

Inside the Inca Depot

Jim Hayes
jhayes@sdsc.edu

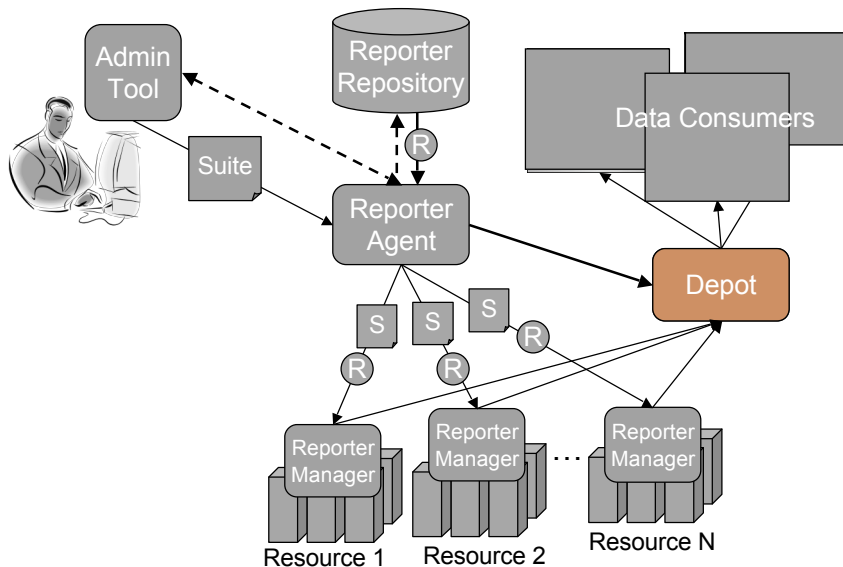
Inca 2.0 Workshop
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SDSC

SAN DIEGO SUPERCOMPUTER CENTER

inca

Architecture overview



The Inca Depot

- **Data repository for Reporter output and Inca deployment configuration**
- **Generally interacts only with other Inca components**
- **Complete redesign from Inca v1**

Outline

- **Depot v2 goals and design**
- **What's in the Depot?**
- **Depot consumer services**

Depot v2 Goals

- **Flexible data content**
- **Efficient storage and retrieval of data**
- **Flexible access to data**
- **Data security**
- **Scalability**

Depot v2 Design Choices

- **Flexible data content**
 - No required schema for report body
- **Efficient storage and retrieval of data**
 - Storage in a selection of databases via Hibernate
 - Schema designed to reduce redundant data
- **Flexible access to data**
 - Access to all data via SQL queries
 - Depot protocol provides predefined queries; extensible
 - Depot retains history of reporter output
 - Queries via Inca protocol and (soon) web service interface
- **Data security**
 - Certificate-based authentication
- **Scalability**
 - Multiple depots organized into a hierarchy (planned)

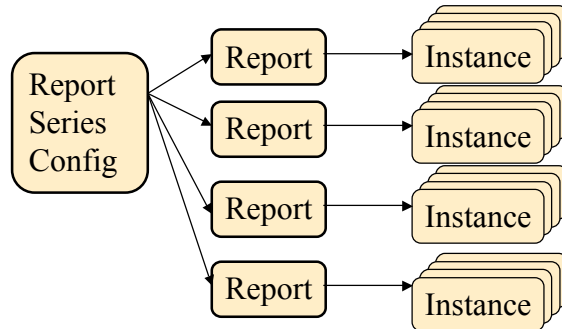
Outline

- **Goals and design**
- **What's in the Depot?**
- **Depot consumer services**

Inca Deployment Configuration

- **TODO**

Reporter Output



- **Report Config** contains host and signature
- **Report** contains body, stderr, exit status/message
- **Instance** contains timestamp, resource usage info

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- **Goals and design**
- **What's in the Depot?**
- **Depot consumer services**

Queries

- **Supported queries**
 - Single instance
 - Latest instance for each series in a suite
 - Report history for a series (soon)
- **Planned queries**
 - Graph image (e.g., series history)
 - General SQL
 - Inca Configuration
 - Plug-in API?

Report Triggers

- **Register action when incoming report shows problem**
- **Comparitors test reports for acceptable output**
 - Xml schema
 - Regular expression
 - Version
 - Plug-in API (planned)
 - Results stored in Depot
- **Actions**
 - Email
 - Others?