SDSC

DATA TO DISCOVERY

User-level Grid Functionality and Performance Monitoring

Inca detects Grid infrastructure problems by executing periodic, automated, user-level testing of Grid software and services.

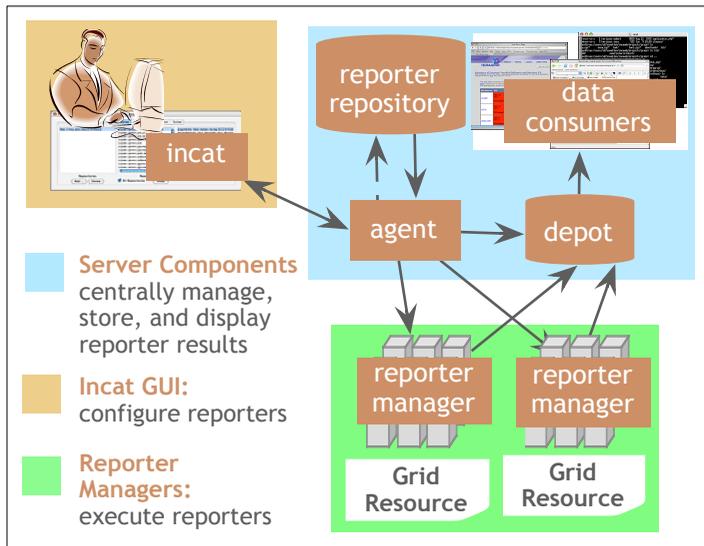## Enables consistent user-level testing across resources:

Emulates a Grid user by running under a standard user account and executing tests using a standard GSI credential. Ensures consistent testing across resources with centralized test configuration.

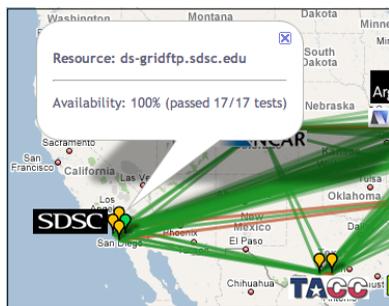## Easy to collect data from resources:

Data is collected by reporters, executables that measure some aspect of the system and output the result as XML. Multiple types of data can be collected. Perl APIs are provided to make it easy to write reporters; most are less than 30 lines of code.

Easy to configure and maintain:

Manages and collects a large number of results through a GUI interface (incat). Measures resource usage of tests and benchmarks to help Inca administrators balance data freshness with system impact.
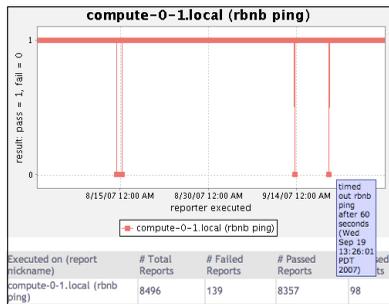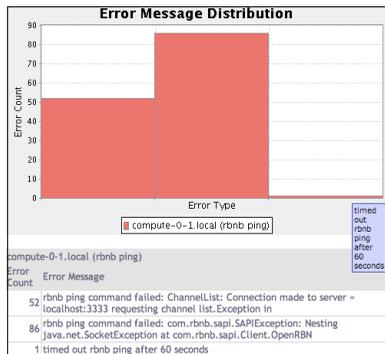

Server Components centrally manage, store, and display reporter results

Incat GUI: configure reporters

Reporter Managers: execute reporters

A standard Inca installation

Cumulative test status by resource

Test status by package and resource

Comprehensive views of data:

Offers a variety of Grid data views from cumulative summaries to reporter execution details and result histories.

Archived results support troubleshooting:

Furthers understanding of Grid behavior by storing and archiving complete monitoring results. Allows system administrators to debug detected failures using archived execution details.

Secure:

Inca components communicate using SSL. Securely manages short-term proxies for Grid service testing.

For more information visit
http://inca.sdsc.edu

Inca is supported by:

Status history of a ping test

Distribution of ping error types

TeraGrid

NSF

SDSC

http://www.sdsc.edu

Founded in 1985, the San Diego Supercomputer Center (SDSC) has a long history of enabling science and engineering discoveries. Continuing this legacy into the next generation, SDSC's mission is to "extend the reach" of researchers and educators by serving as a core resource for cyber-infrastructure providing them with high-end compute, storage, and software technologies.