

## Raspberry Pi - Support #898

### Install PiCluster on Arch Linux ARM

06/06/2017 03:23 PM - Daniel Curtis

<b>Status:</b>	Closed	<b>Start date:</b>	06/06/2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Daniel Curtis	<b>% Done:</b>	90%
<b>Category:</b>	Jails / Containers	<b>Estimated time:</b>	1.00 hour
<b>Target version:</b>	Arch Linux	<b>Spent time:</b>	1.00 hour

#### Description

This is a guide for installing PiCluster on Arch Linux ARM using a Raspberry Pi 3.

### Prepare the Environment

- Make sure the system is up to date:

```
pacman -Syu
```

- Install prerequisites:

```
pacman -S docker git nodejs npm
```

- Start and enable docker at boot:

```
systemctl enable docker  
systemctl start docker
```

### Install PiCluster

- Download the latest PiCluster version from GitHub:

```
git clone https://github.com/picluster/picluster.git /opt/picluster
```

- Create a config file from the example:

```
cp config-example.json config.json
```

- Edit the config.json file:

```
vi config.json
```

- And edit the config file to suit your environment:

**NOTE:** Use the `web_connect` key to the value of the host systems IP address. Otherwise you will get connection errors while starting the agent.

```
{  
  "token": "1234567890ABCDEFGHIJKLMNQP",  
  "docker": "/opt/picluster/docker",  
  "server_port": "3000",
```

```
"agent_port": "3001",
"layout": [{
  "node": "piccluster.example.com",
  "nginx": "-p 80:80",
  "minio": "-p 9000:9000"
}],
"hb": [{
  "node": "piccluster.example.com",
  "minio": "9000",
  "nginx": "80"
}],
"container_host_constraints": [{
  "container": "nginx,localhost,127.0.0.1",
  "container": "minio,localhost,127.0.0.1"
}],
"automatic_heartbeat": "disabled",
"heartbeat_interval": "10000",
"syslog": "dmesg",
"web_username": "admin",
"web_password": "admin",
"web_connect": "127.0.0.1",
"web_port": "3003"
}
```

- Install and run server:

```
cd /opt/piccluster/server
npm install
```

- Install and run agent:

```
cd ../agent
npm install
```

- Install and run web console:

```
cd ../web
npm install
```

## Init with pm2

- **NOTE:** Make sure to login to root with `su -` or `sudo -i` to preserve needed environment variables.

- Install pm2:

```
npm install -g pm2
```

- Install the pm2 systemd init script as the piccluster user:

```
pm2 startup systemd
```

- Export the piccluster config filepath environment variable:

```
export PICCLUSTER_CONFIG='/opt/piccluster/config.json'
```

- Start the server, agent, and webconsole scripts:

```
pm2 start /opt/picluster/server/server.js
pm2 start /opt/picluster/agent/agent.js
pm2 start /opt/picluster/web/webconsole.js
```

- Save the pm2 session to restart at boot:

```
pm2 save
```

## Resources

- <https://github.com/rusher81572/picluster>

## History

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### #1 - 06/06/2017 11:01 PM - Daniel Curtis

- Description updated
- Status changed from New to In Progress
- % Done changed from 0 to 30

### #2 - 06/06/2017 11:12 PM - Daniel Curtis

- Description updated

### #3 - 06/07/2017 11:21 PM - Daniel Curtis

- Description updated
- % Done changed from 30 to 50

### #4 - 06/08/2017 09:56 PM - Daniel Curtis

- Description updated

### #5 - 06/09/2017 11:46 AM - Daniel Curtis

- Description updated
- % Done changed from 50 to 70

### #6 - 06/11/2017 09:38 PM - Daniel Curtis

- Description updated
- % Done changed from 70 to 80

### #7 - 06/11/2017 10:30 PM - Daniel Curtis

- Description updated

### #8 - 06/25/2017 11:22 PM - Daniel Curtis

- Description updated
- % Done changed from 80 to 90

### #9 - 06/26/2017 09:56 PM - Daniel Curtis

- Description updated

Removed the following:

**NOTE:** I needed to set the config file path in the server.js, agent.js, and webconsole.js scripts to the absolute config path:

```
cd /opt/picluster/server
```

```
sed -i.bak -e "s/../../config.json/\\opt\\picluster\\config.json/g" server.js  
  
cd ../agent  
sed -i.bak -e "s/../../config.json/\\opt\\picluster\\config.json/g" agent.js  
  
cd ../web  
sed -i.bak -e "s/../../config.json/\\opt\\picluster\\config.json/g" webconsole.js
```

**#10 - 07/01/2017 09:13 PM - Daniel Curtis**

- *Description updated*

**#11 - 08/11/2017 04:40 PM - Daniel Curtis**

- *Description updated*

**#12 - 03/19/2018 08:31 PM - Daniel Curtis**

- *Status changed from In Progress to Closed*