



Globus Tools for Users and Administrators
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IGE GLOBUS APPLIANCES

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IGE Software

- Packaged Globus Toolkit 5 as RPM and deb
 - GT 5.x
- Wide range of supported platforms
 - Redhat, Fedora, Scientific Linux, Ubuntu, Debian, MacOS, SuSe
- Community software adaptations (selected examples)
 - GridWay, GridSAM, GSI-SSHTerm, GridSAFE
 - LCAPS/LCMAPS, Adhoc, OGSA-DAI etc.
- Public releases in IGE and operating system repositories

IGE Releases

31/03/2011 IGE v1.0

01/08/2011 IGE v1.1

31/12/2011 IGE v2.0

31/03/2012 IGE v2.1

29/05/2012 IGE v2.2

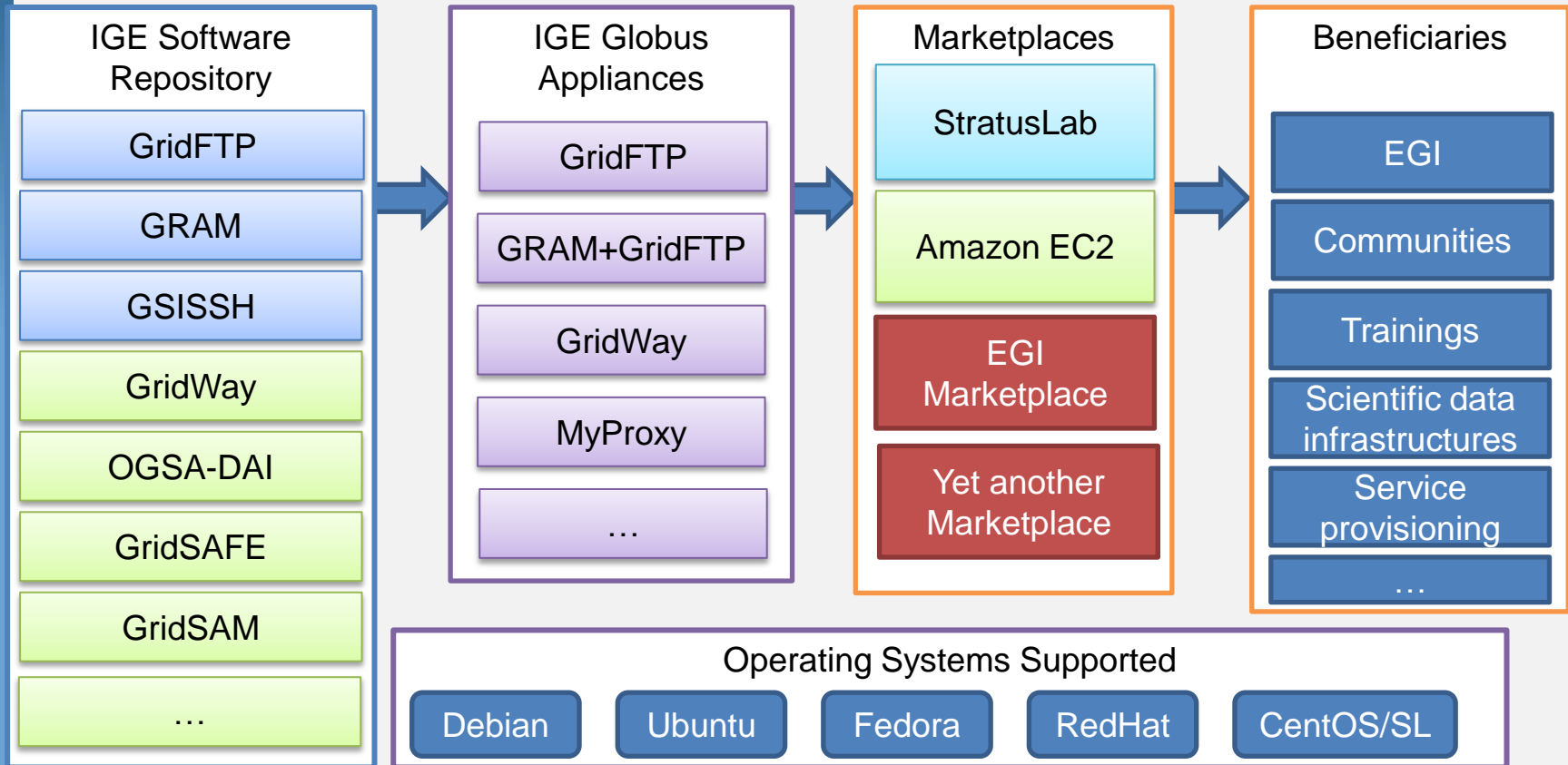
30/09/2012 IGE v3.0

31/12/2012 IGE v3.1

31/03/2013 IGE v3.2



IGE Software and the Cloud





Globus Usage Statistics

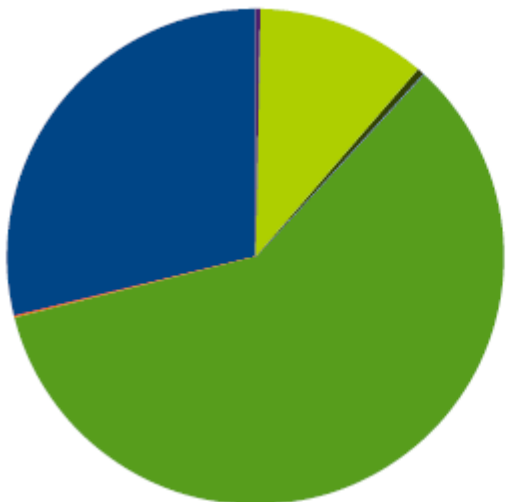
- Usage statistics configurable for Globus services
- European Globus Statistics Collector operated by IGE
- Default settings
 - Collector address: statistics.ige-project.eu:4810
 - No client side data is being uploaded!
- Facts (2012)
 - 104.9 Mio of GridFTP transfers in 2012
 - 122 k jobs with GRAM5
 - 35 countries with GridFTP service
 - 9 countries with GRAM5 service

Top 5 Job Errors

EXECUTABLE_NOT_FOUND	4782
ERROR_STAGING_EXECUTABLE	717
ERROR_OPENING_STDOUT	299
ERROR_JOB_EXECUTION_FAILED	279
ERROR_USER_CANCELLED	237



GRAM5 and GridFTP Statistics

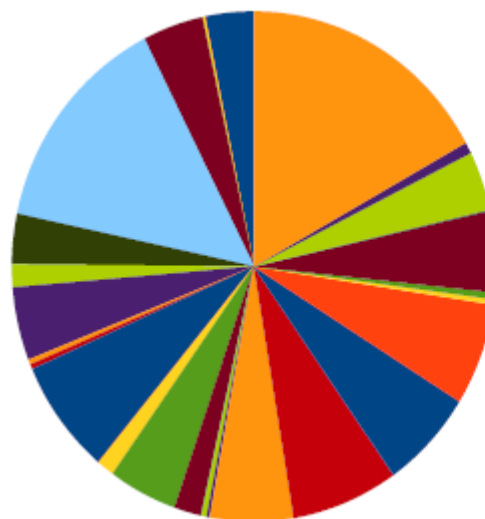


- de
- es
- eu
- nl
- nodomain
- org
- pl
- ro
- uk

Ratio of #GRAM jobs per domain

Data collected in 2012

Ratio of #GridFTP transfers per domain



- au
- be
- br
- by
- ch
- cz
- de
- edu
- es
- eu
- fr
- ge
- gr
- hr
- il
- it
- jp
- lv
- ma
- md
- mk
- nl
- nodomain
- org
- pl
- pt
- ro
- rs
- ru
- se
- si
- sk
- ua
- uk



Types of IGE Appliances

Basic appliances

- GT components and/or community adaptations installed
- Usage: admins trying out different configurations, GT trainings etc.
- (+) no installation or compilation required
- (-) no pre-installed certs, customization of service configs needed

Start-and-use appliances

- GT components and/or community adaptations installed and configured, host certificates installed
- Usage: ready to run services on clouds, testing GT components in a predefined environment (e.g., an internal GT-based Grid in StratusLab)
- (+) no configuration effort needed, functioning services

Project partners responsible UCM and UTCN



Current Status

Basic appliances

- GT components and/or community adaptations installed
- VM Images published in StratusLab Marketplace: full GT5 VM image, GridFTP VMI, GRAM VMI, GridWay (for StratusLab and Amazon EC2) etc.

Start-and-use appliances

- GT components and/or community adaptations installed and configured, host certificates installed
- Suite of scripts for dynamic generation of VMIs and VMI-based grids

VMI Preparation

- Local creation, configuration and testing with KVM
- OS installation
- GT5 component installation
- Storage of VMI to a public location
- VMI metadata creation & signing
- VMI metadata publication in the StratusLab Marketplace

Compliant to StratusLab procedures



Current Status

igeservices.utcluj.ro/ige-gt-appliances/basic/ige-confi

Index of /ige-gt-appliances/basic /ige-configured/ige-packages/ubuntu

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
Parent Directory			
ubuntu-12.04-i686-gridftp-ige2.1-5G-1.0.0.img.gz	16		
ubuntu-12.04-i686-gridway-ige2.1-5G-1.0.0.img.gz	17		
ubuntu-12.04-i686-gt5-ige2.1-5G-1.0.0.img.gz	17		
ubuntu-12.04-x86_64-gridftp-ige2.1-5G-1.0.0.img.gz	16		
ubuntu-12.04-x86_64-gridway-ige2.1-5G-1.0.0.img.gz	17		
ubuntu-12.04-x86_64-gridway-ige2.1-5G-1.0.1.img.gz	18		
ubuntu-12.04-x86_64-gt5-ige2.1-5G-1.0.0.img.gz	17		
ubuntu-12.04-x86_64-gt5-ige2.1-5G-1.0.1.img	18		
ubuntu-12.04-x86_64-gt5-ige2.1-5G-1.0.1.img.gz	19		

Apache/2.2.14 (Ubuntu) Server at igeservices.utcluj.ro Port

Metadata already published
in the StratusLab Metadata
Repository

Appliance Repository

StratusLab

https://marketplace.stratuslab.eu/metadata

Home | Endorsers | Query | Upload | About

Metadata

Show 10 entries

Search: IGE

IGE3.2-ubuntu v10.04 x86_64

Endorser: adrian.colesa@cs.utcluj.ro
Identifier: EOyuUiKKeEPOJI12gBKbXMk0-xW
Created: 2013-04-05T20:48:40Z
Kind: machine



The machine contains Globus Toolkit (GT) 5.2.4 components installed from IGE v3.2 repositories. We executed the following steps: 1. Configured the IGE repositories as sources for OS packages. See the file "/etc/apt/sources.list.d/IGE.list" for



Sample Template for Dynamic Creation of VMIs

[machines]

[RAM]

[stratuslab-images]

m1 = OLyyClOmCkqijjtSZ-2d5UaiA_o

[users]

m1 = ige_user020 ige_user021 ige_user023

[user-certificates]

cert_type = existent

cert_dir = PATH_TO_DIR_CONTAINING_EXISTENT_USER_CERTS

[ige-packages]

m1 = ige-meta-globus-gridftp

m2 = gridway*

[configuration-scripts]

ca-host=DNS_HOST_WITH_SIMPLE_CA

ca-hash=HASH_OF_SIMPLE_CA

.....



Appliances in Action

- DCI Summer School in Budapest, July 2011
 - Amazon EC2 VMIs (Basic & Start-and-Use appliances)
- GridKa Summer School in Karlsruhe, September 2011
 - Amazon EC2 VMIs (Basic & Start-and-Use appliances)
- DCI Summer School on Workflows and Gateways for Grids and Clouds – July 6, 2012, Budapest, Hungary
 - StratusLab VMIs (Basic & Start-and-Use appliances)
- GridKa Summer School in Karlsruhe, September 2012
 - StratusLab VMIs (Basic & Start-and-Use appliances)
- Trainings at SYNASC 2012, RoEduNet 2013
- EGI TF Prague 2012, EGI CF Manchester (2 hours ago)
- VMIs for testing and certification of IGE software



- Globus Appliances and the management scripts will be maintained by the European Globus Community Forum
- Support service on as per available effort
 - Monthly security updates for published VMIs
 - 6-month cycle – OS updates
- IGE Globus appliances as per request for Fedora, RedHat etc.
- Investigate the interest of EGI in Globus appliances



Thank You for Your Attention!



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The European Globus Community Forum (EGCF) is the organizational body of the Globus community in Europe. Its goal is to boost an integrated approach to collaboration on Globus development and to provide an organizational platform to foster cooperation within Europe and beyond. Its members are users, administrators, and developers, who are applying the Globus Toolkit as their middleware or are interested in doing so.

EGCF 2013

“The future of Globus in Europe”

April 8th, 2013 | Manchester

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Upcoming Events

- April 16, 2013 – April 18, 2013 (*All Days*)
[globusWORLD 2013](#)

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EGCF

- [EGCF 2013 Annual Report: “The Future of Globus”](#)

Globus

- [Announcing Release](#)
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- [GlobusWORLD April 2013](#)
Argonne National Laboratory

iSGTW

- [How can we use HPC](#)