

# Extending the MHD ePortal

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## The Grid – what is it? And why is it important?

The Grid purports to offer a seamless, ubiquitous computing environment in the same way that the Web today offers a seamless information environment.

But what does that mean? – good question.

The Grid is important because computing power will be made available to anyone anywhere. And people will think of ways to use it in ways unimaginable today. Much like the Web.

Also because we think so.



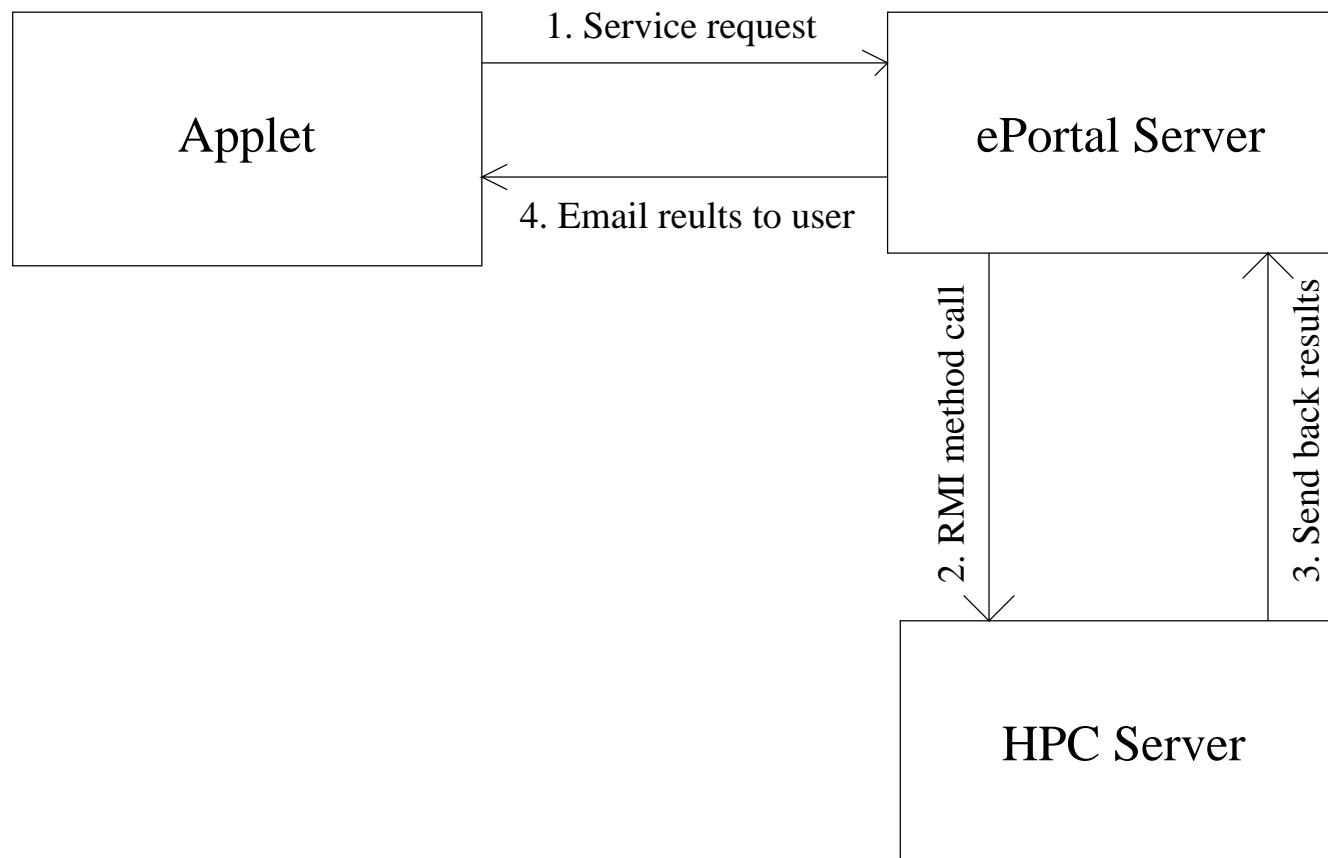
## But are we not doing it already?

With the internet I can telnet to any machine on which I have an account, and run my computing jobs on it. Why do I need the Grid?

## EPortal

The ePortal is a prototype for a software toolkit to build a single “Universal Portal” for eScientists. It will offer a single view of the range of software packages. It is designed to be portable and easy to use. Users have access to these software packages via a Java applet.

## Here is how it works:



## Extending the MHD ePortal

- ▶ Extend the back-end Portal services to include Lomond and Bobcat
- ▶ Include additional code packages.

## Backend Services

- ▶ Batch queue system: PBS and Sun Grid Engine
- ▶ Code support for Grid Engine
- ▶ Integration of Lomond and Bobcat



## New Code Packages

Goal is to include additional code services for the MHD consortium, as well as other code packages.



## Progress

- ▶ PBS and Grid Engine
- ▶ The GridEng package
- ▶ Bobcat support
- ▶ Lomond support

## Problems

- ▶ RMI – is it necessary?
- ▶ Difficult to introduce new HPC site and code services.
- ▶ Increasingly complex design – or it might just be me.

## Future Work

- ▶ Script to generate generic panel components
- ▶ Realtime visualization