

## Virtual EZ Grid

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**Acronyme:** Virtual EZ Grid

**Type:** AAA/Switch

**Dates approximatives:** du 01.01.2009 au 30.09.2010

**Coût estimatif total :** 550 kCHF

**Coût estimatif hepia/INIT :** 120 kCHF



### Partenaires

- HES-SO (**hepia** - leader , HE-ARC, HEG, HEIG-VD)
- Université de Genève
- Université de Neuchâtel
- Université de Lugano

### Résumé (en anglais)

*Virtual EZ grid* project aims at providing a large scale distributed platform to deploy high performance applications. Five technical goals are targeted by the *Virtual EZ Grid* project:

1. Construct a desktop grid infrastructure with more than 1.500 non dedicated desktop PCs to provide harvested CPU power for scientific research projects.
2. Implement a reliable platform by using virtual environments to support secure computing and remote check-pointing. This project will also provide a better control over environmental issues and energy consumption by running only the necessary PCs and shutting down unused PCs at night and during holidays.
3. Guarantee the security and privacy of both the PC user and the virtual CPU environment by using the virtual isolation layer property, certificate and proper authentication of grid user.
4. Provide a resource-credit system that can be used in the future to evaluate the potential resource-credit schemes that could be established and the relevant criteria that should be used to determine a "fair" incentive taking into account the point of views of providers and consumers of virtual PC resources.
5. Evaluate objectives 1 through 4 in a real world setting with two medical applications.

### Contact hepia

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