CY13-Q2
Open Source IaaS Community Analysis
OpenStack vs OpenNebula vs Eucalyptus vs CloudStack

Qingye Jiang (John)
qjiang@ieee.org

Sina weibo: @qyjohn_

Discussion Data Source

- OpenStack
  - https://lists.launchpad.net/openstack/
  - https://answers.launchpad.net/openstack/
  - http://lists.openstack.org/pipermail/*/
  - https://ask.openstack.org/
- OpenNebula
  - http://lists.opennebula.org/pipermail/users-opennebula.org/
  - http://lists.opennebula.org/pipermail/ecosystem-opennebula.org/
  - http://lists.opennebula.org/pipermail/interoperability-opennebula.org/
- Eucalyptus
  - https://engage.eucalyptus.com/customer/portal/topics/215645-general-discussions/questions
  - http://lists.eucalyptus.com/pipermail/community/ (Until 2013-01)
  - https://groups.google.com/a/eucalyptus.com/forum/#!forum/euca-users
- CloudStack
  - http://mail-archives.apache.org/mod_mbox/incubator-cloudstack-users/
  - http://mail-archives.apache.org/mod_mbox/incubator-cloudstack-dev/
  - http://mail-archives.apache.org/mod_mbox/incubator-cloudstack-users-cn/
  - http://www.cloudstack.org/forum/index.html (Until 2012-09)
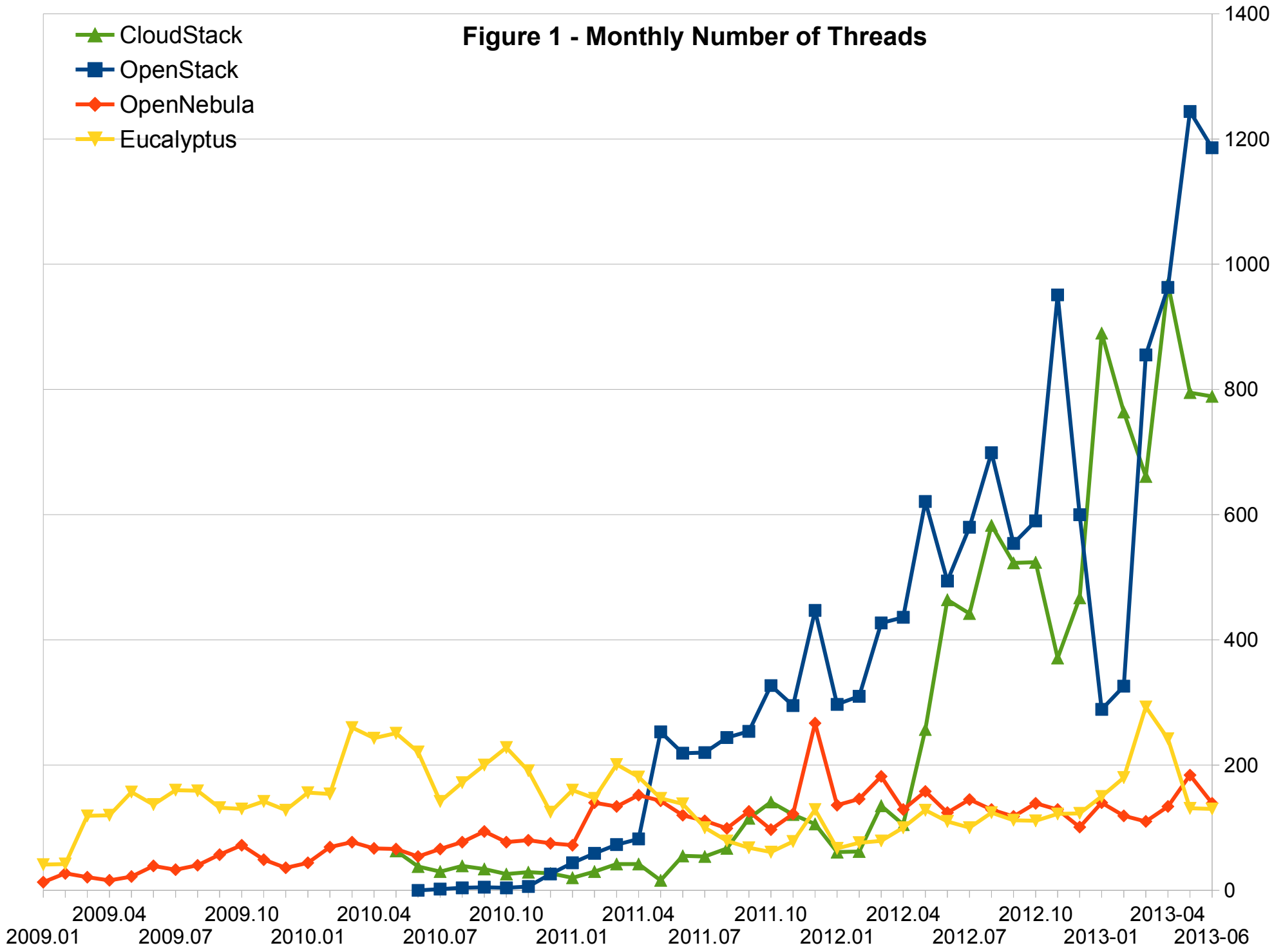
Figure 1 - Monthly Number of Threads

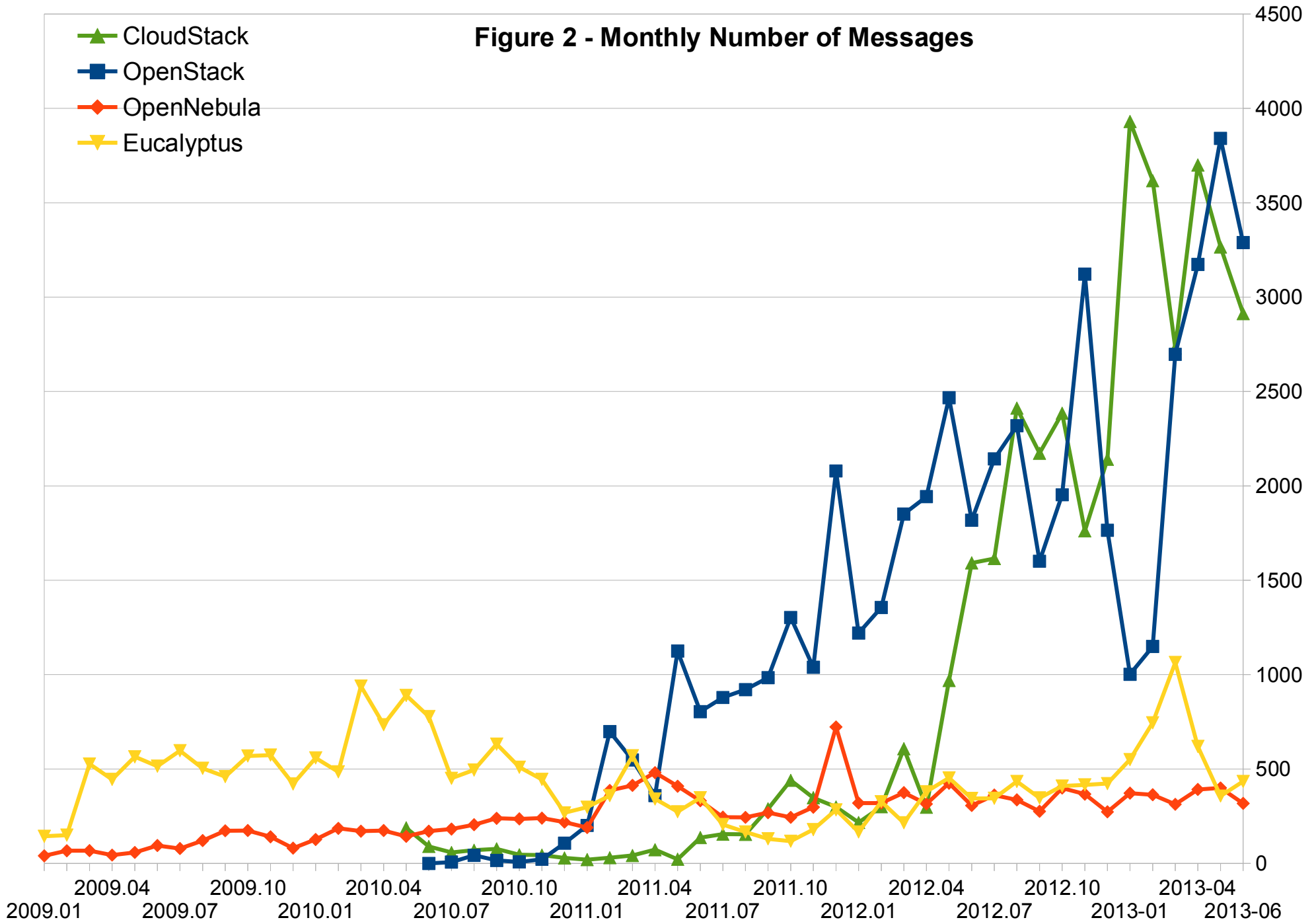Figure 2 - Monthly Number of Messages
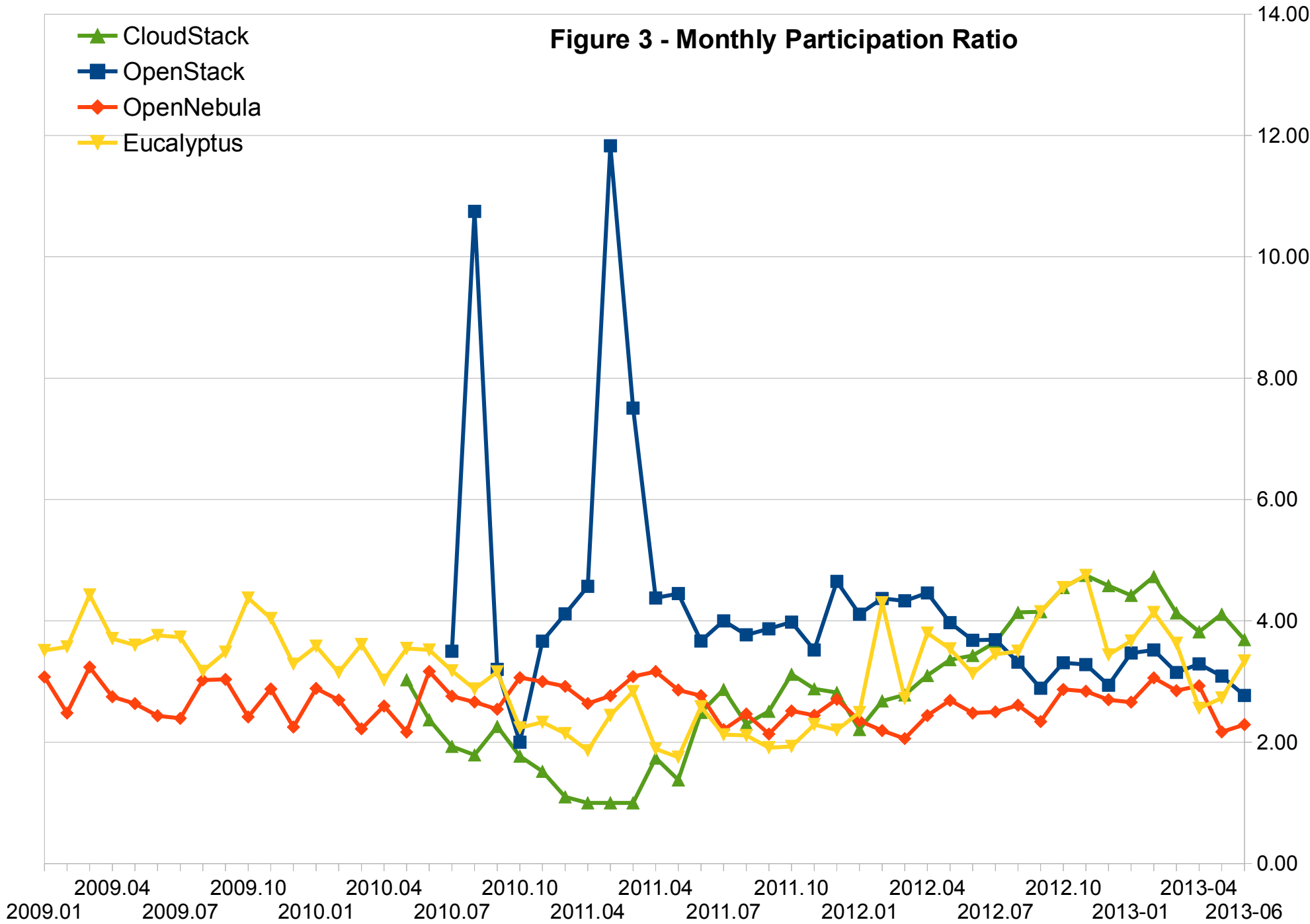
Figure 3 - Monthly Participation Ratio

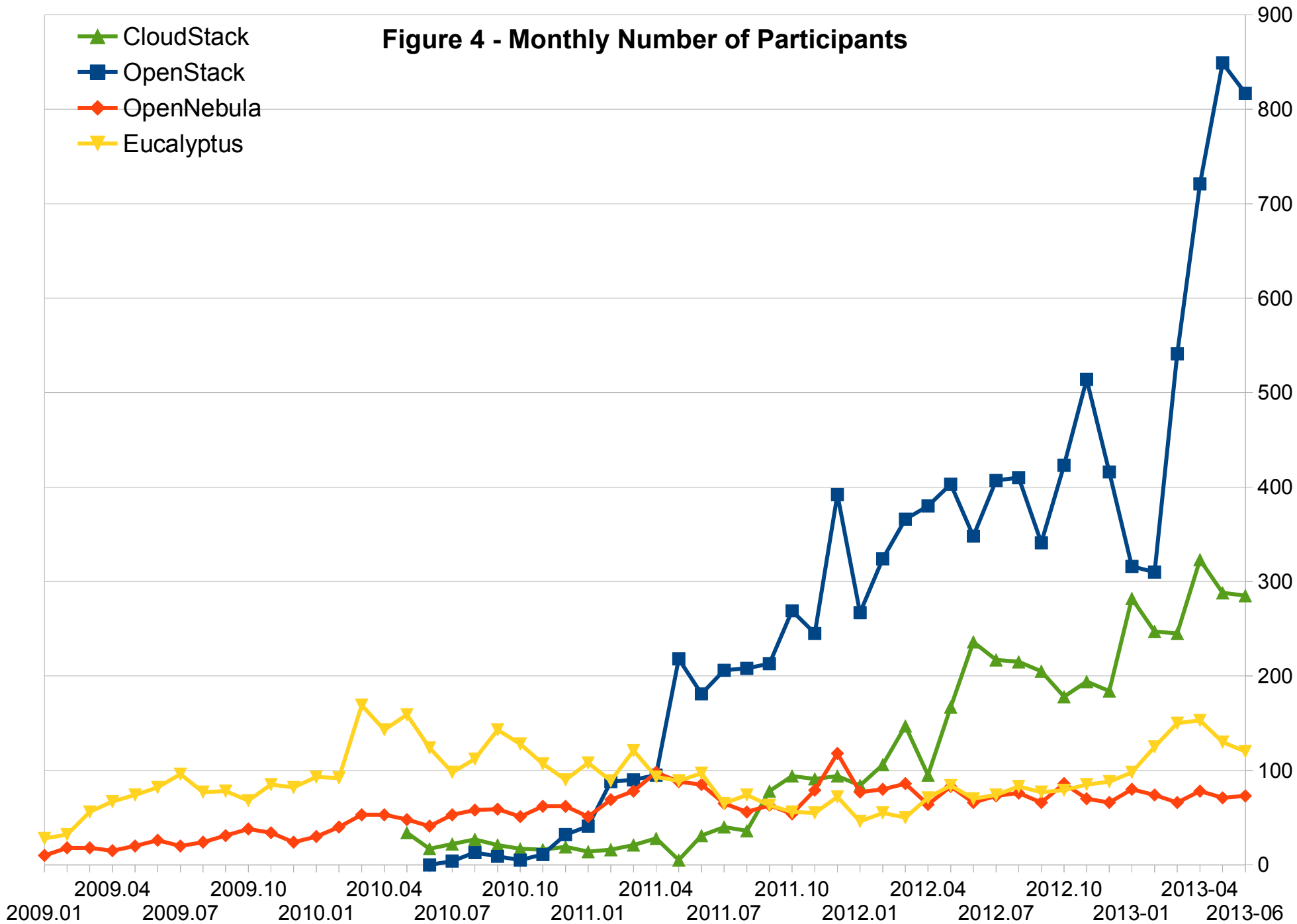Figure 4 - Monthly Number of Participants
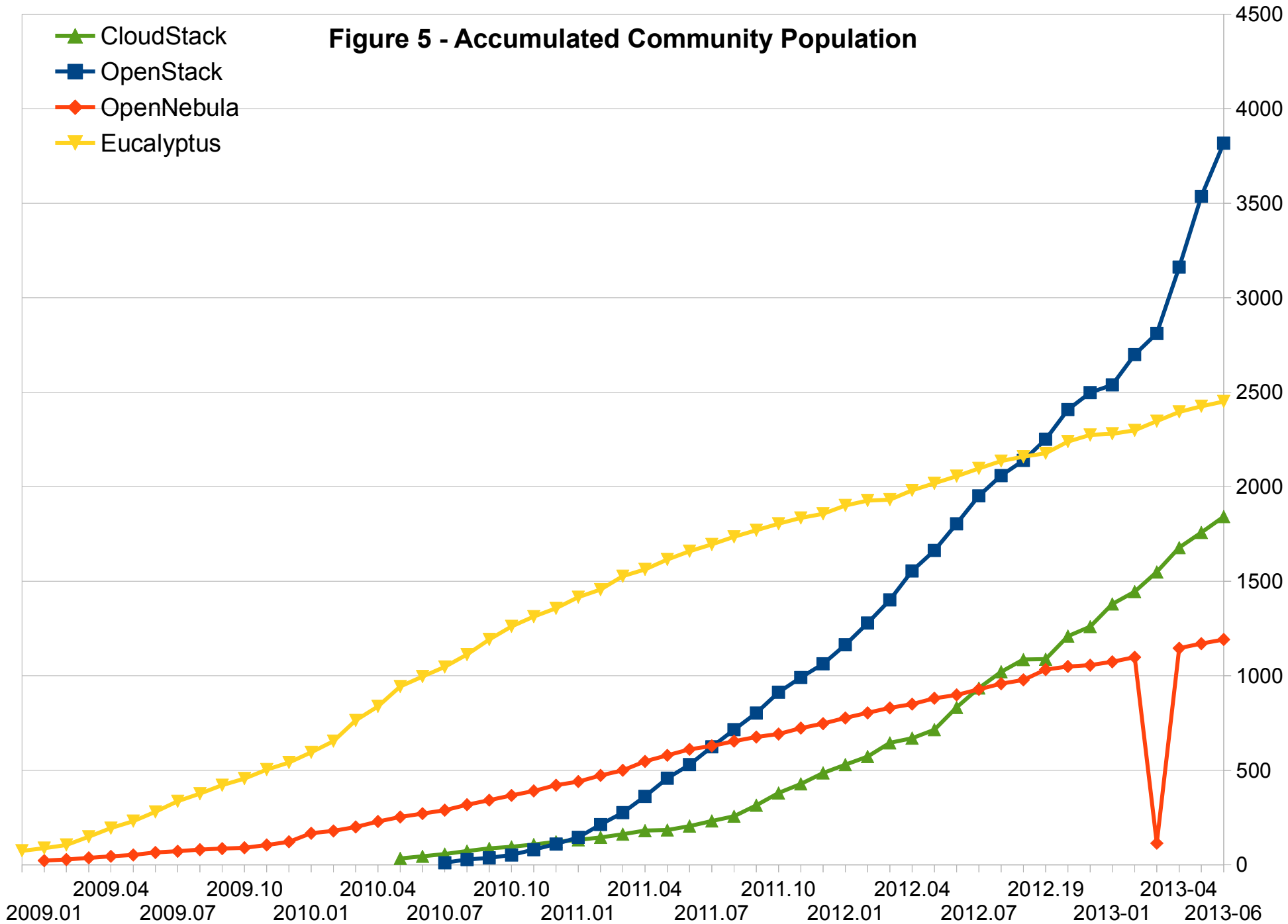
Figure 5 - Accumulated Community Population
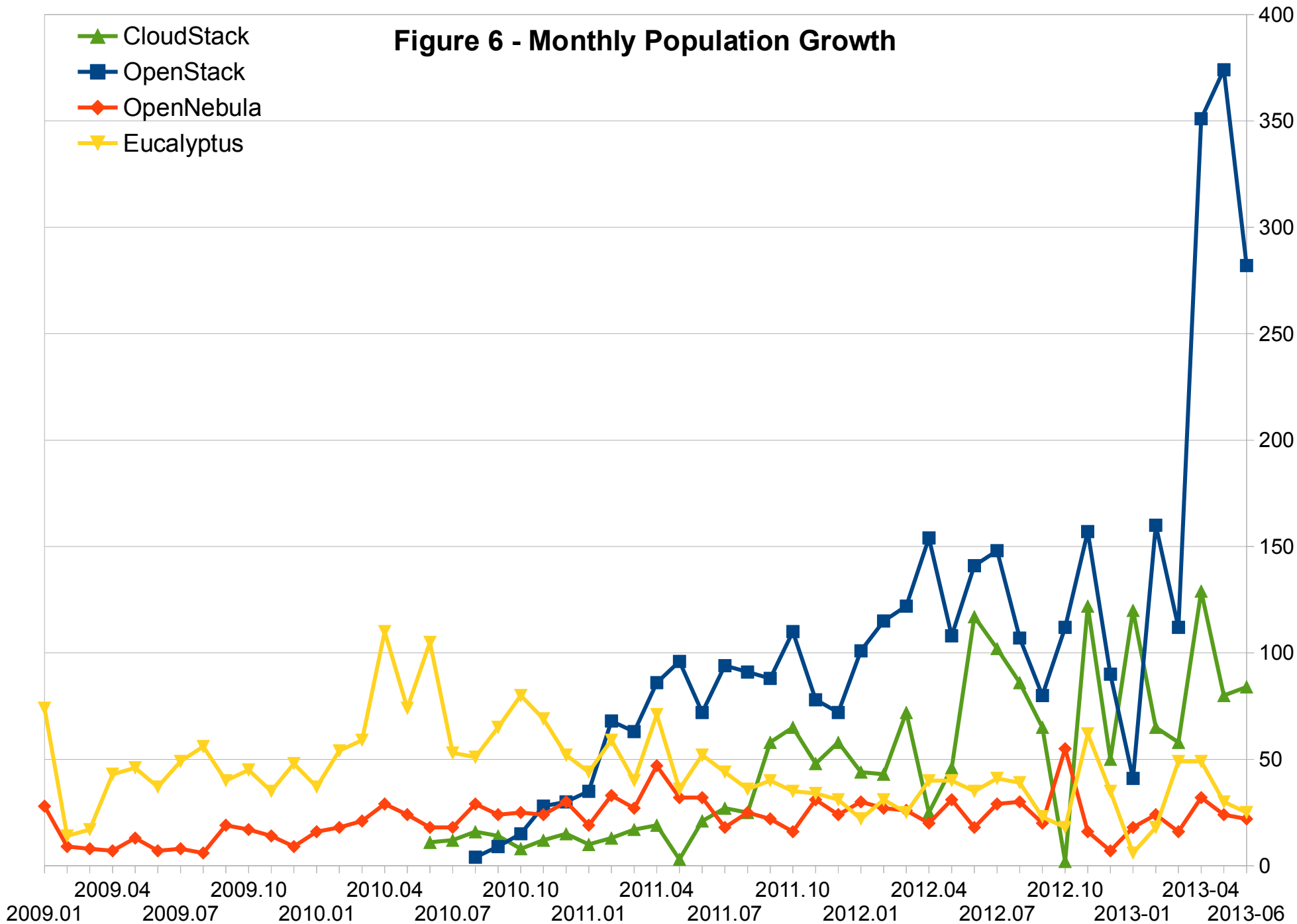
Figure 6 - Monthly Population Growth

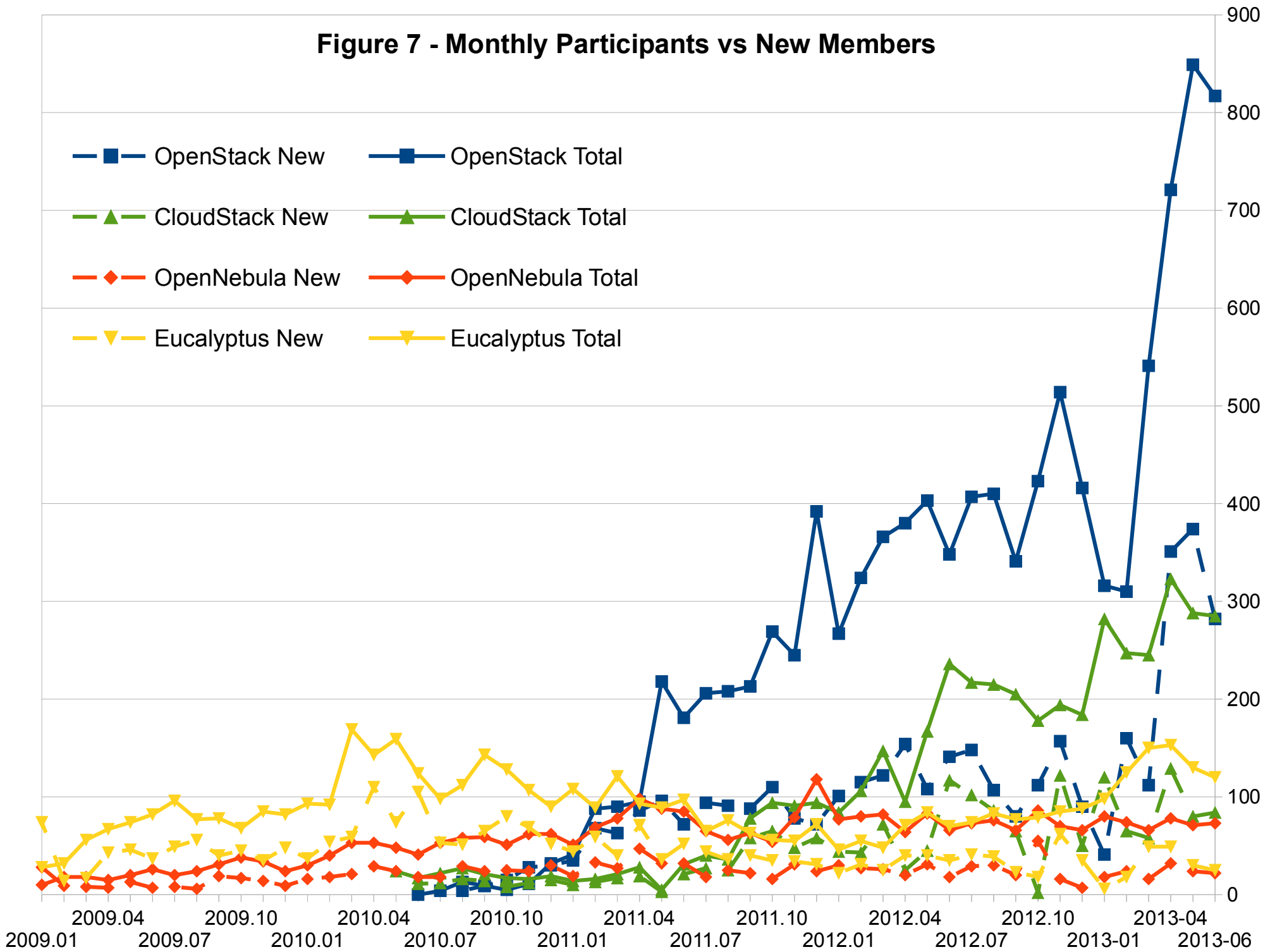Figure 7 - Monthly Participants vs New Members

Figure 8 - Active Community Population

Figure 9 – Community Activeness Index
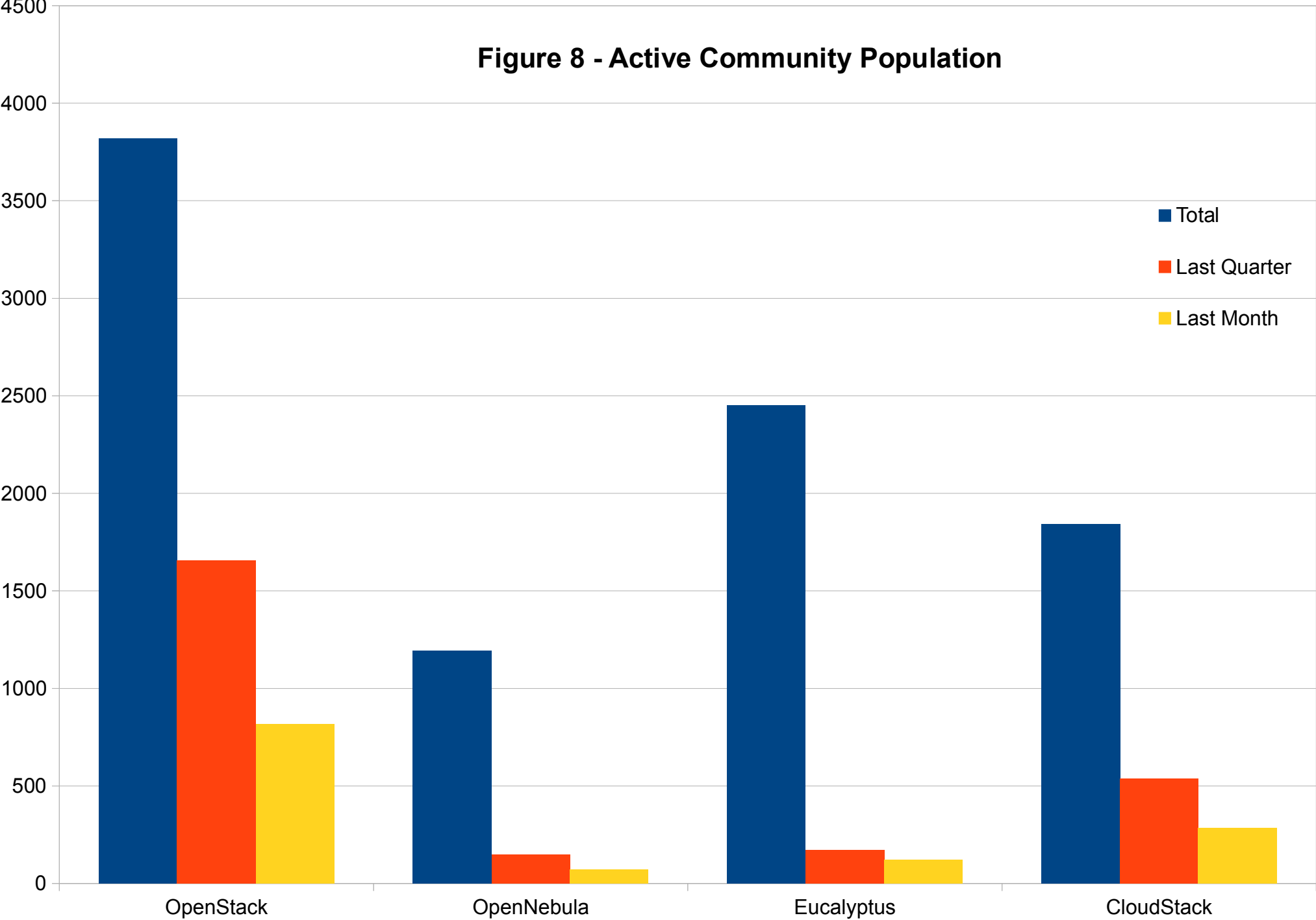
Computing the Reference Data Set

	OpenStack	OpenNebula	Eucalyptus	CloudStack	Average
Monthly Messages	3289	318	434	2913	1738
Participation Ratio	2.77	2.29	3.34	3.69	3.02
Quarterly Population	1657	146	171	539	628
Monthly Population	817	73	120	285	324

Computing the Activeness Index

	Relative Monthly Messages	Relative Participation Ratio	Relative Quarter Population	Relative Monthly Population	Activeness Index
OpenStack	1.89	0.91	2.64	2.52	7.97
OpenNebula	0.18	0.76	0.23	0.23	1.40
Eucalyptus	0.25	1.11	0.27	0.37	2.00
CloudStack	1.68	1.22	0.86	0.88	4.63

Git Data Source

- OpenStack

  - https://github.com/openstack/quantum.git

  - https://github.com/openstack/keystone.git

  - https://github.com/openstack/glance.git

  - https://github.com/openstack/horizon.git

  - https://github.com/openstack/swift.git

  - https://github.com/openstack/cinder.git

  - https://github.com/openstack/nova.git

- OpenNebula

  - https://git.opennebula.org/one.git

- Eucalyptus

  - https://github.com/eucalyptus/eucalyptus.git

- CloudStack

  - https://git-wip-us.apache.org/repos/asf/cloudstack.git
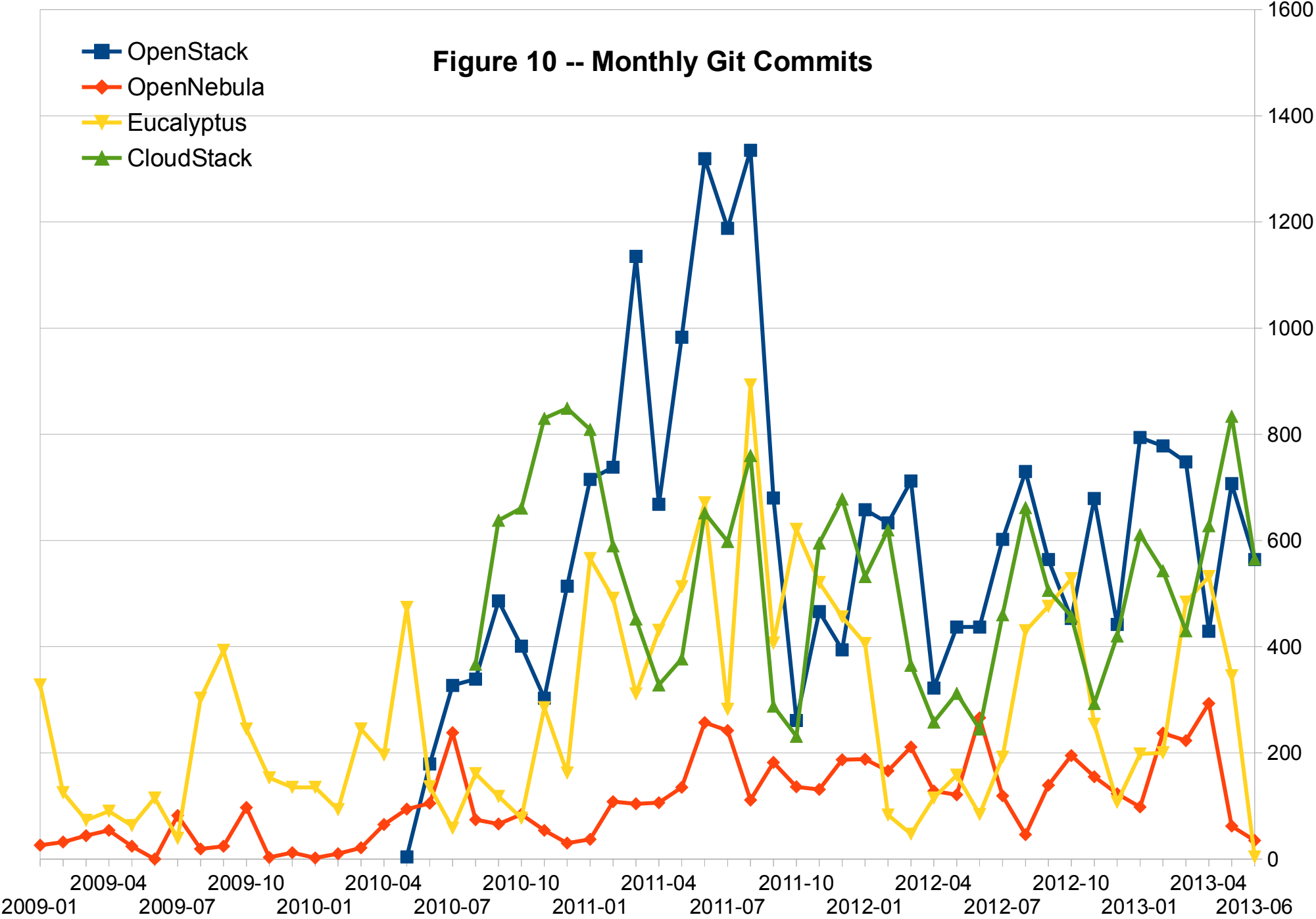
Figure 10 -- Monthly Git Commits

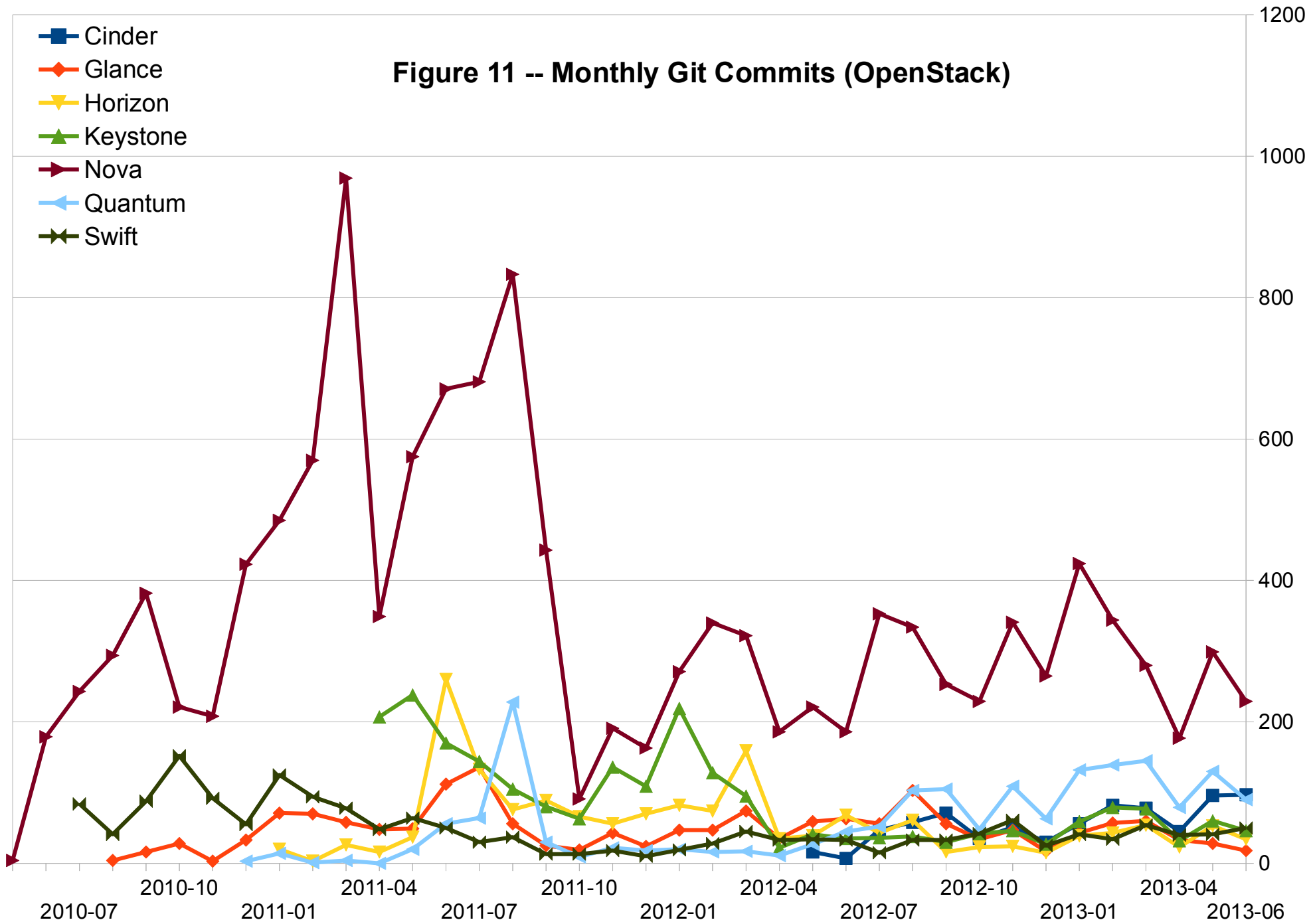Figure 11 -- Monthly Git Commits (OpenStack)

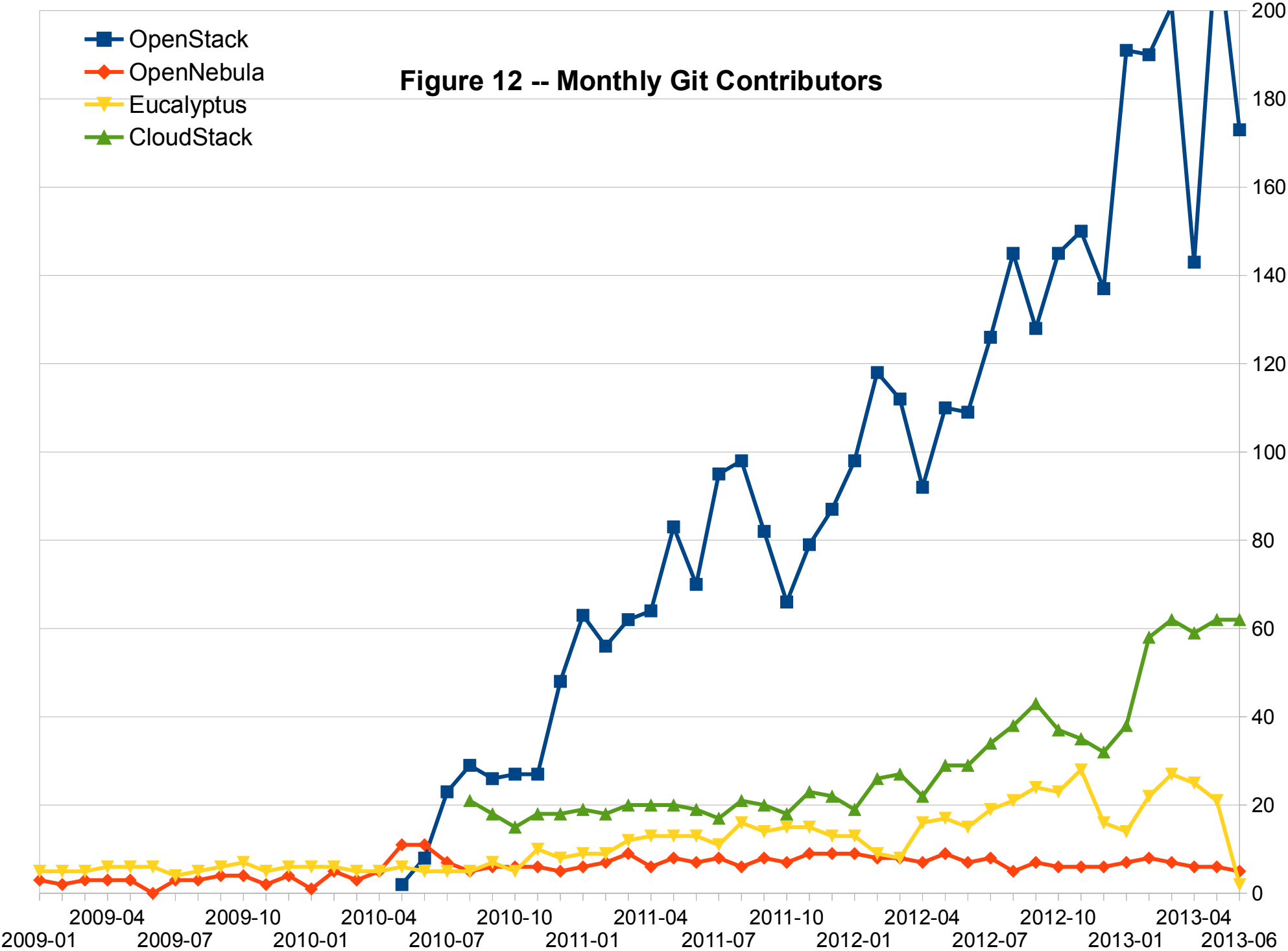Figure 12 -- Monthly Git Contributors
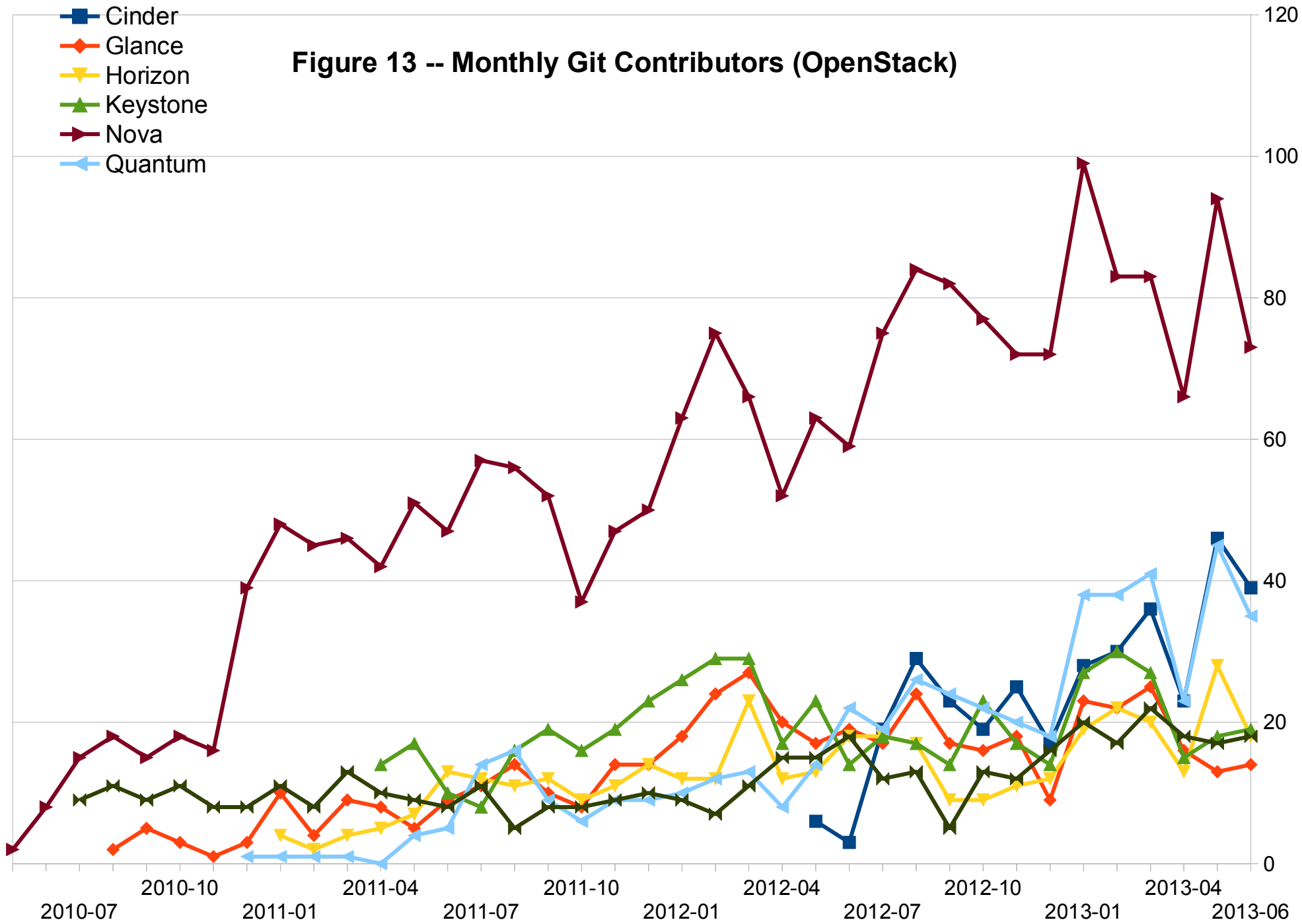
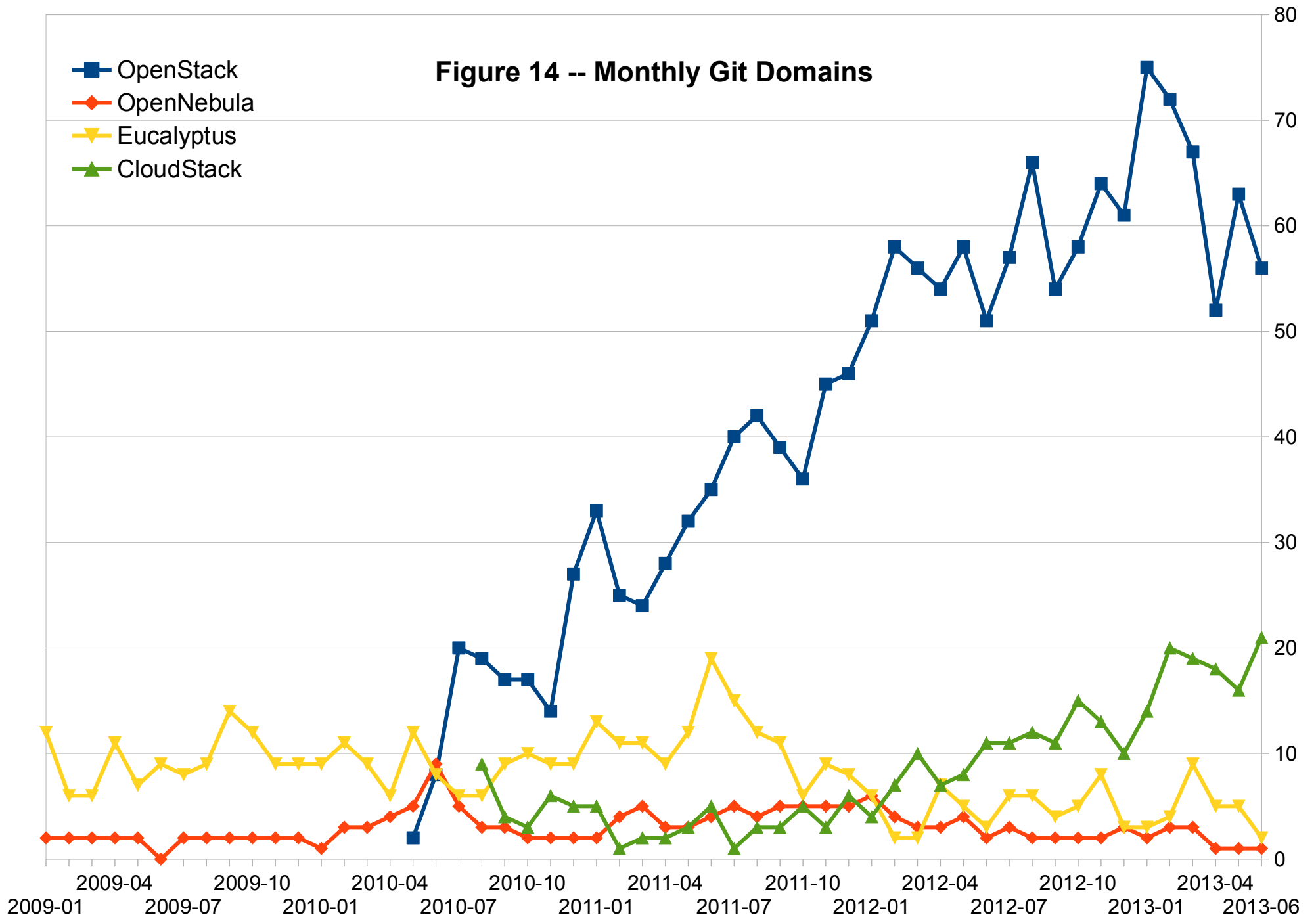Figure 13 -- Monthly Git Contributors (OpenStack)

Figure 14 -- Monthly Git Domains

Figure 15 -- Monthly Git Domains (OpenStack)

Legend:
- Cinder
- Glance
- Horizon
- Keystone
- Nova
- Quantum
- Swift