

VoiSentry

Docker Installation Guide

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Document Revision

Rev	Date	By	Detail
1.0	08/05/19	ac/ebj	Initial version.
1.1	14/08/19	ac/ebj	Added information about specifying interface.
1.2	06/12/19	ac	Correct use of double dash options.
1.3	06/12/19	ac	Bump version.
1.3V	13/02/20	an/ebj	Style changes implemented

CONTENTS

1	INTRODUCTION	4
1.1	Docker installation on host machine.....	4
1.1.1	Specifying a network interface	4
1.2	VoiSentry Firewall Rules	5
1.3	Upgrading VoiSentry docker container.....	5

1 INTRODUCTION

The VoiSentry product provides a docker image file, and a script to create or upgrade a VoiSentry container. The host machine must be running linux, and the docker version should be 18.09+.

1.1 Docker installation on host machine

To install docker on the host machine follow the docker website instructions, i.e.

<https://docs.docker.com/install/linux/docker-ce/ubuntu/>

<https://docs.docker.com/install/linux/docker-ce/centos/>

It is recommended that you adjust `vm.max_map_count` on the host:

```
sudo sysctl -w vm.max_map_count=1048575
sudo echo "vm.max_map_count=1048575" >> /etc/sysctl.conf
```

Once docker is installed and running, load the VoiSentry docker image:

```
docker image load -i voisentry-1.21.4-74-19.tar
```

This will create an image called something like `aculab/voisentry:1.21.4-74-19`.

To create a new container (NOTE: there can only be one VoiSentry docker container per host):

```
./voisentry_deploy.sh --image aculab/voisentry:1.21.4-74-19
```

The container will take a little while to do the initial setup, and once done, you should be able to access via the website on <https://<host-ipaddress>>

Please follow the VoiSentry user guide to setup your VoiSentry system.

1.1.1 Specifying a network interface

If you are installing on a device with multiple network interfaces then you will need to provide details of which interface to use, otherwise the install may choose the incorrect interface, or may not choose any, and the installation will not work.

```
./voisentry_deploy.sh --interface eno1 --image aculab/voisentry:1.21.4-74-19
```

NOTE

This is not an ideal deployment scenario. If this option is used and the interfaces change names, or disappear, then the VoiSentry container will not be able to start and will output a suitable warning to the container log:

```
*****
```

```
The configured interface ens192 is not present.
```

```
You may fix this by redeploying as an upgrade to the same image:
```

```
voisentry_deploy.sh --upgrade --interface <new-intf> --image
aculab/voisentry:latest
```

```
It is recommended that you backup your system before doing this.
```

```
*****
```

1.2 VoiSentry Firewall Rules

When creating a new container, the default is to install firewall rules into the INPUT chain by inserting the VoiSentry rules at the top. These rules **only** allow external access to ports 22 (tcp), 53 (tcp/udp), 80 (tcp), 443 (tcp), 7269 (tcp), 7001 (tcp).

The rules added are:

```
-I INPUT -j VOISENTRY-INPUT
-A VOISENTRY-INPUT -i lo -j ACCEPT
-A VOISENTRY-INPUT -m state --state RELATED,ESTABLISHED -j ACCEPT
-A VOISENTRY-INPUT -p icmp -j ACCEPT
-A VOISENTRY-INPUT -j VS-ALLOW
-A VS-ALLOW -p udp -m udp --dport 53 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 53 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 22 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 80 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 443 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 7269 -j ACCEPT
-A VS-ALLOW -p tcp -m tcp --dport 7001 -j ACCEPT
-A VS-ALLOW -j REJECT --reject-with icmp-port-unreachable
```

This may not suite certain installs. The `voisentry_deploy.sh` script contains an option to not install these rules, and therefore it is a requirement that the customer installs the required rules themselves.

VoiSentry requires the following ports to be externally open: 53 (tcp/udp), 80 (tcp), 443 (tcp), 7269 (tcp), 7001 (tcp), **and explicitly not allow external access to 9042 (tcp)**.

To create an image which does not install any firewall rules:

```
./voisentry_deploy.sh --image aculab/voisentry:1.21.4-74-19 --no-firewall
```

1.3 Upgrading VoiSentry docker container

To upgrade an existing container, you should either backup the host machine, or be in a fully synchronized cluster of at least 2 nodes. You can only upgrade if the major and minor version numbers are the same, i.e. 1.21

The upgrade uses a new docker image, and will create a new container using this image, but using the volumes from the previous container.

First you should load the new image provided into docker:

```
docker image load -i voisentry-1.21.4-74-19.tar
```

The use the `voisentry_deploy.sh` script to upgrade:

```
./voisentry_deploy.sh --upgrade --image aculab/voisentry:1.21.4-74-19
```

For the no firewall option:

```
./voisentry_deploy.sh --upgrade --no-firewall --image aculab/voisentry:1.21.4-74-19
```

For the interface option:

```
./voisentry_deploy.sh --upgrade --interface ens224 --image aculab/voisentry:1.21.4-74-19
```



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+44 (0) 1908 273 800 | www.voisentry.com

