Amazon AWS Q & A

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Amazon EC2 ???????

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- ??????????????????? EC2?S3??????
- EC2 ??? Instance????????????? Instnace ? Terminate ???????
- EC2 ?? Instance ??????????????????? http://www.ec2instances.info/ ?
- S3 ????????????????????(PUT, COPY, POST,etc....)?

?? Instance

- ?????? Instance ??????? Key Pair?Instance Type? Security Group?????????????
- ? AMI ???? Instance ???????????????? AWS Console ? Instance Terminate ?????????????????? reboot?? EBS ???????????

?? Root Device

- Instance Store

- ? ??????? / ???????????? 150 GB ? /mnt
- ? Instance ??? Reboot, Terminate
- ? ??????????????????
- ? / ??? snapshot
- ? / volume ?????
- EBS
  - ? ????????? Instance ?????
  - ? Instance??? Stop, Start, Reboot, Terminate
  - ? ???????????????????????????
  - ? / ??? snapshot
  - ? / volume ?????????

?? AMI

- ???? AMI ???????????? AMI ??? Credential(???? X.509 ???)??????????

?? Key Pair

- ???? Key Pair ???????????????????????? Instance ?????? Key Pair ??

?? AKI

- ?? Instance ?????????????? kernel????? AKI ID ??? kernel?
- ?????? [2.6.18-xenU(aki-9b00e5f2, etc...)](?)????????[????](?)?
- ????? aki-id ? kernel ??????? API Tool?[?????](?)?

EC2 Network (Internal network)

???? EC2 Instances ??????????????????????????????

- ?? Instance ?????? private IP ? private DNS name
- ?? Security Group ??????? Instance ????
- private IP & DNS ???????? Instance ????????

?????? Instance ?????????

?? Security Group

- Port range?3306 (? MySQL ??)
- Source?10.1.2.3/29 (?? inbound ? IP)
  - ? security group ??? inbound ?????? 10.1.2.3 ??? mysql client instance???? security group ??? ?? mysql server instance?
  - ? sub-mask ??? 29?

????? ping

- Create a new rule?Custom ICMP rule
- type?All
- Source?<instance IP>

????

- [public or private IP for NFS](#)
- [Using Amazon EC2 public IP address inside EC2 network](#)

Ubuntu ????? AMI

http://cloud-images.ubuntu.com/locator/ec2/

Convert VMware VM to AMI format

- [Creating a new EC2 AMI from within VMware or from VMDK files](#)
- [Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2](#)

WinSCP ?? Instance ???? SFTP ??????? SCP ???

?? /etc/ssh/sshd_config

?????
#Subsystem   sftp   /usr/libexec/openssh/sftp-server

???? AWS ???????

? AWS ?????????????????

1. Access Key   - ??? Access Key ID ? Secret Access Key ?????
2. X.509 Certificates - ?? AMI ??????????
3. Key Pairs   - ???? Instance ?????????????????????? Key Pair ??????????????????????????
   - ? AWS Portal > Security Cedentials > Key Pairs
   - ? AWS Management Console > Key Pairs

Access Key ID ? Secret Access Key ? AWS ????????????????????????????
????????????????????????? AWS ???/?? ???

http://aws-portal.amazon.com/gp/aws/...ion=access-key

??key pairs ????????????? AWS Console ?????

?? Putty ?? Instance

1. ? AWS Console > Key Pairs????? key pair???? xxx.pem ??????(key pair ?????????????????????????
   key pair????????????????????? Instance ???)
2. ?? [PuTTYgen](#)????????? PuTTY Private Key file(*.ppk)
   ?? PuTTYgen > Conversions > Import key, ?? xxx.pem > Save private key(?????? key passphrase, ?
   yes) > ??? xxx.ppk
3. ?? PuTTY > ?? IP > Connection type: SSH >
   Connection > SSH > Auth > Private key file for authentication: ?? xxx.ppk > Open ??

4. ?? root????????? console?

(http://docs.amazonwebservices.com/AW...tml?putty.html)

How to create pk-*.pem & cert-*.pem for API-Tools

- Login at http://aws.amazon.com/
- Go to [Security Credentials](http://aws.amazon.com/)
- Click X.509 Certificates > Create a new certificate
  Download Privare Key File, save as pk-*.pem
  Download X.509 Certificate, save as cert-*.pem

Notes: The Private key file can only be downloaded at once.

Making an AMI from existing instance

Today I will describe in short how to create an AMI instance of EC2 and than upload it to S3 server. All you need to have is running instance of EC2 server (I'm using Debian) with EC2
tools preinstalled.

First of all, make sure that you don't have any unnecessary files on your server filesystem which you don't need to bundle in an image as it will only slow the process down and make
your costs of storing backup images higher.
Once you are sure that your instance is fine and EC2 tools are in place you have to transfer your private key file and certificate file to the server. Lets put the files under /root
directory.
If all is set up correctly, first of all, we create and image by running:

ec2-bundle-vol -d /mnt -k /root/pk-yours.pem --cert /root/cert-yours.pem -u 012345678901

The number after the -u flag is your Amazon account ID which you can find on the AWS website once logged in.
Running above command will take a bit and will create a number of files under /mnt directory.
Once we have the files and manifest ready (all happens auto-magically) we can start transferring the image onto S3 account.

In order to transfer your image on S3 you would have to create a bucket there first, for this you can use famous firefox plugin (S3 Organizer) or do it using Affirma's library (previous post).

ec2-upload-bundle -b yourbucketname00404042009 -m /mnt/image.manifest.xml -a your_s3_access_key -s your_s3_secret_access_key

If for some reason you encouter any problems during upload but your bundling went ok, you can retry the upload using –retry flag:

ec2-upload-bundle -b yourbucketname00404042009 -m /mnt/image.manifest.xml -a your_s3_access_key -s your_s3_secret_access_key --retry

?????? AMI image
?????(????????????????? description)

ec2-register -K pk-*.pem -C cert-*.pem your-bucket/image.manifest.xml -d this_is_description

NOTES:

? ???? Credential ??? AMI ????????????????

? pk-*.pem, cert-*.pem ???? x509 ? key????? AWS Console ????

? ?????? AMI???? Elasticfox > Images > Filter: My AMIs ???

? ???????????????? ec2-register?

?? AWS Console?

AWS Management Console > AMIs > Register New AMI

??S3 ? AMI ????? your-s3-bucket/dir1/images.manifest.xml

Notes:

?????????? AMI ?? private??????????

???? Private AMI ??????????????? Public ???????????????

AWS Management Console > AMIs > Viewing: Owned By Me, All Platforms > ????? AMI

Permission > ?? Public ??????? AWS Account ID?

?? EC2 API Tools
API Tools Reference?http://docs.amazonwebservices.com/AW...reference.html

// ?? JRE 1.6 - jre-6u21-linux-i586.bin

http://www.oracle.com/technetwork/ja...ads/index.html

// ?? JRE 1.6

```
# chmod u+x jre-6u21-linux-i586.bin
# ./jre-6u21-linux-i586.bin
# mv jre1.6.0_21/ /opt
```

// ?? JRE

```
# vi /etc/profile.d/java.sh
```

```
export JAVA_HOME=/opt/jre1.6.0_21
export PATH=$JAVA_HOME/bin:$PATH
```

// ?? ec2-api-tools

http://developer.amazonwebservices.c...externalID=351

// ?? ec2-api-tools

```
cd /root
unzip  ec2-api-tools.zip
mv ec2-api-tools-1.3-53907/ .ec2/
vi ~/.bashrc
```

```
# for EC2 API Tools
export EC2_HOME=~/.ec2
export PATH=$PATH:$EC2_HOME/bin
```

???? EBS volume ??

(http://blog.edoceo.com/2009/02/amazo...w-storage.html)

?????umount > snapshot > create an new volume from snapshot > attach > FS check with e2fsck > resize > FS check again > mount

NOTES:

   ?????????? EBS volume??????????????????????????????? downtime?

// Step1

?? EBS volume ???????????????????????umount EBS volume ??????????????????????? off-line???????????????? umount EBS volume?

// Step2

 ?? EC2 command ? Elasticfox ? EBS volume ???? snapshot

// Step3

?? EC2 command ? Elasticfox ????? snapshot ???? EBS volume

// Step4

?? EC2 command ? Elasticfox ??(attach)?? EBS volume ??? instance???? /dev/sdb?

TIPS:

   ???? downtime??????????? instance??????? production instance?

// Step5

SSH ?? instance????

```
# e2fsck -f /dev/sdb
# resize2fs -p /dev/sdb
# e2fsck -f /dev/sdb
# tune2fs -l /dev/sdb
```

// Step6

?? /dev/sdb???????????

?????

1. ???????? downtime ?????? snapshot ? mount/umount ??