

Wikiprint Book

Title: ESGF Local Node Deployment Tutorial

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ESGF Local Node Deployment Tutorial

This page shows how to deploy an ESGF Node that provides data, index and idp services and belongs to the esgf-test federation. The purpose of this node is to test the process of publication in the ESGF.

This page assumes that command are executed by the root user (not sudo).

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1. Previous installation clean up

Execute `/usr/local/bin/esg-node stop` in order to stop the current ESGF services (in case they are running).

```
[root@spock ~]# /usr/local/bin/esg-node stop

EEEEEEEEEEEEEEEEEEEEEE SSSSSSSSSSSSSSS          GGGGGGGGGGGGGGFFFFFFFFFFFFFFFFFFFFFFFF
E::::::::::::::::::::E SS::::::::::::S          GGG::::::::::::GF::::::::::::F
E::::::::::::::::::::ES::::::::SSSSSS::::S          GG::::::::::::GF::::::::::::F
EE::::::::EEEEEEEEEE::::ES::::S          SSSSSSS G::::::::GGGGGGG::::GFF:::::FFFFFFF::::F
  E:::::E          EEEEEES::::S          G:::::G          GGGGGG  F:::::F          FFFFFF
  E:::::E          S:::::S          G:::::G          F:::::F
  E:::::EEEEEEEEEE          S::::SSSS          G:::::G          F:::::FFFFFFF
  E::::::::::E          SS:::::SSSS          G:::::G          GGGGGGGGGG  F:::::FFFFFFF
  E::::::::::E          SSS:::::SS          G:::::G          G:::::G          F:::::FFFFFFF
  E:::::EEEEEEEEEE          SSSSS::::S          G:::::G          GGGGG::::G  F:::::FFFFFFF
  E:::::E          S:::::SG:::::G          G:::::G          F:::::F
  E:::::E          EEEEE          S:::::S          G:::::G          G:::::G          F:::::F
EE:::::EEEEEEEEEE::::ESSSSSS          S:::::S          G:::::GGGGGGG::::GFF:::::FF
E::::::::::E          ES:::::SSSSSS::::S          GG::::::::::::GF::::::::::::FF
E::::::::::E          ES:::::SSSSSS::::SS          GGG:::::GGG:::GF::::::::::::FF
EEEEEEEEEEEEEEEEEEEEEE SSSSSSSSSSSSSSS          GGGGGG  GGGGFFFFFFFFFFFFF.llnl.gov

Checking that you have root privs on spock.meteo.unican.es... [OK]
Checking requisites...

Using IP: 193.144.184.40
Stopping search services...
Using solr_workdir=/usr/local/src/esgf/workbench/esg/solr-5.5.3
Using solr_install_dir=/usr/local/solr-home/slave-8983
Using solr_data_dir=/esg/solr-index/slave-8983
Using solr_server_dir=/usr/local/solr
Using solr_logs_dir=/esg/solr-logs
Using esg_dist_url=http://esg-dn2.nsc.liu.se/esgf/dist
sudo: source: command not found
Sending stop command to Solr running on port 8983 ... waiting 5 seconds to allow Jetty process 16339 to stop gracefully.
Sending stop command to Solr running on port 8984 ... waiting 5 seconds to allow Jetty process 16554 to stop gracefully.
Stopping Globus Services for Data-Node... (GridFTP) stop_globus_services for datanode
globus-gridftp-server: unrecognized service
Stopping Globus Services for Index-Node... (MyProxy server) stop_globus_services for gateway
Stopping myproxy-server: [ OK ]
No MyProxy Process Currently Running...
Tomcat (jsvc) process is running...
```

```

stop tomcat: /usr/local/tomcat/bin/jsvc -pidfile /var/run/tomcat-jsvc.pid -stop org.apache.catalina.startup.Bootstrap
(please wait)
postmaster (pid 16024) is running...
Stopping postgresql service:          [ OK ]
Stopping httpd:                       [ OK ]
Running shutdown hooks...

-----

Running Node Services...
node type: [ data index idp compute ] (60)
-----
-----

```

Execute `source /usr/local/bin/esg-purge.sh && esg-purge all`

2. Installation from scratch

Change directory to `/usr/local/bin/`

```
[root@spock ~]# cd /usr/local/bin/
```

```

[root@spock bin]# wget -O esg-bootstrap http://distrib-coffee.ipsl.jussieu.fr/pub/esgf/dist/devel/esgf-installer/2.4/esg-b
[root@spock bin]# chmod 555 ./esg-bootstrap
[root@spock bin]# ./esg-bootstrap

```

Your directory should look like this:

```

[root@spock bin]# ls
esg-bootstrap  esg-functions  esg-init  esg-node  esg-purge.sh  jar_security_scan  setup-autoinstall

```

Check your node's version:

```

[root@spock bin]# ./esg-node --version
Version: v2.4.24-master-release
Release: Bifrost
Earth Systems Grid Federation (http://esgf.llnl.gov)
ESGF Node Installation Script

```

Set node's type:

```

[root@spock bin]# ./esg-node --set-type idp data index
node type set to: [ index data idp ] (28)

```

Install the node:

```
[root@spock bin]# ./esg-node --install
```

Please select the ESGF distribution mirror for this installation (fastest to slowest):

```

-----
[1] http://dist.ceda.ac.uk/esgf
[2] http://esg-dn2.nsc.liu.se/esgf
[3] http://aims1.llnl.gov/esgf
[4] http://distrib-coffee.ipsl.jussieu.fr/pub/esgf
-----

```

```
select [1] > 1
```

```

Are you ready to begin the installation? [Y/n]
Configured host IP address does not match available IPs...
Detected multiple IP addresses bound to this host...
Please select the IP address to use for this installation
-----
[0] : 193.xxx.xxx.xxx
[1] : 192.xxx.xxx.xxx
-----
select [] > (select the one that fits your case)

```

```

Welcome to the ESGF Node installation program! :-)

What is the fully qualified domain name of this node? [spock.meteo.unican.es]:
What is the admin password to use for this installation? (alpha-numeric only) []:
Please re-enter password:
What is the name of your organization? [unican]:
Please give this node a "short" name: []: unican
Please give this node a more descriptive "long" name []: unican
What is the namespace to use for this node? (set to your reverse fqdn - Ex: "gov.llnl") [es.unican.meteo]:
What peer group(s) will this node participate in? (esgf-test|esgf-prod) [esgf-test]:
What is the default peer to this node? [spock.meteo.unican.es]:
What is the hostname of the node do you plan to publish to? [spock.meteo.unican.es]:
What email address should notifications be sent as? []:
Is the database external to this node? [y/N]:
Please enter the database connection string...
(form: postgresql://[username]@[host]:[port]/esgct)
What is the database connection string? [postgresql://dbsuper@localhost:5432/esgct]: postgresql://
entered: postgresql://dbsuper@localhost:5432/esgct
What is the (low priv) db account for publisher? [esgct]:
What is the db password for publisher user (esgct)? []:

```

```

Enter password for postgres user dbsuper:
Re-enter password for postgres user dbsuper:
Please Enter PostgreSQL port number [5432]:>

```

```

Would you like a "system" or "user" publisher configuration:
-----
*[1] : System
[2] : User
-----
[C] : (Custom)
-----
select [1] >

You have selected: 1
Publisher configuration file -> [/esg/config/esgct/esg.ini]

Is this correct? [Y/n]
Your publisher configuration file will be: /esg/config/esgct/esg.ini
What is your organization's id? [unican]:

```

```

Would you like to use the DN: (OU=ESGF.ORG, O=ESGF) ? [Y/n]:
...
Please enter the password for this keystore :

```

```

Enter a single ip address which would be cleared to access admin restricted pages.
You will be prompted if you want to enter more ip-addresses

Do you wish to allow further ips? y/n

```

```
n
```

```
Create user credentials
Please enter username for tomcat [dnode_user]:
Please enter password for user, "dnode_user" [*****]:
Would you like to add another user? [y/N]:
```

```
Please Enter the public (i.e. routable) IP address of this host [193.xxx.xxx.xxx]:>
Do you wish to use an external IDP peer?(N/y):
```

```
Do you want to continue with the Globus installation and setup? [Y/n] :
Do you want to register the MyProxy server with Globus? [Y/n]:
Please provide a Globus username []: YOUR-GLOBUS-USER
Globus password []:
```

Known issues

#error "Pycpg requires PostgreSQL client library (libpq) >= 9.1

This error occurs sometimes during installation but removing the node and installing it from scratch seems to solve it...

```
Traceback (most recent call last):
  File "setup.py", line 110, in <module>
    """
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/distutils/core.py", line 111, in setup
    _setup_distribution = dist = klass(attrs)
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/dist.py", line 239, in __in
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/dist.py", line 263, in fetc
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/pkg_resources.py", line 568, in resolv
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/pkg_resources.py", line 806, in best_m
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/pkg_resources.py", line 818, in obtain
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/dist.py", line 313, in fetc
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/command/easy_install.py", 1
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/command/easy_install.py", 1
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/command/easy_install.py", 1
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/command/easy_install.py", 1
  File "/usr/local/uvcdat/2.2.0/lib/python2.7/site-packages/setuptools-1.4-py2.7.egg/setuptools/command/easy_install.py", 1
distutils.errors.DistutilsError: Setup script exited with error: command 'gcc' failed with exit status 1
```

```
Sorry...
This action did not complete successfully
Please re-run this task until successful before continuing further
```

```
Also please review the installation FAQ it may assist you
https://github.com/ESGF/esgf.github.io/wiki/ESGFNode%7CFAQ
```

References

- [?ESGF Installation From Scratch](https://github.com/ESGF/esgf.github.io/wiki/ESGFNode%7CFAQ)