**SSL - HTTPS Setup**

**NOTE** :: OpenSSL is been installed on the Jumphost, certificates can be created in the Jumphost server.

1. Install OpenSSL

#yum -y install openssl

1. Check if openssl is installed ,

#openssl version

1. Create a file, named “**req.cnf**” copy and paste below entities to it,

[req]

distinguished\_name = req\_distinguished\_name

x509\_extensions = v3\_req

prompt = no

[req\_distinguished\_name]

C = US

ST = VA

L = SomeCity

O = MyCompany

OU = MyDivision

CN = CS

[v3\_req]

keyUsage = critical, digitalSignature, keyAgreement

extendedKeyUsage = serverAuth

subjectAltName = @alt\_names

[alt\_names]

DNS.1 = commuservcf-670048969.us-east-1.elb.amazonaws.com

DNS.2 = \*.elb.amazonaws.com

1. Execute the below command, which creates cert.key file and cert.pem file.

#openssl req -x509 -nodes -days 730 -newkey rsa:2048 \

-keyout cert.key -out cert.pem -config req.cnf -sha256

1. Push the keys to AWS IAM to add it to LB.
   1. Execute below commands to enable AWS CLI on server,

#yum install python -y

#curl -O <https://bootstrap.pypa.io/get-pip.py>

#python get-pip.py –user

#export PATH=~/.local/bin:$PATH

#source ~/.bash\_profile

#pip install awscli --upgrade -user

#aws -version

* 1. Execute the below command to push the certificate to IAM certificate Manager.

#aws iam upload-server-certificate --server-certificate-name certific --certificate-body file://cert.pem --private-key <file://cert.key>

1. When creating the Load Balancer, select https and select the certificate which was pushed to IAM, DNS will be created as a result.
2. On the internet options, select content tab and click on “certificates” , on the “trusted root certification authorities” tab click on import and select the certificate provided and install it,
3. Now try to access the LB DNS URL with https link, which will navigate as a secured page.

To Configue SSL on linux system to use https URLs on spring server to gateway server, import the certificate using below command,

Navigate to /opt/jdk1.8.0\_192/bin/

./keytool -import -trustcacerts -keystore /opt/jdk1.8.0\_192/jre/lib/security/cacerts -storepass changeit -alias Root -import -file /etc/CommuservApp/certificgateway.cer