



StateNets and RONS: Bringing the big pipes to your doorstep

George Laskaris

New Jersey's Research & Education Network



Three-Tier Network Model

- Campus ↔ Regional ↔ National
- Regional Networks are the middle tier and bridge of the Three-Tier Model
- There is a critical role to be performed between a national net and a campus
- Highlighting this role will be a major focus of this morning's session



Important migration to Regional Optical Networks (RONs)

- Now providing sufficient bandwidth to support new classes of end-to-end service
 - Ultra- broadband last mile connectivity
 - Connectors/Gigapops delivering unlimited bandwidth in a cost effective manner, and
 - Providing more value added services such as peering and dynamic waves



Performance Strides in the Regional Tier are making new applications possible

- Large-scale network attached storage/DR
- Video-on-demand content repositories
- Centrally hosted course management
 - Sakai, Moodle, Blackboard, WebCT
- Shared GRIDS and research repositories
- Federated identity management

REGIONAL NETWORKS

LEARNING CENTERED APPLICATIONS

instructional & curricular integration
digital libraries, CMS & simulations

SUPPORT

training, consulting, technical assistance
faculty development, community building

SHARED SERVICES

layer-3 data services, videoconferencing, voice,
online digital resources, shared library systems
middleware, quality of service, metadata tools

TRANSPORT

campus/school access; state/regional network backbone
aggregation, Internet services, national network connector