

Minutes of the VC meeting on ‘Information Security – Algorithms and Applications’

Moderator – Mr. Subramaniam, C-DAC

Date and Time – 04 Mar 2008 - 2:00 PM to 2:40 PM

Mr. Subramaniam pointed out the following points:

- The foundation for the ‘Grid Security’ is being laid from the principles involved in Internet Security.
 - As the Grids are evolving, so is the concept of security in grids – and one needs to really look into whether the same model of internet security could be extended into grids or a totally different rationale has to be adopted in this regard.
 - But to some extent, resources in grids can be regarded as less prone to attack, as the exact resources and users who are part of the grid, are certified by the CAs after careful examination through the chain of RAs and trusted partners.
 - Grids are also prone to the attacks as is the internet. The nature of these attacks can also be carried forward from the internet model – Denial of Service attacks, Impersonations, Privilege gains, Memory overflows, Data thefts etc.
 - So the same perimeter security measures applicable to the conventional networks –including firewalls, encrypted communication channels etc. can be extended to the realm of grids.
 - However we need more dynamic and adaptive firewalls to be in place when compared to the conventional networks, as the applications running in the grid are dynamic in nature and the firewall/port requirements may vary dynamically.
1. Dr. Prahlada Rao of C-DAC, pointed out that a document has to be prepared on the ‘General guidelines and policies on Securing the resources in GARUDA’ to be circulated among the partner institutions.
Mr. Subramaniam and the members involved in the meeting felt the consensus for such a document and pointed out that it can be taken up shortly.
Subramaniam also pointed out the necessity of augmenting this document through a Checklist of security related items for the partner institutions.
 2. Mr. Asvija of C-DAC, enquired about the adaptability of Application level security measures and Web service security models like SAML and XACML, to the grids in particular.
Mr. Subramaniam answered this by stating that these are already part of the Grid Middleware stack and the standards are fairly reasonable and robust to be employed in the grid.
 3. Mr. Henry Sukumar of C-DAC - Bangalore, pointed out issues related to the Certification process in GARUDA.

- Issues related to cross – certifying the different CAs present both inside India and abroad.
 - Also the issues related to the specifics of mapping a grid identity into a local user on GARUDA resources. Henry pointed out that currently many grid users are being mapped into a single local account on the resources, and this has been the cause of displeasure among many users who feel that their data may not be regarded as safe on these resources. So new policies have to be drafted to address this issue.
4. Mr. Murthy of C-DAC – Hyderabad, pointed out that the group at CDAC Hyderabad has come up with a product called 'EnSafe' which is meant to ensure end-to-end security amongst the resources in the intranet. He also pointed out that efforts are also in place to extend the usage of this product on Grid resources.