Raspberry Pi specifications

For the GSA Hackathon 2023, we will use two Raspberry Pi Model 4 B (4GB). They will have a standard OS installation (with the latest updates), see the following for details.

They will only be able to connect via **ethernet** and they will have **static IP addresses**. In the following, we provide all the system details.

**## usernames and passwords on the experimental**

RP1:

username: client

password: a

RP2:

username: server

password: a

**## IP addresses**

The client has the static ip address: '192.168.137.101/24'.

The server has the static ip address: '192.168.137.102/24'.

E.g., the servers´s '/etc/dhcpcd.conf' contains

'''

interface eth0

fallback static\_eth0

static ip\_address=192.168.137.102/24

static routers=

static domain\_name\_servers=8.8.8.8

static domain\_search=

'''

server@raspberrypi:~ $ cat /etc/dhcpcd.conf

# A sample configuration for dhcpcd.

# See dhcpcd.conf(5) for details.

# Allow users of this group to interact with dhcpcd via the control socket.

#controlgroup wheel

# Inform the DHCP server of our hostname for DDNS.

hostname

# Use the hardware address of the interface for the Client ID.

clientid

# or

# Use the same DUID + IAID as set in DHCPv6 for DHCPv4 ClientID as per RFC4361.

# Some non-RFC compliant DHCP servers do not reply with this set.

# In this case, comment out duid and enable clientid above.

#duid

# Persist interface configuration when dhcpcd exits.

persistent

# Rapid commit support.

# Safe to enable by default because it requires the equivalent option set

# on the server to actually work.

option rapid\_commit

# A list of options to request from the DHCP server.

option domain\_name\_servers, domain\_name, domain\_search, host\_name

option classless\_static\_routes

# Respect the network MTU. This is applied to DHCP routes.

option interface\_mtu

# Most distributions have NTP support.

#option ntp\_servers

# A ServerID is required by RFC2131.

require dhcp\_server\_identifier

# Generate SLAAC address using the Hardware Address of the interface

#slaac hwaddr

# OR generate Stable Private IPv6 Addresses based from the DUID

slaac private

# Example static IP configuration:

#interface eth0

#static ip\_address=192.168.0.10/24

#static ip6\_address=fd51:42f8:caae:d92e::ff/64

#static routers=192.168.0.1

#static domain\_name\_servers=192.168.0.1 8.8.8.8 fd51:42f8:caae:d92e::1

# It is possible to fall back to a static IP if DHCP fails:

# define static profile

# profile static\_eth0

#static ip\_address=192.168.137.102/24

#static routers=192.168.137.1

#static domain\_name\_servers=192.168.137.1

# fallback to static profile on eth0

interface eth0

fallback static\_eth0

static ip\_address=192.168.137.102/24

static routers=

static domain\_name\_servers=8.8.8.8

static domain\_search=

**## Operating system:**

client@raspberrypi:~ $ cat /etc/os-release

PRETTY\_NAME="Debian GNU/Linux 11 (bullseye)"

NAME="Debian GNU/Linux"

VERSION\_ID="11"

VERSION="11 (bullseye)"

VERSION\_CODENAME=bullseye

ID=debian

HOME\_URL="https://www.debian.org/"

SUPPORT\_URL="https://www.debian.org/support"

BUG\_REPORT\_URL="https://bugs.debian.org/"

**## Raspbian version (hostnamectl)**

client@raspberrypi:~ $ hostnamectl

Static hostname: raspberrypi

Icon name: computer

Machine ID: b296ea16f7dd44ad9a19f99131c04970

Boot ID: 43e37c09b30347faad6fd7eebe883ba5

Operating System: Debian GNU/Linux 11 (bullseye)

Kernel: Linux 6.1.21-v8+

Architecture: arm64

**## CPUs and Raspberry Pi model:**

client@raspberrypi:~ $ cat /proc/cpuinfo

processor : 0

BogoMIPS : 108.00

Features : fp asimd evtstrm crc32 cpuid

CPU implementer : 0x41

CPU architecture: 8

CPU variant : 0x0

CPU part : 0xd08

CPU revision : 3

processor : 1

BogoMIPS : 108.00

Features : fp asimd evtstrm crc32 cpuid

CPU implementer : 0x41

CPU architecture: 8

CPU variant : 0x0

CPU part : 0xd08

CPU revision : 3

processor : 2

BogoMIPS : 108.00

Features : fp asimd evtstrm crc32 cpuid

CPU implementer : 0x41

CPU architecture: 8

CPU variant : 0x0

CPU part : 0xd08

CPU revision : 3

processor : 3

BogoMIPS : 108.00

Features : fp asimd evtstrm crc32 cpuid

CPU implementer : 0x41

CPU architecture: 8

CPU variant : 0x0

CPU part : 0xd08

CPU revision : 3

Hardware : BCM2835

Revision : c03115

Serial : 10000000bc7a0b65

Model : Raspberry Pi 4 Model B Rev 1.5

# Disk space

client@raspberrypi:~ $ df -h

Filesystem Size Used Avail Use% Mounted on

/dev/root 15G 3.7G 11G 27% /

devtmpfs 1.7G 0 1.7G 0% /dev

tmpfs 1.9G 0 1.9G 0% /dev/shm

tmpfs 759M 1.3M 758M 1% /run

tmpfs 5.0M 4.0K 5.0M 1% /run/lock

/dev/mmcblk0p1 255M 31M 225M 13% /boot

tmpfs 380M 28K 380M 1% /run/user/1000

# Memory

client@raspberrypi:~ $ free -h

total used free shared buff/cache available

Mem: 3.7Gi 366Mi 2.6Gi 187Mi 735Mi 3.1Gi

Swap: 99Mi 0B 99Mi