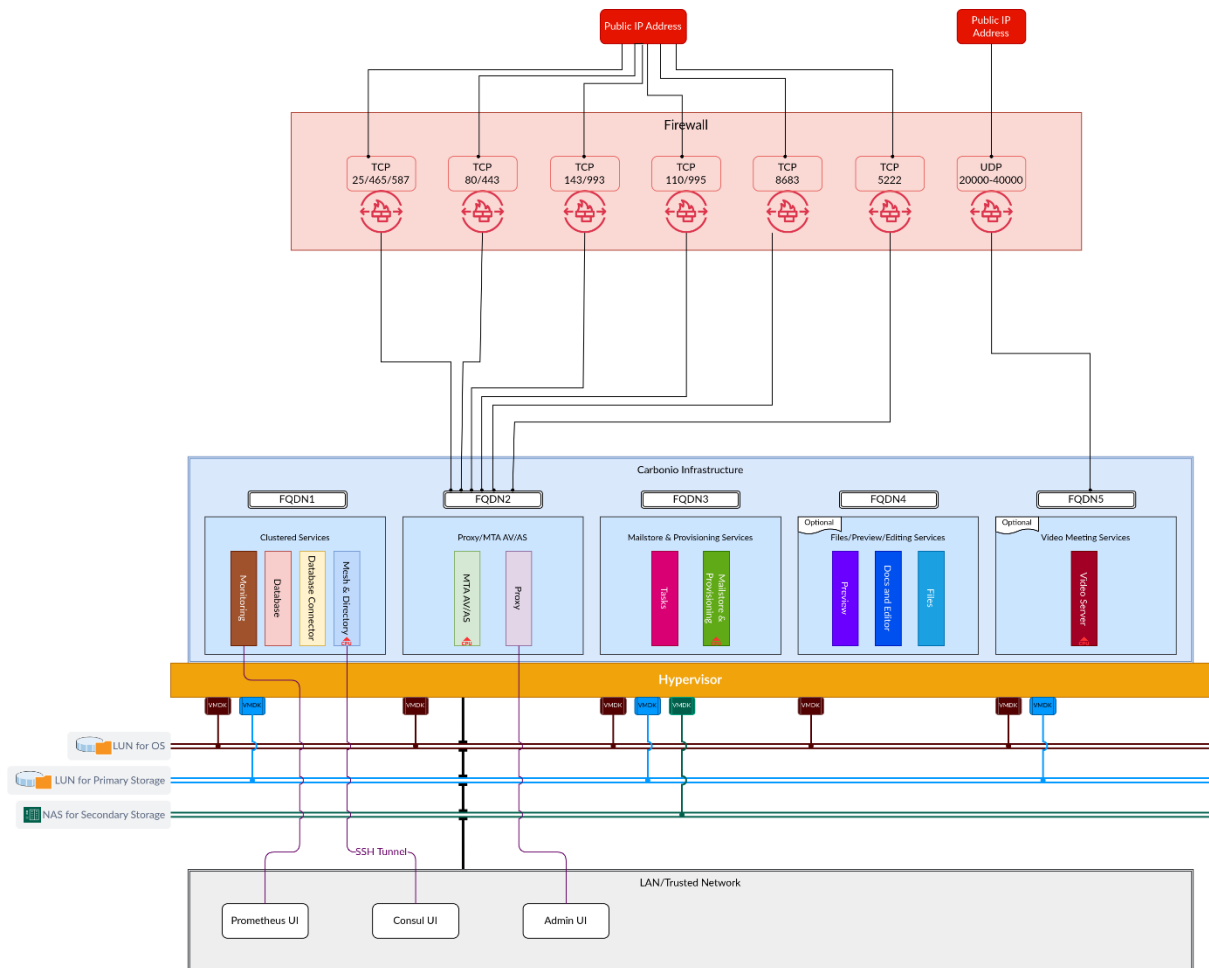


ZEXTRAS MULTI SERVER INSTALLATION ON UBUNTU 20



The architecture of the 5 Nodes Scenario

**NOTE: BEFORE DOING THIS A-RECORDS
NEEDED TO BE POINTED (for all nodes) and for
NODE-2 point mx, spf, DMARC, DKIM**

Roles Installation

Node 1

Node Name/FQDN: srv1.example.com

Type of services: Clustered services

Roles installed:

Database

Type of Role: Infrastructure

Packages:

- postgresql-12

```
# hostnamectl set-hostname
# nano /etc/hosts
# echo "deb https://repo.zextras.io/release/ubuntu $(lsb_release -sc) main" >
/etc/apt/sources.list.d/zextras.list && apt-key adv --keyserver
hkp://keyserver.ubuntu.com:80 --recv-keys 52FD40243E584A21 && apt clean
&& apt update && apt upgrade

# apt install postgresql-12
# read -s -p "Sixth*54321" DB_ADM_PWD
#su - postgres -c "psql --command=\"CREATE ROLE carbonio_adm WITH
LOGIN SUPERUSER encrypted password 'Sixth*54321';\""
# su - postgres -c "psql --command=\"CREATE DATABASE carbonio_adm
owner carbonio_adm;\""

```

Copy all the below commands at a time

```
# su - postgres -c "psql --command=\"ALTER SYSTEM SET listen_addresses TO
'*',\\""
su - postgres -c "psql --command=\"ALTER SYSTEM SET max_connections =
500;\\""
su - postgres -c "psql --command=\"ALTER SYSTEM SET shared_buffers =
5000;\\""
su - postgres -c "psql --command=\"ALTER SYSTEM SET port TO '5433';\\""
echo "host      all             0.0.0.0/0          md5" > >
/etc/postgresql/12/main/pg_hba.conf
systemctl restart postgresql
```

- **Mesh and Directory**

Type of Role: Infrastructure

Packages:

- service-discover-server
 - carbonio-directory-server
- # apt install service-discover-server carbonio-directory-server
- # carbonio-bootstrap
- # service-discover setup-wizard
-

```
root@node1:~# service-discover setup-wizard
Setup of first service-discover server instance
eth0 148.251.32.10/29, fe80::216:3eff:fe7c:46cd/64
Specify the binding address for service discovery: 148.251.32.10
Create the cluster credentials password (will be used for setups):
Type the credential password again:
```

enter your public IP and enter cluster credentials here my credentials are
Sixth*54321

pending-setups -a

```
root@node1:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/set-carbonio-prometheus-openldap-exporter.sh
Setup successful, moving set-carbonio-prometheus-openldap-exporter.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node1:~#
```

Retrieve the LDAP Admin Password

Once the installation of this role is complete, you will be able to obtain the password by running the following command:

```
# su - zextras -c "zmlocalconfig -s | grep ldap_password"
```

```
there are no pending setups to run. Exiting.  
root@node1:~# su - zextras -c "zmlocalconfig -s | grep ldap_password"  
zimbra_ldap_password = DvaNHUn0IJ  
root@node1:~#
```

Output: zimbra_ldap_password = DvaNHUn0IJ

- **Database Connector**

Type of Role: Infrastructure

Packages:

- pgpool2
- carbonio-files-db
- carbonio-mailbox-db
- carbonio-docs-connector-db
- carbonio-tasks-db

```
# apt install carbonio-files-db carbonio-mailbox-db \  
carbonio-docs-connector-db carbonio-tasks-db
```

```
# carbonio-bootstrap  
# service-discover setup-wizard
```

```
root@node1:~# service-discover setup-wizard  
service-discover: error: setup of service-discover already performed, manually reset and try again.  
root@node1:~# pending-setup -a  
# pending-setups -a
```

Install and Configure pgpool

Install pgpool

```
# apt install pgpool2
```

Copy the following lines and paste them in file `/etc/pgpool2/pgpool.conf`.

```
# nano /etc/pgpool2/pgpool.conf
```

```
backend_clustering_mode = 'raw'
port = 5432
backend_hostname0 = 'localhost'
backend_port0 = 5433
backend_flag0 = 'DISALLOW_TO_FAILOVER'
num_init_children = 32
max_pool=8
reserved_connections=1
```

```
# systemctl enable --now pgpool2
# systemctl restart pgpool2.service
# systemctl status pgpool2.service
```

Bootstrap Carbonio Databases

Mailbox

```
PGPASSWORD=$DB_ADM_PWD carbonio-mailbox-db-bootstrap carbonio_adm
127.0.0.1
```

```
root@node1:/etc/pgpool2# PGPASSWORD=$DB_ADM_PWD carbonio-mailbox-db-bootstrap carbonio_adm 127.0.0.1
Database: 127.0.0.1:5432 | User: carbonio_adm

Initializing Database: carbonio-powerstore...
-----
Populating Consul KV...
  Consul: Success! Data written to: carbonio-powerstore/db-name
  Consul: Success! Data written to: carbonio-powerstore/db-username
  Consul: Success! Data written to: carbonio-powerstore/db-password
Done
Creating Role...
Password for user carbonio_adm:
PSQL: psql: warning: extra command-line argument "postgres" ignored CREATE ROLE
Done
Creating Database...
Password for user carbonio_adm: █
```

Here my admin password is Sixth*54321

```

root@node1:/etc/pgpool2# PGPASSWORD=$DB_ADM_PWD carbonio-mailbox-db-bootstrap carbonio_adm 127.0.0.1
Database: 127.0.0.1:5432 | User: carbonio_adm

Initializing Database: carbonio-powerstore...
-----
Populating Consul KV...
  Consul: Skip! key already set
  Consul: Skip! key already set
  Consul: Skip! key already set
Done
Creating Role...
Password for user carbonio_adm:
PSQL: psql: warning: extra command-line argument "postgres" ignored role "powerstore" already exists
Done
Creating Database...
Password for user carbonio_adm:
PSQL: psql: warning: extra command-line argument "postgres" ignored database "powerstore" already exists
Done
Testing Connection...
PSQL: Connected OK
Done

Initializing Database: carbonio-abq...
-----
Populating Consul KV...
  Consul: Skip! key already set
  Consul: Skip! key already set
  Consul: Skip! key already set
Done
Creating Role...
Password for user carbonio_adm:
PSQL: psql: warning: extra command-line argument "postgres" ignored role "abq" already exists
Done
Creating Database...
Password for user carbonio_adm:
PSQL: psql: warning: extra command-line argument "postgres" ignored database "abq" already exists
Done
Testing Connection...
PSQL: Connected OK
Done

```

You need to enter passwords continuously until it is finished

Carbonio Docs

```
PGPASSWORD=$DB_ADM_PWD carbonio-docs-connector-db-bootstrap
carbonio_adm 127.0.0.1
```

Sixth*54321

```

Database initialization completed
root@node1:/etc/pgpool2# PGPASSWORD=$DB_ADM_PWD carbonio-docs-connector-db-bootstrap carbonio_adm 127.0.0.1
Database: 127.0.0.1:5432 user carbonio_adm
Password for user carbonio_adm:
Success! Data written to: carbonio-docs-connector/db-name
Success! Data written to: carbonio-docs-connector/db-username
Success! Data written to: carbonio-docs-connector/db-password
Password for user carbonio_adm:
CREATE ROLE
CREATE DATABASE
Database initialization completed.
root@node1:/etc/pgpool2#

```

Carbonio Files

```
PGPASSWORD=$DB_ADM_PWD carbonio-files-db-bootstrap carbonio_adm 127.0.0.1
```

Sixth*54321

```
root@node1:/etc/pgpool2# PGPASSWORD=$DB_ADM_PWD carbonio-files-db-bootstrap carbonio_admin 127.0.0.1
Database: 127.0.0.1:5432 user carbonio_admin
Password for user carbonio_admin:
Check postgres connection: OK
Password for user carbonio_admin:
Current version is: .
Database already initialized! Quitting
root@node1:/etc/pgpool2#
```

Carbonio Tasks

```
PGPASSWORD=$DB_ADM_PWD carbonio-tasks-db-bootstrap carbonio_admin
127.0.0.1
```

Sixth*54321

```
root@node1:/etc/pgpool2# PGPASSWORD=$DB_ADM_PWD carbonio-tasks-db-bootstrap carbonio_admin 127.0.0.1
Database: 127.0.0.1:5432 user carbonio_admin
Password for user carbonio_admin:
Check postgres connection: OK
Password for user carbonio_admin:
Current version is: .
Database already initialized! Quitting
root@node1:/etc/pgpool2#
```

- Monitoring

Type of Role: Service role

Packages:

- carbonio-prometheus
- grafana

```
# apt install carbonio-prometheus
```

```
# carbonio-bootstrap
```

```
# service-discover setup-wizard
```

```
root@node1:/etc/pgpool2# service-discover setup-wizard
service-discover: error: setup of service-discover already performed, manually reset and try again.
root@node1:/etc/pgpool2#
```

NOTE: Ignore the error

```
# pending-setups -a
```

```
root@node1:/etc/pgpool2# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-prometheus.sh
Insert the cluster credential password:
Restarting Carbonio Prometheus Service
Reloading Service Discover
Configuration reload triggered
Setup successful, moving carbonio-prometheus.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node1:/etc/pgpool2#
```

```
systemctl restart carbonio-prometheus
```

Grafana Installation and Configuration

Grafana Installation

```
# wget -q -O - https://packages.grafana.com/gpg.key | sudo apt-key add -  
# add-apt-repository "deb https://packages.grafana.com/oss/deb stable main"
```

Install Grafana

```
# systemctl start grafana-server  
# systemctl status grafana-server  
# systemctl enable grafana-server
```

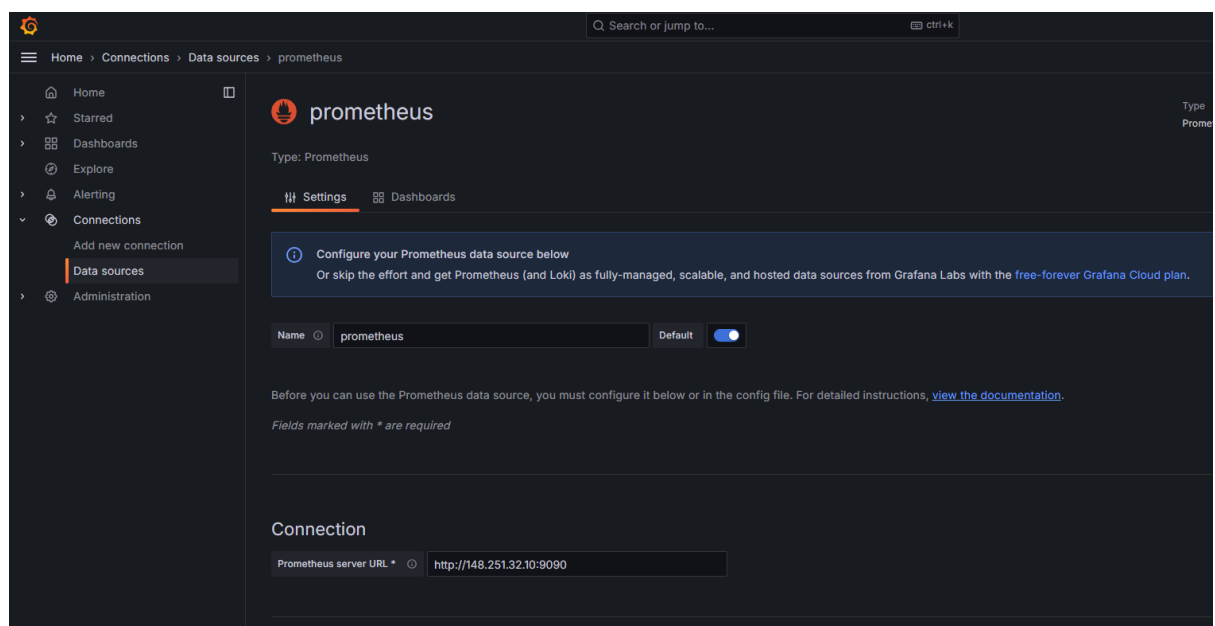
To check the same use the below link

<http://148.251.32.10:3000>

username: admin
password: admin

newpassword: Sixth*54321
confirm password: Sixth*54321
grafana-cli plugins install grafana-worldmap-panel

grafana-cli plugins install marcusolsson-treemap-panel
systemctl restart grafana-server



Search or jump to...

ctrl+k

Home > Connections > Data sources > prometheus

Home

Starred

Dashboards

Explore

Alerting

Connections

Add new connection

Data sources

Administration

Default editor

Builder

Disable metrics lookup

Performance

Prometheus type

Choose

Cache level

Low

Incremental querying (beta)

Disable recording rules (beta)

Other

Custom query parameters

Example: max_source_resolution=5m&timeou

HTTP method

POST

Exemplars

+ Add

✓

Successfully queried the Prometheus API.

Next, you can start to visualize data by [building a dashboard](#), or by querying data in the [Explore view](#).

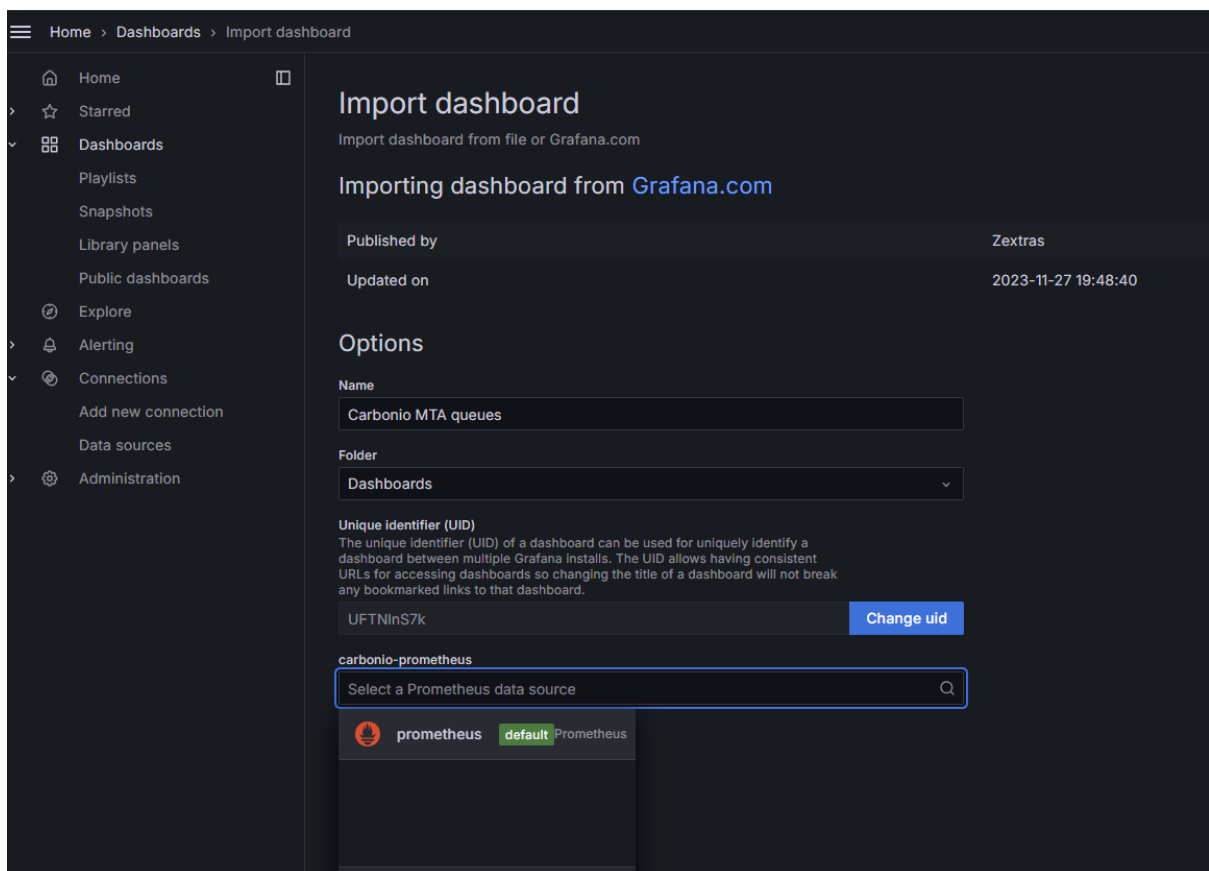
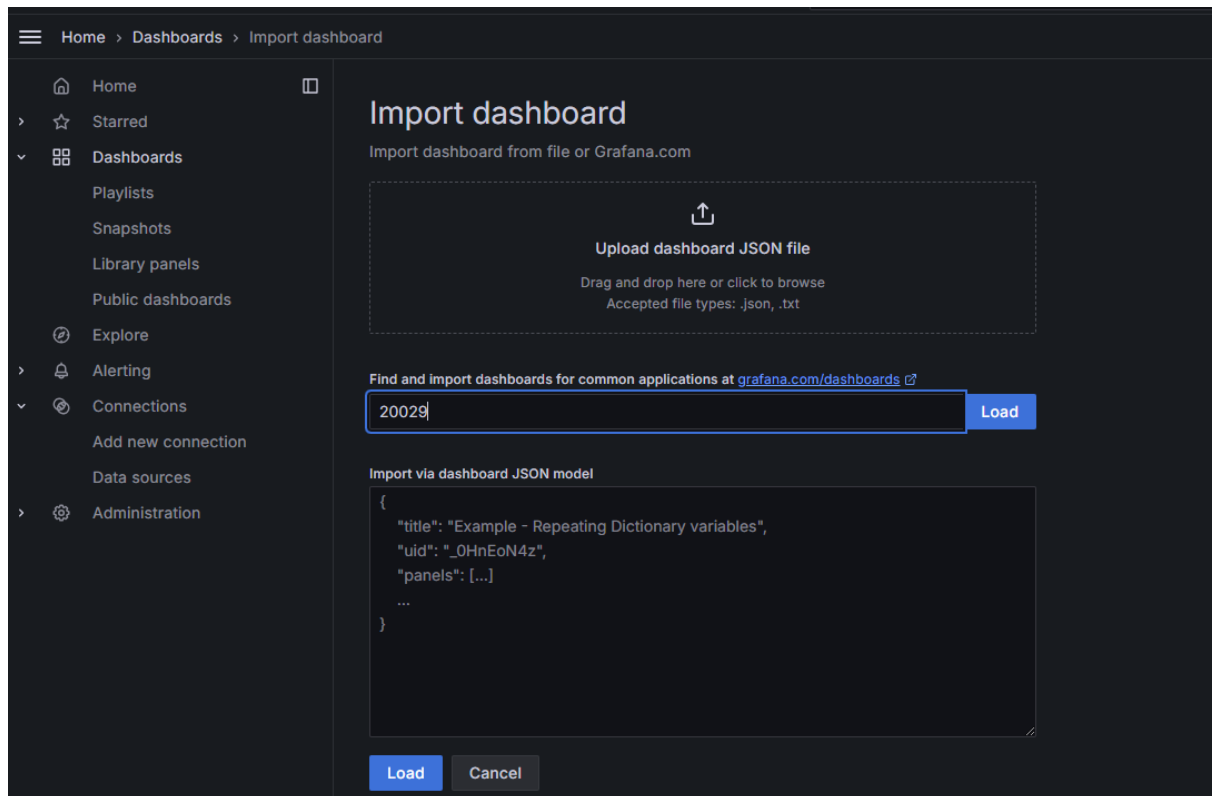
Delete

Save & test

List of Grafana dashboards and IDs

Dashboard	Description	ID
Node Exporter Full	Standard dashboard	1860
Carbonio MTA queues	Information about MTA queues: statuses, size	20029
Carbonio Mailbox	Information about the mailbox like load, protocols, counters and db	20027
NGINX exporter	Standard dashboard from Grafana	12708
Carbonio Service Discover status	Contains data about infrastructure, servers and services in the consul, allows you to monitor the health of servers and services.	20032
Carbonio PostgreSQL	Based on Grafana "PostgreSQL Database" dashboard. Fixed dashboard	20030
Carbonio Processes	Contains a memory and cpu map panel which shows latest resident memory and cpu map , it's helpful to check top processes that consume a lot of memory and CPU immediately, also includes	20034

Add the above ID's as below stated



Node 2

Node Name/FQDN: srv2.example.com

Type of services: Proxy and MTA

Roles installed:

- **MTA AV/AS**

Type of Role: Infrastructure

Packages:

- carbonio-mta
- service-discover-agent

```
# hostnamectl set-hostname
# nano /etc/hosts
# echo "deb https://repo.zextras.io/release/ubuntu $(lsb_release -sc) main" >
/etc/apt/sources.list.d/zextras.list && apt-key adv --keyserver
hkp://keyserver.ubuntu.com:80 --recv-keys 52FD40243E584A21 && apt clean
&& apt update && apt upgrade
# apt install carbonio-mta service-discover-agent
# carbonio-bootstrap
```

If it is asking LDAP password and if you don't remember the password use the below command to retrieve the LDAP password and You should run the command in the first node where the Mesh is installed

```
su - zextras -c "zmlocalconfig -s | grep ldap_password"
```

Main menu

- 1) Common Configuration:
 - +Hostname: node2.sixthstar.in
 - +Ldap master host: node1.sixthstar.in
 - +Ldap port: 389
 - +Ldap Admin password: set
 - +LDAP Base DN: cn=zimbra
 - +Secure interprocess communications: no
 - +TimeZone: Africa/Algiers
 - +IP Mode: ipv4
 - +Default SSL digest: sha256
 - 2) carbonio-antivirus: Enabled
 - 3) carbonio-mta: Enabled
 - +Enable Spamassassin: yes
 - +Enable OpenDKIM: yes
 - +Notification address for AV alerts: zextras@sixthstar.in
 - +Bind password for postfix ldap user: set
 - +Bind password for amavis ldap user: set
- c) Collapse menu
s) Save config to file
q) Quit

*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y

```
*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y
Saving config in /opt/zextras/config.65237...done.
Operations logged to /tmp/zmsetup.20240315-113406.log
Setting local config values...done.
Updating ldap_root_password and zimbra_ldap_password...done.
Setting up CA...done.
Deploying CA to /opt/zextras/conf/ca ...done.
Creating carbonio-mta SSL certificate...done.
Installing MTA SSL certificates...done.
Setting postfix password...done.
Setting amavis password...done.
Creating server entry for node2.sixthstar.in...done.
Setting IP Mode...done.
Saving CA in ldap...done.
Saving SSL Certificate in ldap...done.
Generating dhparam key...done.
Initializing mta config...done.
Setting services on node2.sixthstar.in...done.
Setting up syslog.conf...done.
Starting servers...done.
Skipping creation of default domain GAL sync account - not a service node.
Setting up zextras crontab...done.
```

Moving /tmp/zmsetup.20240315-113406.log to /opt/zextras/log

Configuration complete - press return to exit

```
root@node2:~# service-discover setup-wizard
eth0 148.251.32.11/29, fe80::216:3eff:fef9:fca0/64
Specify the binding address for service discovery: 148.251.32.11/29
Insert the cluster credential password:
root@node2:~#
```

```

root@node2:~# service-discover setup-wizard
eth0 148.251.32.11/29, fe80::216:3eff:fe9:fca0/64
Specify the binding address for service discovery: 148.251.32.11/29
Insert the cluster credential password:
root@node2:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-clamav-setup.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-clamav
Config entry written: service-intentions/carbonio-clamav
Configuration reload triggered
Setup successful, moving carbonio-clamav-setup.sh to /etc/zextras/pending-setups.d/done/
-----

Executing /etc/zextras/pending-setups.d/carbonio-mta.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-mta
Config entry written: service-intentions/carbonio-mta
Configuration reload triggered
Setup successful, moving carbonio-mta.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node2:~# █

```

- [Proxy](#)

Type of Role: Infrastructure Packages:

- carbonio-proxy
- carbonio-webui
- carbonio-files-ui
- carbonio-chats-ui
- carbonio-user-management
- carbonio-tasks-ui
- carbonio-avdb-updater

```
# apt install carbonio-proxy carbonio-user-management \
carbonio-webui carbonio-files-ui carbonio-tasks-ui \
carbonio-chats-ui carbonio-files-public-folder-ui
```

```
# carbonio-bootstrap
# service-discover setup-wizard
# pending-setups -a
```

Sixth*54321

```

root@node2:~# service-discover setup-wizard
service-discover: error: setup of service-discover already performed, manually reset and try again.
root@node2:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-clamav-signature-provider-setup.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-clamav-signature-provider
Config entry written: service-intentions/carbonio-clamav-signature-provider
Configuration reload triggered
Setup successful, moving carbonio-clamav-signature-provider-setup.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-user-management.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-user-management
Config entry written: service-intentions/carbonio-user-management
Configuration reload triggered
Setup successful, moving carbonio-user-management.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-proxy-setup.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-proxy
Configuration reload triggered
Setup successful, moving carbonio-proxy-setup.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node2:~# █

```

```

# su zimbra
# carbonio prov ms node2.sixthstar.in zimbraMemcachedBindAddress
148.251.32.11

```

```

root@node2:~# su zextras
zextras@node2:/root$ zmhostname
node2.sixthstar.in
zextras@node2:/root$ hostname -i
148.251.32.11
zextras@node2:/root$ carbonio prov ms $(zmhostname) zimbraMemcachedBindAddress $(hostname -i)
^Z
[1]+  Stopped                  carbonio prov ms $(zmhostname) zimbraMemcachedBindAddress $(hostname -i)
zextras@node2:/root$ carbonio prov ms node2.sixthstar.in zimbraMemcachedBindAddress 148.251.32.11
zextras@node2:/root$ zmmemcachedctl restart
Stopping memcached...done.
Starting memcached...done.
zextras@node2:/root$ █

```

zmmemcachedctl restart

Node 3

Node Name/FQDN: srv3.example.com

Type of services: Mails, Calendars, and Contacts

Roles installed:

- [Mailstore & Provisioning](#)
Type of Role: Service role
Packages:
 - carbonio-advanced
 - service-discover-agent

- hostnamectl set-hostname
- nano /etc/hosts
- # echo "deb https://repo.zextras.io/release/ubuntu \$(lsb_release -sc) main" > /etc/apt/sources.list.d/zextras.list && apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv-keys 52FD40243E584A21 && apt clean && apt update && apt upgrade
- # apt install carbonio-advanced service-discover-agent
- # carbonio-bootstrap
-

```
Common configuration
 1) Hostname: node3.sixthstar.in
** 2) Ldap master host: UNSET
 3) Ldap port: 389
** 4) Ldap Admin password: UNSET
 5) LDAP Base DN: cn=zimbra
 6) Secure interprocess communications: no
 7) TimeZone: Africa/Algiers
 8) IP Mode: ipv4
 9) Default SSL digest: sha256

Select, or 'r' for previous menu [r] 2

Please enter the ldap server hostname: node1.sixthstar.in

Common configuration
 1) Hostname: node3.sixthstar.in
 2) Ldap master host: node1.sixthstar.in
 3) Ldap port: 389
** 4) Ldap Admin password: UNSET
 5) LDAP Base DN: cn=zimbra
 6) Secure interprocess communications: no
 7) TimeZone: Africa/Algiers
 8) IP Mode: ipv4
 9) Default SSL digest: sha256

Select, or 'r' for previous menu [r] 4

Password for ldap admin user (min 6 characters): DvaNHUn0IJ
Setting defaults from ldap...done.

Common configuration
 1) Hostname: node3.sixthstar.in
 2) Ldap master host: node1.sixthstar.in
 3) Ldap port: 389
 4) Ldap Admin password: set
 5) LDAP Base DN: cn=zimbra
 6) Secure interprocess communications: no
 7) TimeZone: Africa/Algiers
 8) IP Mode: ipv4
 9) Default SSL digest: sha256

Select, or 'r' for previous menu [r] r
```

-
-
- DvaNHUn0IJ
- # service-discover setup-wizard


```

root@node3:~# service-discover setup-wizard
eth0 148.251.32.12/29, fe80::216:3eff:fefe:bc6d/64
Specify the binding address for service discovery: 148.251.32.12/29
Insert the cluster credential password:
root@node3:~# █

```

pending-setups -a

```

root@node3:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-license.sh
Insert the cluster credential password:
Configuration reload triggered
Setup successful, moving carbonio-license.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-address-book.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-address-book
Config entry written: service-intentions/carbonio-address-book
Configuration reload triggered
Setup successful, moving carbonio-address-book.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-auth.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-auth
Config entry written: service-intentions/carbonio-auth
Configuration reload triggered
Setup successful, moving carbonio-auth.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-advanced.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-advanced
Config entry written: service-intentions/carbonio-advanced
Configuration reload triggered
Setup successful, moving carbonio-advanced.sh to /etc/zextras/pending-setups.d/done/
-----
Executing /etc/zextras/pending-setups.d/carbonio-mailbox.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-mailbox
Config entry written: service-intentions/carbonio-mailbox
Configuration reload triggered
Setup successful, moving carbonio-mailbox.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node3:~# █

```

- **Tasks**

Type of Role: Service role

Packages:

- carbonio-tasks
- service-discover-agent

```
# apt install carbonio-tasks
```

```
#
There are no pending setups to run. Existing:
root@node3:~# apt install carbonio-tasks
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  carbonio-tasks
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 21.5 MB of archives.
After this operation, 24.0 MB of additional disk space will be used.
Get:1 https://repo.zextras.io/release/ubuntu focal/main amd64 carbonio-tasks amd64 0.2.1-1ubuntu [21.5 MB]
Fetched 21.5 MB in 1s (20.4 MB/s)
Selecting previously unselected package carbonio-tasks.
(Reading database ... 116756 files and directories currently installed.)
Preparing to unpack .../carbonio-tasks_0.2.1-1ubuntu_amd64.deb ...
Unpacking carbonio-tasks (0.2.1-1ubuntu) ...
Setting up carbonio-tasks (0.2.1-1ubuntu) ...
=====
Carbonio Tasks installed successfully!
You must run pending-setups to configure it correctly.
=====
root@node3:~#
```

carbonio-bootstrap

```
root@node3:~# carbonio-bootstrap
-----
| Starting Carbonio Bootstrap... |
-----
The system is going to start configuring all the packages.

If you are installing Carbonio CE please refer to every single package license
and to the Github repo for more informations on open source licenses:
https://github.com/Zextras

If you are also installing Carbonio please refer to every single package
license, to the Github repo for more informations on open source licenses:
https://github.com/Zextras and to the Zextras EULA for the proprietary
software: https://zextras.com/licenses
-----

Operations logged to /tmp/zmsetup.20240315-135241.log

Bootstrap mode: existing install
Adding /opt/zextras/conf/ca/ca.pem to cacerts...done.
Setting defaults...done.
Setting defaults from existing config...done.
Checking for port conflicts
Port conflict detected: 7025 (carbonio-appserver)
Port conflict detected: 7071 (carbonio-appserver)
Port conflict detected: 7072 (carbonio-appserver)
Port conflict detected: 7306 (carbonio-appserver)
Port conflicts detected! - Press Enter/Return key to continue
Setting defaults from ldap...done.

Main menu

  1) Common Configuration:
  2) carbonio-appserver:      Enabled
  s) Save config to file
  x) Expand menu
  q) Quit

*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y
Saving config in /opt/zextras/config.79550...done.
Operations logged to /tmp/zmsetup.20240315-135241.log
Setting Keyboard Shortcut Preferences...done.
Setting services on node3.sixthstar.in...done.
Adding node3.sixthstar.in to MailHostPool in default COS...done.
Setting up syslog.conf...done.
Starting servers...done.
Skipping creation of default domain GAL sync account - existing install detected.
Setting up zextras crontab...done.

Moving /tmp/zmsetup.20240315-135241.log to /opt/zextras/log

Configuration complete - press return to exit
```

service-discover setup-wizard

```
root@node3:~# service-discover setup-wizard
service-discover: error: setup of service-discover already performed, manually reset and try again.
root@node3:~#
```

```
# pending-setups -a
root@node3:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-tasks.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-tasks
Config entry written: service-intentions/carbonio-tasks
Configuration reload triggered
Setup successful, moving carbonio-tasks.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node3:~#
```

Node 4

Node Name/FQDN: srv4.example.com

Type of services: Files, Preview, and Editing

Roles installed:

- [Files](#)

Type of Role: Service role

Packages:

- carbonio-files
- service-discover-agent
- hostnamectl set-hostname
- nano /etc/hosts
- # echo "deb https://repo.zextras.io/release/ubuntu \$(lsb_release -sc) main" > /etc/apt/sources.list.d/zextras.list && apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv-keys 52FD40243E584A21 && apt clean && apt update && apt upgrade
- # apt install carbonio-files service-discover-agent
- # carbonio-bootstrap

```

Select, or 'r' for previous menu [r] 4

Password for ldap admin user (min 6 characters): DvaNHUn0IJ
Setting defaults from ldap...done.

Common configuration

1) Hostname: node4.sixthstar.in
2) Ldap master host: node1.sixthstar.in
3) Ldap port: 389
4) Ldap Admin password: set
5) LDAP Base DN: cn=zimbra
6) Secure interprocess communications: no
7) TimeZone: Africa/Algiers
8) IP Mode: ipv4
9) Default SSL digest: sha256

Select, or 'r' for previous menu [r] r

Main menu

1) Common Configuration:
s) Save config to file
x) Expand menu
q) Quit

*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y
Saving config in /opt/zextras/config.61340...done.
Operations logged to /tmp/zmsetup.20240315-140038.log
Setting local config values...done.
Updating ldap_root_password and zimbra_ldap_password...done.
Setting up CA...done.
Deploying CA to /opt/zextras/conf/ca ...done.
Creating server entry for node4.sixthstar.in...done.
Setting IP Mode...done.
Saving CA in ldap...done.
Generating dhparam key...done.
Setting services on node4.sixthstar.in...done.
Setting up syslog.conf...done.
Starting servers...done.
Skipping creation of default domain GAL sync account - not a service node.
Setting up zextras crontab...done.

Moving /tmp/zmsetup.20240315-140038.log to /opt/zextras/log

Configuration complete - press return to exit

```

service-discover setup-wizard

```

root@node4:~# service-discover setup-wizard
eth0 148.251.32.13/29, fe80::216:3eff:fef5:40d7/64
Specify the binding address for service discovery: 148.251.32.13/29
Insert the cluster credential password:
root@node4:~# █

```

pending-setups -a

```

root@node4:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-files.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-files
Config entry written: service-intentions/carbonio-files
Config entry written: service-router/carbonio-files
Configuration reload triggered
Setup successful, moving carbonio-files.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node4:~# █

```

- Docs and Editor

Type of Role: Service role

Packages:

- carbonio-docs-connector
- carbonio-docs-editor
- service-discover-agent

```
# apt install carbonio-docs-editor carbonio-docs-connector
```

```
# carbonio-bootstrap
```

```

Processing triggers for libc-bin (2.31-0ubuntu0.21.10) ...
root@node4:~# carbonio-bootstrap
-----
| Starting Carbonio Bootstrap... |
-----

The system is going to start configuring all the packages.

If you are installing Carbonio CE please refer to every single package license
and to the Github repo for more informations on open source licenses:
https://github.com/Zextras

If you are also installing Carbonio please refer to every single package
license, to the Github repo for more informations on open source licenses:
https://github.com/Zextras and to the Zextras EULA for the proprietary
software: https://zextras.com/licenses
-----

Operations logged to /tmp/zmsetup.20240315-141108.log

Bootstrap mode: existing install
Adding /opt/zextras/conf/ca/ca.pem to cacerts...done.
Setting defaults...done.
Setting defaults from existing config...done.
Checking for port conflicts
Setting defaults from ldap...done.

Main menu

  1) Common Configuration:
    s) Save config to file
    x) Expand menu
    q) Quit

*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y
Saving config in /opt/zextras/config.70190...done.
Operations logged to /tmp/zmsetup.20240315-141108.log
Setting services on node4.sixthstar.in...done.
Setting up syslog.conf...done.
Starting servers...done.
Skipping creation of default domain GAL sync account - existing install detected.
Setting up zextras crontab...done.

Moving /tmp/zmsetup.20240315-141108.log to /opt/zextras/log

Configuration complete - press return to exit

root@node4:~# █

```

service-discover setup-wizard

```
root@node4:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-docs-editor.sh
Insert the cluster credential password:
/etc/carbonio/docs-editor/service-discover//service-resolver.json configuration file correctly generated
/etc/carbonio/docs-editor/service-discover//service-router.json configuration file correctly generated
/etc/zextras/service-discover/carbonio-docs-editor.hcl sidecar configuration file correctly updated
Config entry written: service-defaults/carbonio-docs-editor
Config entry written: service-intentions/carbonio-docs-editor
Configuration reload triggered
Config entry written: service-resolver/carbonio-docs-editor
Config entry written: service-router/carbonio-docs-editor
Setup successful, moving carbonio-docs-editor.sh to /etc/zextras/pending-setups.d/done/
-----

Executing /etc/zextras/pending-setups.d/carbonio-docs-connector.sh
Insert the cluster credential password:
Config entry written: service-defaults/carbonio-docs-connector
Config entry written: service-intentions/carbonio-docs-connector
Configuration reload triggered
Setup successful, moving carbonio-docs-connector.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node4:~# █
```

- **Preview**

Type of Role: Service role

Packages:

- carbonio-preview
- service-discover-agent

apt install carbonio-preview

```
root@node4:~# apt install carbonio-preview
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  carbonio-preview
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 7,335 kB of archives.
After this operation, 32.2 MB of additional disk space will be used.
Get:1 https://repo.zextras.io/release/ubuntu/focal/main/amd64/carbonio-preview-amd64-0.1.6-1ubuntu1~ [7,335 kB]
Fetched 7,335 kB in 1s (12.5 MB/s)
Selecting previously unselected package carbonio-preview.
(Reading database ... 129882 files and directories currently installed.)
Preparing to unpack .../carbonio-preview-0.1.6-1ubuntu1~_amd64.deb ...
Unpacking carbonio-preview (0.1.6-1ubuntu1~) ...
Setting up carbonio-preview (0.1.6-1ubuntu1~) ...

=====
Carbonio Preview installed successfully!
You must run pending-setups to configure it correctly.
=====
root@node4:~# █
```

carbonio-bootstrap

```

root@node4:~# carbonio-bootstrap
-----
| Starting Carbonio Bootstrap... |
-----

The system is going to start configuring all the packages.

If you are installing Carbonio CE please refer to every single package license
and to the Github repo for more informations on open source licenses:
https://github.com/Zextras

If you are also installing Carbonio please refer to every single package
license, to the Github repo for more informations on open source licenses:
https://github.com/Zextras and to the Zextras EULA for the proprietary
software: https://zextras.com/licenses
-----

Operations logged to /tmp/zmsetup.20240315-141841.log

Bootstrap mode: existing install
Adding /opt/zextras/conf/ca/ca.pem to cacerts...done.
Setting defaults...done.
Setting defaults from existing config...done.
Checking for port conflicts
Setting defaults from ldap...done.

Main menu

1) Common Configuration:
s) Save config to file
x) Expand menu
q) Quit

*** CONFIGURATION COMPLETE - press 'y' to apply configuration
Select from menu, or press 'y' to apply config (? - help) y
Saving config in /opt/zextras/config.79495...done.
Operations logged to /tmp/zmsetup.20240315-141841.log
Setting services on node4.sixthstar.in...done.
Setting up syslog.conf...done.
Starting servers...done.
Skipping creation of default domain GAL sync account - existing install detected.
Setting up zextras crontab...done.

Moving /tmp/zmsetup.20240315-141841.log to /opt/zextras/log

Configuration complete - press return to exit

```

service-discover setup-wizard

pending-setups -a

```

root@node4:~# service-discover setup-wizard
service-discover: error: setup of service-discover already performed, manually reset and try again.
root@node4:~# pending-setups -a
Insert the cluster credential password:

Executing all setup scripts...

-----
Executing /etc/zextras/pending-setups.d/carbonio-preview.sh
insert the cluster credential password:
Config entry written: service-defaults/carbonio-preview
Config entry written: service-intentions/carbonio-preview
Configuration reload triggered
Setup successful, moving carbonio-preview.sh to /etc/zextras/pending-setups.d/done/
-----

There are no pending-setups to run. Exiting!
root@node4:~# █

```

Configure Memcached

To allow Carbonio Preview to operate correctly, you need to edit file `/etc/carbonio/preview/config.ini` and search for variables **`nginx_lookup_servers_full_path_urls`** and **`memcached_server_full_path_urls`**, which are one after the other, towards the end of the file.

nano /etc/carbonio/preview/config.ini

```
GNU nano 4.8 /etc/carbonio/preview/config.ini
# SPDX-FileCopyrightText: 2022 Zextras <https://www.zextras.com>
#
# SPDX-License-Identifier: AGPL-3.0-only

[service]
name = preview
ip = 127.78.0.6
port = 10000
timeout_in_seconds = 30
docs_timeout = 15
# Generally we recommend (2 x $num_cores) + 1 as the number of workers to start off with.
workers = 2

image_name = image
health_name = health
pdf_name = pdf
document_name = document

# when one of these two options is set to true it will enable the carbonio-docs-editor dependency
# for generation of document previews or thumbnail. This requires more resources dedicated to the
# carbonio-docs-editor service and should be kept disabled in a system with low resources.
enable_document_preview = true
enable_document_thumbnail = false

[log]
format = "[%{asctime}s] %{levelname}s [%{name}s.%{funcName}s:%{lineno}d] %(message)s"
level = info
path = /var/log/carbonio/preview/

[image_constants]
minimum_resolution = 80

[storage]

name = slimstore
download_api = download
health_check = health/live
protocol = http
ip = 127.78.0.6
port = 20000

nginx_lookup_server_full_path_urls = http://148.251.32.12:7072
service_extension_nginx_lookup = service/extension/nginx-lookup

memcached_server_full_path_urls = 148.251.32.11:11211

[document_conversion]
protocol = http
ip = 127.78.0.6
port = 20001
service_endpoint = services/docs/editor
convert_api = cool/convert-to
```

nginx_lookup_server_full_path_urls = http://148.251.32.12:7072
service_extension_nginx_lookup = service/extension/nginx-lookup

memcached_server_full_path_urls = 148.251.32.11:11211

These above lines need to change with the respective IP's

Node 5

Node Name/FQDN: srv5.example.com

Type of services: Video and Meeting

Roles installed:

- **Video Server & Video Recording**

Type of Role: Service role

Packages:

- carbonio-videoserver
 - carbonio-videoserver-recorder
 - service-discover-agent
- hostnamectl set-hostname
 - nano /etc/hosts
 - # echo "deb https://repo.zextras.io/release/ubuntu \$(lsb_release -sc) main" > /etc/apt/sources.list.d/zextras.list && apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv-keys 52FD40243E584A21 && apt clean && apt update && apt upgrade
apt install carbonio-videoserver service-discover-agent

NOTE: Copy from the pink box and paste here and run this

```
carbonio chats video-server add node5.sixthstar.in port 8188 secret  
BLzmx16UNZH9cgHpxlB7n5Yh0ZG69Ly5
```

```
carbonio chats video-server add example.com port 8188 \
```

```
  servlet_port 8090 secret api_secret
```

```
# systemctl enable videoserver.service  
# systemctl start  videoserver.service  
# apt install carbonio-videoserver-recorder  
# carbonio-bootstrap  
# service-discover setup-wizard  
# pending-setups -a
```

NOTE: We can login admin@sixthstar.in, admin@sixthstar.org and all sub domains in node2.sixthstar.in (Server Host name) , but we can't login admin@sixthstar.in in mail1.sixthstar.org

