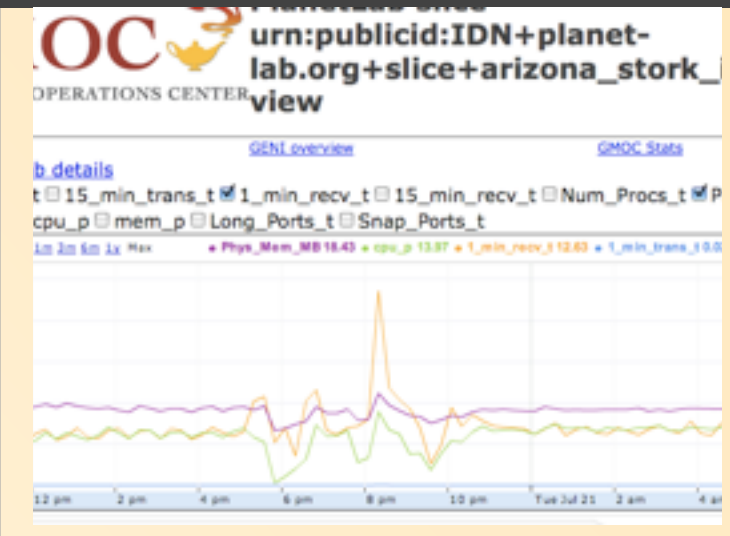
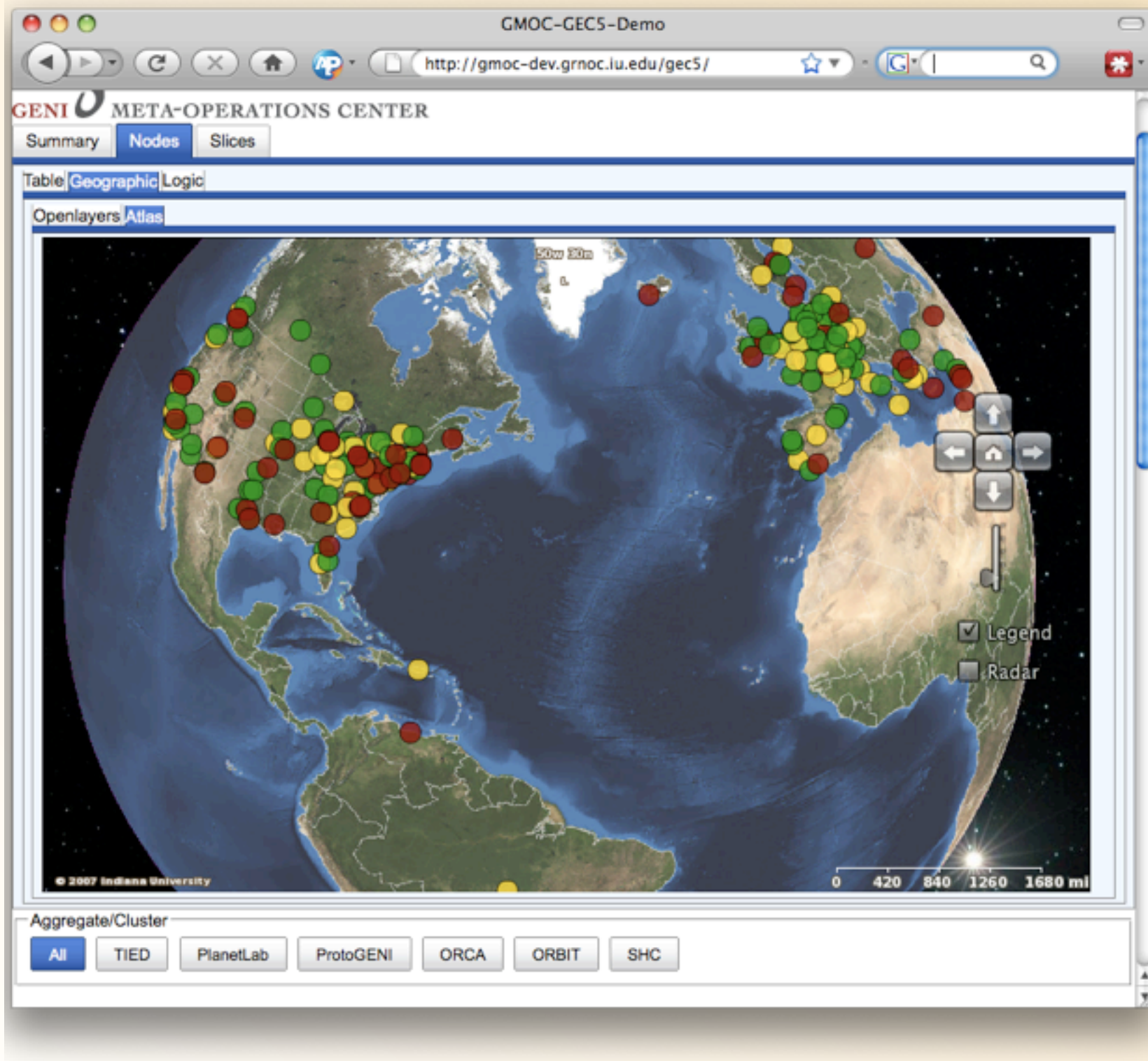


GMOC Update

GEC5: OMIS WG Meeting
Seattle, WA
July 21, 2009

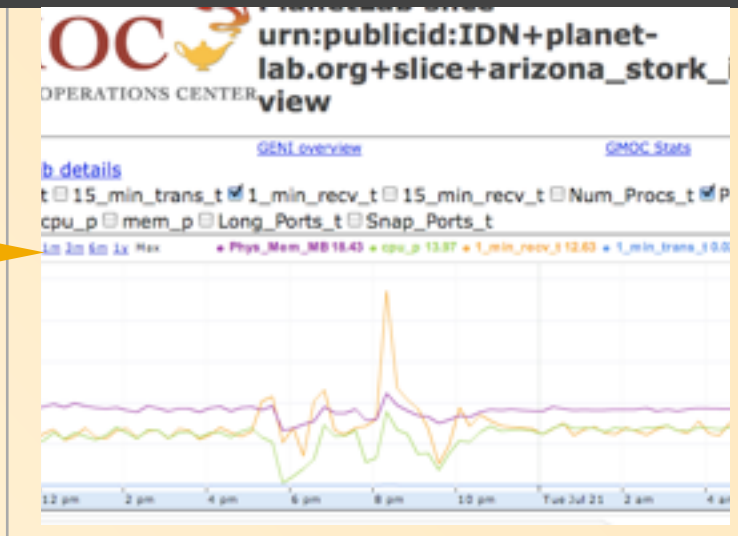
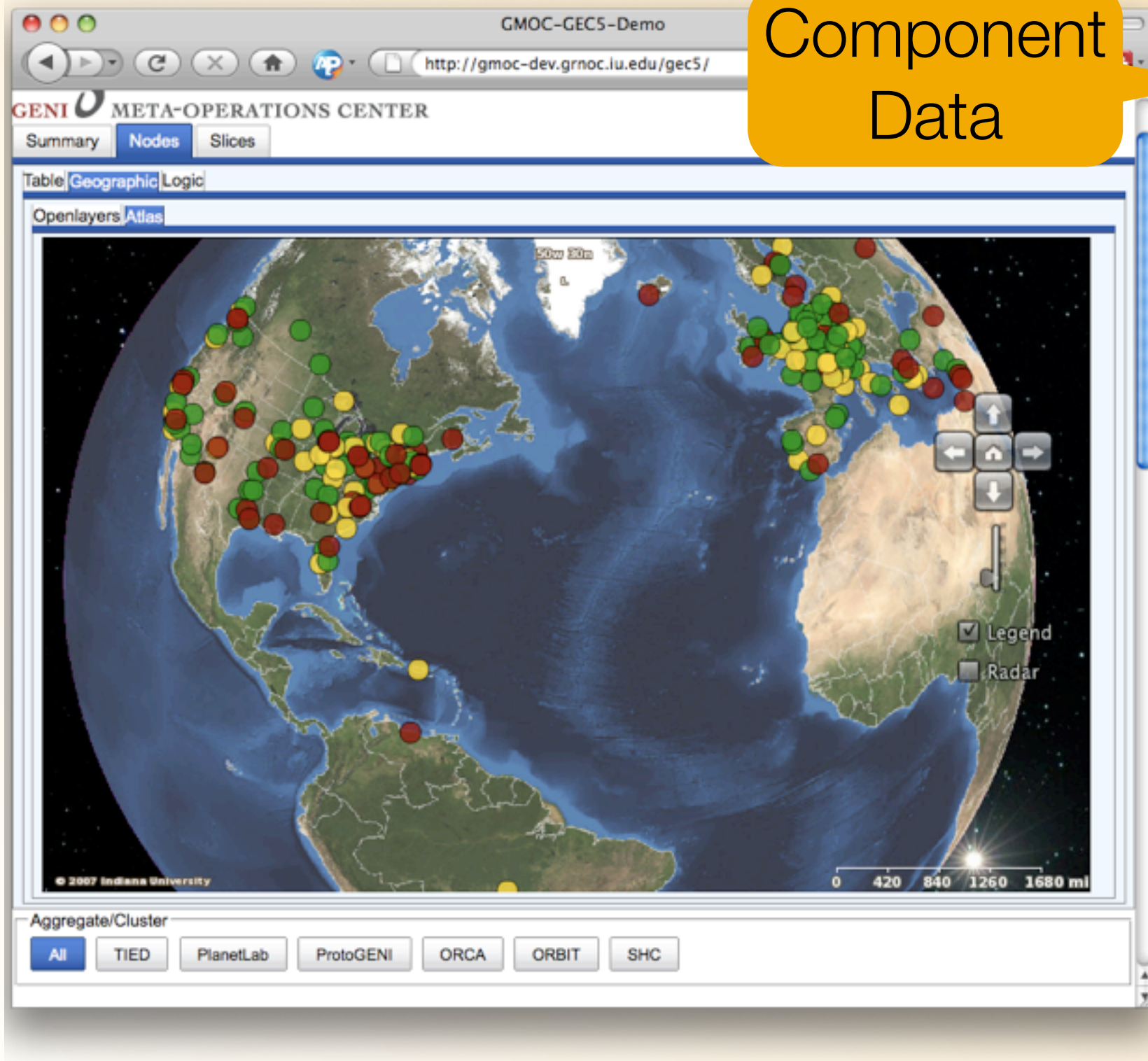


Prototype: GENI Operational Data View

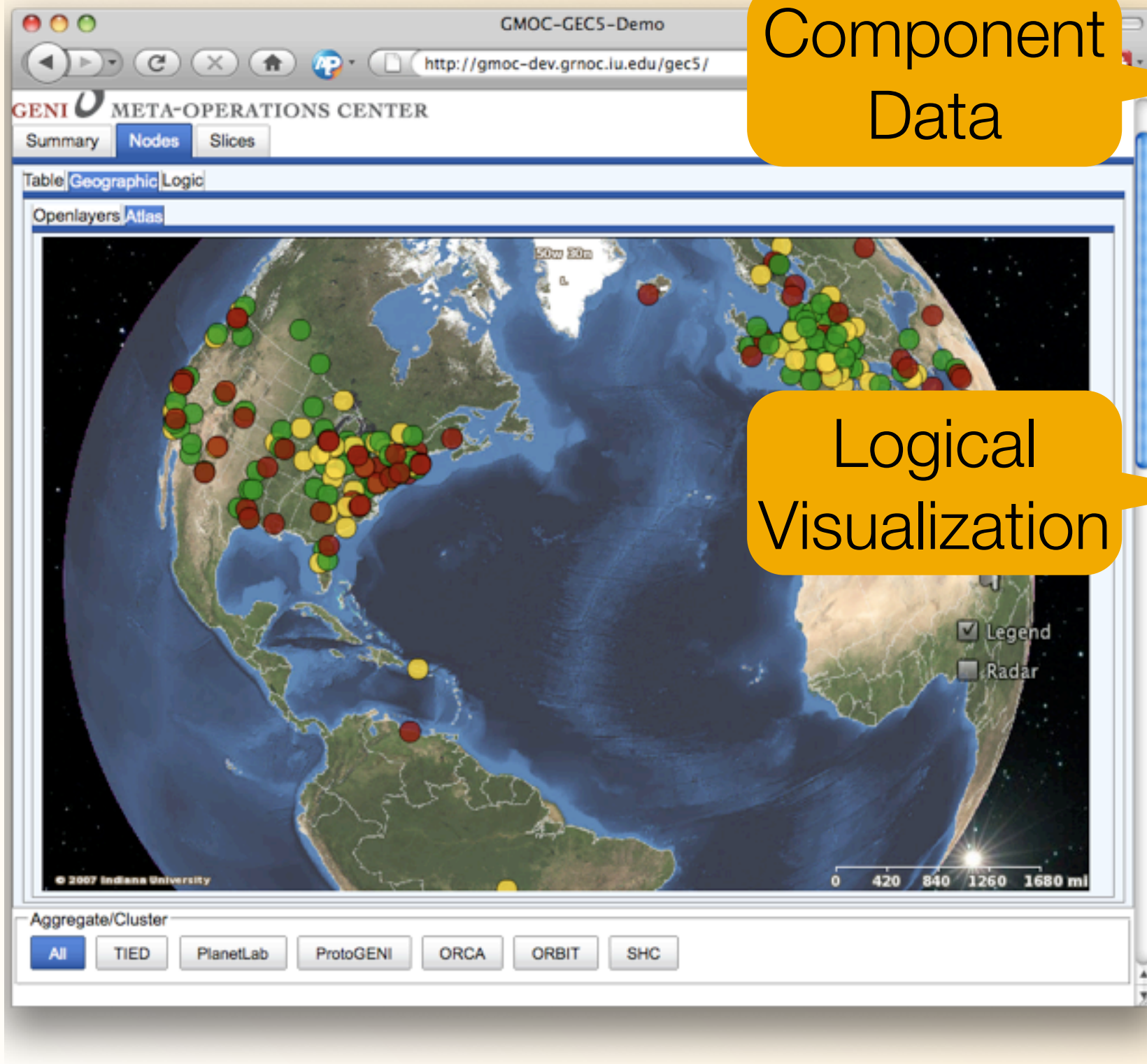


Prototype: GENI Operational Data View

Component Data

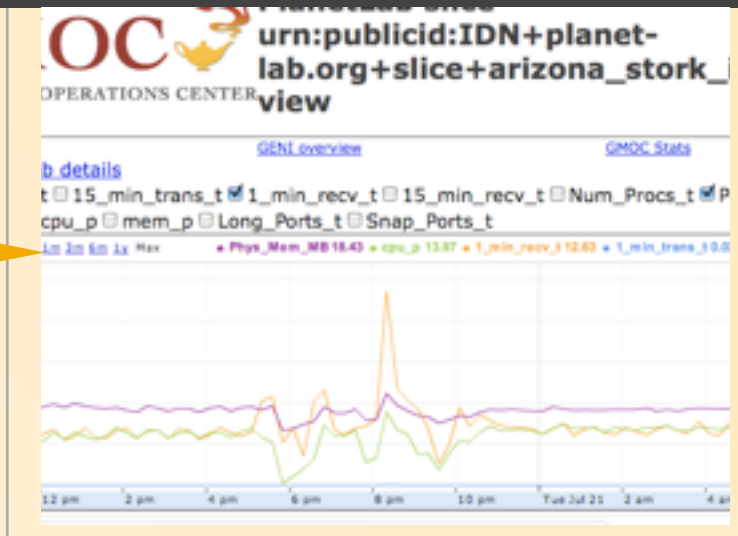


Prototype: GENI Operational Data View

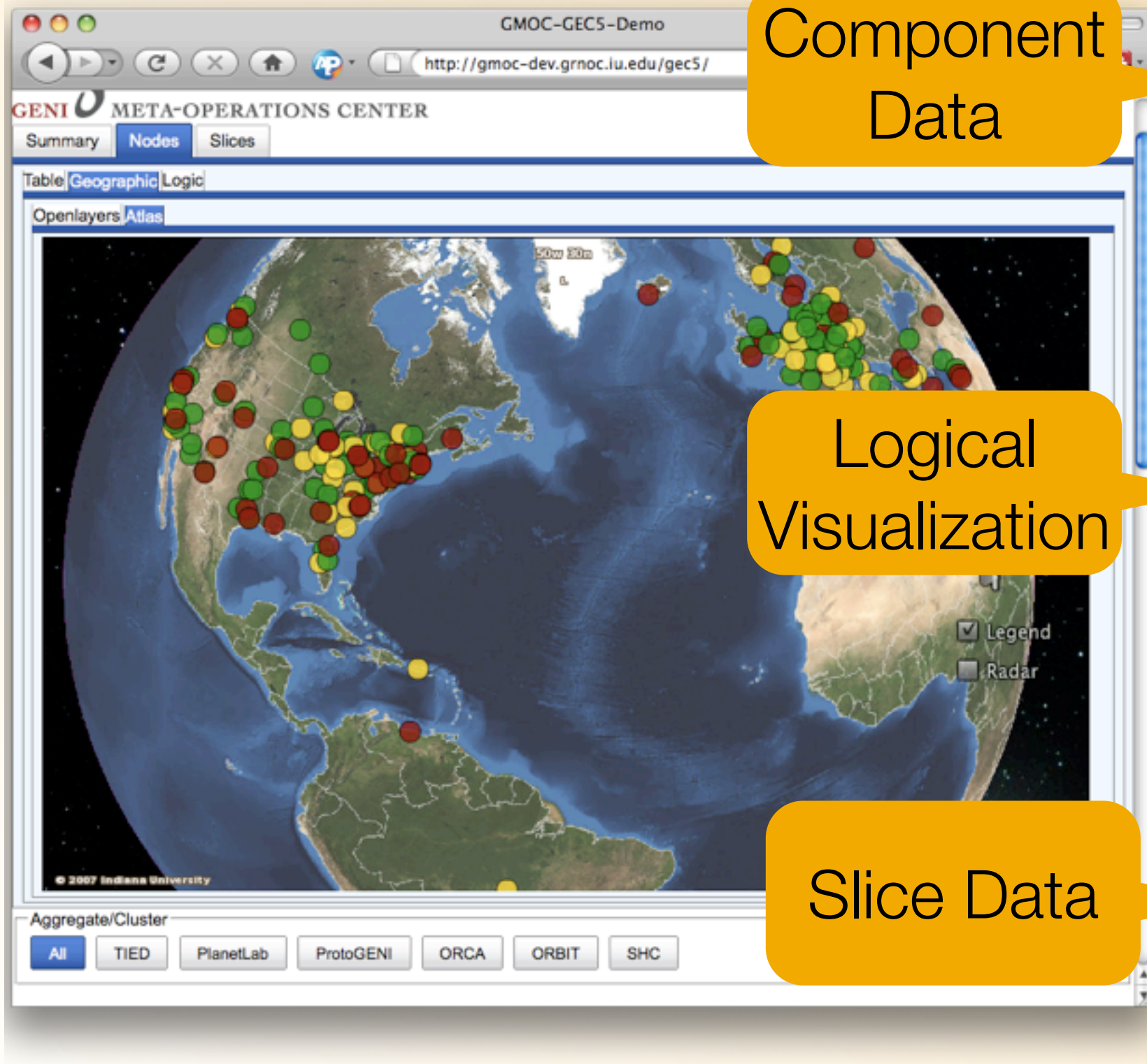


Component Data

Logical Visualization



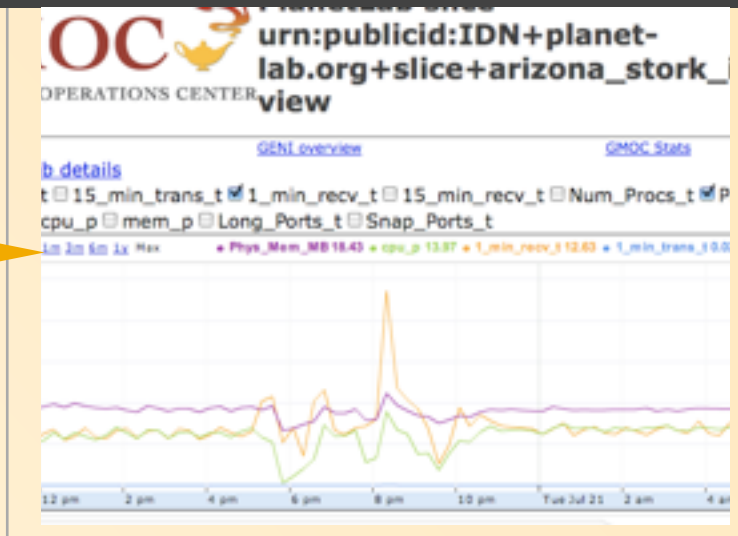
Prototype: GENI Operational Data View



Component Data

Logical Visualization

Slice Data



Operational Data Gathering Strategy So Far

- Working with Control Frameworks
 - Gathering data about other cluster participants via Control Frameworks
 - e.g. Gather MAX data via PlanetLab
- Avoid having 29 separate projects to collect data
- Possibly avoid extra effort for each project to provide data, if existing systems can be used

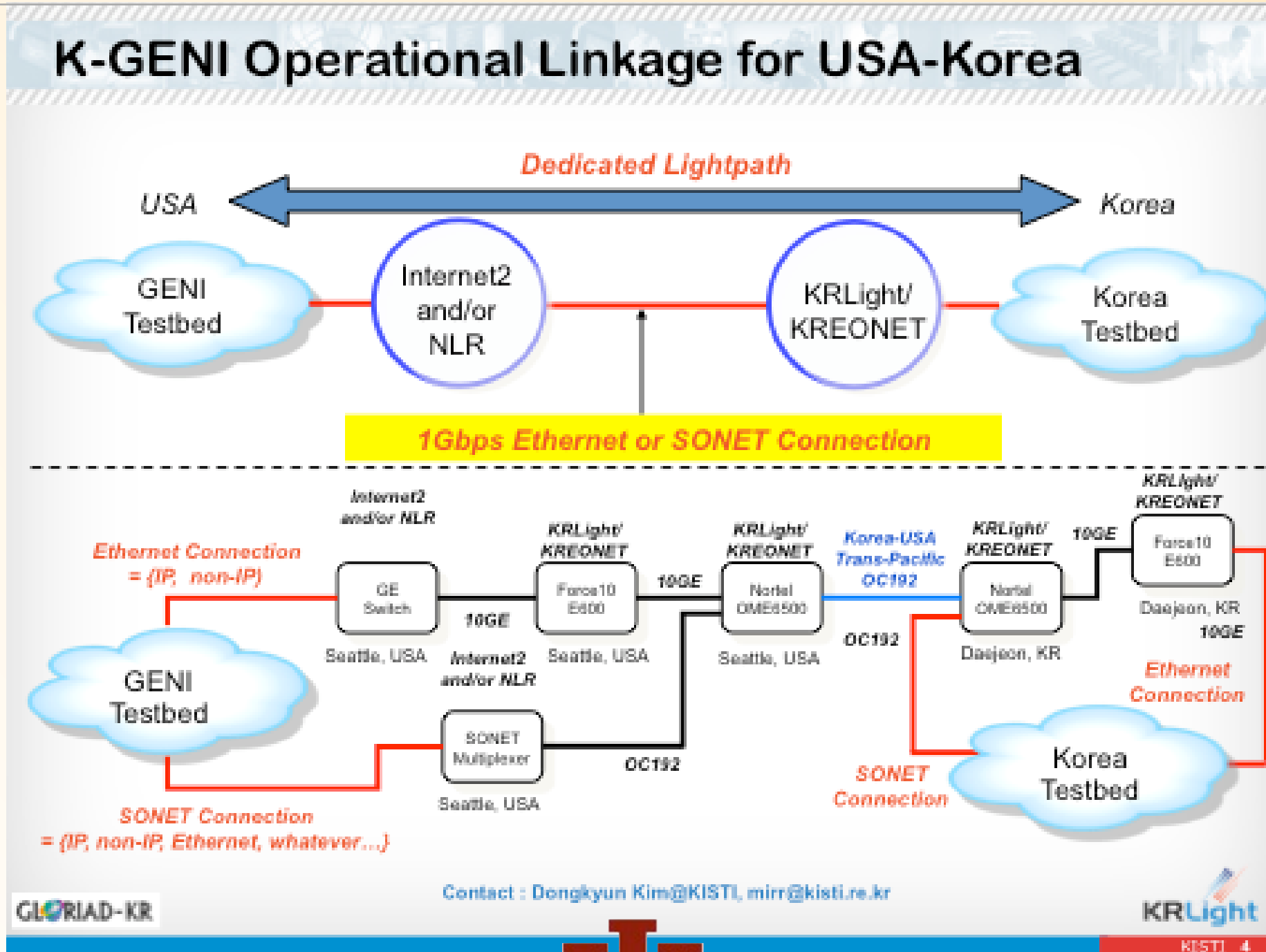


Operational Data Gathering Strategy - Future

- Instead of dividing by control framework, divide by type
- Work first with small set of examples of individual types of projects
- types:
 - control framework(s)
 - network infrastructure
 - wireless
 - sensors
 - server nodes
- projects should be:
 - *interesting*
 - *interested*
 - have low threshold to share



Solicitation 2: K-GENI ETRI/KISTI-GENI Collaboration



Solicitation 2: K-GENI ETRI/KISTI-GENI Collaboration

- Scope:
 - Investigate international operational sharing and federation strategies
 - Look into interoperability between GMOC and dvNOC
 - for example: should GMOC conform to dvNOC data formats? vice versa? maybe a international “broker” to translate between them?



Status of our gathering

Cluster	Project Name	Specialized Data			
		Operational Status	Utilization Measures	Condition Measures	Topology
A	TIED				
B	PlanetLab				
B	EnterpriseGENI				
B	GushProto				
B	ProvisioningService (Raven)				
B	Mid-Atlantic Crossroads				
B	GpENI				
B	Internet Scale Overlay Hosting				
C	ProtoGENI				
C	Dtunnels				
C	CMULab				
C	InstrumentationTools				
C	MeasurementSystem				
C	ProgrammableEdgeNode				
C	DigitalObjectRegistry				
C	MillionNodeGENI				
D	ORCA/BEN				
D	DOME				
D	ViSE				
D	KanseiSensorNet				
D	Embedded Real-Time Measurements				
E	ORBIT				
E	WiMAX				
?	RegionalOptIn				
All	GENIMetaOps				
All	GENISecurity				
All	GENIFourYearColleges				
All	Data Plane Measurements				
None	OpticalAccessNets				

Key	
	Actively Collected
	Partially Collected
	Never to be collected
	Planned for future
	Unknown
	N/A

Emergency Shutdown - An Idea

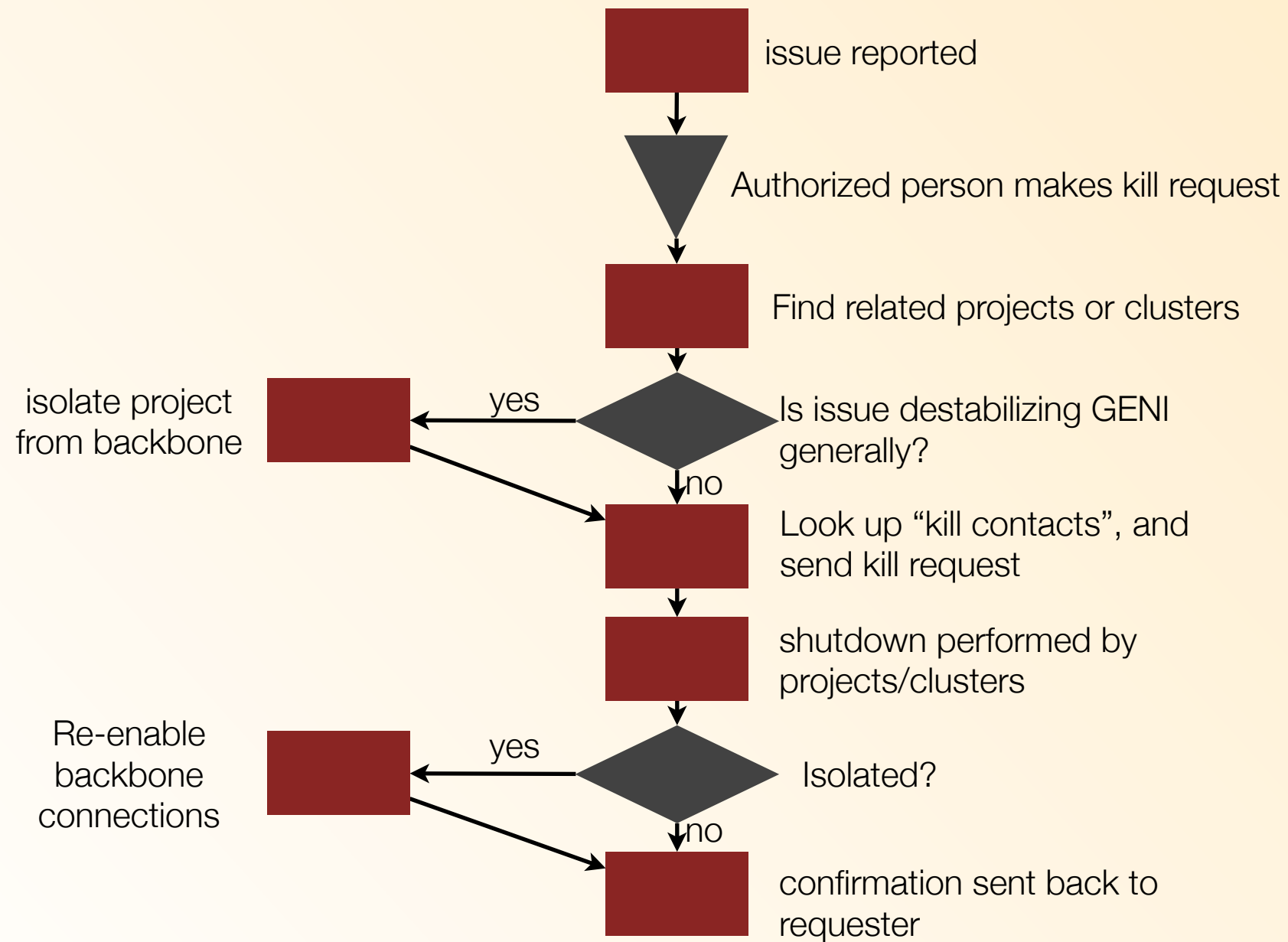


Start Small

- Don't get too fancy
 - Don't over-automate
 - Don't over-process
- Concentrate on 3 things:
 - Coordination of Contact Information
 - Simple Expectations for Response
 - Isolation if REALLY needed



Emergency Shutdown Flow



The Contacts

- list or individual contacts
 - email & phone
- mapping between contact and components



Response Expectations

- different for different scenarios:
 - “hung” slice
 - resource over-consumption
 - disruptions

Isolation

- In cases of true disruption, project can be isolated
 - Turn off I2 or NLR interconnections
 - VERY heavy-handed
 - Need approval?

Throw your tomatoes

