

Cloud Computing Homework #1

1.

• Rackspace Private Cloud Sandbox

```

Your Rackspace Private Cloud Sandbox is now ready to use.
# =====
Horizon URL is           : https://192.168.56.211:443
Horizon User Name       : admin
Horizon Password        : Password
Sandbox User Name       : root
Sandbox Password        : Password
Chef Server URL is      : https://192.168.56.211:4000
Chef User Name          : admin
Chef Password           : Password
# =====

RPC login: root
Password:
Last login: Tue Dec 17 19:16:35 CST 2013 from 192.168.56.1 on pts/0
root@RPC:~# uname -a
Linux RPC 3.8.0-29-generic #42~precise1-Ubuntu SMP Wed Aug 14 16:19:23 UTC 2013
x86_64 x86_64 x86_64 GNU/Linux
root@RPC:~#
  
```

• project creation

名稱	描述	專案識別碼	已啟用	動作
service	service Tenant	0396038184da4a3a96793d92df48deb	True	更改使用者 更多
admin	admin Tenant	a4cda0d149cb4a37b7bf2eabb06763b	True	更改使用者 更多
p0456024	Cloud Computing Experiment	f8c42db96c784b95b19949e89213ba90	True	更改使用者 更多

• user creation

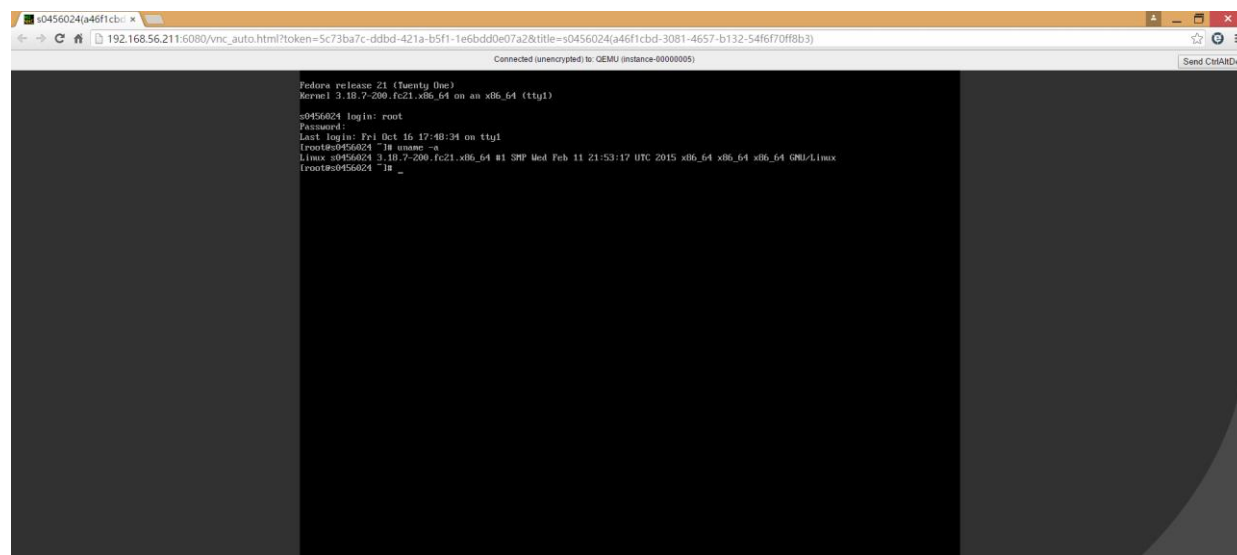
使用者名稱	電子郵件信箱	使用者識別碼	已啟用	動作
admin	None	2a7850a25c52420790898ac418952ea7	True	編輯 更多
cellometer	None	4894c50671c14c79bac5d16d0ba0773	True	編輯 更多
cinder	None	84331326398b4c5790789c086ee840ad	True	編輯 更多
glance	None	928522248b44432b0b212ca38254d14	True	編輯 更多
heat	None	81da1d227a9740c887b5a33fecace69	True	編輯 更多
monitoring	None	ea010f94fed4255a7b432a9a0dbf012	True	編輯 更多
nova	None	c64ab89ec7424f5ca285fc26028d851	True	編輯 更多
u0456024		67b3440352114ca2a7faced8c6449892	True	編輯 更多

2.

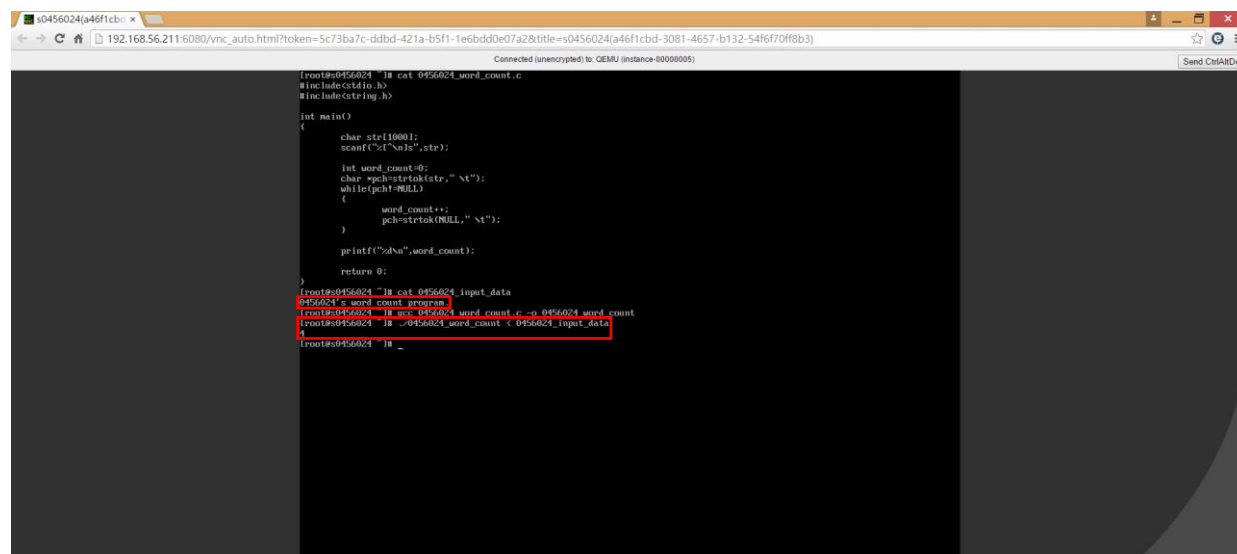
- instance creation



- Fedora 21 Cloud



- application



3.

Rackspace cloud platform implements OpenStack IaaS technology. It provides both command prompt and dashboard service - Horizon, to interact with underlying OpenStack services.

Rackspace Private Cloud Sandbox runs Rackspace Private Cloud 4.2.1. Since it is just a single node setup and system performance is dependent on the speed of network and host machine, even though QEMU is used as the hypervisor, it does not provide a high performance solution, but for testing or demonstrations.

My experiment is based on Oracle VM VirtualBox 4.3.30, Rackspace Private Cloud Sandbox 1.0 (Rackspace Private Cloud 4.2.1), and Fedora 21 Cloud.

Here are some problems I encountered:

1. Instances will be inaccessible outside of the host virtual machine.

Make sure that all interactions you have with instances must occur on the host they were booted on.

執行實例

執行實例名稱	映像檔名稱	IP 位址	規格	密碼對	狀態	任務	電源狀態	上傳時間	動作
s0456024	Fedora 21 Cloud Base		IaaS Instance 2GB 隨機存取記憶體 2 個虛擬處理器 10.0GB 硬碟	-	Error	None	No State	1 分鐘	連結浮動 IP 更多

2. yum update error - repositories can not be retrieved since metalink can not be verified.

The metalink in /etc/yum.repos.d/fedora.repo is actually available, and the error is due to network environment of VirtualBox. The following steps are required for functioning network of instances:

```

Connected (unencrypted) to: QEMU (instance-00000000d)
[root@localhost ~]# yum update

One of the configured repositories failed (Fedora 21 - x86_64),
and yum doesn't have enough cached data to continue. At this point the only
safe thing yum can do is fail. There are a few ways to work "fix" this:

1. Contact the upstream for the repository and get them to fix the problem.
2. Reconfigure the baseurl/etc. for the repository, to point to a working
   upstream. This is most often useful if you are using a newer
   distribution release than is supported by the repository (and the
   packages for the previous distribution release still work).
3. Disable the repository, so yum won't use it by default. Yum will then
   just ignore the repository until you permanently enable it again or use
   --enablerepo for temporary usage:

   yum-config-manager --disable fedora
4. Configure the failing repository to be skipped, if it is unavailable.
   Note that yum will try to contact the repo. when it runs most commands,
   so will have to try and fail each time (and thus, yum will be much
   slower). If it is a very temporary problem though, this is often a nice
   compromise:

   yum-config-manager --save --setopt=fedora.skip_if_unavailable=true

Cannot retrieve metalink for repository: fedora/21/x86_64. Please verify its path and try again

```

Step 1. Create and configure host-only network interface of VirtualBox



Step 2. Import and configure network setting of Rackspace Private Cloud Sandbox

