

The Development of the Grid

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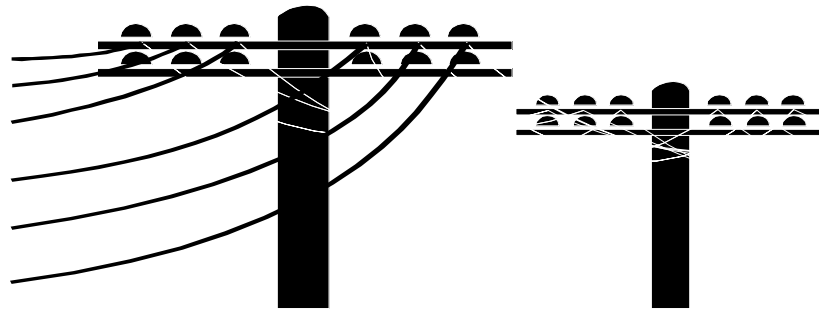
Cybula Ltd.

Questions

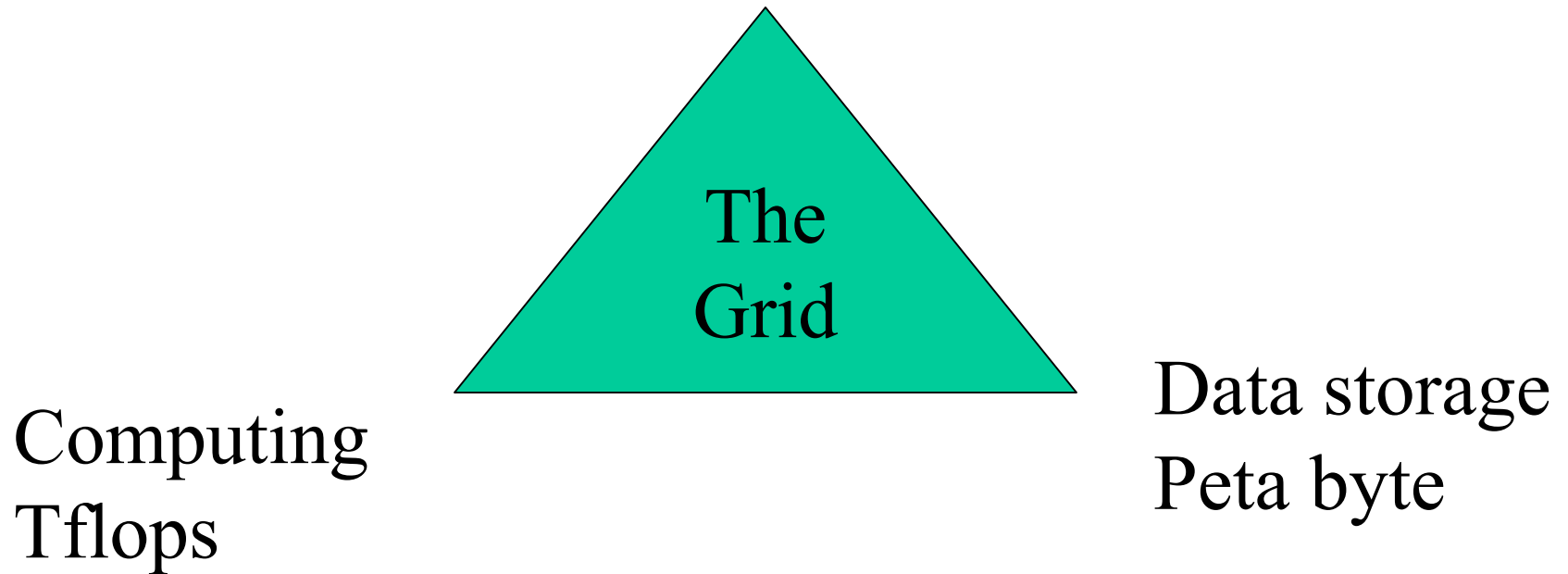
- What is the Grid?
- What are the main technologies?
- How does it work?
- What are the benefits?

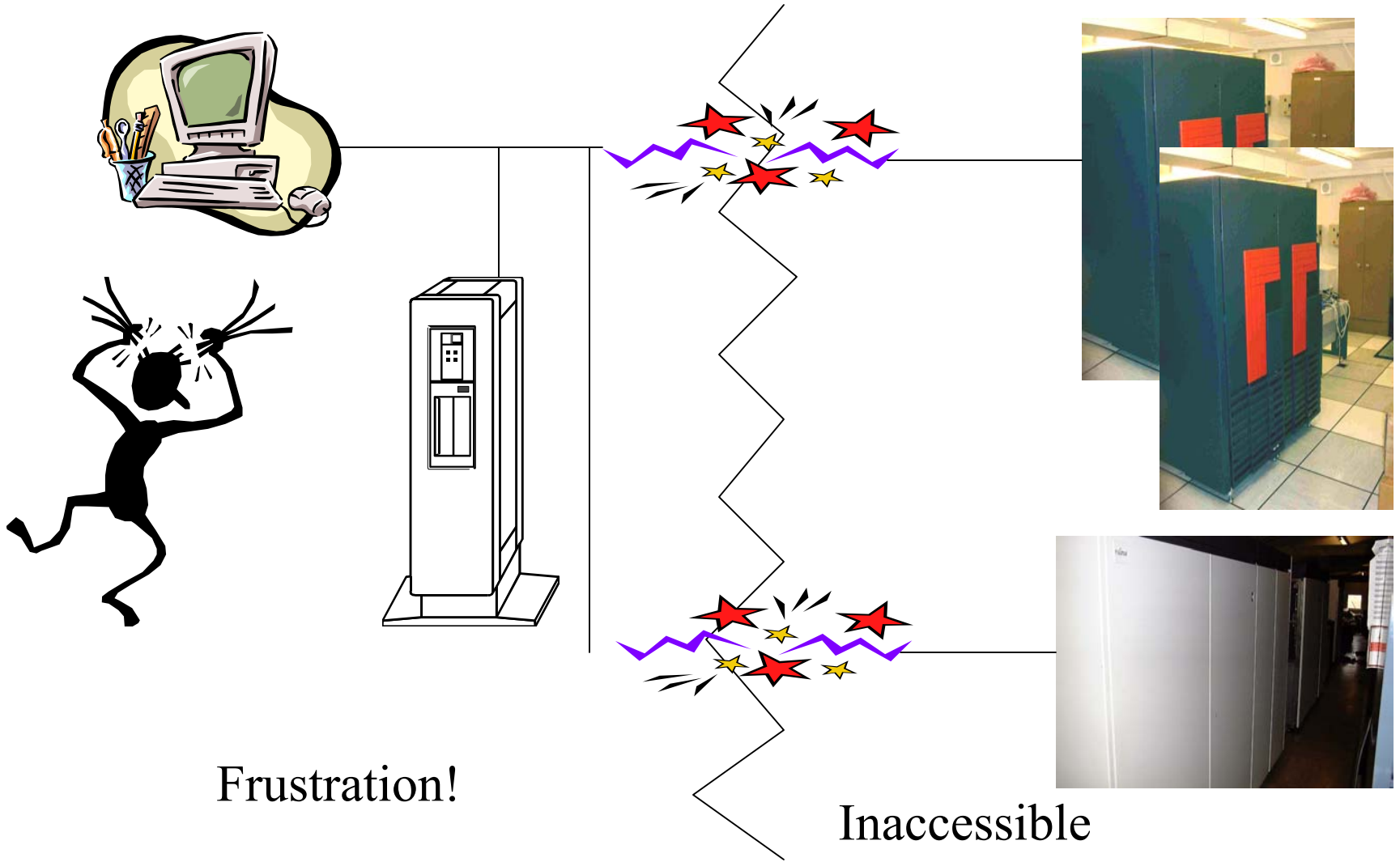
The Grid...

Making Computing Power and Storage
as ubiquitous as electricity



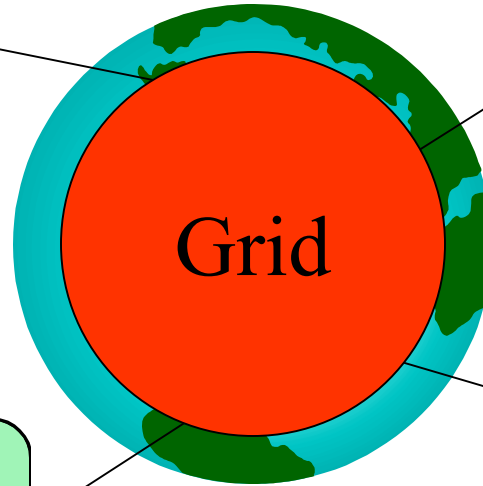
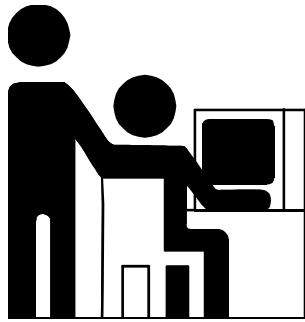
Networks – High Bandwidth





Frustration!

Inaccessible resources

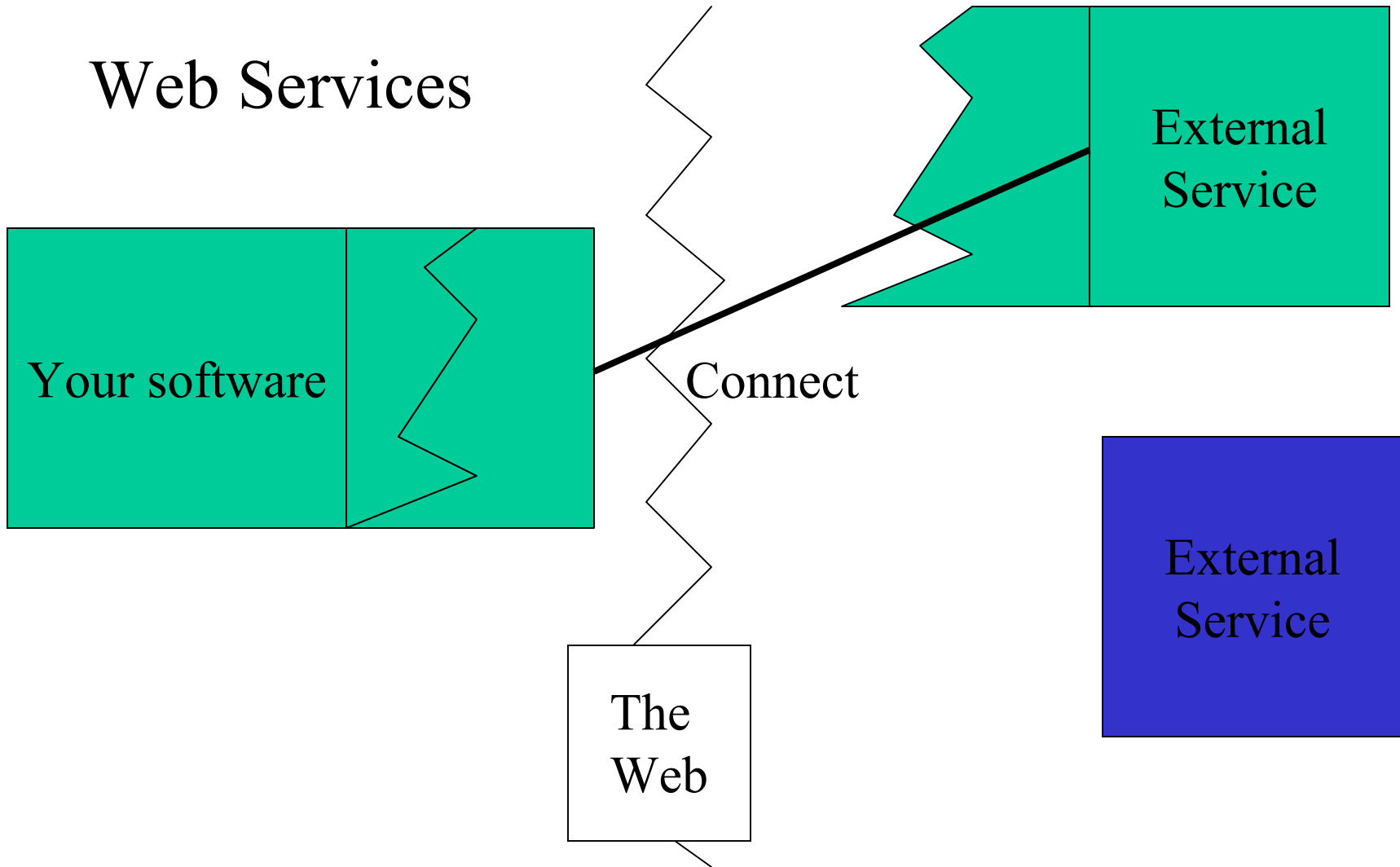


Virtual Organisations

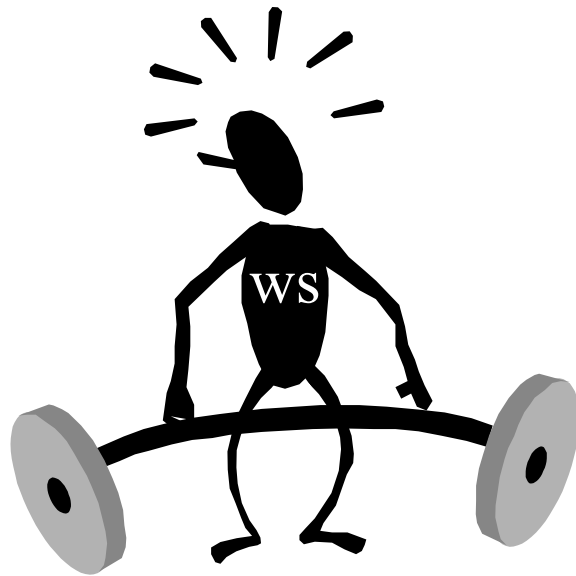
Main technologies

- Globus
 - open source project
 - Developed in the US
 - Adopted by UK e-Science projects
- Vendors
 - Sun
 - IBM
 - HP

Web Services



Web Services



Web service are OK but...

They can only run on the computer
Where they are put.

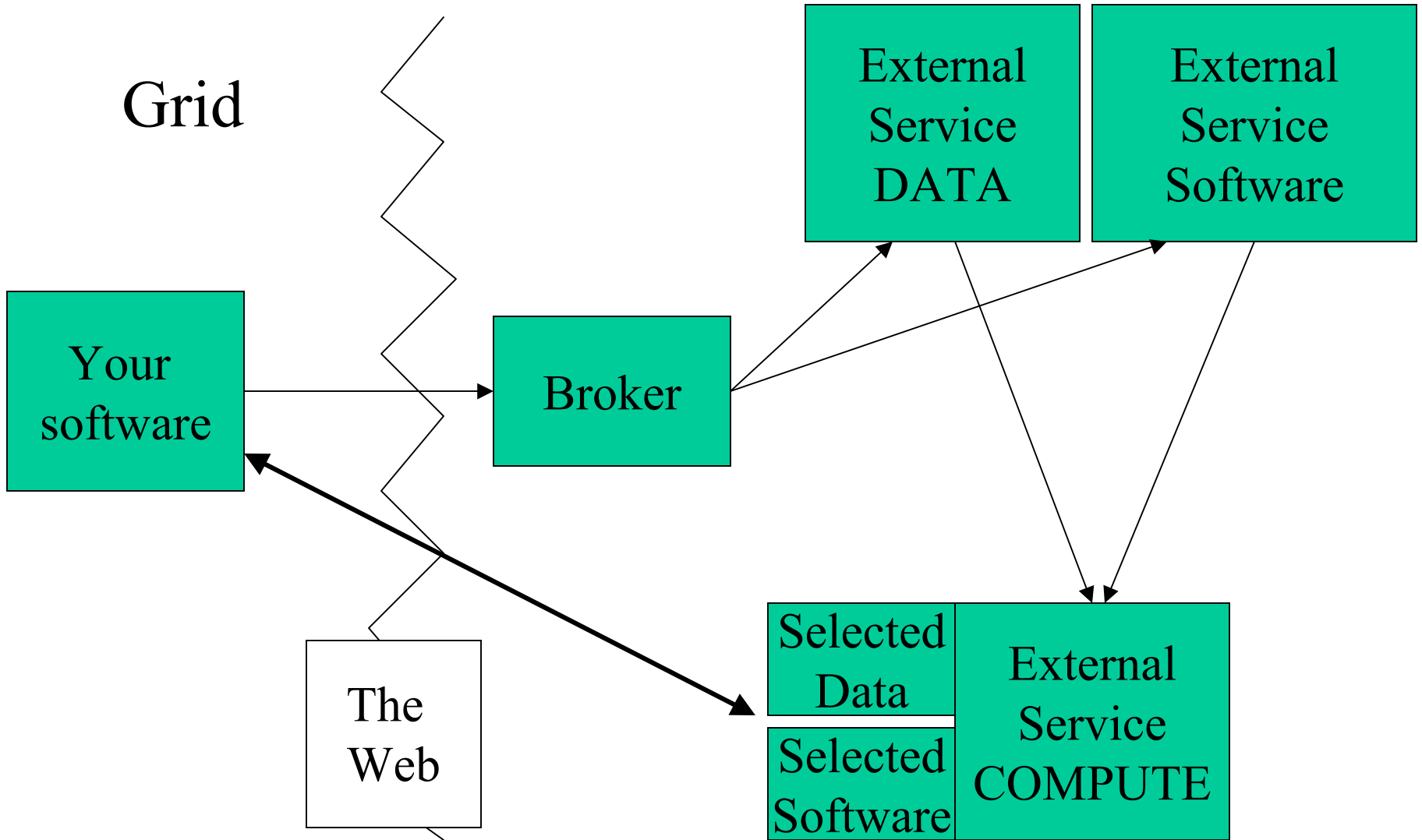
The computer or data
availability may not be fit for the task.

Grid Services



Web services on
Steroids!

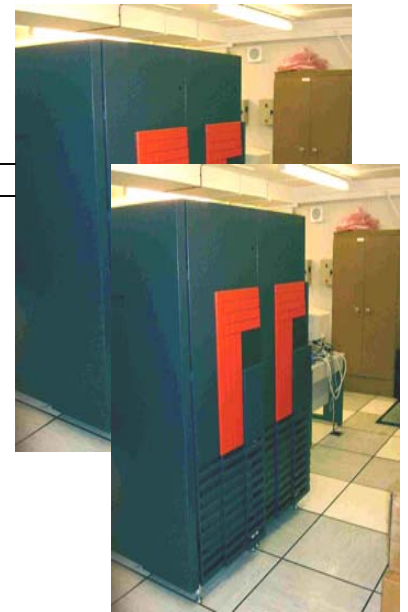
They go anywhere!
Take on any task!





Happiness!

Globus



Accessible
resources

Over-all benefits

- High performance on demand – peak load management
 - Access to ‘on-demand’ data and compute.
 - No need to have large capacity on site
- Others manage the capacity for you

Over-all benefits

- High reliability – distributed compute backup
- More flexible business model – re-locatable web services
 - Allows a new services economy

Over-all benefits

- Collaborative working
 - Distributed people, data and computing.