instances, ApsaraDB for RDS instances, and other attributes.

scaling rule

Rules that define the specific scaling in or out operations, such as adding or removing N Elastic Compute Service (ECS) instances.

scaling trigger task

A task that triggers the scaling rules, such as the timing tasks and alarm tasks of CloudMonitor.

scenarios

Narrative of foreseeable interactions of user roles and the technical system, which usually includes computer hardware and software.

schema migration

A type of migration. In database migration, it refers to the migration of schema definitions including tables, views, triggers, stored procedures, and storage functions. For migration between heterogeneous databases, the data type mapping is carried out in the schema migration phase, and the object type is changed to the appropriate target type. For example, when Oracle is migrated to MySQL, the number type in Oracle is mapped to the decimal type in MySQL.

schema update

An update that modifies the schema definition such as create table, alter table, drop view and so on. Users can choose whether to subscribe to schema updates when creating a subscription channel.

Secure Shell

A cryptographic network protocol for operating network services securely over an unsecured network. Typical applications include remote command-line login and remote command execution, but any network service can be secured with SSH.

SSH

security group

A virtual firewall with status check and filtering function to configure the network access control for one or more cloud servers. Instances within one security group are interconnected. Instances across security groups are not connected by default. Users are allowed to authorize the connection between security groups.

security group input rules

A set of rules that enable or disable the Elastic Compute Service (ECS) instances associated with the security group to access the Internet or intranet from the inbound direction.

security group output rules

A set of rules that enable or disable the Elastic Compute Service (ECS) instances associated with the security group to access the Internet or intranet from the outbound direction.

security vulnerability detection

A system that scans and analyzes systems and detects the vulnerability of these systems based on scans of databases. It also includes a security mechanism to determine if any new vulnerabilities are present.

segment

- Each shard is stored as multiple segments. Small segments are aggregated regularly into large segment.
- The basic unit of computing resource.

selected analysis

Users search for the object according to self-defined geological position and space.

separate attach

Operation of attaching disks to any ECS instance in the same zone is supported.

sequence analysis

Display details of each event in sequence of time.

server

An application that agrees to request-side connections and sends responses. Applications can act as both a client and a server.

server differentiation

The machine models in the server group are differentiated into multiple hardware groups. The purpose of doing so is to match each application with proper server models after the product baseline is finalized.

Server Guard

A component of Apsara Stack Security. Server-side Server Guard updates with Alibaba Cloud Security Center rules, and matches information collected from the client for analysis to provide real-time defense against attempted intrusions.

Server Load Balancer

A concept of Server Load Balancer instances, which includes front-end ports, back-end ports, Server Load Balancer policies, and health check configurations. Each listener corresponds to a back-end application service.

Server Load Balancer monitoring

A function of listening to the ports, load balancing policies, and health check configurations.

server model group

The server specifications verified and confirmed by the Apsara Stack platform, including machine brand, hardware configuration, and manufacturer model number, and etc.

service

- The basic operation unit of Kubernetes. It is an abstract of real application services. Each service has multiple containers that support it. The Kube-Proxy port and service selector determine whether the service request is forwarded to the back-end container, and a single access interface is displayed externally. The back-end operations are invisible to users.
- A set of containers based on the same base image and configurations as a scalable micro service.

session persistence

A basic function of Server Load Balancer that distributes access requests from the same client to the same backend server for processing.

shard

- The data transmission channel for each topic. Each shard has one ID and multiple status. Each shard occupies certain service resources after start up. It is suggested to apply shard according to needs.
- An instance of a single Lucene. It is an underlying worker unit and automatically managed by Elasticsearch (ES). A Lucene is a logical namespace and maps to primary shards and replicas , instead of defining the number of primary shards and replicas. You are not required to directly quote primary shards. Instead, you are only required to quote the Lucene for your code. ES distributes shards for all nodes in a cluster. If a node malfunctions or more nodes are added, shards automatically switch among nodes.
- Shard is a single lucene index instance, also the unit of worker from the bottom layer, It is automatically managed by ES. A index refers to one logic naming space, and it points to main shard and replicated shard. The index does not define the number of the main shard and the replicated shard. On the contrary, your code requires index only. ES service designates shards in all the nodes of the cluster. When a fault occurs in the node or new shard is added, the shards can be automatically moved between nodes.

shard copies

The shard copy collection, including main shard and replicated shard.

shard hash key range

- High-performance Key-Value storage system (cache and store) is developed by BSD open-source protocol.
- Each shard has its attributes, including key scope of start and stop. Data with the same key falls in the same shard.

shard merge

The process of merging two shards connected to two adjacent key ranges into a single shard.

shard split

One shard can be divided into two shards with the connected shard key range.

shared block storage

A block-level data storage device that supports concurrent read/write access of multiple Elastic Compute Service (ECS) instances and features high concurrency, high performance, and high reliability. Its data reliability reaches 99.9999999%. A single shared block storage can be attached to at most four ECS instances simultaneously.

short-lived connections

A connection created when both parties have data exchanges. The connection is closed after the data is sent. The data transmission occurs only once for each connection.

signature

A distinctive pattern, product, or characteristic by which someone or something can be identified.

signature mechanism

ECS service verifies each access request. No matter the request is with HTTP or HTTPS protocol, the response has to include signature information.

Simple Authentication and Security Layer

A mechanism to expand the Client/Server authentication. Starting from version 1.4.3, memcache supports SASL authentication. Due to the fact that KVStore for Memcache is shared by multiple tenants, it adopts SASL as the authentication mechanism. SASL essentially adopts password

to protect the cached data security. It is suggested to strengthen password and fix password regularly. KVStore for Memcache authenticates every 60 seconds.

SASL

Single Point Of Failure

A part of a system that, if it fails, will stop the entire system from working.

SPOF

single-connection

The mode in which only one client is connected to a database. In this mode, data of 1 KB, 10 KB, 100 KB and 800 KB is used to perform read/write operations on Memcached and OCS, and the average response time of Memcached and OCS are compared.

SLB instance

An instance running the Server Load Balancer (SLB) service.

snapshot

A copy of data on a disk at a certain point in time. There are two types of snapshots: automatic and manual snapshots.

snapshot quota

A quota limit for each disk. Each disk in Elastic Compute Service (ECS) can create at most 64 snapshots.

Software Defined Network

A method that separates the control level of network devices from the data level to flexibly control the network traffic and provide a good platform for the innovation of core networks and applications.

SDN

Software Development Kit

A collection of development tools used by software engineers when creating application software for a specific software package, software framework, hardware platform, or operating system.

SDK

source field

By default, the JSON document that you index is stored in the _source field, and returned by all get and search requests. This allows you to access the original object directly from search results, rather than querying the ID and then obtaining the document.

Source Network Address Translation

It translates the source address of an IP packet to another address.

SNAT

specification

The measure of the performance of different link specifications to the number of simultaneous records.

split

The action used to divide an object. Shard split is an operation that splits a shard into two shards connected by a shard key range.

SQL injection

A type of attack that injects malicious SQL statements into a submitted web form, or a query string into a domain name or web page to deceive servers into executing malicious SQL statements.

SSD Cloud Disk

A Solid-State Disk (SSD) that is installed on the Elastic Compute Service (ECS) instance, orients to the I/O-intensive applications, and provides stable and highly random IOPS performance.

SSH key pair

A new authentication method provided by Alibaba Cloud that allows you to log on to the Elastic Compute Service (ECS) instances remotely.

starting

The status of an instance when it is started or restarted in the console or by using an API until the instance runs normally. An exception occurs if an instance stays in this status for a long time.

statement

A syntactic unit that consists of a word or a group of syntactically associated words to express propositions, doubts, commands, wishes, or exclamations.

stop scheduling

An operation that stops data scheduling. Tasks are not started at the specified time point.

stopped

The status of an instance after it stops normally. An instance in this status cannot provide external services.

stopping

The status of an instance after the stop operation is performed in the Apsara Stack console or by using an API until the instance actually stops. An exception occurs if an instance stays in this status for a long time.

storage engine

A component of the MySQL database that manages how data is stored in files or memory. Each storage technology adopts a different storage mechanism, indexing technique, and locking mechanism. A storage technology provides a unique set of features and capabilities. You can select different storage technologies to obtain additional features such as improved data processing capabilities, improving the overall performance of your applications.

subscription channel ID

A unique identification of a subscription channel. After you purchase a subscription channel, Data Transmission Service (DTS) automatically generates a subscription channel ID. When you use the SDK to consume incremental data, you need to configure the appropriate subscription channel ID. The subscription channel ID corresponding to each subscription channel is displayed in the subscription list of the DTS console.

subnet mask

For IPv4, a network may also be characterized by its subnet mask or net mask, which is the bit mask that when applied by a bitwise AND operation to any IP address in the network, yields the routing prefix. Subnet masks are also expressed in dot-decimal notation like an address. For example, 255.255.255.0 is the subnet mask for the prefix 198.51.100.0/24.

super administrator

The owner in tenants with highest authority.

synchronization latency

The difference between the timestamp of the target instance in the source library, and the current timestamp of the homologous instance.

synchronized records per second

The number of records synchronized to the target instance per second (unit: RPS). Synchronized RPS is the specification by which the data synchronization service is sold.

syntax tree

A tree representation of the abstract syntax structure of source code written in a programming language. Each node of the tree represents a structure in the source code.

system disk

A disk that contains an operating system.

T

Table Store

A NoSQL-based Apsara Stack storage service that features high concurrency and low latency. Table Store is capable of processing a large amount of data.

tag

- An identifier used to classify and manage ECS instances.
- Although metric indicates the indicator to be monitored, it does not indicate the object whose indicator must be monitored. The tag indicates the object and belongs to the data subcategor y of the specified metric. A tag is composed of a tag key and a tag value. For example, “city (tag key) = Hangzhou (tag value)”, “data center = A”, and “IP = 172.220.110.1” are tags. Tags are the same only if both the tag keys and the tag values are the same. Tags are different if only the tag keys are the same. If the specified metric is “temperature” and the tag is “city = Hangzhou” in the process of data monitoring, you are monitoring the temperature in Hangzhou.

TCP retransmission

The resending of TCP packets that have been damaged or lost during transmission. TCP handles a retransmission by setting a timeout when it sends data, and if the data isn't acknowledged when the timeout expires, it retransmits the data.

temporary table

A table that exists at the session level. Temporary tables are only visible to the session in which they were created and are automatically dropped when that session logs off, generally when the VFP exits. Temporary tables offer a performance benefit because their results are written to local storage, rather than remote storage.

term

A precise value that is indexed. Terms can be queried by term query.

Tesla

O&M system of Table Store (formerly OTS).

text

Structured plain text, such as paragraph. Text is classified as terms by default. Terms are stored in index. Text is split during index. This allows full context search.

thermal display

Thermal display shows the density distribution of the objects on a map. It is divided into thermal display and legacy thermal display.

thread

A separate server that handles a subset of the overall workload. MongoDB uses sharding for horizontal scaling of databases.

Threat Detection Service

A service that collects more than 20 types of raw logs and cybersecurity threat intelligence reports from multiple enterprises. It uses machine learning to reconstruct past attacks and predict potential future attacks.

three centers in two locations

A 3-redundancy system where two data centers are physically located in one city or equivalent area, however, the third data center must be physically located more than 1000 km away from the other two centers.

threshold

A function of mapping a domain name to a corresponding IP address based on DNS.

throughput

The amount of data successfully transmitted through a network, device, port, virtual circuit, or another facility within a given time.

time granularity

A data unit exchanged and transmitted in a network, that is, a data block to be sent by a site at one time.

Time to Live

A feature for attribute column data. If the data version is greater than the time to live, the data is expired.

TTL

topic

A level-1 message topic. It is used to classify messages.

topic lifecycle

The maximum time period that a topic can be retained in the system, in unit of day, with minimum value of "1" and maximum value of "7".

Tag-based Query Language

Tag-based query language, similar to SQL, with lower learning threshold, visual page testing method, displays each execution process, time performance of each process, TQL verification, and data result.

TQL

tracing path

A computer network diagnostic tool for displaying the route (path) and measuring transit delays of packets across an IP network

traffic scrubbing

A service used to monitor the data flow coming into your Internet Data Center (IDC) in real time and identify the abnormal flow, such as DoS attacks, in time. Abnormal flow is cleaned without affecting the normal services.

Transmission Control Protocol

A connection-oriented and reliable transport layer communication protocol that is based on byte streams.

TCP

Transparent Data Encryption

Real-time I/O encryption and decryption of the entire database (including data and log files).
It is completely transparent to applications and does not require any modifications to existing applications.

TDE

trigger

A method that the SQL server provides for programmers and data analysts to guarantee the data integrity. It is a special storage process related to table events. It is initiated by events, not called by programs or started manually. For example, when a table is inserted, deleted, or updated, a trigger is initiated. The trigger is typically used to reinforce data integrity and business rules.

trojan

Attackers gain access to the administrator account through SQL injection, server and zero-day vulnerability exploits, and sensitive file scanning. After gaining back-end access, attackers can obtain a webshell through database backup and recovery, or uploading vulnerabilities. Attackers then use the webshell to modify web page content by embedding malicious code into the web page. Attackers can also exploit weak passwords to gain access to the server or FTP, and directly modify the web page content. When accessing web pages embedded with malicious code, users will automatically be redirected to a malicious URL or download the trojan.

trusted cloud

A program of the Cloud Security Alliance industry group created to help cloud service providers develop industry-recommended, secure and interoperable identity, access and compliance management configurations and practices. Alibaba Cloud is the first cloud services provider to obtain the CSA STAR gold medal certification.

Tubo

Statistics: Displays statistics about relationships and entities in relational networks, including overall distribution, object familiarity, and relationship attributes.

two centers in one location

The action of deploying two data centers in the same geographic area, one acting as the production center and one acting as the disaster recovery center. This ensures highly-effective disk data synchronization and asynchronous backup is performed between the centers to minimize impacts to availability.

type

The type of a document, such as emails, user files, or weet files. The search API filters documents by type. Each index includes multiple types, and each type contains a set of fields. One index contains multiple type field names, and same type fields must have same mappings.

U

ultra cloud disk

A cloud disk that combines Solid-State Disk (SSD) and Hard Disk Drive (HDD) as the storage media.

URL forward

The action of automatically redirecting you to a preset address when you access a domain name. It includes explicit and implicit URL forwarding.

User Datagram Protocol

In computer networking, the User Datagram Protocol (UDP) is one of the core members of the Internet protocol suite. The protocol was designed by David P. Reed in 1980 and formally defined in RFC 768. With UDP, computer applications can send messages, in this case referred to as datagrams, to other hosts on an Internet Protocol (IP) network. Prior communications are not required in order to set up communication channels or data paths.

UDP

V

verification

A process that verifies a result.

vertical data center

A data center that stores raw data from different business databases.

Virtual Boarder Router

The mapping of your leased line in VPCs. It can be regarded as a VRouter, or a forwarding bridge between an on-premises IDC and a VPC,

VBR

Virtual Extensible LAN

A VXLAN-based Layer-2 network. A single VXLAN belongs to a large VXLAN network pool. VXLANs are isolated from each other at Layer-2.

VXLAN

Virtual Local Area Network

An emerging data exchange technology that logically divides Local Area Network (LAN) devices into segments to implement the virtual work group.

VLAN

virtual network layer

The network where the Elastic Compute Service (ECS) instances reside. It avoids the limits of physical network layer. User logic and transmitted contents at the virtual network layer are invisible to the physical network layer, and the physical network layer does not parse the transmitted information at the virtual network layer, which protects the user privacy. The virtual network layer is completely implemented by using softwares. The separation between data layer and control layer, path decision, and policy delivery are completed by the controller at the virtual network layer. Therefore, the Software Defined Network (SDN) is implemented.

Virtual Private Cloud

The custom private network created based on Alibaba Cloud. Full logical isolation is achieved between VPCs. You can create and manage cloud product instances, such as Elastic Compute Service (ECS), ApsaraDB for RDS, and Object Storage Service (OSS), in your created VPCs.

VPC

VNC

A function in the Alibaba Cloud console, which is used to connect to the Elastic Compute Service (ECS) instances if common remote connection tools, such as PuTTY, Xshell, and SecureCRT, are unavailable.

VRouter

A networking hub that uses Linux-specific VM instances to implement multiple network services.

VServer group

A group of back-end servers that can be customized and managed in the listener dimension. They allow listeners under an SLB instance to distribute different requests to different back-end servers depending on the configured forwarding rule.

VSwitch

A basic network device of Virtual Private Cloud (VPC), which can connect to different cloud product instances and must be specified when you create a cloud product instance in VPC.

W

weak password

As with any security measure, passwords vary in effectiveness (i.e., strength); some are weaker than others. For example, the difference in weakness between a dictionary word and a word with obfuscation (i.e., letters in the password are substituted by, say, numbers — a common approach) may cost a password cracking device a few more seconds; this adds little strength.

Web Application Firewall

A cloud firewall service that detects and blocks web attacks to guarantee website security based on data mining.

WAF

web vulnerability detection

The process of testing a web application's susceptibility to malicious tampering or other illicit activity through the means of scanning remote and local systems.

webshell

A segment of web codes (mostly the ASP and PHP codes) running on the server. Attackers perform malicious operations on the server by using this segment of codes to obtain sensitive technical information or gain the control over the server by penetration and privilege escalation.

weight

A relative value that indicates the importance of the index in the overall evaluation.

Weighted Least Connections

A scheduling algorithm that Server Load Balancer uses to forward traffic. In addition to the weight set to each back-end server, the actual loads (number of connections) of the back-end server must be considered. If the weights of the back-end servers are the same, a new request is sent to the server with the fewer connections.

WLC

Weighted Round Robin

A scheduling algorithm that Server Load Balancer uses to forward traffic. Backend servers with higher weights receive more requests than those with lower weights.

WRR

whitelist

An access control method. When a user is added to the whitelist, the user is permitted access. Users who are not on the whitelist are not permitted access. The opposite of a blacklist.

work space

A container of Quick BI objects, such as data portals, spreadsheets, dashboards, data sources, and datasets. Multiple users can access the same workspace to facilitate collaboration.

workbook

A spreadsheet that organizes your data into rows and columns in a clear, instantly readable format.

Z

zone

The reference to a physical, isolated area with an independent power grid and network in a region. Each zone in a region is isolated, but the network latency for resources within the same zone is

lower than across zones. Intranet communication can take place between resources in different zones of the same region, and fault isolation can be performed between zones. Deployment of resources in the same zone depends on the requirements for disaster recovery and network latency.

zone-disaster recovery

A redundancy system where two data centers are physically located in one city or an equivalent area, and are at least 1,000km apart.

zone-disaster recovery and backup

Zone-disaster recovery and backup is the local backup of the production data in the zone-disaster recovery data center. It features by its high speed, but cannot guarantee the availability of the data and system in the local backup data center in case of severe disaster.