

## **Service Migration and High Availability Using Dynamic DNS Service**

The Dynamic DNS service offered by IISAS plays a pivotal role in providing comprehensive, federation-wide Dynamic DNS support for virtual machines within the EGI Cloud infrastructure. This service allows users to register their preferred host names within designated domains (e.g., my-server.vo.fedcloud.eu) and associate them with public IP addresses of their servers.

The Dynamic DNS service brings about a significant enhancement in both the usability and security of services within the Cloud environment. Users can conveniently access services or virtual machines deployed in Clouds using pre-registered, meaningful, and memorable hostnames instead of raw IP addresses. Furthermore, with appropriately configured hostnames, users can obtain valid SSL certificates for the services hosted in the Cloud.

However, the true power of the Dynamic DNS service lies in its ability to facilitate service migration and ensure high availability. It can seamlessly redirect the service endpoint from one service instance to another in a mere minute, all without causing disruptions to end-users. By integrating with a monitoring service or utilizing a cron script, the Dynamic DNS service can automatically shift the service endpoint from a faulty instance to a healthy one, thus ensuring uninterrupted availability.

In summary, the Dynamic DNS service not only simplifies accessibility and security but also serves as a robust tool for achieving service continuity and high availability, making it an invaluable asset within the EGI Cloud infrastructure.

**Primary author:** TRAN, Viet (Institute of Informatics, Slovak Academy of Sciences)

**Presenter:** TRAN, Viet (Institute of Informatics, Slovak Academy of Sciences)

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