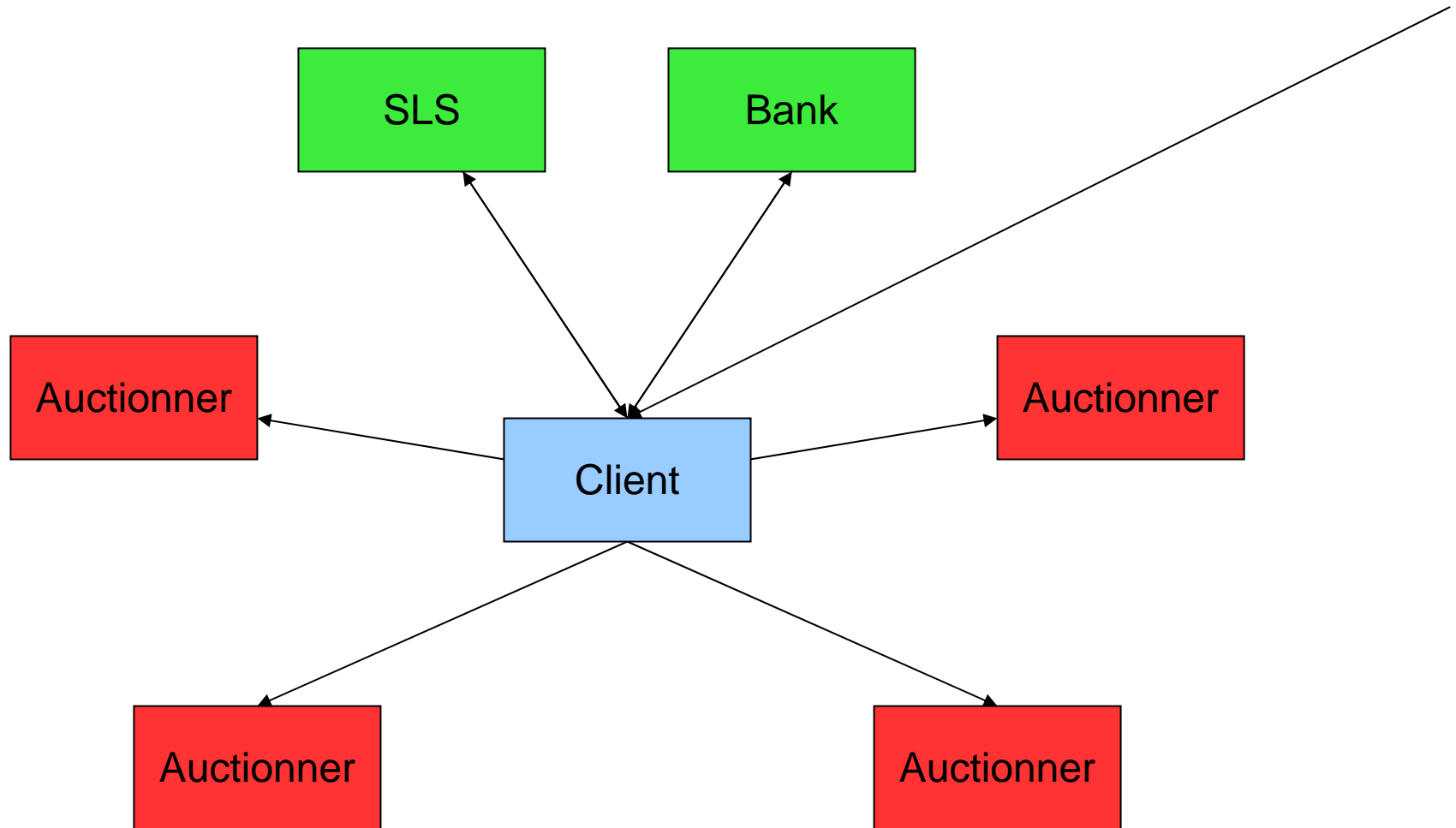


Tycoon market-based system: integration with EGEE

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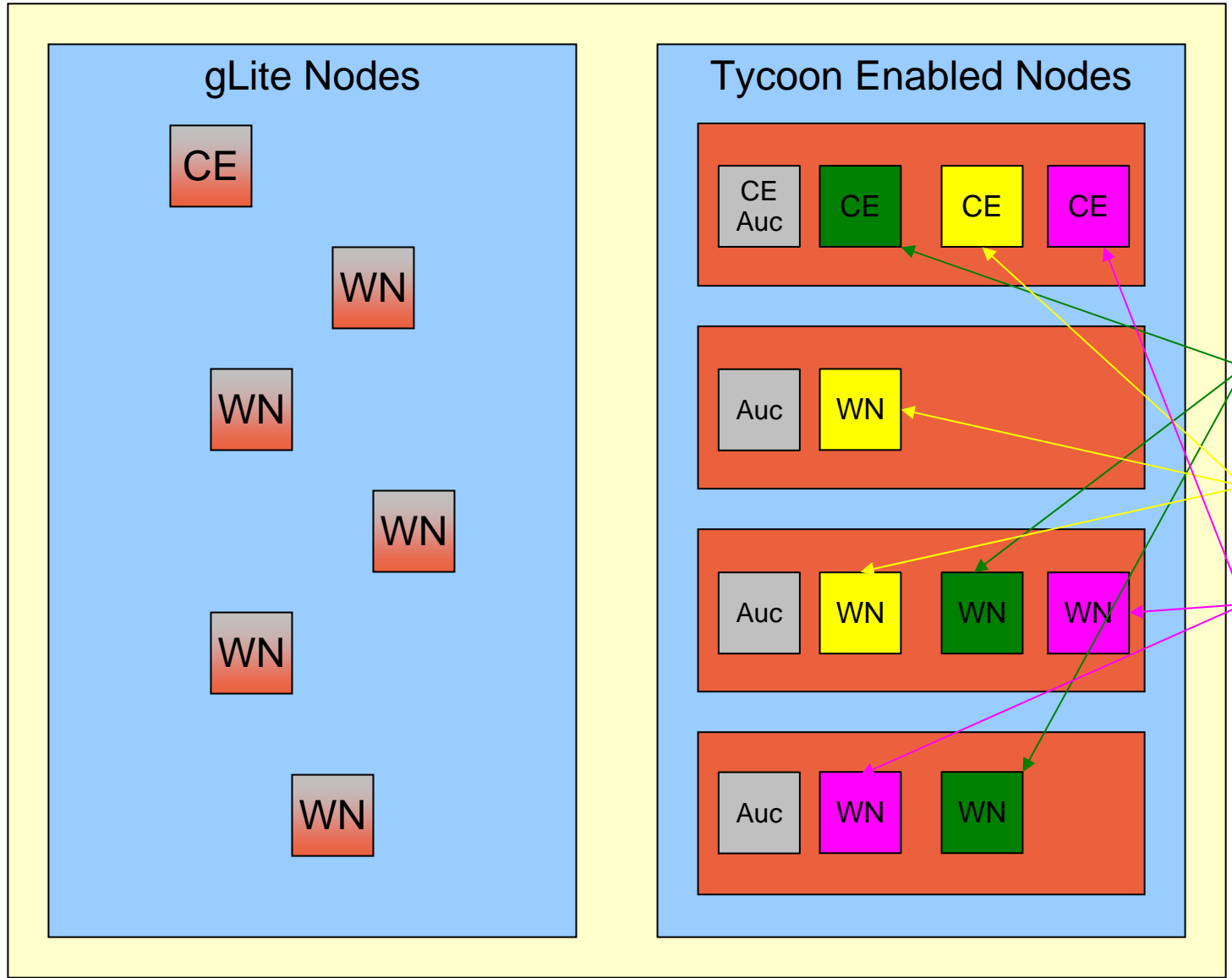
EGEE User Forum 2007, Manchester (UK)

- **Research prototype developed by HP Labs, Palo Alto**
- **Distributed market-based resource allocation system**
- **With fine-grain Pay-per-use**
- **Based on virtualization (Xen)**
 - Flexibility
 - Security



- **Tycoon proposes a new way to understand and organize the trade of resources**
- **EGEE II has more than 160 sites (the largest Grid)**
- **Small and medium VOs could be attracted by EGEE providing Tycoon based services**
- **Large non-partners could trade resources**
- **We could have a controlled market-based system inside our Grid, helping us to share resources more efficiently**

- **NorduGrid (ARC) and BalticGrid (gLite) are using Tycoon in their Grids**
- **We're studying the proposal of BalticGrid for Tycoon integration**
- **Very special thanks to Per Oster (KTH), Amir H. Payberah (KTH), Lars Rasmusson (SICS) and Niklas Wirstrom (SICS) for their support**



- **“Easy” to implement**
- **Unmodified gLite**
- **Dynamic and secure system useful to trade resources**
- **Fully transparent for Grid users**

- **Virtual clusters are created on VO level**
- **VO agent has no information on the priority of individual jobs**
- **All the nodes of a virtual cluster have to be in the same LAN (for easier communication between CE and WNs and between different WNs)**
- **CEs must have public IP addresses**

- **Tycoon must allow ordinary gLite clusters to coexist on the same site**
- **Tycoon must be compatible with an EGEE certified operating system (SLC3/SLC4)**
- **Only users belonging to the VO to which the CE belongs, are allowed to submit jobs to that CE**
- **The system must be implemented using existing components from both Tycoon and gLite software**
- **The security of the overall system must not be weakened**

- **We both are about in the same stage and joining efforts**
- **Working in a new Tycoon-gLite implementation (compatible with latest Bank and SLS provided by HP Labs)**
- **Merging our environments creating a “tycoonized” EGEE-BalticGrid site**
- **Preparing scalability and security tests**

- **Tycoon integration with EGEE could improve both platforms**
- **The proposed architecture is easy to implement**
- **It's fully-transparent for normal users**
- **It could help us to share and trade resources more efficiently**

- <http://tycoon.hpl.hp.com>
- <http://groups.google.com/group/Tycoon-Users/>
- <http://groups.google.com/group/Tycoon-Developers/>
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Q & A

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