

Secure4 – A Secured Research Compute Cluster

Research Compute Support Services

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Purpose

- Secure environment for computation research
- “Friction Free”
- Data Classification Levels 3 and 4
- Restricted to IRB project with DCL3 and DCL4 data and HealthFacts

Data Security

- Data Management Plan
- Project segmentation
 - Projects cannot mix data
- Encrypted Storage
- Auditing, Remote Logging, SELinux enforced

Environment

- Firewall
- Login node, Head node, Compute nodes
- CentOS7
- Razor and Puppet enforces provisioning and configuration management
 - Modeled after NIST 800-53 Standards
- SLURM Scheduler
- Encrypted Storage
 - \$120/TB/5 years

Access

- VPN
- Project Based by IRB or HealthFacts approved projects
- User Accounts are based on IRB or HealthFacts projects
- SSH key pairs for user accounts
- Secured user workstations
 - System encryption, patches, anti-virus, etc.

Overall Process

- PI requests project/user accounts
- Remedy ticket opened
- Verify IRB information
- IT Pro verification of user workstation
- Create project and user accounts
- VPN access established

Questions?