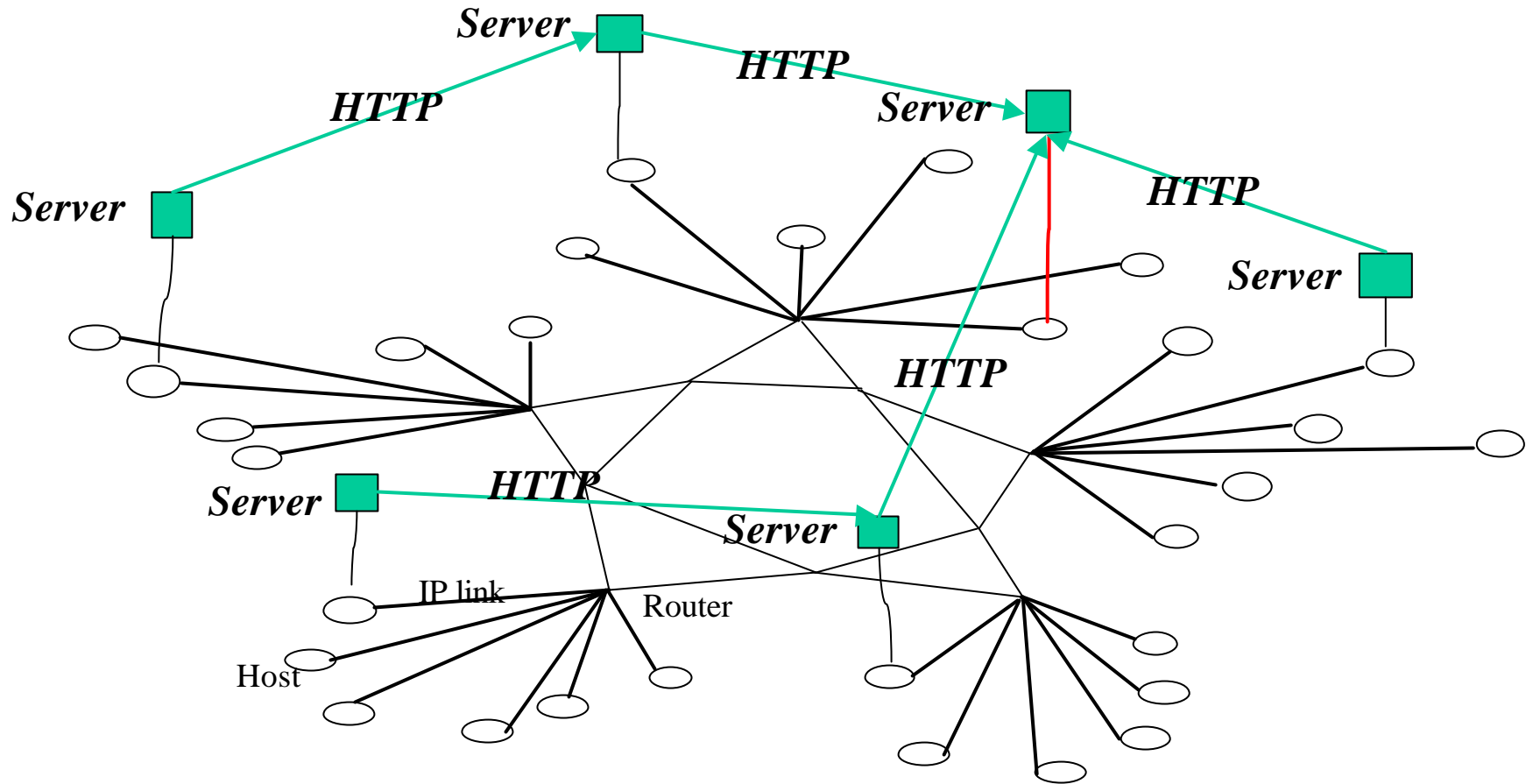


Application Layer Network



Application Layer Network

Nodes:
Application Server

Links:
TCP Virtual Circuits

Web Proxy Caching Hyrarchy

Squid Server

Parent-Child link.

Chat Server Network

IRC server

channel distribution link.

Mapping ALN on a Grid (example)

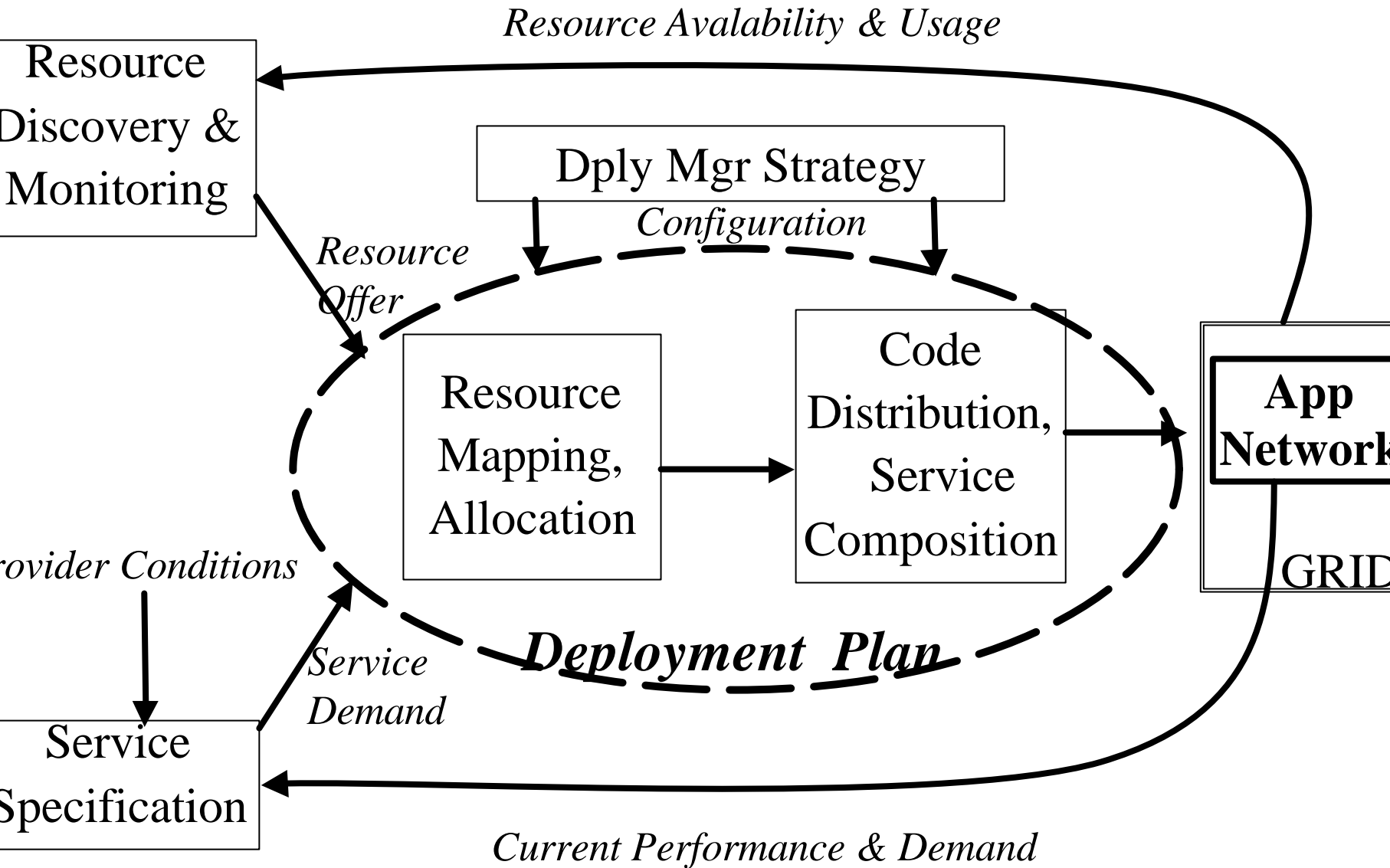
Application Network Per Node Requirements:

- Linux Execution Environment,
- Pentium IV,
- 200 Mbytes Storage,
- 5 Mbits Inet Connectivity

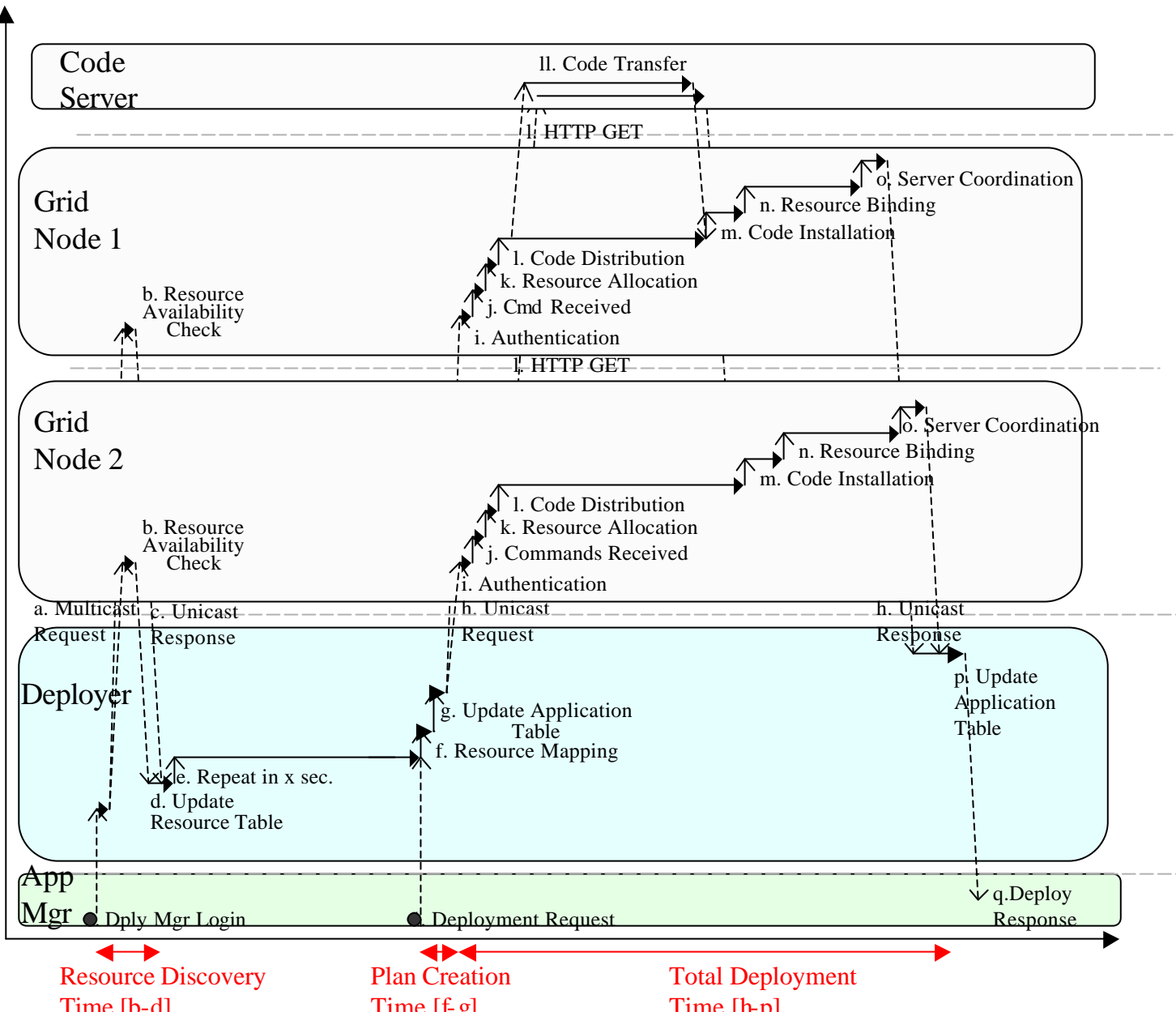
Application Network Constraints:

- < 2 Inet hops from demand regions.
- Demand regions #AS 122,1432,.....
- Dynamic demand: 1 new client per second.

XWeb Framework



XWeb Prototype Evaluation



Discussion and Current Work

1. Code Distribution is larger deployment time overhead.
 - *Use caching and replication techniques.*
2. Resource mapping algorithms are complex
 - *Scalability to be measured.*
3. Server bandwidth local allocators.
 - *To be implemented.*
4. Apache spawns several processes
 - *Investigate if Globus can control several processes.*
5. Apache server migration while serving requests.
6. Redirector Server and Interactive Applications Deployment