Solution

Reinstalling the OS of ECSs

 Issue
 1.0

 Date
 2023-08-08





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Solution Overview

Scenarios

This solution uses a FunctionGraph function to change or reinstall the OS of multiple Elastic Cloud Servers (ECSs).

Architecture

You can change or reinstall the OS of multiple ECSs on Huawei Cloud. The following figure shows the solution architecture.

Figure 1-1 Solution architecture



This solution will:

• Create a FunctionGraph function to call the ECS API used to reinstall or change the OS.

• Create an agency in Identity and Access Management (IAM) to delegate FunctionGraph to access ECS in the relevant region.

Advantages

This solution has the following advantages:

• Serverless

The serverless architecture frees you from underlying resource O&M and availability and scalability issues.

- Easy to deploy You can reinstall or change the OS of multiple ECSs with just a few clicks.
- Customizable

This solution is open-source and free for commercial use. You can also make custom development according to the practical requirements.

Constraints

- Before deploying this solution, register a HUAWEI ID, enable Huawei Cloud services, and complete real-name authentication. Ensure that your account is not in arrears or frozen.
- For details about the notes, constraints, and prerequisites for reinstalling the OS, see **Reinstalling the OS**.
- For details about the notes, constraints, prerequisites, and billing rules for changing the OS, see **Changing the OS**.

2 Resource and Cost Planning

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 **pricing details**.

Huawei Cloud Service	Example Configuration	Monthly Cost
FunctionGraph	 Function Type: Event Function Region: AP-Singapore Runtime: Python 3.6 Memory: 128 MB 	 Total price = Price for requests + Price for execution duration Requests (example: ≤ 1 million per month): \$0 USD Execution duration (example: 400,000 GB-seconds per month): \$0 USD
Total		\$0 USD

 Table 2-1 Resource and cost planning

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 Huawei Cloud official website, open the **console**, hover over the account name, and choose **Identity and Access Management**.

Figure 3-1 Console page





Figure 3-2 Identity and Access Management

Step 2 Choose **Agencies** in the left navigation pane and search for the **rf_admin_trust** agency.



IAM	Age	ncies ⊘							Create Agency
Users		Delete Agencies available for creat	ion: 36				All	▼ rf_admin_trust	X Q
User Groups		Agency Name/ID ↓≣	Delegated Party _j≣	Validity Period ↓≣	Created 4F	Descrip	tion ↓≣	Operation	
Permissions • Projects		rt_edmin_trust	Cloud service RFS	Unimited	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 to create it.
- 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

Agencies / Create Agencies	су
-t- Agonay Nama	ef admin trust
* Agency Name	n_aunin_uusi
★ 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					
Stelect PolicyRole (2) Select Scope (3) Firish					
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 Recommended Data Model Engine Insuit administrator with full permissions.	System-defined policy				
Tenant Administrator Tenant Administrator (Exclude IVM)	System-defined role				
Cist Stream Admin Cloud Stream Service Tenant 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	
1) Select Policy/Role — 2 Select Scope — 3 Finish	
() 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.

Figure 3-7 Agency list

ncles 💿					Crea	ite Ag
Delete Agencies available for creat	ilion: 7			All	✓ If admin_trust >	< C
Agency Name/ID ↓≡	Delegated Party ↓Ξ	Validity Period ↓≡	Created J≡	Description JF	Operation	
rf_admin_trust	Cloud service RFS	Unlimited	Jan 16, 2023 17:57:41 GMT+08:00	Created by RF, Not delete.	Authorize Modify Delete	

----End

Creating the IAM Agency Management FullAccess Policy

Step 1 Choose Identity and Access Management.

Intl-English

Basic Information

Security Settings

My Credentials

Identity and Access Management

Switch Role

Tag Management

Operation Log

Log Out

Figure 3-8 Identity and Access Management

Step 2 Choose **Permissions** > **Authorization**, enter **IAM Agency Management FullAccess** in the search box, and check whether this policy exists.

Figure 3-9 Permission list

IAM	Authoriz	ation ③							
Users	De	Authorization records (IAM proje	cts): 1; (enterprise projects): 0	Γ	Policy/Role name : IAM A Se	arch by policy/role name.	×Q	By IAM Project	By Enterprise Project
User Groups		Policy/Role	Policy/Role Description	Project [Region]	Principal	Principal Description		Principal Type	Operation
Authorization		IAM Agency Management FullAccess	-	All resources (Existing and future projects)	rf_admin_trust	-		Agency	Delete

- If the policy is found, you do not need to create it.
- If the policy is not found, create it.

Step 3 Choose **Permissions** > **Policies/Roles**, and click **Create Custom Policy**.

Figure 3-10 Clicking Create Custom Policy

Poli	cies/Roles ⑦					Feedback Create Custom Policy
	Delete Custom policies available for creation: 179			All policies/roles	• All services	Enter a policy name, role name, or description. Q
	Policy/Role Name	Туре	Description			Operation

Step 4 Enter policy name **IAM Agency Management FullAccess**, select **JSON**, enter the following JSON code in the **Policy Content** text box, and click **OK**.

Figure 3-11 Creating a custom policy

★ Policy Name	IAM Agency Manage	ment FullAccess]	
Policy View	Visual editor	JSON		
* Policy Content	1 ▼ [4] "Versic 2 × "State 4 ▼ { 5 × 6 7 × 8 9 9 10 11 12 13 14 15 16 17 17 18 19 20 21 22 23 24 25 Enter a brief descript	on": "1.1", ment": ["Effect": "Allow", "Action": ["iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission "iam:permission] licy/Role	<pre>updateAgency", ns:listRolesForAgencyOnDomain", ns:revokeRoleFromAgencyOnDomain", ns:listRolesForAgency", ns:checkRoleForAgencyUnProject", tRoles", deleteAgency", ns:checkRoleForAgencyUnProject", ns:checkRoleForAgencyUnDomain", listAgencies", ns:grantRoleToAgencyUnDomain", ns:revokeRoleFromAgencyUnProject", segrantRoleToAgency", ns:grantRoleToAgency", ns:grantRoleToAgencyUnProject", ns:revokeRoleFromAgency"</pre>	
Scope	Global services	ICEI		0/256
{ "Version": "1.1" "Statement": [{ "Action": ["iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag "iamag	[gencies:createAgen gencies:listAgencie gencies:getAgency gencies:deleteAgen gencies:updateAge ermissions:revokef ermissions:revokef ermissions:grantRo ermissions:grantRo ermissions:grantRo	ncy", 25", ncy", 2ncy", RoleFromAgencyOn RoleFromAgencyOn RoleFromAgencyOn DeToAgencyOnProj DeToAgency",	ıProject", ıDomain", nain", ect",	



Step 5 If no error message is displayed, the **IAM Agency Management FullAccess** policy is successfully created.

----End

Assigning the IAM Agency Management FullAccess Policy to Agency rf_admin_trust

Step 1 Choose Identity and Access Management.



Figure 3-12 Identity and Access Management

Step 2 Choose **Agencies** in the left navigation pane and select the **rf_admin_trust** agency.

Figure 3-13 Agency list

IAM	Agencies ③	gencies ⑦					Create Agency
Users	Delete Agencies available for cr	sation: 31			All	▼ rf_admin_trust	X Q
User Groups	Agency Name/ID J⊟	Delegated Party ↓Ξ	Validity Period ↓⊟	Created 4F	Description ↓=	Operation	
Permissions - Projects	rf_admin_trust	Cloud service RFS	Unlimited	Jan 16, 2023 17:57:41 GMT+08:00	Created by RF, Not delete.	Authorize Modify Delete	
Agencies							
Identity Providers							
Security Settings							

Step 3 Click the **Permissions** tab and click **Authorize**.

Figure	3-14	Permissions
--------	------	-------------

IAM	Agenc	ies / rf_	admin_trust								
Users		Basic In	formation Permissions								
User Groups		Delet	e Authorize Authoriz	ation records (IAM projects): 6; (enterprise proj	ects): 0	Agency na	me: rf_admin_t 🔘	Search by policy/role name.	۹	By IAM Project	By Enterprise Project
Permissions -			Policy/Role	Policy/Role Description	Project [Region]		Principal	Principal Descri	iption	Principal Ty	pe Operation
Projects			IAM Agency Management FullA	-	All resources (Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete
Agencies			GaussDB FullAccess	Full permissions for GaussDB.	All resources [Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete
Security Settings			SMS FullAccess	Full permissions for Server Migration S	All resources (Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete
			iam	-	All resources [Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete
			IAM FullAccess		All resources [Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete
			Tenant Administrator	Tenant Administrator (Exclude IAM)	All resources (Existing and	future proj	rf_admin_trust	Created by RF, N	lot delete.	Agency	Delete

Step 4 Enter **IAM Agency Management FullAccess** in the search box, select the policy, click **Next**, and then click **OK**.

Figure 3-15 Configuring the IAM Agency Management FullAccess policy

< Authorize Agency		
Select Policy/Role ② Select Scope ③ Finish		
Assign selected permissions to rf_admin_trust.		Create Policy
View Selected (1) Copy Permissions from Another Project	All policies/roles	All services IAM Agency Management FullAcces X Q
Policy/Role Name	Туре	
IAM Agency Management FullAcces1	Custom policy	
IAM Agency Management FullAccess	Custom policy	
		C
		©

Step 5 Check that the **rf_admin_trust** agency has the **Tenant Administrator** and **IAM Agency Management FullAccess** permissions.

Figure	3-16	Permissions
--------	------	-------------

	Agencies / rf_admin_trust						
115	Basic Information Per	missions					
r Groups	Delete Authorize	Authorization records (IAM projects): 6; (enterp	prise projects): 0 Agency n	ame: rf_admin_t 🌀	Search by policy/role name. Q	By IAM Project By E	interprise Project
nissions •	Policy/Role	Policy/Role Description	Project [Region]	Principal	Principal Description	Principal Type	Operation
jects	IAM Agency Managen	nent FullA	All resources [Existing and future proj	rf_admin_trust	Created by RF, Not delete.	Agency	Delete
acles							
ity Providers							
rity Settings							
	Topast Administrator	Topont Administrator (Evoludo IAM)	All renauross (Existing and future and	d admin tout	Created by DE Nat delate	Anner	Dalata
	Tenant Administrator	Tenant Administrator (Exclude IAW)	All resources (Existing and luture proj	n_admin_udsi	Created by RP, Not delete.	Agency	Delete

----End

3.2 Quick Deployment

This section describes how to deploy the **Reinstalling the OS of ECSs** solution.

Parameter	Тур е	Mand atory	Description	Default Value
function_n ame	strin g	Yes	Function name in the format <i>{function_name}_fgs</i> , which identifies a function and serves as the prefix of other resource names. It must be unique and can contain 1 to 56 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter.	batch_reins tall_os_de mo
image_id	strin g	Yes	Enter reinstall to reinstall the OS or enter the image ID to change the OS. View the image ID in Public Images . Default value: reinstall .	reinstall
ids	strin g	Yes	IDs of the ECSs to reinstall or change the OS. Separate the IDs with spaces. For example, id1 id2 .	None
passwords	strin g	Yes	Passwords of the ECSs corresponding to the IDs. Separate the passwords with spaces. For example, password1 password2	None

Table 3-1 Parameter description

Step 1 Log in to Huawei Cloud Solution Best Practices, choose Reinstalling the OS of ECSs, and click Deploy.

Figure 3-17 Solution Practices



Step 2 On the Select Template page, click Next.

Figure 3-18 Creating a stack

< Create Stack		
Select Template	- ② Contigue Parameters	
* Creation Mode	Existing templates Visual Designer	
* Template Source	My Templates URL Upload Template	
	A stack is created using a template must contain the degloyment code life which the name extension is if or if joon.	
* Template URL	https://documentation-samples-4.obs.ap-southeast-3	
	The URL must contain at least the deployment code file, and the file size cannot exceed 1 MB.	
	RFS only uses the data you upload for resource management. Your tempiate will not be encrypted. KMS and DEW are recommended for encryption of sensitive variables. Currently, the RFS console can automatically use KMS to encrypt your sensitive variables.	
		6
		0
		Next

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

• This procedure uses reinstalling the OS as an example, that is, setting the **image_id** parameter to **reinstall**. To change the OS, specify the image ID. Obtain the image ID according to **Table 3-1**.

Figure 3-19 Configuring parameters

	Compute Parameters (3) Compute stack (4) Com	Irm Configurations	
* Stack Name batch_rein	stal_os		
The stack na	ame must start with a letter and can contain a maximum of 128 characters, including is	letters, digits, underscores (_),	and hyphens (-). The stack name must be unique. The stack name must be unique.
Description batch_rein	182255		
Configure Parame	Q Encrypt some resources based on the tem	splate requirements. (?)	
Parameter	Value	Type	Description
* function_name	batch_reinstall_oe_0726test	string	Function name in the format (function_name)_figs, which identifies a function and serves as the prefix of other resource names, it must be unique and can contain 1 to 56 charac
* image_id	reinstall	string	Enter reinstall to reinstall the OS or enter the image ID to change the OS. Obtain the ID by referring to the parameter description in the Deployment Guide. Default value: reinstall
* ids		string	IDs of the ECSs to reinstall or change the OS. Separate the IDs with spaces. For example, id1 id2
* passwords		string	Passwords of the ECSs corresponding to the IDs. Separate the passwords with spaces. For example, password1 password2

Step 4 On the displayed page, select **rf_admin_trust** from the **Agency** drop-down list and click **Next**.

Figure 3-20 Configuring a stack

Bench	husweicloud v ff_admin_trust v C How to Create an Agency?
	An agency can clearly define RFS's operation permissions such as creation, update, and deletion) on stack resources. If the agency permissions are insufficient, subsequent operations such as deployment and execution plan creation may fail. Create Agency on DM
uto-Rollback	If auto-rollback is enabled, the stack automatically rolls back to the previous successful resource status when the operation fails. After the stack is created, you can modify the stack configurations on its details page.
eletion Protection	Deletion protection prevents the stack from being deleted accidentally. You can modify it on the stack details page.

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

Figure 3-21 Confirming configurations

mplate Info			
ck Name	batch_reinstall_os		Description batch_reinstall_os
rameters 🖉			
arameter Name	Value	Туре	Description
inction_name	batch_reinstall_os_0726test	string	Function name in the format (function_name)_fgs, which identifies a function and serves as the prefix of other resource names. It must be unique and can contain 1 to 56 chart
nage_id	reinstall	string	Enter reinstall to reinstall the OS or enter the image ID to change the OS. Obtain the ID by referring to the parameter description in the Deployment Guide. Default value: reins
ts		string	IDs of the ECSs to reinstall or change the OS. Separate the IDs with spaces. For example, id1 id2
asswords	******	string	Passwords of the ECSs corresponding to the IDs. Separate the passwords with spaces. For example, password1 password2
ack Settings			
I Permission Agency (Pro	wider) huaweicloud, (Agency) rf_admin_trust	Auto-Rollt	ack Disabled Deletion Protection Disabled

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

Figure 3-22 Creating an execution plan

reate Execution	Plan	
To preview your resolution plan.	ource change information, you can create an execution	
Execution Plan Name	executionPlan_20230714_1058_qpnb	
Description	Enter a description of the execution plan.	
	0/255 OK Cancel	

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

Figure 3-23 Execution plan created

< batch-reinstall-os				Delete Upda	ate Template/Parameter
Basic Information Resources Outputs I	Events Template Execution Plans	; 			
Deploy				Enter a keyword.	QC
Execution Plan Name/ID	Status	Estimated Price (?)	Created	Description	Operation
executionPlan_20230714_1058_qpnb 71c3c217-9b0c-4269-be4f-c9d46b8f51ef	Available	View Details	2023/07/14 10:59:28 GMT+08:00	-	Deploy Delete

Figure 3-24 Confirming the execution plan

Execution Plan			×
Are you sure you want to execute the	e plan?		
Execution Plan Name	Status	Created	
executionPlan_20230714_105	Available	2023/07/14 10:59:28 GMT+08	
After the plan is executed, the template are enabled, which requirements.	e stack is updated may incur fees ba	accordingly, and resources in the sed on resource payment	
Exe	cute	ncel	

Step 8 Click the **Events** tab and check whether the message "Apply required resource success." is displayed. If yes, the solution is successfully deployed.

Figure 3-25 Solution deployed

batch_reinstall_os-test0714				Delete Update Template/Parameter C
asic Information Resources Outp	outs Events Templa	tee Execution Plans		
			Resour *	Enter a keyword. Q
Time JΞ	Туре 🍞	Description	Resource Name/Type	Associated Resource ID
2023/07/14 11:13:25 GMT+08:00	Log	Apply required resource success.	**	-
2023/07/14 11:11:21 GMT+08:00		Apply completel Resources. 2 added, 0 changed, 0 destroyed.	**	-
2023/07/14 11:11:21 GMT+08:00	Creation Complete	huaweicloud_fgs_function.fgs_function: Creation complete after 4s [id=urn:fss:ap-southeast- 3:ae64160b8864b409041ba988eb3ac2;function:default:batch_reinstall_os_test0714_kwx1209567_ fgs:latest]	fgs_function FunctionGraph	um:fss:ap-southeast-3.ae649160b8564b409041ba9986e

----End

3.3 Getting Started

Step 1 Log in to the **Huawei Cloud console**, search for **FunctionGraph**, and go to the function list.

Figure 3-26 Huawei Cloud console

辨 ни	UAWEI CLOUD 🗌 බ	Console 🔍 Si	ngapore 🔻					ſ
≡	Dashboard	My Resour	ces O&M Manager	n Security	Custom Console	0		
	FunctionGraph							XQ
	1 records are found for	"FunctionGraph"						
A0A	FunctionGraph							Compute
R	Elastic Cloud Server		Hyper ECS	Bare Metal Server	Auto Scaling		Elastic Volume Service	
	Cloud Backup and Re	covery	Object Storage Service	Virtual Private Cloud	Elastic Load Balar	1Ce	Elastic IP	
0	Relational Database (Canilas	Demois Desistration					
6	Relational Database	Service	Domain Registration					
~	Recently Visited							
	Identity and Access M	Elastic Cloud Se	rver Resource Formation S					

Step 2 View the function created for this solution.

Figure 3-27 Created function

FunctionGraph	Functions ⑦			Operatio
Dashboard	☑ Search by name			
Templates	Function Name	Package Type	Runtime	Last Modified ↓⊟
Functions 🔺	batch_reinstall_os_test0714	Zip	Python 3.6	32 minutes ago
Function List				
Trigger List				
Reserved Instances				
Dependencies				
Flows				
Tools	4			

Step 3 Go to the function details page, and click **Test**. In the displayed dialog box, select **blank-template**, and click **Create** to create a test event.

Figure 3-28 Function details page

<pre>batch_reinstall_os_test07</pre>	14_kwx12 @Version: latest	Copy URN Disable Function
Function Info 🔻		
	batch_reinstall rundenstraph v2 Configure Async Notification Gonzees Notification: Disabled Falsere Notification: Disabled	Description: Last Updated. Jul 14, 2023 11.11 21 GMT+68.00 Function URX: um fis ap-autheats- 3 ae45460685644409041ba9986eb3ac21 install_cs_test0714_kox1209567_fgs.tatest
Code Monitoring Version	1 Aliases Configuration	
Code Source		③ Fee
File Edit Settings	t Event • Test Deploy	
Project	Database X 12 def handler (event, context): 13 log = context.getlogger() 14 result - check_configuration(context)	

Figure 3-29 Configuring a test event

Event Templates (17)		★ Event Name	blank-event-z82xi4	
Search	Q	1 {		- 10 M
blank-template		3 }	"key": "value"	
apig-event-template				
cts-event-template				
lds-event-template				
gaussmongo-event-template				
dis-event-template				
mage-tag				
kafka-event-template				
ogin-security-template				
Its-event-template				

Step 4 On the function details page, click **Test** to invoke the function to reinstall or change the OS. If information similar to the following is returned, the execution is successful.

Figure 3-30 Invoking a function

< batch_reinstall_os_test0714	4_kwx12
Function Info 🔻	
	+ Create Trigger Configure Async Notification Success Notification: Disabled Failure Notification: Disabled
Code Monitoring Version	Aliases Configuration
Code Source	
< File Edit Settings	
Project blank-event-z82	txi4 Test Deploy
Project	batch-reinstall-os.py ×
batch-reinstall-os.py	<pre>1 # coding: utf-8 2 3 from huaweicloudsdkcore.auth.credentials import BasicCredentials 4 from huaweicloudsdkcore.auth.credentials import EcsRegion 5 from huaweicloudsdkcore.auth.credentians texception 6 from huaweicloudsdkcore.auth.credentianstallServerWithCloudInitRequest, ReinstallServerWithCloudInitOption, ReinstallServer 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7</pre>

Figure 3-31 Execution successful

<pre>batch_reinstall_os_test07</pre>	14_kwx12 ©Version: latest			Copy URN	Disable Function	Operation +
Function Info 🔻						
	batch_reinstall PurctionGraph v2 Configure Async N Success Initiation D Pranter Notecotion Dir Pranter NoteCotion Dir	otification Neabled abled		escription: st Updated: I 14, 2023 11:11:21 Gh inction URN: n.fss.ap-southeast- ae649160b8564b4090 stall_os_test0714_kox	tT+08.00 41ba9986eb3ac2 function 1209567_fgs.latest ☐	x default batch_re
Code Monitoring Version	Aliases Configuration				0.5.4.1	literat -
Code Source					C Feedback	Opioad +
< File Edit Settings						- N
Project blank-event-a	82xi4 • Test Doploy					
Project	batch-reinstall-os.py X		Execution Result ×			
batch-reinstall-os.py	f from ThuswellCloudsdecs.v2 import ReinstallServerWithCloudIntReques 7 import traceback 10 11 승 문자 가설문자./2 21 def handler(event, context):	t, Reinstall	<pre> Execution successful Function Output ["success_msg": "Operating system "statusCode": 280, "statusCode": 280,</pre>	reinstallation in b	watch succeeded",	

Step 5 On the **Monitoring** tab, view the request logs about OS reinstallation.

Figure 3-32 Request logs

< batch_reinstall_os_demo0714_fgs @Version: latest -	🗂 Copy URN Disable Function Operation 🔻
Function Info 💌	
backtur_enerstall Fundercloseption	Description Let Update: Auf 14, 2023 16:29 28 0MT-08 00 Function URN: un fits -pontimeth- 3 aper497608554000951469858628.24 function default batch, re instal, est_emo0714_spiratest_01
Code Monitoring Version Allases Configuration	
Mettics Exec. Control Copy Incode and requests processed by your function and automatically stores the logs in LTS. Verify code by resetting control togging statements. The blowing table lists the function logs, Vew more en LTS	
Log Droup texctorpraph bg group ant/0110505564409411ta0906x53ac2 8 Log Droum batti_reintbil_or_efem0714_fpt_\$1caa413.44c6.44rb.875496xb4d	
Request Loss	
V Search logs by keyword. Q Show AI Versions and Alases	Last day Last 3 days Custom C
Logs	Q Search 🛛 All [] Full Screen 🖄 Download Log
1 b221-07-147081322047 Start load reegest 'eda4073-4564-4686-3098-b29784705802", version: latest 2023-07-147081322077 Effort load reegest 'eda6073-5567-4686-3078-b078670580", version: 114585 2023-07-147081322077 Start Imoke regust 'f4866708-053-4678-4782-30358677264", version: 114585 2023-07-147081322127 Einst Imoke regust 'f4866708-053-4678-4782-30358677264", version: 114585	HBH IN NOVE NO

Step 6 To reinstall or change the OS of other ECSs, go to the function details page, choose Configuration > Environment Variables, enter variable values by referring to Table 3-1, and click Save. Then invoke the function again by referring to Step 4.

<pre>batch_reinstall_os_test0</pre>	714_kwx12 @iversion: latest •		Copy URN Disable Function Operation
unction Info 💌			
	+ Create Triger	Configure Async Notification	Description: — Last Updated: Jul H. 2023 11:112 (DMT+08:00 Function URIN umb Tar as companies. 3.3 and 899/6006446.apd/0415649566.3ac2 function release barlog, install, bi_bent0714_Jwin 220647_dys tabled:
ode Monitoring Versio	on Allases Configuration		
Basic Settings	Environment Variables ⑦		
Triggers	Key Lie	Value Matpinatovatovatovatovatovatovatovatovatovat	Encrypted
Permissions	105	and and and a second	
Disk Mounting	image_id	reinstall	
Environment Variables	region	ap-southeast-3	
Concurrency	passwords	*****	
Configure Async Notification	Add		
Logs	S2/0		
Advanced Settings			

Figure 3-33 Setting environment variables

3.4 Quick Uninstallation

Step 1 Click **Delete** in the row where the solution stack is.

Figure 3-34 Deleting the stack

Stacks ⑦					User Guide Create Stack
			Stack	Name Search by stack name by default.	Q 🕲 C
Stack Name/ID	Status 🗸	Description	Created 4	Updated ↓Ξ	Operation
batch_reinstall_os-test0714 86a4ad79-918e-49b8-a4f1-8ec07fa74c7a	Deployment Complete	batch_reinstall_os	2023/07/14 11:08:54 GMT+08:00	2023/07/14 11:13:25 GMT+08:00	Delete Update

Step 2 Enter Delete and click OK.

 \times

Figure 3-35 Confirming the stack deletion

Delete Stack

Are you sure you want to delete the stack and resources in the stack? Stack and resources cannot be restored after being deleted. Exercise caution when performing this operation.

Stack Name		Status	Created		
batch_reinstall_os-test0	1714	Deployment	2023/07/14 11	1:08:54 GMT+08:00	
Resources (2)					
Cloud Product Na	Physical Re	source Name/ID		Resource Status	
FunctionGraph	batch_reinsta urn:fss:ap-so	all_os_test0714_kwx utheast-3:ae649160	Creation Complete		
Identity and Acces	batch_reinsta a65a86030d2	all_os_test0714_kwx 2d473080168bcd23d	Creation Complete		
Enter Delete to delete the stack and resources.					
Delete					
		OK Cancel			

----End

4 Appendix

Terms

Concepts, cloud service introduction, and proper nouns:

- Elastic Cloud Server (ECS): a scalable and on-demand cloud server. It helps you to efficiently set up reliable, secure, and flexible application environments, ensuring stable service running and improving O&M efficiency.
- FunctionGraph: hosts event-driven functions in a serverless context while ensuring high availability, high scalability, and zero maintenance. All you need to do is write your code and set the execution conditions. You pay only for what you use and you are not charged when your code is not running.
- Identity and Access Management (IAM): a basic service provided by Huawei Cloud for permissions management, access control, and identity authentication. You can use IAM to create and manage users and user groups, grant permissions to allow or deny their access to cloud services and resources, and configure policies to improve account and resource security. IAM also provides you with multiple secure access credentials.

5 Change History

Table 5-1 Change history

Released On	Description
2022-09-30	This issue is the first official release.
2023-03-08	Revised the procedure.