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# SAGrid-2.0

## Description of content and intended audience</br>- the outcome you expect to achieve.<br/>

This contribution describes new services provided by SAGrid which are now in beta. These have been developed in collaboration with several roleplayers in the distributed computing universe, essentially supported by the CHAIN-REDS and ei4Africa projects. These consist of essential core services, essential for infrastructure interoperability, as well as security services (CSIRT and CA) and provision for identity federation.

There are also four new services:
1) Executable Infrastructure: using tools like Ansible and puppet, a small team of experts can "code" the services, providing version control and verification of site configuration.
2) Self-service application porting : The Jenkins Continuous Integration server allows users or application support teams to test their applications against pre-defined test to ensure that they will run on the WN.
3) Automated application delivery : Once applications pass all tests, they are staged to the CVMFS repository
4) Easy access to heterogeneous services via a science gateway concept, based on SAGA and Liferay.

The intended audience is grid application developers, national operations teams and peer infrastructure liaison

## Relevant URL (if any)

http://www.sagrid.ac.za
http://www.chain-project.eu

## Printable summary: this is the only </br> section of the abstract that will <br/>be published in the Book of Abstracts.

The South African National Grid (SAGrid) is a federation of universities, national laboratories and research groups which operates a distributed computing infrastructure. Starting in 2009 and initially based on gLite-3.2 middleware, SAGrid allowed better participation to WLCG and other large distributed e-Infrastructures. However, a long tail of individual researchers in South Africa and the rest of the region were excluded or poorly-served. With the evolution of grid and maturity of cloud middleware, the potential of the infrastructure has increased. With the support of the CHAIN-REDS project, a signature of a Resource Infrastructure Provider MoU with EGI.eu has also improved interoperation, collaboration and reliability of the infrastructure.
In this contribution, we report on how we further improve the usability and sustainability of the infrastructure by adopting new methodologies and technologies to support technical and user communities. While still offering a "grid" infrastructure, SAGrid is now also offers user- and developer-friendly interfaces to new services, while the adoption of executable infrastructure improves reliability and scalability of operations.

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