Alma Linux 8 – Apache Subversion

Version:	1.0.0
Created by:	cloudimg

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1.) Overview

This document is provided as a user guide for the Alma Linux 8 – Apache Subversion product offering on the Azure Marketplace. Please reach out to support@cloudimg.co.uk if any issues are encountered following this user guide for the chosen product offering.

2.) Access & Security

Please update the security group of the target instance to allow the below ports and protocols for access and connectivity.

Protocol	Type	Port	Description
SSH	TCP	22	SSH connectivity
HTTP	TCP	80	Apache Subversion Front End

3.) System Requirements

The minimum system requirements for the chosen product offering can be found below

Minimum CPU	Minimum RAM	Required Disk Space
1	1 GB	20 GB

4.) Connecting to the Instance

Once launched in the Azure Virtual Machines Service, please connect to the instance via an SSH client using the **azureuser** with the key pair associated at launch. Once connected as the **azureuser**, you will be able to **sudo** to the **root** user by issuing the below command.

Switch to the root user

```
sudo su -
```

5.) On Startup

An OS package update script has been configured to run on boot to ensure the image is fully up to date at first use. You can disable this feature by removing the script from /stage/scripts/ and deleting the entry in crontab for the root user.

Disable the OS update script from running on reboot

```
rm -f /stage/scripts/initial_boot_update.sh

crontab -e

#DELETE THE BELOW LINE. SAVE AND EXIT THE FILE.
@reboot /stage/scripts/initial_boot_update.sh
```

6.) Filesystem Configuration

Please see below for a screenshot of the server disk configuration and specific mount point mappings for software locations.

```
Filesystem      Size  Used Avail Use% Mounted on

devtmpfs        464M     0  464M   0% /dev

tmpfs           481M     0  481M   0% /dev/shm

tmpfs           481M  6.5M  475M   2% /run

tmpfs           481M     0  481M   0% /sys/fs/cgroup

/dev/xvda2       38G  2.8G   33G   8% /

/dev/xvda1      2.0G  185M  1.7G  11% /boot

tmpfs            97M     0   97M   0% /run/user/1002

/dev/xvdf       9.8G   37M  9.3G   1% /svn
```

Mount Point	Description
/boot	Operating System Kernel files
/svn	Subversion root filesystem

7.) Server Components

Please see below for a list of installed server components and their respective installation paths. The below versions are subject to change on initial boot based on the initial_boot_update.sh script finding new versions of the software in the systems package repositories.

Component	Version	Software Home
Cloud-Init	22.2	/etc/cloud
Apache HTTP Server	2.4.37	/etc/httpd
Apache Subversion	1.10.2	/etc/httpd/conf.d/subversion.conf
Azure CLI	2.53.1	/lib64/az

8.) Scripts and Log Files

The below table provides a breakdown of any scripts & log files created to enhance the useability of the chosen offering.

Script/Log	Path	Description
Initial_boot_update.sh	/stage/scripts	Update the Operating System with the latest updates available.
Initial_boot_update.log	/stage/scripts	Provides output for initial_boot_update.sh
cloudimg-svn-admin-user-creds.log	/stage/scripts	Output log for example admin user creation
cloudimg-svn-read-only-user-creds.log	/stage/scripts	Output log for example read only user creation
cloudimg-svn-read-write-user-creds.log	/stage/scripts	Output log for example read write user creation
subversion-create-user.sh	/stage/scripts	Use this script to create new SVN users

9.) Using System Components

Instructions can be found below for using each component of the server build mentioned in section 7 of this user guide document.

Azure CLI

Using Azure CLI – as any OS user.

```
az
```

Cloud-Init

Edit the /etc/cloud/cloud.cfg file to reflect your desired configuration. A link to the cloud-init official documentation can be found below for referencing best practise for your use case.

https://cloudinit.readthedocs.io/en/latest/

```
vi /etc/cloud/cloud.cfg
```

Apache HTTP Server

The Apache HTTP Server has been configured to start on boot, please use the below commands to start, stop and check the status of the service.

```
#Check the HTTP Server is running

systemctl status httpd


#Stop the HTTP Server

systemctl stop httpd


#Start the HTTP Server

systemctl start httpd
```

Apache Subversion

The Apache Subversion service has been configured to start on boot via Apache HTTP. A default project named Project1 has also been configured along with 3x example users covering the most common use cases of Admin, Read Only & Read Write access.

A script has been created and available in the below location on the server for the creation of new users to the SVN server. You can run the script by issuing the below command as the **root** user.

```
/stage/scripts/subversion-create-user.sh
```

EXAMPLE INPUT AND OUTPUT OF THE ABOVE SCRIPT (Example user: cloudimg-example created below)

```
Please enter the username of the new SVN user: cloudimg-example

cloudimg-example

Adding password for user cloudimg-example
```

```
The new user: cloudimg-example has now been created with the password:
jcrQdZb845OYL9Puh+w5RrCbLUQtkA9mm42xZk63lrs=

Add the above username to the svn authz file:/svn/authz allowing the required level of access

Please share the above credentials with the end user

[root@ip-172-31-91-166 scripts]#
```

At the prompt enter the username of the new SVN user to be created. Following the instructions shown above add the newly created user to the required group in the   /svn/authz file.

```
vi /svn/authz
```

Within the above /svn/authz file, find the section that administers the groups. The lines should match the below. As an example, the cloudimg-example user created above has been added to the line of project1_user to allow for read/write access to SVN. For Admin level access add the user to the admin line and for read only access add a user to the project1_trainee line.

```
[groups]

admin=cloudimg-admin

project1_user=cloudimg-rw,cloudimg-example

project1_trainee=cloudimg-r
```

Save and exit the file.

You will now be able to access the SVN front end with the newly created user and or the already created 3x example users mentioned earlier in this user guide.

Navigate to a web browser and enter the URL shown below exchanging the values between <> with that of your own instance.
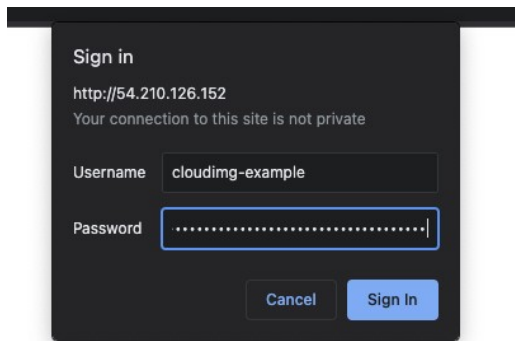
<PUBLIC/PRIVATEIP>/svn/project1

You will be prompted to enter the username and password of an SVN user. Enter the values of the newly created user and or the credentials available in the 3x example user log files located in /stage/scripts.

Click Sign In

project1 - Revision 1: /

- branches/
- tags/
- trunk/

You will now be able to navigate the SVN directories for Project1. Likewise, you can also access the SVN server using tools such as SmartSVN and or TortoiseSVN. When connecting via a client ensure you are using the connection string below.

http://<PRIVATE/PUBLICIP>/svn/project1