Nexus Provisioning System

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IdM at the U of M

- Central person registry
  - Life-cycle management
  - Identifier registration
  - Account profiles
- Multiple authoritative business systems
- Ever growing host of managed resources
Challenges

- Difficult to maintain
- Expanding list of managed resources
- Outdated technology
- New ERP
- Expanding customer base
Evolution vs. Revolution

- Validate approach along the way
- Realize the benefits sooner
- Avoid extended design process
- Ease the pain of conversion
Strategy

Three discreet design & development phases

- Phase 1: Provisioning
- Phase 2: Registry
- Phase 3: Join

We are currently about 2/3 through phase 1
Basic Requirements

- Robust technologies
- Resource connector API
- Timely updates to consumer systems
- Resource integrity verification
- Change Management / Component Testing
- Administrative interfaces
Nexus Features

- Runtime configuration (mapping logic)
- Single engine
- Integrity verification / repair
- Dependency analysis
- Abstract consumer interface (SPML)
- Robust queueing
<ProvisioningConfiguration
    xmlns="urn:mace:memphis.edu:idmanagement:provisioning">

<!-- Declare all registry attributes -->
<RegistryAttribute id="accountState" />
<RegistryAttribute id="username" />
<RegistryAttribute id="nick" />

<!-- Declare each resource that is managed by Nexus -->
<ProvisionedResource
    id="urn:mace:memphis.edu:IDM:provisioning:resource:enterpriseDS">
    <ProvisioningControl />
    <IdentifierMapping />
    <ProvisionedAttribute id="nickName" />
</ProvisionedResource>

</ProvisioningConfiguration>
<ProvisionedResource id="urn:mace:memphis.edu:IDM:provisioning:resource:enterpriseDS">
  <ProvisioningControl>
    <RegistryDependency id="accountState" />
    <Scriptlet>return ProvisioningStatus.ENABLED;</Scriptlet>
  </ProvisioningControl>

  <IdentifierMapping>
    <RegistryDependency id="username" />
  </IdentifierMapping>

  <!-- Mapping rules for each attribute -->
  <ProvisionedAttribute id="nickName" />
  <RegistryDependency id="nick" />
</ProvisionedResource>
Benefits of runtime configuration

- Clearer data relationships
- Re-use
- Change management
Nexus command modes

- Daemon
- Show
- Verify
- Repair
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