

Egypt Grid

Work Package Three

Status and Perspectives

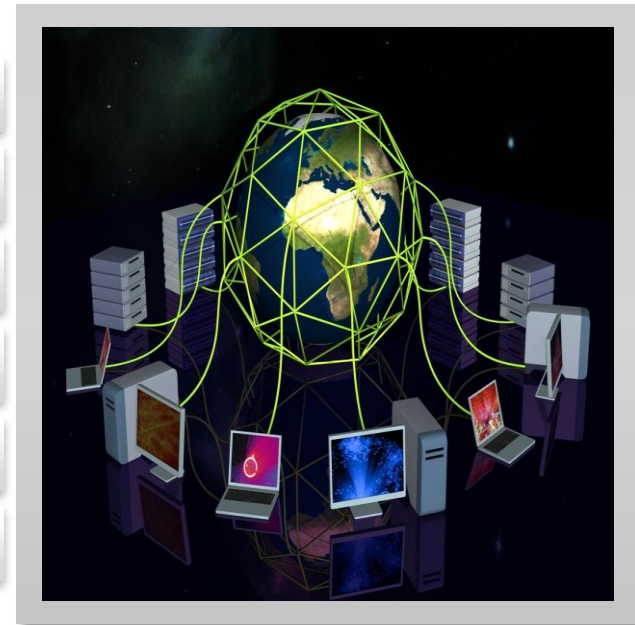
By: Mohamed Elshamy

ASRT Grid node

Status and Perspectives



- 1 ASRT grid node Objectives.
- 2 ASRT infrastructure Overview.
- 3 Grid plan in ASRT.
- 4 Current grid status in ASRT.
- 5 Problems and issues.
- 6 Future plan.

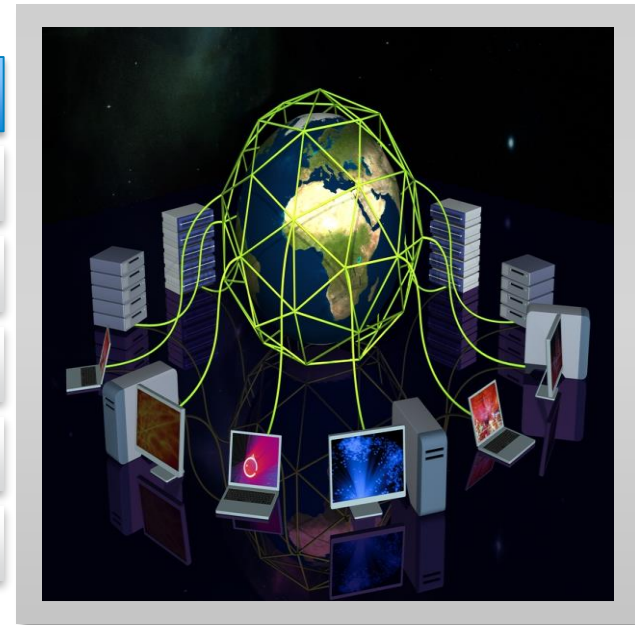


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ASRT grid node Objectives



Objectives

Setting up a Grid computing infrastructure and relevant manpower expertise to fulfill the grid management requirement.

Tasks

- 1- Release a production level of a grid job.
- 2- Knowledge Transfer.
- 3- Egyptian site in production.

Objective of ASRT is to set up and distributing computing infrastructure and relevant connected manpower expertise to fulfill the requirement of several scientific communities. In particular ASRT will build an infrastructure that could provide a transparent way of processing data across different Egyptian sites.

Then, consolidation of the GRID infrastructure at the Egyptian sites in order to be able to fully support both CMS analysis and larger scientific community (i.e., biomedical and computational chemistry) in compliance with the WLCG standards.

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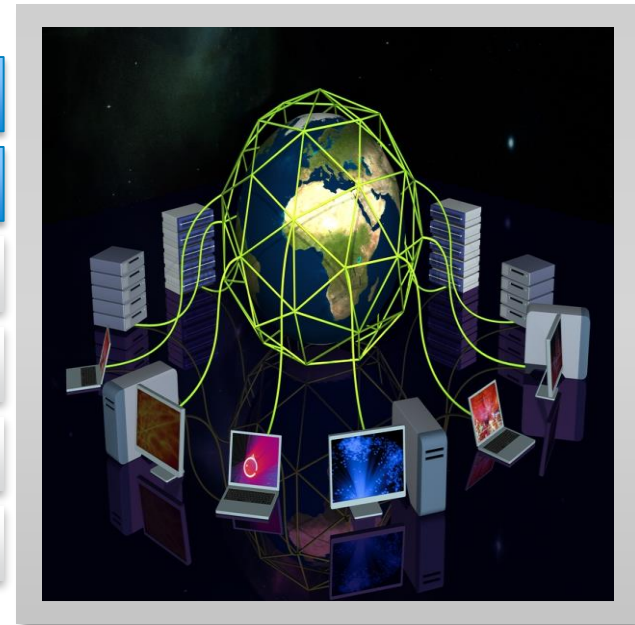
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ASRT Infrastructure Overview.



ASRT's Data Center is consisting from the following:

- More than 150 server from different brands (i.e., Dell, HP, etc..) provide different services like DNS, Web hosting, Mail hosting, and others.
- More than 50 network device between routers, switches, and firewalls.
- More than 500 Tb storage.
- One Gb/s internet bandwidth.

The data center is equipped with UPS, HVAC, RFID door system, and fire-detecting and fighting systems.

Grid Infrastructure

- 70 CPU servers with quad core xeon processor, 16 Gb RAM, and 500 Gb H.D.
- 70 Storage servers with 8 Gb RAM and 10 Tb H.D.
- 1 Gb/s internet bandwidth.
- 7 switches with 24 ports.



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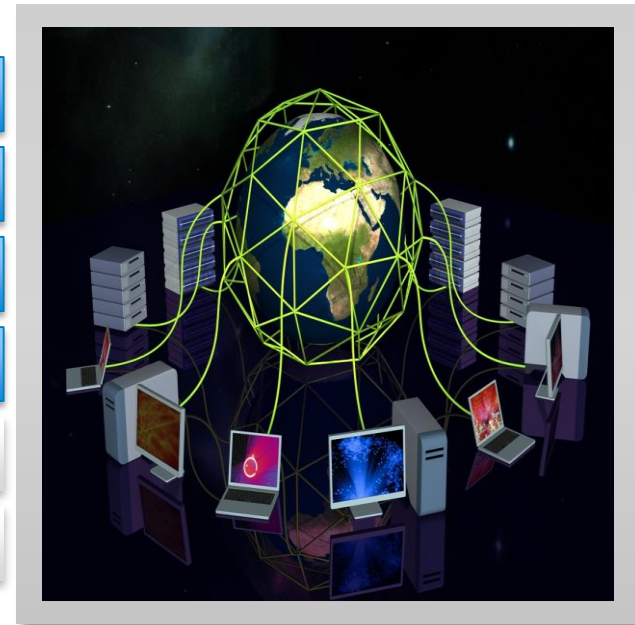
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Current grid status in ASRT



Current grid status on 2015

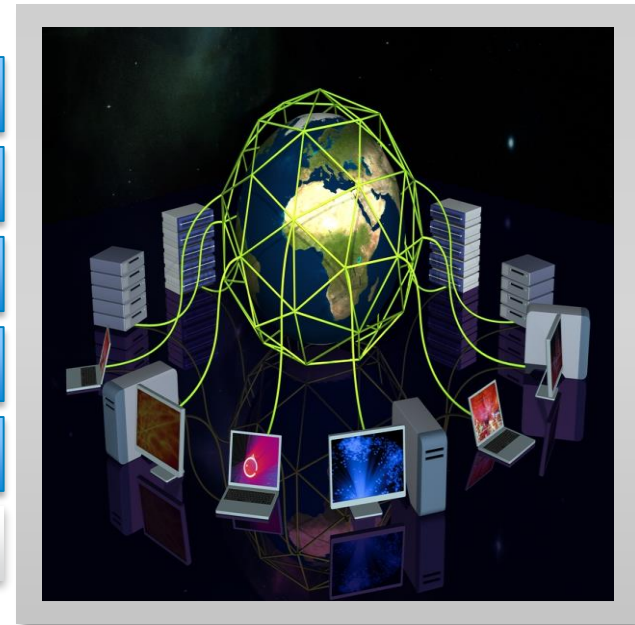
- Linux was installed on all the machines.
- Network configured on all the machines.
- Grid middleware installed and configured on 16 machines with different services to present Tier 3.
- Production test of Tier 3 grid node consisting of TBDII, BDII, UI, CE, DPM_mysql, 6 WN, 3 DPM_disk, puppet_server, and squid.
- Tier 3 grid node registered on GOCDB as a candidate site.

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Problems and issues



1

Electricity.

2

Several duties for the grid team.

3

Unidentified problems with the installed service especially epel.

4

Candidate to be trained on and manage grid nodes on thier sites.

ASRT Grid node

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1 ASRT grid node Objectives.

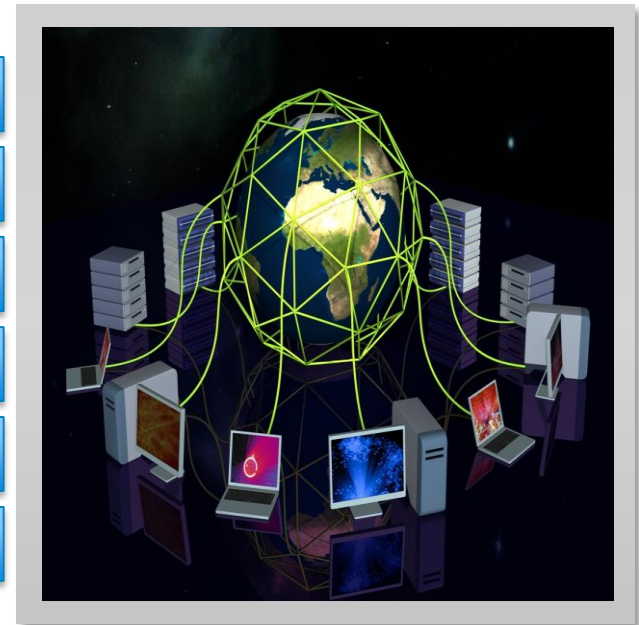
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Future plan



1 Solve Electricity issue.

2 Grid department will be responsible about the grid node.

3 Try to solve problems with the installed service especially epel.

4 Searching for candidate to be trained on and manage grid nodes.

A 3D map of the world rendered in white, showing the continents and oceans. The map is centered on the Atlantic Ocean, with North and South America on the left and Europe and Africa on the right. The map has a slight shadow on the surface below it.

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THANK YOU!