Solution as code

Accessing OBS with an Nginx Reverse Proxy

 Issue
 1.0

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Solution Overview

Scenarios

This solution deploys an Nginx reverse proxy on a cloud server, so that resources stored in an Object Storage Service (OBS) bucket can be accessed from a fixed IP address. With a reverse proxy configured, only the proxy server's IP address is exposed. The actual OBS domain name is hidden to enhance data security.

Solution Architecture

The following figure shows the architecture of this solution.



Figure 1-1 Solution architecture

This solution will:

• Create a Flexus X Instance (FlexusX) for setting up an Nginx reverse proxy.

- Apply for an EIP and bind it to the newly created FlexusX instance. With the EIP bound, you can download the Nginx installation package on the FlexusX instance and provide access to external systems.
- Create a security group and configure access rules to secure the Nginx reverse proxy.

Advantages

- High security and reliability
 - Only the proxy server's IP address is exposed. The actual OBS domain name is hidden to enhance data security.
- Open source and custom development
 This solution is open-source and free for commercial use. You can also make custom development based on source code.
- Easy deployment You can set up an Nginx reverse proxy with a few clicks.

Constraints

- Before deploying this solution, ensure that you have created a Huawei ID with access to the target region and enabled Huawei Cloud services. and sufficient balance for purchasing the resources listed in 2 Resource Planning and Costs.
- If you select the yearly/monthly billing mode, ensure that your account has sufficient balance. If you do not have sufficient balance, you can go to the **Billing Center** to manually pay for the order.
- You have obtained the region and name of the OBS bucket you want to configure a proxy for.

2 Resource Planning and Costs

This solution deploys the resources listed in the following table. The costs are only estimates and may differ from the final prices. For details, see **Price Calculator**.

Huawei Cloud Service	Example Configuration	Estimated Monthly Cost
Flexus X Instance	 Region: AP-Singapore Billing Mode: Pay-per-use Specifications: FlexusX Performance mode (disabled) x1.1u.2g 1 vCPU 2 GiB Image: CentOS 7.6 64bit System Disk: High I/O 100 GiB Quantity: 1 	\$28.8 USD
Elastic IP (EIP)	 Pay-per-use (by bandwidth): \$0.03 USD/5 Mbit/s/hour Region: AP-Singapore Billed By: Bandwidth Routing Type: Dynamic BGP Bandwidth: 5 Mbit/s Quantity: 1 	\$93.6 USD
Total	-	\$122.40 USD

Table 2-1 Resource planning and costs (pay-per-use)

Huawei Cloud Service	Example Configuration	Estimated Monthly Cost		
Flexus X Instance	 Region: AP-Singapore Billing Mode: Yearly/Monthly Specifications: FlexusX Performance mode (disabled) x1.1u.2g 1 vCPU 2 GiB Image: CentOS 7.6 64bit System Disk: High I/O 100 GiB Quantity: 1 	\$23.44 USD		
Elastic IP (EIP)	 Region: AP-Singapore Billing Mode: Yearly/Monthly Routing Type: Dynamic BGP Billed By: Bandwidth Bandwidth: 5 Mbit/s Required Duration: 1 month Quantity: 1 	\$57.00 USD		
Total	-	\$80.44 USD		

Table 2-2 Resource planning and costs (yearly/monthly)

3_{Procedure}

- 3.1 Preparations
- 3.2 Quick Deployment
- 3.3 Getting Started
- 3.4 Quick Uninstallation

3.1 Preparations

Creating the rf_admin_trust Agency

Step 1 Log in to the **Huawei Cloud console**, click on your account name, and choose **Identity and Access Management**.

Figure 3-1 Huawei Cloud console





Figure 3-2 Identity and Access Management

Step 2 In the navigation pane, choose **Agencies** and search for **rf_admin_trust**.

Figure 3-3 Agency list

IAM	Agencies ③					Create Agency
Users	Delete Agencies available for	creation: 36			All	▼ rf_admin_trust X Q
User Groups	Agency Name/ID ↓≣	Delegated Party ↓≣	Validity Period ↓≣	Created ↓	Description ↓≣	Operation
Permissions • Projects	rf_admin_trust	Cloud service RFS	Unlimited	Mar 13, 2023 14:49:16 GMT+08:00	-	Authorize Modify Delete
Agencies						
Identity Providers						
Security Settings						

- If the agency is found, skip the following steps.
- If the agency is not found, perform the following steps.
- Step 3 Click Create Agency in the upper right corner of the page. On the displayed page, enter rf_admin_trust for Agency Name, select Cloud service for Agency Type, select RFS for Cloud Service, and click Next.

Figure 3-4 Creating an agency

gencies / Create Agen	су
+ Agongy Namo	rf admin truct
× Agency Name	n_aunin_uust
★ Agency Type	 Account Delegate another HUAWEI CLOUD account to perform operations on your resources. Cloud service Delegate a cloud service to access your resources in other cloud services.
* Cloud Service	RFS *
★ Validity Period	Unlimited •
Description	Enter a brief description.
	0/255
	Next Cancel

Step 4 Search for **Tenant Administrator**, select it in the search results, and click **Next**.

Figure 3-5 Selecting a policy/role

< Authorize Agency	
Select PalcyRole Select Scope Select PalcyRole	
Assign selected permissions to rf_admin_Trust1.	Create Policy
View Selected (1) Copy Permissions from Another Project	All policies/toles All services Tenant Administrator X Q
Policy/Role Name	Туре
DME AdministratorAccess Externamedia Data Model Engine Insult administrator with full permissions.	System-defined policy
Tenart Administrator (Exclude IAM)	System-defined note
CS Tenart Admin Cloud Stream Service Tenart Administrator, can manage multiple CS users	System-defined role

Step 5 Select **All resources** and click **OK**.

Figure 3-6 Selecting a scope

Authorize Agency
Select Policy/Role 2 Select Scope 3 Finish
1 The following are recommended scopes for the permissions you selected. Select the desired scope requiring minimum authorization.
Scope
All resources
IAM users will be able to use all resources, including those in enterprise projects, region-specific projects, and global services under your account based on assigned permissions.
Show More

Step 6 Check that the **rf_admin_trust** agency is displayed in the agency list.

IAM	Agencies ③						Create Agency
Users	Delete Agencies availat	ble for creation: 32			All	▼ rf_admin_trust	× Q
User Groups	Agency NameID ↓≣	Delegated Party ↓≡	Validity Period ↓≡	Created 4F	Description J≣	Operation	
Permissions •	rt_admin_trust	Account op_svc_IAC	Unlimited	Jan 16, 2023 17:57:41 GMT+08:00	Created by RF, Not delete.	Authorize Modify Delete	
Agencies							
Identity Providers							
Security Settings							

----End

Obtaining the Bucket Access Domain Name

Step 1 Log in to **OBS Console** and click the name of the OBS bucket you want to configure a reverse proxy for.

Figure 3-8 OBS Console

Object Storage Service	Object Storage Service Open Source So	🕒 Quick Links	Task Center Buy OBS Package Create Bucket		
Object Storage	OBS Browser+ ± Download	obsutil 🛓 Download	obsfs 🔬 Download	Get SDKs	
Parallel File Systems	GUI-based management tool. It supports batch upload of large files and folders.	A CLI tool. It supports basic operations on buckets and objects.	A tool for mounting parallel file system. It enables you to operate objects in your local file system.	OBS Progressive Knowledge	
Resource Packages	Learn more	Learn more	Learn more		
My Packages 🕑					
Data Express Service 🖸					
CDN 🖸					
Object Storage Migration	An account and all the IAM users under it can created and all the	e a total of 100 buckets and parallel file systems. You are ad	vised to create folders in the buckets to organize your data and	d reduce how many buckets you need. Learn more	
Service E	Export > You can create 60 more buckets.				
	 Select a property or enter a keyword. 				
	□ Bucket Name ⊖	Quick Links Storage Class 😣 🛛 F	begion ⊖ Data Redunda ⊖ Used Cape	acity Objects Objects Objects Objects	Created Operation
	test-obs-2569	🕒 🗄 Standard /	P-Singapore Single-AZ storage 0 byte	0 SAC开发	Jul 31, 2024 10:17: Change Storage Class Delete

Step 2 In the navigation pane, choose **Overview** to obtain the access domain name.

igure e e obtaining the access aomain name	Figure	3-9	Obtaining	the	access	domain	name
--	--------	-----	-----------	-----	--------	--------	------

< stest-obs-25b9	[] Standard Single-AZ storage AP-Singapore	Created Jul 31, 2024 10:17:52 GMT+08:00					🕑 Task Center
Overview Objects Metrics NEW Permissions Basic Configurations Domain Name Mgmt Cross-Region Repitcation Basic to Bource Data Processing V Interdirels	Usage Statistics Storage O byte Month-over-month growth COM	lossi V Traffic O byłe Mosth-owerearch gra	Total Download Traffic 🧹	Requests Marth-over-marth growth radios	<u>ili</u> , Veer Usage Analysis Total ∨	Alarms Critical Major Minor Warning	(2) Atom Details 0 0 0 0
	Domain Name Debilis Type Enteriorit ③ Access Domain Name ④ Static webdite hosting domain name Basic Configurations	Donain Kame des ap-toutheast3.mphaaneictoud.com (7 fact obs-2509.dot.ap-coutheast3.mphaan (7	Protocol HTTPSHITP HTTPSHITP HTTPSHITP	Operation → d ² Bind User Domain Nam ☆ Configure	ne	Basic Informatic Objects Bucket Version Cluster Type Enterprise Project Account ID	n 0 30 Patic dadat SocT <u>PR</u> 23336/det#444399087705229997
Go to Old Edition	Logghg 0 N	ot configured > Server-Side Encryption	e Not configured >	Direct Reading	e Not supported >	WORM Retention	Not supported

----End

3.2 Quick Deployment

This section describes how to quickly deploy this solution.

Paramete r	Туре	Mandator y	Description	Default Value
vpc_name	String	Yes	VPC name. This template uses a newly created VPC and the VPC name must be unique. The name can contain 1 to 55 characters, including letters, digits, underscores (_), hyphens (-), and periods (.).	accessin g-obs- through- nginx- demo
secgroup_ name	String	Yes	Security group name. This template uses a newly created security group. To modify security group rules, see (Optional) Modifying Security Group Rules. The name can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.).	accessin g-obs- through- nginx- demo
ecs_name	String	Yes	Cloud server name in the <i>{ecs_name}_ecs</i> format. It must be unique. The name can contain 1 to 60 characters, including letters, digits, underscores (_), hyphens (-), and periods (.).	accessin g-obs- through- nginx- demo
ecs_flavor	String	Yes	Instance flavor of ECS or FlexusX. The flavor ID format of a FlexusX instance is x1.? u.?g. For example, the flavor ID of a FlexusX instance with 2 vCPUs and 4 GiB memory is x1.2u.4g. For details about FlexusX instance flavors, see the console. For details about ECS flavors, see A Summary List of x86 ECS Specifications.	x1.1u.2g

Table 3-1 Parameters required for deploying this solution

Paramete r	Туре	Mandator y	Description	Default Value
ecs_passw ord	String	Yes	Initial password of the cloud server. The password can contain 8 to 26 characters, including at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters (!@\$%^=+ [{}]:,/?). Passwords cannot contain any username or the username spelled backwards. The administrator is root .	Left blank
charging_ mode	String	Yes	Billing mode. The value can be prePaid (yearly/monthly) or postPaid (pay-per-use).	postPaid
charging_u nit	String	Yes	Billing period unit. This parameter is mandatory when charging_mode is set to prePaid. The value can be year or month.	month
charging_p eriod	String	Yes	Billing period. This parameter is mandatory when charging_mode is set to prePaid. The value is in the range of 1 to 3 when charging_unit is set to year and in the range of 1 to 9 when charging_unit is set to month.	1
bandwidth _size	String	Yes	EIP bandwidth size. This template uses billing by bandwidth. The value is in the range of 1 to 2,000 Mbit/s.	5
access_do main_nam e	String	Yes	Access domain name of the OBS bucket you want to configure a proxy for. To obtain it, see Obtaining the Bucket Access Domain Name .	Left blank

Step 1 Visit **Practical Application of Huawei Cloud Solutions**, search for **Accessing OBS with an Nginx Reverse Proxy**, and click the solution card displayed. Under the solution architecture, choose a region in the data center area and click **Deploy**.

Figure 3-10 Selecting a solution



Step 2 On the Select Template page, click Next.

Figure 3-11 Selecting a template

HUAWEI CLOUD 👘 🏠 🖗	Console • Singapore						Search		_intl_solution <1177195	2
< Create Stack										
O Select Template	- (2) Configure Parameters -	③ Configur	re Stack — (4	Confirm Configurations						
* Creation Mode	Existing templates	Visual Design	her							
* Template Source	My Templates	URL	Upload Template							
	A stack is created using	a template. The template	e must contain the deplo	syment code file which file nam	ne extension is tf or tf.json.					
* Template URL	https://documentation-	samples-4 obs ap-south	east-3							
	The URL must contain at	t least the deployment co	ode file, and the file size	e cannot exceed 1 MB.						
	RFS only uses the	data you upload for reso	urce management. Your	r template will not be encrypte	d. KMS and DEW are recomm	ended for encryption of sensitive var	iables. Currently, the RFS cor	sole can automatically use KMS to enc	rypt your sensitive variable	.6.
									_	_
										lext

Step 3 On the **Configure Parameters** page, enter a stack name, configure parameters based on **Table 3-1**, and click **Next**.

Previous Next

Figure 3-12 Configuring parameters

< Create Stack							
Select Template (2) Confi	gure Parameters (3) Configure Stack (4) Confirm Configuration	ins					
* Stack Name accessing-obs-throu The stack name must	gh-nginx start with a letter and can contain a maximum of 128 characters, including letters, digits, ur	nderscores (_), and hyphens (-). The star	x name must be unique.				
Description Accessing OBS with an Hgmx Reverse Proxy							
Configure Parameters	Q Encrypt some resources based on the template requirem	ants.					
Parameter	Value	Туре	Description				
* vpc_name	accessing-obs-Ihrough-ngimx-demo	string	VPC name. It is newly created for this template and must be unique. The name can contain 1 to 55 characters, including letters, digits, underscores (_), hr				
* secgroup_name	accessing-obs-through-nginu-demo	string	Security group name. It is newly created for this template. The name can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-),				
* ecs_name	accessing-obs-Ihrough-nginx-demo	string	Cloud server name in the (ecs_name)_ecs format. It must be unique. It consists of 1 to 60 characters and can include letters, digits, underscores (_), hyph				
* ecs_flavor	x1.1u.2g	string	Instance flavor of ECS or FlavusX. The flavor ID format of a FlavusX instance is x1.?u.?y. For example, the flavor ID of a FlavusX instance with 2 vCPUs				
* ecs_password	6	string	Initial password of the cloud server. It consists of 8 to 26 characters and must contain at least three of the following character types: uppercase letters, low				
* charging_mode	postPaid •	string	Billing mode. Value options: prePaid (yeanly/monthly) or postPaid (pay-per-use). Default postPaid				

Step 4 On the **Configure Stack** page, select the **rf_admin_trust** agency, which is optional, and click **Next**.

Figure 3-13 Advanced settings

doud • • y can clearly define RFs to n IAM commended. If no agency is f auto-rollback is enabled, II Deletion protection prevents	Exect an agency Feach Q is factors from the second secon	C How to Create an Agency? on, update, and deletion) on stack resources one of the current user for deployment. An revious successful resource status when th by, tou can modify it on the stack details p	urces. If the agency permissions agency limits RFS's permissions of e operation fails. After the stack is age.	are insufficient, subsequent operations suc in cloud service resources, preventing undesire created you can modify the stack configuration	h as deployment and execution plan of dependence template no on its details page.	reation may fall, Create
y can clearly define RFS's of n IAM ecommended. If no agency is if auto-rollback is enabled, th Deletion protection prevents	Pearch Q is rt a doing trust configured. RFS will have the permission the stack automatically relis back to the p the stack from being deleted accidenta	on, update, and deletion) on stack resou ons of the current user for deployment. An revious successful resource status when th by. You can modify it on the stack details p	arces. If the agency permissions agency limits RFS's permissions of e operation fails. After the stack is age.	are insufficient, subsequent operations suc in doud service resources, preventing undesite created, you can modify the stack configuration	h as deployment and execution plan c d operations caused by incorrect lemplat ns on its details page.	reation may fall. Create es or parameters.
ccommended. If no agency is	rf_semin_rusi	ons of the current user for deployment. An revious successful resource status when th ly, You can modify it on the stack details p	agency limits RFS's permissions of e operation fails. After the stack is age.	an doud service resources, preventing undesire created, you can modify the stack configuration	d operations caused by incorrect templat	es or parameters.
If auto-rollback is enabled, th	he stack automatically rolls back to the p	revious successful resource status when th Ily. You can modify it on the stack details p	e operation fails. After the stack is age.	created, you can modify the stack configuration	ns on its details page.	
Deletion protection prevents	the stack from being deleted accidenta	lly. You can modify it on the stack details p	age.			

Step 5 On the **Confirm Configurations** page, confirm the configurations and click **Create Execution Plan**.

×

Figure 3-14 Confirming configurations

Create Stack			
Select Template O	configure Parameters 🕑 Configure Stack	— 🕘 Confirm Configurations	
RFS is free of charge, but the res	ources in the stack are not. Currently, you need to create an execu-	ution plan (free of charge) to obtain the est	timated price.
Template Info Stack Name	accessing-obs-through-nginx		Decorption Addressing OBS with an Figure Reverse Prevy
Parameters 🖉			
Parameter Name	Value	Туре	Description
vpc_name	accessing-obs-through-ngirx-demo	string	VPC name. It is newly created for this template and must be unique. The name can contain 1 to 55 characters, including letters, digits, underscores (), hyphens (-), and period
secgroup_name	accessing-obs-through-nginx-demo	string	Security group name. It is newly created for this template. The name can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). To co
ecs_name	accessing-obs-through-nginx-demo	string	Cloud server name in the {ecs_name}_ecs format. It must be unique. It consists of 1 to 60 characters and can include letters, digits, underscores (_), hyphens (-), and periods (
ecs_flavor	x1.1u.2g	string	Instance flavor of ECS or FlexusX. The flavor ID format of a FlexusX instance is x1.?u.?g. For example, the flavor ID of a FlexusX instance with 2 vCPUs and 4 GiB memory is
ecs_password		string	Initial password of the cloud server. It consists of 8 to 26 characters and must contain at least three of the following character types: uppercase letters, lowercase letters, digits,
charging_mode	postPaid	string	Billing mode. Value options: prePaid (yearly/monthly) or postPaid (pay-per-use). Default: postPaid
charging_unit	month	string	Billing period unit, mandatory when charging_mode is set to prePaid. Value options: year or month. Default: month
charging_period	4	number	Billing period, in the range of 1 to 3 when charging_unit is set to year and in the range of 1 to 9 when charging_unit is set to month. This parameter is mandatory when charging
bandwidth_size	5	number	EIP bandwidth size. This template uses billing by bandwidth in Mbibs. Value range: 1 to 2,000. Default value: 5
stimated fee: You can obtain the estima	ded fee after creating an execution plan (free of charge).		Previous Create Execution Plan Directly Deploy S

Step 6 In the displayed **Create Execution Plan** dialog box, enter an execution plan name and click **OK**.

Figure 3-15 Creating an execution plan

To preview your rest	ource billing information, you can create an execution plan.
•	
* Execution Plan Name	executionPlan_20240731_1031_2e0b
Description	Enter a description of the execution plan.
	0/25
	OK Cancel

Figure 3-16 Execution plan created

< accessing-obs-through-nginx					Delete Update Template/Parameter	С
Basic Information Resources Outputs	Events Template Execution I	lans				
Deploy					Enter a keyword.	Q
Execution Plan Name/ID	Status	Estimated Price	Created	Description	Operation	
 executionPlan_20240731_1031_2e0b 93b676c2-6d10-4778-9d4f-ed1070b451a5 	Available	View Details	Jul 31, 2024 10:32:23 GMT+08:00	-	Deploy Delete	

Step 7 Click **Deploy**. In the displayed dialog box, click **Execute**.

Figure 3-17 Executing the plan

Execution Plan			×				
Are you sure you want to execute the	e plan?						
Execution Plan Name	Status	Created					
executionPlan_20240731_103	Available	Jul 31, 2024 10:32:23 GMT+0					
After the plan is executed, the stack is updated accordingly, and resources in the template are enabled, which may incur fees based on resource payment requirements.							
E	ixecute	0					

Step 8 Wait until the deployment is complete and click the **Events** tab to view details.

accessing-obs-through-ngi	nx			Delete Update Template/Parameter
Information Resources	Outputs Events Templa	te Execution Plans		
				Resour • Enter a keyword.
ime 4F	Туре 🖓	Description	Resource Name/Type	Associated Resource ID
ul 31, 2024 10:34:51 GMT+08:00	Log	Apply required resource success.	-	-
131, 2024 10:34:48 GMT+08:00	Creation Complete	husweicloud_compute_instance.instance: Creation complete after 54s [id=1d31356d.6e23.41c4.a90c. 84580ba64aff]	instance ECS	1d31356d-6e23-41c4-a90c-84580ba64aff
131, 2024 10:34:48 GMT+08:00	Summary	Apply completel Resources: 7 added, 0 changed, 0 destroyed.	-	-
31, 2024 10:34:43 GMT+08:00	Creation In Progress	huaweicloud_compute_Instance instance: Still creating[50s elapsed]	instance ECS	-
131, 2024 10:34:33 GMT+08:00	Creation In Progress	huaweicloud_compute_Instance.Instance: Still creating[40s elapsed]	instance ECS	
31, 2024 10:34:23 GMT+08:00	Creation In Progress	huaweicloud_compute_instance.still creating[30s elapsed]	instance ECS	-
31, 2024 10:34:13 GMT+08:00	Creation In Progress	huaweicloud_compute_instance instance: Still creating [20s elapsed]	instance ECS	-
I 31, 2024 10:34:03 GMT+08:00	Creation In Progress	huawelcloud_compute_instance instance: Still creating[10s elapsed]	Instance ECS	-
131, 2024 10:33:53 GMT+08:00	Creation Complete	huawelcloud_vpc_subnet.subnet: Creation complete after 8s [id=49d7ddda=46e6-423f-9c19-e4dd16b6bb2e]	subnet Subnet	49d7ddda-46e6-423f-9c19-e4dd16b6bb2e
31, 2024 10:33:53 GMT+08:00	Creation In Progress	husweidoud_compute_instance instance: Creating	instance ECS	-

Figure 3-18 Resources created

----End

3.3 Getting Started

(Optional) Modifying Security Group Rules

A security group is a collection of access control rules for cloud resources, such as cloud servers, containers, and databases, to control inbound and outbound traffic.

Cloud resources associated with the same security group have the same security requirements and are mutually trusted within a VPC.

You can modify security group rules, for example, by adding, modifying, or deleting a TCP port, as follows:

- Adding a security group rule: Add an inbound rule to enable a TCP port if needed.
- Modifying a security group rule: Inappropriate security group settings can be a serious security risk. You can modify a security group rule to ensure network security of your ECSs.
- Deleting a security group rule: If the source or destination IP address of an inbound or outbound security group rule changes, or a port needs to be disabled, **delete the security group rule**.

(Optional) Configuring an OBS Bucket Policy

NOTE

If your bucket is public read or you want others to **add a signature in the URL** when accessing objects in your private bucket, skip the following steps.

If you do not want URLs containing a signature to access resources in your private bucket, configure the following bucket policy that allows only the IP address of the Nginx proxy server to access your bucket.

Step 1 Log in to OBS Console. In the bucket list, click the target bucket and choose Permissions > Bucket Policy from the navigation pane.

Bucket List / Bucket Policies									
< 🥌 test-obs-25b9 (Standard Single-AZ storage AP	-Singapore Created Jul	31, 2024 10:17:52 GMT+08:00				🕑 Task Center		
Overview									
Objects	OBS provides access permission	in control for buckets, dire	ctories, and objects. You can configure oper	ation permissions for users under your account or for other an	counts. Introduction to OBS Permission Control Typ	ical Permission Control Scenarios	×		
Metrics NEW	Bucket Policies								
Permissions	Bucket policies provide centralized acco	ess control and take prece	dence over bucket ACLs in case of permiss	ion conflicts. Learn more		_			
Bucket Policies	Create Replicate Export								
Bucket ACLs	 Search by policy name, effect, or 	C. Search by policy name, effect, or principal by default.							
CORS Rules	Policy Name	Effect	Principal	Resources	Actions	Conditions	Operation		
URL Validation									
Basic Configurations V				X 1 Z					
Domain Name Mgmt									
Cross-Region Replication	=								
Back to Source			Yo	u have not created any policies for the current bucket. Other u	sers cannot access this bucket.				
Data Processing ~									
Inventories									

Figure 3-19 Going to the bucket policy page



Figure 3-20 Creating a custom policy

Bucket List / Bucket Policies) 🗇 Standard Single-AZ storage A	NP-Singapore Created Jul 31, 20	24 10:17:52 GMT+08:00		Create Bucket Po	icy Learn more
Guerrainer					Permissions for	creating and listing buckets are service level and need to be configured in IAM. Learn more
Objects	OBS provides access permiss	sion control for buckets, directories	, and objects. You can configure operation	permissions for users under your account or for other	Visual Editor IS	
Metrics NEW	Bucket Policies					
Permissions	Bucket policies provide centralized ac	coess control and take precedence	over bucket ACLs in case of permission o	onflicts. Learn more	* Policy Name	test-policy
Bucket Policies	Create Replicate	Export			* Effect	Allow Deny
Bucket ACLs	 Search by policy name, effect, or 	or principal by default.			* Principal	All accounts
URL Validation	Policy Name	Effect	Principal	Resources		Current account
Basic Configurations				×1.2		Other accounts
Domain Name Mgmt	< c				* Resources	Entire bucket (including the objects in it) Current bucket Specified objects
Cross-Region Replication				=	* Actions	Use a template Customize
Back to Source			You have	e not created any policies for the current bucket. Othe		Get V List V Colortet 2 Colort
Data Processing ~						Constituent as a low
intencies					Conditions (Optional)	Add Condition Conductors requeed on the policy to take effect. A contactor is expressed as a key- value pair. New configuration examples
						Key 😔 If Exists 🖶 Qualif 🖶 Conditi 🖶 Value 🖶 Operation
						Sourcelp failse default IpAddress 100.64.0.0 Edit Delete
						Cancel
Go to Cid Edition						

Step 3 Configure the parameters listed in **Figure 3-21** and click **Next** and then **Create** to complete the policy creation. If the bucket and ECS are in the same region, set the value of **SourceIp** for condition operator **IpAddress** to

100.64.0.0/10,214.0.0.0/7, *Private IP address of the ECS*. If the bucket and ECS are in different regions, set the value of **SourceIp** for condition operator **IpAddress** to *EIP of the ECS*.

Parameter		Description			
Policy View		Select Visual editor.			
Policy Name		Custom			
Policy Content	Effect	Select Allow.			
	Principal	 Principal: Select Anonymous user. User Policy: Select Include specified users. 			
	Resource	Resource: Select both Current bucket and Objects in bucket. Resource Policy: Select Include specified resources.			
	Actions	Select Get* and List*. Operation Strategy: Select Include selected.			
	Conditions	 Conditional Operator: Select IpAddress. Key: Select Sourcelp. Value: If the ECS uses a public DNS, the value is as follows: Elastic IP address of the ECS If the ECS uses a Huavel Cloud private DNS, the value is as follows: 100.64.0.0/10,214.0.0/7, Private IP address of the ECS NOTE: The value must contain three IP addresses (CIDR blocks) that are separated with commas (.). IP addresses in the range starting with 100 or 214 are for ECSs to access OBS through an internal network. 			

Figure 3-21 Bucket policy parameters

Figure 3-22 Bucket policy created

Budet Ltd. / Budet Pelicies							
< 🥌 test-obs-25b9	39 👩 Standard Single-AZ storage AP-Singapore Created Jul 31, 2024 10:17 52 OMT+08:00					Task Center	
Overview							
Objects	OBS provides access permiss	sion control for buckets, directories,	and objects. You can configure operation per	missions for users under your account or for other accounts. Introduc	ion to OBS Permission Control Typical Permi	ission Control Scenarios	×
Metrics NEW	Bucket Policies						
Permissions	Bucket policies provide centralized access control and take precedence over bucket ACLs in case of permission conflicts. Learn more					_	
Bucket Policies	Create (Replicate) Export					JSON	
Bucket ACLs	C. Search by policy name, effect, or principal by debuil.						
CORS Rules	Policy Name	Effect	Principal	Resources	Actions	Conditions	Operation
URL Validation	✓ test-policy	S Allow	😒 Include all users	Include all objects in bucket and bucket	Include 2 actions	Condition: 1	Edit Delete
Basic Configurations							
Domain Name Mgmt							
Cross-Region Replication							
Back to Source							
Data Processing							
Inventories							

----End

Verifying the Reverse Proxy Settings

Step 1 In Google Chrome, access OBS resources with an address containing the ECS EIP and the absolute path of the object name, for example, **http://***ECS EIP*/*Absolute path of the object name*.

Figure 3-23 Using a fixed IP address to access OBS resources

← → C ③ 01.18/main.ff						
P						
This XML file does not appear to have any style information associated with it. The document tree is shown below.						
<pre>vd.tstboictLoad value~http://tots.sybuclouds.cow/dsc/2015-06-30/`)</pre>						
main (1).tf						

----End

3.4 Quick Uninstallation

Step 1 Click **Delete** in the row of the solution stack.

Figure 3-24 Deleting the stack

RFS OBT	1	Stacks ③					🕼 User Guide	Create Stack
Dashboard						Stack Name • Search by stack name by default		Q@C
Stacks		Stack NameIID	Status 🖓	Description	Created 4F	Updated ↓≣	Operation	
Stack Sets Visual Designer	e	accessing-obs-through-nginx 82ed92c3-1550-45ef-adt8-806819ccb7f	Deployment Complete	Accessing OBS with an Ngin	Jul 31, 2024 10:32:22 GMT+08:00	Jul 31, 2024 10:34:51 GMT+08:00	Delete	
Templates								

Step 2 Enter **Delete** and click **OK**.

Figure 3-25 Confirming the stack deletion

Stack Name		Status	Created	
accessing-obs-through	h-nginx	Deployment	Jul 31, 202	4 10:32:22 GMT+08:00
Resources (7)				
Cloud Product N	Physical Res	ource Name/ID		Resource Status
Elastic Cloud Server	accessing-ob 1d31356d-6e	s-through-nginx-dem 23-41c4-a90c-84580	o_ecs ba64aff	Creation Complete
Virtual Private Cloud	accessing-ob 49822505-d1	s-through-nginx-dem 2f-4612-bdc5-91391	o b169aef	Creation Complete
Virtual Private Cloud	7c5bdfa2-003	c-4c41-993e-41f1d5	d4809a	Creation Complete
Virtual Private Cloud	df7520ae-192	25-43a9-b5c8-70fff7d	a09ab	Creation Complete
Virtual Private Cloud	accessing-ob 1c44b541-792	s- <mark>through-nginx-dem</mark> 20-4e06-91dd-04867	0 4c122ca	Creation Complete
Elastic IP	accessing-ob 4f6422cd-3de	s-through-nginx-dem cc-4623-98ac-ba1c41	o-eip 145ff4c	Creation Complete
When Deleted 💿 D	elete resource	Retain resour	ce (Delete or	ly the stack)

----End

4 Appendix

Terms

The following explain relevant cloud services.

- Elastic IP (EIP): EIP provides static public IP addresses and scalable bandwidths that enable your cloud resources to communicate with the Internet. You can easily bind an EIP to an ECS, BMS, virtual IP address, NAT gateway, or load balancer, enabling immediate Internet access.
- Virtual Private Cloud (VPC): VPC allows you to isolate online resources with virtual private networks. It enables your cloud resources to securely communicate with each other, the Internet, and on-premises networks.
- Elastic Cloud Server (ECS): ECS provides secure, scalable, on-demand compute resources, enabling you to flexibly deploy applications and workloads.
- Flexus X Instance (FlexusX): FlexusX is a next-generation flexible cloud server service designed for small- and medium-sized enterprises (SMEs) and developers. FlexusX provides functions similar to what ECS provides. It supports flexible vCPU/memory ratios, performance mode, and live specification change.

5 Change History

Released On	Change History
2022-12-30	This issue is the first official release.
2023-02-28	Revised the procedure.
2023-07-30	Supported Flexus X Instance.