Alibaba Cloud

Web App Service

Tutorial

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Document conventions

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

Table of Contents

1.Build a deployment environment based on a Jenkins template

Web App Service (Web+) enables you to build an exclusive environment based on an application configuration template. In the application configuration template, you can customize basic information used by applications, such as the resources, network environment, and program path. This topic describes how to use the command-line interface (CLI) to build a deployment environment based on a Jenkins template.

Prerequisites

Activate related services and authorize roles

Step 1: Download and install the command-line tool

In Linux or macOS, run the following command to download and install the CLI:

```
eval "$(curl -s -L https://webplus-cn-shenzhen.oss-cn-shenzhen.aliyuncs.com/cli/install.sh)"
```

Step 2: Configure the command-line tool

Run the following command to use the AccessKey ID and AccessKey secret of your account to register and configure the CLI, select the region where the environment resides, and then create a folder, for example, named *demo*:

```
wpctl configure --access-key-id "$ALICLOUD_ACCESS_KEY" --access-key-secret "$ALICLOUD_SECRET_KEY" --region "$ALICLOUD_REGION"  --profile demo
```

> ⑦ **Note**   For more information about the valid values of the ALICLOUD_REGION parameter, see the Region ID column in Supported regions.

Step 3: Download a Jenkins template

The *Wpfile* file stores the configuration information used to create or update a deployment environment. Web+ creates a Jenkins template. You can run the following command to download the template and save the template in the *Wpfile* file:

```
wget http://aliwebx-sz.oss-cn-shenzhen.aliyuncs.com/docs/course/Jenkins5Wpfile -O Wpfile
```

> ⑦ **Note**   When the Jenkins template is used, Web+ purchases an Elastic Compute Service (ECS) instance in Pay-As-You-Go mode under the default Virtual Private Cloud (VPC) and VSwitch. The type of the purchased ECS instance is ecs.g5.large (2 vCPUs and 8 GiB memory). Then, Web+ installs the AliyunLinux operating system and deploys the Jenkins.war file on the purchased ECS instance.

Step 4: Create a deployment environment based on the Jenkins template

Run the following command to create a Web+ application and a deployment environment. After you run the following command, Web+ automatically reads the configuration template in the *Wpfile* file, and creates a deployment environment based on the Jenkins template.

```
wpctl env:apply --app WebPlusJenkins --env WebPlusJenkinsDemoEnv --create-on-absent
```

> ⑦ **Note** It takes about 5 minutes to create the application and deployment environment. Wait with patience.

Step 5: Access the deployment environment

After the application and deployment environment are created, Web+ purchases the configuration resources in the template for you. It takes about 2 minutes to purchase the resources. Then, you can run the following commands to access the deployment environment:

1. Run the following command to switch to the created application and deployment environment:

```
wpctl env:use WebPlusJenkinsDemoEnv --app WebPlusJenkins
```

2. Run the following command to view the event list:

```
wpctl env:events
```

3. Run the following command to view the environment information and obtain the application URL:

```
wpctl env:info
```

Step 6: Install the Jenkins template environment

After accessing the deployment environment configured in the preceding steps in a browser, you can install the Jenkins template environment. During the installation, Jenkins will prompt you to enter the administrator password, which can be obtained from the file /Home/admin/. jenkins/secrets/initialAdminPassword . You can use the CLI to run the following command to query the password:

```
wpctl env:exec WebPlusJenkinsDemoEnv "cat /home/admin/.jenkins/secrets/initialAdminPassword"
```

References

- For more information about how to deploy an application in the Web+ console, see Deploy applications.
- For more information about CLI-related commands, see Use CLI commands.

2.Deploy Jenkins in the Web+ console

Web App Service (Web+) enables you to build an exclusive environment based on an application configuration template. In the application configuration template, you can customize basic information used by applications, such as the resources, network environment, and program path. This topic describes how to build a deployment environment in the Web+ console based on a Jenkins template.

Prerequisites

Activate related services and authorize roles

Step 1: Download the Jenkins deployment package

Download the Generic Java package (.war), namely, jenkins.war from the official website of Jenkins.

Step 2: Create and deploy an application

1. Log on to the Web App Service console and select the required region in the upper-left corner of the page.

2. In the **Basic Information** step, configure basic information about the application and click **Next**.

Parameter	Description
Tech Stack Type	The type of the technology stack. Select a technology stack based on your business needs. In this example, select **Java**.
Application Name	The name of the application. In this example, enter Jenkins-demo.
Application Description	The description of the application. This parameter is optional.
Use Free Storage Space	If you enable the Use Free Storage Space feature, uploaded deployment packages, collected logs, and diagnostic information in the lifecycle of the application are all stored in the free storage space. This minimizes storage costs. If you require a high level of data privacy, you can disable this feature. After this feature is disabled, all data is stored in your Object Storage Service (OSS) bucket.

3. In the **Environment Information** step, configure information about the deployment environment and deployment package. After the configuration is complete, click **Next**.

Parameter	Description
Tech Stack Version	The version of the technology stack. Select a version from the drop-down list.

Parameter	Description
Environment Name	The name of the deployment environment. In this example, enter doc-test-env.
Environment Description	The description of the deployment environment. This parameter is optional.
Package Source	The source of the deployment package. You can select **Upload Local Application** or **Use Sample Application**. In this example, select **Upload Local Application** and upload the jenkins.war package downloaded in Step 1: Download the Jenkins deployment package.
Package Version	The version of the deployment package. Web+ provides a default deployment package version. You can change the default deployment package version.
Version Description	The description of the deployment package version. This parameter is optional.

4. In the **Configurations** step, select **Preset Configuration** in the **Custom** field. After you complete the following configuration, click **Create with Custom Configuration**. In the **Actions** dialog box, click **OK**.

   i. In the architecture diagram of the Environment section, click **Host Instance**.

   ii. On the **Host Instance** page, use default settings for parameters such as the selected Elastic Compute Service (ECS) instance specifications.

   iii. Scroll down the Host Instance page to the **Logon Credential** section. Select **Password** and specify a password for the root user of the ECS instance.**Logon Credential**

   > ◁⟩ **Notice**   Remember your password, which is required when you log on to the ECS instance to obtain the initial administrator password of Jenkins.

5. In the **Finish** step, click **View environment Logs**.

6. In the **Change Events** dialog box, wait until the changes are complete. Close the dialog box to go to the details page of the deployment environment. Then click the URL on the right side of **Public Address**.

Step 3: Install and configure Jenkins

After the application is created and deployed, you can connect to Jenkins to install and configure Jenkins.

1. Wait until the following logon page appears after Jenkins is initialized.

   i. Log on to the ECS instance with the password for the root user of the ECS instance.

   ii. Run the following command on the ECS instance:

   ```
   cat /home/admin/.jenkins/secrets/initialAdminPassword
   ```

iii. On the **Unlock Jenkins** page, enter the command output in the **Administrator password** field and click **Continue**.

2. Select **Install suggested plugins** or **Select plugins to install** as needed. Wait until the plug-ins are installed.

> ⑦ **Note** It may take some time to install the plug-ins.

3. On the **Create First Admin User** page, enter the logon username and password and click **Save and Continue**.

4. On the **Instance Configuration** page, confirm the Jenkins URL and click **Save and Finish**.

5. On the **Jenkins is almost ready!** page, click **Restart**. Jenkins is installed and configured.

3.Create a WordPress website

WordPress is a popular Content Management System (CMS). This topic describes how to use Web App Service to create a WordPress website.

Create a WordPress environment in the Web App Service console

In the Web App Service console, you can create a WordPress environment.

1. Log on to the Web App Service console and select the required region in the upper-left corner of the page.

2. On the **Overview** page, click **Get Started with WordPress** in the upper-right corner of the **Last Updated Environments** section.

3. On the **Get Started with WordPress** page, set the required parameters.

Parameter	Description
Application Name	The name of the application.
Application Description	The description of the application.
Use Shared OSS Storage	- Specifies whether to enable shared OSS storage. If you turn on the switch, Web App Service provides shared OSS storage. After you create the application, all data required by relevant environments to run the application is stored in shared OSS storage. The data includes uploaded packages, collected logs, and diagnostic information. - If you turn off the switch, all data will be stored in your OSS buckets.
Custom Environment Information	- Specifies whether you can customize environment information. If you turn off the switch, Web App Service creates a WordPress environment based on a low-cost preset configuration. The name of the environment is the same as the name of the application. - After you turn on the switch, you can enter a custom **Environment Name** and **Environment Description**.

4. Click **Start WordPress**.

5. In the **Actions** dialog box, view the list of change events and click **OK**.
A page appears, indicating that the application and the environment are created. Click **View environment Logs** to go to the **Change Events** dialog box. After the update is complete, close the dialog box and go to the **Overview** page.

Visit the homepage of the application to install and configure WordPress

1. On the **Overview** page, click **Public Address** to visit the homepage of the application.
2. Go to the Configurations tab. After you select the required language on the tab, the Welcome dialog box as shown in the following figure appears.

Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title

Username

Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password

UNn7p%YL@qA*@nTsJ%   🚫 Hide

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

Search Engine Visibility

☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

Install WordPress

3. Complete the subsequent configurations for WordPress based on your business requirements.

4.Host a static website in the Web+ console

This topic describes how to host a static website in the Web App Service (Web+) console. A static website can use client-side technologies such as HTML, CSS, and JavaScript. A static website cannot contain dynamic content, such as server-side scripts written in Hypertext Preprocessor (PHP).

Package a static website

Package the static website to be hosted into a ZIP file.

> 🔊 **Notice**   Do not package the top-level directory when you create the ZIP file.

Host a static website in the Web+ console

1. Log on to the Web App Service console and select the required region in the upper-left corner of the page.

2. On the **Overview** page, click **Create** in the upper-right corner of the **Last Updated Deployment Environments** section.

3. In the **Basic Information** step, select **Native** for **Tech Stack Type**, configure basic information about the application, and then click **Next**.

Parameter	Description
Tech Stack Type	The type of the technology stack. Select a technology stack based on your business needs. In this example, select **Native**.
Application Name	The name of the application.
Application Description	The description of the application. This parameter is optional.

Parameter	Description
Use Free Storage Space	If you enable the Use Free Storage Space feature, uploaded deployment packages, collected logs, and diagnostic information in the lifecycle of the application are all stored in the free storage space. This minimizes storage costs. If you require a high level of data privacy, you can disable this feature. After this feature is disabled, all data is stored in your Object Storage Service (OSS) bucket.

4. In the **Environment Information** step, set a name for the deployment environment and upload the deployment package. Then click **Next**.

Parameter	Description
Tech Stack Version	The version of the technology stack. Select a version from the drop-down list.
Environment Name	The name of the deployment environment.
Environment Description	The description of the deployment environment. This parameter is optional.
Package Source	The source of the deployment package. You can select **Upload Local Application** or **Use Sample Application**. In this example, select **Upload Local Application**, click **Select File**, and then select the deployment package to be uploaded.
Package Version	The version of the deployment package. Web+ provides a default deployment package version. You can change the default deployment package version.
Version Description	The description of the deployment package version. This parameter is optional.

5. In the **Configurations** step, select **Custom** in the **Preset Configuration** field.

6. In the architecture diagram of the **Environment** section, click **Reverse Proxy** and configure a reverse proxy.

   i. On the **Reverse Proxy** page, select **Use Custom Configuration**.

   ii. Copy the following content to the Custom NGINX Configuration field:

> **Note**
> - The **root** command of the server parameter under http must point to the deployment directory of the static website. This directory is typically stored in */home/admin/app*. The directory name website is the same as the name of the deployment package. Modify the directory information based on your business needs.
> - You can modify the NGINX configuration file based on your business needs.

```
user            nginx;
worker_processes    auto;
error_log        /var/log/nginx/error.log warn;
pid            /var/run/nginx.pid;
worker_rlimit_nofile   32796;
events {
  worker_connections 1024;
}
http {
  server_tokens off;
  include    /etc/nginx/mime.types;
  default_type  application/octet-stream;
  log_format  main '$remote_addr - $remote_user [$time_local] "$request" '
          '$status $body_bytes_sent "$http_referer" '
          '"$http_user_agent" "$http_x_forwarded_for"';
  include    conf.d/*.conf;
  map $http_upgrade $connection_upgrade {
    default   "upgrade";
  }
  server {
    listen    80 default_server;
    access_log  /var/log/nginx/access.log main;
    # The root command must point to the deployment directory of the static website. This directory is typically stored in /home/admin/app. The directory name website is the same as the name of the deployment package. Modify the directory information based on your business needs.
    root /home/admin/app/website;
    client_header_timeout 60;
    client_body_timeout  60;
    keepalive_timeout    60;
    gzip          off;
    gzip_comp_level    4;
    gzip_types text/plain text/css application/json application/javascript application/x-javascript text/xml application/xml application/xml+rss text/javascript;
  }
}
```

   iii. In the lower-left corner of the **Configurations** step, click **Create with Custom Configuration**. In the **Actions** dialog box, confirm the change list and click **Start WordPress**.

7. In the **Finish** step, click **View environment Logs**.

8. In the **Change Events** dialog box, check the changes that are being made. After the changes are complete, close the **Change Events** dialog box.

9. On the **Environment Details** page, click the URL on the right side of **Public Address** to access the

static website.

References

Deploy native applications in Web+