GeoNode: Software, Hardware and Training Requirements

1. ***Hardware Requirements:***
2. Recommended Minimum System Requirements

* 6 GB of RAM, including swap space
* 2.2GHz processor. (Additional processing power may be required for multiple concurrent styling renderings)
* 1 GB software disk usage
* Additional disk space for any data hosted with GeoNode and tiles cached with GeoWebCache. For spatial data, cached tiles, and “scratch space” useful for administration, a decent baseline size for GeoNode deployments is 100GB
* 64-bit hardware recommended
* Dedicated or Virtual server

1. Optimal System Requirements:

* 16 GB of RAM
* 8 cores (2 four-core processors)
* 1 GB software disk usage
* 1TB of Hard Drive (Raid based)
* Requirement for outbound and inbound bandwidth will depend upon the number of users and data transactions
* 64-bit hardware
* Dedicated server with Ubuntu Linux 12.04

1. ***Software Requirements:***
2. Ubuntu Linux 12.04\*
3. Geonode 1.2 installer package

\* Other OS where GeoNode can be installed are Red hat Enterprise Linux CentOS 6.3 and Debian 6.0 but do not come with standard installer package.

The easiest way to install GeoNode would be on Ubuntu Linux 12.04. To facilitate GeoNode installation there are packages built specifically for this platform which installs the following GeoNode dependencies automatically.

1. Python library
2. Oracle Java Runtime Environment
3. Apache Server
4. GeoServer
5. PostGIS/PostgreSQL
6. GeoExt
7. GDAL, GEOS, and OGR geospatial software libraries
8. Django Web-framework
9. ***Training Requirements:***

Typically, software training for each audience group could take between 2 -3 days.

* Users 2 days
* System Administrators/Software developers 3 days

The training for GeoNode has been earlier conducted in Caribbean and other regions for different target audiences. There is also advanced training being conceived that will be of 6 days with some overlapping cross-training planned between user group and developer group.

1. ***Software support:***

GeoNode is one of the most-innovative GeoSpatial data management solutions and has a vibrant and engaging community of users and developers. This is a community supported initiative with releases planned usually on quarterly basis, but ultimately depends on available volunteer time.

A comprehensive self-starter help document is available at:

<http://docs.geonode.org>

However, the common issues with the software (installation, configuration, bugs etc) are quickly addressed by highly motivated community of developers and users. Many of the old issues and “how to” can be found browsing through the community group website each focused for different target audiences.

For Developers:

<https://groups.google.com/a/opengeo.org/group/geonode-dev/topics>

For Users:

<https://groups.google.com/forum/#!forum/geonode-users>

***Lessons Learned:***

GeoNode is the technological platform and a tool for organizing, sharing and publishing spatial data online. Some of the activities that should accompany for a successful spatial data management platform are outlined below.

1. Strong institutional arrangement for data sharing:

For a successful spatial data management platform, it requires a strong institutional arrangement for data sharing and future maintenance of data. Data owners should be identified and future data maintenance activities should be clearly defined. Further, there should be other activities leading to adopting data and metadata standards.

1. Linking with existing projects:

Linking spatial data management platform with existing on-going project is one of the strategies. This demand –driven approach will help organizing spatial data collected during the project as well as acts as clearinghouse of the results generated from the project. This could be stepping stone for future spatial data infrastructure initiatives.

1. Fostering culture of sharing and using data:

To keep data open, it is important to develop the culture of data management and sharing. This can be accomplished by building a community of practitioners. Initiative to partner with local software developers, university students, GIS professionals, and subject-matter experts to encourage engagement in public issues through innovative use of information found on spatial data platform is important. This should be strengthened by providing online resources for the Open Data effort that provides information on the initiative and allows members of the community of practice to collaborate.

1. Creating innovative solutions to leverage the data:

The ultimate goal of the platform is enabling applications to connect with the platform to create innovative solutions for disaster risk management or other focused applications. The software development can be done by partnering with software developers, university professors, students etc.

***Additional information on GeoNode can also be found at:***

[***http://www.geonode.org***](http://www.geonode.org)

[***http://opengeo.org/products/training/***](http://opengeo.org/products/training/)