

# myVocs<sup>α</sup>

## A Distributed Collaboration System

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# Collaboration Aspects

- Critical to Effective Research
- Coordinate Individual Interests
- Contribute to Share Insights
- Self Organized and Autonomous

# Collaboration Truth

Collaborations are most successful  
when they reflect the  
skills  
interests  
and resources  
of the Collaborators

# Virtual Organization Aspects

- Virtual Organizations are Collaborations Manifest
- Virtual Organizations Cross Institutional Boundaries
- Virtual Organizations are Autonomous
- Virtual Organizations are Collections of Attributes

# Virtual Organization Realities

- Lighten their load and use federated attributes
- Resist complications of inconsistent policies
- Influence poor so little hope for attribute sponsors
- They are a lot like real organizations

# Motivation

Build a system environment that  
enables collaborations by  
supporting virtual organizations that  
span institutional boundaries

# Guiding Principles

- Web Applications are Leading Collaboration Solutions
- Avoid Recreating Existing Tools
- Leverage Existing Infrastructure
- Stick to Standards and Openness
- Lower Collaboration Barriers
- Leave the User in Control

# Leverage Existing Infrastructure

- Shibboleth for Identity Management and Attribute Distribution
- Wealth of Open Source Web Applications for VO Collaboration Interfaces
- Globus for Distributed Computation
- GridShib to Bind Shibboleth and Globus

# myVocs Goal

Extend access to  
emerging Internet collaboration tools and  
build a system environment that  
respects VO defined roles and attributes  
while preserving valuable  
institutional identity assertions

# myVocs Supports VOs

myVocs is a  
collaboration environment  
that lets you  
create and manage VOs  
and  
supplies key collaboration tools to the  
members of the VO

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# Solving the Attribute Puzzle

U1

U2

⋮

Un

# Solving the Attribute Puzzle

U1

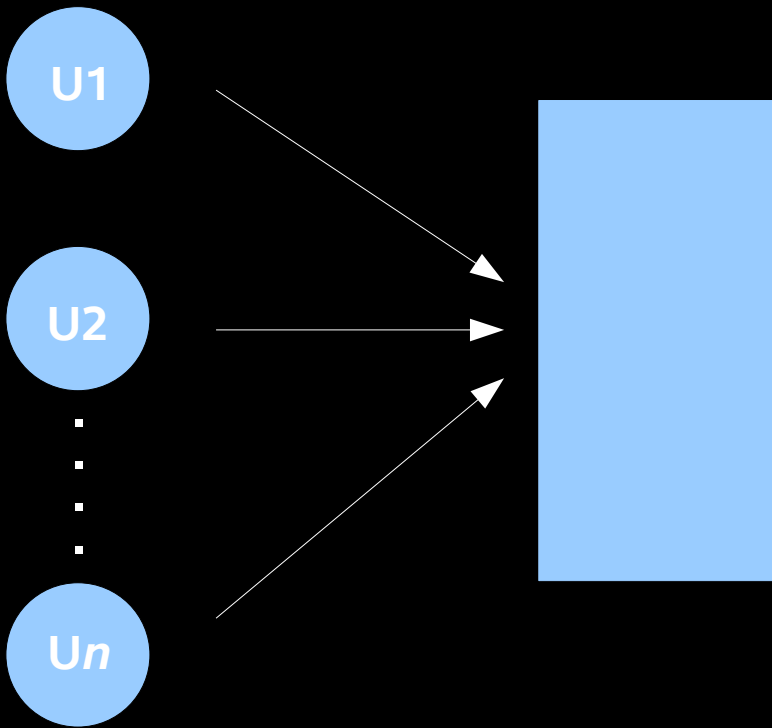
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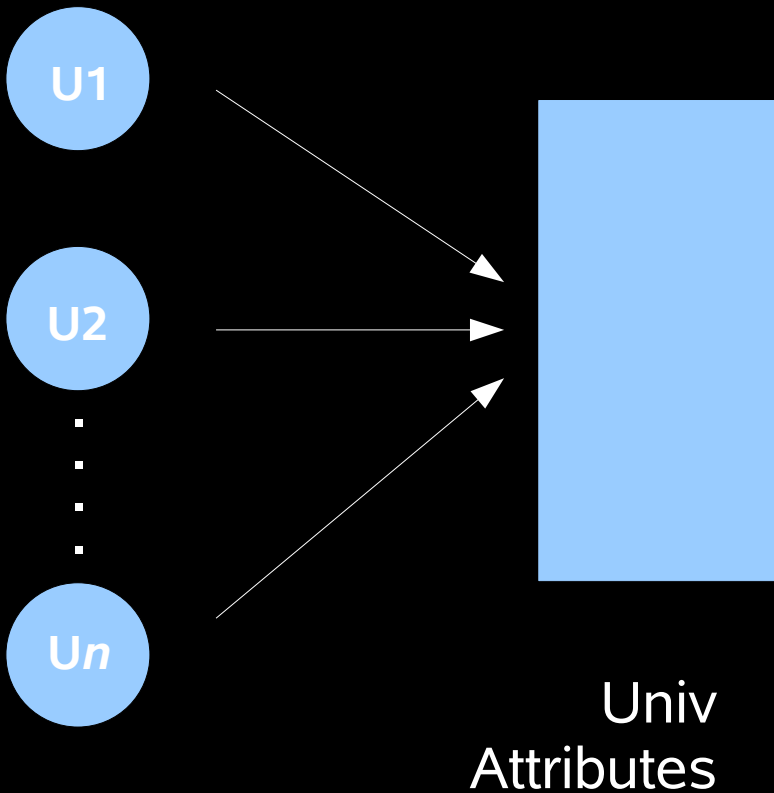
Identity Providers

# Solving the Attribute Puzzle



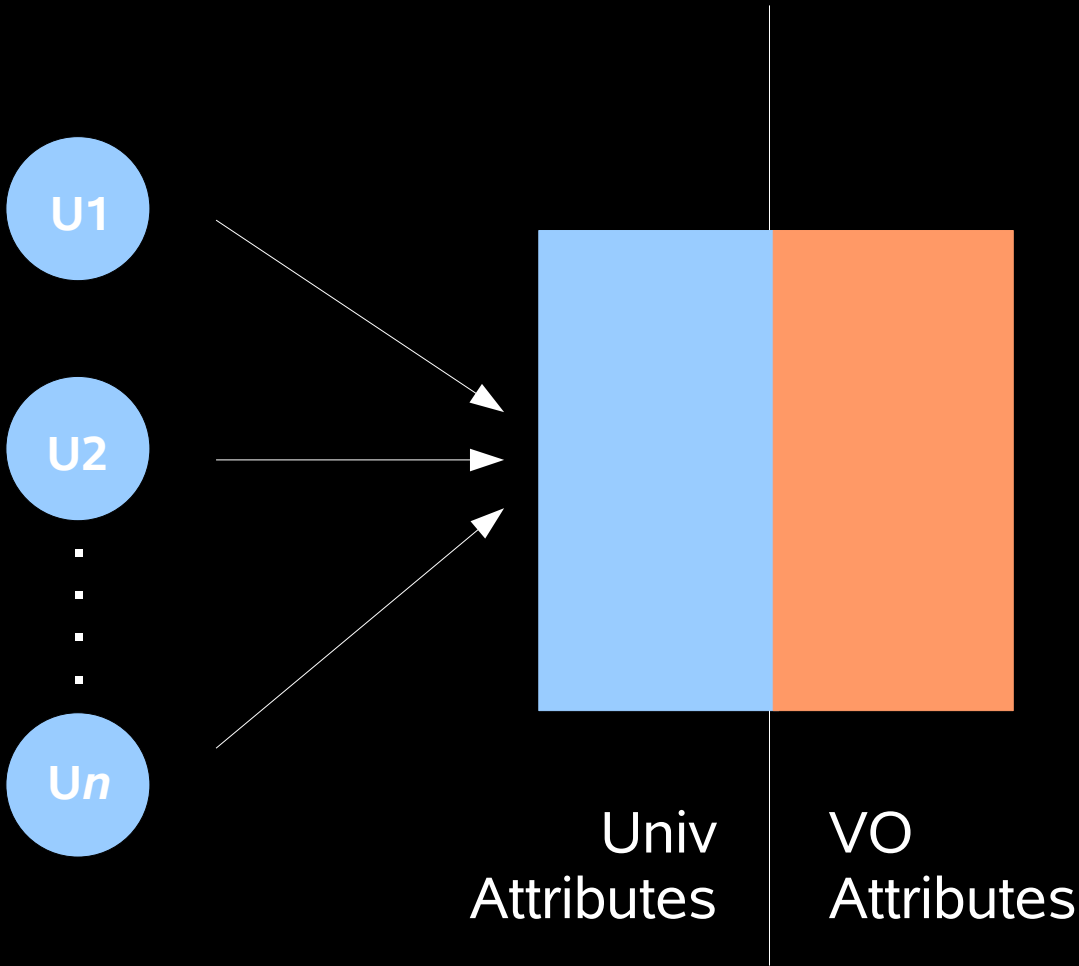
Identity Providers

# Solving the Attribute Puzzle



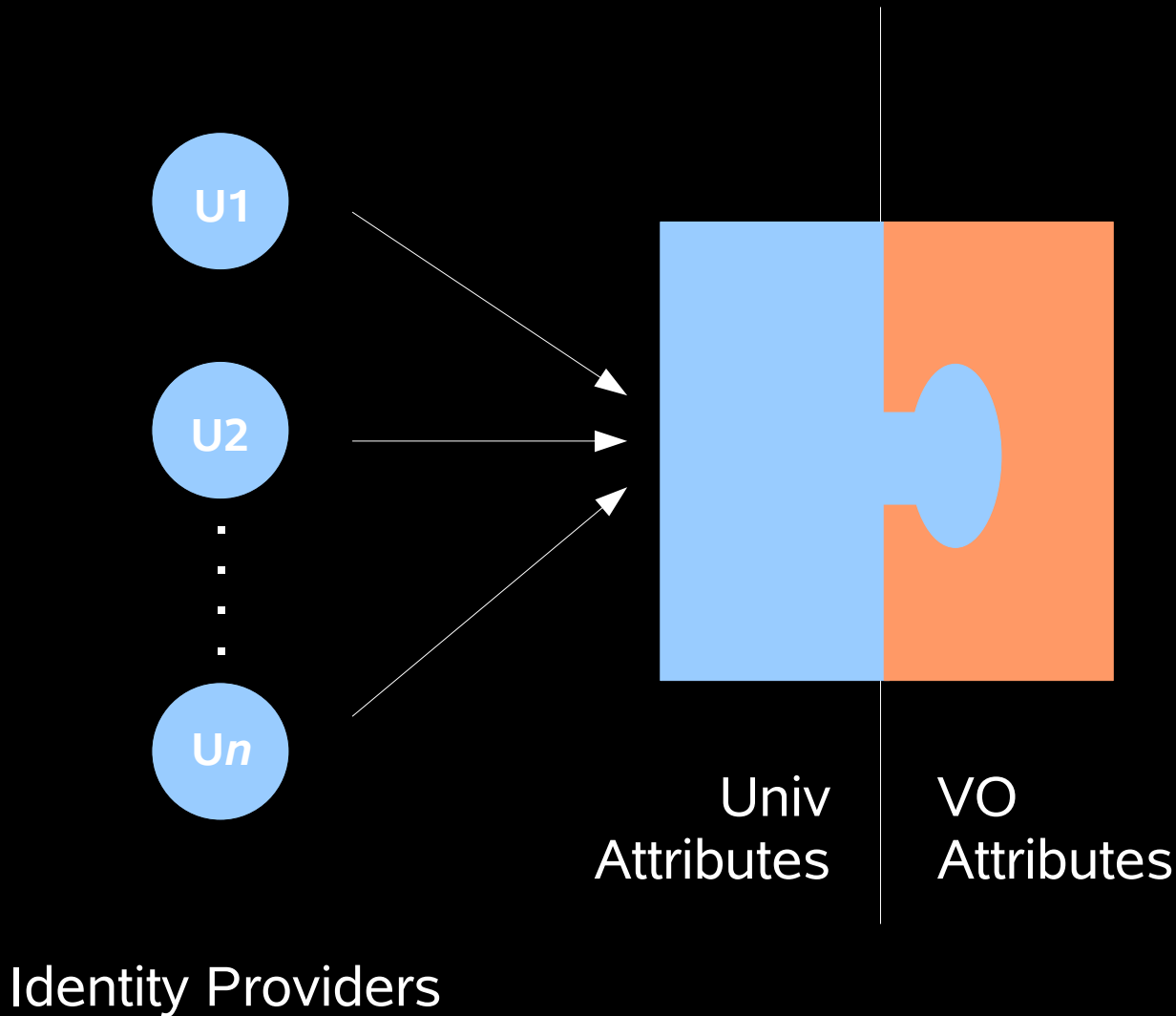
Identity Providers

# Solving the Attribute Puzzle

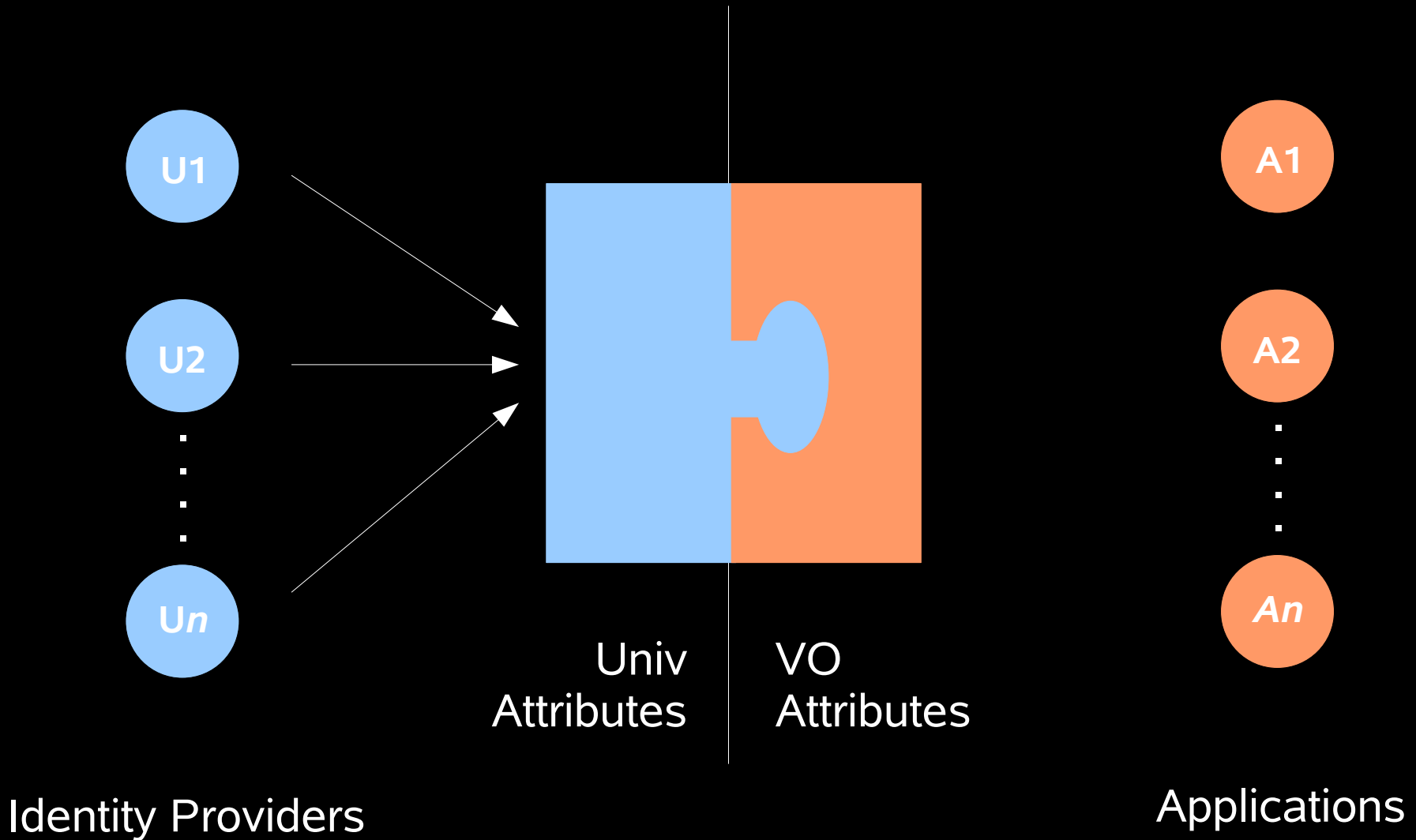


Identity Providers

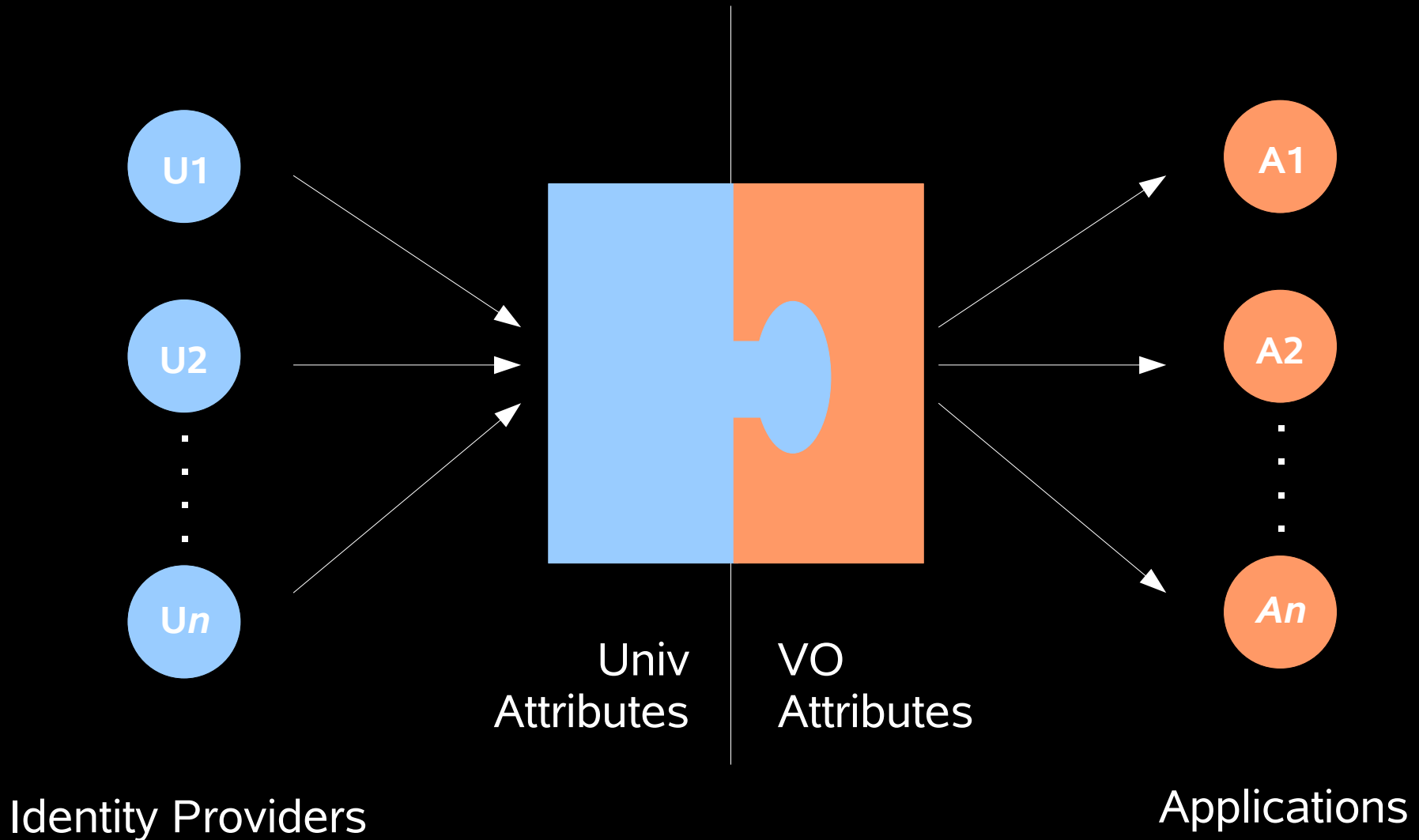
# Solving the Attribute Puzzle



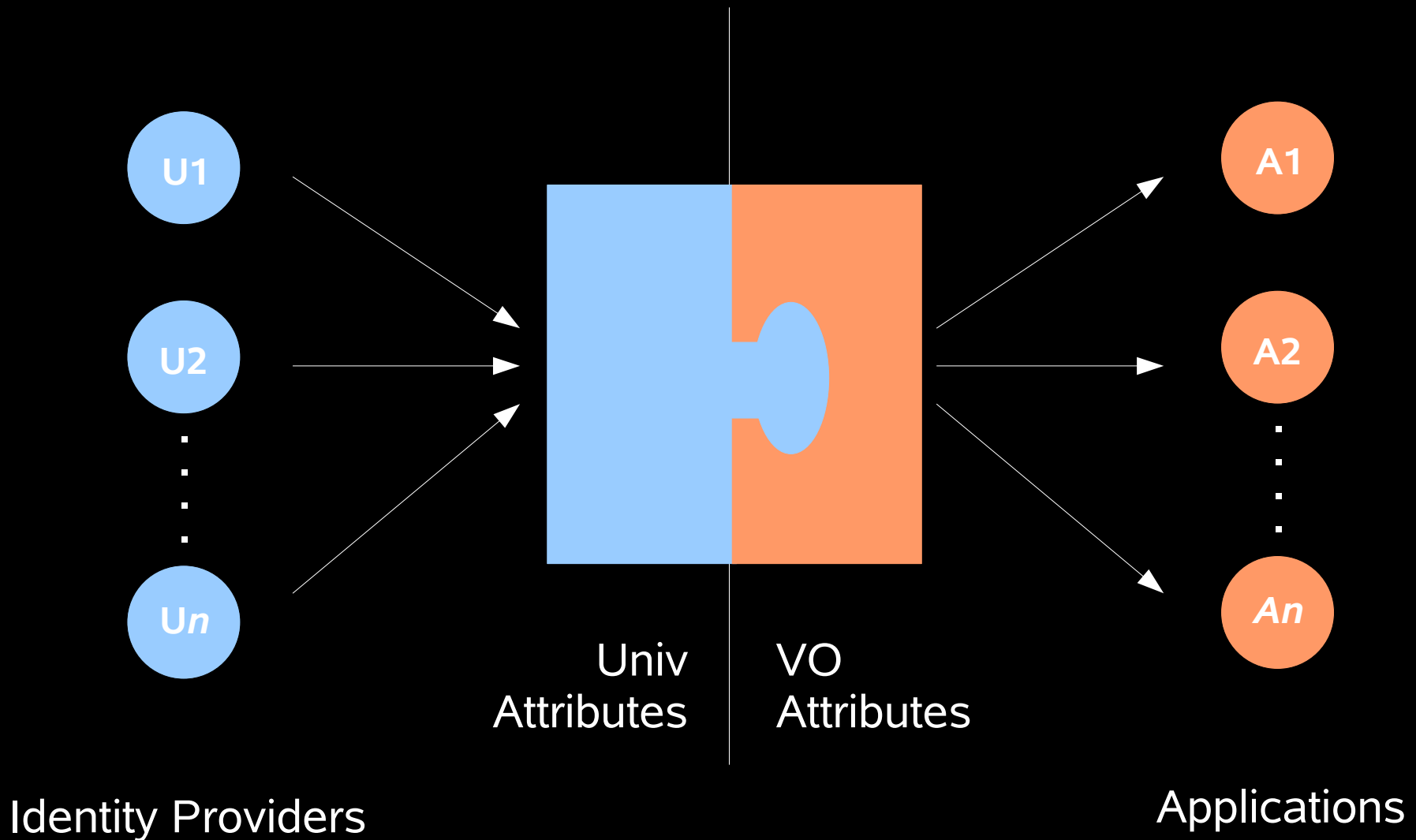
# Solving the Attribute Puzzle



# Solving the Attribute Puzzle



# Solving the Attribute Puzzle



# Surprisingly Useful Combination

- Trusted (University) Identity
- User Asserted email
- VO Asserted membership
- VO Asserted role

# Useful Collaboration Toolset

- Email List
- Wiki
- CMS
- Blog
- File Sharing
- Document Tracking

# Useful Collaboration Toolset

- Email List -> Sympa
- Wiki -> PHPwiki
- CMS -> Drupal
- Blog -> Drupal
- File Sharing -> WebInstaFM
- Document Tracking -> Trac

# Benefits

- Allows us to preserve the power of federation for applications
- Allows us to define policy points for application federations
- Attributes exist outside context of Univ attribute systems
- Provides autonomy to Virtual Organizations

# User Identity

- myVocs defines a consistent identity for users across applications
- Web applications often overload email address for user identity and contact information
- Applications need to be willing to inherit user identity from containing system environment

# Authorization

- Each tool interprets attributes in a way meaningful to itself
- Determine influence role information will have on application
  - Member controls default access rights
  - Moderator may control content
  - Admin may control tool itself

# Visual and Data Integration

- Tend to be tricky problems
- Visual integration possible but labor intensive, even when tools have templates
- Data exchange standards exist but may not be available to certain applications
  - a Wiki which exports ODF
  - RFC822 can be powerful

# myVocs + GridShib

- GridShib extends attributes to Globus compute resources using Shibboleth trust fabric
- Collaboration with GridShib project added GridShib components to myVocs
- VO attributes now flow to Globus compute resources
- Grid VOs now have VO managed attributes plus institutional identities

# myVocs + GridShib

- Extend myVocs VOs to Grid resources
- Add computational applications to VO collaboration tool suites
- myVocs + GridShib offer a complete system infrastructure foundation for distributed collaboration environment

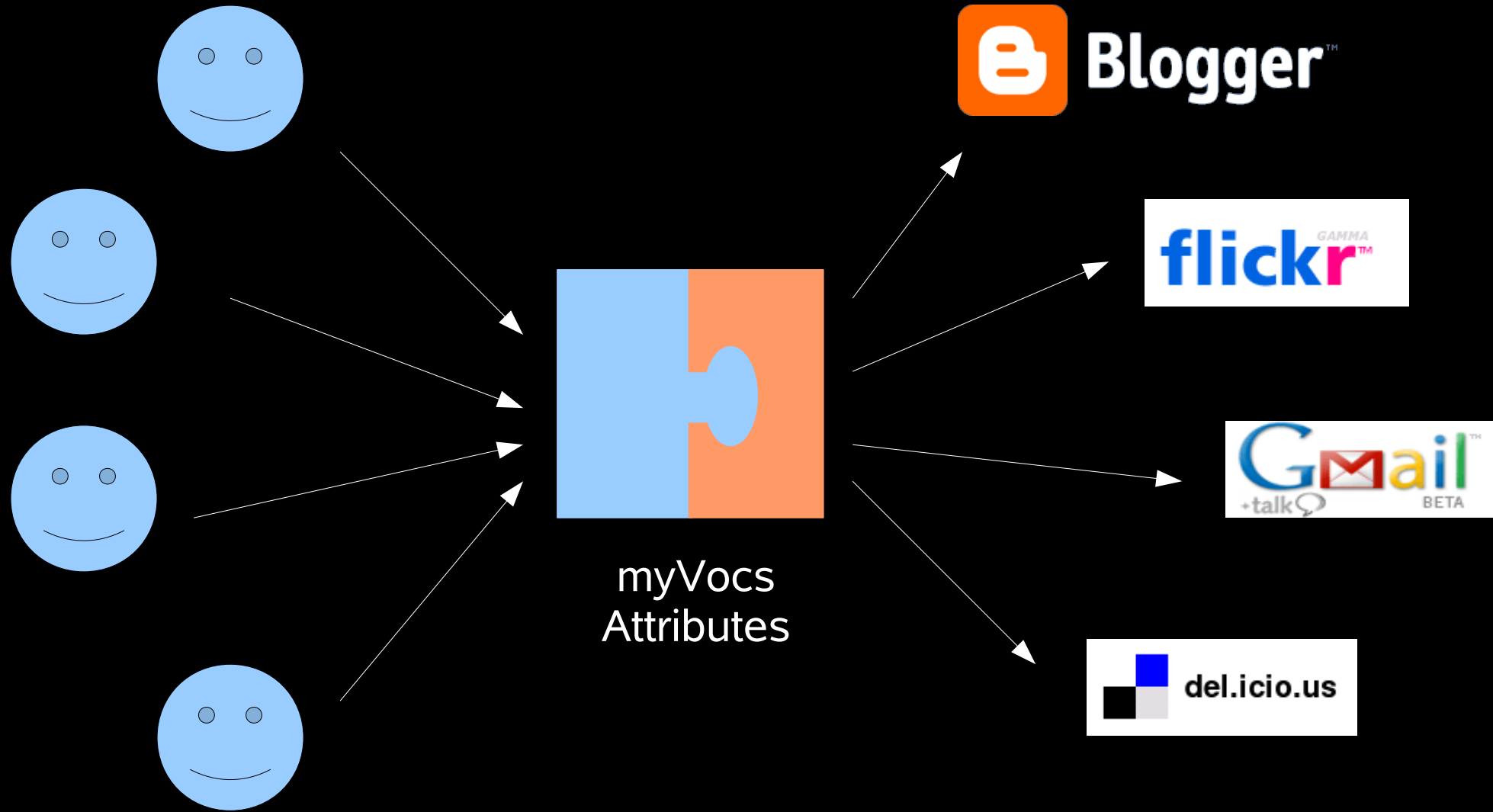
# Using myVocs + GridShib

- UABgrid
  - A campus grid initiative between UAB's Central IT, Computer Science and Engineering Departments
  - Combines authoritative user identities with campus computational resources and supports autonomous collaborations across institutional boundaries
- TeraGrid
  - Rumors of interest in myVocs/proxy IdP model
- YourGrid

# Future Systems

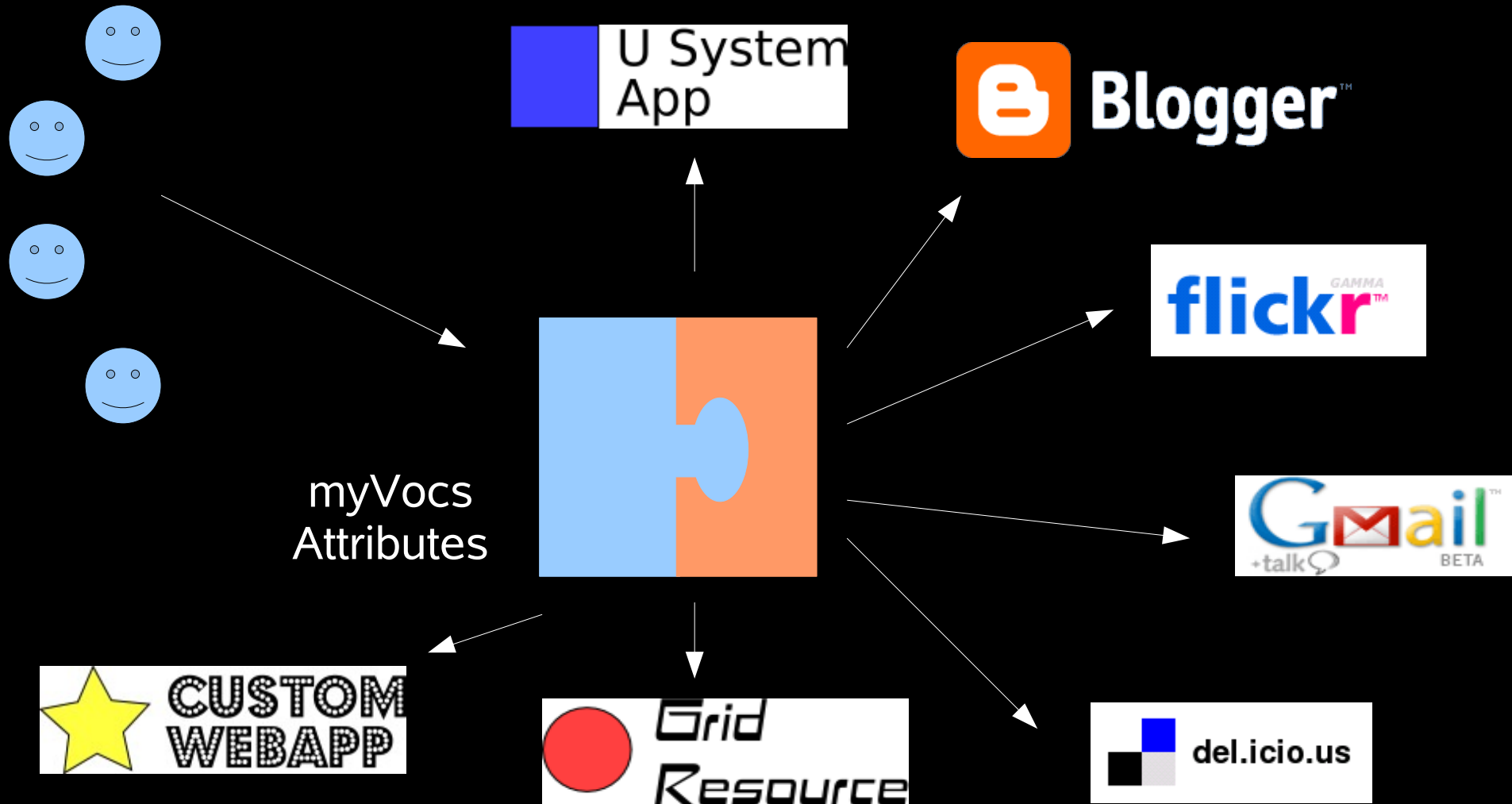
We'll be able to combine off the shelf web applications installed locally or commercial web services into a consistent collaboration framework that leaves the end user in control in ways analogous to today's desktop systems

# Future Systems



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# The Blue Pill\*



\* Ad Hoc collections of researchers will build collaboration environments with a combination of institutionally, commercially, and VO supplied applications which share a common understanding of identity, relationships and roles. A new desktop paradigm. Different applications can lead to different results. Consult your IT professional for correct dosage. Too much can induce nausea.

# Work In Progress

- Creating a download image that can be used to implement distinct proxies
- Building a development project website
- Leveraging more existing tools to simplify creation and management of Vos
  - Grouper
  - Sharpe
- Continue collaborations

# From Yesterday...

- Would you develop you're own blog service if it was deemed critical?
- ***Real question:*** do you develop your own word processor because it is critical?
- We value our data
- *We trust* our applications

# Questions?

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