



vFunction 3.7.0 Release Notes

Key Additions

Architecture Governance through Organization of Services and Domains

- New ability to tag services (in distributed apps) and domains (in monolithic apps) based on layer or function for easier management and tracking of architecture.
- The layout of domains and services is now kept on the measurement and inherited to scheduled measurements.
- New ability to multi select services to tag them and move them on the analysis tab.
- Automatic layering of domains and services to improve readability of the analysis tab.
- New TODO ("Refactoring needed") when a dependency is interfering with a clear layered structure of services or affecting scalability.
- Architecture Rules to alert on dependencies not complying with the standards and policies of the organization. These rules can be applied to both domains and services either by name or with their tag.

Distributed Flows and Sequence Diagrams

- Automatically create sequence diagrams of individual flows in distributed applications.
- Improved DETAILS view for resource usage in distributed applications, allowing to see exact flows from where resources are used.
- Flows can be sorted based on the API endpoint or the number of occurrences in the measurement.





Improvements in Learning

- Added the ability to start learning on a Distributed application based on a specific service tag, to learn from different environments separately.
- Added the time in learning for distributed measurements.

Improvements in Analysis of Distributed Apps

- Improved handling of stored procedures called from distributed applications.
- Showing HTTP and HTTPS calls separately in distributed measurements

Architecture Observability Improvements

- New TODO to alert when a new resource is used in a distributed flow.
- Added the option to send a TODO to alert when non-encrypted HTTP calls are seen between services.
- Added goals and prioritization of TODOs in distributed applications.
- Improved the usability of selecting the baseline and latest measurement of each app.

Live Flow Coverage Analysis for Monolithic Apps

• Understand gaps in your test flow coverage by comparing test measurements and production measurements. This can be done by selecting two measurements, or automatically through the observation schedule.

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Improvements in Analysis of Monolithic Apps

- Improved the displayed details for bidirectional jar dependencies.
- Improved the DETAILS screen of classes showing instances and the entry-points they were called from.
- Allow sorting the call tree by name, type, or runtime percentage
- Added the ability to sort domains by their runtime.
- Added the ability to merge multiple domains at a single time.
- Improved the organization of the left pane of the analysis screen.
- Better retention of domain structure between baseline and latest measurements.

Installation and Operational improvements

- A new option to restore the DB from the latest available dump (of the same major version) during installation for an easier restore process.
- New logging improvements: New options to set the java and dotnet agent log level to log to the console for containerized environments.
- A new option to support configuring multiple dotnet agents from a single configuration file on machines where multiple processes need to be observed.
- Enhanced support to use environment variables to config options for controllers in containerized environments.
- A new option for the controller to use client certificates to authenticate with the vFunction server.
- Additions to the viper-run-ci.sh script to enhance error handling within CICD pipelines. The viper-run-ci, and the observation trigger scripts are now also available in powershell for windows based pipelines.
- For container environments with instance-id configured on the controllers, the create date in the controllers screen will show the latest update of the instance.
- More tools and examples for smoother adaptation of vFunction Controller in a sidecar in K8s and OpenShift environments

Miscellaneous

- Measurements cannot be created with the same name for the same app.
- The portfolio view now shows the technology stack of the selected apps on the right pane.
- Improved URL handling, to allow sharing the URL to get to a specific screen.