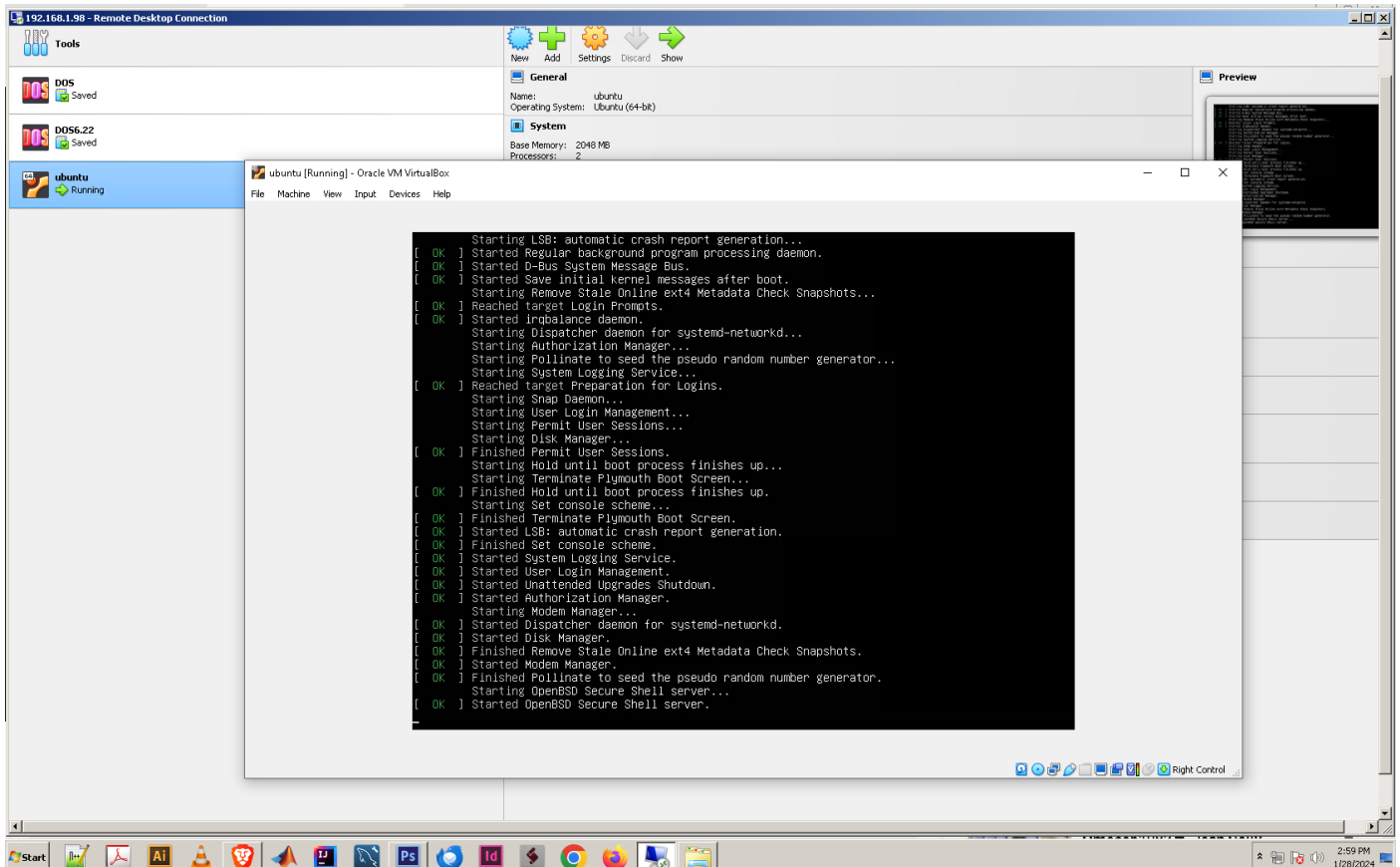


Bezpieczeństwo systemów komputerowych (BSK)

Zadanie Praktyczne 5: Zadanie Praktyczne 5: PiHole

<https://pi-hole.net>

1) Instalacja UbuntuServer w VirtualBoxie na Windows 10:



Profile setup [Help]

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Your name:

Your server's name:
The name it uses when it talks to other computers.

Pick a username:

Choose a password:

Confirm your password:

SSH Setup [Help]

You can choose to install the OpenSSH server package to enable secure remote access to your server.

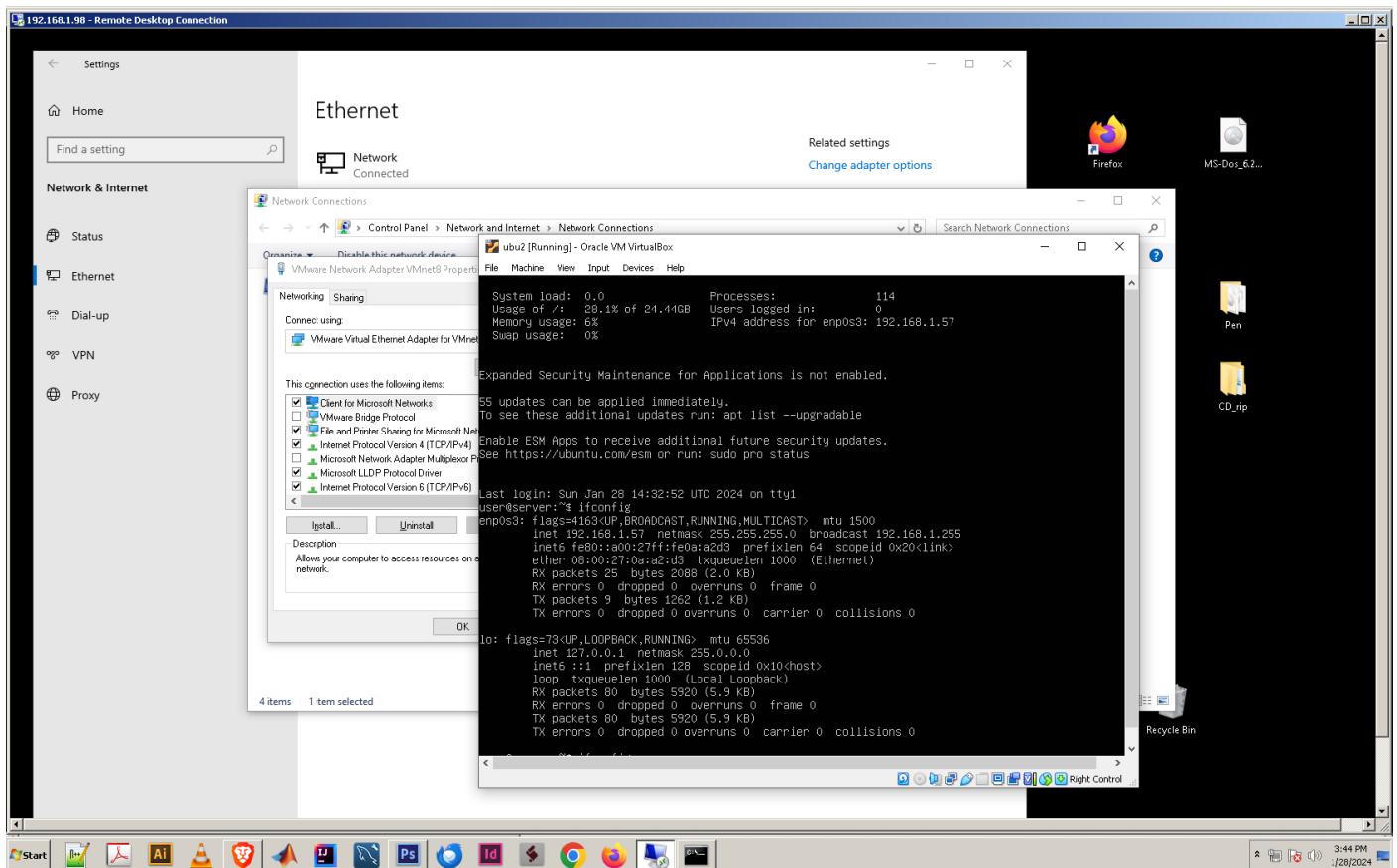
☒ Install OpenSSH server

Import SSH identity:
You can import your SSH keys from GitHub or Launchpad.

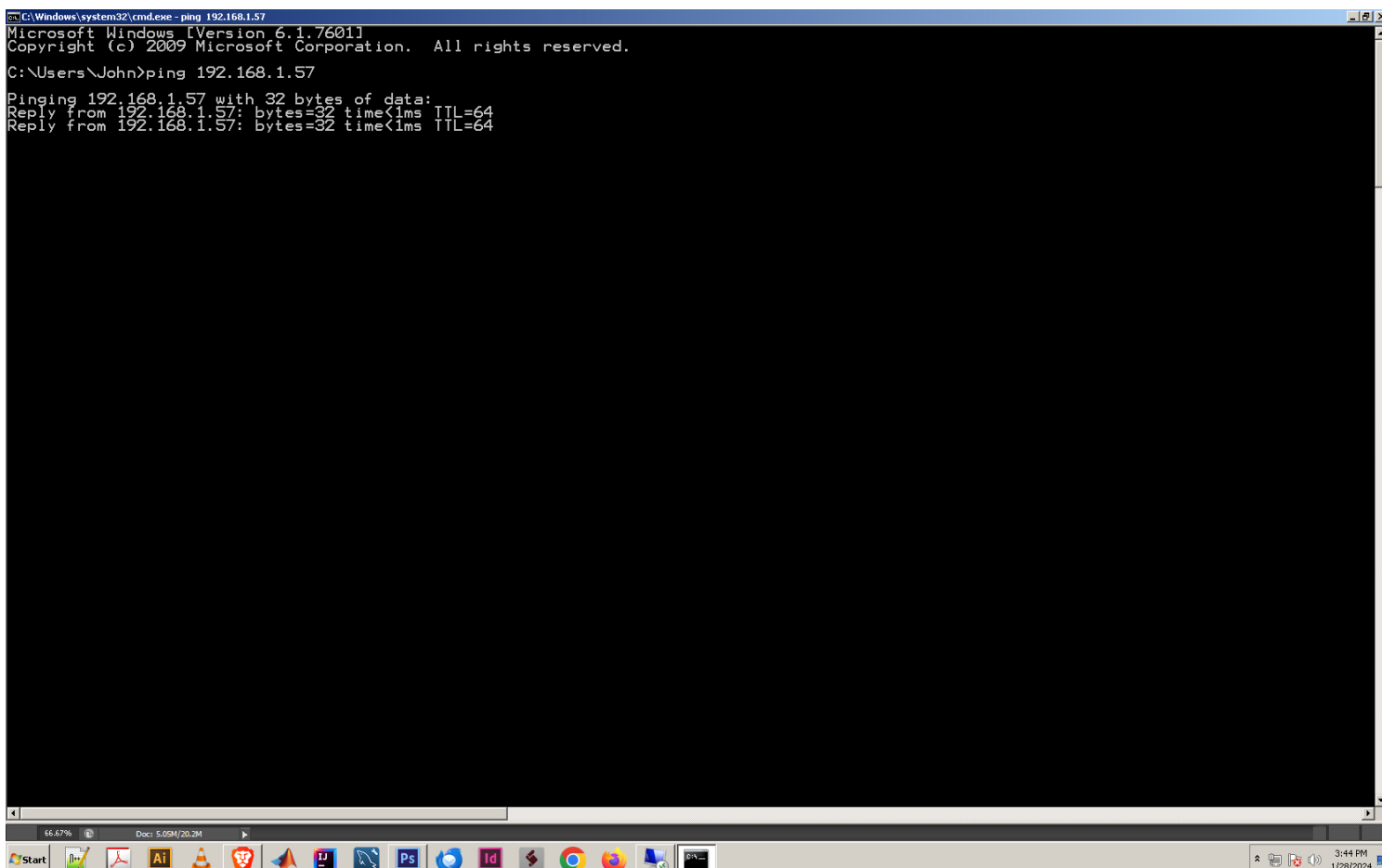
Import Username:

☒ Allow password authentication over SSH

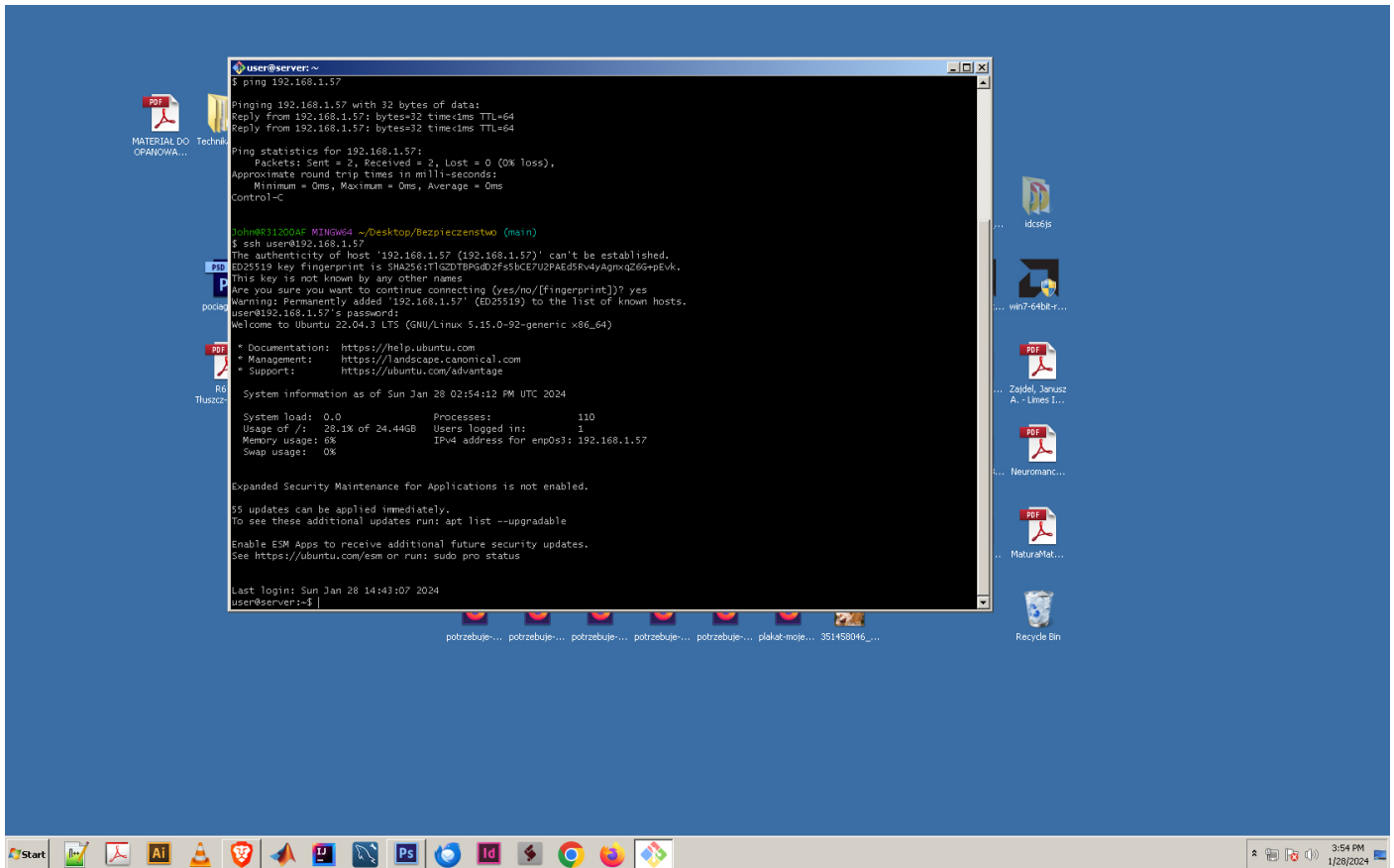
2) Udostępnienie interfejsu sieciowego PiHole sieci lokalnej, oraz podgląd adresu sieciowego (192.168.1.57)



3) Sprawdzenie dostępności hosta

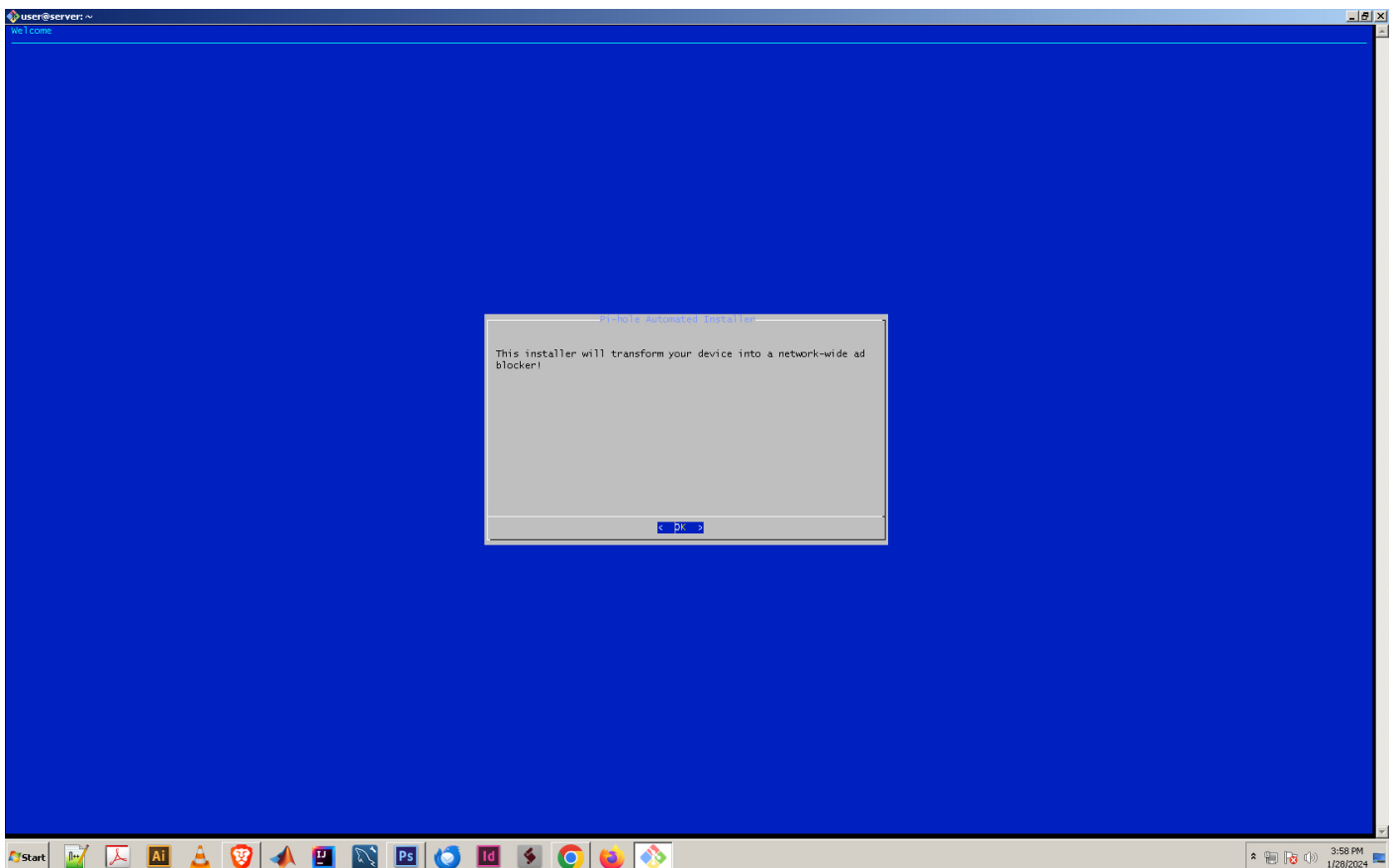


4) sesja ssh ze zdalną maszyną



5) instalacja PiHole

`curl -sSL https://install.pi-hole.net | bash`



Enter your desired upstream DNS provider(s), separated by a comma. If you want to specify a port other than 53, separate it with a hash.

For example '8.8.8.8, 8.8.4.4' or '127.0.0.1#5353'

8.8.8.8

OK

Exit

user@server:~

update-alternatives: using /usr/bin/php-cgi8.1 to provide /usr/bin/php-cgi

update-alternatives: using /usr/lib/cgi-bin/php8.1 to provide /usr/lib/cgi

Creating config file /etc/php/8.1/cgi/php.ini with new version

Setting up php-cgi (2:8.1+92ubuntu1) ...

update-alternatives: using /usr/bin/php-cgi.default to provide /usr/bin/ph

update-alternatives: using /usr/lib/cgi-bin/php.default to provide /usr/li

Setting up php-json (2:8.1+92ubuntu1) ...

Processing triggers for ufw (0.36.1-4ubuntu0.1) ...

Processing triggers for man-db (2.10.2-1) ...

Processing triggers for libc-bin (2.35-0ubuntu3.6) ...

Processing triggers for php8.1-cgi (8.1.2-1ubuntu2.14) ...

Processing triggers for php8.1-cgi (8.1.2-1ubuntu2.14) ...

Scanning processes...

Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.

[*] Enabling lighttpd service to start on reboot...

[*] Checking for group 'pihole'

[*] Creating group 'pihole'

[*] Creating user 'pihole'

[*] FTL Checks...

[*] Detected x86_64 processor

[*] Checking for existing FTL binary...

[*] Downloading and installing FTL

[*] Installing scripts from /etc/pihole

[*] Installing configs from /etc/pihole...

[*] No dnsmasq.conf found... restoring default dnsmasq.conf...

[*] Installed /etc/dnsmasq.d/01-pihole.conf

[*] Installed /etc/dnsmasq.d/06-rfc6761.conf

[*] Installing sudoer file

[*] Installing latest Cron script

[*] Installing latest logrotate script

[*] Backing up /etc/dnsmasq.conf to /etc/dnsmasq.conf.old

[*] man pages installed and database updated

[*] Testing if systemd-resolved is enabled

[*] Disabling systemd-resolved DNSStubListener and restarting systemd-resolved

[*] Restarting lighttpd service...

[*] Enabling lighttpd service to start on reboot...

[*] Restarting services...

[*] Enabling pihole-FTL service to start on reboot...

[*] Restarting pihole-FTL service...

[*] Creating new gravity database

[*] Migrating content of /etc/pihole/adlists.list into new database

[*] Deleting existing list cache

[*] Neutrino emissions detected...

[*] Pulling blocklist source list into range

[*] Preparing new gravity database

[*] Creating new gravity databases

[*] Using libz compression

[*] Target: https://raw.githubusercontent.com/StevenBlack/hosts/master/hosts

[*] Status: Retrieval successful

user@server:~

Selecting previously unselected package dns-root-data.

Preparing to unpack .../01-dns-root-data_2021011101_all.deb ...

Unpacking dns-root-data (2021011101) ...

Selecting previously unselected package libonig5:amd64.

Preparing to unpack .../02-libonig5_6.9.7.1-2build1_amd64.deb ...

Unpacking libonig5:amd64 (6.9.7.1-2build1) ...

Selecting previously unselected package libjq1:amd64.

Preparing to unpack .../03-libjq1_1.6-2.1ubuntu3_amd64.deb ...

Unpacking libjq1:amd64 (1.6-2.1ubuntu3) ...

Selecting previously unselected package jq.

Preparing to unpack .../04-jq_1.6-2.1ubuntu3_amd64.deb ...

Unpacking jq (1.6-2.1ubuntu3) ...

Selecting previously unselected package php-common.

Preparing to unpack .../05-php-common_2:8.1+92ubuntu1_all.deb ...

Unpacking php-common (2:8.1+92ubuntu1) ...

Selecting previously unselected package php8.1-common.

Preparing to unpack .../06-php8.1-common_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-common (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php8.1-opcache.

Preparing to unpack .../07-php8.1-opcache_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-opcache (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php8.1-readline.

Preparing to unpack .../08-php8.1-readline_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-readline (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php8.1-cli.

Preparing to unpack .../09-php8.1-cli_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-cli (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php8.1-cgi.

Preparing to unpack .../10-php8.1-cgi_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-cgi (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php-cgi.

Preparing to unpack .../11-php-cgi_2:8.1+92ubuntu1_all.deb ...

Unpacking php-cgi (2:8.1+92ubuntu1) ...

Selecting previously unselected package php8.1-intl.

Preparing to unpack .../12-php8.1-intl_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-intl (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php-intl.

Preparing to unpack .../13-php-intl_2:8.1+92ubuntu1_all.deb ...

Unpacking php-intl (2:8.1+92ubuntu1) ...

Selecting previously unselected package php-json.

Preparing to unpack .../14-php-json_2:8.1+92ubuntu1_all.deb ...

Unpacking php-json (2:8.1+92ubuntu1) ...

Selecting previously unselected package php8.1-sqlite3.

Preparing to unpack .../15-php8.1-sqlite3_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-sqlite3 (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php-sqlite3.

Preparing to unpack .../16-php-sqlite3_2:8.1+92ubuntu1_all.deb ...

Unpacking php-sqlite3 (2:8.1+92ubuntu1) ...

Selecting previously unselected package php8.1-xml.

Preparing to unpack .../17-php8.1-xml_8.1.2-1ubuntu2.14_amd64.deb ...

Unpacking php8.1-xml (8.1.2-1ubuntu2.14) ...

Selecting previously unselected package php-xml.

Preparing to unpack .../18-php-xml_2:8.1+92ubuntu1_all.deb ...

Unpacking php-xml (2:8.1+92ubuntu1) ...

Selecting previously unselected package idn2.

Preparing to unpack .../19-idn2_2.3.2-2build1_amd64.deb ...

Unpacking idn2 (2.3.2-2build1) ...

Setting up lighttpd (1.4.63-1ubuntu1) ...

Enabling unconfigured: ok

Run "service lighttpd force-reload" to enable changes

Created symlink /etc/systemd/system/multi-user.target.wants/lighttpd.service → /lib/systemd/system/lighttpd.service.

Setting up idn2 (2.3.2-2build1) ...

Setting up php-common (2:8.1+92ubuntu1) ...

Created symlink /etc/systemd/system/timers.target.wants/phpsessionclean.timer → /lib/systemd/system/phpsessionclean.timer.

Setting up php8.1-common (8.1.2-1ubuntu2.14) ...

Creating config file /etc/php/8.1/mods-available/calendar.ini with new version

Creating config file /etc/php/8.1/mods-available/ctype.ini with new version

l

6) dostęp do panelu


Configure your devices to use the Pi-hole as their DNS server using:

IPv4: 192.168.1.57
IPv6: Not Configured
If you have not done so already, the above IP should be set to static.
View the web interface at <http://pi.hole/admin> or <http://192.168.1.57/admin>

Your Admin Webpage login password is vPy1d0Hv

OK

7) logowanie do panelu



Pi-hole

☐ Remember me for 7 days

Login

Forgot password?

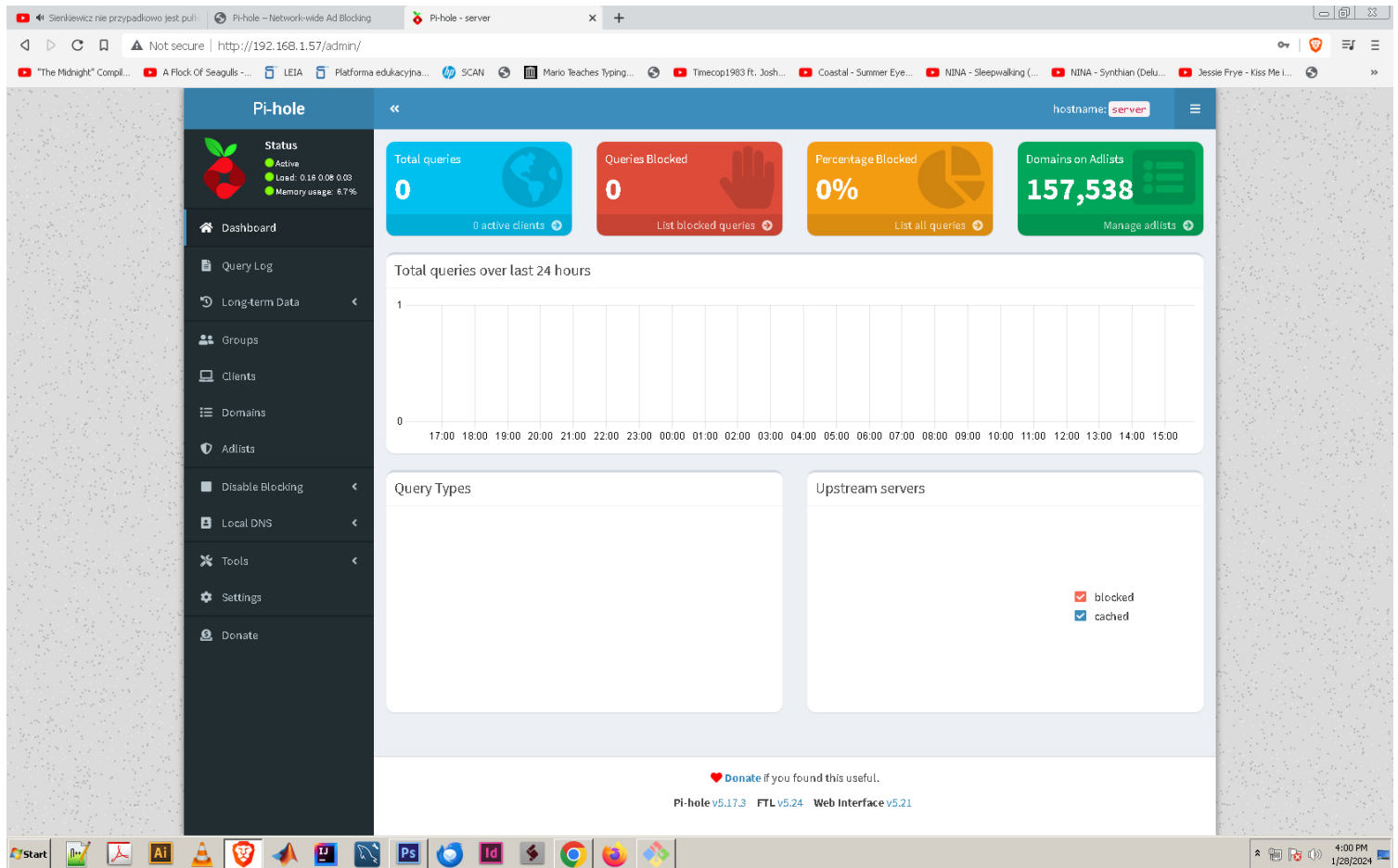
Documentation

GitHub

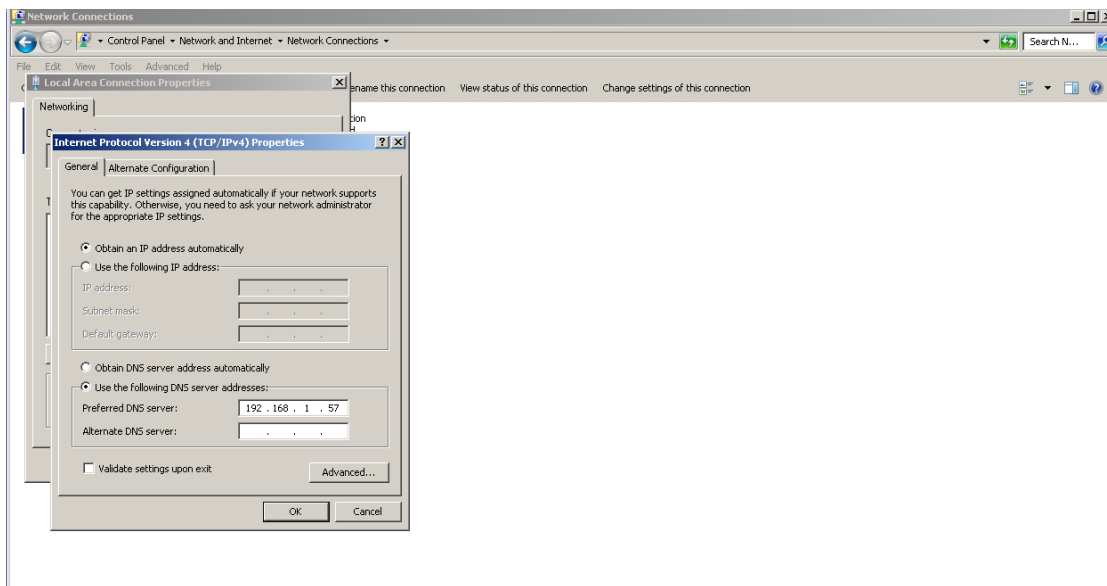
Pi-hole Discourse

♥ Donate if you found this useful.

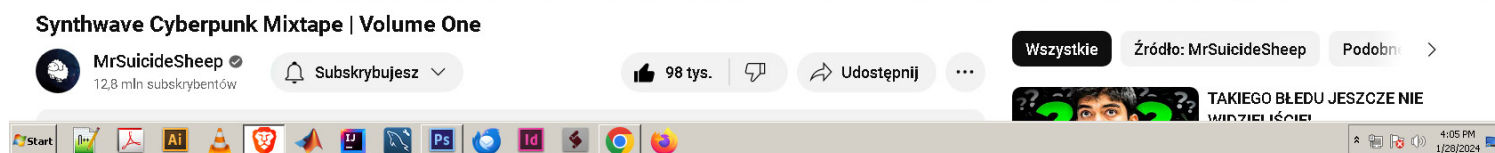
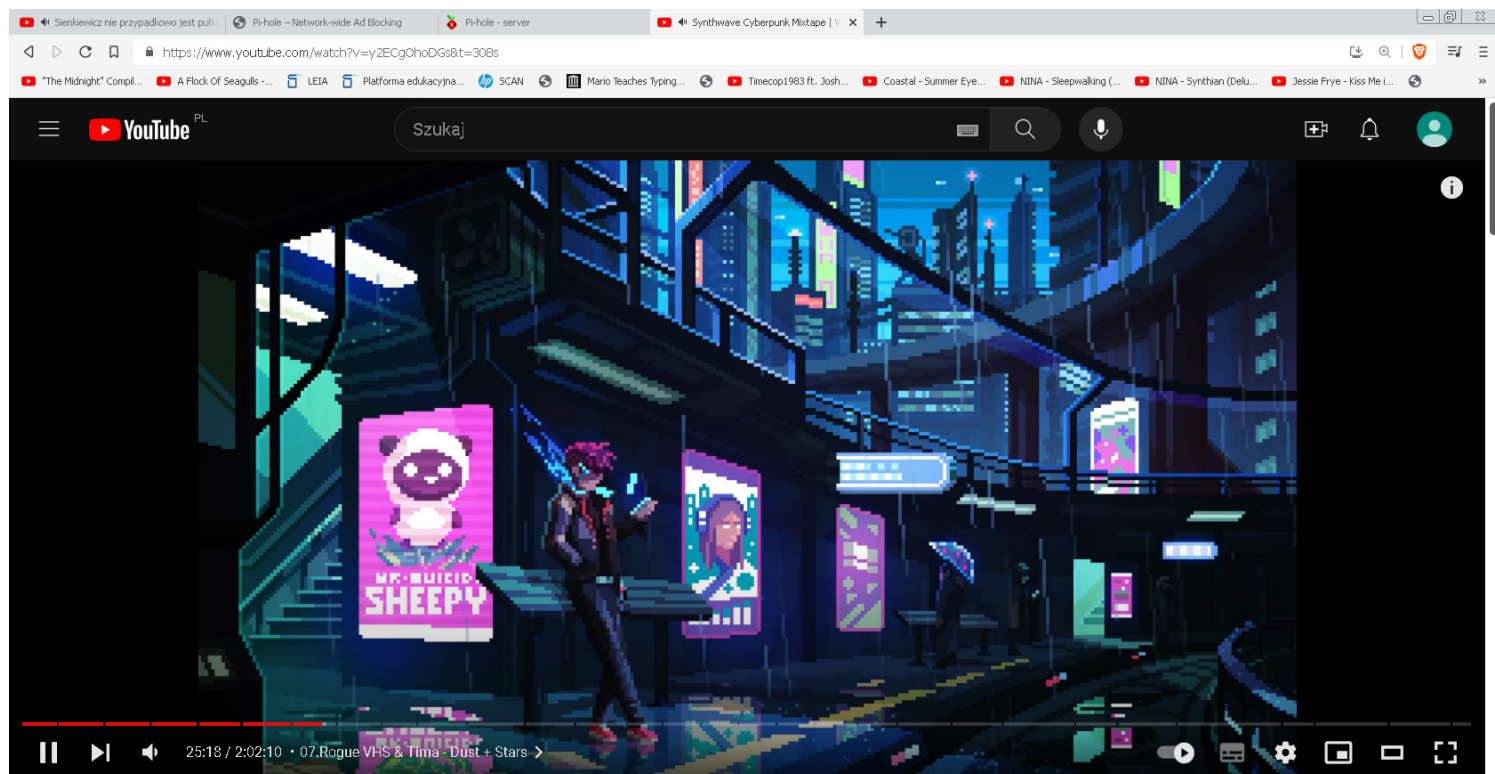
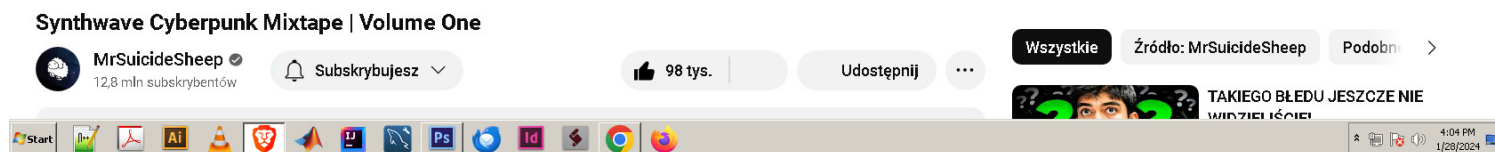
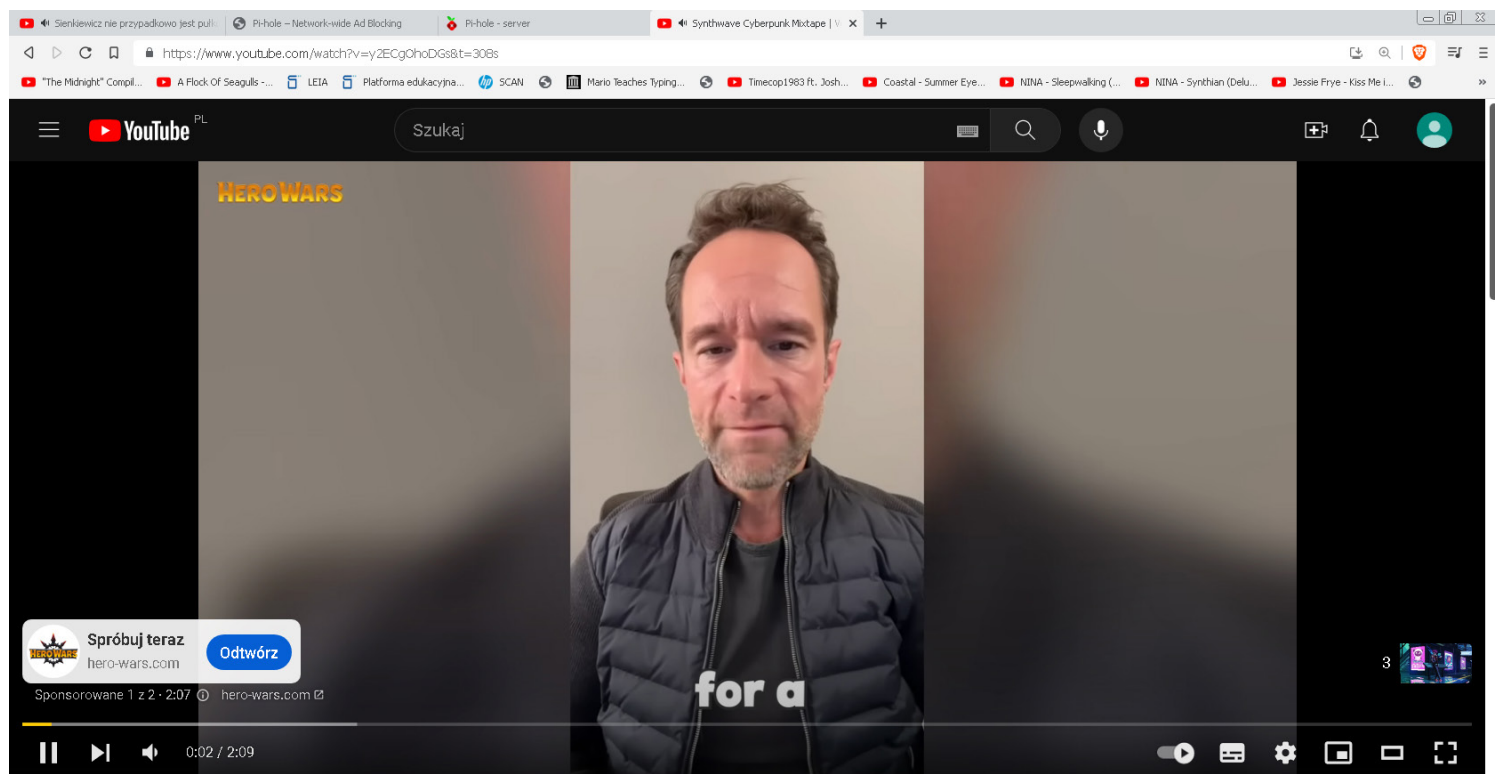
8) działająca aplikacja



9) rekonfiguracja sieci (ustawienia adresu DNS)



10) odwiedziny popularnych serwisów



11) podgląd żądań przechodzących przez DNS, z oznaczeniem odfiltrowanych

Pi-hole Status: Active, Load: 0.01, 0.05, 0.01, Memory usage: 6.7%

Recent Queries (showing up to 100 queries), [show all](#)

Search: Type / Domain / Client

Show 10 entries

Time	Type	Domain	Client	Status	Reply	Action
2024-01-28 16:02:32	A	p3a-json.brave.com	192.168.1.216	OK (answered by dns.google#53)	CNAME (17.8ms)	Blacklist
2024-01-28 16:02:32	A	p3a.brave.com	192.168.1.216	OK (answered by dns.google#53)	CNAME (13.6ms)	Blacklist
2024-01-28 16:02:31	A	teredo.ipv6.microsoft.com	192.168.1.216	OK (cache)	NXDOMAIN (0.0ms)	Blacklist
2024-01-28 16:02:18	A	s1.adspayer.pl	192.168.1.216	OK (sent to dns.google#53)	N/A	Blacklist
2024-01-28 16:02:17	HTTPS	www.gstatic.com	192.168.1.216	OK (answered by dns.google#53)	NODATA (42.5ms)	Blacklist
2024-01-28 16:02:17	A	www.gstatic.com	192.168.1.216	OK (answered by dns.google#53)	IP (11.6ms)	Blacklist
2024-01-28 16:02:17	A	s1.adspayer.pl	192.168.1.216	OK (already forwarded)	N/A	Blacklist
2024-01-28 16:02:17	HTTPS	yt3.ggpht.com	192.168.1.216	OK (answered by dns.google#53)	CNAME (94.8ms)	Blacklist
2024-01-28 16:02:17	A	yt3.ggpht.com	192.168.1.216	OK (answered by dns.google#53)	CNAME (35.5ms)	Blacklist
2024-01-28 16:02:16	HTTPS	securepubads.g.doubleclick.net	192.168.1.216	Blocked (gravity)	NODATA (0.1ms)	Whitelist

Showing 1 to 10 of 100 entries

4:02 PM 1/28/2024