NOTE:

By default, network access is turned off to a ECS instance. You can specify rules in a security group that allows access from an IP address range, port, or ECS security group.

You must specify port numbers (for TCP):

- 22 (ssh)
- 80 (http)
- 443 (https)
- 21, 20000~30000 (ftp)

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https://oneinstack.com
1 Image environment description

1.1 Image version description

Software version:

- Nginx 1.12.0
- PHP 7.1.7, PHP 7.0.21, PHP 5.6.30, PHP 5.5.38, PHP 5.4.45, PHP 5.3.29
- MySQL 5.6.36 or MariaDB 10.1.25
- Redis 3.2.9
- Memcached 1.4.39
- Jemalloc 4.5.0
- Pure-FTPd 1.0.46
- phpMyAdmin 4.4.15.10

Image Feature:

1. Source compiler installation, download the latest and most stable version from the official, security optimization
2. Providing multiple PHP versions (PHP-7.1, PHP-7.0, PHP-5.6, PHP-5.5, PHP-5.4, PHP-5.3)
3. Jemalloc optimize Nginx, MySQL/MariaDB
4. Providing add a virtual host script, include Let’s Encrypt SSL certificate
5. Add ftp acount to nginx via the shell script menu
6. Provide Nginx, MySQL, PHP, Redis, Memcached, phpMyAdmin upgrade script
7. Provide local backup and remote backup (rsync between servers) 、 Alibaba cloud OSS backup (Intranet) script

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1.2 Application Installation Directories

Nginx install directory: /usr/local/nginx

Database install directory: /usr/local/mysql or /usr/local/mariadb

Database data directory: /data/mysql or /data/mariadb

Database Configuration File: /etc/my.cnf

PHP install directory: /usr/local/php

PHP Configuration Path: /usr/local/php/etc

PHP Configuration File: /usr/local/php/etc/php.ini

PHP Additional .ini File: /usr/local/php/etc/php.d

Memcached install directory: /usr/local/memcached

Memcached Configuration File: /etc/init.d/memcached

Redis install directory: /usr/local/redis

Redis Configuration File: /usr/local/redis/etc/redis.conf

Web Context document root: /data/wwwroot/default

phpMyAdmin install directory: /data/wwwroot/default/phpMyAdmin

Web logs directory: /data/wwwlogs

Index demo url: http://<Public net IP>


phpmyadmin url: http://<Public net IP>/phpMyAdmin  #Pay attention to upper and lower case, rename or delete for security advice

PHP Prober url: http://<Public net IP>/prober.php

The default ip direct access to the contents of the corresponding root directory:/data/wwwroot/default , This directory contains the home pagedemo,Op cache Control Panel,phpinfo,phpmyadmin,Probes and other documents, Directory inside the file can be deleted, the directory can not be deleted.

https://oneinstack.com
1.3 How do use scripts to optimize the parameters

Because this image was build based on 1 Core 1G ECS, the configuration and parameters for MySQL/MariaDB, PHP are original without any change, highly recommended. If this is not the case, run the following optimization script:

```
cd /root/oneinstack  # Must enter the directory execution under oneinstack
./optimize.sh        # Do not sh optimize.sh or bash optimize.sh such execution
```

NOTE:

1. It may take 1 minute, do not interrupt

2. This script will automatically optimize MySQL, PHP and other parameters according to the system configuration
2 How to Change your PHP Version

cd /root/oneinstack  #Must enter the directory execution under oneinstack

./change_php_version.sh  #Do not sh change_php_version.sh such execution

```
[root@OneinStack oneinstack]# ./change_php_version.sh

# OneinStack for CentOS/RadHat 5+ Debian 6+ and Ubuntu 12+
# Change your PHP version
# For more information please visit https://oneinstack.com

Current PHP Version: 5.4

Please select a version of the PHP:
  1. php-7.1
  2. php-7.0
  3. php-5.6
  4. php-5.5
  5. php-5.4
  6. php-5.3

Please input a number:(Default 3 press Enter) 2
Gracefully shutting down php-fpm . done
Starting php-fpm  done

You have successfully changed to 7.0

[root@OneinStack oneinstack]#
```
3 Migrating website from OS disk to Data disk

**Note:** If you purchased a data disk (And only one data disk), it is recommended to mount the data disk first, the site content, database storage data cloud disk, If there is no purchase data cloud disk Ignore the tutorial!

```bash
cd /root/oneinstack  #Must enter the directory execution under oneinstack
./move_auto_fdisk.sh  #mount data disk and migrate
```

As shown below:

```
# OneInstack for CentOS/RadHat 5+ Debian 6+ and Ubuntu 12+
# Auto fdisk
# For more information please visit http://oneinstack.com

Step 1. No lock file, begin to create lock file and continue

Step 2. Begin to check free disk
You have a free disk, now will fdisk it and mount it
This system have free disk:
/dev/vdb

Step 3. Begin to fdisk free disk

Step 4. Begin to make directory

Step 5. Begin to write configuration to /etc/fstab and mount device
```

https://oneinstack.com
4 MySQL/MariaDB databases management

**NOTE:**

Use following URL to open phpMyAdmin page:

http://<Public net IP>/phpMyAdmin

phpMyAdmin is an application for MySQL databases management. With it you can create, alter, drop, delete, import and export MySQL database tables. You can also run MySQL queries, optimize, repair and check tables, change collation.

4.1 Display default MySQL root password

```bash
cd /root/oneinstack  #Must enter the directory execution under oneinstack
grep dbrootpwd options.conf  #Display MySQL root password
```

```
[root@1 ~]# cd /root/oneinstack
[root@1 oneinstack]# grep dbrootpwd options.conf
dbrootpwd=\KeYpZrZx
```
4.2 Change MySQL root password

cd /root/oneinstack  # Must enter the directory execution under oneinstack

./reset_db_root_password.sh

[root@OneinStack oneinstack]# cd oneinstack
[root@OneinStack oneinstack]# ./reset_db_root_password.sh

Please input the root password of database: oneinstack
Password reset successfully!
The new password: oneinstack

[root@OneinStack oneinstack]# mysql -uroot -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 376
Server version: 5.6.33-log MySQL Community Server (GPL)
Copyright (c) 2000, 2016, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MySQL [(none)]>
4.3 Create a MySQL Database

For example: create a database named ‘oneinstack’

```
# mysql -uroot -p     # enter mysql console

Enter password:     # Enter mysql root password

MySQL [(none)]> create database oneinstack;   # Notice the semicolon at the end

MySQL [(none)]> show databases;

MySQL [(none)]> exit;     # quit mysql consoleNotice the semicolon at the end
```
4.4 Delete a MySQL Database

MySQL [(none)]> `drop database oneinstack;`  #delete oneinstack database

MySQL [(none)]> `exit;`  # quit mysql console, Notice the semicolon at the end

```sql
[root@oneinstack ~]# mysql -u root -p
Enter password: 
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.6.34-log MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> `show databases;`
+---------------------+
<table>
<thead>
<tr>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>information_schema</td>
</tr>
<tr>
<td>mysql</td>
</tr>
<tr>
<td>oneinstack</td>
</tr>
<tr>
<td>performance_schema</td>
</tr>
</tbody>
</table>
+---------------------+
4 rows in set (0.00 sec)

MySQL [(none)]> `drop database oneinstack;`
Query OK, 0 rows affected (0.00 sec)

MySQL [(none)]> `show databases;`
+---------------------+
<table>
<thead>
<tr>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>information_schema</td>
</tr>
<tr>
<td>mysql</td>
</tr>
<tr>
<td>performance_schema</td>
</tr>
</tbody>
</table>
+---------------------+
3 rows in set (0.00 sec)
```
4.5 Create a Database User

For security purposes, we usually create a unique database connection account for each web application (Account name can not be root).

E.g: add a user named: db_user, password: 123456, Authorization for the localhost to the oneinstack database all permissions, the commands are as follows:

```
# mysql -u root -p
MySQL [(none)]> grant all privileges on oneinstack.* to db_user@'localhost' identified by '123456';  # Notice the semicolon at the end
```

```
MySQL [(none)]> flush privileges;
```

```
MySQL [(none)]> exit;  # quit mysql console, Notice the semicolon at the end
```
4.6 How to setup a remote MySQL connection

For security reasons, OneinStack only allows the cloud host localhost to connect to the database, if you need a remote connection to the database, the following operations are required:

1. You must open port 3306 for Security groups

2. Database authorization

Remote Connection Create a new account (Account name can not be root)

E.g: add a user named linuxeye, password 123456, Authorized as % ( % Represents all ip can connect, you can set the designated ip ) oneinstack database all authority, the commands are as follows

```
# mysql -uroot -p
MySQL [(none)]> grant all privileges on oneinstack.* to linuxeye@%' identified by '123456'; # Authorization statement, Special attention to the semicolon
MySQL [(none)]> flush privileges;
MySQL [(none)]> exit; # Quit the database console, Special attention to the semicolon
```

As shown below:
Welcome to the MySQL monitor. Commands end with ; or \\g.
Your MySQL connection id is 9
Server version: 5.6.34-log MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> grant all privileges on oneinstack.* to db_user@'localhost' identified by '123456';
Query OK, 0 rows affected (0.00 sec)

MySQL [(none)]> flush privileges;
Query OK, 0 rows affected (0.00 sec)
5 How to manage virtual host

5.1 How to add a virtual host

cd /root/oneinstack  # Must enter the directory execution under oneinstack

./vhost.sh  #NOTE: If no SSL certificate is purchased, SSL under Nginx please enter n

https://oneinstack.com
In the above figure, the directory is the root directory of the Web site, the script is created automatically, Upload the code to the directory when deploying the site (the directory, subdirectories, and file permissions are all:www) correspond Nginx the configuration file path is:

/usr/local/nginx/conf/vhost/www.oneinstack.com.conf (www.oneinstack.com Is the domain name that is bound)

Nginx rewrite rule: /usr/local/nginx/conf/rewrite/wordpress.conf

Add a virtual host will automatically create this directory
5.2 How to delete a virtual host

cd /root/oneinstack  # Must enter the directory execution under oneinstack

./vhost.sh del

```
[root@oneinstack #]# ./vhost.sh del

# Oneinstack for CentOS/RadHat 5+ Debian 6+ and Ubuntu 12+
# For more information please visit https://oneinstack.com

Virtualhost list:
www.oneinstack.com

Please input a domain you want to delete: www.oneinstack.com

Do you want to delete Virtul Host directory? [y/n]: n
Domain: www.oneinstack.com has been deleted.
[root@oneinstack #]
```
6 How to manage FTP User Accounts

```
cd /root/oneinstack  # Must enter the directory execution under oneinstack

./pureftpd_vhost.sh  # Do not sh pureftpd_vhost.sh such execution
```

![Step-by-Step Guide]

What Are You Doing?
1. UserAdd
2. UserMod
3. UserPasswd
4. UserDel
5. ListAllUser
6. ShowUser
q. Exit

Please input the correct option: 1

Please input a username: yeho

Please input the password: oneinstack

Please input the directory (Default directory: /data/wwwroot):

Password:
Enter it again:

[yeho] create successful!

You user name is: yeho
You Password is: oneinstack
You directory is: /data/wwwroot
7 How to backup

Backup Set Parameters

```bash
cd /root/oneinstack  # Must enter the directory execution under oneinstack
./backup_setup.sh
```

![Backup Setup SHA output](https://oneinstack.com/backup_setup.sh_output.png)
Perform the backup immediately:

```
    cd  /root/oneinstack  #Must enter the directory execution under oneinstack
    ./backup.sh
```

Set Scheduled Task Automatic Scheduled Backup:

Example: Can be added to scheduled tasks, such as automatic backups every day 1:00

```
# echo '0 1 * * * cd ~/oneinstack;/backup.sh  > /dev/null 2>&1 & '  >>
/var/spool/cron/root
```

View the backup:

View the local backup:

```
    ls -l /data/backup/
```
# 8 How to manage service

**Nginx:**

```
service nginx {reload|start|stop|status|restart }
```

**PHP:**

```
service php-fpm {reload|start|stop|status|restart }
```

**MySQL:**

```
service mysqld {start|stop|restart|reload|status}
```

**Pure-Ftpd:**

```
service pureftpd {start|stop|restart|status}
```

**Redis:**

```
service redis-server {start|stop|status|restart|reload}
```

**Memcached:**

```
service memcached {start|stop|status|restart|reload}
```
9 How to upgrade

```
cd /root/oneinstack  # Must enter the directory execution under oneinstack
./upgrade.sh  # Do not sh upgrade.sh or bash upgrade.sh such execution
```

![Upgrade Process](https://oneinstack.com)
10  How to add Extensions

`cd /root/oneinstack`  # Must enter the directory execution under oneinstack

`./addons.sh`  #NOTE: Support install and uninstall function

```
What Are You Doing?  
1. Install/Uninstall PHP opcode cache  
2. Install/Uninstall ZendGuardLoader/ionCube PHP Extension  
3. Install/Uninstall ImageMagick/GraphicsMagick PHP Extension  
4. Install/Uninstall fileinfo PHP Extension  
5. Install/Uninstall memcached/memcache  
6. Install/Uninstall Redis  
7. Install/Uninstall Let's Encrypt client  
q. Exit  
Please input the correct option: 7
```

```
Please select an action:  
1. install  
2. uninstall  
Please input a number: (Default 1 press Enter)  
```
11 How to uninstall

Some items can be uninstalled separately, such as RDS database, the database can be uninstalled separately.

```
cd /root/oneinstack  # Must enter the directory execution under oneinstack
./uninstall.sh  # NOTE: Please backup your
```

---

In the image:

```
[root@Oneinstack ~]# cd oneinstack
[root@Oneinstack oneinstack]# ./uninstall.sh

# Oneinstack for CentOS/RadHat 5+ Debian 6+ and Ubuntu 12+
# Uninstall Oneinstack
# For more information please visit https://oneinstack.com

What Are You Doing?
0. Uninstall All
1. Uninstall Nginx/Tengine/Apache/Tomcat
2. Uninstall MySQL/MariaDB/Percona/AlibabaSQL
3. Uninstall PHP
4. Uninstall HNVM
5. Uninstall PureFtpd
6. Uninstall Redis
7. Uninstall Memcached
q. Exit

Please input the correct option: 2

You will uninstall Oneinstack, Please backup your configure files and DB data!
/usr/local/mysql
/etc/init.d/mysqld
/etc/my.cnf

Do you want to uninstall? [y/n]: n
```
12  More

12.1 How to deploy a website on a server

1. Create the database required for the site, reference [Create a database](https://oneinstack.com)

2. Add a virtual host, reference [How to add a virtual host](https://oneinstack.com)

3. Create an FTP account, reference [How to manage FTP accounts](https://oneinstack.com)

4. Deploy the code to the site root directory

**NOTE:** Ftp upload code do not need to modify permissions, default is already www;

Download the code in server, you must modify the site root and subdirectories, Directory file permissions are www; If there is a problem with site permissions, Please refer to [About site root permissions](https://oneinstack.com)

wget Download the code to deploy a WordPress, As shown below:

```
https://oneinstack.com
```
Access http://www.oneinstack.com, enter the database address (localhost), user named (root), password (database root password).

As shown below:
12.2 About the PHP opcode cache

by default, in order to reduce PHP compile time, improve performance ( Opcode is recommended for production environments ) , The PHP environment loads the Opcode module by default ( PHP7.1,7.0,5.6,5.5 ), Please refer to the principle:

《In-depth understanding of PHP Opcode caching principles》

But this will appear PHP code updates, take 2 to 3 minutes to take effect, This affects the efficiency of the site during the commissioning phase suggest that you close or refresh the cache every time there is a code update ( Recommended method two )

Method 1: Uninstall Opcode

```
   cd /root/oneinstack   #Must enter the directory execution under oneinstack
   ./addons.sh
```

![OneinStack for CentOS/RadHat 5+ Debian 6+ and Ubuntu 12+](https://oneinstack.com)
**Method 2:** Refresh the PHP cache

Access http://<Public net IP>/ocp.php,

Or direct access http://<Public net IP>/ocp.php?RESET=1

As shown below:
12.3 Proper permissions for files/folders

Web site root permissions to follow:

file 644, folder 755, Permissions Users and groups www

If there is a file permissions problem, execute the following three commands:

chown -R www.www /data/wwwroot/

find /data/wwwroot/ -type d -exec chmod 755 {} \\;
find /data/wwwroot/ -type f -exec chmod 644 {} \\;
12.4 About Redis and Memcached

Redis default port: 6379

Memcached default port: 11211

default only listen IP: 127.0.0.1

1. How to increase the maximum memory size of Redis

   vi /usr/local/redis/etc/redis.conf

   maxmemory 1024000000  # <bytes>

   service redis-server restart  # restart the redis for changes to take effect

2. How to increase the maximum memory size of memcached

   vi /etc/init.d/memcached

   CACHESIZE=256  # <MegaByte>

   service memcached restart  # restart the memcached for changes to take effect

3. How to change the listening port for redis

   vi /usr/local/redis/etc/redis.conf

   bind 127.0.0.1 changed to bind 0.0.0.0

   service redis-server restart  # restart the redis for changes to take effect

4. How to change the listening port for memcached

   vi /etc/init.d/memcached

   OPTIONS="-l 127.0.0.1"  changed to OPTIONS=""

   service memcached restart  # restart the memcached for changes to take effect

https://oneinstack.com
12.5 About iptables Firewall

By default, iptables firewall is not running.