

Migration Example

This bundle migration example will work through the following work flow:

1. Migrating from a development Gateway to a new production Gateway.
2. Migrating updated policies from the development Gateway to the production Gateway.

Set Up

There are two Gateways running. A development (source) Gateway, and a production (target) Gateway. Both Gateways are licensed and have the Gateway REST Management Service installed. The production Gateway is otherwise empty.

The development Gateway contains the following:

- A secure password: "LocalhostDBPassword"
- A JDBC connection to the local database. It used the password from above via a context variable.
- A policy fragment that uses the JDBC Connection via a JDBC Query Assertion.
- An Encapsulated Assertion that uses the policy fragment above.
- A service that uses the Encapsulated Assertion above.
- A folder containing the service from above.

Exporting the Migration Bundle

To create the migration bundle we will export the folder from above. In order to export the folder we first need to get its id. In order to do that send a request to list folders and filter by the folder name, "Migration":

List folders with name "Migration"

Request	
Uri	https://127.0.0.1:8443/restman/1.0/folders?name=Migration
Http Method	GET
Response	
Http Status	200
Message Body	

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Export bundle of folder "6b52de26ef82cc4df397d1909490d736"

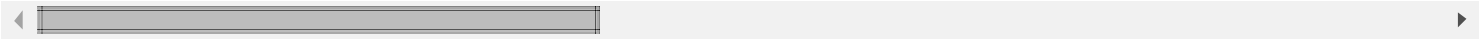
Request	
Uri	https://127.0.0.1:8443/restman/1.0/bundle?folder=6b52de26ef82cc4df397d1909490d736
Http Method	GET
Response	
Http Status	200
Message Body	

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Importing the Migration Bundle

If we try to import this bundle as is it will fail with the following mapping:

```
<17:Mapping action="NewOrExisting" errorType="TargetNotFound" srcId="6b52de26ef82cc4df397d1909496
  <17:Properties>
    <17:Property key="ErrorMessage">
      <17:StringValue>Could not locate entity: Fail on new specified and could not locate e
    </17:Property>
    <17:Property key="FailOnNew">
      <17:BooleanValue>true</17:BooleanValue>
    </17:Property>
  </17:Properties>
</17:Mapping>
```



We can solve this by either creating a password on the production Gateway and mapping to it. Create one on the Production Gateway using the API with the same ID as the one on the development Gateway:

Create secure password with id

Request	
Uri	https://productionGateway/restman/1.0/passwords/6b52de26ef82cc4df397d19094960d7ee
Http Method	PUT
Content-Type	application/xml
Message Body	<pre><17:StoredPassword id="6b52de26ef82cc4df397d19094960d7ee" version="2" xmlns="http://www.restman.com/1.0" <17:Name>LocalhostDBPassword</17:Name> <17:Password>password</17:Password> <17:Properties> <17:Property key="usageFromVariable"> <17:BooleanValue>true</17:BooleanValue> </17:Property> <17:Property key="description"> <17:StringValue></17:StringValue> </17:Property> <17:Property key="lastUpdated"> <17:DateValue>2014-05-13T17:21:45.137-07:00</17:DateValue> </17:Property> <17:Property key="type"> <17:StringValue>Password</17:StringValue> </17:Property> </17:Properties> </17:StoredPassword></pre>
Response	
Http Status	201
Message Body	

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<l7:Item xmlns:l7="http://ns.l7tech.com/2010/04/gateway-management">
  <l7:Name>LocalhostDBPassword</l7:Name>
  <l7:Id>6b52de26ef82cc4df397d1909490d7ee</l7:Id>
  <l7:Type>SECURE_PASSWORD</l7:Type>
  <l7:TimeStamp>2014-07-14T17:16:05.337-07:00</l7:TimeStamp>
  <l7:Link rel="self" uri="https://productionGateway/restman/1.0/passwor
  <l7:Link rel="template" uri="https://productionGateway/restman/1.0/pas
  <l7:Link rel="list" uri="https://productionGateway/restman/1.0/passwor
</l7:Item>
```

Once the password is created you can import the bundle:

Importing bundle

Request	
Uri	https://127.0.0.1:8443/restman/1.0/bundle
Http Method	PUT
Content-Type	application/xml
Message Body	

```
<17:Bundle xmlns:17="http://ns.17tech.com/2010/04/gateway-management">
  <17:References>
    <17:Item>
      <17:Name>Migration</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d736</17:Id>
      <17:Type>FOLDER</17:Type>
      <17:TimeStamp>2014-07-14T16:01:51.387-07:00</17:TimeSt
      <17:Resource>
        <17:Folder folderId="0000000000000000fffffffffffffe
          <17:Name>Migration</17:Name>
        </17:Folder>
      </17:Resource>
    </17:Item>
    <17:Item>
      <17:Name>LocalhostDBPassword</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d7ee</17:Id>
      <17:Type>SECURE_PASSWORD</17:Type>
      <17:TimeStamp>2014-07-14T16:01:51.387-07:00</17:TimeSt
      <17:Resource>
        <17:StoredPassword id="6b52de26ef82cc4df397d190949
          <17:Name>LocalhostDBPassword</17:Name>
          <17:Password>password</17:Password>
          <17:Properties>
<17:Property key="usageFromVariable">
  <17:BooleanValue>true</17:BooleanValue>
</17:Property>
<17:Property key="description">
  <17:StringValue></17:StringValue>
</17:Property>
<17:Property key="lastUpdated">
  <17:DateValue>2014-05-13T17:21:45.137-07:00</17:DateValue>
</17:Property>
<17:Property key="type">
  <17:StringValue>Password</17:StringValue>
</17:Property>
          </17:Properties>
        </17:StoredPassword>
      </17:Resource>
    </17:Item>
    <17:Item>
      <17:Name>LocalJDBC</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d7d9</17:Id>
      <17:Type>JDBC_CONNECTION</17:Type>
      <17:TimeStamp>2014-07-14T16:01:51.388-07:00</17:TimeSt
      <17:Resource>
        <17:JDBCConnection id="6b52de26ef82cc4df397d190949
```

Response

Message Body

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<l7:Item xmlns:l7="http://ns.l7tech.com/2010/04/gateway-management">
  <l7:Name>Bundle mappings</l7:Name>
  <l7:Type>BUNDLE MAPPINGS</l7:Type>
  <l7:TimeStamp>2014-07-14T16:13:48.452-07:00</l7:TimeStamp>
  <l7:Link rel="self" uri="https://productionGateway/restman/1.0/bundle/
  <l7:Resource>
    <l7:Mappings>
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
        </l7:Properties>
      </l7:Mapping>
      <l7:Mapping action="NewOrExisting" actionTaken="CreatedNew" sr
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
        </l7:Properties>
      <l7:Mapping action="NewOrExisting" actionTaken="CreatedNew" sr
      <l7:Mapping action="NewOrExisting" actionTaken="CreatedNew" sr
      <l7:Mapping action="NewOrExisting" actionTaken="CreatedNew" sr
      <l7:Mapping action="NewOrExisting" actionTaken="CreatedNew" sr
    </l7:Mappings>
  </l7:Resource>
</l7:Item>
```

The production Gateway should now have the same folder, service, encapsulated assertion, policy JDBC connection and secure password that the development Gateway has.

Exporting the Updated Migration Bundle

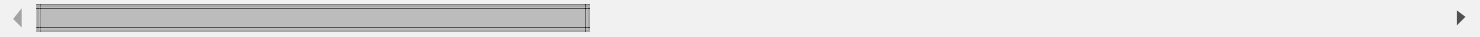
Assume that there was some development on the SimpleService that was exported above from the development Gateway. Some authentication security is added to restrict usage of the service. The Require SSL assertion is added and a simple service user must be authenticated using Basic http credentials.

Export the bundle from the development Gateway again, but this time with default action NewOrUpdate. This will change the mapping so that it will update existing entities on the production Gateway when it is importing them.

Export bundle of folder "6b52de26ef82cc4df397d1909490d736" with default action NewC

Request	
Uri	https://127.0.0.1:8443/restman/1.0/bundle?folder=6b52de26ef82cc4df397d1909490d736&defaultAction=NewOr
Http Method	GET
Response	


```
<17:Mapping action="NewOrExisting" errorType="TargetNotFound" srcId="a71d2733b59a6360e8134b6e32c1
  <17:Properties>
    <17:Property key="ErrorMessage">
      <17:StringValue>Could not locate entity: Fail on new specified and could not locate e
    </17:Property>
    <17:Property key="FailOnNew">
      <17:BooleanValue>true</17:BooleanValue>
    </17:Property>
  </17:Properties>
</17:Mapping>
```



Create a user on the production Gateway in the internal identity provider called "ProductionSimpleServiceUser". Map the Simple service user by name to the "ProductionSimpleServiceUser" and import the bundle:

Importing bundle 2

Request	
Uri	https://productionGateway/restman/1.0/bundle
Http Method	PUT
Content-Type	application/xml
Message Body	

```
<17:Bundle xmlns:17="http://ns.17tech.com/2010/04/gateway-management">
  <17:References>
    <17:Item>
      <17:Name>Migration</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d736</17:Id>
      <17:Type>FOLDER</17:Type>
      <17:TimeStamp>2014-07-14T16:35:58.546-07:00</17:TimeStamp>
      <17:Resource>
        <17:Folder folderId="0000000000000000ffffffffffffec76" id=
          <17:Name>Migration</17:Name>
        </17:Folder>
      </17:Resource>
    </17:Item>
    <17:Item>
      <17:Name>LocalhostDBPassword</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d7ee</17:Id>
      <17:Type>SECURE_PASSWORD</17:Type>
      <17:TimeStamp>2014-07-14T16:35:58.549-07:00</17:TimeStamp>
      <17:Resource>
        <17:StoredPassword id="6b52de26ef82cc4df397d1909490d7ee" v
          <17:Name>LocalhostDBPassword</17:Name>
          <17:Properties>
            <17:Property key="usageFromVariable">
              <17:BooleanValue>true</17:BooleanValue>
            </17:Property>
            <17:Property key="description">
              <17:StringValue></17:StringValue>
            </17:Property>
            <17:Property key="lastUpdated">
              <17:DateValue>2014-05-13T17:21:45.137-07:00</17:DateValue>
            </17:Property>
            <17:Property key="type">
              <17:StringValue>Password</17:StringValue>
            </17:Property>
          </17:Properties>
        </17:StoredPassword>
      </17:Resource>
    </17:Item>
    <17:Item>
      <17:Name>LocalJDBC</17:Name>
      <17:Id>6b52de26ef82cc4df397d1909490d7d9</17:Id>
      <17:Type>JDBC_CONNECTION</17:Type>
      <17:TimeStamp>2014-07-14T16:35:58.549-07:00</17:TimeStamp>
      <17:Resource>
        <17:JDBCConnection id="6b52de26ef82cc4df397d1909490d7d9" v
          <17:Name>LocalJDBC</17:Name>
```

Response

Http Status

201

Message Body

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<l7:Item xmlns:l7="http://ns.l7tech.com/2010/04/gateway-management">
  <l7:Name>Bundle mappings</l7:Name>
  <l7:Type>BUNDLE MAPPINGS</l7:Type>
  <l7:TimeStamp>2014-07-14T17:29:32.042-07:00</l7:TimeStamp>
  <l7:Link rel="self" uri="https://productionGateway/restman/1.0/bundle/">
  <l7:Resource>
    <l7:Mappings>
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
        </l7:Properties>
      </l7:Mapping>
      <l7:Mapping action="NewOrUpdate" actionTaken="UpdatedExisting"
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
        </l7:Properties>
      </l7:Mapping>
      <l7:Mapping action="NewOrUpdate" actionTaken="UpdatedExisting"
      <l7:Mapping action="NewOrUpdate" actionTaken="UpdatedExisting"
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
        </l7:Properties>
      </l7:Mapping>
      <l7:Mapping action="NewOrExisting" actionTaken="UsedExisting"
        <l7:Properties>
          <l7:Property key="MapTo">
            <l7:StringValue>ProductionSimpleServiceUser</l7:StringValue>
          </l7:Property>
          <l7:Property key="FailOnNew">
            <l7:BooleanValue>true</l7:BooleanValue>
          </l7:Property>
          <l7:Property key="MapBy">
            <l7:StringValue>name</l7:StringValue>
          </l7:Property>
        </l7:Properties>
      </l7:Mapping>
      <l7:Mapping action="NewOrUpdate" actionTaken="UpdatedExisting"

```

The service is now updated on the target Gateway to match the one from the development Gateway, except it uses the "ProductionSimpleServiceUser" instead.