

NetKarma

Scott Jensen

Data to Insight Center

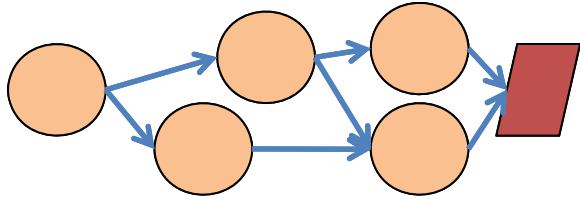
Indiana University



DATA TO INSIGHT CENTER

INDIANA UNIVERSITY

Pervasive Technology Institute

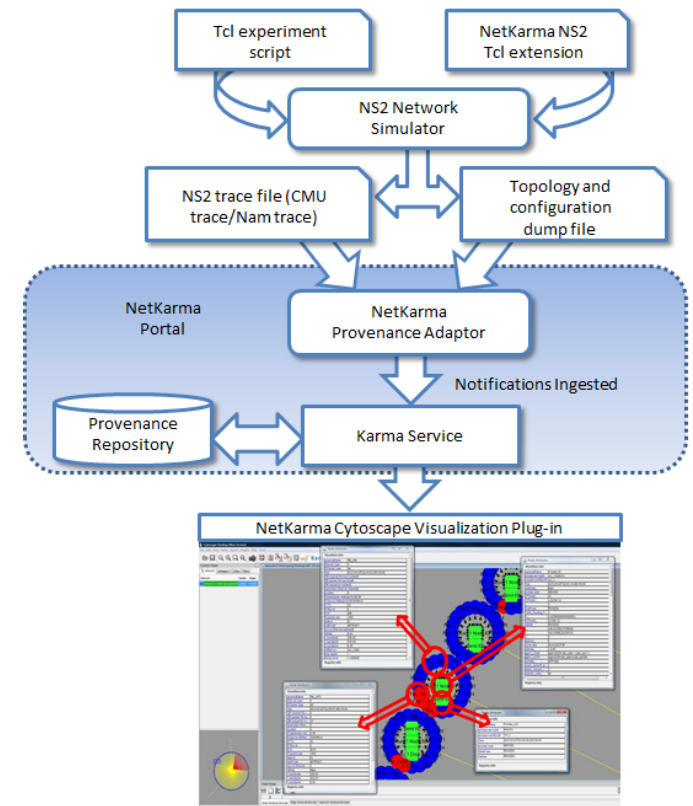


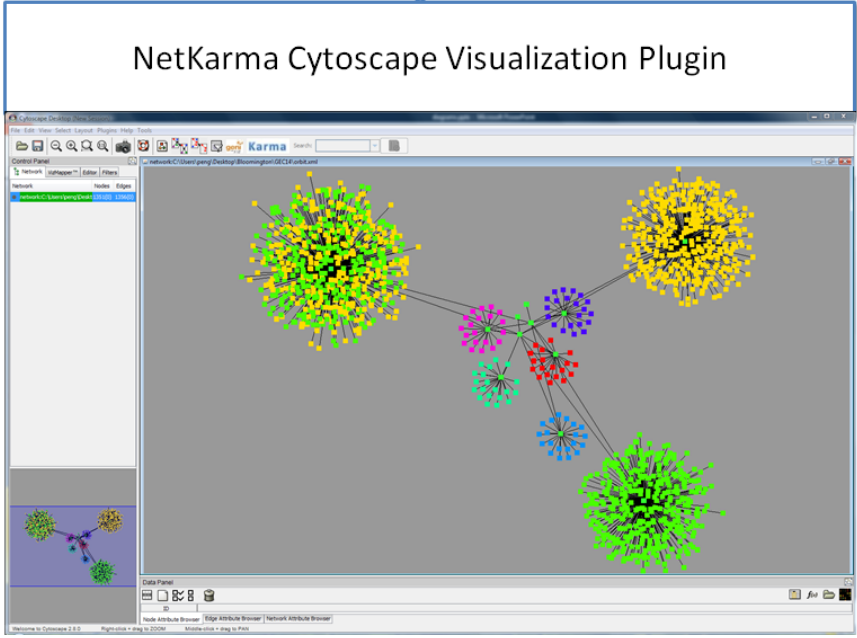
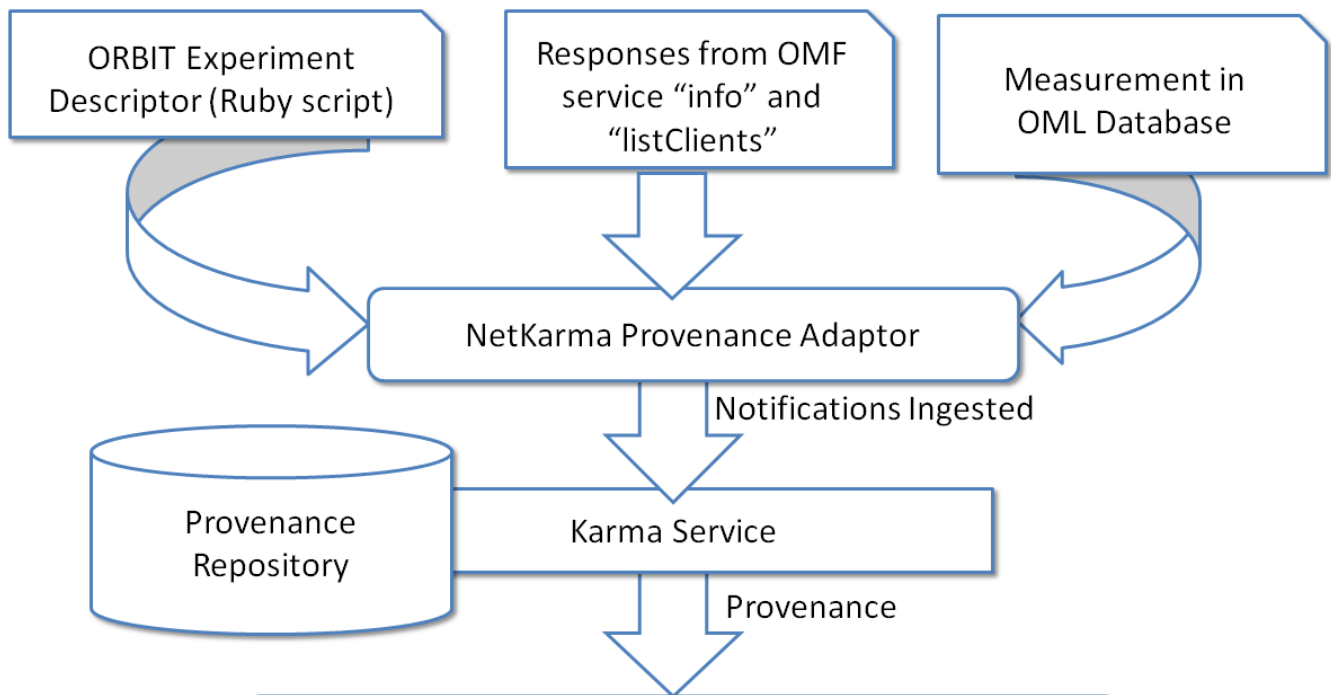
Why provenance?

- Provenance capture has an experiment focus: what got run, by whom, when, where?
- Graph representation of provenance ties inputs and outputs, making reasoning over behavior easier.
- Augments network monitoring data with experiment-relevant information.

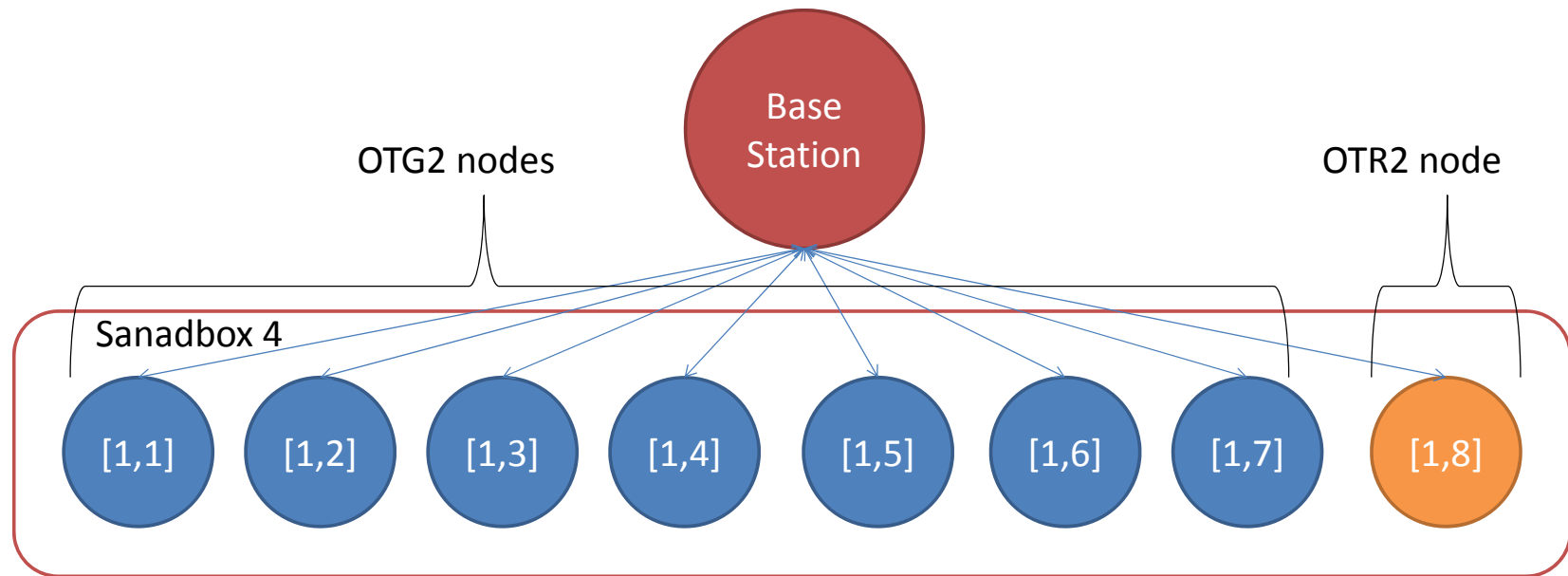
NetKarma ORBIT Provenance Visualization Tool

- Captures provenance of GENI experiments on ORBIT
- Visualizes processes and flow of data – using desktop visualization tool
- Annotates visualization with experiment parameters





The Experiment: Many-to-One Communication



Example Based on the OML Traffic Generator (OTG) Tutorial Case

Varies Parameters:

Rate (cbr:rate)

Size (cbr:size)

NetKarma Visualization

- Karma Server available in SourceForge
 - <https://sourceforge.net/projects/karmatool/>
- Color-coded ORBIT Adaptor available from Karma project in SourceForge
- Full documentation available
- NetKarma Portal:
 - <http://netkarma.incntre.iu.edu/portal/uploader>
- Karma source code and web page:
 - <http://sourceforge.net/projects/karmatool/>
 - http://d2i.indiana.edu/provenance_karma

Thanks

- GENI Team
- I&M Team
- IMF XMPP Messaging Service

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