

# v4 new features

<a href="#">Wiki Home</a>	<a href="#">Grouper Release Announcements</a>	<a href="#">Grouper Guides</a>	<a href="#">Grouper Deployment Guide</a>	<a href="#">Community Contributions</a>	<a href="#">Internal Developer Resources</a>
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## New Features in Grouper v4

Grouper v4 includes many helpful new features, as listed below, as well as the enhancements provided in Grouper 2.5 updates.

**\*\* As of March 2023, [Grouper v4](#) is the stable no-enhancement version of v2.6. See [versioning](#) page \*\***

The upgrade from 2.5 (more recent) to v4 is not a substantial change. The database did not change much.

You are required to use a container when running Grouper. This will ensure you have consistent directory structure, the correct version of libraries, and low risk and low effort upgrades. There are [instructions](#) to make using the container as easy as possible.

See also [Grouper 2.6 Release Notes \(renamed to v4\)](#) ([build info](#))

<b>Provisioning framework</b>	<a href="#">The Grouper provisioning framework is being maintained and finished in v4</a>
<b>Provisioning configuration 'start with'</b>	<a href="#">Common patterns for provisioning configuration</a>
<b>JEXL scripted groups</b>	<a href="#">More complex policies than traditional composites</a>
<b>Edit select attributes on group screen</b>	<a href="#">Certain common attributes can be viewed/edited on group screen</a>
<b>Load data from provisioners</b>	<a href="#">Add loader for provisioners (not SQL or LDAP) like Duo or Zoom</a>
<b>Add WS authn options</b>	<a href="#">Trusted JWT WS, self-service JWT WS, OIDC WS</a>
<b>Duo role provisioner</b>	<a href="#">Admin roles provisioned to Duo</a>
<b>Box provisioner</b>	<a href="#">Provisioning to box</a>
<b>SQL provisioner</b>	<a href="#">Provisioning to databases</a>
<b>Azure provisioner</b>	<a href="#">Provisioning to azure</a>
<b>Provisioning diagnostics</b>	<a href="#">Get feedback on provisioning configuration</a>
<b>Google provisioner</b>	<a href="#">Provisioning to google</a>
<b>Folder security and performance improvements</b>	<a href="#">Users only see folders they should be able to see, with good performance. Add folder VIEW privilege</a>
<b>OSGI plugins</b>	<a href="#">Ability to sandbox plugins in their own classloader</a>