

# **IGCA Highlights**

- ❖ First CA in India for the purpose of grid computing research activities.
- ❖ Promotes interoperable federation by ensuring trust between Grids
- ❖ Trusted by APGridPMA, under the aegis of IGTF
- ❖ Operated on policy document 1.3.6.1.4.1.31180.10.1.1.0 issued by IANA

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## CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

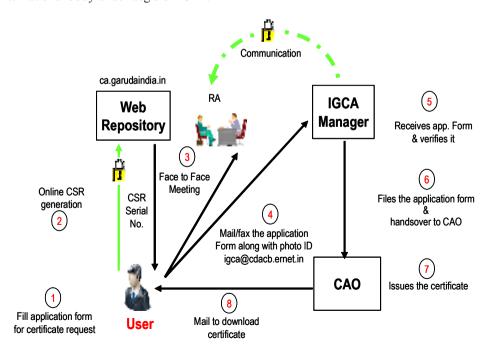
Ministry of Communication & Information Technology Government of India Metamorphosis of Grid Security promises to revolutionize grid computing boundaries beyond institutional limits, across countries and continents. Grid computing has paved the way for solving grand challenge applications that require coordinated resource sharing and problem solving in dynamic, multi-institutional virtual organizations for collaborators to carry out development of next generation interdisciplinary applications.

Over the years, many grid projects have deployed distributed resources on a production scale across organizations, countries and continents and are establishing international grid interconnections. For co-operation among grids, standard acceptable practices, procedures and policies should be established and adopted. The **International Grid Trust Federation** (IGTF) is a global body started to ascertain common policies and guidelines between grids.

## **IGCA**

The **Indian Grid Certification Authority** (IGCA) is the *First CA in India* established to address security issues of grids. The IGCA is the official body that addresses the key security concerns and requirements on interoperability between international grids. It issues digital certificates that are recognized in the global community including the International Grid Trust Federation (IGTF).

Located at C-DAC Bangalore, the IGCA operates under the IGTF policy. IGCA is accredited by Asia Pacific Grid Policy Management Authority (APGridPMA), which is an international body under aegis of IGTF.



**User Registration Process** 



### **IGTF**

IGTF is a body to establish common policies and guidelines between its Policy Management Authority (PMAs) members and to ensure compliance to this Federation Document amongst the participating PMAs. It comprises of three regional Grid PMAs - the Asia Pacific Grid PMA (APGridPMA), the European Policy Management Authority for Grid Authentication in e-Science (EUGridPMA) and the Americas GridPMA (TAGPMA). The IGTF does not directly provide identity assertions but instead ensures the assertions issued by its accredited authorities.



### **APGridPMA**

APGridPMA supports Grid communities in Asia Pacific to implement a common trust domain across organizations. The main activity of the APGridPMA is to coordinate Public Key Infrastructure for use with Grid authentication. The APGridPMA is a representative policy management authority in Asia Pacific.



#### **GARUDA**

GARUDA is the Indian National Grid Computing Initiative for collaboration of scientific and technological researchers on a nation wide grid comprising of computational nodes, mass storage and scientific instruments, to enable 21<sup>st</sup> century grand challenge applications.



#### **EU-India**

Joining European and Indian Grids for e-Science Network Community

The European Commission funded **EU-IndiaGrid** project is the first European and Indian Grid-focused project. **EU-IndiaGrid** will bring together **over 500 multidisciplinary organisations** to build a Grid-enabled e-Science community. This networked community will help develop a sustained base of potential users from key science domains and business, bringing the advantages of Grid technology and boosting R&D innovation across Europe and India.