Practical Application of Huawei Cloud Solutions

Source Code Compilation with Jenkins

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Solution Overview

Scenarios

This solution helps you quickly deploy source code compilation environments on **Elastic Cloud Server (ECS)**. With the elastic scaling of ECS and the persistency of Jenkins, this solution helps you quickly and inexpensively deploy complex compilation environments, greatly improving the efficiency of software deployment. Jenkins is an open-source continuous integration tool written in Java. It aims to provide an open and easy-to-use software platform for continuous integration of software projects.

Solution Architecture

This solution is a great way to deploy software more efficiently. The solution architecture is illustrated below.



Figure 1-1 Architecture

This solution will:

- Create two ECSs, one for the Gerrit code repository and one for the Jenkins master node.
- Configure compilation nodes and configure Huawei Cloud plug-ins on the Jenkins master node to dynamically create and release ECS compilation nodes.
- Create an Object Storage Service (OBS) bucket to store compilation results.

You can use Image Management Service (IMS) to prepare the OS environment required for the compilation in advance.

Advantages

• Elastic scaling

Benefiting from elastic scaling and on-demand purchase of ECS, compilation nodes can be dynamically created or released.

- Low cost ECS is used for scheduled, automatic compilation and OBS is used to store compiled code. You do not need to purchase physical servers.
- Easy deployment

Resources can be quickly provisioned and source code compilation environment based on Jenkins can be deployed.

Constraints

- Before deploying this solution, you need to sign up for Huawei Cloud. Ensure that your account is not in arrears or frozen.
- After this solution is deployed, the compilation environment with Jenkins is set up automatically, but it takes about 20 minutes to complete. Once this process is complete, you can access Jenkins and Gerrit URLs.

2 Resource Planning and Costs

This solution will deploy the resources listed in the following table. The costs are only estimates and may differ from the final prices. For details, see the **price calculator**.

Huawei Cloud Service	Example Configuration	Estimated Monthly Cost
Elastic Cloud Server (ECS)	 Region: AP-Singapore Billing Mode: Pay-per-use CPU Architecture: x86 Specifications: General computing-plus c6.xlarge.2 4 vCPUs 8 GiB Image: CentOS 7.6 64bit System Disk: High I/O 40 GiB 	0.24 x 24 x 30 x 2 = \$345.60 USD
	 Data Disk: High I/O 100 GiB Quantity: 2 	
Elastic IP (EIP)	 Region: AP-Singapore Billing Mode: Pay-per-use Product Type: Dedicated Routing Type: Dynamic BGP Billed By: Bandwidth Bandwidth: 10 Mbit/s Quantity: 2 	0.25 x 24 x 30 x 2 = \$352.80 USD

Table 2-1 Resource and cost planning

Huawei Cloud Service	Example Configuration	Estimated Monthly Cost
Object Storage Service (OBS)	 Region: AP-Singapore Billing Mode: Pay-per-use Product Type: Object storage Storage Class: Standard Data Redundancy Policy: Single-AZ storage Pay per Use Pricing, Standard (USD): 0.0250/GB per month Traffic: Upload traffic to OBS: Free 	It is estimated that 1 GB data will be added every month, which will cost \$0.02 USD. For details, see the monthly bill.
Total	-	\$698.42 USD

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 official website, open the **console**, move your mouse 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.

Figure 3-3 Agency list

IAM	Agencies ③						Create Agency
Users	Delete Agen	ncies available for creation: 32			AI	✓ rf_admin_trust	X Q
User Groups	Agency Na	ame/ID ↓≣ Delegated Party ↓≣	Validity Period ↓≡	Created 4F	Description ↓≣	Operation	
Permissions •	rt_admin_tr	ust Account op_svc_IAC	Unlimited	Jan 16, 2023 17:57:41 GMT+08:00	Created by RF, Not delete.	Authorize Modify Delet	•
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 Create Agency

Agencies / Create Agence	:y
* Agency Name	rf_admin_trust
★ 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

< Authorize Agency	
Select PatcyRee Select Scope SPinth	
Assign selected permissions to rf_admin_trust1.	Create Policy
View Selected (1) Copy Permissions from Another Project	All policies/roles
Policy/Role Name	Туре
WHE AdministratorAccess Recommonded Data Model Engine tenant administrator with full permissions.	System-defined policy
Tensant Administrator Tensant Administrator (Exclude (AM))	System-defined role
Cloud Stream Service Tenarit Administrator, can manage multiple CS users	System-defined role

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

Figure 3-6 Select Scope

Authorize Agency
1 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 created and displayed in the agency list.

Figure 3	-7	Agency li	st									
IAM	Ager	ncies 💿									Create Agen	ку
Users		Delete Agencies available for cre	ation: 32				Al	÷	rf_admin_trust		× Q	
User Groups		Agency NameID ↓≣	Delegated Party J≡	Validity Period ↓Ξ	Created JF	Des	cription J≣		Operation			
Permissions • Projects		rf_admin_trust	Account op_svc_IAC	Unlimited	Jan 16, 2023 17:57:41 GMT+08:00	Crea	ited by RF, Not delete.		Authorize Modify D	lelete		
Agencies												
Identity Providers												
Security Settings												

..

----End

3.2 Quick Deployment

This section describes how to deploy the Source Code Compilation with Jenkins solution.

Paramete r	Туре	Mandator y	Description	Default Value
vpc_name	String	Yes	The prefix of a Virtual Private Cloud (VPC) name. The VPC naming format is {vpc_name}_vpc. This template uses a newly created VPC and the VPC name must be unique. The prefix can contain 1 to 57 characters and can include letters, digits, underscores (_), hyphens (-), and periods (.).	build_sy stem_ba sed_on_j enkins_d emo
secgroup_ name	String	Yes	The prefix of a security group name. The security group naming format is {secgroup_name}_secgroup. This template uses a newly created security group. For details about how to configure security group rules, see the (Optional) Modifying Security Group Rules. The prefix can contain 1 to 55 characters and can include letters, digits, underscores (_), hyphens (-), and periods (.).	build_sy stem_ba sed_on_j enkins_d emo

Table 3-1 Parameter description

Paramete r	Туре	Mandator y	Description	Default Value
ecs_name	String	Yes	The prefix of the Jenkins and Gerrit server names. The naming format is {ecs_name}- jenkins or {ecs_name}-gerrit. The server name must be unique. The prefix can contain 1 to 56 characters and can include letters, digits, underscores (_), hyphens (-), and periods (.)	build_sy stem_ba sed_on_j enkins_d emo
jenkins_fla vor	String	Yes	The flavor of the Jenkins server. The default flavor is c6.xlarge.2 (4U8G). For more flavors, see the deployment guide.	c6.xlarg e.2
gerrit_flav or	String	Yes	The flavor of the Gerrit server. The default flavor is c6.xlarge.2 (4U8G). For more flavors, see the deployment guide.	c6.xlarg e.2
ecs_passw ord	String	Yes	The initial password of the Jenkins and Gerrit servers. After an ECS is created, log in to the ECS console and change the password by referring to the instructions provided in deployment guide. It can include 8 to 26 characters and must include at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters (!@\$%^=+[{}]:,./?). The password cannot contain any username or the username spelled backwards. The administrator is root .	Left blank
jenkins_dis k_size	Number	Yes	The size of the data disk attached to the Jenkins server. The unit is GB. Value range: 10 to 32768. The default value is 500 .	500

Paramete r	Туре	Mandator y	Description	Default Value
gerrit_disk _size	Number	Yes	The size of the data disk attached to the Gerrit server. The unit is GB. Value range: 10 to 32768. The default value is 500 .	500
jenkins_eip _size	Number	Yes	The bandwidth size of the Elastic IP (EIP) bound to the Jenkins server. The EIP is billed by bandwidth. The unit is Mbit/s. Value range: 1 to 2000. The default size is 10 Mbit/s.	10
gerrit_eip_ size	Number	Yes	The bandwidth size of the Elastic IP (EIP) bound to the Gerrit server. The EIP is billed by bandwidth. The unit is Mbit/s. Value range: 1 to 2000. The default size is 10 Mbit/s.	10
bucket_na me	String	Yes	The name of the OBS bucket for storing compiled code. The name must be globally unique in OBS. It must include 3 to 63 characters and can include only lowercase letters, digits, hyphens (-), and periods (.). It cannot be an IP address.	build- system- based- on- jenkins- demo

Step 1 Log in to Huawei Cloud Solution Best Practices and choose **Source Code Compilation with Jenkins**. Click **Deploy** to switch to the **Create Stack** page.

Figure 3-8 Selecting a solution

solution is a great way to deploy software more efficiently.	
Gerrit code repository Buill code Puill code Configure the system disk of the compliation server Lenkins Master Node Definite compliation server Lenkins Master Node Puill code Create resources on demand	Source Code Compilation with Jenkins Version: 1.0.0 Last Updated: April 2023 Built By: Huavei Cloud Time Required for Deployment: About 10 minutes Time Required for Uninstallation: About 5 minutes Estimated Cost ¶ View Source Code ¶
Completion nodes Jenkins compliation server Jenkins compliation server Release resources	View Deployment Guide

Step 2 On the **Select Template** page, click **Next**.

Figure 3-9 Select Template

Create Stack		
Select Template	(2) Configure Parameters (3) Configure Stack (4) Configurations	
* Creation Mode	Existing templates	
* Template Source	URL Upload Template	
* Template URL	A status to could using a kingdata. The langular most contain the designment code file which the name exclanation is if or if point. Tags inforcumentation samples - A data sets outpressed: Data (38) must be able to the designment code file which the name exclanation is if or if point. Data (38) must be able to the designment code file which the two recover exceed 1.100.	
	The state was and contained in a state on support processing was and a state contract control of the state of the sta	
		Š
		0
		Next

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

Figure 3-10 Configure Parameters

< Create Stack	K Create Stack				
Select Template) Select Template @ Configue Parameters () Configue Stack				
* Stack Name de	* Stack Name (depty = 4 succes-code-bable-yolen-based-on-yolenname) The tack vame multitative in a left and can contain a maximum of 128 character. Includes lefters dats, underscore () and heaters (-) the tack vame multitative man.				
Description Sc	Description Source Code Completion with Jervines				
Configure Pa	Configure Parameters Entry a knyword. Q Support Some resources based on the template requirements. O				
Parameter	Value	Туре	Description		
* vpc_name	build_system_based_on_jenkins_demo	string	Virtual Private Cloud (VPC) name. This template uses a newly created VPC and the VPC name must be unique. Value range: 1 to 57 characters, including letters, digits, undersc		
* secgroup_name	build_system_based_on_jenkins_demo	string	Security group name. This template uses a newly created security group. For details about how to configure security group rules, see the deployment guide. Value range: 1 to 55		
* ecs_name	build_system_based_on_jenkins_demo	string	The prefix of the Jenkins and Gent server names. Value range. 1 to 56 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Default value: build_syst		
* jenkins_flavor	c6.xiarge.2	string	The flavor of the Jenkins server. Default value: c8.xlarge 2 (4U8G). For more flavors, see the deployment guide.		
* gerrit_flavor	c6.xiarge.2	string	The flavor of the Genit server. Default value: c6.xlarge.2 (4U8G). For more flavors, see the deployment guide.		
* ecs_password		string	The initial password of the Jenkins and Genit servers. After an ECS is created, log in to the ECS console and change the password by referring to the instructions provided in dep		
			Philos		

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

Figure 3-11 Configure Stack

Create Stack		
1) Select Template	- ② Contigure Parameters	
* Agency	Namestad	
Auto-Rollback	I 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.	
Deletion Protection	Deletion protection prevents the stack from being deleted accidentally. You can modify it on the stack delaik page.	
		Q Q
		Q
	Previous	st

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

Figure 3-12 Confirm Configurations

<	Create Stack				
1	D Select Temptate (2) Configure Parameters (3) Configure East: (6)				
	RFS is free of charge, but the resources in th	ne stack are not. Currently, you need to create an execution plan (fr	ee of charge) to obtain the estimate	mated price.	1
	Template Info Stack Name d	teploy-a-source-code-build-system-based-on-jenkins		Description Source Code Compilation with Jenkins	
	Parameters 🖉				
	Parameter Name	Value	Type	Description	
	vpc_name	build_system_based_on_jenkins_demo	string	Virtual Private Cloud (VPC) name. This template uses a newly created VPC and the VPC name must be unique. Value range: 1 to 57 characters, including letters, digits, und	
	secgroup_name	build_system_based_on_jenkins_demo	string	Security group name. This temptate uses a newly created security group. For details about how to configure security group rules, see the deployment guide. Value range: 1 to	
	ecs_name	build_system_based_on_jenkins_demo	string	The prefix of the Jenkins and Gent server names. Value range: 1 to 56 characters, including letters, digits, underscores (_), hyphens (-), and periods (_). Default value: build	
	jenkins_flavor	o6.xlarge.2	string	The flavor of the Jenkins server. Default value: c6.xiarge.2 (4U8G). For more flavors, see the deployment guide.	
	gerrit_flavor	o6.xiarge.2	string	The flavor of the Gerrit server. Default value: c6 xlarge 2 (4U8G). For more flavors, see the deployment guide.	
	ecs_password		string	The initial password of the Jenkins and Gerni servers. After an ECS is created, log in to the ECS console and change the password by referring to the instructions provided in	
	jenkins_disk_size	500	number	The size of the data disk attached to the Jenkins server. The unit is GB. Value range: 10 to 32768. Default value: 500	0
	gerrit_disk_size	500	number	The size of the data disk attached to the Genit server. The unit is GB. Value range: 10 to 32768. Default value: 500	C
	jenkins_eip_size	10	number	The bandwidth size of the Elastic IP (EIP) bound to the Jenkins server. The EIP is billed by bandwidth in Mbills. Value range: 1 to 2000. Default value: 10	
Estin	nated fee: You can obtain the estimated fee affe	r creating an execution plan (tree of charge).		Previous Create Execution Plan Directly Deploy St	ack

×

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

Figure 3-13 Create Execution Plan

Create Execution Plan

- Before deploying a stack, you can create an execution plan to preview the stack information and check its configurations to evaluate the impact on running resources.
- RFS is free of charge, but the resources in the stack are not. After the execution
 plan is created, a stack (occupies the stack quota) for which no resource is
 enabled is generated, and the estimated price is displayed in the execution plan
 details.

* Execution Plan Name	executionPlan_20230321_1945_83hv	
Description	Enter a description of the execution plan	
Description	Enter a description of the execution plan.	
		ĥ
		0/255
	OK Cancel	

Step 7 Wait until the status of the execution plan changes to **Available**, and then click **Deploy** in the **Operation** column. In the displayed dialog box, click **Execute**.

Figure 3-14 Execution plan created

< 0	eploy-a-source-code-bu				Delete	ate Template/Parameter
Basic	Information Resources Outputs Even	ts Template Execution Plans				
	eploy				Enter a keyword.	Q C
	Execution Plan Name/ID	Status	Estimated Price ③	Created	Description	Operation
	executionPlan_20230322_1115_aqj3 7d2814c9-6bca-4727-b437-563da39c5c2b	Available	View Details	2023/03/22 11:15:15 GMT+08:00	-	Delete Deploy

Figure 3-15 Confirming the execution plan

Execution Plan			
Are you sure you want to execute the	e plan?		
Execution Plan Name	Status	Created	
executionPlan_20230322_111	Available	2023/03/22 11:15:15 GMT+08	
After the plan is executed, th template are enabled, which requirements.	e stack is updated may incur fees ba	accordingly, and resources in the sed on resource payment	
Ex	ecute	ncel	

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

Figure 3-16 Resources created

e	deploy-a-source-code-bu	Events Template Exe	cution Plans		Delete Upda
					Enter a keyword.
	Time J≡	Туре	Description	Resource Name/Type	Associated Resource ID
	2023/03/22 11:18:05 GMT+08:00	LOG	Apply required resource success.	-	**
	2023/03/22 11:18:01 GMT+08:00		Apply completel Resources: 12 added, 0 changed, 0 destroyed.	-	
	2023/03/22 11:18:01 GMT+08:00	Creation Complete	husweicloud_compute_instance.gerrit: Creation complete after 1m26s [id=d7daf2f7-b80d-49eb-8e15-dff7bad1e4d1]	gerrit ECS	d7daf2f7-b80d-49eb-8e15-dff7bad1

Figure 3-17 Deployment completed

< deploy-a-source-code-bu				Delete	odate Template/Paran
Basic Information Resources Outputs Event	s Template Execution Plans				
Deploy				Enter a keyword.	
Execution Plan Name/ID	Status	Estimated Price ③	Created	Description	Operation
executionPlan_20230322_1115_aq[3 7d2814c9-6bca-4727-b437-563da39c5c2b	Applied		2023/03/22 11:15:15 GMT+08:00	-	Delete

----End

3.3 Getting Started

(Optional) Modifying Security Group Rules

NOTICE

 This solution uses port 50000 to communicate with the Jenkins master node. By default, the VPC subnet created in this solution allows access from port 50000. Configure an IP address whitelist by referring to **Modifying a Security Group** Rule.

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 the security group policy, for example, by adding, modifying, or deleting a TCP port, as follows:

- Adding a security group rule: Add an inbound rule and enable a TCP port if • needed.
- Modifying a security group rule: Inappropriate security group settings can be a serious security risk. You can **modify security group rules** to ensure the 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 does not need to be enabled, you can **delete the security group rule**.

Accessing Gerrit and Creating a Code Repository

Step 1 On the **Outputs** tab of the stack, copy the Gerrit access address.

'	< deploy-a-source-code-bu		5		Delete	Update Template/Parameter	С
	Basic Information Resources Outputs Events	Template Execution Plans					
					Enter a keyword.	Q	3
	Name	Type	Value	Description			
	Gernit_access_address	string	http://119.8.170.173.8080				
	Jenkins_access_address	string	http://190.92.215.73:8080				
	Notice	string	After this solution is deployed, the compilation environment with Jenkins is set	-			

Figure 3-18 Cerrit access address

Step 2 Paste the Gerrit access address to the address bar of a browser and click **Sign in**.

Figure 3-19 Accessing Gerrit

← → C + http://* '2080 ●		□ 3 :
Gerrit changes - documentation - browse -	Q, status:open-is:wip	<u>Sign in</u>
No changes		0

Step 3 Click Sign in with a Launchpad ID.

Figure 3-20 Signing in to Gerrit (1)

Sign In to Gerrit Code Review at 121.36.42.21



OpenID provides secure single-sign-on, without revealing your passwords to this website.

There are many OpenID providers available. You may already be member of one!

<u>Get OpenID</u>

Step 4 On the Ubuntu One page, enter an email address and password to log in. (If you do not have an account, click Log in or Create account in the upper right corner to create an account.)

Figure 3-21 Signing in to Gerrit (2)

ubuntu one	Log in or Create account
One account for everythin	g on Ubuntu
Ubuntu One > log in	Ubuntu One is the single account you use to log in to all services and sites related to Ubuntu. If you have an existing Ubuntu Single Sign On account, this is now
 I don't have an Ubuntu One account I have an Ubuntu One account and my password is: 	called your obditte one account, read More >
Log in Forgot your password?	

Step 5 On the displayed page, click **Yes, log me in**.

Figure 3-22 Signing in to Gerrit (3)

ubuntu one		Log out
Personal Dal		
Personal details	You are logging in to http:// 2:8080/ The site has requested some personal information, please choose what you would like to share: Full name: Email address: Yes, log me in cancel	

Step 6 Choose BROWSE > Repositories > CREATE NEW, specify Repository name and Default Branch, and click CREATE.

Figure 3-23 Creating a code repository

Gerrit CHANGES -	YOUR - DOC	UMENTATION -	BROWSE -			Q	0 🗢
Repositories	Filter:						CREATE NEW
Groups	Repository Name	Repository Browser	Changes Read only	Repository Description			
Plugins	All-Projects	browse	view all	Access inherited by all othe	er projects.		
	All-Users	browse	view all	Individual user settings and	d preferences.		
							Page 1
			Cri Re Rig Ow On rep	eate Repository sository name ault Branch hts inherit from ner ate initial empty commit y serve as parent for other sositories	Optional, defaults to All P True V False V CANCEL CR	EATE	

----End

Accessing Jenkins and Configuring Plugins

Step 1 On the Resources tab of the stack, click the created Jenkins server.

_

Figure 3-24 Accessing the Jenkins server

(deploy-a-source-code-bu							
Basic Information Resources Outputs Events	Template Execution Plans						
				Enter a keyword. Q			
Cloud Product Name	Physical Resource Name/ID (?)	Logical Name (?)	Resource Type	Resource Status 🍸			
Elastic Cloud Server	build_system_based_on_jenkins_demo-penit 61ae9c02-b2e5-407b-9b97-28868999dadb	gerrit	huaweicloud_compute_instance	Creation Complete			
Elastic Cloud Server	build_system_based_on_jenkins_demo-jenkins 90f2b0cd-ee0b-4e83-ac3a-6b4az3c31208	jankins	huawelcloud_compute_instance	Creation Complete			
Virtual Private Cloud	build_system_based_on_jenkins_demo_secgroup 8ac389d5-6a35-49bc-0978-8d318886bf90	secgroup	huaweicloud_networking_secgroup	Creation Complete			
Virtual Private Cloud	 521cb393-186a-4157-9aa9-a7ce7c7c61e7	allow_gerrit	huaweicloud_networking_secgroup_rule	Creation Complete			
Virtual Private Cloud	 1555ae43-c310-4d7c-99b8-10e233634269	allow_http1	huawelcloud_networking_secgroup_rule	Creation Complete			
Virtual Private Cloud	 d5e848a2-dc5c-416Fb041-48a548917521	allow_jenkins	huaweicloud_networking_secgroup_rule	Creation Complete			
Virtual Private Cloud	 5056ade6-8537-4993-a209-e1be64bf50a3	allow_ping	huaweicloud_networking_secgroup_rule	Creation Complete			

Step 2 Click Remote Login. In Other Login Modes area, click Log In. For more login modes, see ECS Help Center.

Figure 3-25 Logging in to the Jenkins server

Logging in to a Linux ECS			
The security group of this ECS does not allow Ports21, Ports22, to the ECS will fail. Add security group rule View port functions	Ports80, Ports443, Ports3389 login	A	
CloudShell-based LoginNew!	Failed to log in?		
Ensure that the port used for CloudShell-based logins (port 22 b security group. CloudShell-based login allows you to copy-paste data across local ar Log In	y default) is allowed to access in the Id remote PCs.	apacity	
Other Login Modes			
- Log in using Remote Login on the management console.			
- Log in using a tool, such as PuTTY or Xshell. Learn more			
b) Enter the EIP.			
c) Enter username root and password, and click OK.			

Step 3 Run **cat /app/jenkins_home/secrets/initialAdminPassword** to obtain the login password of user **admin** and copy the password.

Figure 3-26 Obtaining the password of user admin for logging in to the Jenkins server



Step 4 On the **Outputs** tab of the stack, copy the Jenkins access address.

Figure 3-27 Jenkins access address

< deploy-a-source-code-bu				Delete Update Template/Para	umeter C
Basic Information Resources Outputs Events	Template Execution Plans				
				Enter a keyword.	Q C
Name	Туре	Value	Description		
Gernit_access_address	string	http://TI95/TP4_125/8080	-		
Jenkins_access_address	string	http://1 2-15 215 12 8080			
Notice	string	After this solution is deployed, the compilation environment with Jenkins is set	-		

Step 5 Paste the Jenkins access address into the address bar of a browser, enter the password obtained in **Step 3**, and click **Continue**.

Figure 3-28 Logging in to Jenkins

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

/var/jenkins_home/secrets/initialAdminPassword

Please copy the password from either location and paste it below.

Administrator password	
•••••	

Step 6 Install plugins by selecting, for example, Install suggested plugins.

Figure 3-29 Customize Jenkins

Getting Started

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Figure 3-30 Installing plugins

Getting Started

Ge	etting Start	ted		
✓ Folders Plugin	OWASP Markup Formatter Plugin	✓ Build Timeout	 Credentials Binding Plugin 	** SCM API ** Pipeline: API
 Timestamper 	 Workspace Cleanup Plugin 	✓ Ant Plugin	🔇 Gradle	** commons-lang3 v3.x Jenkins API Timestamper
🗘 Pipeline	🖏 GitHub Branch Source	Pipeline: GitHub Groovy Libraries	🔇 Pipeline: Stage View	** Caffeine API ** Script Security ** Ionicons API
🗘 Git	🖏 SSH Build Agents	Matrix Authorization Strategy	2 PAM Authentication	** JAXB ** SnakeYAML API ** Jackson 2 API
🖏 LDAP	🖏 Email Extension	🔇 Mailer	Localization: Chinese (Simplified)	** Plugin Utilities API ** Font Awesome API ** Popper.js 2 API
				** Bootstrap 5 API ** JQuery3 API ** JQuery3 API ** Display URL API ** Display URL API ** Pipeline: Supporting APIs ** Checks API ** Matrix Project ** Matrix Project ** Matrix Project ** Matrix Project ** Matrix Project ** Durable Cleanup Ant ** Durable Task

Step 7 Wait until the plugins are installed. Then create an admin user or click **Skip and continue as admin**. In this example, we click **Skip and continue as admin**.

Figure 3-31 Continue as an admin

Getting Started

Username:			
Password:			
Confirm password:			
Full paper			
[]	
E-mail address:	 		

Step 8 On the **Instance Configuration** page, configure the Jenkins URL and click **Save** and **Finish**.

Figure 3-32 Configuring the Jenkins URL

Getting Started

Instance Configuration



http://

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps. The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing orviewing links.

Jenkins 2.346.2	Not now Save and Fir ish

Step 9 Wait until the Jenkins setup is complete and click Start using Jenkins.

Figure 3-33 Jenkins setup completed

Getting Started

Jenkins is ready!

You have skipped the setup of an admin user.

To log in, use the username: "admin" and the administrator password you used to access the setup wizard.

Your Jenkins setup is complete.





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Step 10 Configure the HuaweiCloud ECS plugin to automatically create Huawei Cloud ECSs as the slave nodes of the Jenkins cluster.

----End

3.4 Quick Uninstallation

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

Figure 3-35	Deleting	the	stack	
-------------	----------	-----	-------	--

1	Stacks ⑦						t≱ UserGui	Je Cre
						Search by stack name by	default.	C
	Stack Name	Status 🖓	Description	Created JF	Updated ↓≣		Operation	
	deploy-a-source-code-build-system-based-on-jenkins 5d3b3eb9-0e0b-47c4-b643-49d11149e57d	Deployment Complete	-	2023/03/22 17:40:44 GMT+08:00	2023/03/22 17:45:34 GI	VT+08:00	Delete	

Step 2 Enter Delete and click OK.

Figure 3-36 Confirming the deletion

Delete Stack			×
Are you sure you want to delete the stac be restored after being deleted. Exercise	k and resources in ti caution when perfo	he stack? Stack and resources cannot rming this operation.	
Stack Name	Status	Created	
deploy-a-source-code-build-s	Deployment	2023/03/22 17:40:44 GMT+08:00	
Enter Delete to delete the stack and reso	ources.		_ _
	OK Cancel	1	
End			

4 Appendix

Terms

- **Elastic Cloud Server (ECS)**: ECS provides secure, scalable, on-demand compute resources, enabling you to flexibly deploy applications and workloads.
- **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.
- **Object Storage Service(OBS)**: Object Storage Service (OBS) provides stable, secure, efficient, and easy-to-use cloud storage that lets you store virtually any volume of unstructured data in any format and access it from anywhere using REST APIs.

5 Change History

Released On	Description
2023-04-30	This issue is the first official release.