

Account Management Technology

Overview

- Create and manage data for a user account in DICE.
- Data will be held in LDAP and Kerberos.
- Some of this data however is just a copy of data held in other sources.
- The aim of the account management technology software is to facilitate the gathering of data from various data sources at the time of account creation and to keep copies of data synchronised with the master copy.

Data Sources

- Informatics database.
- Informatics LDAP service.
- Informatics Kerberos service.
- EUCS uid server.
- SMS LDAP service.
- Algorithms for providing default values.

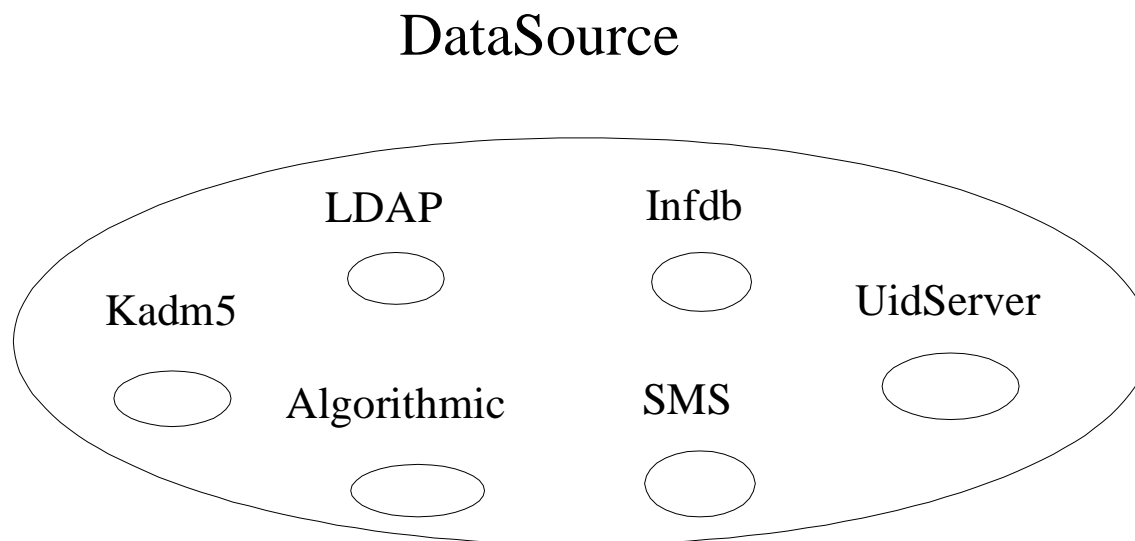
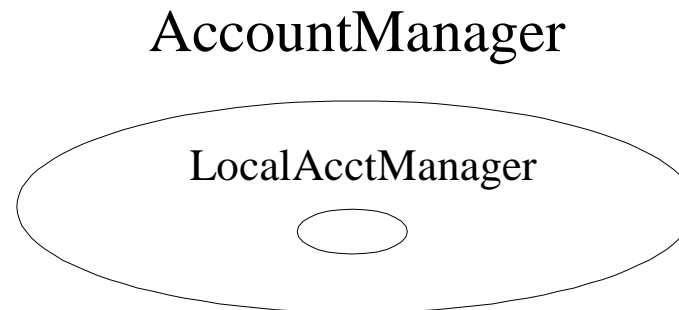
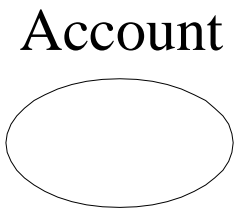
Account Attributes (1)

Attribute	Infdb	LDAP	Kadm5	SMS	UidServer	Algorithmic
Uid	Yes	Yes			Yes	
Gid		Yes				Yes
Firstname	Yes	Yes			Yes	
Surname	Yes	Yes			Yes	
Email	Yes	Yes		Yes		Yes
Primary roles	Yes	Yes				
Secondary roles		Yes				
Enrolment #	Yes			Yes	Yes	Yes
Principal		Yes	Yes			Yes
Password			Yes			
Shell		Yes				Yes
Homedir		Yes				Yes
Homesubdir		Yes				Yes
Homepartition		Yes				
Comment		Yes				
Disabled		Yes				
Personnel #	Yes					
Smsbox				Yes		

Account Attributes (2)

Attribute	Infdb	LDAP	Kadm5	SMS	UidServer	Algorithmic
Uid	Master	Slave			Default	
Gid		Master				Default
Firstname	Master	Slave			Default	
Surname	Master	Slave			Key	
Email	Master	Slave		Default		Default
Primary roles	Master	Slave				
Secondary roles		Master				
Enrolment #	Master			Key	Key	Default
Principal		Master	Slave			Default
Password			Master			
Shell		Master				Default
Homedir		Master				Default
Homesubdir		Master				Default
Homepartition		Master				
Comment		Master				
Disabled		Master				
Personnel #	Master					
Smsbox				Master		

Object Oriented approach : Classes



Account Class

Fields

USER	Holds the username; the key field
SOURCES	List of data sources
DATA	Parameter/value pairs
AUTH	Parameter/value_type pairs

Methods

Only most common listed here

account->set(attr,value)
account->value(attr)
account->username()
account->addsource(source)
account->merge(newaccount)
account->compare(newaccount)
account->value_type(attr)
account->set_auth_inf(attr,value_type)

DataSource Class

Methods

```
source->retrieve(account)
source->update(account)
source->create(account)
source->check(account)
source->delete(account)
source->check_delete(account)
source->authoritative()
source->stores()
source->required()
```


AccountManager Class

Methods

mgmt->retrieve(username)

mgmt->update(account)

mgmt->delete(account)

mgmt->adddatasource(datasources)

Account Merge Method

- Conflicts between the data held in the two account objects are resolved according to what each object claims regarding the authoritative, informative or non-authoritative type of each attribute.
- Authoritative values replace values that are not authoritative.
- Informative values replace non-authoritative values.
- Otherwise current value is retained.

LocalAcctManager

The LocalAcctManager object adds the following data sources in the order indicated below:

Infdb

SMS

UidServer

Algorithmic('email')

LDAP

Algorithmic('shell','homedir','homesubdir','principal','gid')

Kadm5