MidPoint Deployment Fundamentals

MID-101

revision 4.4-LTS-E

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Course Goals

- Deploy and configure midPoint in enterprise environment
- Configure resources
- Create mappings for resource attributes
- Create and maintain role definitions (RBAC)
- Use initial import, LiveSync and reconciliation

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Course Goals (2)

- Extend XML Schema
- Create organizational structure
- Enforce policies using Object Templates and mappings
- Configure notifications
- Admin GUI configuration

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Course Goals (3)

- Create authorization roles in midPoint
- Understand associations between accounts and entitlements (groups)
- Create and maintain password and security policies

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Course Goals (4)

- Backup, restore and upgrade midPoint
- Manage connectors in deployed solution
- Understand deployment best practices
- Troubleshooting introduction

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Course Map

Module 1 **Basic IdM & midPoint Concepts**	**Module 2** **MidPoint Project**	**Module 3** **Resources, Attributes and Mappings**
Module 4 **Provisioning to Resources**	**Module 5** **Accounts, Assignments And Roles**	**Module 6** **Configuring Multiple Account Intents**

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Course Map (2)

Module 7

Synchronization Flavours

Module 8

Extending midPoint Schema

Module 9

Organization Structure

Module 10

Object Templates

Module 11

System Configuration

Module 12

Authorizations

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Course Map (3)

Module 13

Entitlements and Associations Introduction

Module 14

Password and Security Policies

Module 15

Backup, Restore and Upgrade

Module 16

Managing Connectors

Module 17

Deployment Best Practices

Module 18

Logging and Troubleshooting

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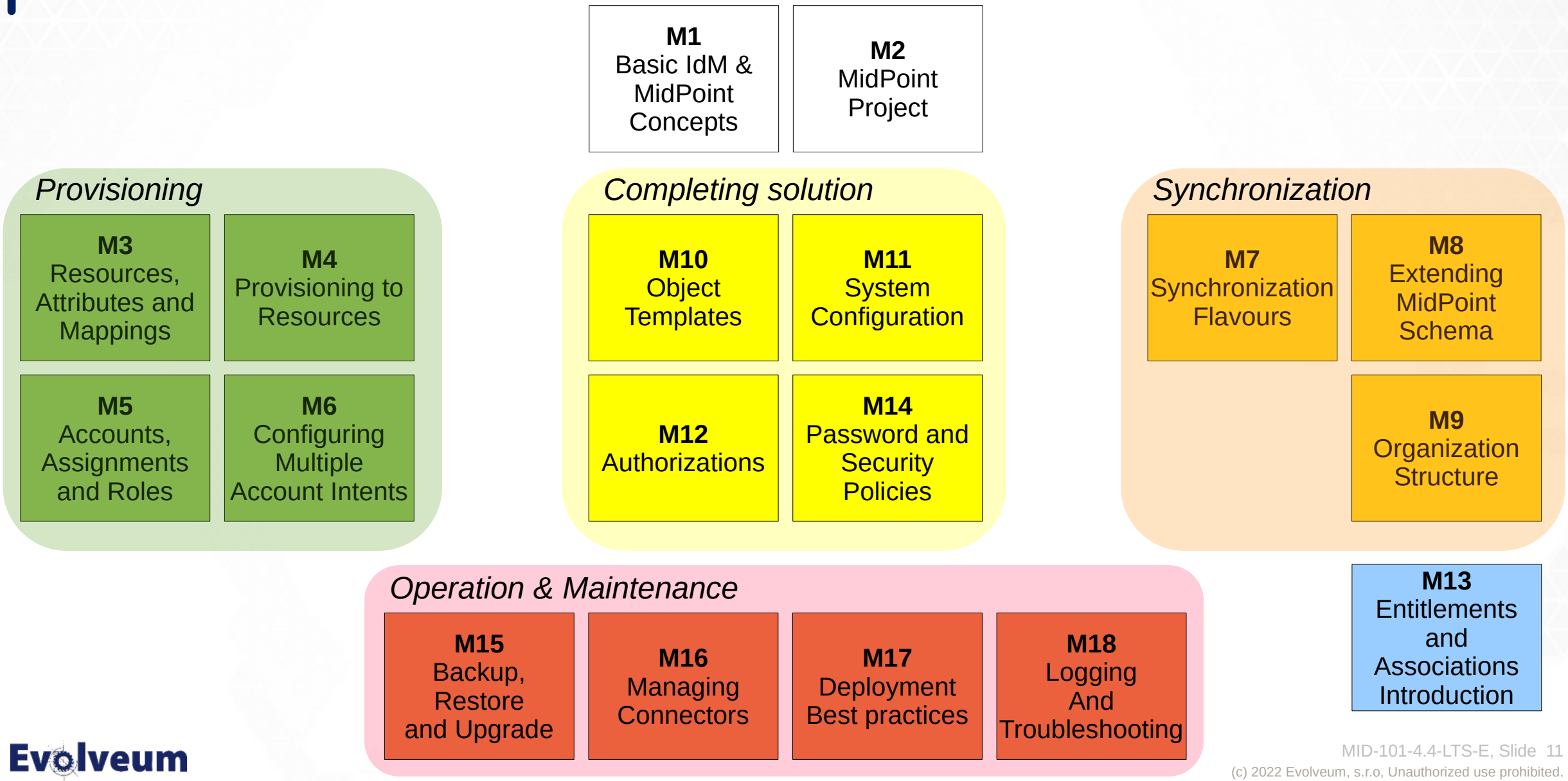
Course Map Relations



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Note

- This is a **sample** of our training materials
- Please contact **sales@evolveum.com** to order a real training course session

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Accounts, Assignments and Roles

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User and Resource Accounts

- User represents the identity (employee, contractor etc.), it resides in midPoint
- Accounts reside on target systems
- Accounts have variable attributes, their meaning and representation
  - One vs multiple identifier(s)
  - Syntax of identifier(s) differs (string, integer)
- Integration handled by midPoint

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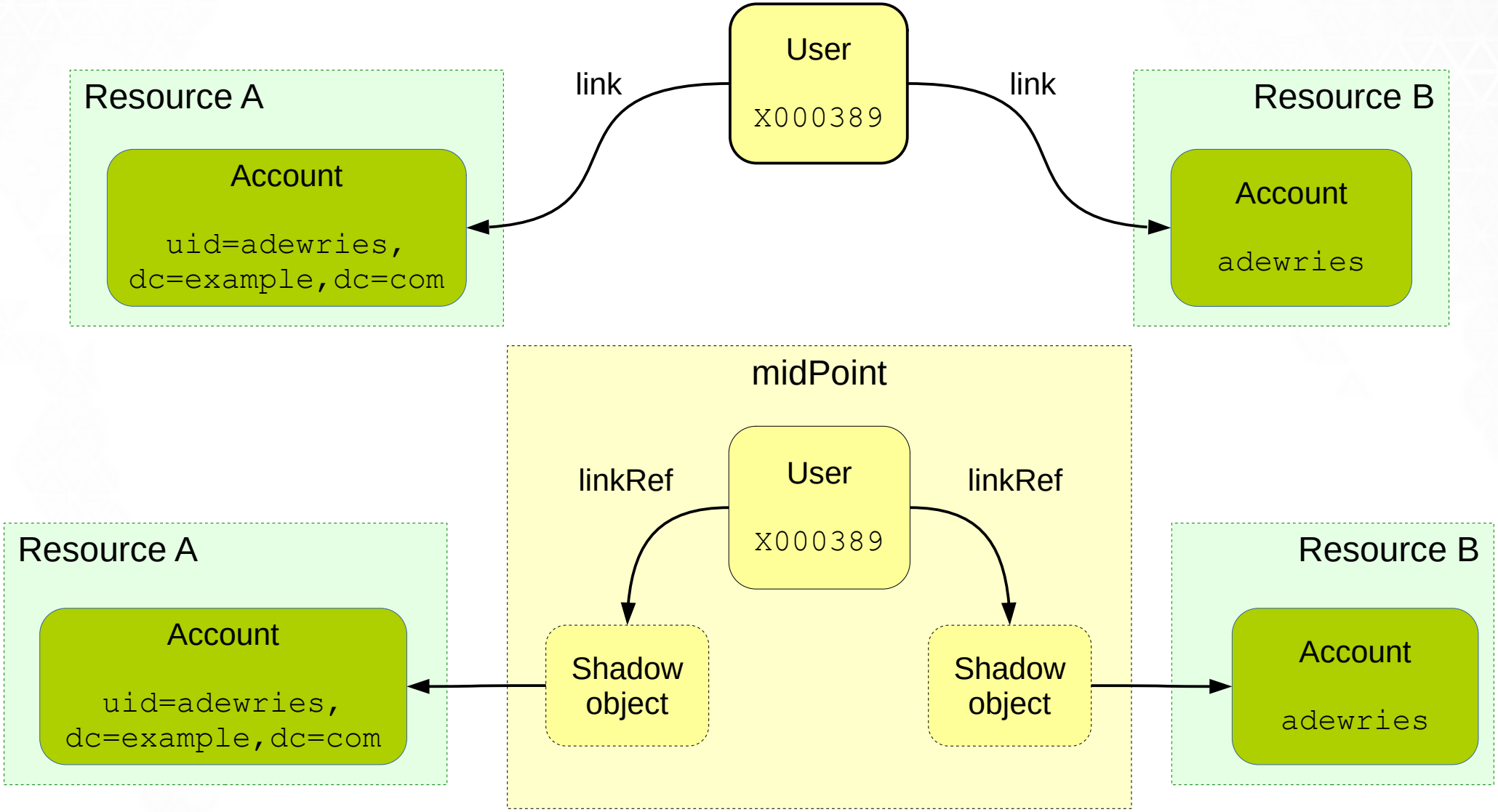
User and Resource Accounts (2)



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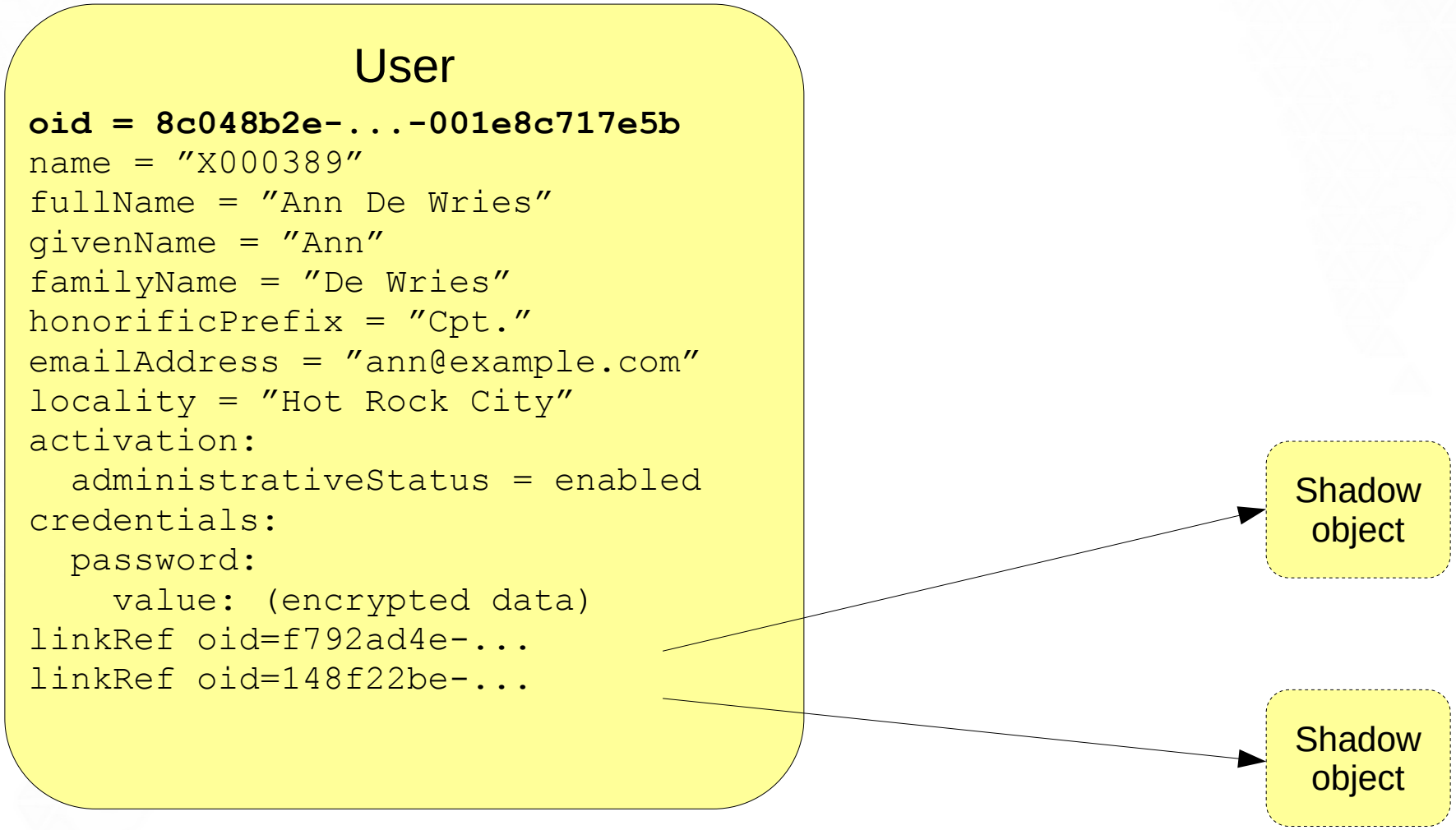
User and Resource Accounts (3)



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User and Resource Accounts (4)

- Attributes (schema) and account identifiers differ between target systems
- Account resides on the resource, it is not a midPoint object but a projection (no oid)
- MidPoint maintains the link: User → Account
  - Intermediate **Shadow** objects are used
  - Static schema

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Shadow Object

- Object that connects midPoint world (repository) to the outside world (resource)
- Equivalent of resource object of which midPoint is aware
- Object in repository mirroring some of the account characteristics such as identifier(s) of the account (fixed schema)
- Other data is fetched on demand or cached
- You will probably never need to modify it directly

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Shadow Object (2)

- Stored identifiers depend on the target system and/or connector

Most connectors	Polygon LDAP connector	Polygon CSV connector*
icfs:name	ri:dn	ri:<custom>
icfs:uid	ri:entryUUID	ri:<custom>

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Shadow Object In Repository

```
<object ... oid="11001ad7-ca95-4de0-9849-8a42f9c817de" xsi:type="ShadowType">
  <name>uid=adewries,dc=example,dc=com</name>
. . .
   <resourceRef oid="ef2bc95b-76e0-48e2-86d6-a000ff000003"/>
   <objectClass ...>qn792:AccountObjectClass</objectClass>
. . .
   <attributes>
      <ri:dn>uid=adewries,dc=example,dc=com</ri:dn>
   </attributes>
</object>
```


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Shadow Object in Memory

Shadow object of an account

```
oid = f792ad4e-...
name = ”uid=adewries,dc=example,dc=com”
resourceRef oid=aa19d01e-...
objectClass = AccountObjectClass
attributes:
  dn = ”uid=adewries,dc=example,dc=com
  uid = ”adewries”
  cn = ”Ann De Wries”
  sn = ”De Wries”
  givenName = ”Ann”
activation:
  administrativeStatus = enabled
credentials:
  password:
    value: (encrypted data)
```

ConnId special(s)
Stored in repo
(one or more)

Resource object attributes (dynamic; different for each target system)

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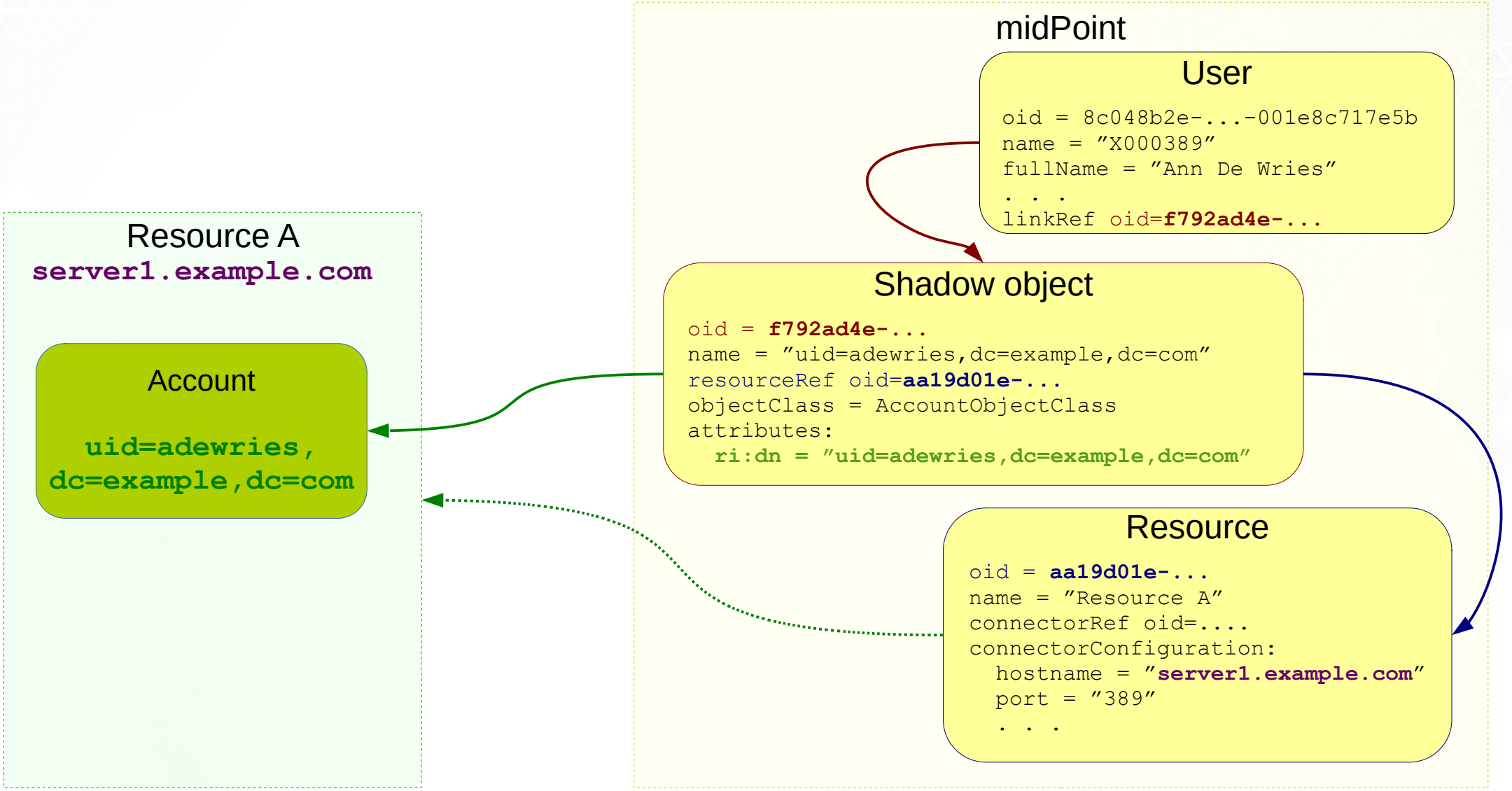
User – Accounts Links Implementation



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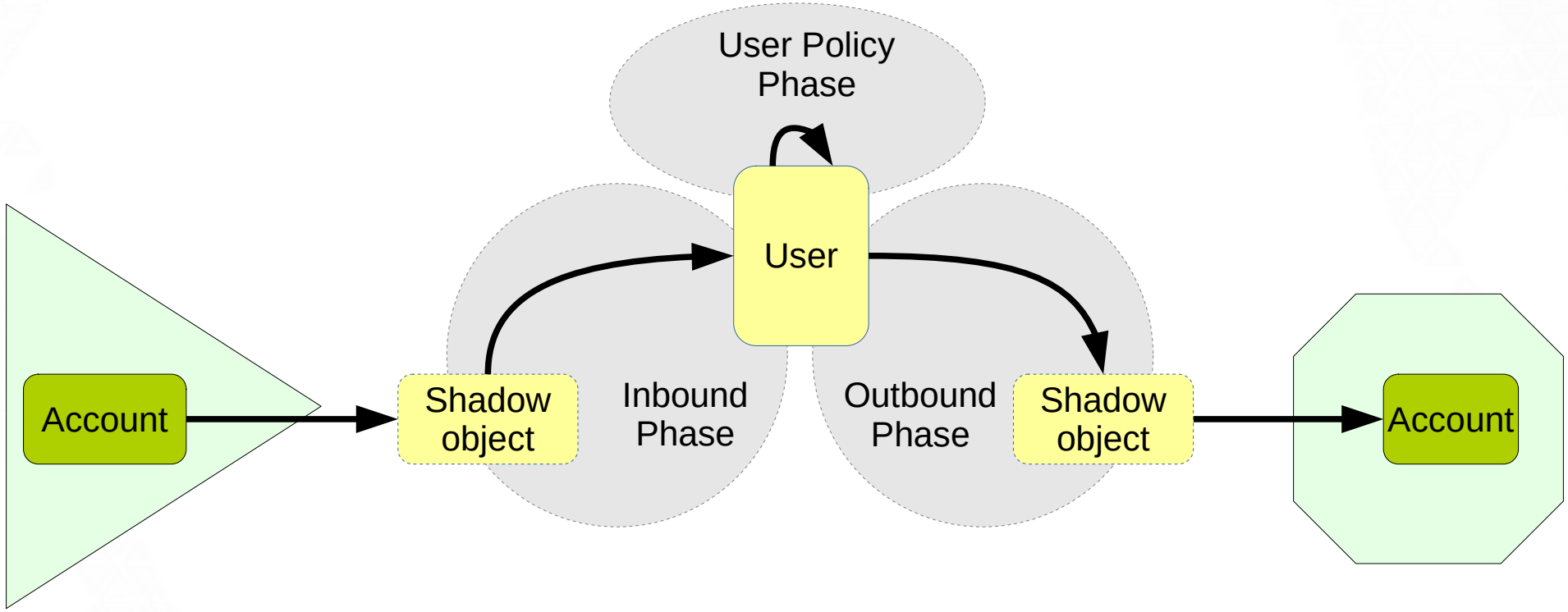
MidPoint User Provisioning Phases



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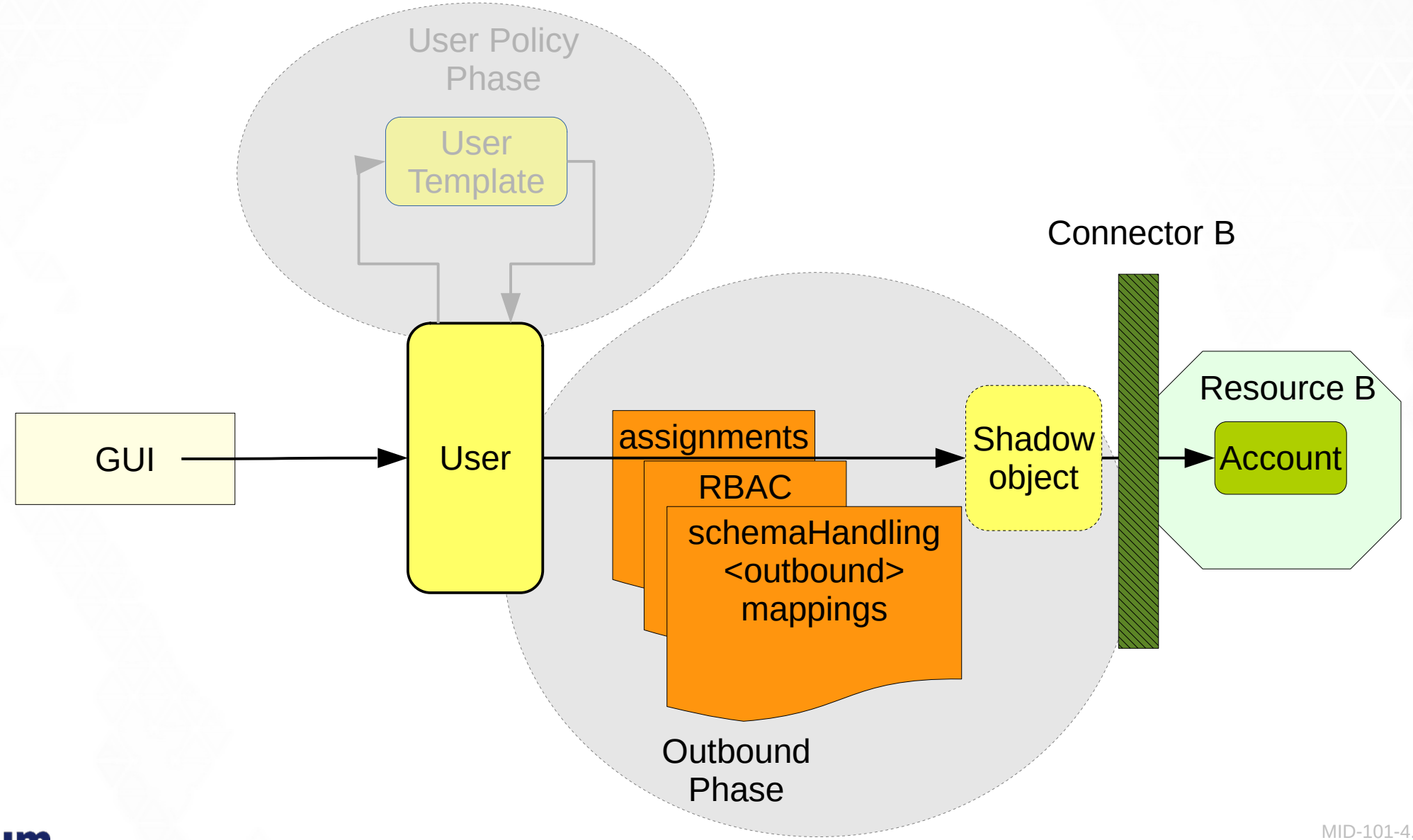
Outbound Phase Detail



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Linked Accounts vs. Assignments

- Link: User-account relationship
  - What IS on the resource
- Assignment: User-assignment-account(s) relationship
  - What SHOULD be on the resource(s)

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Assignment Types

- Account Assignments
  - Roles not required
- Role Assignments
  - Create roles first, assign them to users
- Organization Structure Assignments
  - OU membership
- Archetypes

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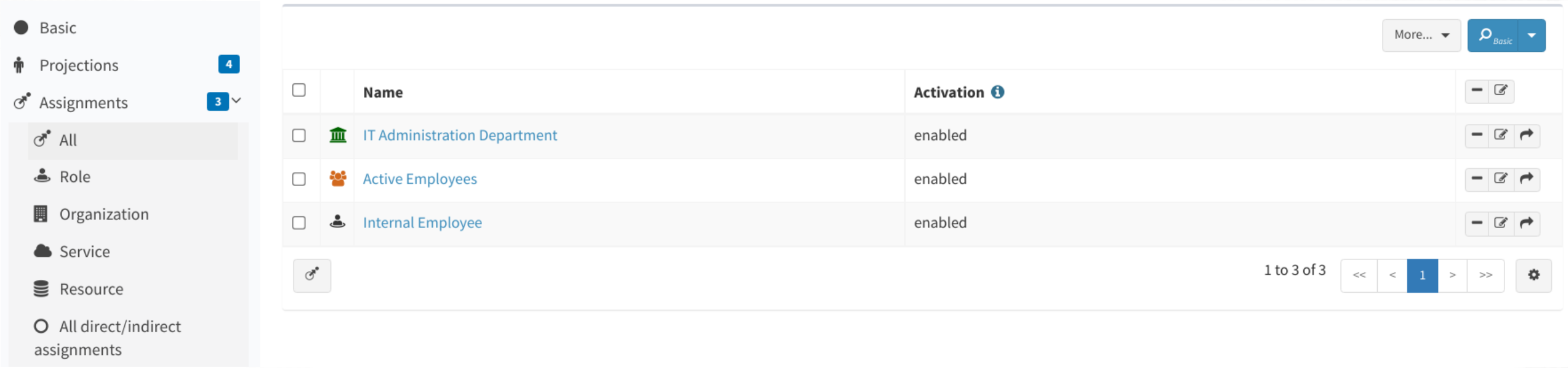
Assignments in GUI



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Lab 5-1: Using RBAC

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Lab 5-2: Segregation of Duties

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Lab 5-3: Shadows and Projections

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Lab 5-4: Creating Roles

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Lab 5-5: Disable on Unassign

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Lab 5-6: Inactive Assignment

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Lab 5-7: Archetypes Introduction

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Module 5: Self-assessment

- (not applicable for sample of the training)

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Module 5: Summary

- *Should be* vs. *Is*
- Assignment types
- Shadows and linkRefs
- RBAC, Assignments and Inducements
- Disable instead of delete
- Assignment Activation
- Archetypes

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End of Module

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Course Summary

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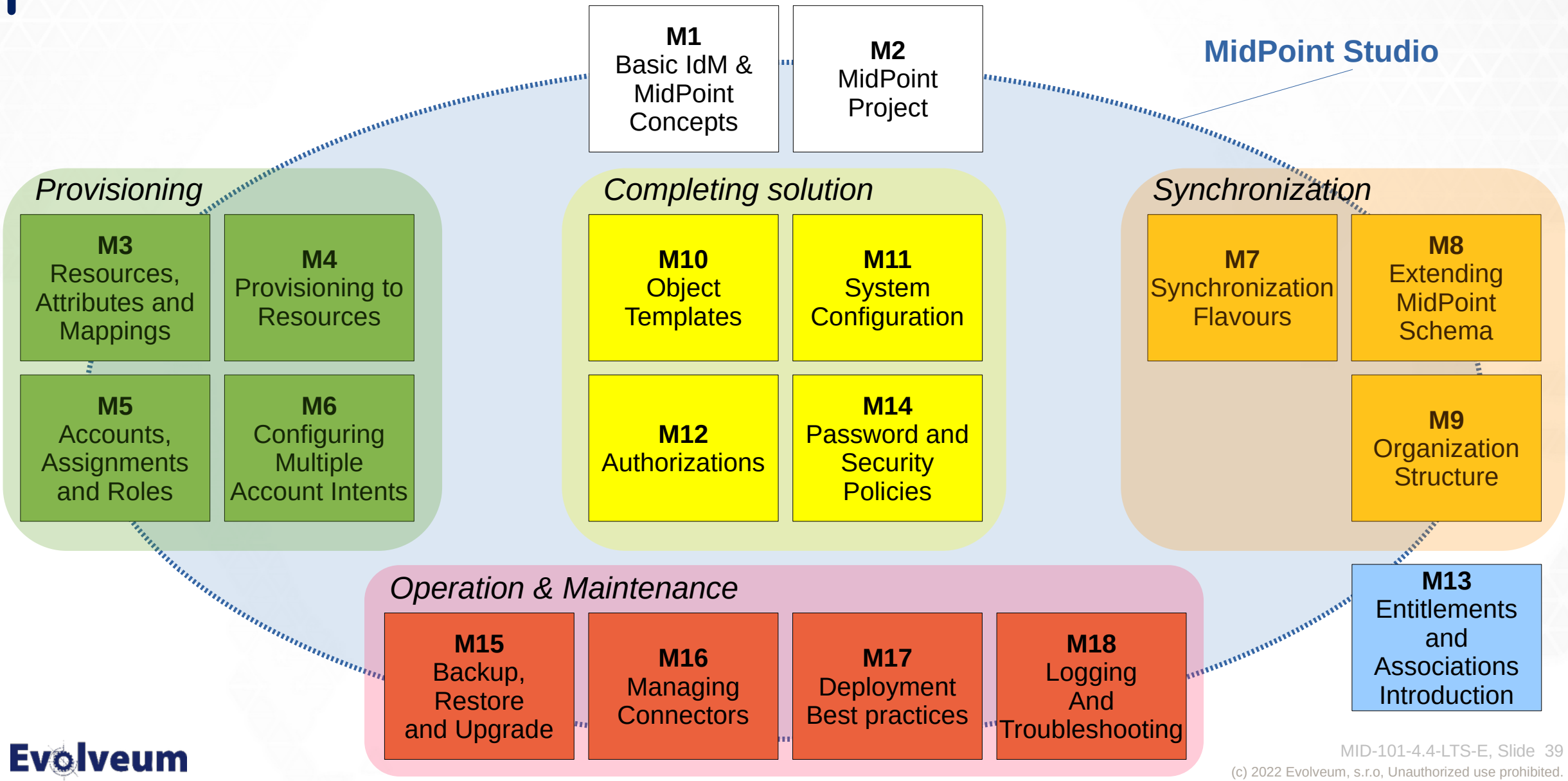
Course Map Relations (Reprise)



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Questions and Discussion

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