Introduction to Identity and Access Management

for the engineers

Evolveum

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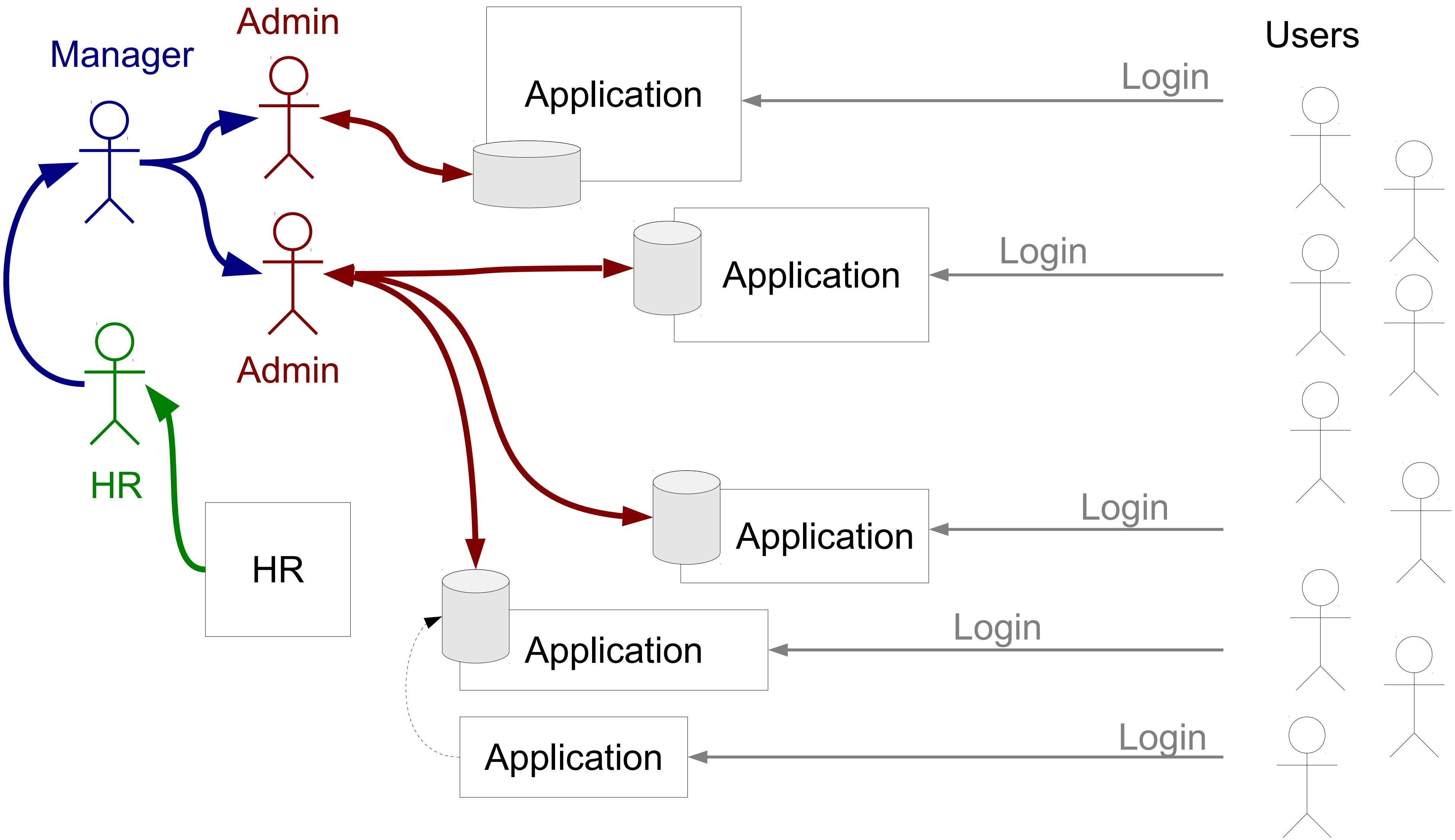
How it works now?


Manager
Admin
Admin
HR
HR
Application
Application
Application
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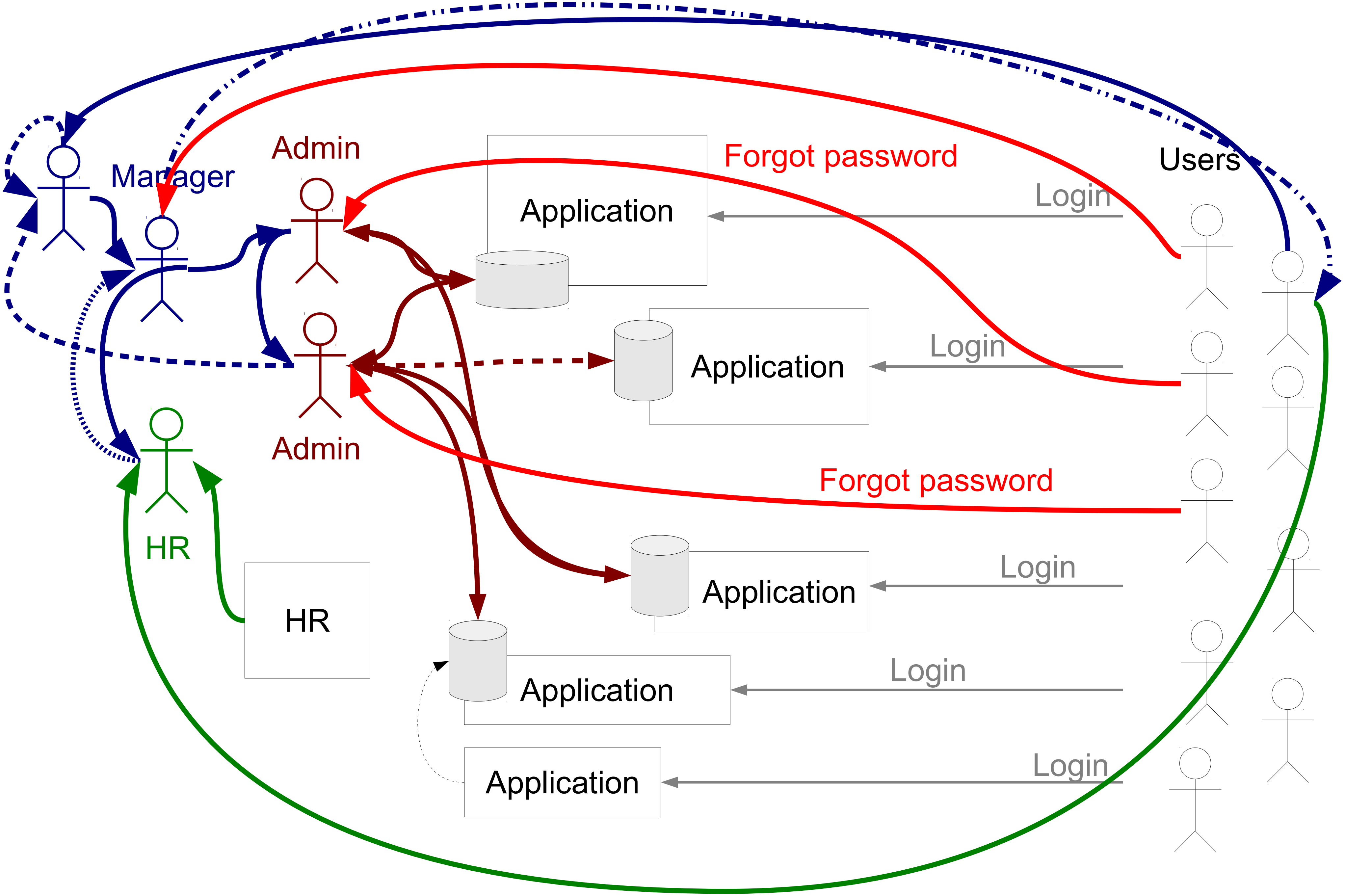
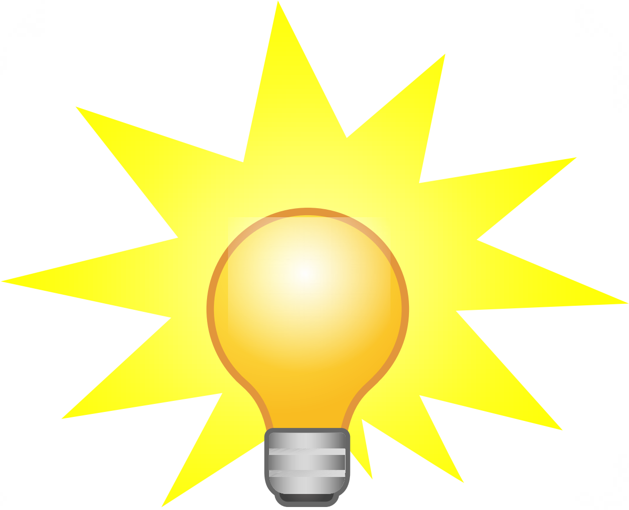
Application
Users
Login
Login
Login
Login
Login

Theory

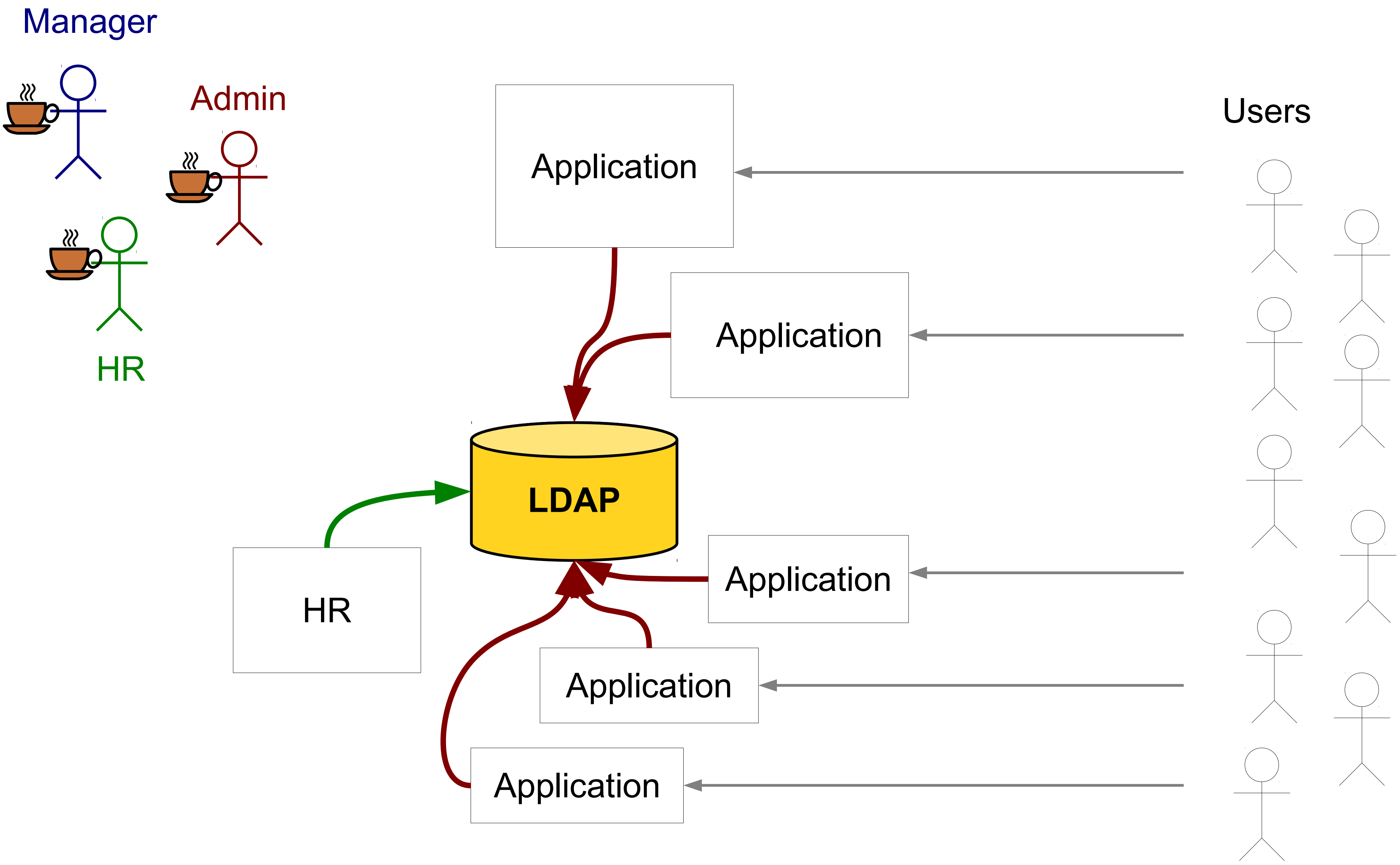

Admin
Manager
Forgot password
Users
Application
Login
Application
Login
Admin
Forgot password
HR
Application
Login
HR
Application
Login
Application
Login

Practice

Idea: Let's deploy LDAP!



Theory



Manager

Admin

HR

Application

Application

LDAP

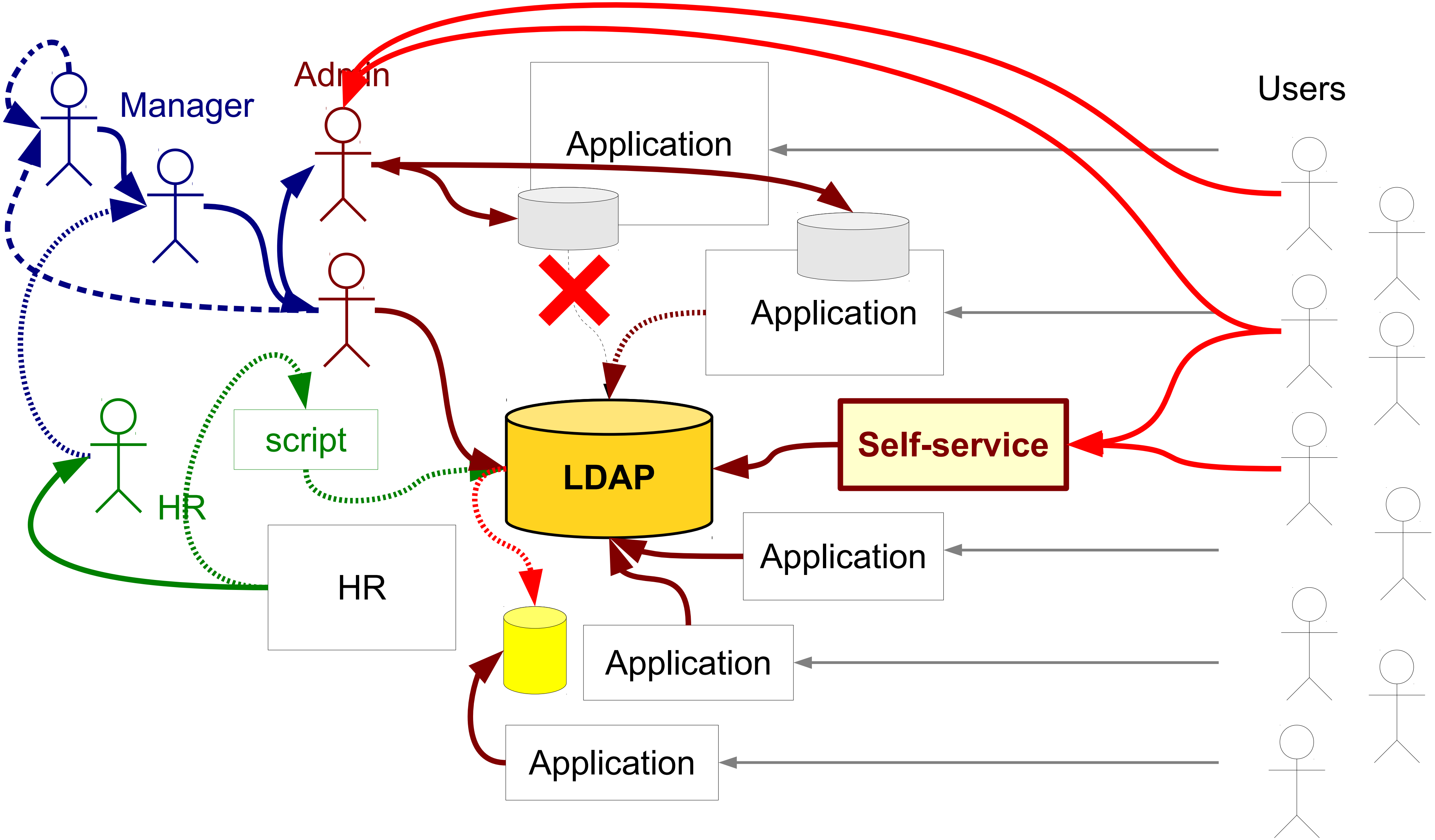
HR

Application

Application

Application

Users


Manager
Admin
Users
Application
Application
script
LDAP
Self-service
HR
HR
Application
Application
Application

Practice

Why?

Because some applications …

- just don't support LDAP
- support LDAP but still need local account
- require incompatible schema
- require complex policies (LDAP is simple)

There is more than one data source

- HR, CRM, AIS, manual, ...

LDAP is (too) simple!

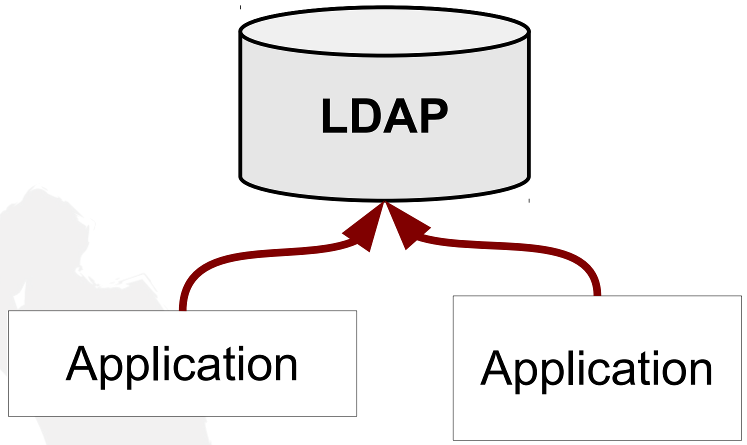
- It is just a database
- Not built for authentication/authorization
- No session
- No single sign-on
- Simple attributes
- Simple groups (three different standard mechanisms)

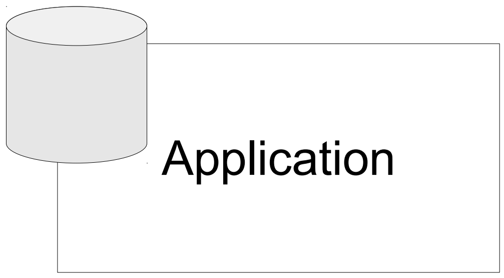
Data Duplication

Data duplication seems to be inevitable

(at least in practical deployments)

- Legacy systems, too expensive to fix
- You just cannot make `join` of relational table and LDAP

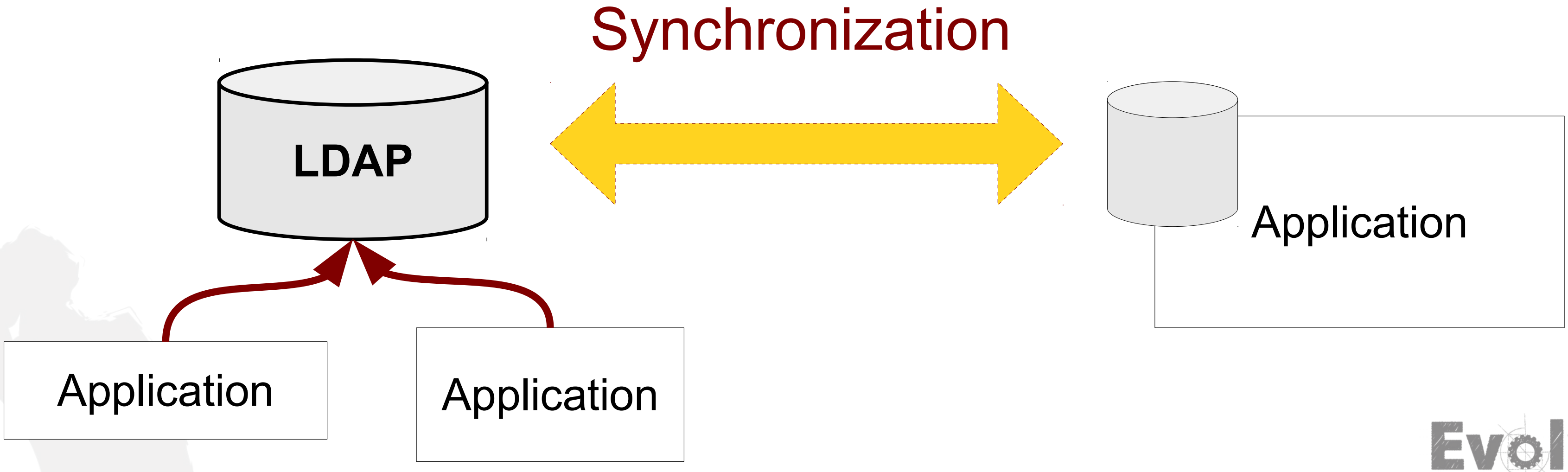




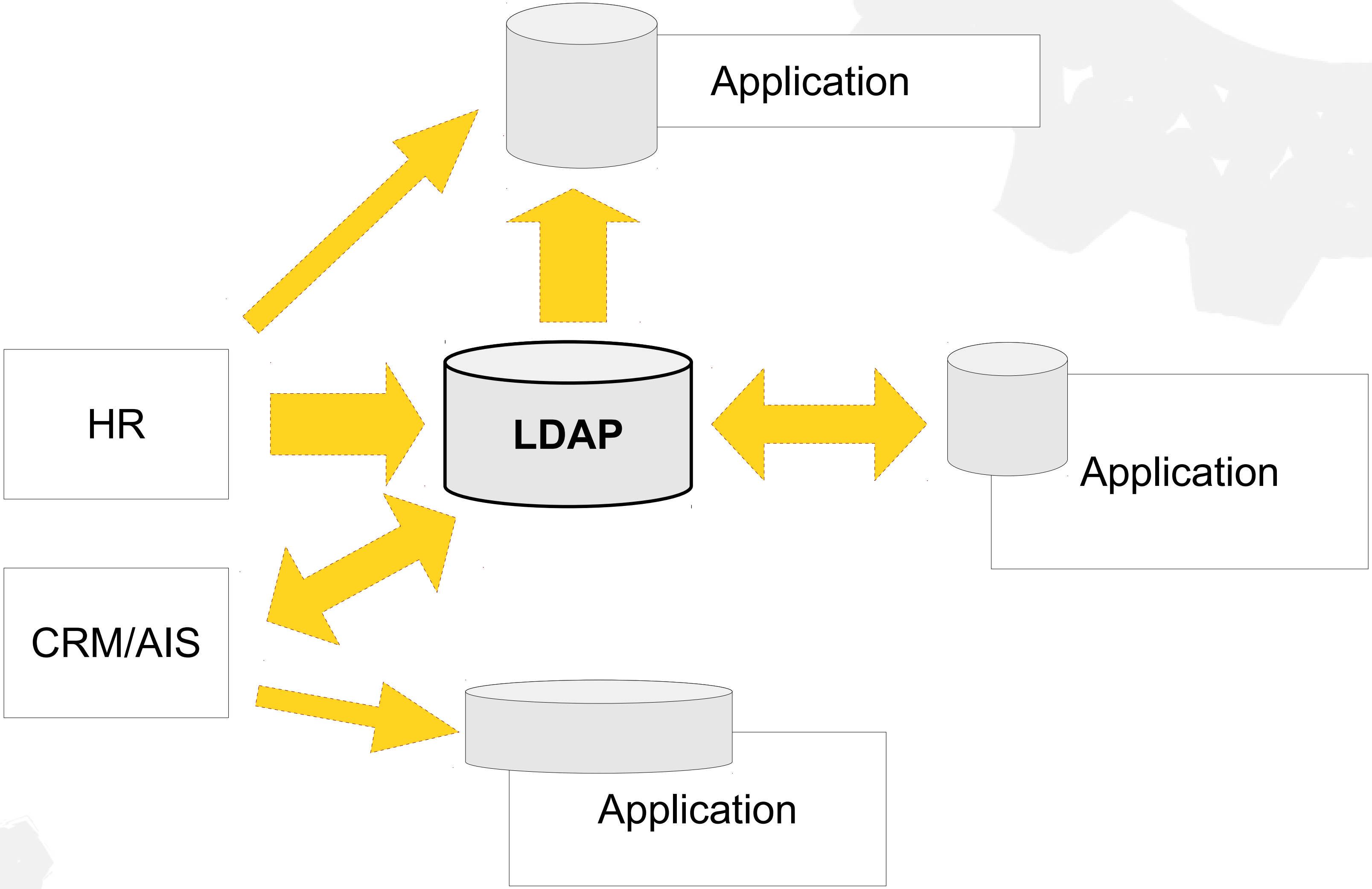
Duplication => Synchronization

How to keep the data consistent?

- Copy data from system to system
- It is (much) harder than it seems



Multi-directional Synchronization



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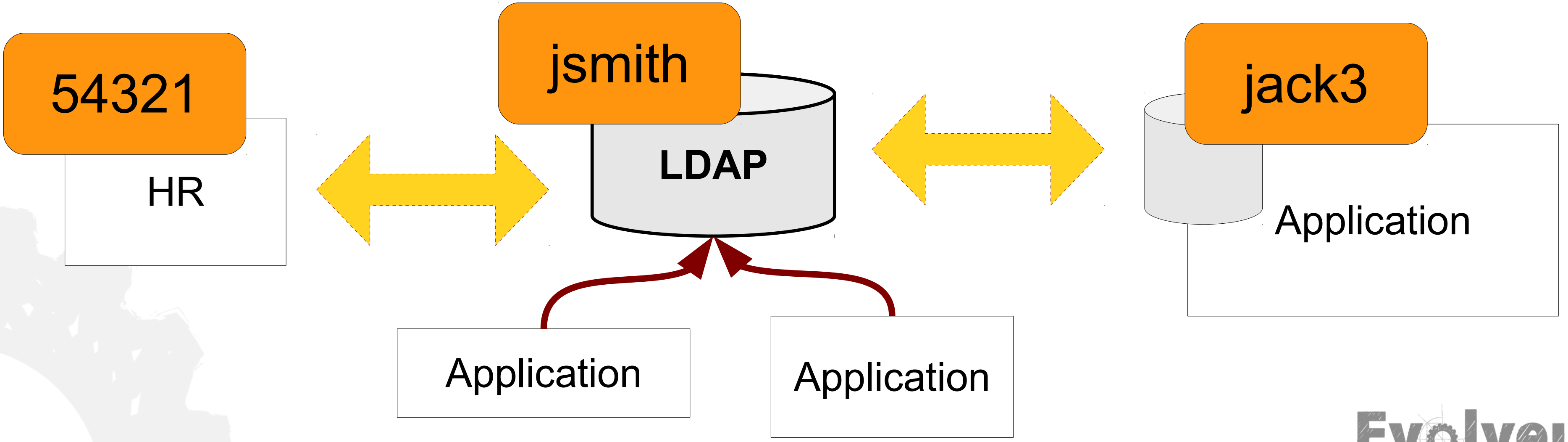
Inconsistent Data

- History (inconsistent identifier assignment)
- Naming constraints (e.g. max 8 chars username)
- Convenience (nobody likes username `x654637ab`)



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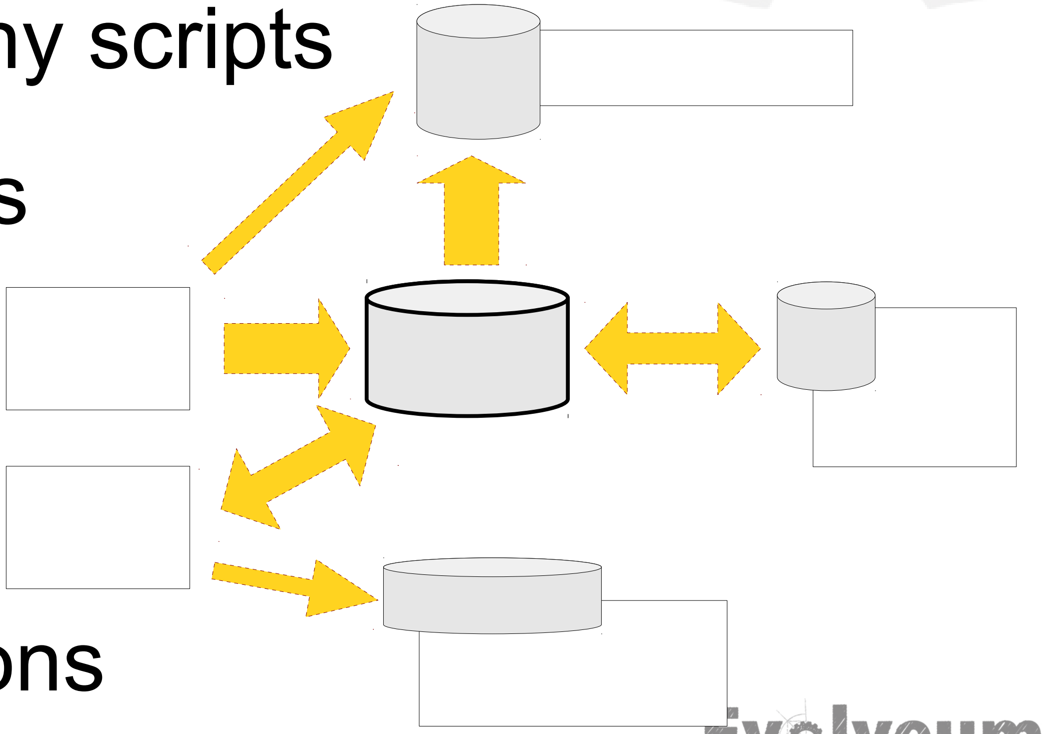
Scripts won't work

Synchronization scripts are easy to create …

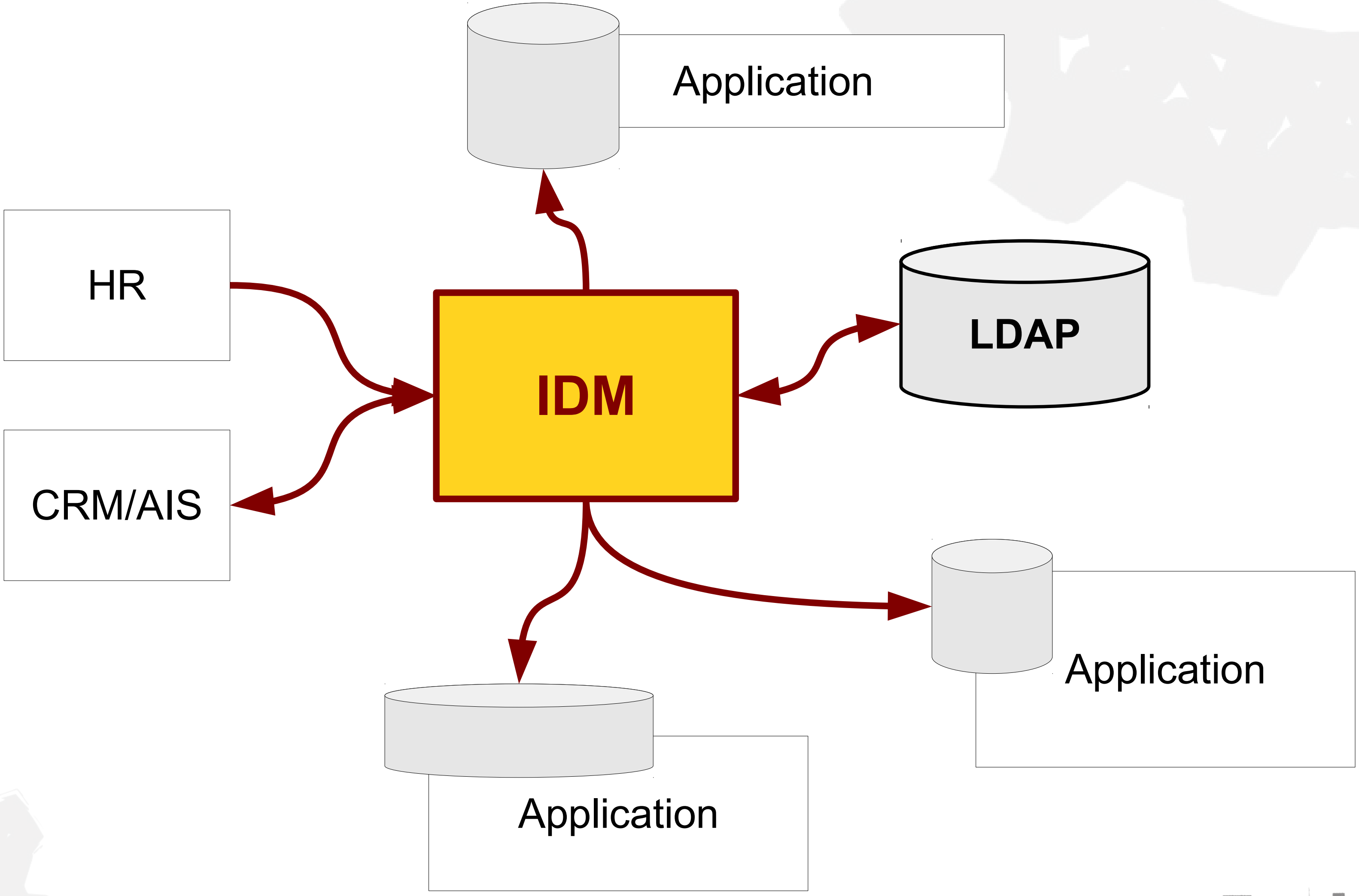
… but very hard to maintain

- Error handling (timeout, retry)
- Many systems = many scripts
- Both directions, loops
- Compare data
- Correlate data
- Policies and exceptions

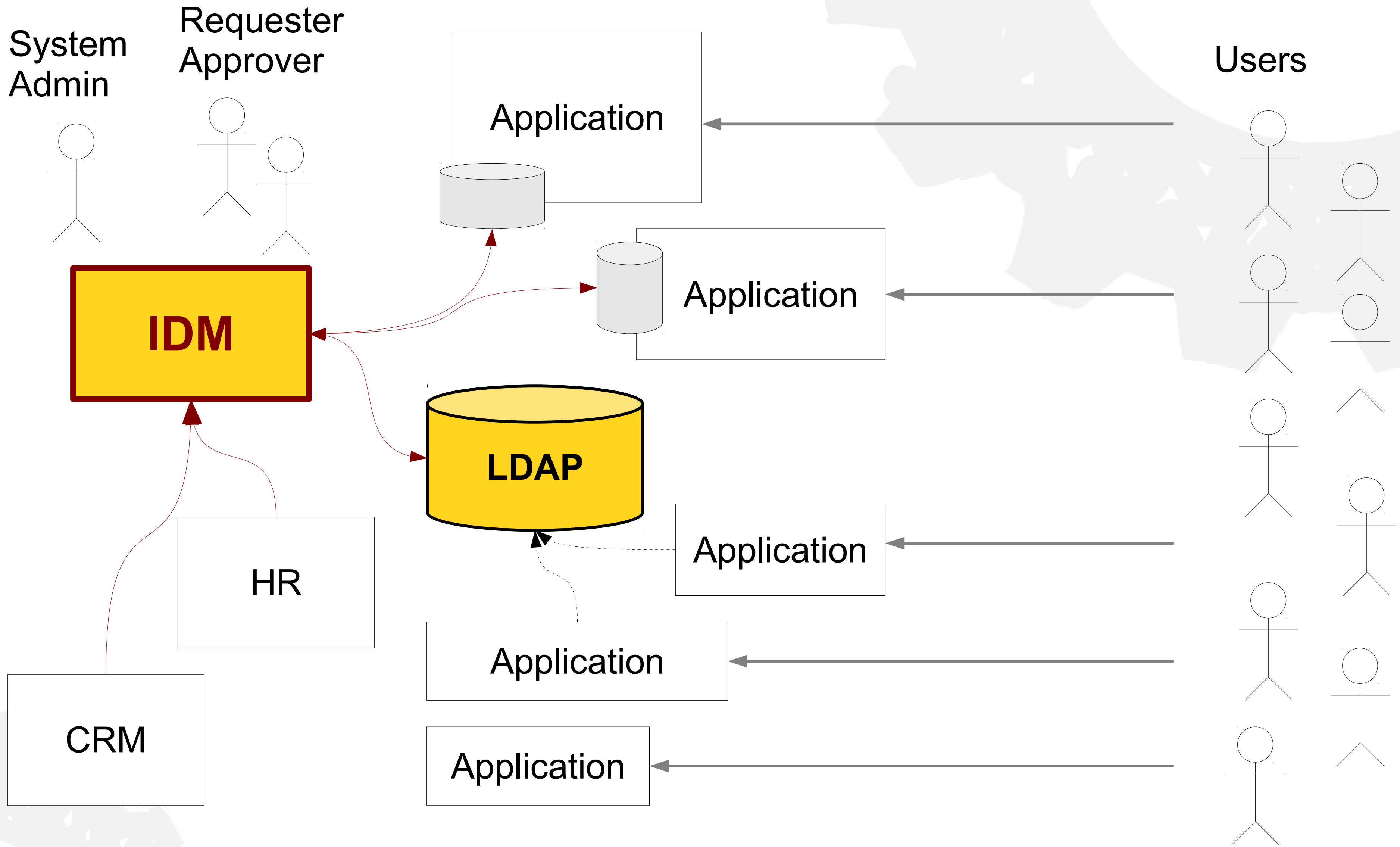


Identity Management

Identity Management (Identity Provisioning)



Identity Management



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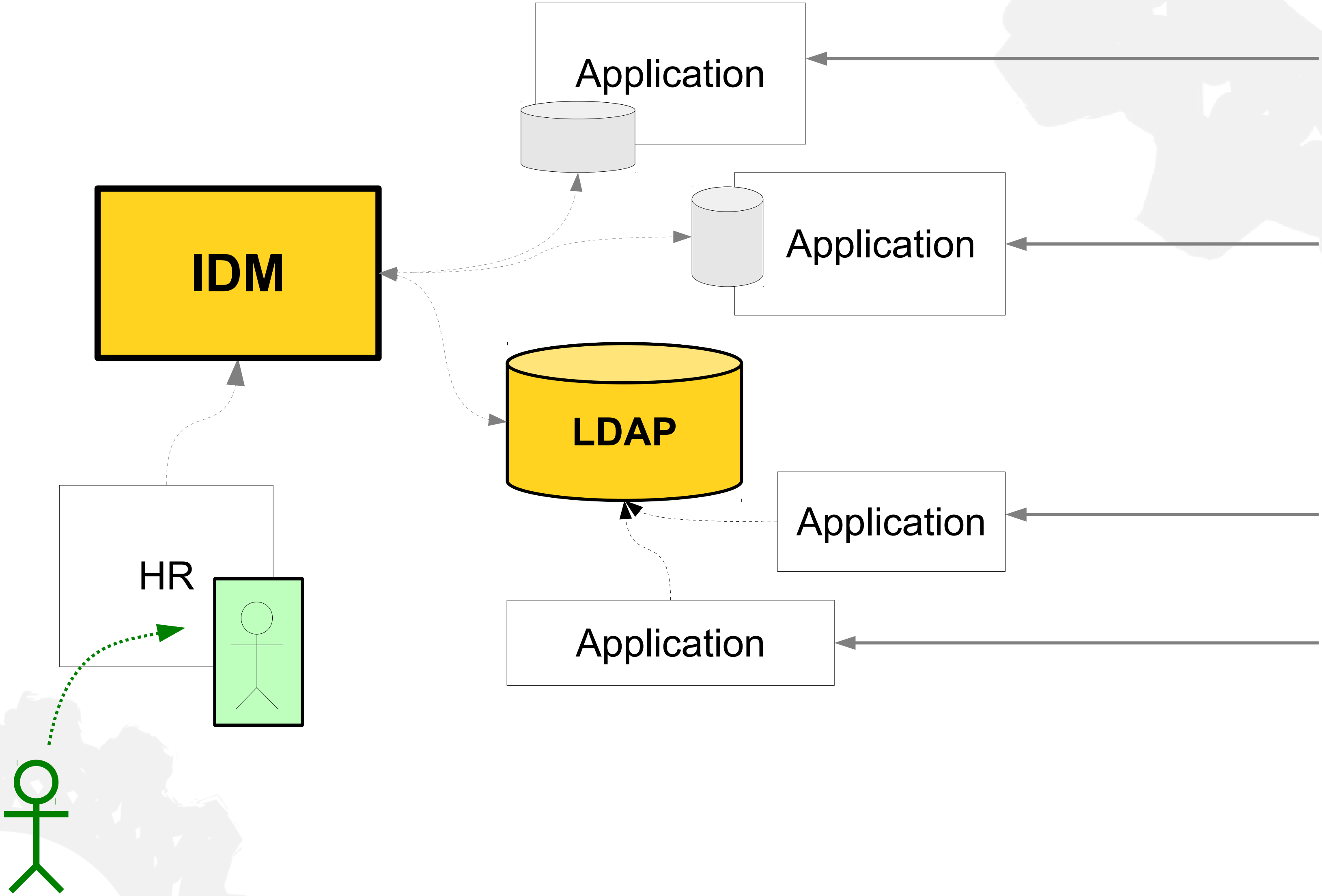
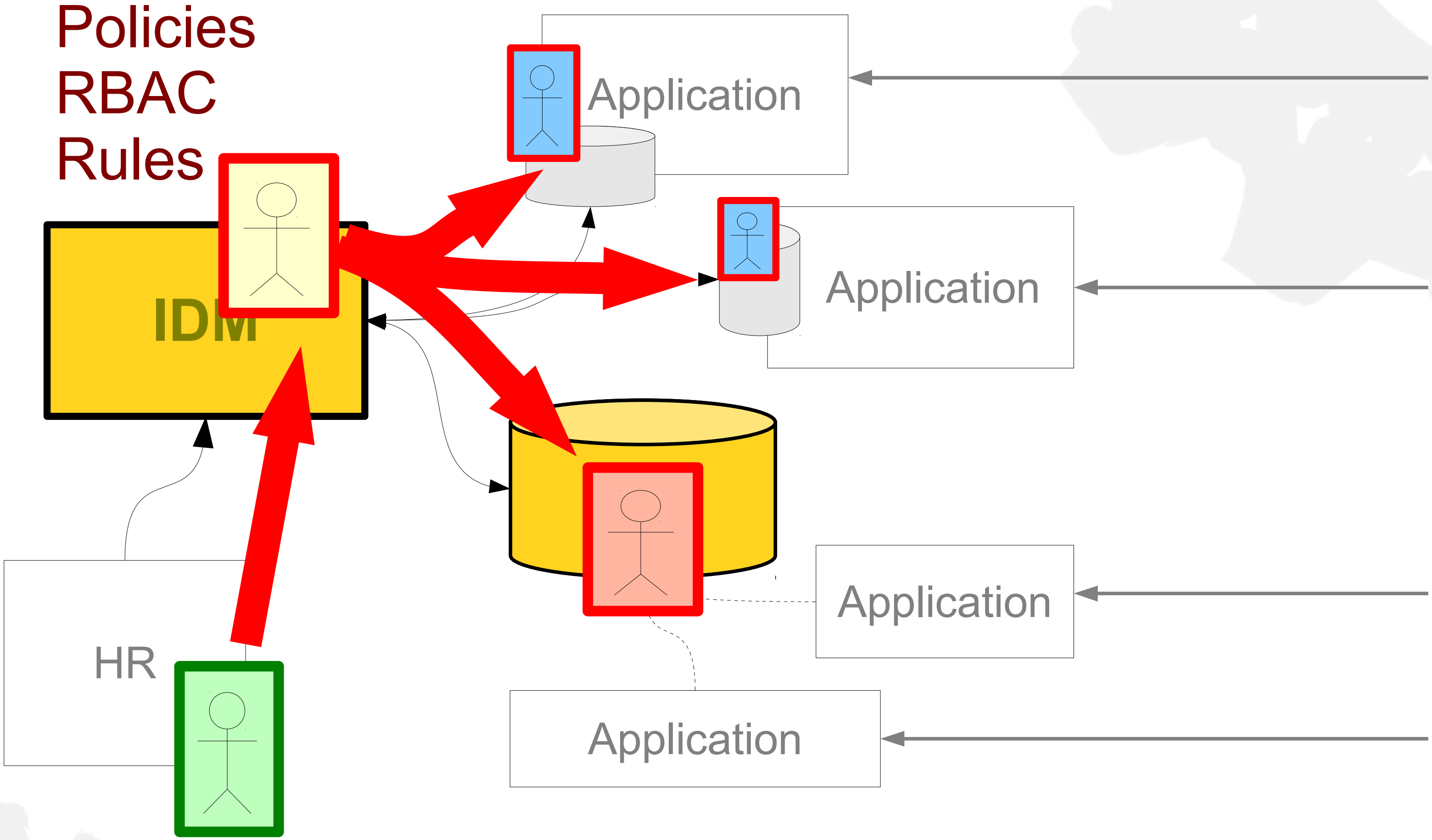
How it works?


Application
Application
IDM
LDAP
Application
HR
Application

Automatic user provisioning



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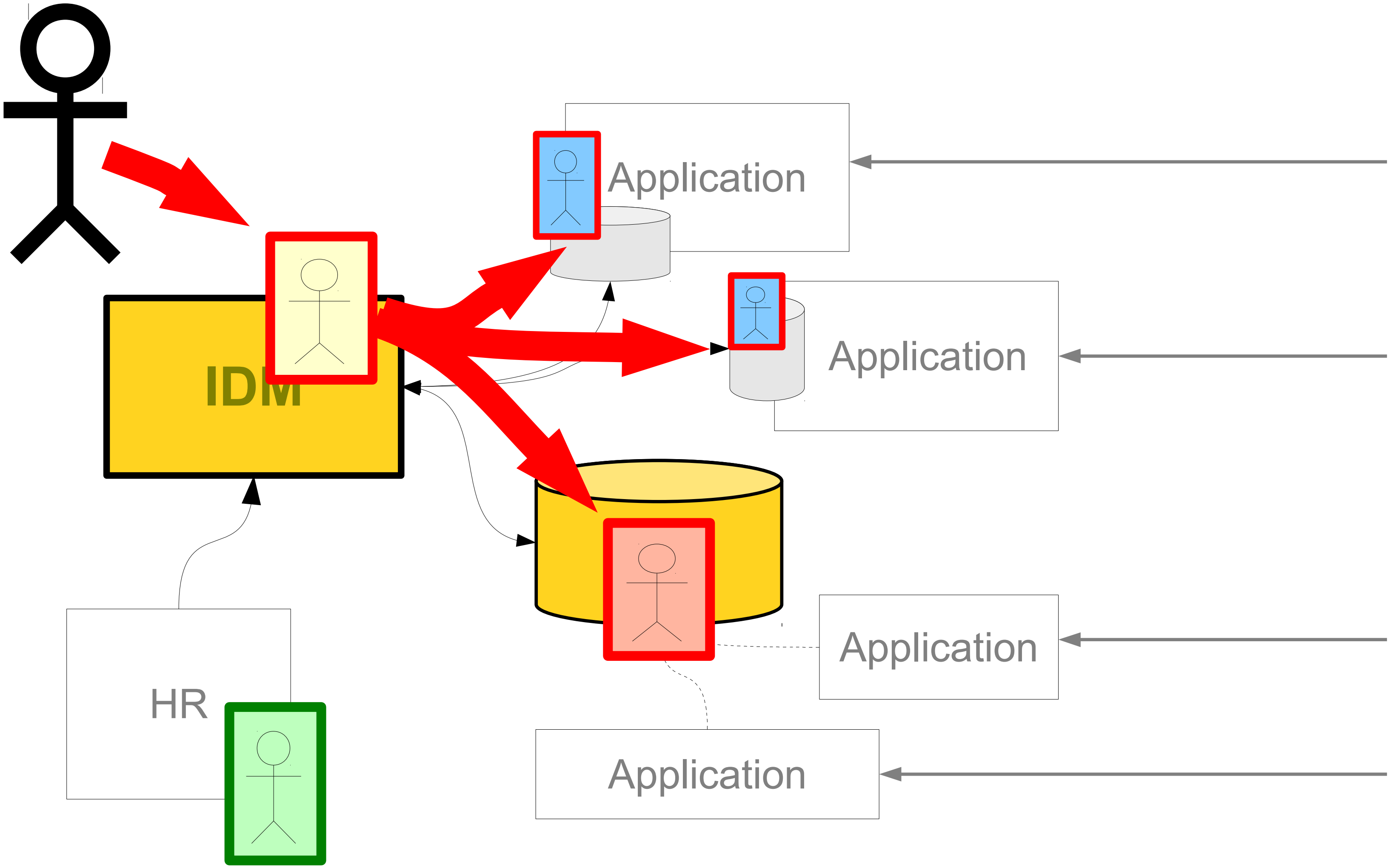
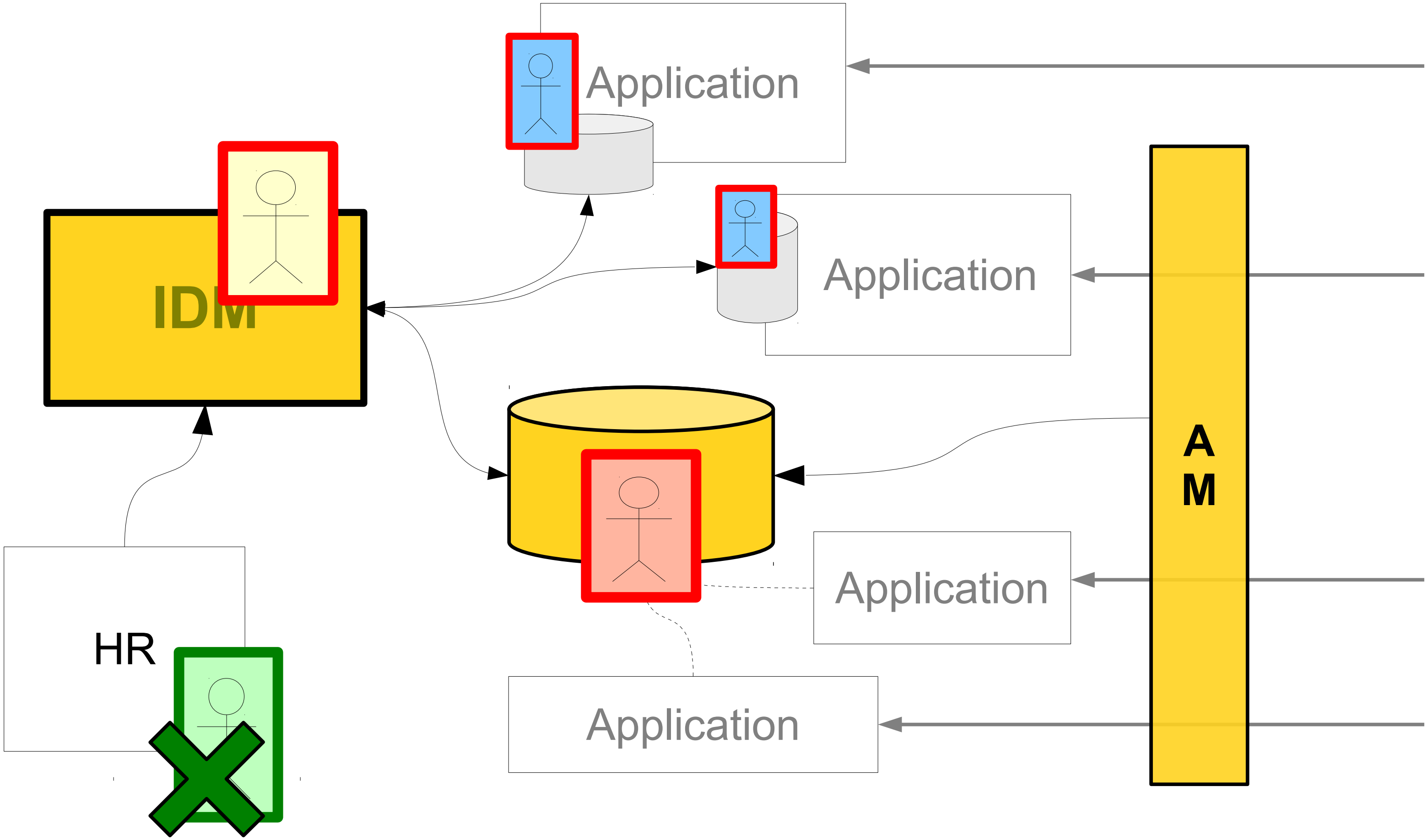
IDM is Much More

- Provisioning, deprovisioning, synchronization
- Role-Based Access Control (RBAC)
- Audit
- Password management
- Workflow: request and approval
- Organizational structure
- Delegated Administration
- ...

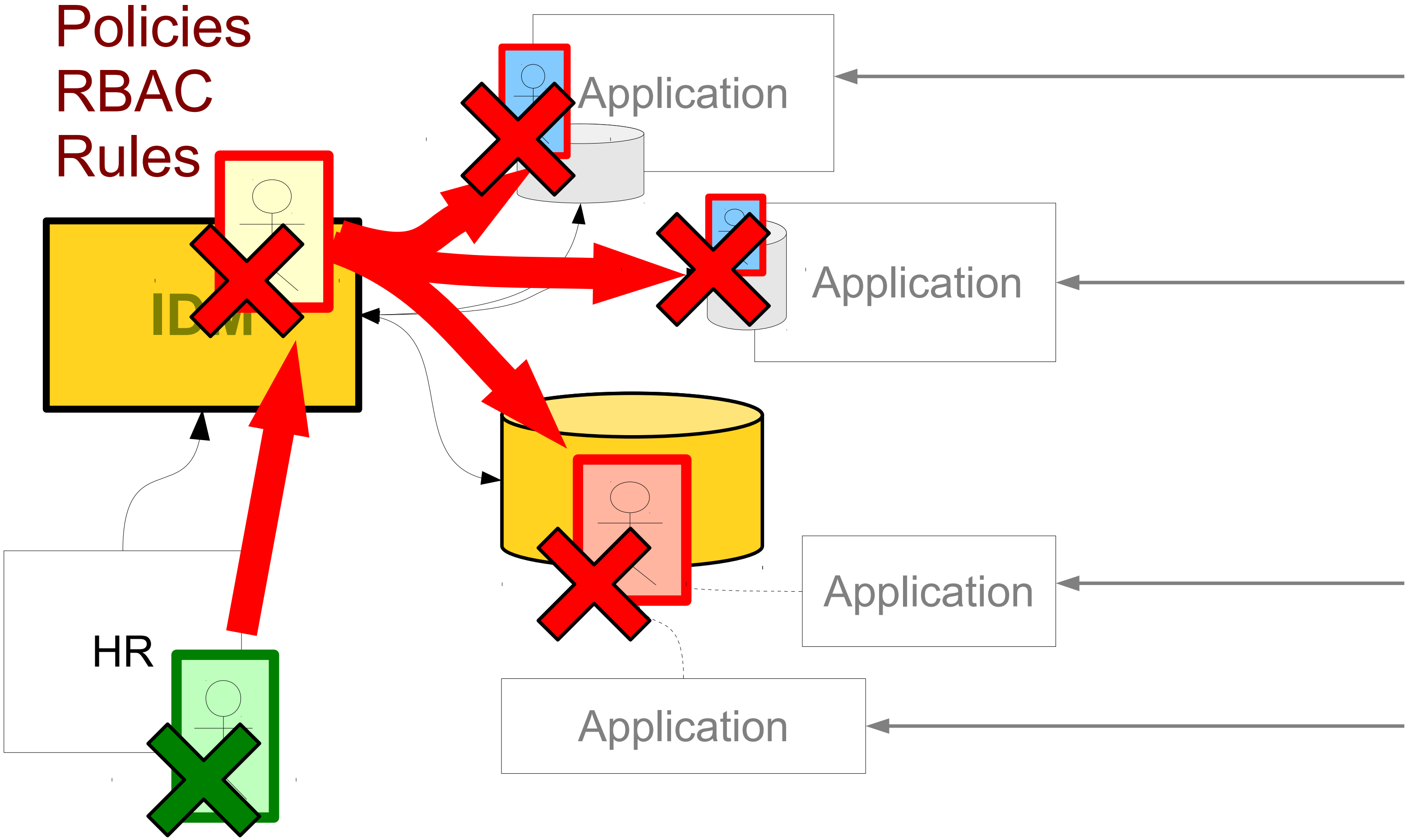
Password reset



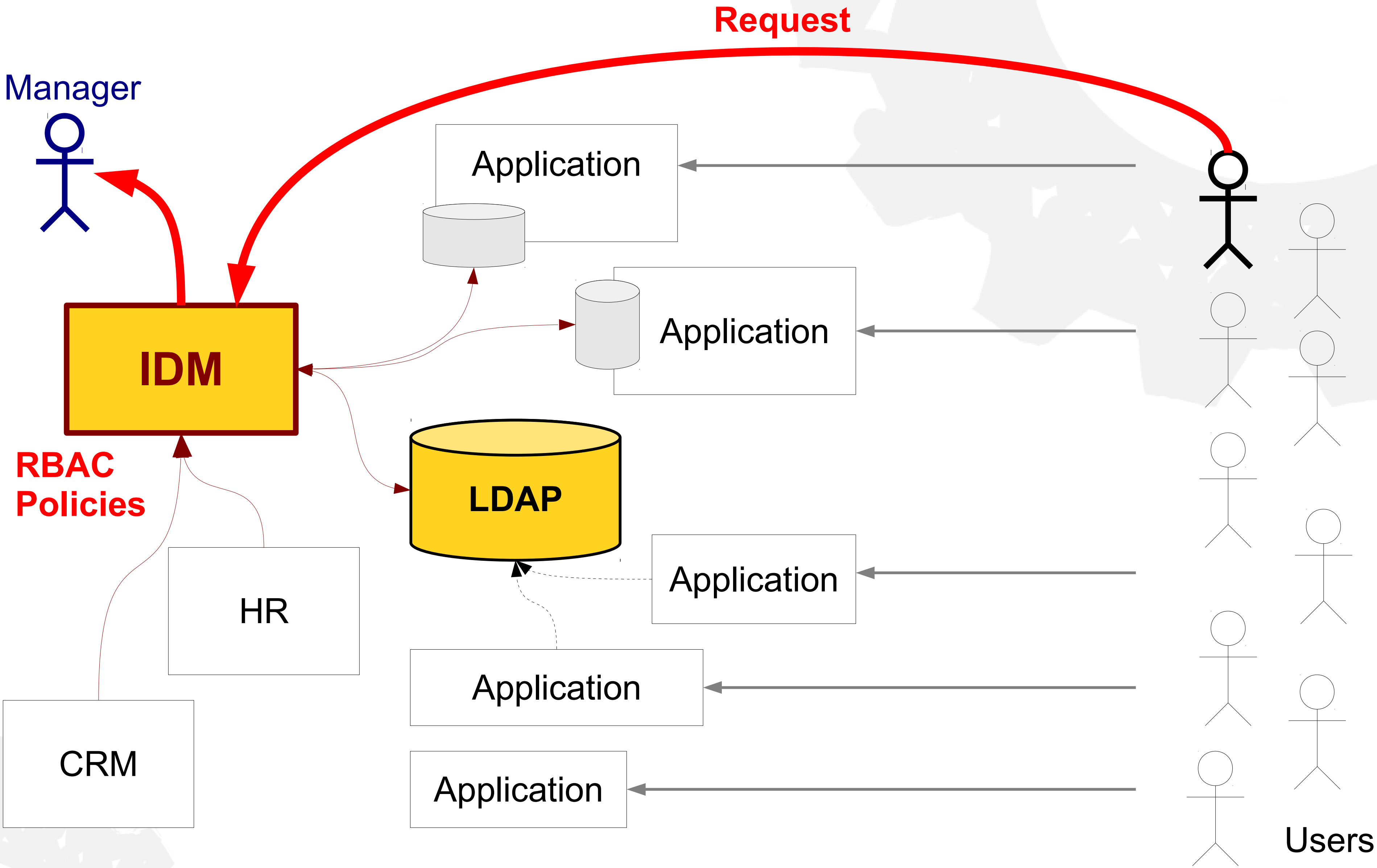
Employee Leaves Company



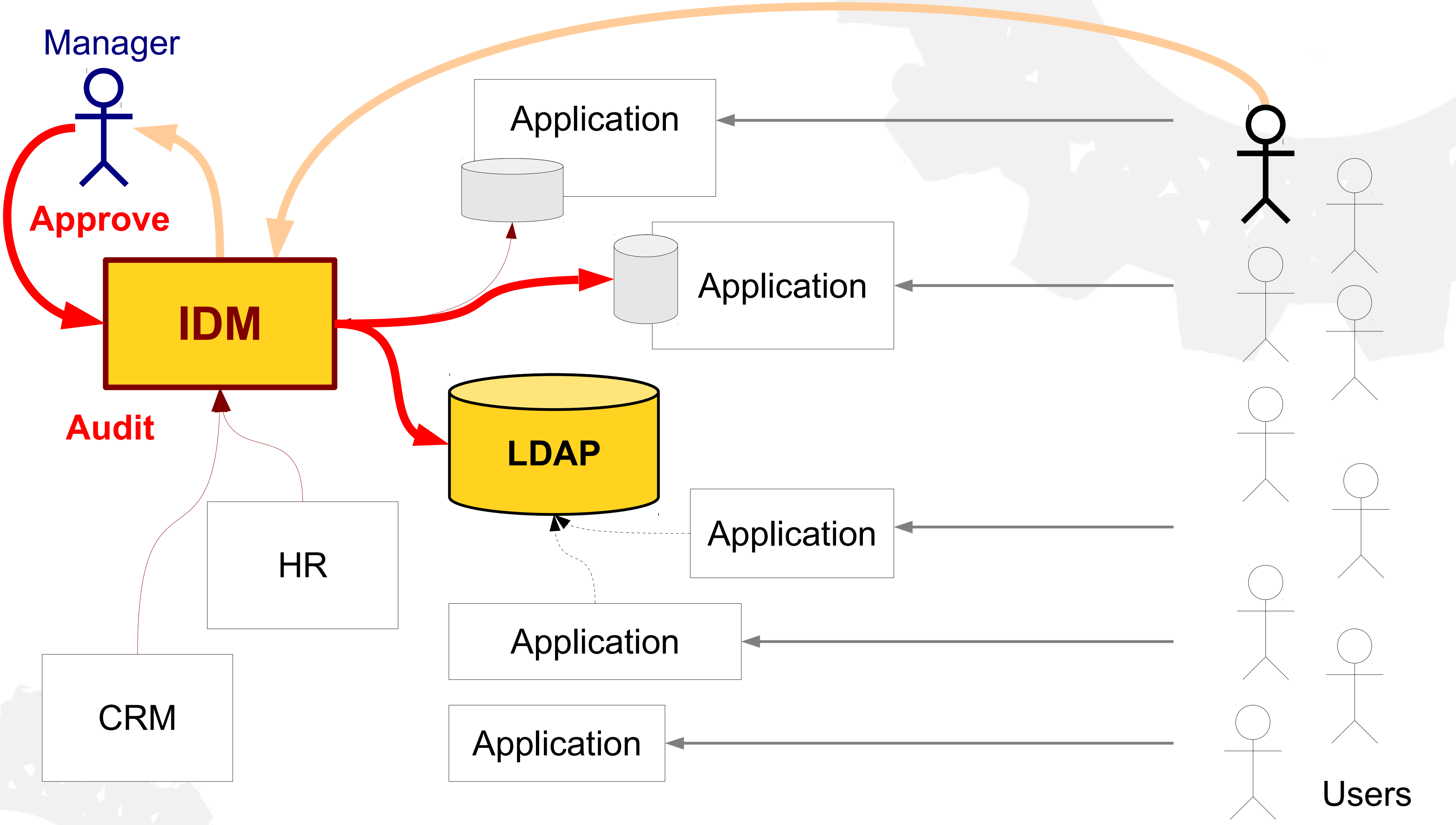
Automatic user deprovisioning



Workflow


Request
Manager
Application
Application
IDM
RBAC
Policies
LDAP
Application
HR
Application
CRM
Application
Users

Workflow



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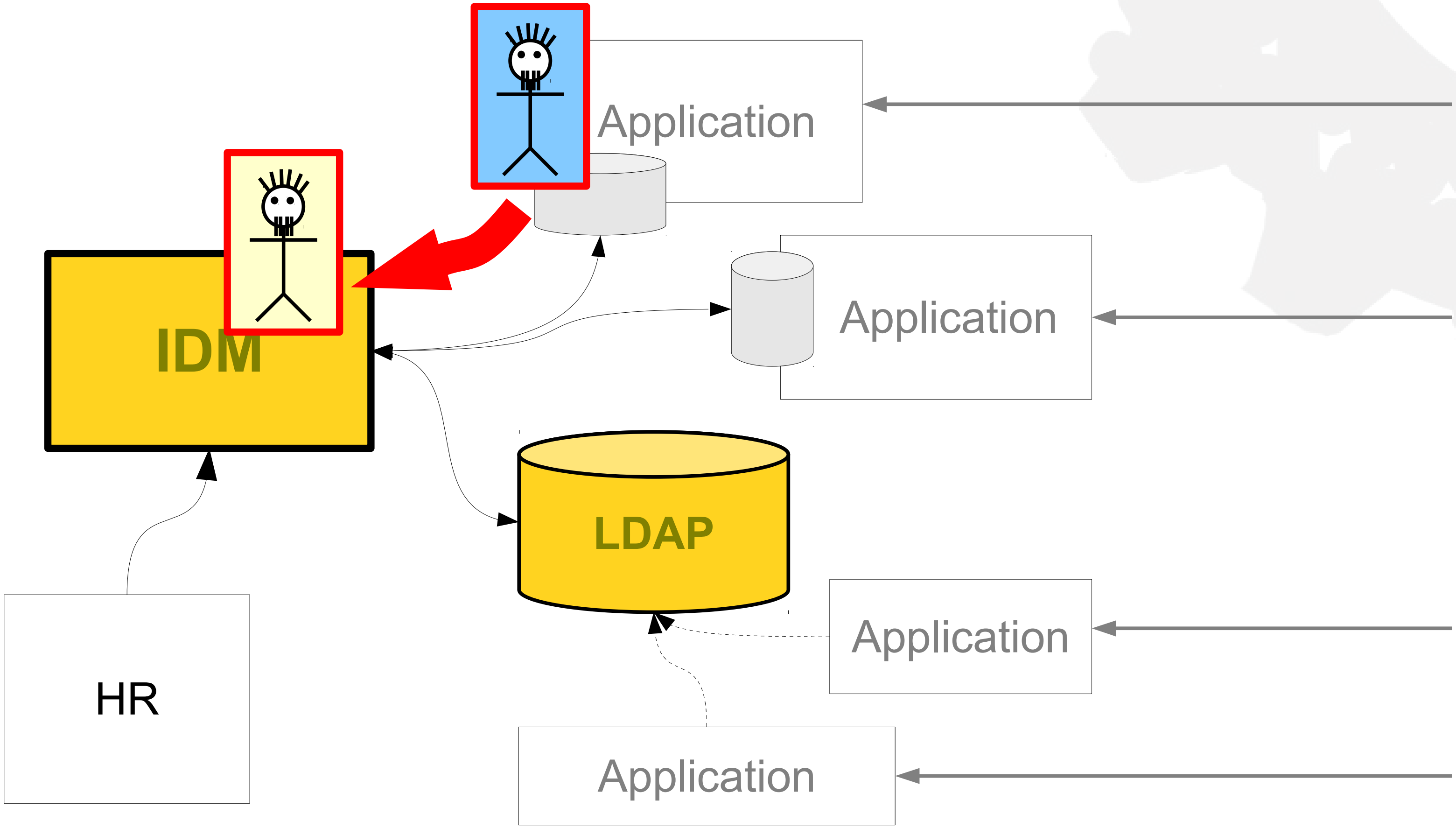
Bidirectional Synchronization



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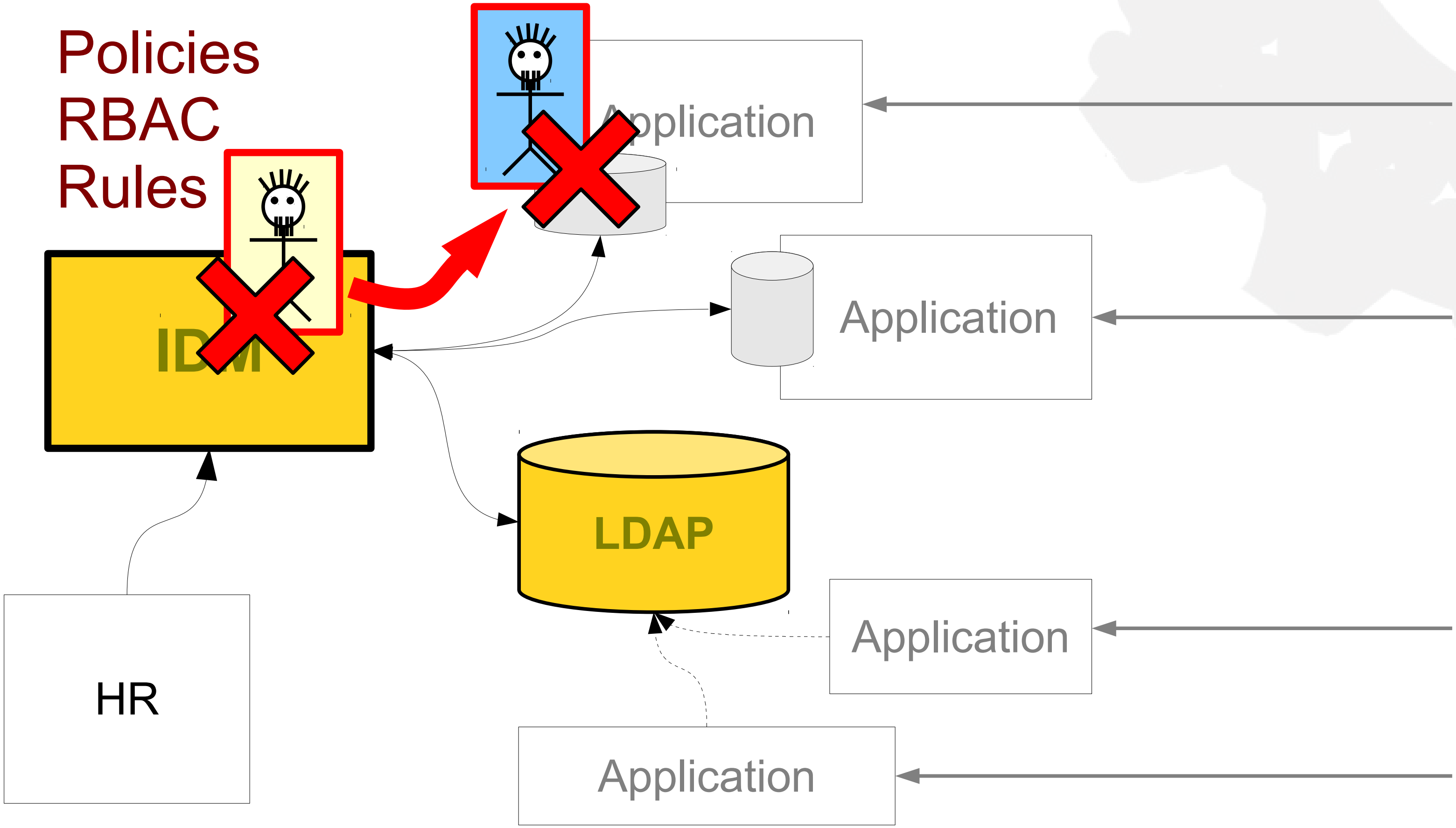
Policy enforcement



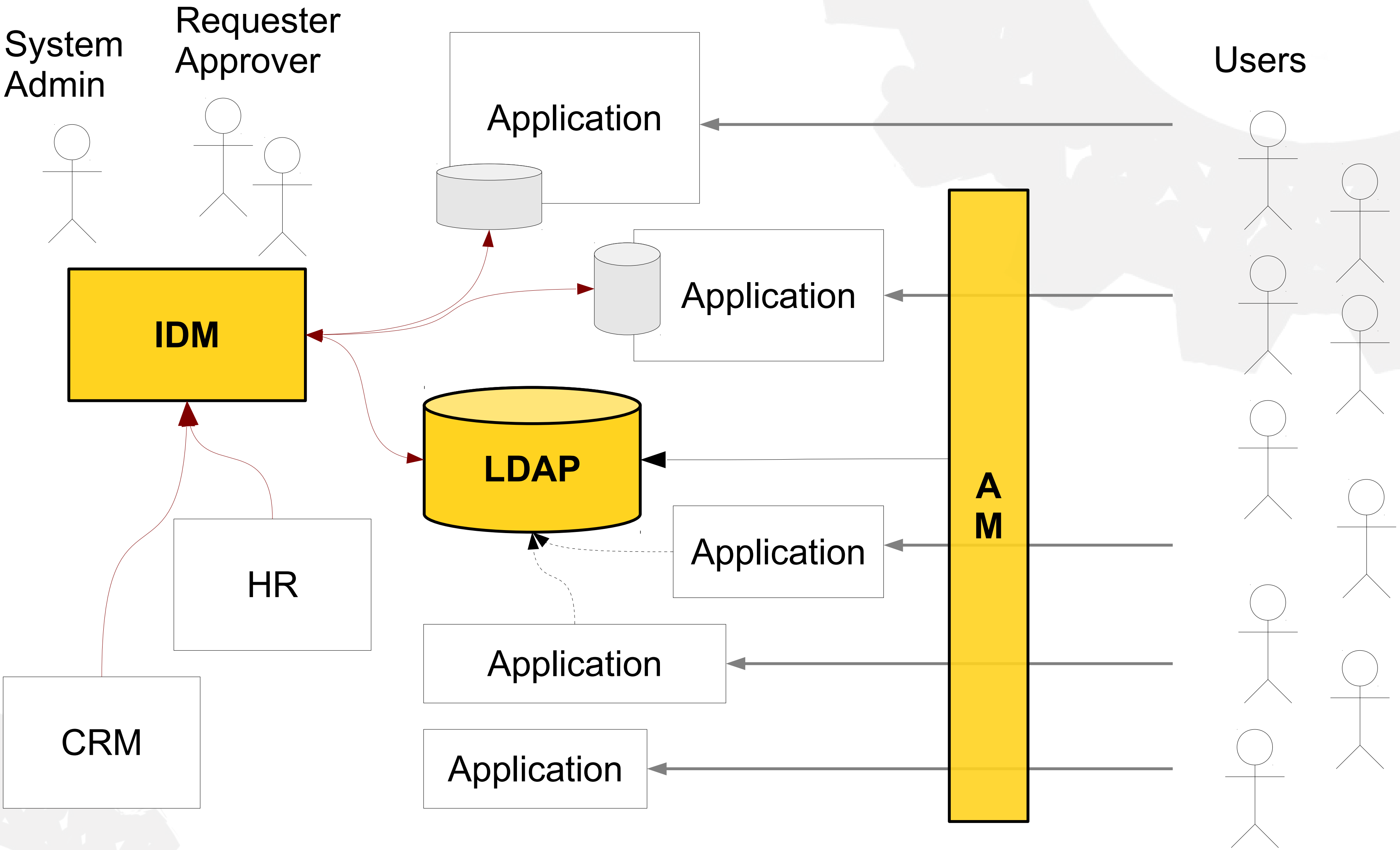
IDM is the First

If you are starting IAM project start with IDM

- IDM will help you clean up the data
- IDM will maintain order
- IDM will enforce policies
- IDM will speed up processes
- IDM for audit and compliance

Access Management

Identity and Access Management



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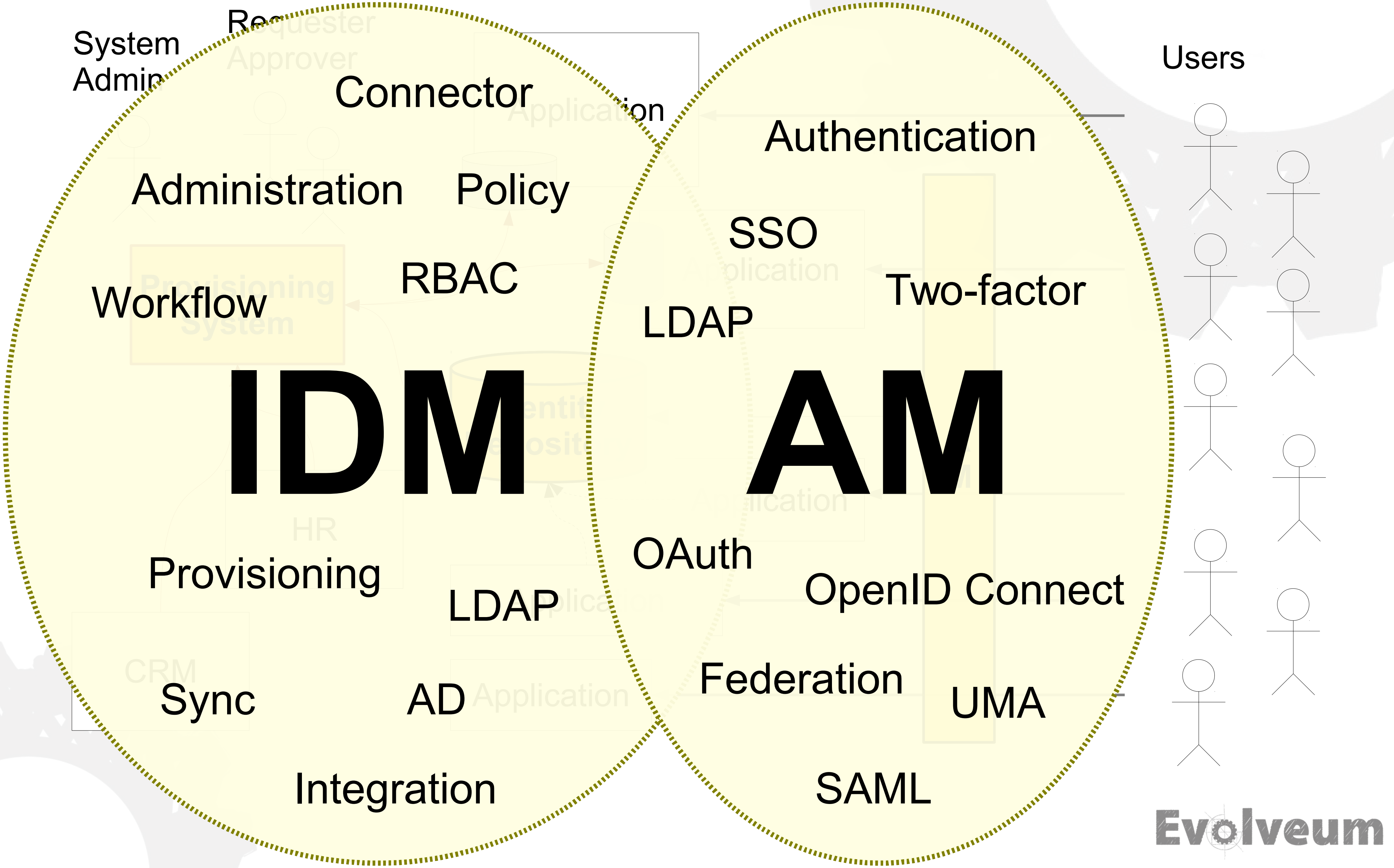
Access Management

- Single Sign-On
- Cross-Domain Single Sign-On
- Federation
- Social login

It needs clean and unified user database

therefore you need IDM first

Identity and Access Management



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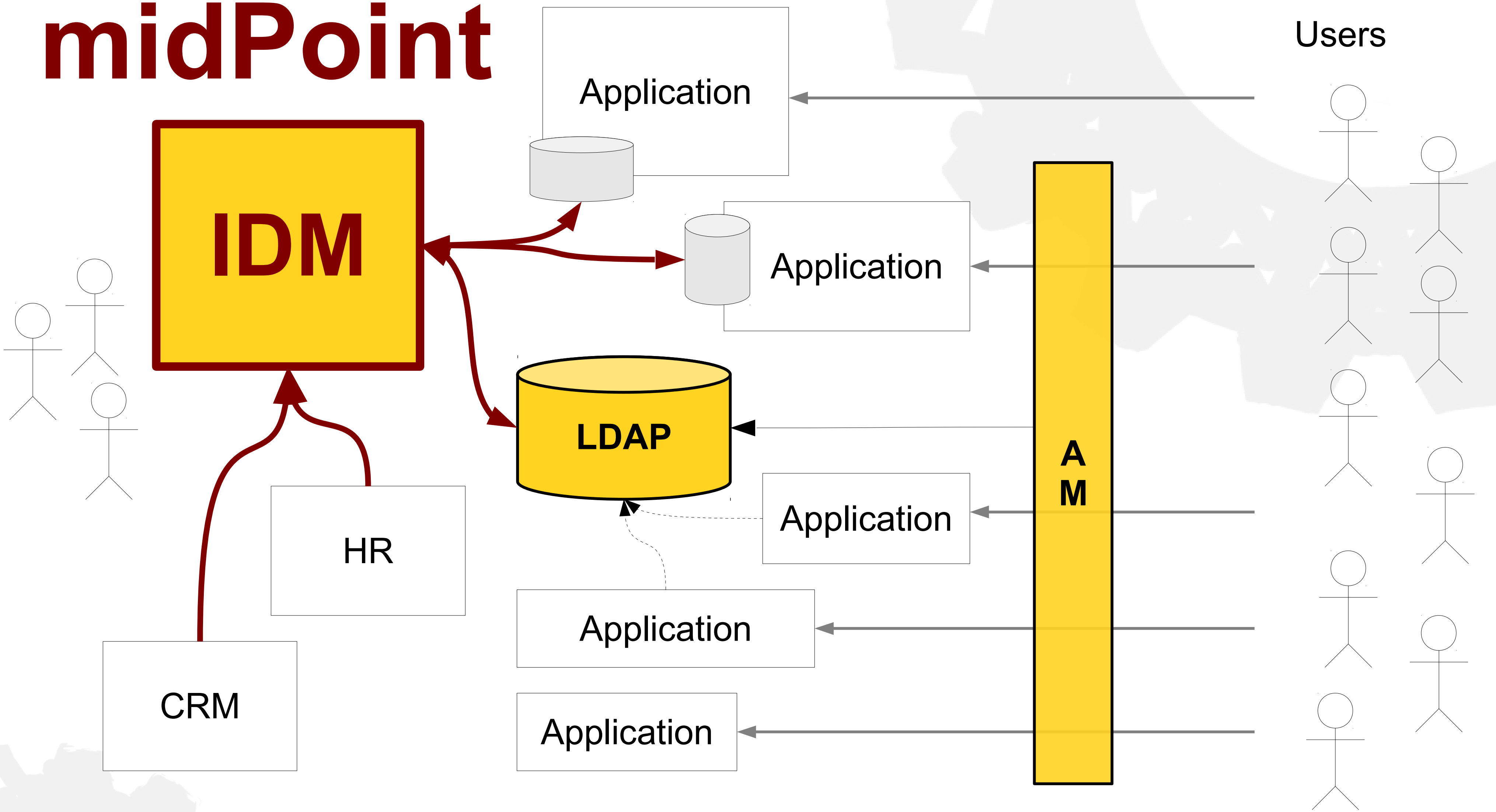
What about Evolveum?

midPoint



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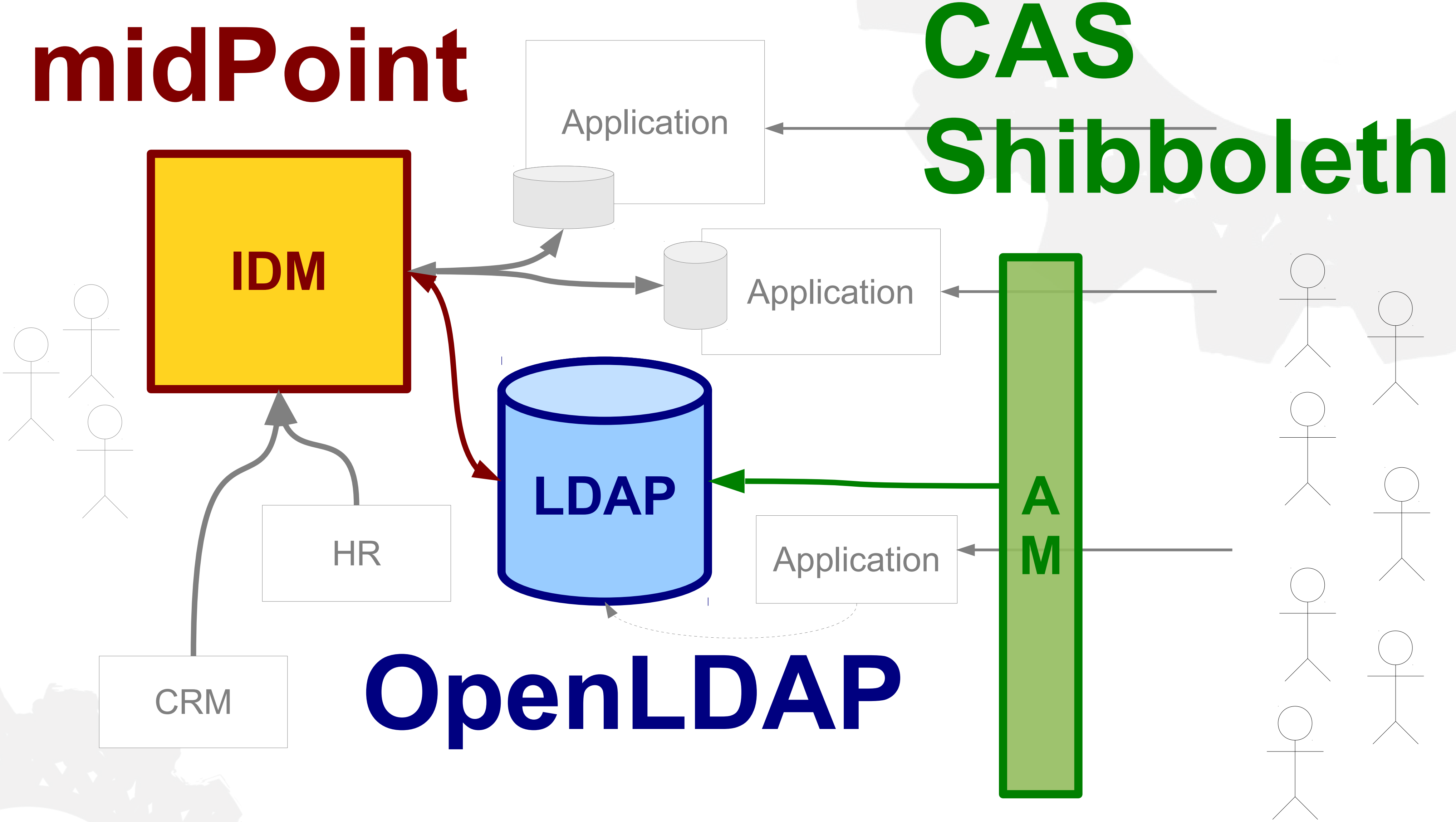
100% Open Source Solution



midPoint

CAS
Shibboleth

OpenLDAP

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Open Source

Identity Management

Cooperation

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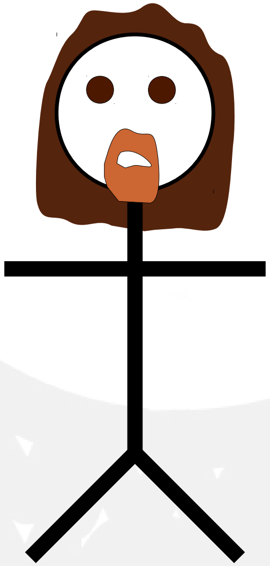
Conclusion

Conclusion

- Identity and Access Management
  - Goal: Operational efficiency & security (audit)
  - Easy to start, complex to maintain
- Identity Management is the start
- midPoint
  - Professional open source provisioning system
  - Next generation system: new technologies and unique features
  - Customer influence and participation

Questions and Answers

Thank You



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www.evolveum.com