

applications remotely and accessing those files via the Internet. Cloud Computing consist of 3 components:

Infrastructure as a Service(IaaS) Platform as a Service(PaaS)

- In simple words, Cloud Computing refers to a mode of storing data &

Software as a Service(SaaS)

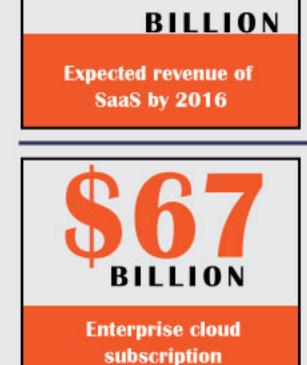
What is future of Cloud Computing?

180

The ability to upload data to "the cloud" and accessing it at our

convenience (anytime, anywhere, on any device) is ensuring its bright future.

PaaS (21% CAGR) **24% CAGR** 160 13% 2013-2018 laaS (13% CAGR) 140 SaaS (33% CAGR) 28% 120 Installed 100 Workloads 80 in Millions 60 15% 59% 40 44% 20 41% 2013 2014 2015 2016 2017 2018 Source: Cisco Global Cloud Index, 2013-2018 **Global Cloud Computing Market**



revenues by 2018

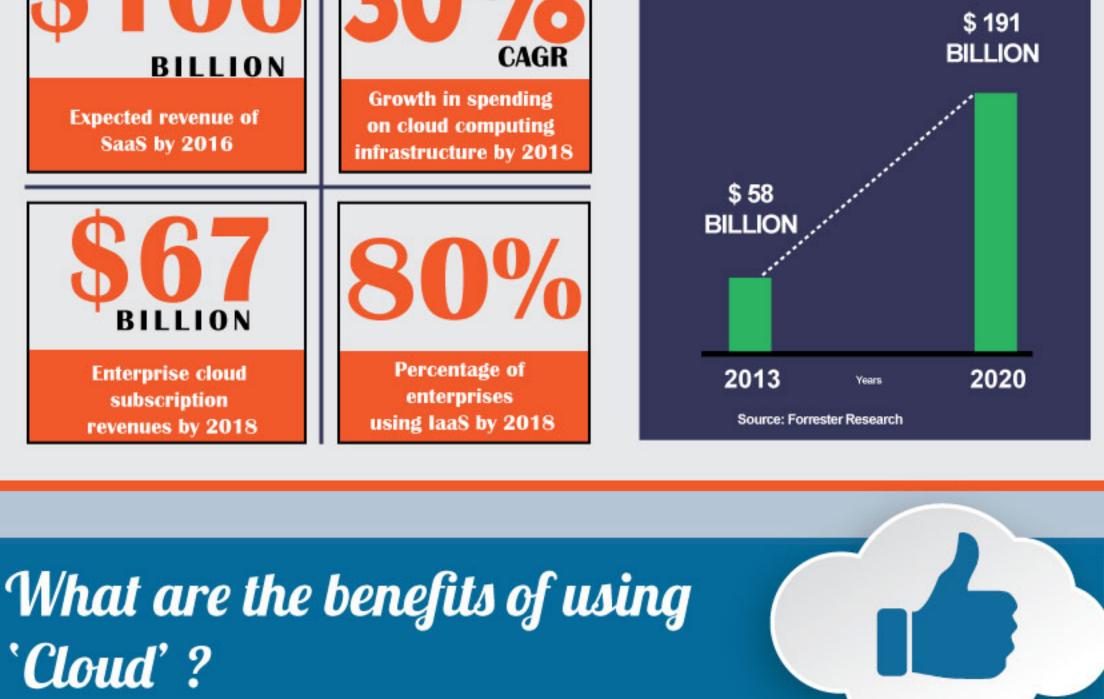
`Cloud' ?

Percentage of enterprises using laaS by 2018

Growth in spending

on cloud computing

infrastructure by 2018



Scalability

Cost Savings



Accessibility

AWS Windows Azure Dropbox

Google Compute

Cloud Service Amazon Web Services (AWS) is probably the most widely used service in cloud computing on the basis of its features such as ease of use, mobile access and help & support.

available for Cloud Computing?



CloudSigm

the cloud?

prices.

Storage

I would like to connect with

To access your instance:

Permission denied (publickey).

ajay@Inspiron-3542:~/Desktop\$ chmod 400 newestkeypair.pem ajay@Inspiron-3542:-/Desktop\$ ssh -i newestkeypair.pem ec2-user@54.175.99.147

Anazon Linux AMI

25 package(s) needed for security, out of 54 available Run "sudo yun update" to apply all updates.

[ec2-user@ip-172-31-5-130 -]\$

9.Here we are trying to install R

aws-cfn-bootstrap.noarch 0:1.4-9.4.amzn1

cryptsetup.x86_64 0:1.6.3-2.19.amzn1 e2fsprogs.x86_64 0:1.42.12-4.35.amzn1

krb5-libs.x86_64 0:1.10.3-37.29.amzn1

ec2-utils.noarch 0:0.4-1.23.amzn1

gnupg2.x86_64 0:2.0.25-2.29.amzn1

libcurl.x86_64 0:7.40.0-3.51.amzn1

python27.x86_64 0:2.7.9-4.115.amzn1

libss.x86_64 0:1.42.12-4.35.amzn1

-You verify the installation

EC2 Management Console - Google Chrome

AWS ~

Reserved Instances

ELASTIC BLOCK STORE

■ NETWORK & SECURITY

Security Groups

Placement Groups

Network Interfaces

Load Balancers

IMAGES

AMIs

Bundle Tasks

Volumes

Snapshots

Elastic IPs

Key Pairs

\$ sudo rstudio-server verify-installation

creating a custom TCP rule (click Edit on the tab below)

Edit v

Create Security Group

Name

Description

Security Group: sg-02b14965

Inbound

Services v

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#SecurityGroups:sort=groupId

🔡 Apps 🜟 Bookmarks 🔯 nbviewer.ipythor 🖟 nbviewer.ipythor 🔒 nbviewer.ipythor 🛣 Watch Game of Ti 🗋 Data Science Spe 🧀 iMacros

Q Filter by tags and attributes or search by keyword

Group ID

sg-02b14965

sg-08ced66c

sg-56a1f632

sg-77a2f513

sg-fa94659d

Group name

Outbound

ec2-user@ip-172-31-5-130:-

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https://aws.anazon.com/amazon-linux-ami/2015.03-release-notes/

: aws-cfn-bootstrap-1.4-5.4.amzn1.noarch : rubygem20-psych-2.0.0-1.21.amzn1.x86_64

: kernel-tools-3.14.35-28.38.amzn1.x86_64

: python27-pip-6.0.8-1.18.amzn1.noarch

: ec2-net-utils-0.4-1.22.amzn1.noarch

: python27-setuptools-12.2-1.29.amzn1.noarch

: python27-2.7.9-4.114.amzn1.x86_64

: yum-3.4.3-137.54.amzn1.noarch

: ec2-utils-0.4-1.22.amzn1.noarch

: libss-1.42.12-1.34.amzn1.x86_64

: libcom_err-1.42.12-1.34.amzn1.x86_64

Tags

2.Click on Run Instance

Services v

Family

General purpose

General purpose

Edit v

Amazon Web

Services



1.Login to Amazon Web Services (AWS) Console



Instance Storage (GB) () + EBS-Optimized Available () +

EBS only

EBS only

EBS only



3.Choose operating System for your virtual machine that you will access remotely. Here we have choosen Amazon Linux. 4.Choose Instance Type (size of RAM) and memory needed). See here to compare

Step 2: Choose an Instance Type Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs Current generation . Show/Hide Columns All instance types * Currently selected: 12 micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)



Network Performance (1)

Low to Moderate

Low to Moderate

Low to Moderate

Moderate

Edit storage

Previous

nst

95/107

96/107

99/107

100/107

102/107

103/107

Other bookmarks

Descript

launch-w

launch-w

This sec

default V

launch-w

888

< 1 to 5 of 5 >>

VPC ID

Group description

vpc-bc1634d9

vpc-bc1634d9

vpc-bc1634d9

vpc-bc1634d9

vpc-bc1634d9

launch-wizard-3

created 2015-07-

Show all downloads...

cloud-init.noarch 0:0.7.6-2.5.amzn1

glipc-common.x86_64 0:2.17-55.143.amzn1

libcom_err.x86_64 0:1.42.12-4.35.amzn1

pcre.x86_64 0:8.21-7.7.amzn1 python27-boto.noarch 0:2.38.0-1.7.amzn1

python27-devel.x86_64 0:2.7.9-4.115.anzn1

ltbseltnux.x86_64 0:2.1.10-3.22.amzn1

kernel-tools.x86_64 0:3.14.44-32.39.amzn1

curl.x86_64 0:7.40.0-3.51.amzn1 ec2-net-utils.noarch 0:0.4-1.23.amzn1 Edit tags

Launch

t2.medium General purpose 1 x 4 (SSD) General purpose m3.medium

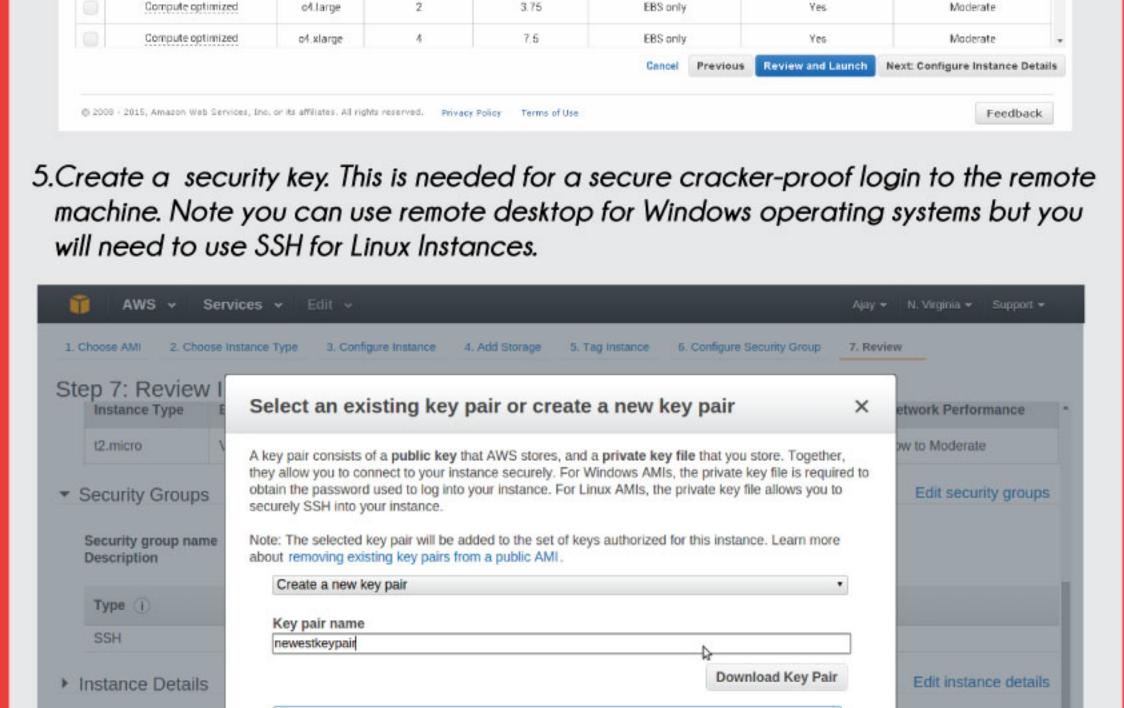
m3.large

t2 miora

Free tier eligible

t2.small

1 x 32 (SSD) Moderate General purpose m3.xlarge 2 x 40 (SSD) High. m3.2xlarge 2 x 80 (SSD) Yes High General purpose



Cancel Launch Instances 6.Click on Launch Instance Connect to the instance using your security key following the instructions given.

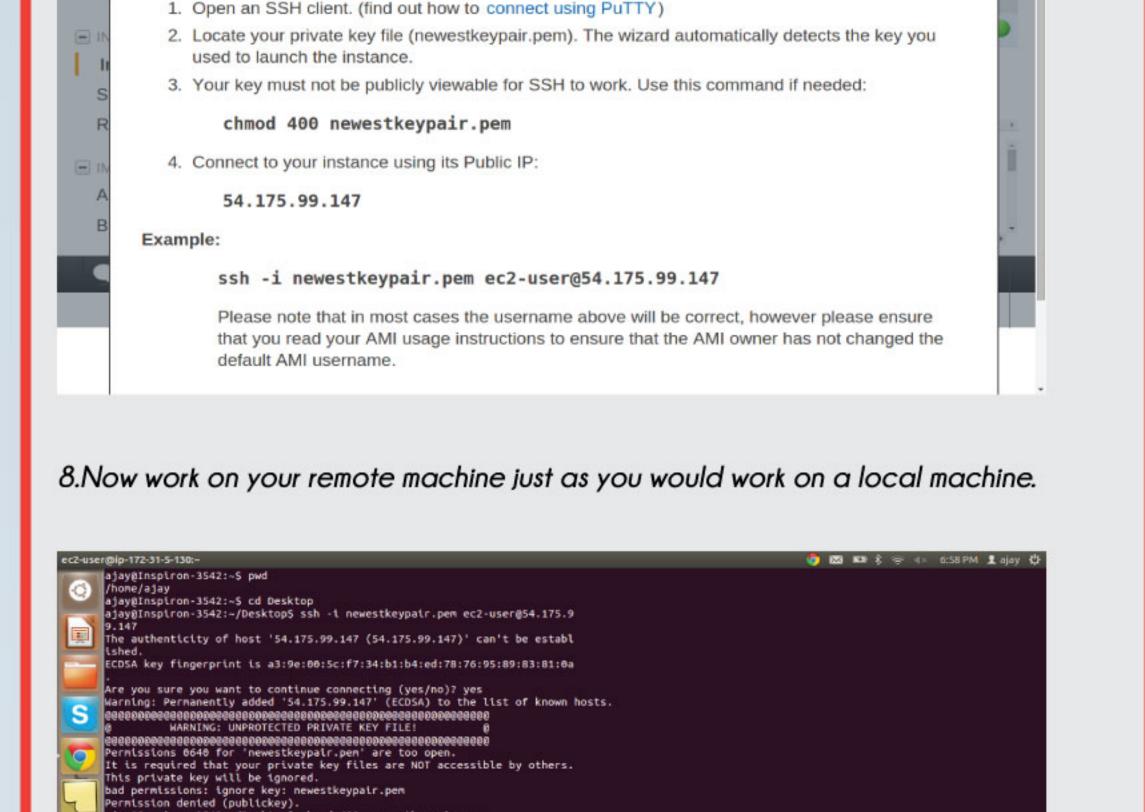
You have gone full screen. Exit full screen (F11) rowser (Java required)

A standalana CCH aliant

You have to download the private key file (*.pem file) before you can continue. Store

it in a secure and accessible location. You will not be able to download the file

again after it's created.



: libjpeg-turbo-1.2.90-5.9.amzn1.x86 64 Verifying 104/107 : python27-devel-2.7.9-4.114.amzn1.x86_64 Verifying 105/107 : cryptsetup-libs-1.6.3-2.18.amzn1.x86_64 Verifying 106/107 : rpm-4.11.2-2.63.amzn1.x86_64 Verifying 107/107 Installed: kernel.x86_64 0:3.14.44-32.39.amzn1 at.x86_64 0:3.1.10-44.13.amzn1 aws-amitools-ec2.noarch 0:1.5.7-1.0.amzn1 aws-apitools-common.noarch 0:1.1.0-1.9.amzn1

aws-cli.noarch 0:1.7.34-1.16.amzn1

gpgme.x86_64 0:1.4.3-5.15.amzn1 libcap-ng.x86_64 0:0.7.3-5.13.amzn1

openssl.x86_64 1:1.0.1k-10.86.amzn1

glibc.x86_64 0:2.17-55.143.amzn1

cryptsetup-libs.x86_64 0:1.6.3-2.19.amzn1

e2fsprogs-libs.x86_64 0:1.42.12-4.35.amzn1

libjpeg-turbo.x86_64 0:1.2.90-5.10.amzn1

python27-bcdoc.noarch 0:0.16.0-1.9.amzn1



-You open the 8787 port using the security group in AWS Console(left margin Security Groups) by

Editing reelen × Male Business Anal × Business Anal × Male Business Anal

Group Name

launch-wizard-3

launch-wizard-1

launch-wizard-2

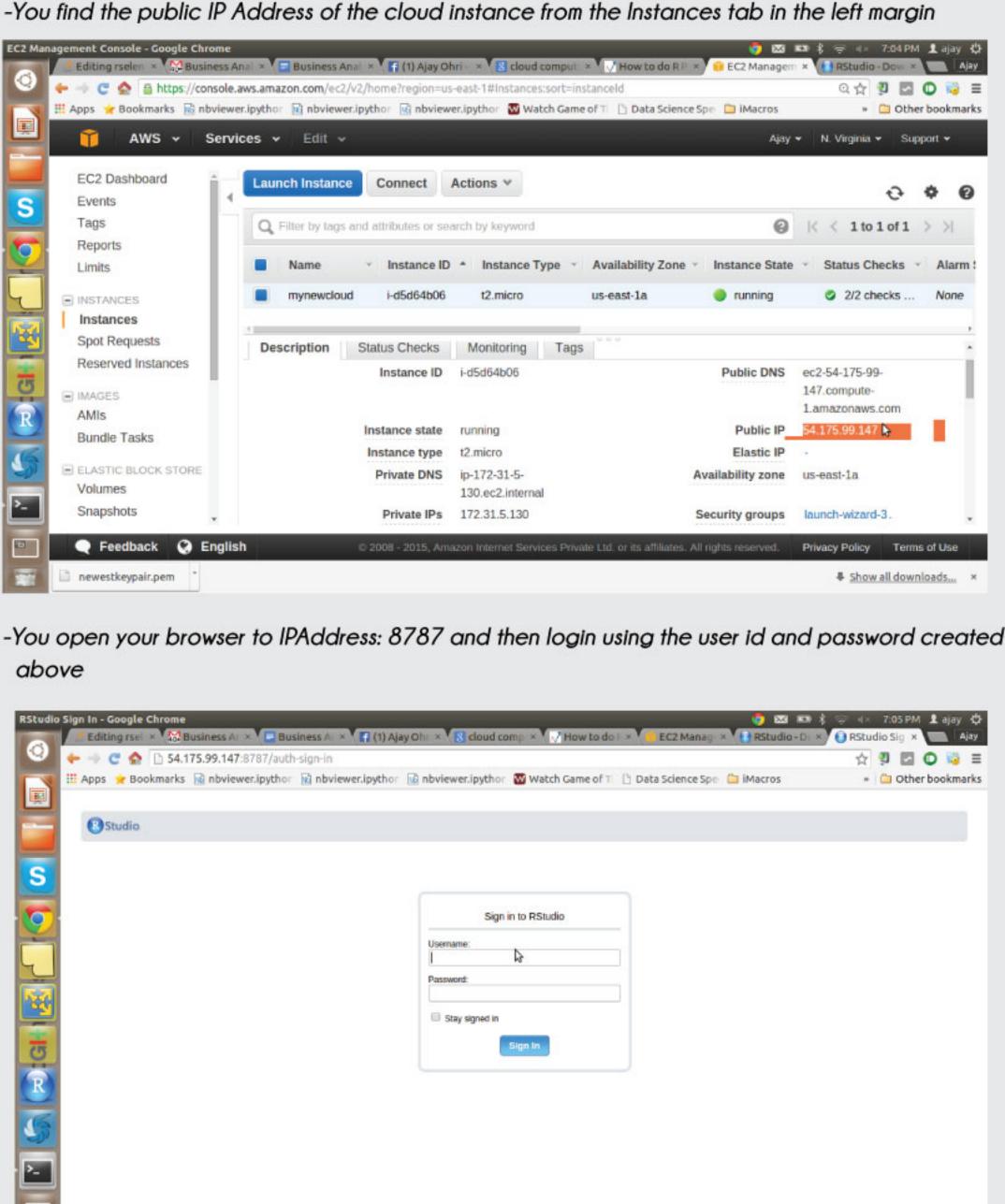
default

SAS- University Edition-SAS...

Feedback English 2008 - 2015, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved Privacy Policy Terms of Use newestkeypair.pem Show all downloads... -You create a new user with a new password using the SSH terminal for your virtual machine cloud instance 1.sudo useradd newuser1 2.sudo passwd newuser1

wizard-3

File Edit Code View Plots Session Project Build Tools Help greg | 💽 🖟 😭 🔒 🔠 🌁 Consillertundlar Project: () ⇒ □ Workspace History ☐ Source on Save Q Z --+ Run | --- Source -- [📑 🕞 📑 Import Dataset 🕶 🎻 Files Plots Packages Help 💴 New Folder 👂 Upload 👂 Delete 📝 Rename 🌚 More • - Name Modified Rhistory 1.4 KB Jun 27, 2013, 2:1: Rprofile 232 bytes Jun 27, 2013, 9:4 □ 📦 R 1:1 (Top Level) # Console -/ @ R is free software and comes with ABSOLUTELY NO WARRANTY. You are welcome to redistribute it under certain conditions. Type 'license()' or 'licence()' for distribution details.



newestkeypair.pem -Now you are ready to use R using the cloud through a browser

R is a collaborative project with many contributors. Type 'contributors()' for more information and 'citation()' on how to cite R or R packages in publications. Type 'demo()' for some demos, 'help()' for on-line help, or 'help.start()' for an HTML browser interface to help.

Sources

http://www.forbes.com/sites/louiscolumbus/2015/01/24/roundup-of-cloud-computing-forecasts-and-market-estimates-2015/ http://www.forbes.com/sites/kevinjackson/2011/09/17/the-economic-benefit-of-cloud-computing/ www.analyticsvidhya.com