**What's new in Dynamics 365 Business Central telemetry - August 2023**

It is August and it has been a month since the last newsletter. July was a quiet month with a lot of vacation happening for engineers in the product group (and myself), so not a lot of action happening. But I still managed to compile bits and pieces of information and tips for you. And I also did a fair update to the Power BI apps considering that I myself was on vacation most of the month…

As always, the bleeding edge news on Dynamics 365 Business Central telemetry happens on Twitter/X (not sure about the future of this platform, but will stay there for a bit), so if you want to keep up with the latest and greatest (and the beta versions of the Power BI telemetry apps) then follow me there (@kennienp). The intention of these monthly newsletters is to try to gather everything that I know and learn about this area and present it here. Let’s go…

In the August 2023 edition, read about these things:

* Power BI Usage apps – August updates
* New signal/updates
* Documentation updates
* New blogs and videos

# Power BI Usage apps – August updates

The August updates for both apps mainly focus on making the troubleshooting of errors easier.

**For both apps**

Usage report

On the page 'Feature Usage', data can now be filtered with filters from the AppDim dimension.

Error report

On all error pages we now show a green banner if there is no data to show. This helps the user to understand that all the visuals are empty for a reason and not due to an error in the report.

<insert screenshot>

On page 'Incoming web service call errors', added filters on HTTP status type and HTTP status error, added new visuals to show call (HTTP) status statistics and details.

On page 'Outgoing web service call errors', added filters on host and url, now using UrlDimension (so slightly faster data loading), added new visuals to show call (HTTP) status statistics and details.

On page 'Feature Errors', data can now be filtered with filters from the AppDim dimension

Performance report

On page 'Outgoing web service call performance', added filters on host and url, now using UrlDimension (so slightly faster data loading), added new visuals to show call (HTTP) status statistics and details.

On page 'Incoming web service call performance', added filters on HTTP status type and HTTP status error, added new visuals to show call (HTTP) status statistics and details.

**Environment Usage app**

Error report

New page 'Webservice metadata errors' (for data coming in 22.2). Web service publish failure telemetry gathers data when a web service couldn't be published or a published web service isn't working correctly due to an error in creating metadata for the web service. As a partner, the data gives you the ability to investigate & fix potential problems that are preventing web service from working correctly.

<insert screenshot>

New page showing Azure Function failures. Use this to analyze and monitor the failure of calls from Business Central to Azure Functions using the Azure Function module in the System Application.

<insert screenshot>

On page 'Connector errors', added filters on HTTP status type and HTTP status error, added new visuals to show call (HTTP) status statistics and details.

On page 'Email errors', added support for three new SMTP error events that were added in 22.3.

<insert screenshot>

On page 'Job Queue Errors', improved guidance section, added cues to spot recurring failing job queue jobs and jobs that fail with non-retriable exceptions.

Administration report

On page 'Data in telemetry' page, updated with BCPT and cloud migration events

# New signal/updates

**New dimension alCallerAppId added to Feature Telemetry in 22.0**

The final piece to the puzzle (on which app is emitting telemetry using the feature telemetry system module) has been added: the alCallerAppId. Using this (together with the other alCaller\* dimensions, it is now possible to fully identity the emitting app.

Documentation has been updated, see

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-feature-telemetry>

KQL samples have been updated, see

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/FeatureTelemetry.kql>

**New email SMTP events added in 22.3**

Three new events was added in version 22.3 to help monitor usage and failures of sending email with the SMTP module.

Documentation has been updated, see

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-email-trace>

and

<https://learn.microsoft.com/en-gb/dynamics365/business-central/admin-how-setup-email>

KQL samples have been updated, see

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/Email.kql>

If you want to alert on these errors, the catalog of alerting queries has also been. See <https://github.com/microsoft/BCTech/tree/master/samples/AppInsights/Alerts#alerting-condition-kql-samples>

The Power BI app on environment telemetry has also been updated to use these new events (available in the August 2023 update).

**Coming soon/in the works (no ETA given)**

Onboarding telemetry (22.3): format data of date dimensions

Information on files blocked from upload due to malware scanning (only in the online version).

PTE validation signal (PTEs that block updates to next major)

# Documentation updates

**Appsource submission telemetry**

We added KQL samples to the Appsource submission telemetry article

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-appsource-submission-validation-trace>

for easier troubleshooting.

We also updated the article about technical validation to reflect latest developments in telemetry:

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/developer/devenv-checklist-submission#how-to-get-more-information-on-the-technical-validation-failures>

**Azure function telemetry**

We added KQL samples to the Azure function telemetry article

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-azure-function-integration-trace>

for easier troubleshooting.

**Feature telemetry**

We added KQL samples to the Feature Telemetry article

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-feature-telemetry>

for easier troubleshooting. We also added new sections on dimensions for error telemetry emitted by the LogError method and for how to implement the *Telemetry Logger* interface.

# Tips and tricks

**New KQL sample added: Diagnostic reported on AppSource submission validation request**

Seems like we missed to add KQL sample code for the event LC0038, which is emitted if an Appsource submission request might have issues. For example, it could be that a submission has duplicate apps, or it doesn't target any Business Central release. This signal isn't necessarily an error, but can also be warning or information.

Get the sample KQL code here: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/AppSourceValidation.kql>

**New learning path: Data analysis with Kusto Query Language**

The team behind KQL have created a new learning path where students can learn how to analyze data in various environments using the Kusto Query Language.

Modules in this learning path

\* Explore the fundamentals of data analysis using Kusto Query Language (KQL) - learn about the basics of Kusto Query Language (KQL), and the various Microsoft products that use it.

\* Write your first query with Kusto Query Language - get started by writing simple queries in Kusto Query Language (KQL) to explore and gain insights from your data. Learn how to use the operators take, project, where, count, sort, and others.

\* Gain insights from your data by using Kusto Query Language - write advanced queries in Kusto Query Language to help you gain insights from your data. Use the aggregation functions count, dcount, countif, sum, min, max, avg, percentiles, and others.  
\* Write multi-table queries by using Kusto Query Language - write advanced queries in Kusto Query Language to gain deeper insights by combining data from several tables. Learn how to use the table-level operators lookup, join, union, and materialize, and the new aggregation functions arg\_min and arg\_max. You'll also communicate these results visually in charts.

Check it out yourself here: <https://learn.microsoft.com/en-us/training/paths/kusto-query-language/>

**Parsing URIs with KQL**

If you ever need to parse an URL string into its components, then check out the built-in function parse\_url. For more information, see <https://learn.microsoft.com/en-us/azure/data-explorer/kusto/query/parseurlfunction>

The sample KQL code for outgoing web service calls has been updated with an application of this function. See the example below:

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/OutGoingWebServiceCalls.kql>

**Query telemetry data in MATLAB**

Hadn’t seen that heading coming, right? Well, if you are that one person on the planet who both loves Matlab AND also love Business Central telemetry, this new article is for you… 😊

Learn how to get an authorization token in MATLAB for Azure Data Explorer, and how to use the token to interact with your cluster.

<https://learn.microsoft.com/en-us/azure/data-explorer/query-matlab?tabs=windows>

# Blog posts and videos

Microsoft MVP and telemetry hero has written this blog post on Azure function telemetry:

<https://demiliani.com/2023/07/13/dynamics-365-business-central-telemetries-for-azure-functions/>

Did you know that the BCTech repo has pages with links to blog posts and videos on telemetry?

Blogs: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/BLOGS.md>

Videos: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/VIDEOS.md>

If you create blog posts/videos on telemetry (or know of things that are not linked from these two pages), feel free to do a pull request to the repository (or send me an email/message)

**That’s all folks!**

That's it for the August newsletter. If you made it all the way down here, then you are truly a Telemetry Hero. See you in a month.

PS. Would love to hear your experiences on using alerts to be more proactive. Reach out (or blog about your experiences.)

PPS. It is not too late to rate the Power BI apps on Appsource 😊 Your feedback matters (a lot).

Do it here:

<https://appsource.microsoft.com/en-us/product/power-bi/microsoftdynsmb.bc_telemetry_pbi_app>

(for environment telemetry)

or

<https://appsource.microsoft.com/en-us/product/power-bi/microsoftdynsmb.bc_telemetry_pbi_app_isv_version>

(for app telemetry)