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Change log

Version  | Date         | Notes                                      
---------|--------------|--------------------------------------------
1.0      | December 31, 2019 | Initial release                           
1.1      | January 10, 2020    | Added non-privileged SFTP user, extra firewall settings
I. Introduction

This is a guide to SCHLIX CMS installation on Alibaba Cloud. SCHLIX CMS is a multi-site extensible content management to manage websites, blogs and e-commerce systems.

Use cases:
- Organization/company profile website
- Online newspaper, magazine, blog
- Personal website
- E-commerce website
- Community-based portal

Components (as of Dec 2019):

- Application: SCHLIX CMS v2.2.x series
- Operating system: Ubuntu 18.04 LTS
- Database: MySQL 5.7
- PHP: PHP 7.2.x
- Web server: Apache 2.4
- Web server modules:
  - mod_rewrite – URL rewriter for SEO
  - mod_header
  - mod_evasive – additional protection against DDoS
- Additional info:
  - CSF to protect against SSH brute force
  - Unattended operating system upgrade enabled by default
  - SCHLIX CMS initial install does not enable wildcard mode by default (domain(s) must be specified explicitly)
  - Shell execution functions in PHP is disabled by default
II. Alibaba Cloud Elastic Compute Service instance configuration

From the MarketPlace, click the Choose Your Plan button.

1. On the **Instance Type** section, we recommend that you should get at the very least 1GB memory on the Entry-Level (Shared). The more memory you have, the better the performance will be.

<table>
<thead>
<tr>
<th>Instance Type</th>
<th>Current Generation</th>
<th>All Generations</th>
<th>Purchase History</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Filter</td>
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<td>Architecture</td>
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<tr>
<td></td>
<td>Instance Type</td>
<td>Memory</td>
<td>Average Baseline CPU Performance</td>
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<tr>
<td></td>
<td>Burstable Type 16</td>
<td>ecs.t6d-1c1.large</td>
<td>2 vCPUs</td>
</tr>
<tr>
<td></td>
<td>Burstable Type 16</td>
<td>ecs.t6d-1c2m1.large</td>
<td>2 vCPUs</td>
</tr>
<tr>
<td></td>
<td>Burstable Type 16</td>
<td>ecs.t6d-1c2m2.large</td>
<td>2 vCPUs</td>
</tr>
<tr>
<td></td>
<td>Burstable Type 16</td>
<td>ecs.t6d-1c4m.large</td>
<td>2 vCPUs</td>
</tr>
<tr>
<td></td>
<td>Burstable Type 16</td>
<td>ecs.t6d-1c4m2.large</td>
<td>2 vCPUs</td>
</tr>
</tbody>
</table>

Selected Instance Type: **ecs.t6d-1c2m1.large**

Burstable instances are not intended to exceed their performance baselines for extended periods of time or for business scenarios with consistent performance requirements. Click here for more information about burstable instances.

Burstable Instance:

Enable Unlimted Mode for 15 instances

Purchased Instances: 1

2 vCPUs have been enabled, and 98 more vCPUs can be enabled. The selected instance type occupies 2 vCPUs. You can create a maximum of 40 more ECS instances in this region.

Image:

Selected Image: **SCHLIX CMS v2.2.1.6**

Storage:

**System Disk**

Ultra Disk:

40 GB | 2120 IOPS | Release with Instance

Click here for guidelines on how to select an appropriate disk for your scenario.

**Disk Backup** (Recommended)

You can periodically backup disks with an automatic snapshot policy to prevent risks such as virus attacks and accidental data deletion. Snapshot pricing (pay-as-you-go billing and hourly payment collection).

default policy | Every Day | 30 Days | Retain 7 Days | Create Automatic Snapshot Policy

Next: Networking
2. Set the networking configuration and bandwidth options. Ensure the [Assign Public IP Address] is selected.

3. Set the Logon credentials to either Key Pair or Password.
4. You can change the various grouping options on this page.

Tags
Each tag consists of a case-sensitive key-value pair. For example, you can add a tag with the key "Group" and the value "Web".
Tag keys must be unique, and must be 1 to 64 characters in length. Tag values can be 0 to 128 characters in length. Tag keys and tag values cannot start with "aliyun" or "ecs-", and cannot contain "http" or "https".
You have specified 0 tags and can specify 20 more tags.

Add Tag

Deployment Set
Select a deployment set
You can go to the console to manage the deployment set.
The selected instance type does not support deployment sets. View the instance types that support deployment sets.

Dedicated Host
Go to the console to create a DCS.

5. Preview

Configurations Selected

Basic Configurations
- Billing Method: Pay-As-You-Go
- Region: Singapore / Random
- Instance Type: (Burstable Type t3 / ecs-light-2.5m/30cpu 1GB)
- System Disk: Ultra Disk 40GB, Release with Instance
- Quantity: 1 Units
- Image: SCHLIX CMS v2.2.1-6
- Enable Unlimited Mode for S5 Instances: No
- System Disk: Ultra Disk 40GB, Release with Instance
- Automatic Snapshot Policy: (VSwitch) Default Policy, (Instance) Daily 1, (Frequency) 100 GB, (Retention) 7 Days
- Security Group: sg-Aegklenr1hbiopjg

Networking
- Network Type: VPC
- Network Billing Method: Pay-By-Traffic 5Mbps
- VPC: [Default]
- VSwitch: Default VSwitch

System Configurations
- Logon Credentials: Key Pair name-1
- Instance Name: sample-schlix-install
- Host: www.yourwebsite.com

Save as Launch Template
View Open API

Automatic Release
- Automatic Release:
The ECS instance will be released at the time you specified. After the instance is released, its data and IP addresses will not be retained and cannot be retrieved.

Terms of Service
- ECS Terms of Service and Product Terms of Service | Image Product Terms of Use

6. Done

Created
The ECS instance(s) you purchased are being created. The creation process may take 1 to 5 minutes to complete. Click back to purchase more instances or click Console to manage instances.

Back
Console

Alibaba Cloud provides more preferential and flexible cloud services, including the following functions:
- Auto Scaling Services
- Load Balancing Services: Load balance instances across VPC-connected networks
- Switch from pay-as-you-go to subscription
- Change charge configuration by pay-as-you-go instance
- Change VPC Internet bandwidth

www.schlix.com
III. Domain name configuration

Before you begin SCHLIX CMS installation, you'll need to configure the domain name for your website and IP address.

For example, here's a screenshot of your newly created instance when you go to https://ecs.console.aliyun.com. Take a note of the IP address.

If your DNS is hosted at Alibaba, go to https://dns.console.aliyun.com and add an A record pointing to that IP address of the instance.

Try to ping the IP address and ensure that you receive a reply before proceeding to the next step.
IV. SCHLIX CMS Installation

Once the ECS instance has been created and the status indicated that it is “Running”, use the provided public IP Address to continue SCHLIX CMS installation.

There are two ways to proceed with the installation:

a. Web-based installer.

If this is your first time or if you are only testing SCHLIX CMS installation, then choose the web-based installer. This option is easier to use and requires no additional client-side program other than either Chrome or Firefox based web browser.

To proceed with this option, simply point the web browser to the IP address (e.g. http://161.117.xxx.yyy), or to the domain (e.g. http://my-company.com).

If you wish to associate more domain name to the website, you can either use the Site Manager later.

* Please note that with the web-based installer, all your installation information (including website admin and database password) will be submitted in plain-text, in case this is a security concern for you. You can, however, change the database and the admin password later.

For more information about the web-based installation procedure, visit the following link:
https://www.schlix.com/documentation/v2/configuration/installation.html

b. SSH installer

The SSH installer is the preferred option if this website is for production use. During the installation, you will also have the option to automate the site's SSL configuration and get a free SSL certificate from LetsEncrypt.

**Windows** user – you can use the following free SSH clients:

- putty - [https://putty.org](https://putty.org)
- MobaXterm - [https://mobaxterm.mobatek.net](https://mobaxterm.mobatek.net)

**Linux** and **Mac OS X** user – simply use the built-in `ssh` command.

```
[user@computer]$: ssh 161.117.182.51
```
Step 1 – Database settings
Configure the database username and password.

```
SCHLIX CMS installation process will begin.
alternatively, this installation process can be done at http://161.117.182.51/install
---------------------------------------------
You can cancel this installation process by pressing Ctrl+C.
This process will run again on your next login.
---------------------------------------------

== Database Settings ==
Database Name [schlixdb] : schlixdb
Database Username : schlixuser
Database Password :
root password is automatically generated and saved to /root/.mysql-root-password.txt
Install sample data? recommended If you're using SCHLIX CMS for the first time (y/n) [y] : y
```

Step 2 – Site Settings
If this is your first time, it's recommended to disable the wildcard mode by default as most websites don't need it. You can always add more parked domain name via Site Manager or edit the /var/www/html/multisite-config.inc.php file manually.

If you are installing it on a top level domain, e.g. mywebsite.com, do enable the www prefix option. If this option is set to no, then www.mywebsite.com will not resolve to mywebsite.com.

```
== Site Settings ==
Site Domain, leaves blank to use IP address. This is necessary for installing SSL : mywebsite.com
Use wildcard and serves all domain names? Type n if you're not sure (y/n) [n] : n
Make this site valid for both www and without www? Type n if you're not sure or installing on subdomain (y/n) [n] : y
Site Name : My Company Name
Site ID, used to identify multisite [main] : main
Admin Username : admin
Admin Password :
```

Step 3 – SSL Settings
To enable LetsEncrypt immediately, choose yes. You can always configure it later.

```
== SSL Configuration ==
You have the option of configuring LetsEncrypt to secure your new site.
Before doing this, be sure that you have pointed your domain or subdomain (mywebsite.com) to 161.117.182.51
You can also run LetsEncrypt certbot later with the command 'certbot --apache'
Would you like to use LetsEncrypt (certbot) to configure SSL(https) for your new site? (y/n): y
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Plugins selected: Authenticator apache, Installer apache
Enter email address (used for urgent renewal and security notices) (Enter 'c' to cancel): 
```

Step 4 – SFTP User
Set the SFTP User password. This is a non-privileged local user with no access to SSH.

```
== SFTP Configuration ==
SFTP User: webdev has been created.
You can use this user to access site files using FTP.
Please set the password or leaves blank to randomly generate one.
SFTP User (webdev) Password:
```
Once the installation has been completed, you will no longer be prompted to install SCHLIX CMS when you log in. If you would like to redo the installation process to, delete /var/www/html/multisite-config.inc.php and run /opt/schlix/schlix_install.sh.

V. Additional installation information

1. MySQL root password is stored in /root/.mysql-root-password.txt. Please copy the content of these two files to your favourite password manager or change the password. The password is randomly generated.

2. An additional local, non-privileged user with an SFTP-only access (no SSH, no sudo) is created and this should be the user that you use for occasional web maintenance, if needed (e.g. upload a large video more than 128Mb as specified in the memory limit in php.ini). This will reduce chance of compromise as you don't need to share the root password and the SFTP user already has the same permission as the PHP scripts. The SFTP username is stored in /root/.sftp-user.txt and its randomly generated password in /root/.sftp-user-password.txt. To change the password of the SFTP user, login as root and type passwd username.

3. PHP options /etc/php7.2/apache2/php.ini

   drwxr-xr-x 3 root root  4096 Dec 17 20:22 .
   drwxr-xr-x 5 root root  4096 Dec 17 20:21 ..
   drwxr-xr-x 2 root root  4096 Dec 17 20:21 conf.d
   -rw-r--r-- 1 root root 71828 Dec 17 20:22 php.ini

4. If you’d like to increase the upload size, change the following variables

   o memory_limit – default: 128M
   o upload_max_filesize – default: 128M
   o post_max_size – default: 128M
   o max_file_uploads – default: 100
   o max_execution_time (in seconds) – default: 180 (3 minutes)

5. The server is set to use localhost sendmail to send messages. To prevent the IP address from being flagged as spam, add an SPF record of the IP address in your DNS record. If your DNS is hosted at Alibaba Cloud, simply add +ip4:xxx.yyy.zzz.aaa (replace xxx.yyy.zzz.aaa with the real IP address).

   "v=spf1 a +ip4:xxx.yyy.zzz.aaa ~all"

6. We have added CSF to prevent brute force protection and mod_evasive (disabled by default) to prevent DDoS, however if you’re running a large site and would like a better protection, use Alibaba Web Application Firewall.

7. Log rotation: the log retention has been modified to 5 years by default.

8. If you need to upload large files above the set limit without having to change the php.ini, you can upload it to /var/www/html/web/<your site ID, default=main>/media/ with the SFTP user.
VI. Extension and Themes

You can add more functionality via the Extensions Gallery.

To install an extension, simply go to the desired extension and click Install.
V. Database tool

**WARNING:** Do not install PHPMyAdmin manually in any directory. This is often exploited.

For database maintenance and troubleshooting, it’s recommended to use PHPMyAdmin Bridge, a SCHLIX CMS extension: [https://www.schlix.com/extensions/development/phpmyadmin-bridge.html](https://www.schlix.com/extensions/development/phpmyadmin-bridge.html) which you can download by going to Extensions Gallery --> Development.

![PHPMyAdmin Bridge](image)

VII. Additional support

Community support is available at [https://www.schlix.com/forum/](https://www.schlix.com/forum/). Feel free to post bug reports in the forum as well.

To learn more about SCHLIX CMS, visit [https://www.schlix.com/documentation/](https://www.schlix.com/documentation/).

We also offer commercial support and can help you with full-site development as well. To get more information, contact us via [https://www.schlix.com/contacts/](https://www.schlix.com/contacts/).

Thank you for choosing SCHLIX CMS!