

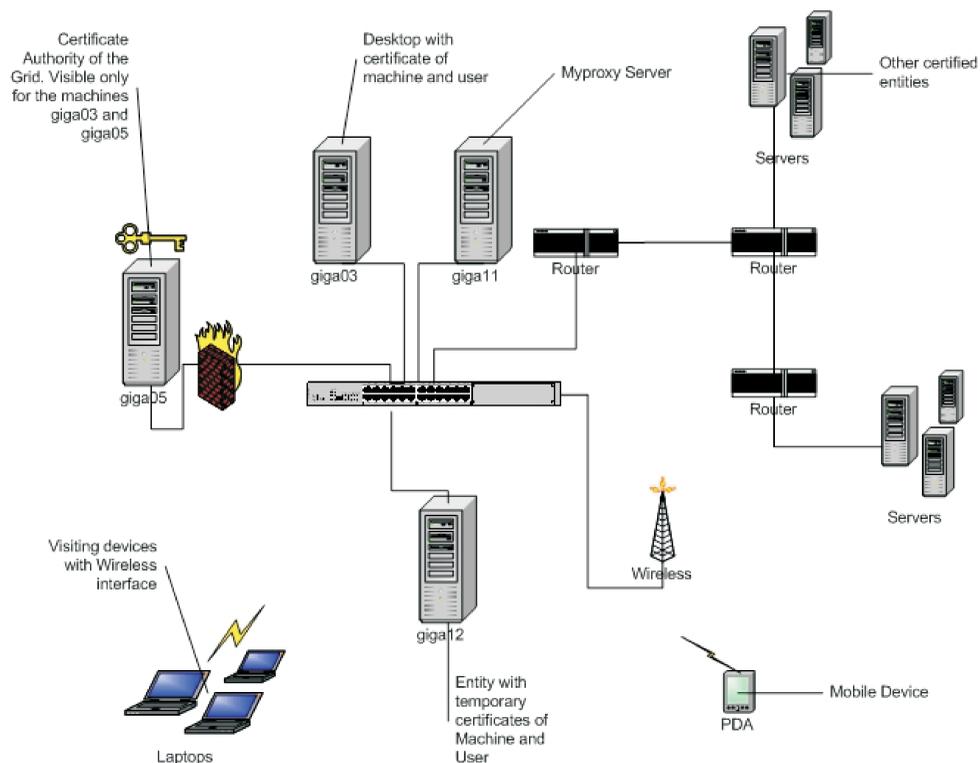
Management and Supply of Trusted Certificates for Mobile Nodes using Short-Lasting Certificates.

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Usually, when users want to interact with the grid they must enroll for digital certificates for them (user certificates) and for their devices (host certificates). To request a host certificate the user must generate manually its key pairs and submit them as a certificate signing request to the CA. This process can take a long time which can be unacceptable by users of mobile devices.

Therefore, by supplying dynamic short-lived certificates we expect to automate this procedure. In addition to simplifying the use of the grid it increases the security level, since the generated these certificates have a short validity period. Once the certificate expires a valid user must a new request, this warrants that this certificate is not used by unauthorized entities.

In a grid environment the idea of supplying usage permission to machines becomes a task of difficult administration. The use of digital certificates for authentication can cause an unacceptable delay since it depends on a CA administrator issuing the certificates.

As the authentication procedure is not automatic, if the network has problems or if the CA administrator is not available, the certificate issuance can be considerably delayed, which can compromise the use of the grid by users of mobile devices, for example.

The main idea of this work is to create a service that allows a user to, with a valid certificate (acquired with MyProxy, for example), to require a proxy certificate for a mobile or visiting device, so that this device gets associated with the grid for a short period of time, and to interact with the jobs submitted to the grid.

