

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

Unified TAMUS Galaxy

Eric Rasche; CPT, Programmer II

November 5, 2014

Eric Rasche

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

- Center for Phage Technology (CPT) Programmer and Systems Administrator
- Galaxy IUC Member
- Pulsar developer

Unified Galaxy

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress



Figure: NGC4676A / 4676B

Galaxy

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

On the User side

- Essential tool for teaching bioinformatics
- Essential tool for reproducible science
- Ease of access for students and non-technical researchers

On the administration/development side

- Securely connect to multiple clusters without user interaction or effort
- Addition of new software is often trivial and provides for a wide audience

Problems Identified

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

- Wasted man hours
- Wasted compute resources
- Duplication of efforts

Unified Galaxy & Pulsar

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

Unified Galaxy:

- Deploy and manage a single Galaxy instance, reduce administration costs
- Provide tools researchers need, lots of overlap between current Galaxy instances
- Encourage and enable researchers to add their tools
- User friendly

Pulsar:

- Transparent to users
- Simple for administrators
- Decreased cluster responsibility tool/database

Progress

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

- Galaxy VM developed with Vagrant
- Submits jobs to appropriate clusters
- CAS Authenticated

Progress

TAMUS
Galaxy

Eric Rasche;
CPT,
Programmer II

Who am I

Unified Galaxy

Background

Problems

Solutions

Progress

- Galaxy VM developed with Vagrant
- Submits jobs to appropriate clusters
- CAS Authenticated
- Heavy testing phase of tools begins next week (blast, bowtie2, velvet, etc.)
- Following month will have production deployment, alpha testing, and tool/database discussion.