

DEPLOY EC2 Instance with Terraform:

```

version.tf > terraform
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = "~>4.0"
6     }
7   }
8 }

```

```

providers.tf > provider "aws"
1 provider "aws" {
2   region = "us-east-1"
3 }

```

```

main.tf > resource "aws_instance" "Win-EC2" > user_data
1 resource "aws_instance" "Win-EC2" {
2   ami           = "ami-05b0cd1af6c0c34e3"
3   instance_type = "t2.micro"
4   key_name      = "..."
5
6   user_data = <<-EOF
7     <powershell>
8     # Update system packages
9     Get-PackageProvider -Name NuGet -ForceBootstrap
10    Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force
11    Install-Module PSWindowsUpdate -Force
12    Get-WindowsUpdate -Install -AcceptAll -IgnoreReboot
13
14    </powershell>
15    EOF
16
17    tags = {
18      Name          = "Windows-Inst"
19      description    = "Managed by Terraform"
20    }
21  }

```

Instances (1/2) Info

Find instance by attribute or tag (case-sensitive)

< 1 >

<

MAKE SURE SECURITY RULE ALLOWS INGRESS HTTP and RDP TRAFFIC

CONNECT TO THE REMOTE SERVER (RDP) WITH THE DEFAULT ADMIN
and PWD generated from the access key

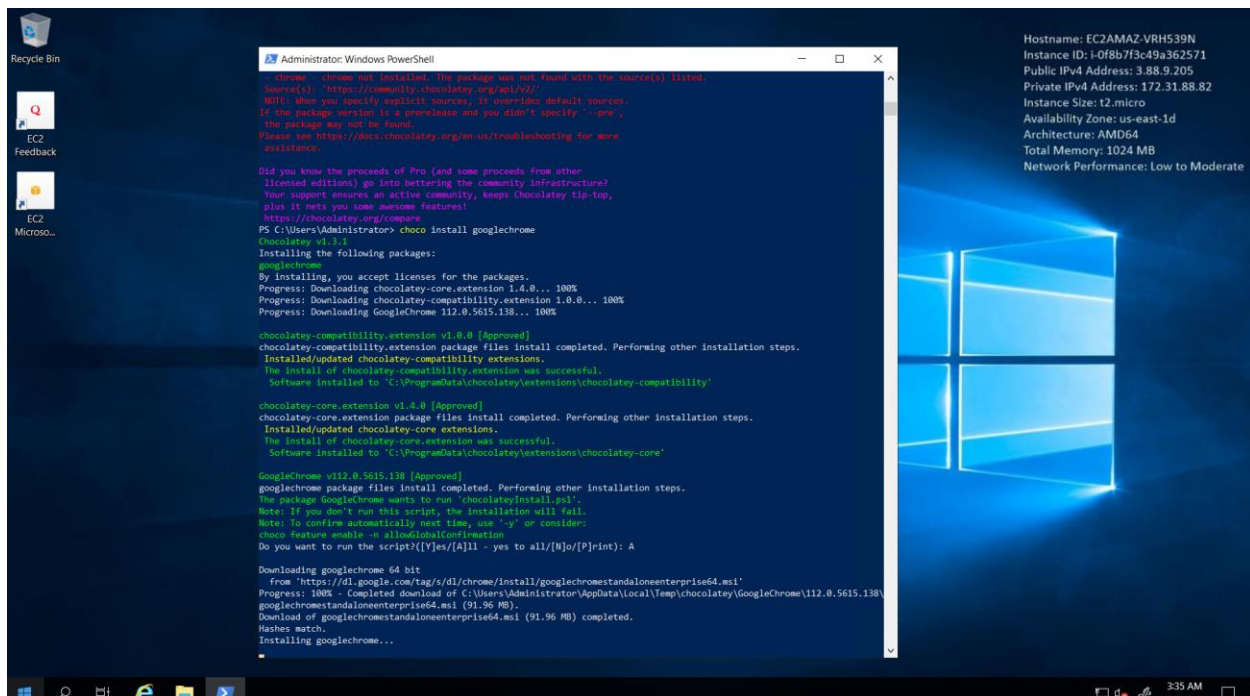
INSTALL GOOGLE CHROME WITH CHOCOLATEY CMD

Install Chocolatey on Powershell with

**Set-ExecutionPolicy Bypass -Scope Process -Force; iex ((New-Object
System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))**

Install Google Chrome with

Choco install googlechrome



CREATE AN ADMIN USER IN POWERSHELL WITH CHOCO COMMAND:

> New-LocalUser -Name "ad-***" -Description "My Admin" -FullName "s*** k*****" -Password
(ConvertTo-SecureString "*****" -AsPlainText -Force) -AccountNeverExpires -
PasswordNeverExpires -UserMayNotChangePassword**

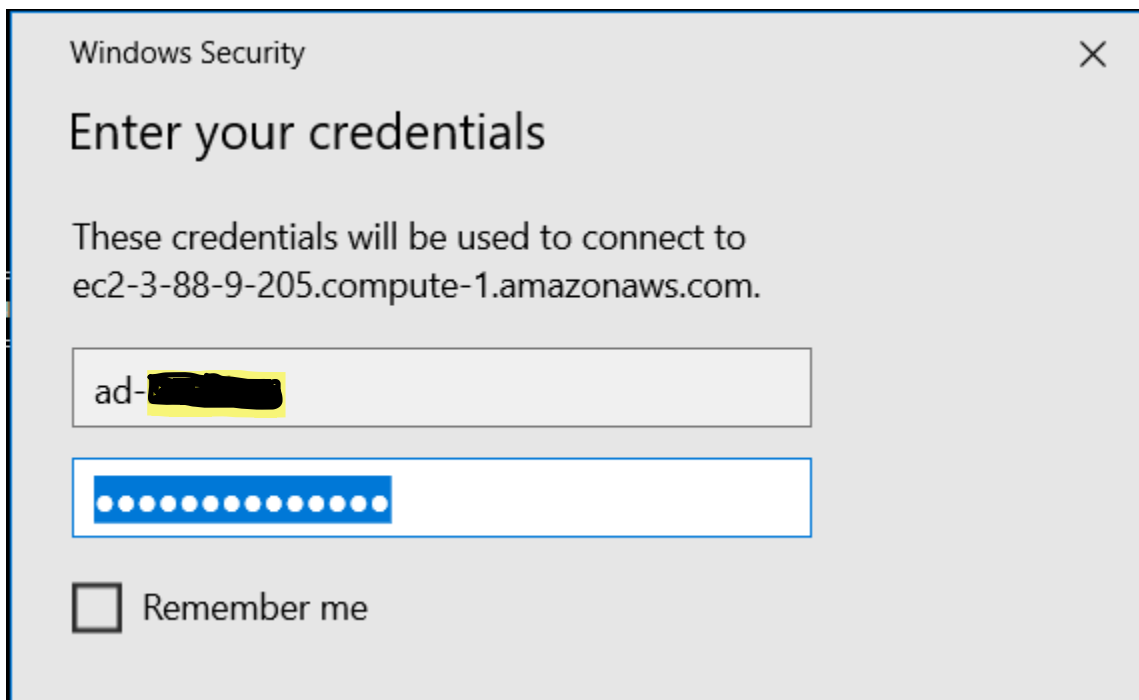
CREATING AMI FROM WINDOWS EC2 (WITH APACHE INSTALLED)

> **Add-LocalGroupMember -Group "Administrators" -Member "ad-*****"**

```
PS C:\Users\Administrator> New-LocalUser -Name "ad-*****" -Description "My Admin" -FullName "s k*****" -Password (ConvertTo-SecureString "*****" -AsPlainText -Force) -AccountNeverExpires -PasswordNeverExpires -UserMayNotChangePassword
Name      Enabled Description
----      -
ad-***** True      My Admin

PS C:\Users\Administrator> Add-LocalGroupMember -Group "Administrators" -Member "ad-*****"
PS C:\Users\Administrator>
```

CONNECT WITH NEW ADMIN USER



INSTALL AND START APACHE

Download link: https://www.apachelounge.com/download/#google_vignette

Requirement= latest 14.34.31938 Visual C++ Redistributable Visual Studio 2015-2022 : vc_redist_x64

To extract the downloaded zip file

```
> Expand-Archive -Path "C:\Users\ad-kamdem\Downloads\httpd-2.4.55-o111s-x86-vs17.zip" -
DestinationPath "C:\Users\ad-kamdem\Downloads\Extracted"
```

INSTALL APACHE:

Install

You must first install the Visual C++ Redistributable for Visual Studio 2015-2022 x64. Download and Install, if you have not done so already, see:

<https://www.apachelounge.com/download/>

Unzip the Apache24 folder to c:/Apache24 (that is the ServerRoot in the config). The default folder for your webpages is DocumentRoot "c:/Apache24/htdocs"

When you unzip to an other location:
change Define SRVROOT "c:/Apache24" in httpd.conf, for example to "E:/Apache24"

Run and test

Open a command prompt window and cd to the c:\Apache24\bin folder.

To Start Apache in the command prompt type:

```
>httpd.exe
```

Press Enter. If there are any errors it will tell you.
Warnings will not stop Apache from working, they do need to be addressed none the less.
If there are no errors the cursor will sit and blink on the next line.

You can test your installation by opening up your Browser and typing in the address:

<http://localhost>

You can shut down Apache by pressing Ctrl+C (It may take a few seconds)

To install as a service. Open command prompt as Administrator and type:

```
>httpd.exe -k install
```

You can start/stop the service with the command:

```
>services.msc
```

To see all Command line options:

```
>httpd -h
```

ApacheMonitor:

Double click ApacheMonitor.exe, or put it in your Startup folder.

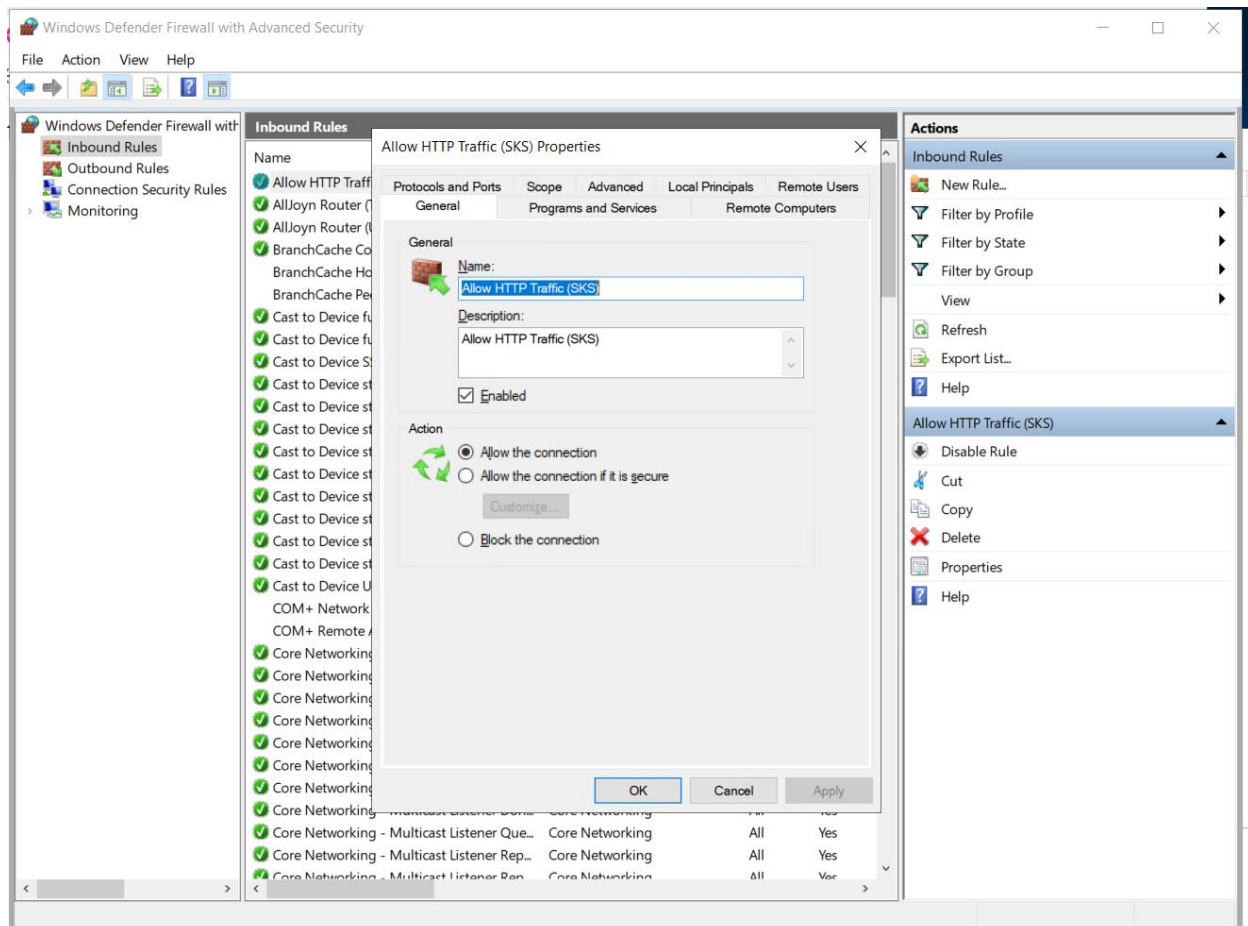
Upgrading

- Upgrading from 2.2.x see: httpd.apache.org/docs/2.4/upgrading.html
and see http://httpd.apache.org/docs/2.4/new_features_2_4.html.

- Updating from 2.3.x
copy all the files over, except your changed .conf files.

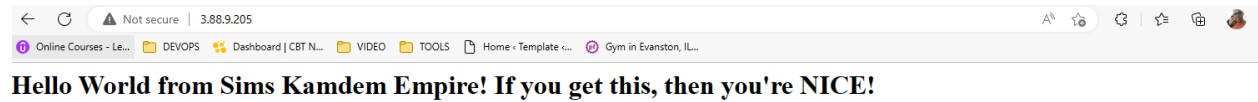
Problem: Apache works locally but can't be accessed remotely.

Fix: Created a rule in Windows firewall to allow ingress traffic

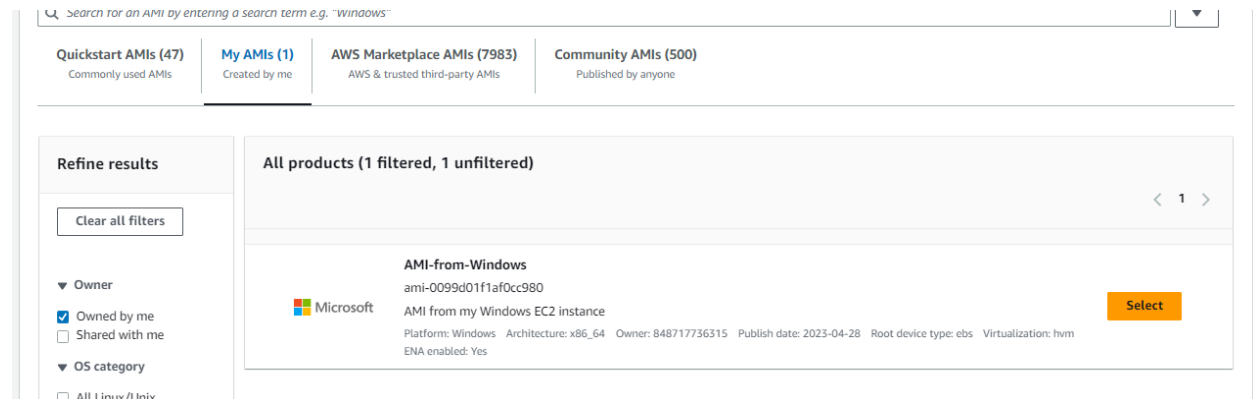


Result: Apache is accessible from remote:

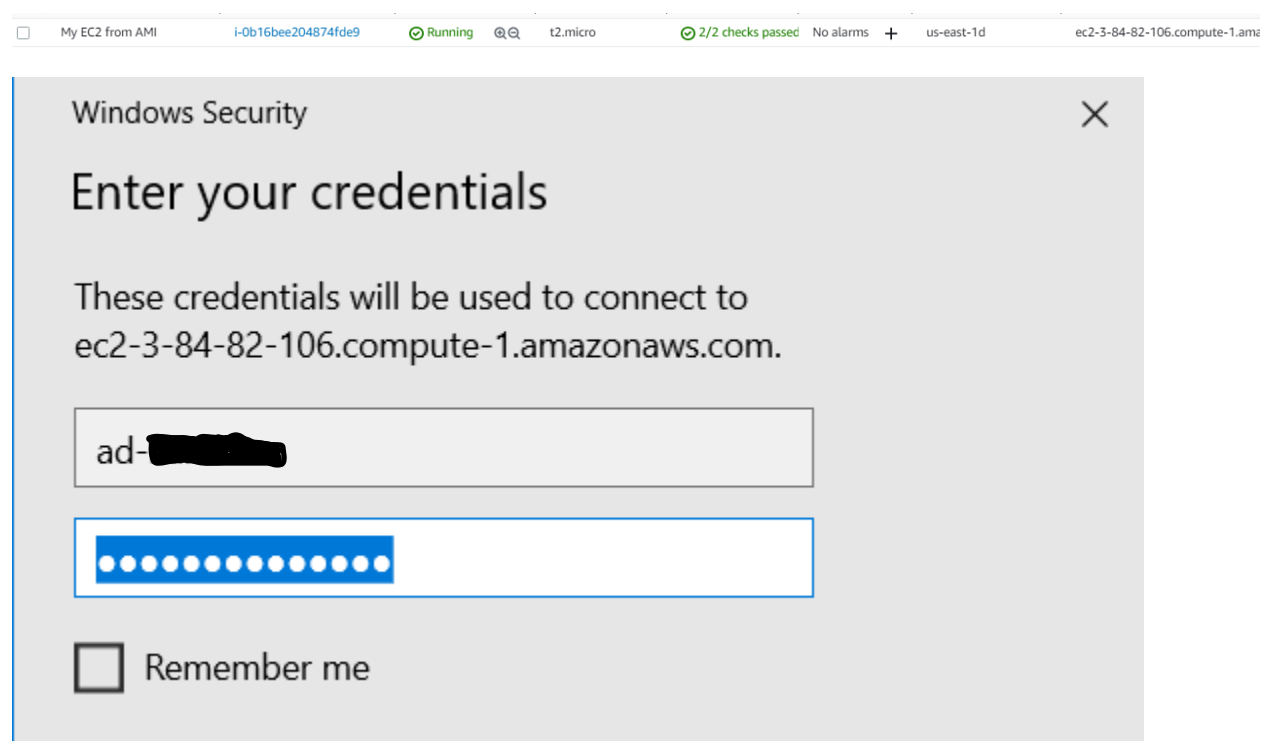
CREATING AMI FROM WINDOWS EC2 (WITH APACHE INSTALLED)



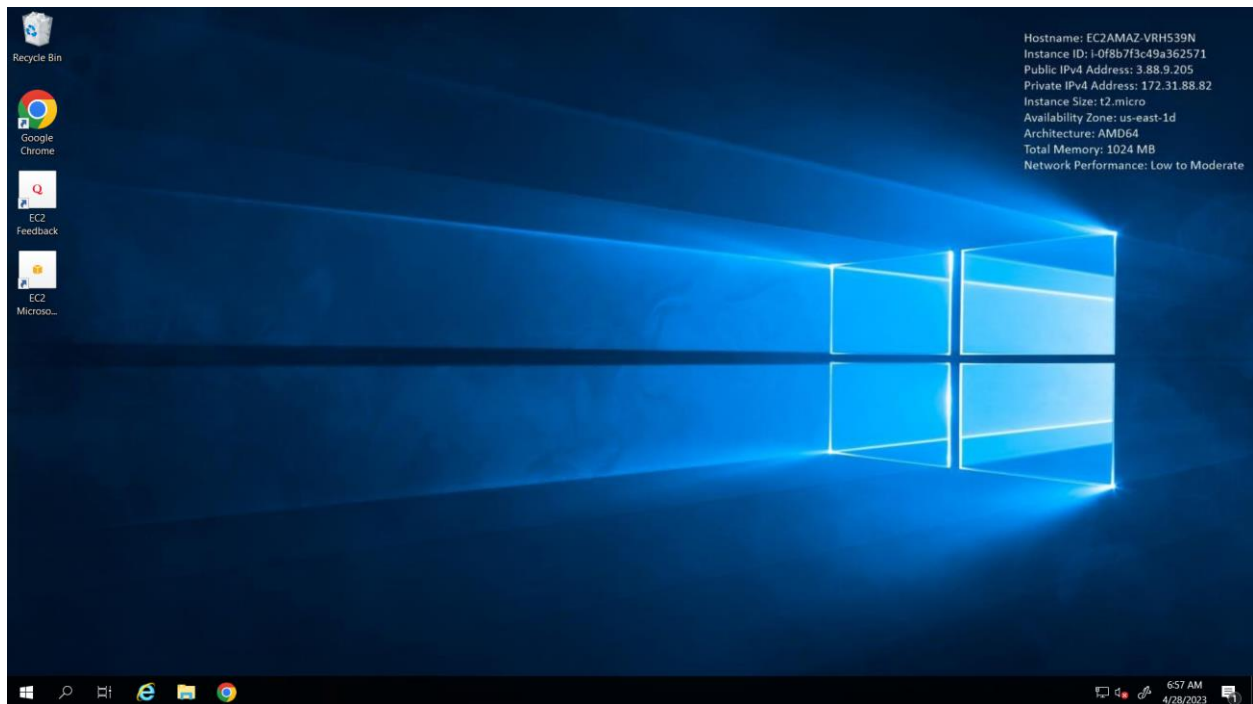
CREATING AMI FROM MY EC2 INSTANCE



LAUNCHING NEW EC2 INSTANCE FROM MY AMI



CREATING AMI FROM WINDOWS EC2 (WITH APACHE INSTALLED)



Instance: i-0b16bee204874fde9 (My EC2 from AMI)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4
i-0b16bee204874fde9 (My EC2 from AMI)	3.84.82.106 open address	172.31.1
IPv6 address	Instance state	Public IPv4 I
-	Running	ec2-3-8
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP ad
IP name: ip-172-31-93-46.ec2.internal	ip-172-31-93-46.ec2.internal	
Answer private resource DNS name	Instance type	
ip-172-31-93-46.ec2.internal	t2.micro	

Not secure | 3.84.82.106

Study Job Email Faith Music Design Security Trip Helpdesk DwnLD GOV Health NetWKG Rent Social

Hello World from Sims Kamdem Empire! If you get this, then you're NICE!