Identity Management Factors For HEP Virtual Organizations Robert Cowles, Craig Jackson, Von Welch bob.cowles@gmail.com, scjackso@indiana.edu, vwelch@iu.edu Center for Applied Cybersecurity Research, Indiana University For papers and more information: http://cacr.iu.edu/collab-idm/

#### **XSIM Goal**

Enable the next generation of trustworthy extreme-scale scientific collaborations by understanding and formalizing a model of identity management (IdM) that includes virtual organizations (VOs) as a first-class entity.

### **From IdM Model to Motivation Factors**

Interviewed 18 different VOs and resource providers to determine the hows and whys behind their IdM implementation. Developed model to described the different implementations. Working now on understanding motivating factors and providing guidance.

## The VO IdM Model

Our VO IdM Model, built from the interviews, is based on the concept of a VO IdM Lifecycle and when identifying user data is exposed by the VO to the resource provider(s). To first order, the stage of the lifecycle is the primary description of the IdM system. For more information on the Model, see: Robert Cowles, Craig Jackson and Von Welch. Identity Management for Virtual Organizations: A Survey of Implementations and Model. eScience 2013 (to appear).

# The VO IdM Lifecycle

- Enrollment -- when user signs up
- Provisioning -- when account is allocated
- Request -- when resource is requested
- Usage -- when resource is used
- Incident Response -- when issue exists
- [Deprovisioning]

# Factors Affecting IdM Design





















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