

Federated access to clouds for for genomics

This paper describes technical work on setting up and securing PlasMapper and Ensembl with federated access management. The work further combines these services with resources in Microsoft Azure, using WS-Federation as authentication. The project was extremely challenging in aiming for high targets and quick delivery on a tiny budget, so had to reuse existing components. We found that some of these were considerably less mature than expected, and, perhaps unsurprisingly, adherence to standards was in some cases rather lax. We achieved a lot given limited funding, and anyone aiming to integrate public and private clouds, or securing services for genomics, or building WS-Federation services, will be interested in this work. The application area is clearly bioscience but the core of the work is security, so the paper is submitted to the security track.

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