A proper level of authentication and access control is a basic requirement imposed on all contemporary systems that provide services to larger user groups.

User communities utilizing services are often composed of users from different organizations and domains. In order to facilitate them the access to the services the federated AAI model is usually used nowadays to provide seamless authentication and attribute-based authorization. Federated AAI also makes the life easier to developers and operators of end services, since it simplifies identity management.

The area of federated AAI concepts has been studied for quite a long time and several middleware solutions exist to implement identity federations and to integrate end services with them. Despite the attention the concepts received in the past, most of them is focused on the area of web-based applications, which rely heavily on the HTTP protocol.

There are however areas that would benefit from federated AAI models but also require access that is not based on web. A typical example is a distributed filesystem, which allows users to mount remote disks to their machines and manipulate with the data using the standard OS system calls. Such services need another approach to implement federated AAI.

In this contribution we describe project Moonshot, which aims at bringing notions of federated AAIs to non-web environments. The architecture of the solution combines several known technologies, especially Radius and SAML, to provide a federated framework for various types of applications. The well-known and tested GSS-API was used as the main interface, which simplifies integration of the solution with existing applications. We will focus mainly on solutions enabled by the Moonshot technology, e.g. filesystems.

We will also shortly discuss shortcomings of Moonshot that we identified, like insufficient delegation of credentials and single sign-on mechanism and describe solutions we designed to overcome the
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