



MidPoint Community Meetup 2025

Use the Studio Luke

Agenda

- Streamlined support for midPoint deployment using GitOps
- Configuration cleanup
- Handling secrets
- Object synchronization
- Live demo
- Discussion

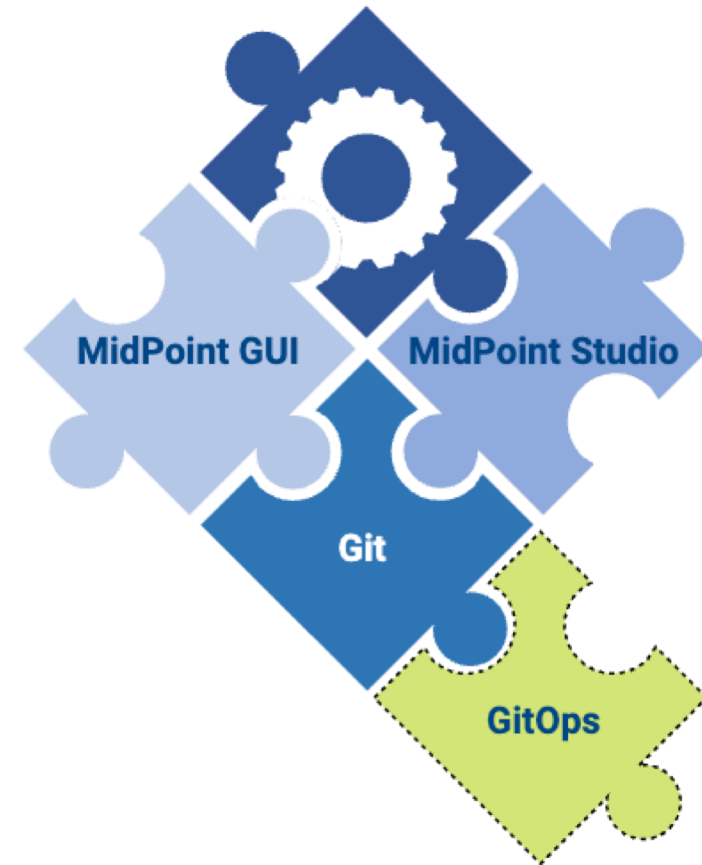
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Streamlined support for midPoint deployment using GitOps

- MidPoint objects configured
 - XML files in Studio
 - Via midPoint GUI
- Configuration versioned in git
- Versioned configuration can be used in multiple environments using GitOps



Configuration cleanup: Why?

- Remove unnecessary data from XML
 - All kinds of operational data
 - Optional items like resource schema
- Encrypted passwords
- Update connector references
- Associations based on Shadow oid
- Warn about missing referenced objects in project

```
1 <resource xmlns="http://midpoint.evolveum.com/xml/ns/public/common/common-3" xmlns:c="http://midpoint.evolveum.c
2 <name>AD</name>
3 <description>ExAmPLEx, Inc. AD resource</description>
4 > <metadata...>
9 <lifecycleState>active</lifecycleState>
10 > <operationExecution id="74"...>
29 <iteration>0</iteration>
30 <iterationToken/>
31 > <operationalState...>
37 > <operationalStateHistory id="78"...>
43 <connectorRef oid="69c8dff3-72c3-4e08-a115-f9ce51c203f3" relation="org:default" type="c:ConnectorType">
44 <description>Reference to the ConnId LDAP connector. This is dynamic reference, it will be translated to
45 <OID during import.
46 <Only connector which is available is used (connector objects without existing JAR are ignored).
47 </description>
48 <filter>
49 <q:text>connectorType = "com.evolveum.polygon.connector.Ldap.LdapConnector" and available = "true"</q:
50 </filter>
51 </connectorRef>
52 > <connectorConfiguration xmlns:icfc="http://midpoint.evolveum.com/xml/ns/public/connector/icf-1/connector-sch
74 <schema>
75 < cachingMetadata>
76 < retrievalTimestamp>2024-05-28T12:33:32.622Z</retrievalTimestamp>
77 < serialNumber>1ce3f4d7406f3d34-bcbfd02f7ad2076d</serialNumber>
78 </ cachingMetadata>
79 < generationConstraints>
80 < generateObjectClass>ri:inetOrgPerson</generateObjectClass>
81 < generateObjectClass>ri:groupOfUniqueNames</generateObjectClass>
82 < generateObjectClass>ri:groupOfNames</generateObjectClass>
83 < generateObjectClass>ri:organizationalUnit</generateObjectClass>
84 </ generationConstraints>
85 < definition>
86 < xsd:schema xmlns:a="http://prism.evolveum.com/xml/ns/public/annotation-3" xmlns:ra="http://midpoint.
87 < xsd:import namespace="http://prism.evolveum.com/xml/ns/public/annotation-3"/>
88 < xsd:import namespace="http://midpoint.evolveum.com/xml/ns/public/resource/annotation-3"/>
89 < xsd:complexType name="groupOfNames">
90 < xsd:annotation>
91 < xsd:appinfo>
92 <a:container>true</a:container>
93 <ra:resourceObject>true</ra:resourceObject>
94 <ra:nativeObjectClass>groupOfNames</ra:nativeObjectClass>
95 <ra:default>false</ra:default>
96 <ra:auxiliary>false</ra:auxiliary>
97 <ra:namingAttribute>ri:dn</ra:namingAttribute>
98 <ra:disolavNameAttribute>ri:dn</ra:disolavNameAttribute>
```

Configuration cleanup: How?

- Cleanup actions are configurable per item
- One or multiple files/folders at once
- Warn about missing references
- Optionally remove metadata

References

- ☐ Cleanup connector references
Cleanup will remove oid/relation/type from connector reference
- ☐ Replace connector oid references
Cleanup will try to replace connector reference oid with search type/version in selected environment.
- ☐ Warn about missing referenced objects
Cleanup will warn about references that points to objects not a

Other

- ☐ Warn about missing natural keys
Cleanup will check if containers have natural key defined.
- ☒ Remove metadata
Cleanup will remove metadata from objects.

MidPoint in Docker

Current File

- Upload/execute
- Upload/execute (stop on error)
- Upload/recompute
- Upload/Test Resource
- Upload/Test/Validate Resource
- Recompute
- Download selected types
- Test Resource
- Delete from Server
- Delete from Server (raw)
- Diff local
- Cleanup File**
- Verify
- Upgrade task to activity (4.4)
- Server Log
- Generate Random OID
- Test Connection
- Generate Documentation

Handling secrets

- Encrypted data are bound to specific environment
- Studio magic - project properties
- Secret providers
 - Since 4.9
 - Docker, File, Environment variables, Properties
- Cleanup warns about encrypted values in midPoint objects

```
<cfg:bindPassword>
  <t:encryptedData>
    <t:encryptionMethod>
      <t:algorithm xmlns="http://prism.evolveum.com/xml/ns/public/types-3">http://
    </t:encryptionMethod>
    <t:keyInfo>
      <t:keyName>aY7PzKsf66rqL0PMYA20p7bVebg=</t:keyName>
    </t:keyInfo>
    <t:cipherData>
      <t:cipherValue>6RmRqz7/fCtzqfEhHn8NyQNVGisLccPFthML1h9jT2w=</t:cipherValue>
    </t:cipherData>
  </t:encryptedData>
</cfg:bindPassword>
```

```
<secretsProviders>
  <docker>
    <identifier>my-docker-secrets</identifier>
    <description>Allow accessing docker secrets. D
      com.evolveum.midpoint.common.secrets TRACE
    <cache>PT30M</cache>
    <display>
      <label>Docker secrets</label>
      <icon>
        <cssClass>fa fa-play</cssClass>
      </icon>
    </display>
  </docker>
</secretsProviders>
```

```
<cfg:bindPassword>
  <t:externalData>
    <t:provider>my-docker-secrets</t:provider>
    <t:key>ad_password</t:key>
  </t:externalData>
</cfg:bindPassword>
```


Object synchronization

- Compare local and remote objects
 - Update local/remote object
- Preview partial changes (deltas)

The screenshot displays the Evolveum tool interface for object synchronization. At the top left, a red box highlights the object selection area showing "HR.xml (HR) (Pending: remote)". The main panel is titled "Select changes to be applied to 'HR.xml (LOCAL)' object:" and lists several changes under the "All" category, including updates to object type descriptions, documentation, and attributes. The bottom section features a "Side-by-side viewer" comparing the "Before" and "After" states of the XML. The "Before" state shows a script with a switch statement for employee status. The "After" state shows the same script with additional cases for 'Long-term leave' and 'Former employee'. At the bottom, there are buttons for "Save local" and "Update remote".

Demo

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Questions

- What features do you miss in midPoint Studio?
- What features are hard to use?
 - What are the use cases?

Evolveum

Thank you for your attention

Feel free to ask your questions now!



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