

What's New in Oracle API Gateway 11.1.2.2.0

We are pleased to announce the launch and general availability (GA) of Oracle API Gateway 11.1.2.2.0. With this release we continue to enhance the capabilities of the API Gateway to deliver API management and enterprise gateway solutions.

API Gateway 11.1.2.2.0 delivers new and improved value around these themes:

- Simplifying the promotion of the API Gateway configuration between environments.
- Strengthening the Key Property Store (KPS) to improve the development and deployment of solutions requiring dynamic policy behavior.
- Improving the OAuth capabilities with support for the finalized specification and the provision a highly distributed token store.

New Features in API Gateway 11.1.2.2.0

Enterprise-class configuration management

1. **Simplified configuration promotion** – API Gateway 11.1.2.2.0 simplifies the promotion of configurations between environments from development through to production, enabling interoperability with existing promotion processes and tools such as configuration management repositories.

Configurations to promote are now split into policy and environment packages:

- The policy package contains the non-environment-specific configuration and can be promoted unchanged from the development environment.
- The environment package contains all environment-specific information.

Both packages contain meta-data describing their contents and version, and can be stored in configuration management repositories. The new Configuration Studio provides a simple tool for upstream administrators to prepare environment packages, eliminating the need for detailed knowledge of API Gateway and the policies being promoted. Comprehensive documentation describes the promotion tooling and process.

2. **Configuration diff and merge** – A configuration diff and merge tool has been introduced that allows a developer to compare policies and other configuration information contained within two different deployment packages. This allows a team of developers to work separately on policies and then merge their individual changes into a single configuration for deployment and promotion.

Streamlined deployment

3. **Simplified KPS developer experience** – The Key Property Store (KPS) was introduced in API Gateway 11.1.2.1.0 to enable dynamic policy behavior driven by externalized metadata. This release further simplifies the development of dynamic metadata-driven policies and typed KPS data structures with the introduction of an easy to use graphical editor.
4. **Apache Cassandra embedded as KPS backing store and OAuth token store** – API Gateway 11.1.2.2.0 enables the deployment of highly distributed solutions while eliminating the dependency on the use of an external RDBMS.

Apache Cassandra is a scalable and highly available distributed database (<http://cassandra.apache.org/>). API Gateway 11.1.2.2.0 embeds Cassandra to provide additional options for both the KPS backing store and OAuth token store. For both stores, Cassandra ensures the data is replicated across all distributed API Servers. Management tooling is provided for the easy administration of the distributed Cassandra cluster within the API Server deployment.

Expanded identity management integrations and support

5. **Support for finalized OAuth 2.0 specification** – This version enables enterprises to deploy fully compliant OAuth 2.0 solutions.

The OAuth 2.0 specification was finalized in October 2012. API Server 7.1 provided support for draft 27. (Draft 31 was the last draft before being finalized.) With API Server 7.2, support for OAuth 2.0 is brought up to the level of the finalized specification. –.

6. **Simplified LDAP authorization** – Enterprises can use their existing LDAP user repositories for group-based authorization.

A new filter simplifies LDAP authorization in policies by checking whether the authenticated user is a member of the specific LDAP group.

Monitoring and Logging

7. **Traffic Monitoring speed improvements** – the transaction monitoring data output format has changed so that it is written to a very small set of files in the `/conf/opsdb.d.`, reducing the number of directory operations and disk writes significantly. The embedded SQLite database has been removed from the API Server. The Traffic Monitor REST API remains the same as previous releases. The the transaction data file is now in JSON format. The web interface for browsing and viewing transaction history remains the same. The purge of the transaction monitoring data is no longer based on age of date but rather the number of

transactions or size of the monitoring data files on disk.

8. **Domain Audit Log** – the transaction monitoring data output format has changed so that it is written to a very small set of files in the /conf/opsdb.d., reducing the number of directory operations and disk writes significantly. The embedded SQLite database has been removed from the API Server. The Traffic Monitor REST API remains the same as previous releases. The the transaction data file is now in JSON format. The web interface for browsing and viewing transaction history remains the same. The purge of the transaction monitoring data is no longer based on age of date but rather the number of transactions or size of the monitoring data files on disk.
9. **Improved Documentation** – new user guides available for the API Server:
 - Concepts Guide
 - Promotion and Deployment Guide
 - Developer Guide
 - API Server REST API documentation

Fixed Problems / Enhancements

1. Additional Parameters with Access Token made available in "Access Token Information" filter
2. Return ContentLength in response to client as configured in Remote Host Validate OAuth Token Filter should not accept Tokens from disabled or deleted clients
3. After Validate OAuth Token function call `accesstoken.getScope()` should not be null
4. Resource Owner Password Credential Filter cannot handle different AuthN failure reason
5. OAuth Validate Token Filter cannot send separate error messages for "invalid_token" or "insufficient_scope"
6. OAuth Validate Token Filter aborts if access token is missing
7. Refresh token not valid after Access token is removed from memory
8. Crash with https proxy server
9. proxy server from external connections not working
10. Attribute substitution in script filter not thread safe

11. Node Management Deployments showing user "null" after switch to LDAP
12. Setting Traffic Monitor size and date settings format in GUI cause incorrect values to be displayed
13. Refreshed OAuth access tokens do not contain additional data
14. Communication between node managers during topology changes
15. OAuth : http responses customization and wrong "400 OK"
16. OAuth: only store necessary data from clients in DB
17. NPE(null pointer exception) when the ICAP filter is called.
18. WARNING SOAP version is not set for operation
19. Extract Path Parameters filter doesn't have a failure path
20. Reintroduce diff / merge tool in Policy Studio
21. Allow additional information be associated with AuthZ code
22. Ability to not add the XcorrelationId header to the request / response
23. ICAP filter basic test using the option /SYMCSanReqAV fails
24. APITester request settings dialog stalls with an invalid URL error once opened
25. Wrong labelling on the fields on PGP Encrypt and Sign filter screen
26. Incorrect schema file referenced for Audit Logging to database
27. Simple RBAC LDAP Authorization Filter
28. Rename existing RBAC filter
29. Change "policy package" to "policy assembly"
30. "No Authorization Header" printed out under INFO in client Node Manager trace
31. JMS message body consumed by traffic monitor
32. Managedomain update for adding additional hosts

33. Adding Certificate with private key stored in HSM won't be placed under Certificates with Keys
34. DBPurger requires password when running against db in analytics configuration
35. JMS Messages show failed status in Dashboard but are marked as Transaction Status = SUCCESS
36. Click through from Dashboard to Traffic Monitor does not generate correct result IF the message is JMS
37. Update of DBPurger instructions
38. Can't mix env variables with message attributes in set message filter
39. Install on 32bit Centos just hangs doesn't complete as permissions are needed by selinux
40. Retrieve from LDAP filter does not retrieve any attributes when none is specified
41. Remove ability to virtualize a Web Service in API Service Manager
42. VXP backup script is using the old gateway path
43. Adding 2nd JMS Session in 7.1.0 doesn't appear nothing happens
44. Traffic Monitor groups and servers selection display error
45. Cannot connect to *.fed file located in path containing spaces in Policy Studio
46. API Tester design mode can't use SOAP filters from "content filtering"
47. New 7.1 path resolver requires more detailed documentation
48. Migration utility to log changes to log file
49. If the Admin Node Manager can't communicate with a Node Manager, show a meaningful error
50. Missing filter options for JMS in Traffic Monitor
51. Alerting to Windows Event Viewer Contains error in regards to proper event logging

52. Deploying to a Group with not all NMs running
53. New Option under JMS Consumer not documented
54. When an access token is issued with additional attributes, the GW should persist them
55. Email alert filter subject can't take an attribute
56. Wrong title in the HTML page sent back when listing Static Content directory
57. Attribute/Get Cookie not failing when requested cookie not found
58. Include headers indicating remaining quota
59. All OAuth grant types should have the option of issuing refresh tokens except for where the specification says not to
60. ID : 12535 Gateway OEM Plugin does not provide a descriptive error message
61. Startinstance with no args should start the API Server if there is only one API server configured in the topology
62. Ability to make Topology changes if not all NMs running in the domain
63. Vordel Manager UI should display the current active configuration for each API Server
64. Directory Scanner Delete File Option
65. Analytics: reports generated in *.csv format
66. Change Vordel Manager / Events tab / Log subtab to Audit subtab
67. Directory scanner should support same options a File Load filter
68. Highlight patch update more explicitly in documentation
69. Load file filter make output directory optional
70. FTP Error Messages not informative
71. Change Audit Log to Transaction Log in PS tooling and documentation
72. Gateway fails to start if configured JMS is not available

73. ftp filename attribute in autodropdown attribute list is incorrect
74. Database Read/Write Filter Enhancements
75. Ability to force a Relative Path to be an exact match
76. Enhancement Requests around Directory Scanner functionality
77. Document how to rollback to previous configuration versions in production
78. Add timestamp to trace/logs filenames on rotation.