

OGF23 参加報告

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セッション名	Grid Network Interface (GNI) BOF
目的	グリッドとネットワークの基盤を相互運用するための推奨と標準的な機能の策定をするWGの設置について討議する
結論	BOFセッションでの討議により、1つのワーキンググループを設置することに合意。

Grid Network Interface (GNI) and DMNR difference and similarity

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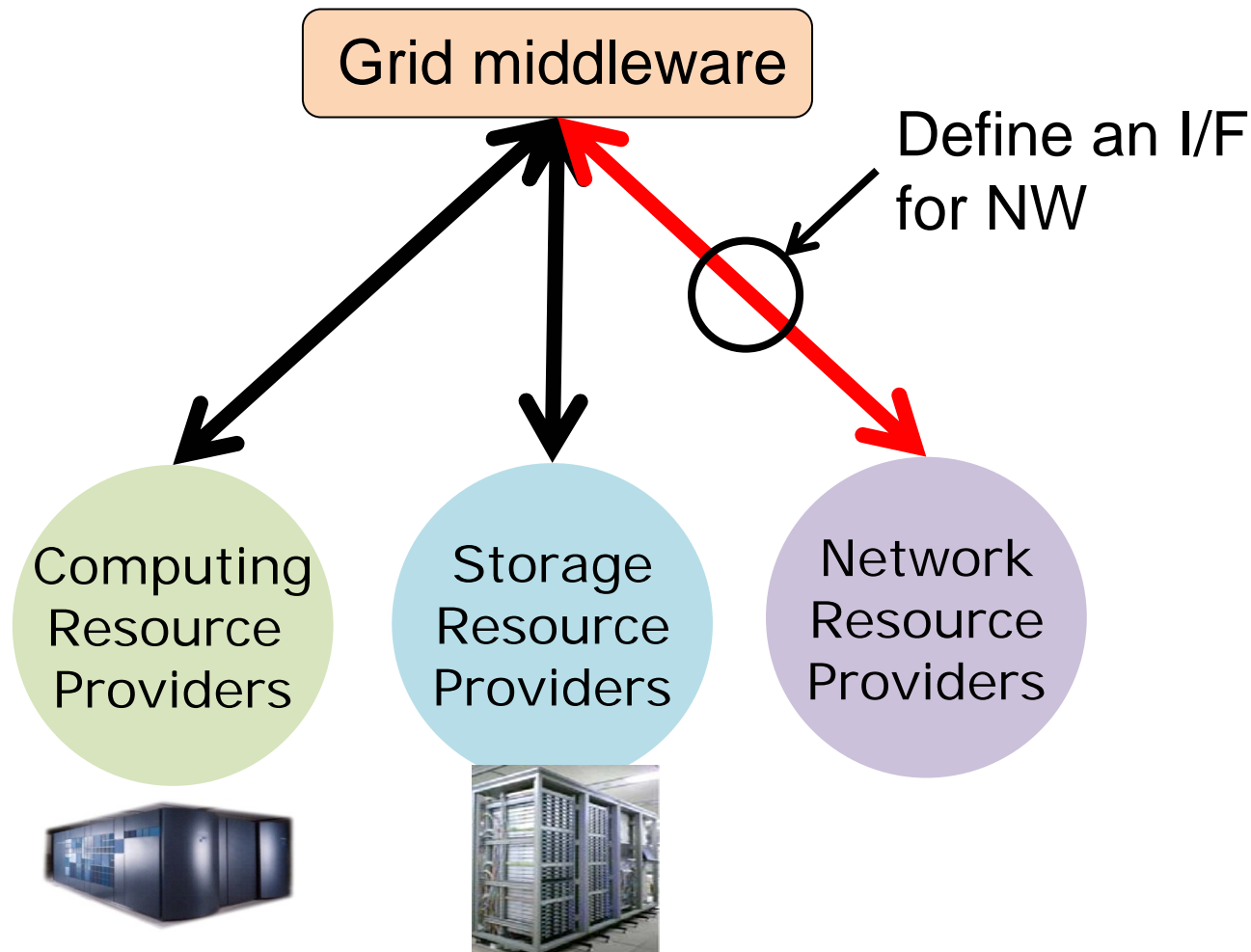
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Grid Network Interface: Scope

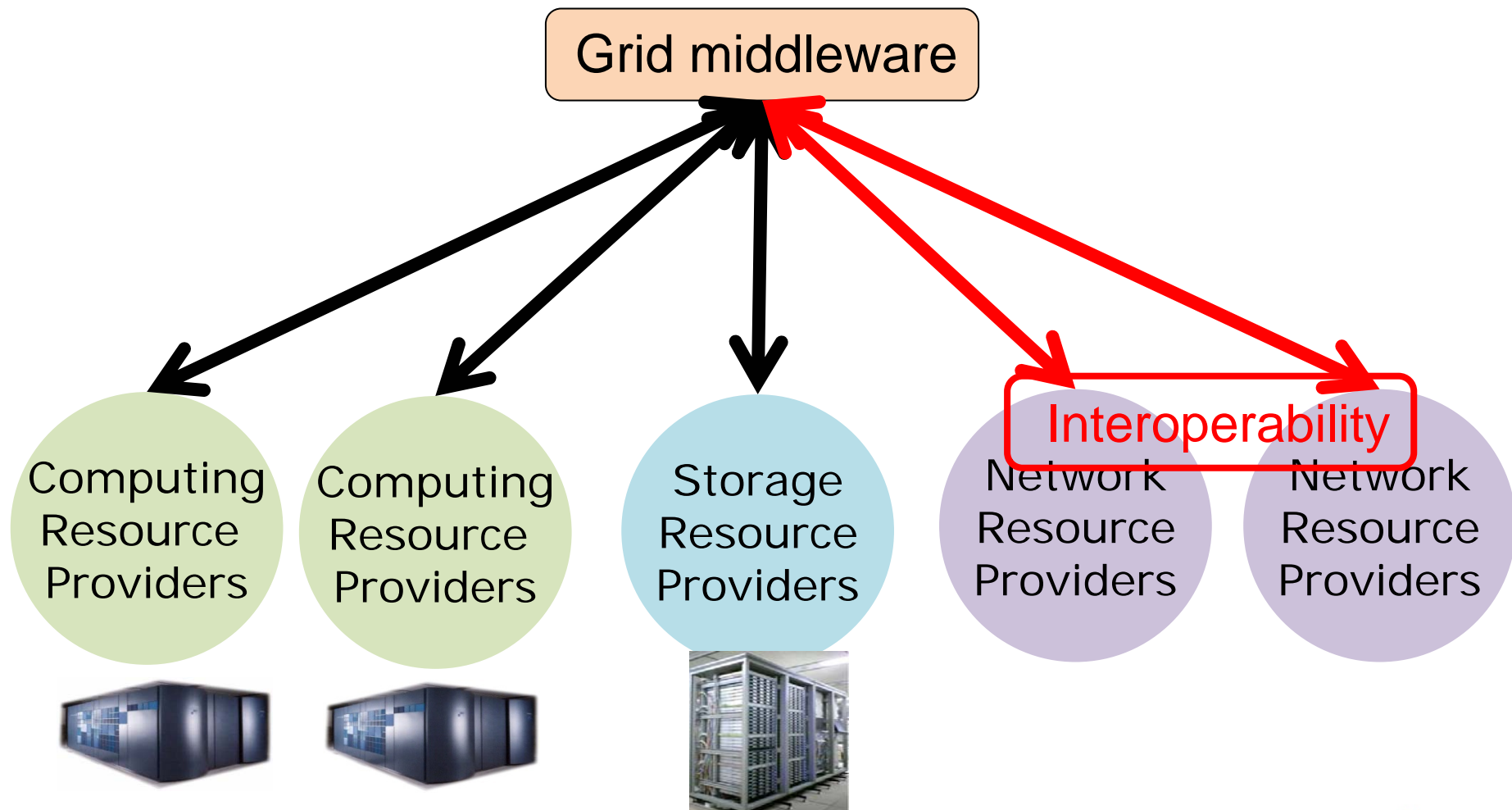


- Facilitate *interoperation* between **Grid** and **Network** infrastructures *via the recommendation and creation of standard functionalities and procedures.*
- Define the set, type and level of *information transaction* between Grid-Network interaction.
- Provide a *general and open definition* **independent from any implementation of provisioning system** (e.g. Grid and network).

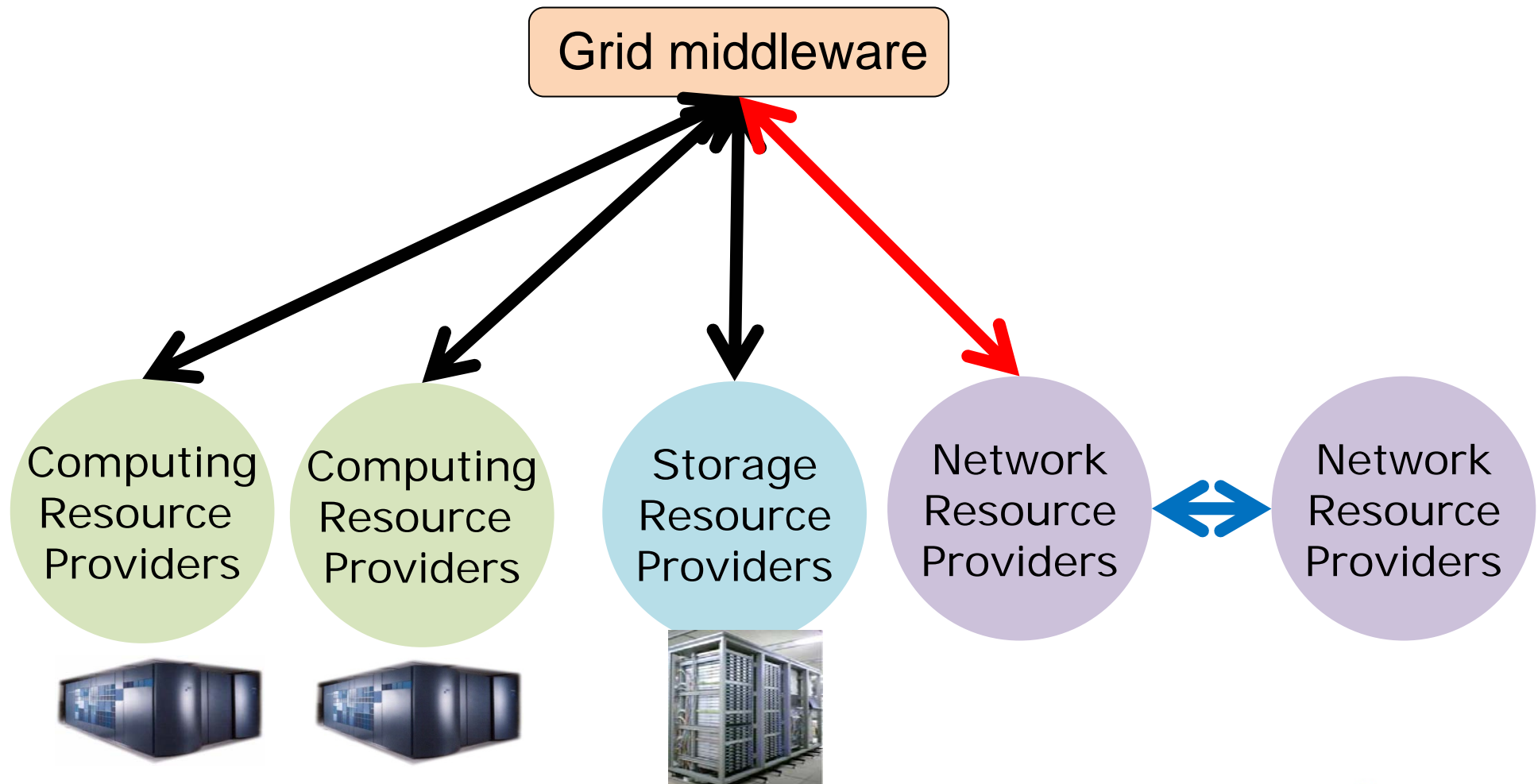
G-lambda first motivation towards GNI: NW resource provisioning service for middleware



Extension to support multiple domains: model 1

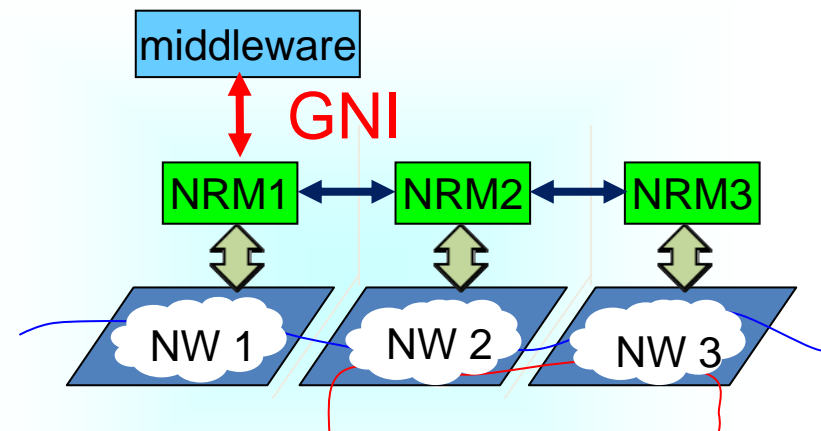
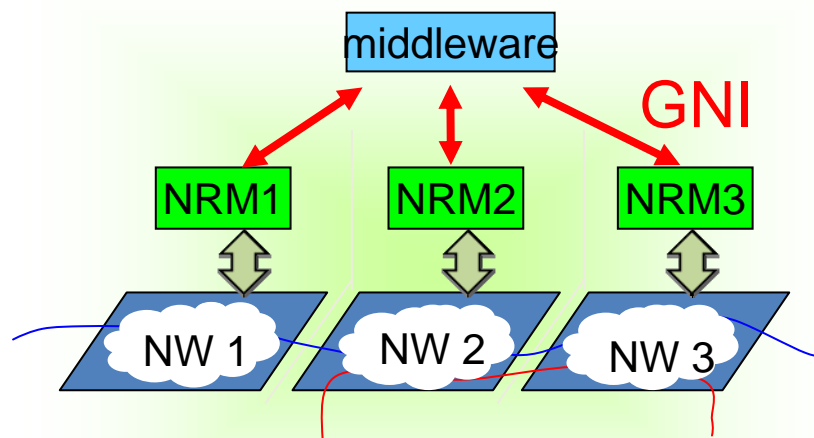


Extension to support multiple domains: model 2

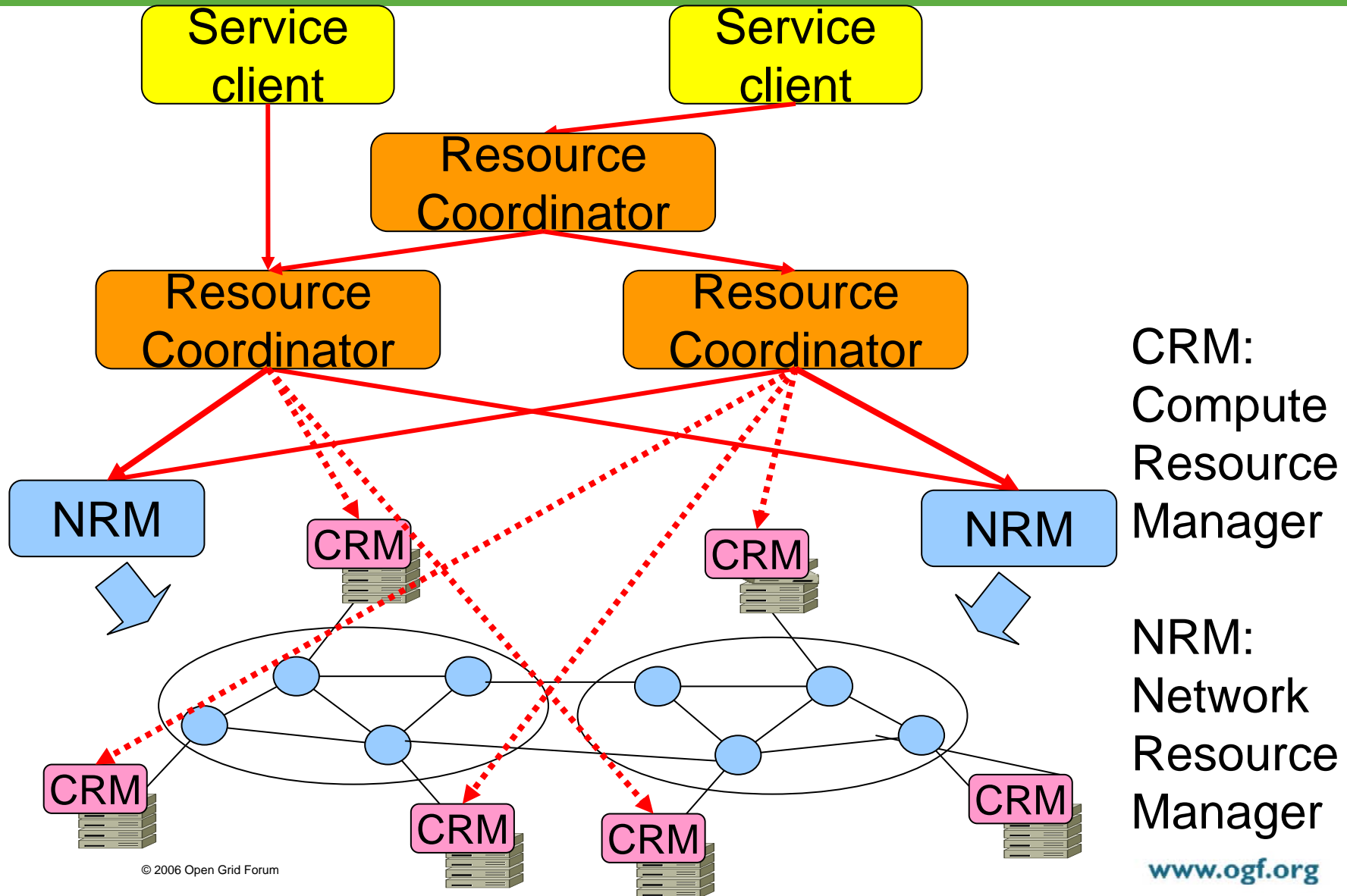


Inter-domain paths support by GNI

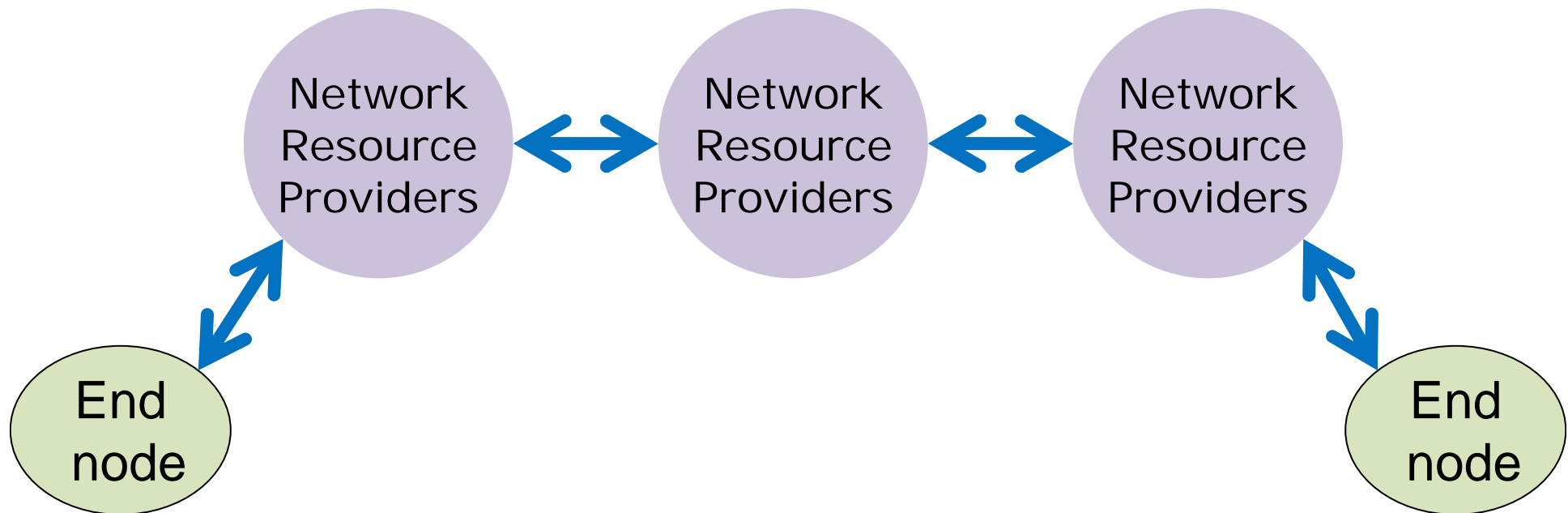
- Middleware to Network Interface is GNI
- GNI can be extended/applied on a Network-Network interaction.



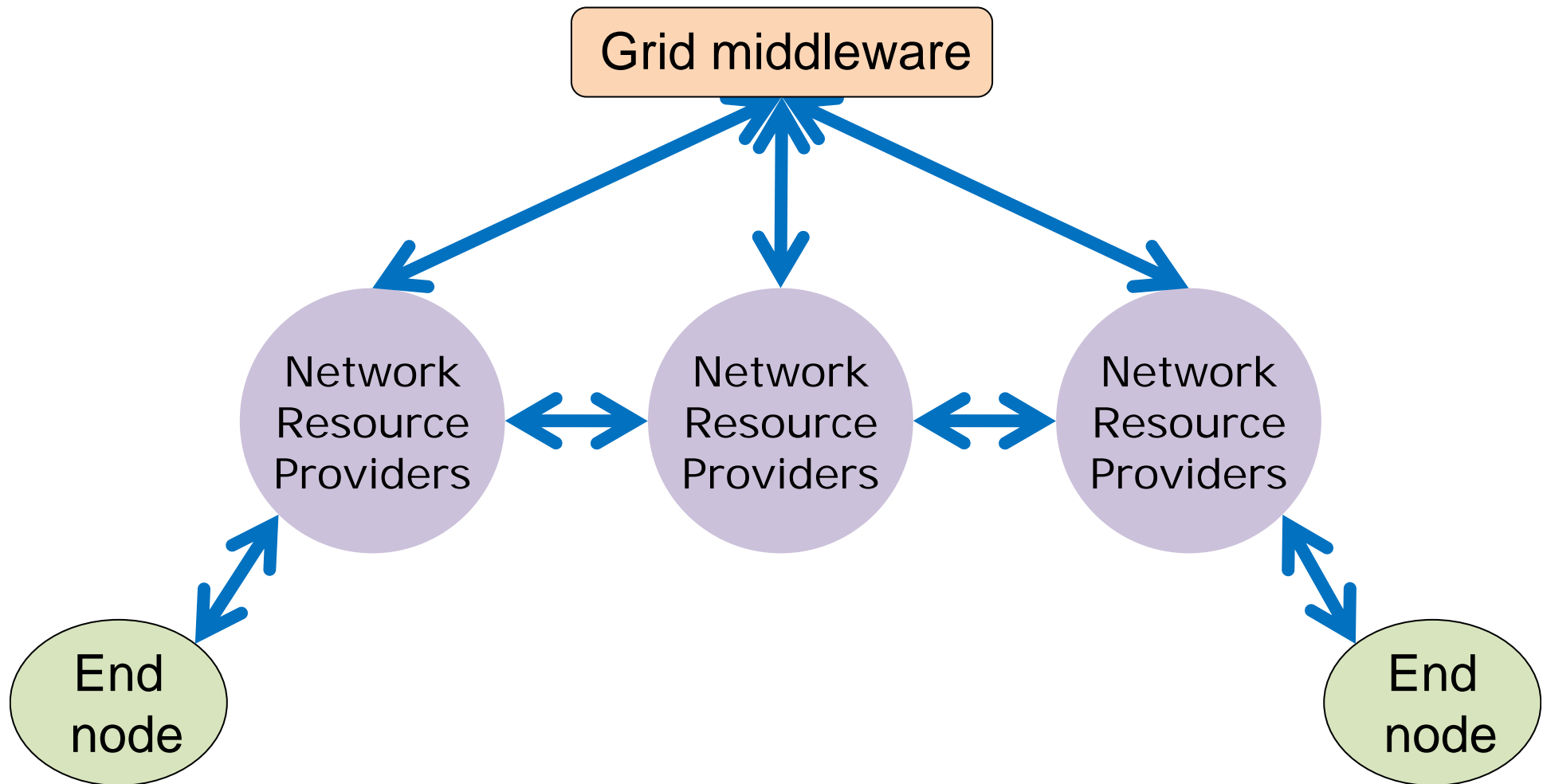
Generalized model



Web-services based NW interoperation: first motivation



Extension to provide provisioning service to Grid middleware

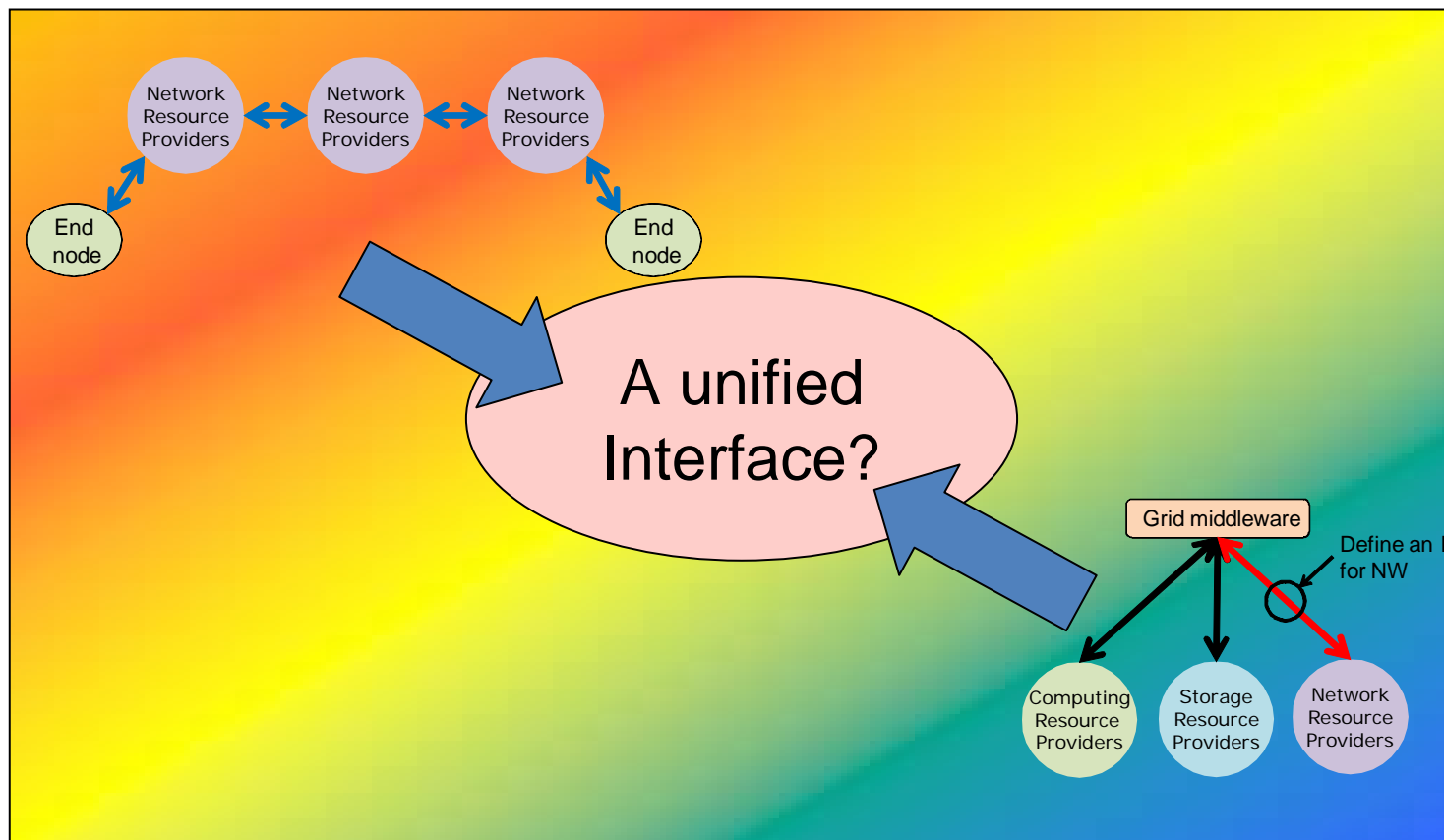


Can we use a single interface for the both purposes?

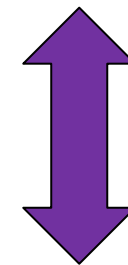
Interoperability among NW domains



Unified service incl. NW, Computer, etc.



Research Networks



Commercial Service

Design choices / Difference



- **Initial Motivation:** Network as a Grid Resource / Inter-domain network interoperability
- **Supported resources:** Unified service for all resources (computers, storages) / Network only
- **Dependence on control plane protocol:** Independent / Close relationship to CP protocol such as GMPLS?
- **Initiator of a request:** Upper layer software component / End node
- **Assumed Providers:** Commercial service (policy, accounting, hidden topology etc.) / Research network