



Microsoft Dynamics 365 and Power Platform Conference

Pre-Day: MAY 26, 2024

MAY 27 - 29, 2024

Portorož, Slovenia, Europe



Advanced Telemetry Analysis and Monitoring for Business Central

Stefan Šošić

CEO & Co-Founder @ BCILITY



WEAVING WONDERS
WITH LINES OF CODE

Nemanja Kutlešić

COO & Co-Founder @ BCILITY



WIZARD

1...2...3...Telemetry has been enabled.

1. Setup
Azure
Application
Insights

2. Configure
BC to use
Application
Insights

3. Verify
Collection of
signals in
Application
Insights

1...2...3...Telemetry has been enabled.

Setup Azure Application Insights

Microsoft Azure

Search resources, services, and docs (G+I)

Home >

DynamicsMinds ☆ ☆ ...

Application Insights

Search

Application Dashboard Getting started Search Logs Monitor resource group Feedback Favorites → Rename Delete

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Investigate

Essentials

Resource group (move) : [DynamicsMinds](#)

Location : West Europe

Subscription (move) : [Microsoft Azure Sponsorship](#)

Subscription ID : e28efbf9-931e-43b3-88b3-e78df531c590

Tags (edit) : [Add tags](#)

Instrumentation Key : 29ec63ee-d6309f67409c

Connection String : InstrumentationKey=29ec63ee-c5aa-4d3

Workspace : [DefaultWorkspace-e28efbf9-931e-43b3-](#)

Home > Application Insights >

Application Insights

Monitor web app performance and usage

Basics Tags Review + create

Create an Application Insights resource to monitor your live web application. With Application Insights, you have full observability into your application across all components and dependencies of your complex distributed architecture. It includes powerful analytics tools to help you diagnose issues and to understand what users actually do with your app. It's designed to help you continuously improve performance and usability. It works for apps on a wide variety of platforms including .NET, Node.js and Java EE, hosted on-premises, hybrid, or any public cloud. [Learn More](#)

PROJECT DETAILS

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Microsoft Azure Sponsorship

Resource Group * ⓘ (New) DynamicsMinds [Create new](#)

INSTANCE DETAILS

Name * ⓘ DynamicsMinds ✓

Region * ⓘ (Europe) West Europe

WORKSPACE DETAILS

Subscription * ⓘ Microsoft Azure Sponsorship

Log Analytics Workspace * ⓘ DefaultWorkspace-e28efbf9-931e-43b3-88b3-e78df531c590-EUS [eastus] ✓

[Review + create](#) [« Previous](#) [Next : Tags >](#)

1...2...3...Telemetry has been enabled.

Configure BC to use
Application Insights

Dynamics 365 Business Central admin center

Environments > Production

Details				Active ⓘ
Name	Application Family	Country/region	Azure Region	
Production	Business Central	IT	West Europe	
Type	Application Insights Key ⓘ be5c62b1-05e5-4b41- (Modify)			
URL		https://businesscentral.dynamics.com/ :/Production		

1...2...3...Telemetry has been enabled.

Verify Collection of signals in Application Insights

adrianf@adrianf.com

Home > PDFViewerApp

 DynamicsMinds | Logs ☆ ...

Application Insights

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D diagnostic settings

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New Query 1*

PDFViewerApp

Select scope

Run

Time range : Last 7 days

Save

Share

New alert rule

Export

Pin to

Format query

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Search

Filter

Group by: Solution

Collapse all

Favorites

You can add favorites by clicking on the ☆ icon

Application Insights

availabilityResults

browserTimings

customEvents

customMetrics

dependencies

exceptions

pageViews

performanceCounters

requests

traces

1 traces

Results

Chart

timestamp [UTC] ↑↓	message	severityLevel	itemType	customDimensions	operation_Name	operation_Id
> 5/22/2024, 4:18:30.828 PM	Extension installed successfully...	1	trace	{"componentVersion":"24.0.195...	N/A	00...
> 5/22/2024, 4:18:28.440 PM	Extension synchronized success...	1	trace	{"componentVersion":"24.0.195...	N/A	00...
> 5/22/2024, 6:04:58.678 AM	Operation exceeded time thres...	2	trace	{"componentVersion":"23.0.195...	Long running operation (AL me...	7b...
> 5/22/2024, 4:02:36.236 AM	Extension is already synchroniz...	1	trace	{"componentVersion":"23.0.195...	N/A	00...
> 5/22/2024, 3:24:47.038 AM	Operation exceeded time thres...	2	trace	{"componentVersion":"23.0.195...	Long running operation (AL me...	c0...
> 5/22/2024, 3:17:38.192 AM	Operation exceeded time thres...	2	trace	{"extensionVersion":"23.5.22.0",...	Long running operation (AL me...	da...
> 5/22/2024, 3:17:38.173 AM	Operation exceeded time thres...	2	trace	{"extensionVersion":"23.5.22.0",...	Long running operation (AL me...	18...
> 5/22/2024, 3:05:08.868 AM	Operation exceeded time thres...	2	trace	{"extensionVersion":"23.5.22.0",...	Long running operation (AL me...	7d...
> 5/21/2024, 6:23:46.641 PM	Extension is already synchroniz...	1	trace	{"componentVersion":"24.0.195...	N/A	00...
> 5/21/2024, 6:13:02.213 PM	Extension published successfull...	1	trace	{"componentVersion":"24.0.195...	N/A	00...
> 5/21/2024, 6:13:01.064 PM	Extension compiled successfull...	1	trace	{"componentVersion":"24.0.195...	N/A	00...
> 5/21/2024, 1:30:23.350 PM	Extension published successfull...	1	trace	{"componentVersion":"23.0.195...	N/A	00...
> 5/21/2024, 1:30:23.141 PM	Extension compiled successfull...	1	trace	{"componentVersion":"23.0.195...	N/A	00...
> 5/21/2024, 10:21:36.389 AM	Operation exceeded time thres...	2	trace	{"componentVersion":"24.0.195...	Long running operation (AL me...	15...

1...2...3...Telemetry has been enabled.

Setup Azure Application Insights

Home > Application Insights >

Application Insights

Monitor web app performance and usage

Basics Tags Review + create

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PROJECT DETAILS

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all

Configure BC to use Application Insights

Dyn
Environ
Notifica
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Capacit



Verify Collection of signals in Application Insights

Microsoft Azure

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Overview

Essentials

Resource group: [DynamicsMinds](#)

Location: West Europe

Subscription: [Microsoft Azure Sponsorship](#)

Subscription ID: e204b9b-931e-43b3-88b3-e7b0f521c590

Tags: Add tags

Instrumentation Key: 29ec3ee-...-d630967405d

Connection String: InstrumentationKey=29ec3ee-c5aa-4d3f-9527-d630967405d;IngestionEn...

Workspace: DefaultWorkspace-e304b9b-931e-43b3-88b3-e7b0f521c590-VUEU

Review + create

Previous Next: Tags

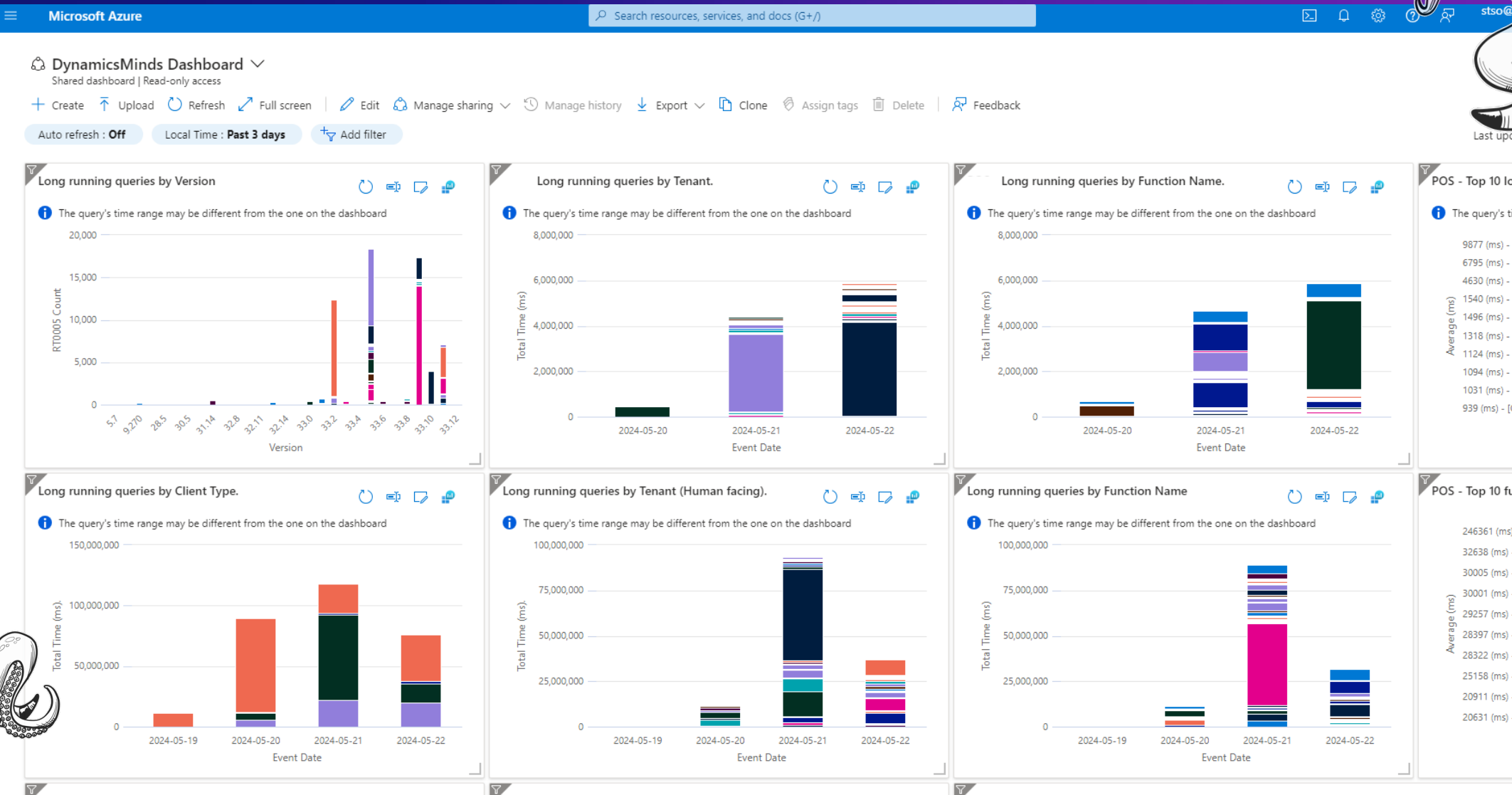


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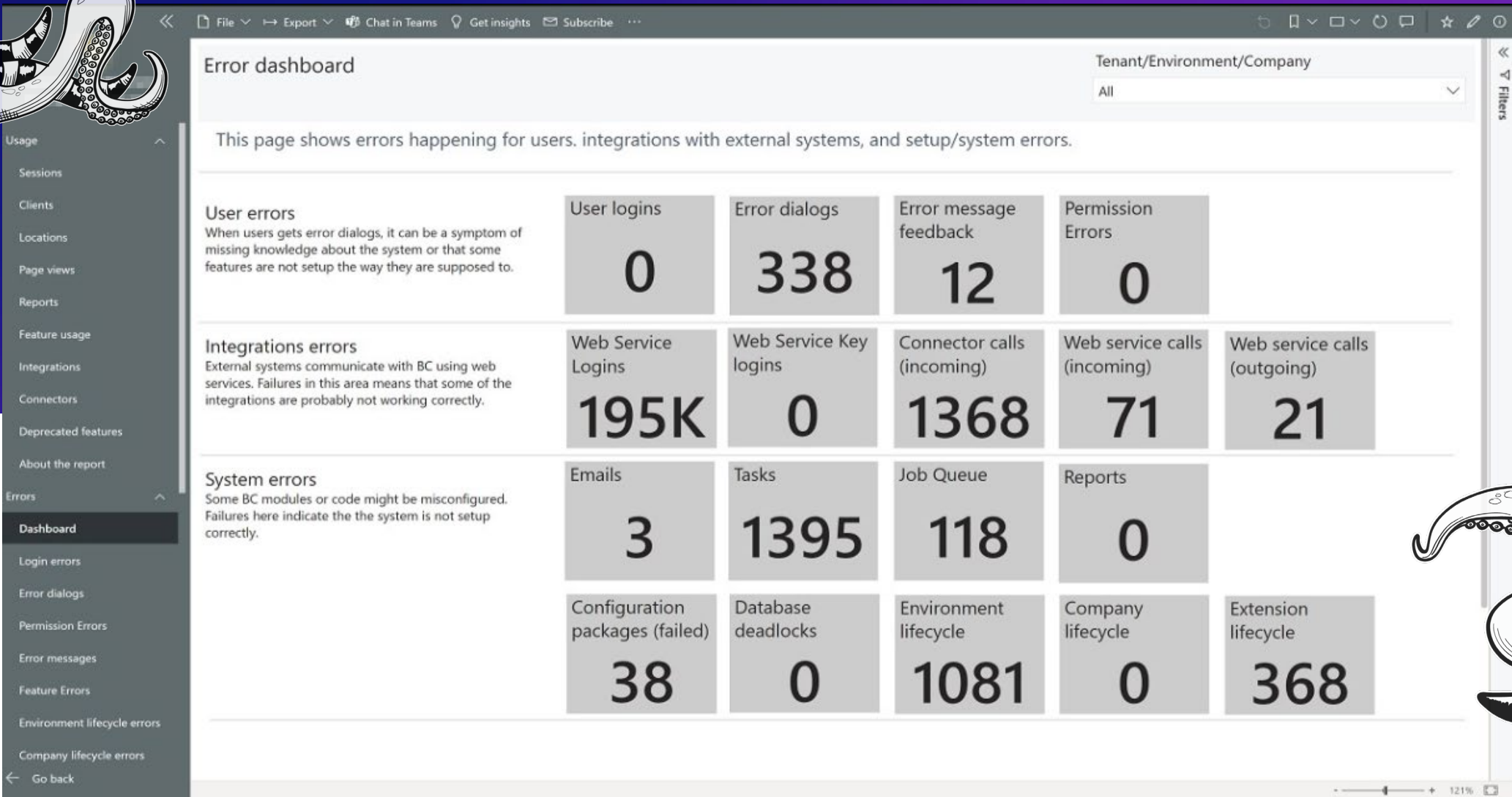
What can you get?



Advanced dashboards on Azure



Dashboards on Power BI



What about
unexpected cost?



Telemetry Pricing: Maximizing Your Free 5 GB



- **5 GB** is free.
 - Do you want to stay in that range?
 - Set a daily cap at **160 MB** per day (to avoid unexpected charges).
- One event typically takes 2-10 KB.
 - This totals in 5,000 – 80,000 events.
 - 32,000 events per day are possible with an average event size of 5 KB.

Managing Telemetry Data and Costs

What to Filter Out?



- High-Volume Data Sources:
 - **Web Service Calls:** These can generate significant amounts of data.
 - **Background Sessions:** Often produce large volumes of telemetry data.
 - **Other Noisy Data:** Identify and exclude less critical data to stay within free limits.
- Why Filter?
 - **Cost Efficiency:** Reducing unnecessary data helps in staying within the free 5 GB limit.
 - **Relevant Insights:** Focus on essential data for better insights and decision-making.

Managing Telemetry Data and Costs

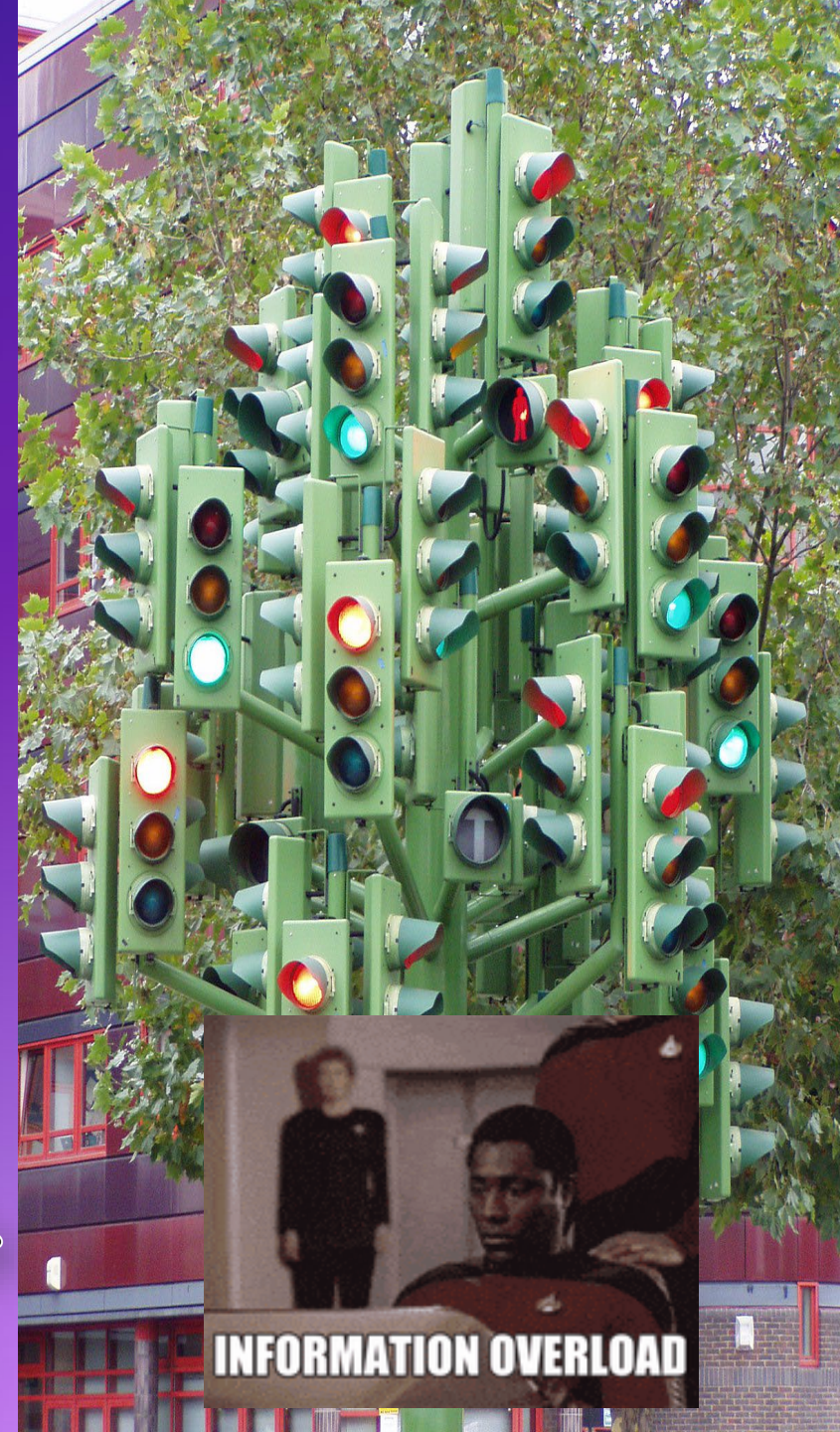
What if I Want to Pay?



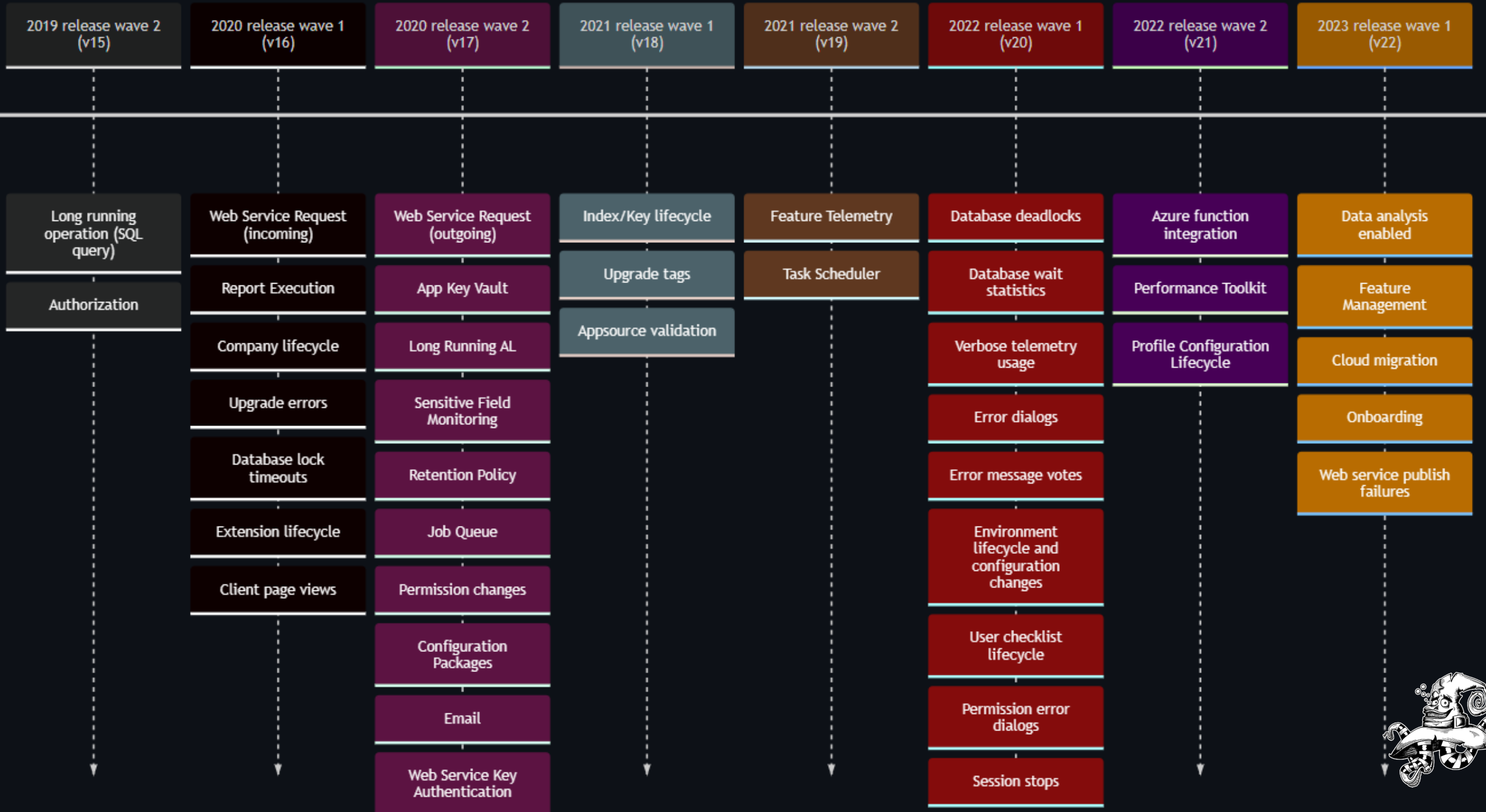
- Pricing Details:
 - **Cost:** \$2.76 per GB beyond the free 5 GB.
 - **Monthly Volume:** Allows for 100,000 events.
 - **Daily Volume:** Equivalent to about 3,300 events per day.
- Considerations:
 - **Budget Planning:** Understanding costs helps in budgeting for additional data needs.
 - **Data Prioritization:** Pay for the most valuable data to ensure meaningful insights.



Too much signals...

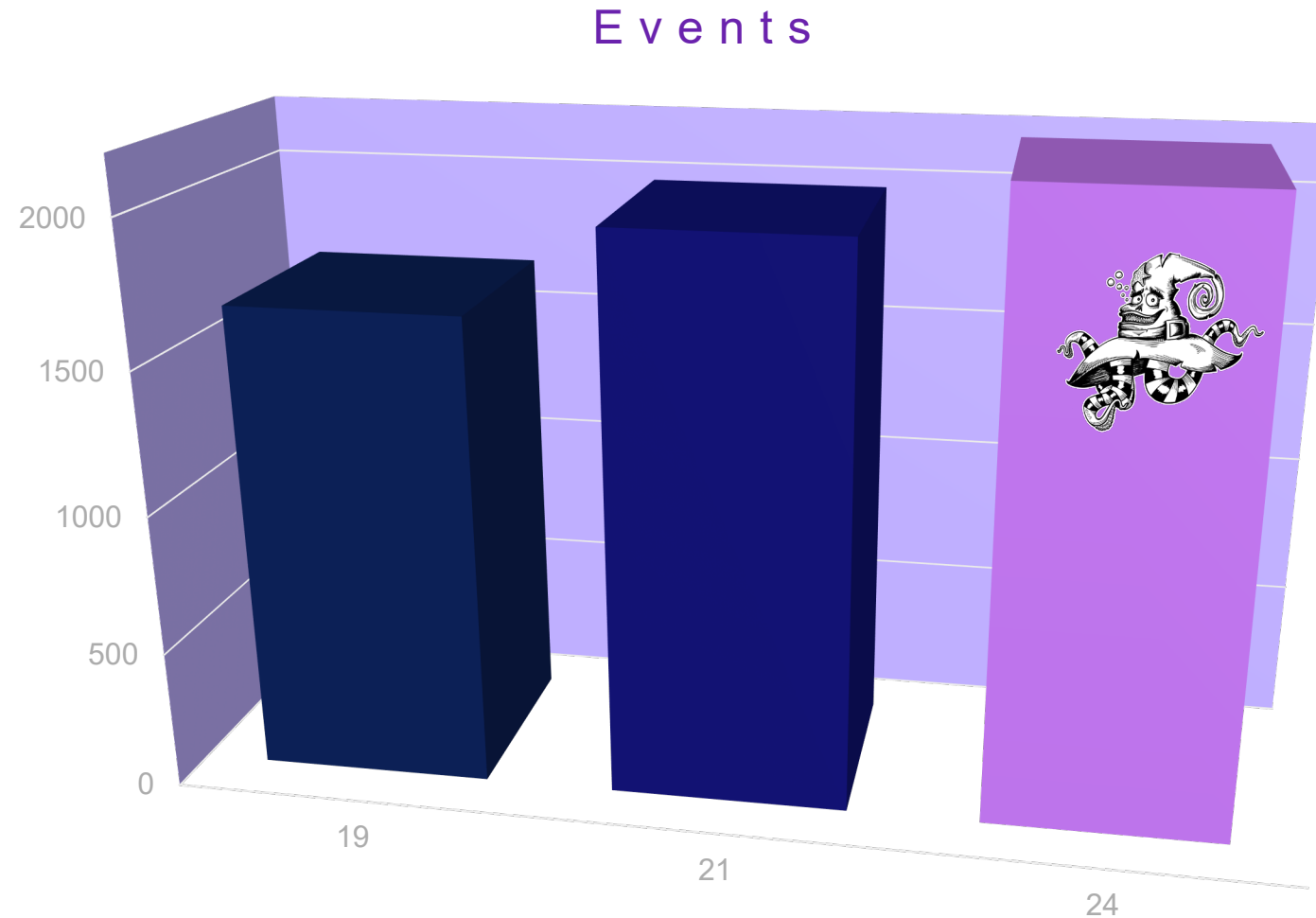


History of Business Central Telemetry by Area



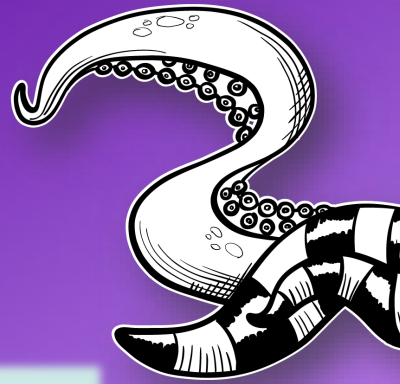
Number of events through BC versions

BC19	1671
BC21	1977
BC24	2161





Limit signals...



Daily cap setting

Home > Application Insights > MandatoryFields

DynamicsMinds | Usage and estimated costs

Application Insights

Search

Data sampling Data retention **Daily cap** Custom metrics (Preview) Help

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
 - Investigate
 - Monitoring
 - Usage
- Configure
 - Properties**
 - Smart detection settings
 - Network Isolation
 - Usage and estimated costs**
 - API Access
 - Work Items
- Settings
- Automation
- Help

This Application Insights resource is sending its data to a Log Analytics workspace. You can configure the pricing tier and retention in that workspace. [Learn more about workspace-based Application Insights.](#)

Log Analytics workspace: e28eebf9-9a1e-4bs3-2133-e78df531c590-DynamicsMinds-WEU

Estimated Costs

The table below shows estimated monthly costs* for this Application Insights resource based on the last month's usage. Data ingestion and retention estimated costs are available in the Log Analytics workspace.

Item type	Price	Monthly usage (last 31 days)	Estimated monthly cost
Multi-step web tests	10.00 USD	0 test	0.00 USD
Custom metrics**	N/A	0 bytes	
			0.00 USD

*Estimates do not include taxes which may be applied to this subscription
**Billing has not started for custom metric usage. Custom metrics will be billed based on bytes of data ingested. [Learn more about Custom Metrics](#)

Data Sampling

Sampling can both reduce the volume of telemetry data the Application Insights SDKs send from your app, and the volume of data retained by the Application Insights service. [Learn more about Data Sampling](#)

Default ingestion data sampling is set to retain all data received, but you may [change data sampling](#) at any time. This application is currently configured to retain 100% of data received.

Data volume cap

Data volume trends

can be used to study data volume trends for this Appli
To view the data volumes for all of the Application Insig workspace.

Daily volume cap

If you need to limit your spend on data volume, you can apply a cap to the amount of data per day. [Learn more about Daily Cap](#)

The daily volume cap is:

0.16 GB/day

The daily cap reset time is 17:00 UTC. This reset time can be configured via ARM.

☒ Send an email to the subscription administrators when the daily data volume has hit the cap.

Daily cap warning level: 90

☒ Send an email to the subscription administrators when the daily data volume has hit this warning level.

To set an alert on daily cap and threshold Activity Log events, which gives you more control over how you're alerted, follow [these instructions](#).

Important: If this Application Insights resource is sending data to a Log Analytics workspace, this daily cap cannot be relied on to always limit data ingestion. Use the daily cap within Log Analytics to get reliable data volume and cost control. [Learn more about workspace-based Application Insights.](#)

[Contact us](#) if you want your application to submit more than 1000 GB/day of data.

OK

This resource has exceeded its daily cap limit within the last two days. To avoid this issue in the future, increase the daily cap here →

Show data for last:

Filter events with Data Collection Rules

Microsoft Azure

Search resources, services, and docs (G+/)

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Essentials

Resource group (move) : [Conferences](#)

Location : West Europe

Subscription (move) : [Microsoft Azure Sponsorship](#)

Subscription ID : e28efbf9-931e-43b3-88b3-e78df531c590

Tags (edit) : [Add tags](#)

Instrumentation Key : e28eebf9-9a1e-4bs3-2133-e78df531c590

Connection String : InstrumentationKey=e28eebf9-9a1e-4bs3-2133-e78df531c590;IngestionEndpoint=ht

Workspace : [e28eebf9-9a1e-4bs3-2133-e78df531c590-DynamicsMinds-WEU](#)

Show data for last:

30 minutes 1 hour 6 hours 12 hours 1 day 3 days 7 days 30 days

Failed requests

Server response time

Server requests

Availability

Filter events with Data Collection Rules

Home > Application Insights > MandatoryFields > e28efbf9-931e-43b3-88b3-e78df531c590-MandatoryFields-WEU

 **e28eebf9-9a1e-4bs3-2133-e78df531c590-DynamicsMinds-WEU** | Tables ☆ ...
Log Analytics workspace

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Network isolation

Linked storage accounts

Properties

Locks

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> Monitoring

> Automation

> Help

+ Create ▾ | Delete

Filter by name

Type : All

Plan : All

Showing 18 results

No grouping

☐ Table name ↑↓	Type ↑↓	Plan ↑↓	Interactive retention ↑↓	Archive period ↑↓
☐ Alert	Azure table	Analytics	Workspace default (30 days)	
☐ AppAvailabilityResults	Azure table	Analytics	90 days	
☐ AppBrowserTimings	Azure table	Analytics	90 days	
☐ AppCenterError	Azure table	Analytics	Workspace default (30 days)	
☐ AppDependencies	Azure table	Analytics	90 days	
☐ AppEvents	Azure table	Analytics	90 days	
☐ AppExceptions	Azure table	Analytics	90 days	
☐ AppMetrics	Azure table	Analytics	90 days	
☐ AppPageViews	Azure table	Analytics	90 days	
☐ AppPerformanceCounters	Azure table	Analytics	90 days	
☐ AppRequests	Azure table	Analytics	90 days	
☐ AppSystemEvents	Azure table	Analytics	90 days	
☐ AppTraces	Azure table	Analytics	90 days	
☐ AzureActivity	Azure table	Analytics	90 days	
☐ ComputerGroup	Azure table	Analytics	Workspace default (30 days)	
☐ InsightsMetrics	Azure table	Analytics	Workspace default (30 days)	
☐ Operation	Azure table	Analytics	Workspace default (30 days)	
☐ Usage	Azure table	Analytics	90 days	

-  Manage table
-  **Create transformation**
-  Edit schema
-  Access control (IAM)

Filter events with Data Collection Rules

AppTraces transformation

✓ Basics 2 Schema and transformation 3 Review

</> Transformation editor

TenantId	TimeGenerated	Message	SeverityLevel	Properties	Measure
0be4da07-1f83-4591-...	2024-05-22T20:07:14....	Called from page 21	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T19:08:19....	Called from page 26	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T18:06:33....	Called from page 51	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T18:10:01....	Called from page 26	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T18:12:31....	Called from page 26	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T18:12:31....	Called from page 26	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T18:12:32....	Called from page 26	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T17:26:51....	Called from page 51	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T17:28:09....	Called from page 51	1	{"environmentType":"P...	
0be4da07-1f83-4591-...	2024-05-22T17:28:59....	Called from page 51	1	{"environmentType":"P...	

Logs
e28efbf9-931e-43b3-88b3-e78df531c590-DynamicsMinds2024-WEU

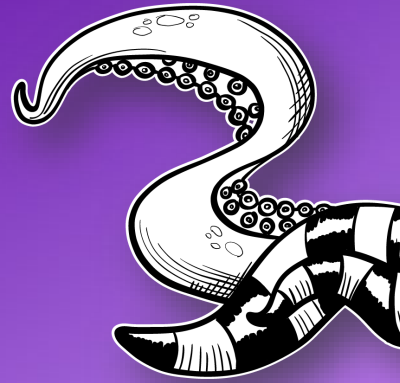
e28efbf9-931e-43... Select scope Run

```
1 source
2 | where Properties.eventId == 'RT0018' //Long Running Query
```

TimeGenerated [UTC] ↑↓	AppRoleInstance	AppRoleName	AppVersion	ClientIP	ClientModel	ClientOS	ClientType	IKey
> 5/22/2024, 8:07:14.407 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 7:08:19.470 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 6:12:32.150 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 6:12:31.956 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 6:12:31.744 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 6:10:01.789 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 6:06:33.143 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 5:28:59.598 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 5:28:09.149 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a
> 5/22/2024, 5:26:51.771 PM	N/A	N/A	N/A	0.0.0.0	N/A	N/A	N/A	2e696b1e-6eae-4484-961a



Determine which
signals to limit



Maybe we don't need these?

- RT0003 and RT0004 - Authorization Succeeded, log for webclient only, otherwise too many records
- ```
(tostring(Properties.eventId) <> "RT0003" or
tostring(Properties.clientType) == "WebClient")
```
- RT0006 - Report rendered: 1320 - Notification Email
- RT0008 - Incoming WS calls for specific publishers that generates large amount of API calls
- RT0019 - Outcoming WS calls for specific publishers that generates large amount of API calls

# Maybe we don't need these?

- RT0030 - Error dialogs with empty text (not really errors)
  - `(tostring(Properties.eventId) <> 'RT0030' or tostring(Message) !startswith "Error dialog shown:" or Properties has "errorMessage")`
- AL0000JBO - Posting Preview called
- AL0000E24 - Job Queue Lifecycle Job queue entry enqueued
- AL0000E25 - Job Queue Lifecycle Job queue entry started
- AL0000E26 - Job Queue Lifecycle Job queue entry finished
- AL0000CTV - Email sent
- LC0040 - Task XYZ created: TIME scheduled to run after DATETIME. Ready to run: True
- LC0043 - Task XYZ main codeunit ID completed.



# Advanced filtering example rule

## Source

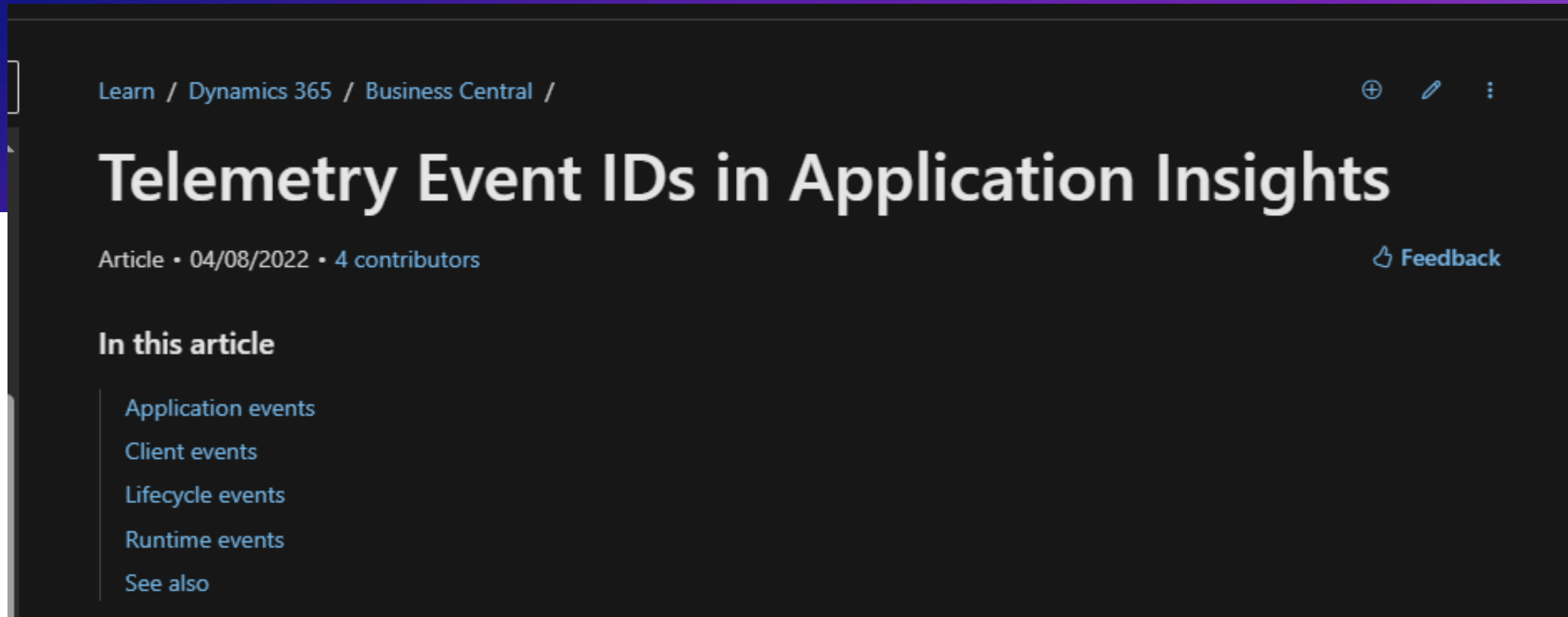
```
| where not (tostring (Properties.eventId) in ("RT0003",
"RT0004", "RT0006", "RT0008", "RT0010", "RT0014", "RT0015",
"RT0016", "RT0019", "RT0020", "LC0024", "LC0025", "LC0040",
"LC0042", "LC0043", "LC0045"))
```

```
| where tostring(Properties.environmentType) == "Production"
```

# AppPageViews rules

- **0 = Production, 1 = Sandbox**
- `source | where toString(Measurements.environmentType) == "0"`
- The “Properties.environmentType” is not currently available in AppPageViews, but there is a similar information in (**Measurements.environmentType**)

All Event IDs can be found on BC docs



The screenshot shows a dark-themed article page. At the top, a breadcrumb trail reads 'Learn / Dynamics 365 / Business Central /'. To the right of the breadcrumb are three icons: a plus sign, a pencil, and a vertical ellipsis. The main title 'Telemetry Event IDs in Application Insights' is prominently displayed in white. Below the title, it says 'Article • 04/08/2022 • 4 contributors'. On the right side, there is a 'Feedback' link with a thumbs-up icon. On the left side, under the heading 'In this article', there is a list of links: 'Application events', 'Client events', 'Lifecycle events', 'Runtime events', and 'See also'.

Learn / Dynamics 365 / Business Central /

# Telemetry Event IDs in Application Insights

Article • 04/08/2022 • 4 contributors

[Feedback](#)

## In this article

- [Application events](#)
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- [See also](#)

# Application events

 Expand table

| Event ID  | Area                    | Message                                                                                                                          |
|-----------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| AL0000LA2 | Changelog configuration | Field added to changelog configuration                                                                                           |
| AL0000LA1 | Changelog configuration | Field logging changed in changelog configuration                                                                                 |
| AL0000LA3 | Changelog configuration | Field removed from changelog configuration                                                                                       |
| AL0000CTV | Email                   | Email sent successfully                                                                                                          |
| AL0000CTP | Email                   | Failed to send email                                                                                                             |
| AL0000GKK | Email                   | Authenticated to SMTP server                                                                                                     |
| AL0000GKJ | Email                   | Connected to SMTP server                                                                                                         |
| AL0000GKL | Email                   | Email sent (using SMTP)                                                                                                          |
| AL0000CTE | Field monitoring        | Sensitive field value has changed: {alfieldCaption} ({alFieldNumber}) in table {altableCaption} ({alTableNumber})                |
| AL0000DD3 | Field monitoring        | Sensitive field monitor status has changed to {almonitorStatus}                                                                  |
| AL0000EMW | Field monitoring        | Sensitive field added to or removed from monitor: {alfieldCaption} ({alFieldNumber}) in table {alTableCaption} ({alTableNumber}) |
| AL0000E2A | Permissions             | User-defined permission set added: {alPermissionSetId}                                                                           |
| AL0000E2B | Permissions             | User-defined permission set removed: {alPermissionSetId}                                                                         |
| AL0000E28 | Permissions             | Permission set link added: {alSourcePermissionSetId} -> {alLinkedPermissionSetId}                                                |

# Client events

 Expand table

| Event ID | Area                  | Message                                          |
|----------|-----------------------|--------------------------------------------------|
| CL0001   | Page views            | Page opened: {aObjectName}                       |
| CL0002   | Error message quality | User gave feedback on error message: [OK]Not OK] |
| CL0003   | Client action         | Client action invoked: {Action}                  |

# Lifecycle events

 Expand table

| Event ID  | Area                | Message                                      |
|-----------|---------------------|----------------------------------------------|
| AL0000E24 | Job Queue Lifecycle | Job queue entry enqueued: {aIJobQueueId}     |
| AL0000FNY | Job Queue Lifecycle | Job queue entry not enqueued: {aIJobQueueId} |

|           |                       |                                                             |
|-----------|-----------------------|-------------------------------------------------------------|
| AL0000E3P | Configuration Package | Configuration package deleted successfully: {aIPackageCode} |
| AL0000EJ9 | Extension Lifecycle   | Upgrade tag searched for: {AIUpgradeTag}                    |
| AL0000FJ1 | Cloud migration       | Companion table repair started                              |
| AL0000FJ4 | Cloud migration       | Companion table repair completed successfully               |

|        |                     |                                                                                                                      |
|--------|---------------------|----------------------------------------------------------------------------------------------------------------------|
| LC0008 | Company Lifecycle   | Company deletion canceled: {companyName}                                                                             |
| LC0009 | Company Lifecycle   | Company deletion failed: {companyName}                                                                               |
| LC0010 | Extension Lifecycle | Extension installed successfully: {extensionName} version {extensionVersion} by {extensionPublisher} ({extensionId}) |
| LC0011 | Extension Lifecycle | Extension failed to install: {extensionName} version {extensionVersion} by {extensionPublisher} ({extensionId})      |



|  |        |                      |                                                                                                                |
|--|--------|----------------------|----------------------------------------------------------------------------------------------------------------|
|  | LC0028 | AppSource Submission | AppSource submission validation request started: {validationRequestId}                                         |
|  | LC0029 | AppSource Submission | AppSource submission validation request completed successfully: {validationRequestId}                          |
|  | LC0030 | AppSource Submission | (Version, country-region) validation started: version {version}, country/region {countryRegion}                |
|  | LC0031 | AppSource Submission | (Version, country-region) validation completed successfully: version {version}, country/region {countryRegion} |

|        |                |                                                                                                       |
|--------|----------------|-------------------------------------------------------------------------------------------------------|
| LC0040 | Task Scheduler | Task {taskId} created: {codeunitObjectId} scheduled to run after {notBefore}. Ready to run: {isReady} |
| LC0041 | Task Scheduler | Task {taskId} ready: {codeunitObjectId} set ready to run after {notBefore}.                           |
| LC0042 | Task Scheduler | Task {taskId} removed: {codeunitObjectId}.                                                            |

|        |                                 |                                                                                                                                                 |
|--------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| LC0054 | Profile Configuration Lifecycle | Profile page customization removed: {ProfileId} in app/extension {ProfileAppld}                                                                 |
| LC0055 | Profile Configuration Lifecycle | Profile page customization converted: {ProfileId} in app/extension {ProfileAppld}                                                               |
| LC0056 | Extension Lifecycle             | Extension is already synchronized: {extensionName}                                                                                              |
| LC0058 | Permissions                     | Permission set changed by an extension                                                                                                          |
| LC0100 | Environment                     | Environment update available for scheduling: {environmentName} to version {destinationVersion}.                                                 |
| LC0101 | Environment                     | Environment update scheduled: {environmentName} to version {destinationVersion}, update on or after date: {registeredForUpdateOnOrAfterDateUtc} |

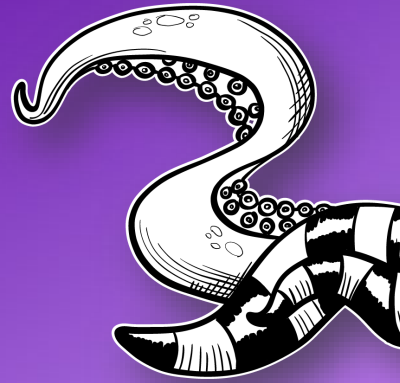
# Runtime events

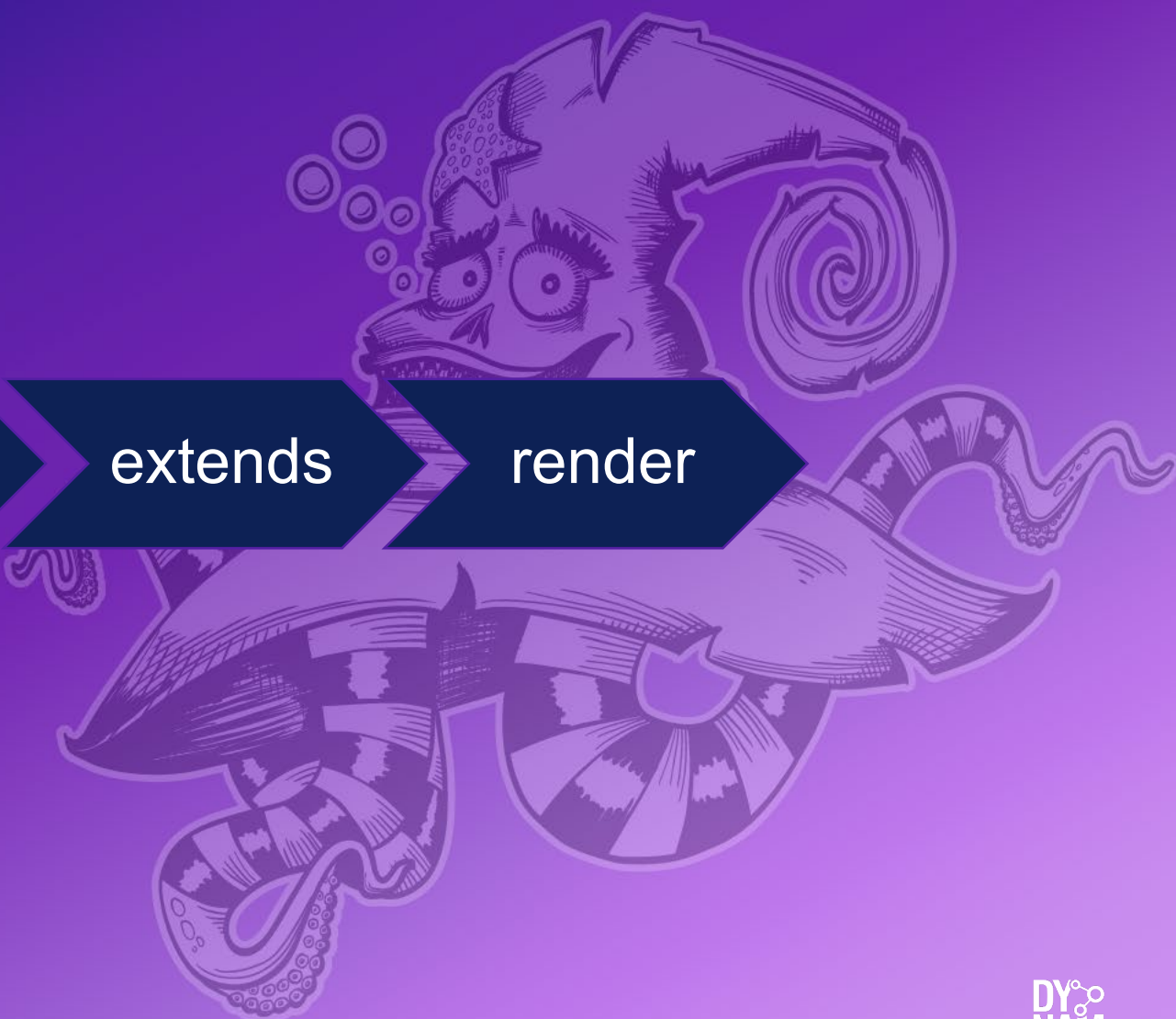
 Expand table

| Event ID | Area                          | Message                                                                                                                                         |
|----------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| RT0001   | Authorization                 | Authorization Failed (Pre Open Company): {failure reason}                                                                                       |
| RT0002   | Authorization                 | Authorization Failed (Open Company): {failure reason}                                                                                           |
| RT0003   | Authorization                 | Authorization Succeeded (Pre Open Company)                                                                                                      |
| RT0004   | Authorization                 | Authorization Succeeded (Open Company)                                                                                                          |
| RT0005   | Performance                   | Operation exceeded time threshold (SQL query)                                                                                                   |
| RT0006   | Report generation             | Success report generation                                                                                                                       |
| RT0006   | Report generation             | Report rendering failed: {report ID} - {report name}                                                                                            |
| RT0007   | Report generation             | Cancellation report generation                                                                                                                  |
| RT0008   | Incoming Web service requests | Web service called ({category of request}): {endpoint}                                                                                          |
| RT0010   | Extension lifecycle           | Extension Update Failed: exception raised in extension {extensionName} by {extensionPublisher} (updating to version {extensionTargetedVersion}) |
| RT0011   | Report generation             | Report cancelled but a commit occurred                                                                                                          |
| RT0012   | Performance                   | Database lock timed out                                                                                                                         |
| RT0013   | Performance                   | Database lock snapshot: {snapshotId}                                                                                                            |
| RT0014   | Security                      | App Key Vault initialization succeeded: '{keyVaultUri}'                                                                                         |
| RT0015   | Security                      | App Key Vault initialization failed                                                                                                             |
| RT0016   | Security                      | App Key Vault secret retrieval succeeded from key vault '{keyVaultUri}'                                                                         |
| RT0017   | Security                      | App Key Vault secret retrieval failed from key vault: '{keyVaultUri}'                                                                           |



# POWER OF KQL





where

project

extends

render

## Part 1 of KQL query – filter the data

### Using Where statement to do filtering

| where timestamp > ago(60d) // adjust as needed

| where customDimensions.eventId == 'RT0006'

| where toString(customDimensions.environmentType) ==  
"Production"

| where customDimensions.alStackTrace contains **XZY**  
**XYZ** – could be some Object Id for example

## Part 1 of KQL query – filter the data

| where tostring (customDimensions.clientType) !=  
"Background"

| where not (tostring (customDimensions.aadTenantId)  
contains "aadTenatID")

| where (tostring (customDimensions.extensionVersion)  
contains "1.2.3.4")

| where tostring(customDimensions.alObjectType) !=  
'Codeunit'

## Using project statement to limit the number of columns

Part 2 of KQL  
query – limit  
the number of  
columns

```
| project timestamp
, aadTenantId = customDimensions.aadTenantId
// ...
```



## Part 2 of KQL query – limit the number of columns

```
| project timestamp
// in which environment/company did it happen
 , aadTenantId = customDimensions.aadTenantId
 , environmentName = customDimensions.environmentName
 , environmentType = customDimensions.environmentType
 , companyName = customDimensions.companyName
// in which extension/app
 , extensionId = customDimensions.extensionId
 , extensionName = customDimensions.extensionName
 , extensionVersion = customDimensions.extensionVersion
 , extensionPublisher = customDimensions.extensionPublisher
// in which object
 , alObjectId = customDimensions.alObjectId
 , alObjectName = customDimensions.alObjectName
 , alObjectType = customDimensions.alObjectType
```

## Using extend operator to add new columns (calculations)

Part 3 of KQL  
query – add  
new columns

```
| extend extensionVersion = tostring
(customDimensions.extensionVersion)
```

```
| extend executionTime = totimespan
(customDimensions.executionTime) / 1ms
```

```
| extend renderTimeInMS = totalTimeInMS –
serverExecutionTimeInMS
```

## More complex statements with where, extend, and project

```
| where not (toString (customDimensions.extensionVersion)
 contains '1.12.123.1234')
```

```
| extend version = split(extensionVersion, '.')
```

```
| extend
```

```
 baseVersion = toString(version[0])
```

```
 , versionMaj = toInt(version[1])
```

```
 , versionMin = toInt(version[2])
```

```
| extend appVersion = versionMaj + versionMin
```

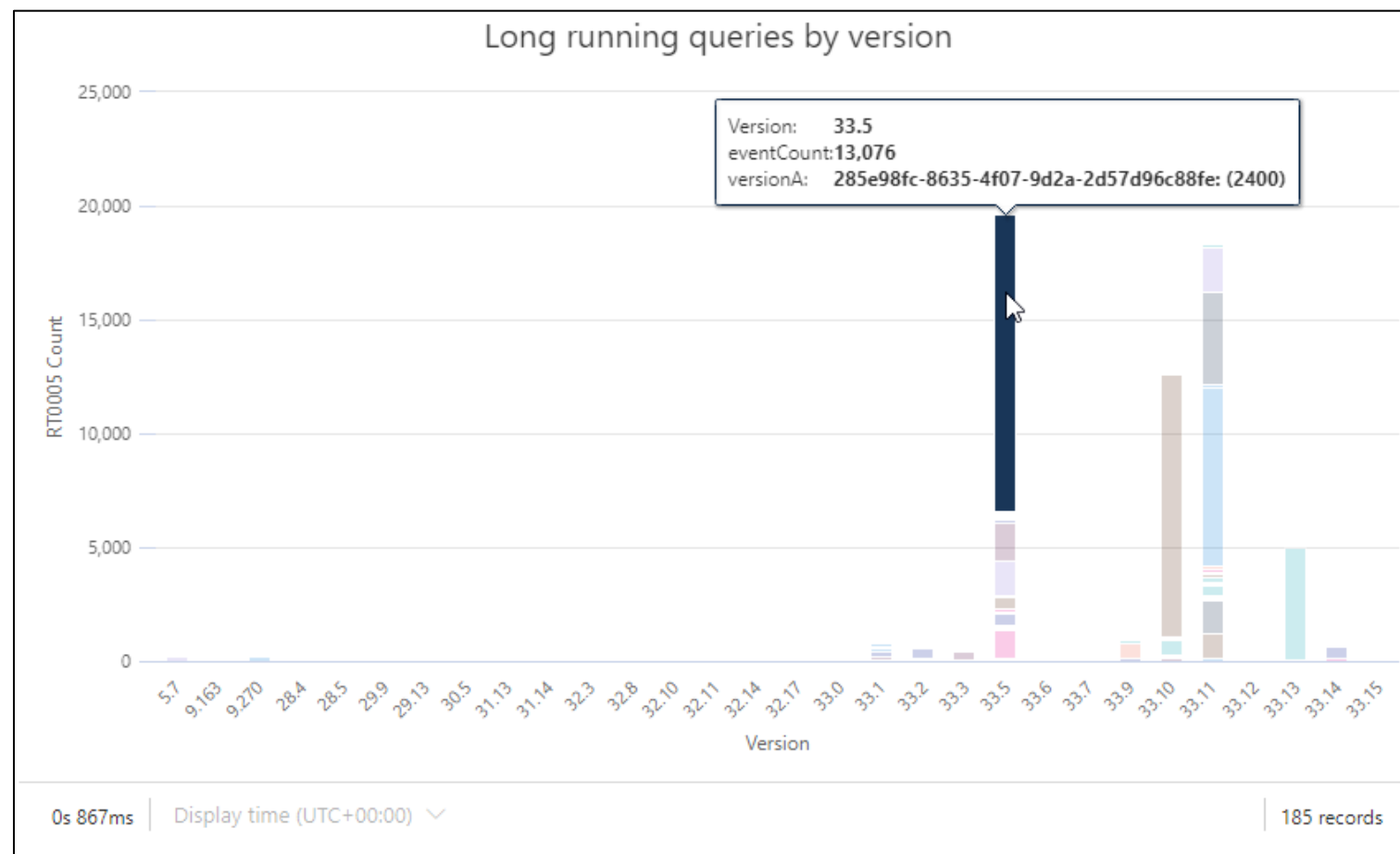
```
| project
```

```
versionMajMin = strcat(versionMaj, '.', versionMin)
```

```
, versionA = strcat(tenantId, ': (' , baseVersion, ')')
```

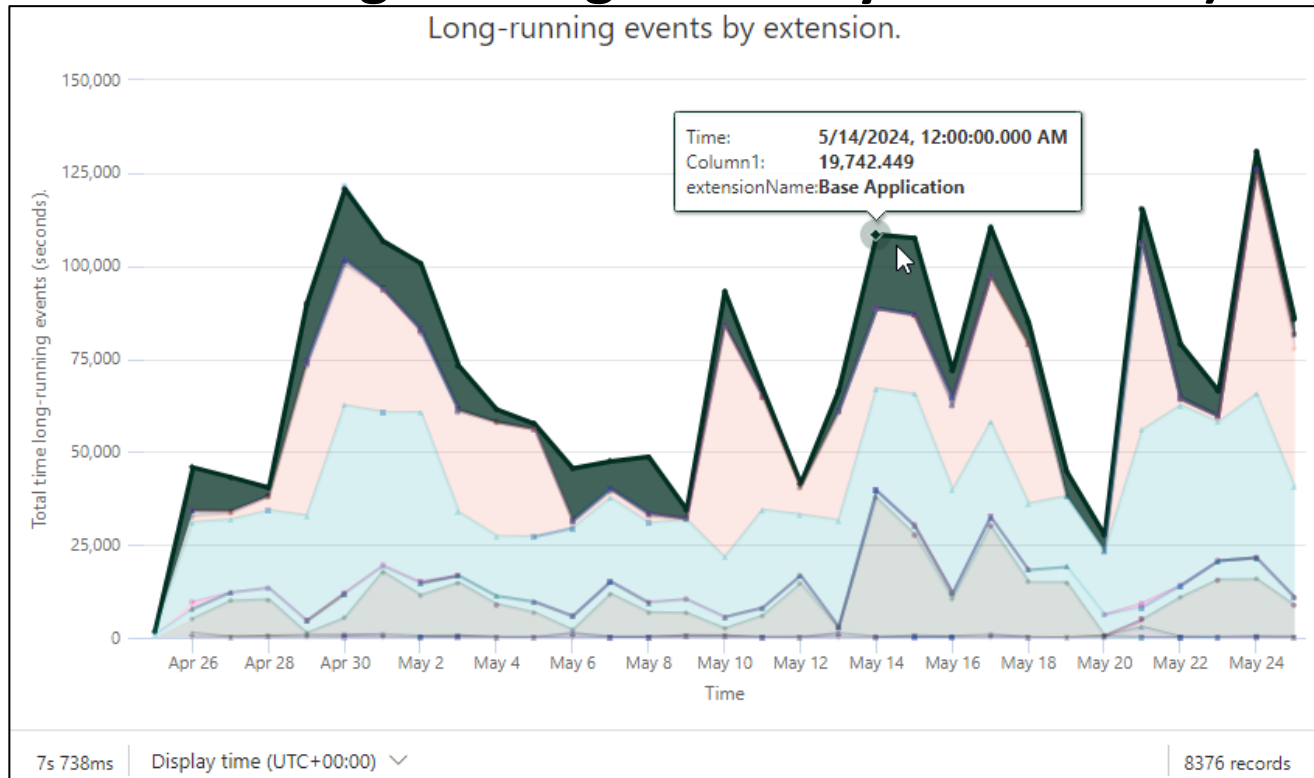
# Part 4 of KQL query – render chart

| render columnchart  
with (  
    legend=hidden,  
    xtitle="Version",  
    ytitle="RT0005 Count",  
    title="Long running queries by version")



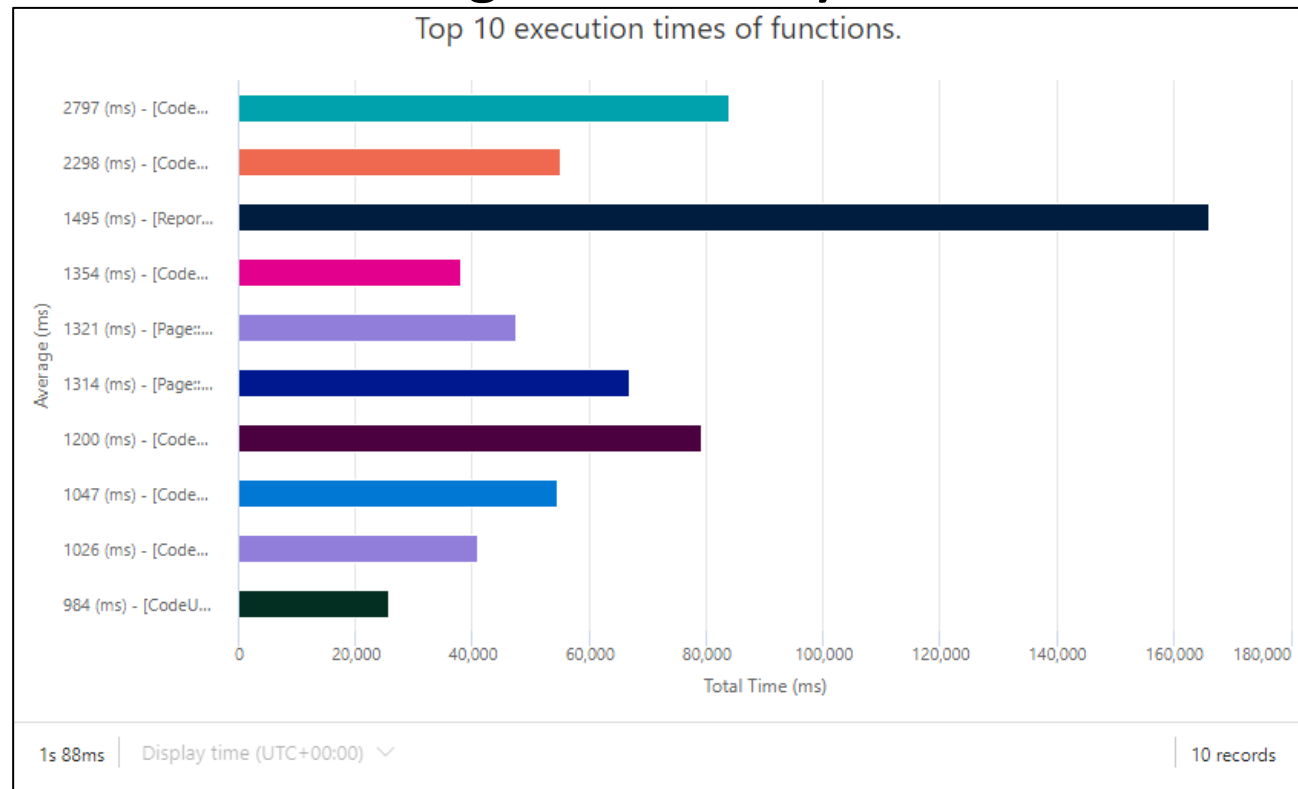
# Part 4 of KQL query – render chart

```
| render areachart
 with (
 legend=hidden,
 accumulate=true,
 kind=stacked,
 xtitle="Time",
 ytitle="Total time long-running events (seconds).",
 title="Long-running events by extension.")
```



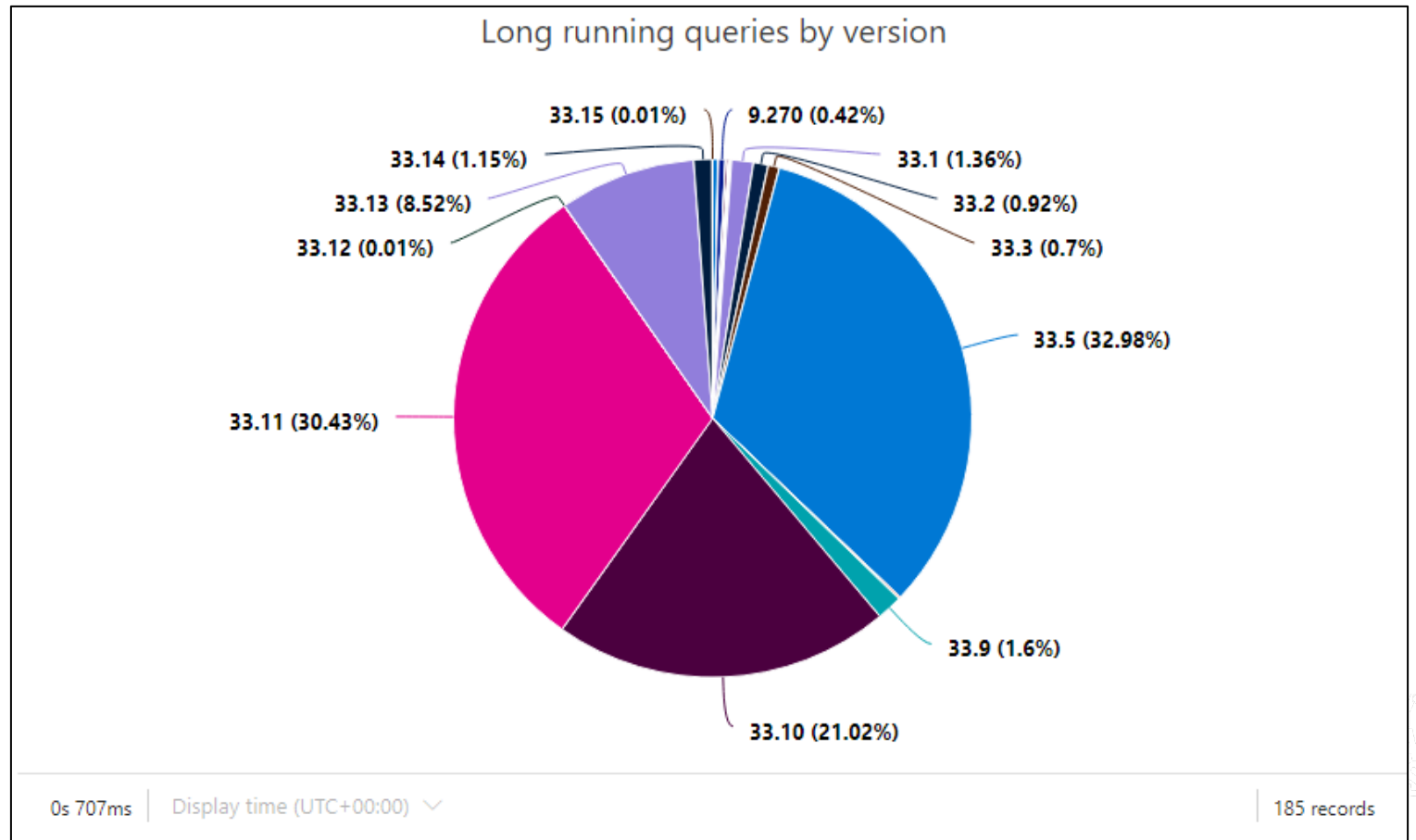
## Part 4 of KQL query – render chart

```
| render barchart
with (
 xcolumn = functionName,
 xtitle="Average (ms)",
 title='Top 10 execution times of functions.',
 ycolumns=sumExecutionTime,
 ytitle="Total Time (ms)",
 legend=hidden)
```



## Part 4 of KQL query – render chart

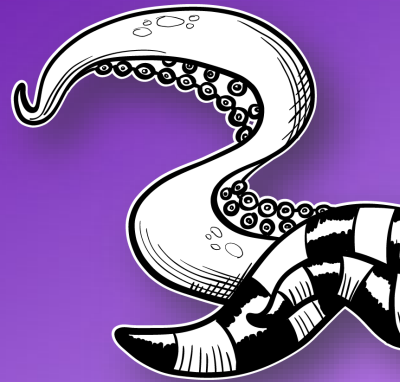
| render piechart  
with (  
legend=hidden,  
xtitle="Version",  
ytitle="RT0005 Count",  
title="Long running queries by version")







# Alerts



# BEEP! BEEP! Alert me

- Time-Savers
  - Set and Forget
  - Instant Notifications
- Consistency is a Key
  - 24/7 alertness
  - Human Error Reduction
- Proactive Problem Solving
  - Early Detection
  - Swift Response
- Data-Driven Decisions
  - Real-Time Insights
  - Trend Analysis
- No Code
  - Power BI
- Low Code
  - Azure Application Insights Alerts
  - Azure Logic Apps
  - Power Automate

# ISV and VAR Alerts Responsibilities

| Condition                     | Event Id(s) | ISV | VAR |
|-------------------------------|-------------|-----|-----|
| AppSource validation failures | LC0035      | X   |     |
| Database performance          | RT0005      | X   | X   |
| Email Errors                  | AL0000CTP   |     | X   |
| Extension failed to install   | LC0011      | X   | X   |
| Extension failed to upgrade   | RT0010      | X   | X   |
| Environment failed to update  | LC0107      |     | X   |
| Error dialog                  | RT0030      |     | X   |
| Job Queue errors              | AL0000E26   |     | X   |

# Example

⚡ DynamicsMinds20... [Select scope](#) [▶ Run](#) Time range: [Set in query](#) [💾 Save](#) [🔗 Share](#) [+ New alert rule](#)

```
1 traces
2 | where timestamp > ago(1d) // adjust as needed
3 and customDimensions.eventId == 'AL0000HE7'
4 | project timestamp
5 , aadTenantId = customDimensions.aadTenantId
6 , environmentName = customDimensions.environmentName
7 , environmentType = customDimensions.environmentType
8 , alJobQueueId = customDimensions.alJobQueueId
9 , alJobQueueObjectId = customDimensions.alJobQueueObjectId
10 , alJobQueueObjectType = customDimensions.alJobQueueObjectType
11 , alJobQueueStatus = customDimensions.alJobQueueStatus
12 , alJobQueueExecutionTimeInMs = customDimensions.alJobQueueExecutionTimeInMs
13 , alJobQueueStacktrace = customDimensions.alJobQueueStacktrace // stack trace added in 20.5
```

# Example

## Measurement

Select how to summarize the results. We try to detect summarized data from the query results automatically.

Measure ⓘ

Aggregation type ⓘ

Aggregation granularity ⓘ

## Split by dimensions

Use dimensions to monitor specific time series and provide context to the fired alert. Dimensions can be either number or string columns. If you select more than one dimension value, each time series that results from the combination will trigger its own alert and will be charged separately. ⓘ

| Dimension name | Operator | Dimension values | Include all future values |
|----------------|----------|------------------|---------------------------|
|----------------|----------|------------------|---------------------------|

## Alert logic

Operator \* ⓘ

Threshold value \* ⓘ

Frequency of evaluation \* ⓘ

ⓘ Estimated monthly cost **\$0.50 (USD)**

# Example

Home > DynamicsMinds | Logs > Create an alert rule >

## Create action group ...

Basics   **Notifications**   Actions   Tags   Review + create

Choose how to get notified when the action group is triggered. This step is optional.

| Notification type ⓘ            | Name ⓘ | Selected ⓘ |
|--------------------------------|--------|------------|
| Email/SMS message/Push/Voice ▾ |        |            |
| ▾                              |        |            |

## Email/SMS message/Push/Voice

Add or edit Email/SMS message/Push/Voice action

☐ Email

Email ⓘ

☐ SMS (Carrier charges may apply)

Country code

Phone number

☐ Azure mobile app notification

Azure account email ⓘ

☐ Voice

Country code

Phone number

OK

# Telemetry driven implementations





# How to see which clients the users at customer use

Usage

Sessions

**Clients**

Locations

Application Areas

Page views

Reports

Feature usage

Checklist usage

Integrations

Connectors

Deprecated features

About the report

Errors

Performance

Administration

Go back

File Export Chat in Teams Get insights Subscribe to report

## Clients

Tenant/Environment/Company

All

This page shows what type of clients and browsers users use.

### Page views by Environment

| Count        | Domain | AAD Tenant Id                        | Environment Name |
|--------------|--------|--------------------------------------|------------------|
| 9508         |        | 0d0b3334-627e-49a4-995a-b31074e70fda | End-user         |
| 4163         |        |                                      |                  |
| 936          |        | 2ecf9a41-a7cc-480f-81cd-c1e46adf4e26 | Production       |
| 751          |        | f6328bab-603a-40f4-b3e0-ded993145ec9 | Production       |
| 738          |        | b2dd0c6c-a136-49cb-9f3f-02386021c495 | Production       |
| 732          |        | bb2e8d0d-c989-4d05-bbbf-da8e1a3e753a | Production       |
| 726          |        | 949e887d-4a47-4dbc-a746-74541ec6df9d | Production       |
| <b>46647</b> |        |                                      |                  |

### Client Statistics

| Pageviews    | Browser                    | Client type | Client OS      |
|--------------|----------------------------|-------------|----------------|
| 8077         | Edge                       | Desktop     | Windows 10     |
| 2102         | Chrome                     | Desktop     | Windows 10     |
| 269          | HeadlessChrome             | Desktop     | Linux          |
| 166          | Firefox                    | Desktop     | Windows 10     |
| 90           | Mobile Safari UI/WKWebView | Phone       | iOS 15.6       |
| 58           | Chrome Mobile WebView      | Phone       | Android        |
| 16           | Mobile Safari UI/WKWebView | Phone       | iOS 16.0       |
| 8            | Edge                       | Tablet      | Windows 10     |
| 6            | Safari                     | Desktop     | Mac OS X 10.15 |
| <b>10804</b> |                            |             |                |

### Client Types

Client type

- Desktop
- Phone
- Tablet

98.30%

### Browsers

Browser

- Edge
- Chrome
- HeadlessChrome
- Firefox

Edge

Chrome

2K

8K

Hea...

### Screen sizes

Screen Resolution

- 1920x1080
- 1280x720
- 2560x1440
- 1366x768
- 1536x864
- 3440x1440
- 3072x1280
- 1920x1200

1920x1080

1280x720

2K

2K

# How to see which standard features customers use

Application areas (base application)

Tenant/Environment/Company  
All

This page shows which parts of the Business Central base application the users use (or do not use).

Usage by Application areas

Page views and reports run

| Area                    | Count |
|-------------------------|-------|
| Sales                   | 1999  |
| Finance                 | 1705  |
| Payment                 | 932   |
| Financial reporting     | 269   |
| Dimensions              | 80    |
| G/L                     | 75    |
| Currency                | 55    |
| Fixed Assets            | 22    |
| VAT                     | 12    |
| Tax                     | 5     |
| Workflow                | 4     |
| Item charges            | 1     |
| Intercompany            |       |
| Inventory               | 515   |
| Purchasing              | 438   |
| Relationship Management | 61    |
| Warehouse Management    | 44    |
| Assembly Management     | 14    |
| Project Management      | 12    |
| Total                   | 4792  |

Filters

Search

Filters on this page

Area  
is not (Blank), Administration...

Filter type  
Basic filtering

Select all

(Blank) 1

Administration 21

Assembly 1

Assembly Managem... 1

Name  
is (All)

Object Id  
is (All)

Object type  
is (All)

Sub Area  
is (All)

Filter type  
Basic filtering

Select all

(Blank) 12

Bin 1

Currency 1

Dimensions 1

Dynamics 365 Sales 1

Filters on all pages

Date  
is (All)

Domain  
is (All)

aadTenantId  
is (All)

environmentName  
is (All)

Go back

DYNAMICS MINDS

# How to see which reports is customer using

Usage

Sessions

Clients

Locations

Application Areas

Page views

Reports

Feature usage

Checklist usage

Integrations

Connectors

Deprecated features

About the report

Errors

Performance

Administration

Go back

## Reports

Tenant/Environment/Company

All

This page shows the reports that users use, how often, when, and how they run them, and which layouts and document formats they prefer.

### Report Statistics

| Count | Report Name                    | Object id | Layout Type | Extension        | Publisher | Version |
|-------|--------------------------------|-----------|-------------|------------------|-----------|---------|
| 12    | ExportElecPayments - Word      | 11383     | Word        | Base Application | Microsoft | 21.0    |
| 2     | Service Invoice-Sales Tax      | 10474     | Rdlc        | Base Application | Microsoft | 21.0    |
| 2     | Service Invoice-Sales Tax      | 10474     | Word        | Base Application | Microsoft | 21.0    |
| 1     | Inventory Valuation            | 10139     | Rdlc        | Base Application | Microsoft | 21.0    |
| 8     | Purchase Invoice NA            | 10127     | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Vendor - Listing               | 10106     | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Reconcile AP to GL             | 10107     | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Sales Shipment NA              | 10077     | Rdlc        | Base Application | Microsoft | 21.0    |
| 2     | Daily Invoicing Report         | 10050     | Rdlc        | Base Application | Microsoft | 21.0    |
| 4     | Trial Balance                  | 10022     | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Trial Balance Detail/Summary   | 10027     | Rdlc        | Base Application | Microsoft | 21.0    |
| 26    | Bank Acc. Recon. - Test        | 1408      | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Bank Acc. Recon. - Test        | 1408      | Rdlc        | Base Application | Microsoft | 22.0    |
| 4     | Bank Account Statement         | 1407      | Rdlc        | Base Application | Microsoft | 21.0    |
| 5     | Check                          | 1407      | Rdlc        | Base Application | Microsoft | 21.0    |
| 2     | Standard Purchase - Order      | 1322      | Word        | Base Application | Microsoft | 21.0    |
| 18    | Standard Sales - Invoice       | 1306      | Word        | Base Application | Microsoft | 21.0    |
| 2     | Standard Sales - Order Conf.   | 1309      | Word        | Base Application | Microsoft | 20.5    |
| 9     | Standard Sales - Order Conf.   | 1309      | Word        | Base Application | Microsoft | 21.0    |
| 26    | Standard Sales - Quote         | 1304      | Word        | Base Application | Microsoft | 20.5    |
| 13    | Standard Sales - Quote         | 1304      | Word        | Base Application | Microsoft | 21.0    |
| 10    | Standard Sales - Quote         | 1304      | Word        | Base Application | Microsoft | 21.1    |
| 2     | Standard Sales - Pro Forma Inv | 1302      | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Work Order                     | 752       | Rdlc        | Base Application | Microsoft | 21.0    |
| 3     | Inventory - List               | 707       | Rdlc        | Base Application | Microsoft | 20.5    |
| 10    | Foreign Currency Balance       | 503       | Rdlc        | Base Application | Microsoft | 21.0    |
| 1     | Sales Document - Test          | 202       | Rdlc        | Base Application | Microsoft | 21.0    |

### Layout types

LayoutType

- Excel
- Rdlc
- Word

67.43%

30.92%

### Report actions (e.g. download, print, or send to inbox)

ReportAction

- Download
- Preview
- Print
- Save

22.37%

13.82%

56.91%

### Reports over the Day - (UTC-06:00) Central Time (US & Canada)

Client type

- Background
- Phone
- WebClient

### Reports over the Week

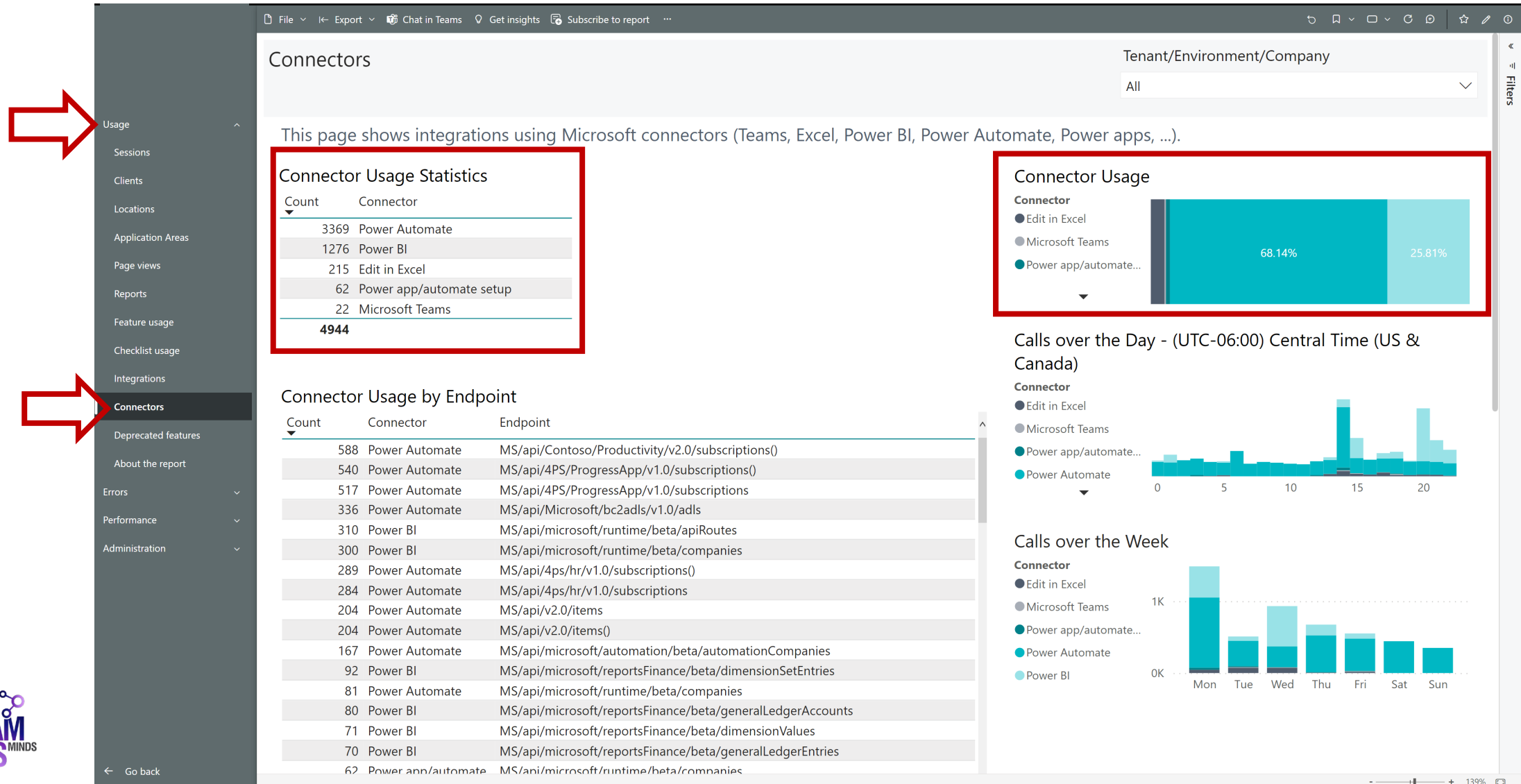
Client type

- Background
- Phone
- WebClient

100

139%

# How to see if customer is using Microsoft connectors



| Count | Page Name                      | Page Type    | Avg load time (sec) |
|-------|--------------------------------|--------------|---------------------|
| 4     | Fixed Asset List               | List         | 41.6                |
| 3     | Cash Flow Forecast Entries     | List         | 39.5                |
| 1     | Table Information              | List         | 30.1                |
| 11    | CRM Connection Setup           | Card         | 28.9                |
| 1     | Customer Report Selections     | List         | 27.1                |
| 3     | Shpfy Connector Guide          | NavigatePage | 19.0                |
| 21    | Migration Table Overview       | Worksheet    | 18.1                |
| 13    | MSFT Migration Table Overview  | Worksheet    | 15.9                |
| 4     | Integration Table Mapping List | List         | 14.7                |

Page Name

- Bank Ac...
- Cash Flo...
- CRM Co...
- Custom...
- Fixed As...
- Integrati...

Avg load time (sec)

| Page Name    | Avg load time (sec) |
|--------------|---------------------|
| Bank Ac...   | ~63                 |
| Cash Flo...  | ~30                 |
| CRM Co...    | ~40                 |
| Custom...    | ~28                 |
| Fixed As...  | ~58                 |
| Integrati... | ~52                 |

# Telemetry for sensitive field changes

- Signals:
  - **AL0000DD3** (Sensitive field monitor status has changed)
  - **AL0000CTE** (Sensitive field value has changed)
  - **AL0000EMW** (Sensitive field added to monitor/removed from monitor)
- **Delete Change Log Entry** table more frequently because your data is still in Application Insights. Save database space.
- Setup an **alert** that can send a **more advanced notification** compared to the Business Central standard email notification.

# Telemetry for sensitive field changes – example query

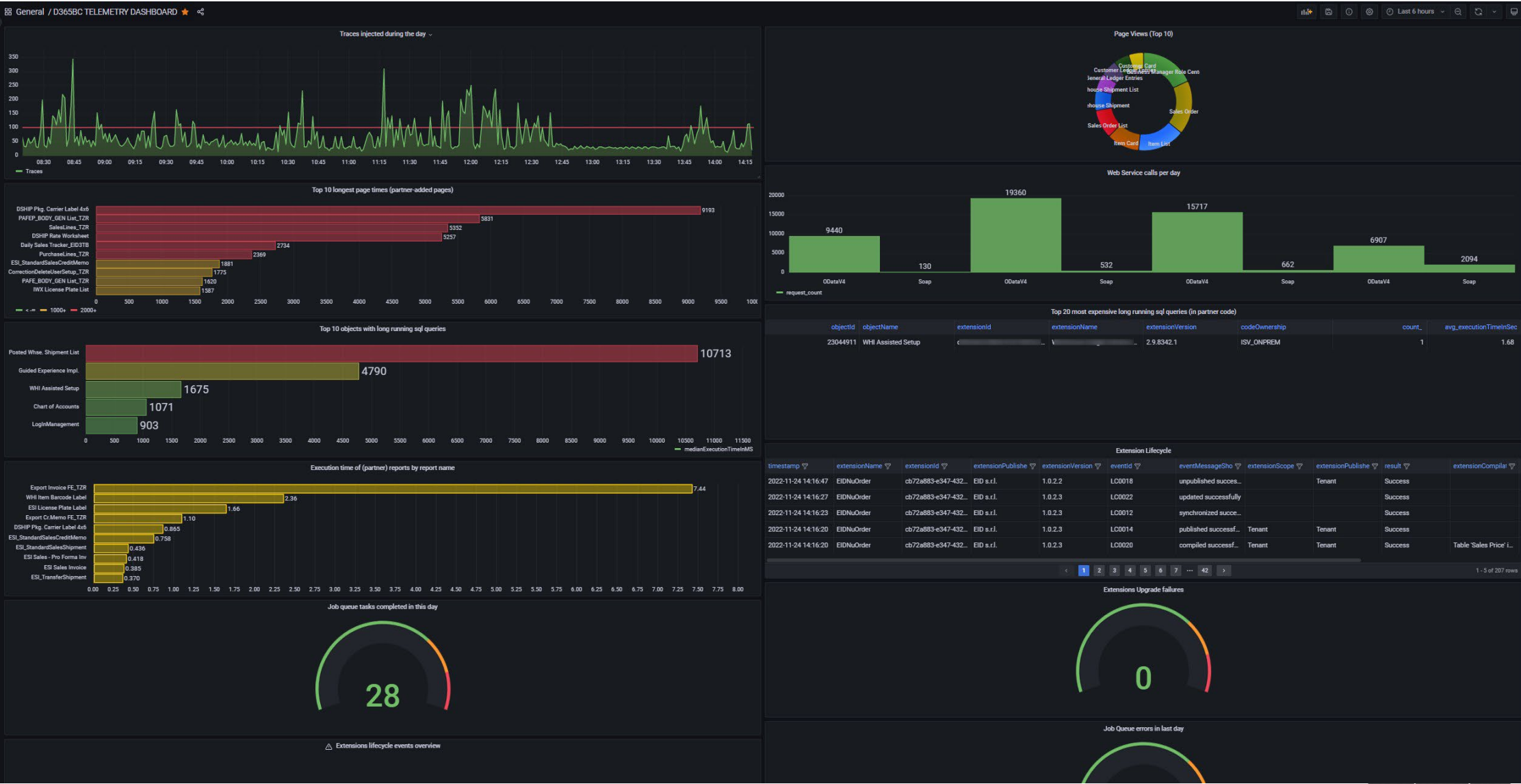
```
traces
| where timestamp > ago(7d) and customDimensions.eventId ==
'AL0000CTE'
| project timestamp, eventId=customDimensions.eventId, message
, componentVersion = customDimensions.componentVersion
, aadTenantId = customDimensions.aadTenantId
, environmentType = customDimensions.environmentType
, environmentName = customDimensions.environmentName
, extensionVersion = customDimensions.extensionVersion
, alTableNumber = customDimensions.alTableNumber
, alFieldNumber = customDimensions.alFieldNumber
, alTableCaption = iff(isempty(customDimensions.alTableCaption),
customDimensions.altableCaption, customDimensions.alTableCaption)
, alFieldCaption = iff(isempty(customDimensions.alFieldCaption),
customDimensions.alfieldCaption, customDimensions.alFieldCaption)
```



# Fancy visualization



# Azure Managed Grafana



# Why Grafana?

- Impacting visual outputs and **rich dashboarding** features
- Possibility to add **multiple data sources and queries** to a dashboard
- **Role-based dashboards** (you can create roles and assign users to a dashboard)
- Possibility to access the dashboards via a **dedicated instance** (no need to access the Azure Portal)

# Azure Managed Grafana features

- What can be data source?
  - Azure Monitor, Azure Data Explorer, SQL Server and Azure SQL, MySQL, Google Cloud Monitoring, CloudWatch, Alertmanager, Elasticsearch, Grapite, etc...
- Roles:
  - The **Admin** role provides full control of the instance including viewing, editing, and configuring data sources.
  - The **Editor** role provides read-write access to the dashboards in the instance.
  - The **Viewer** role provides read-only access to dashboards in the instance.
- \$6 per month / per active user

# Azure Managed Grafana

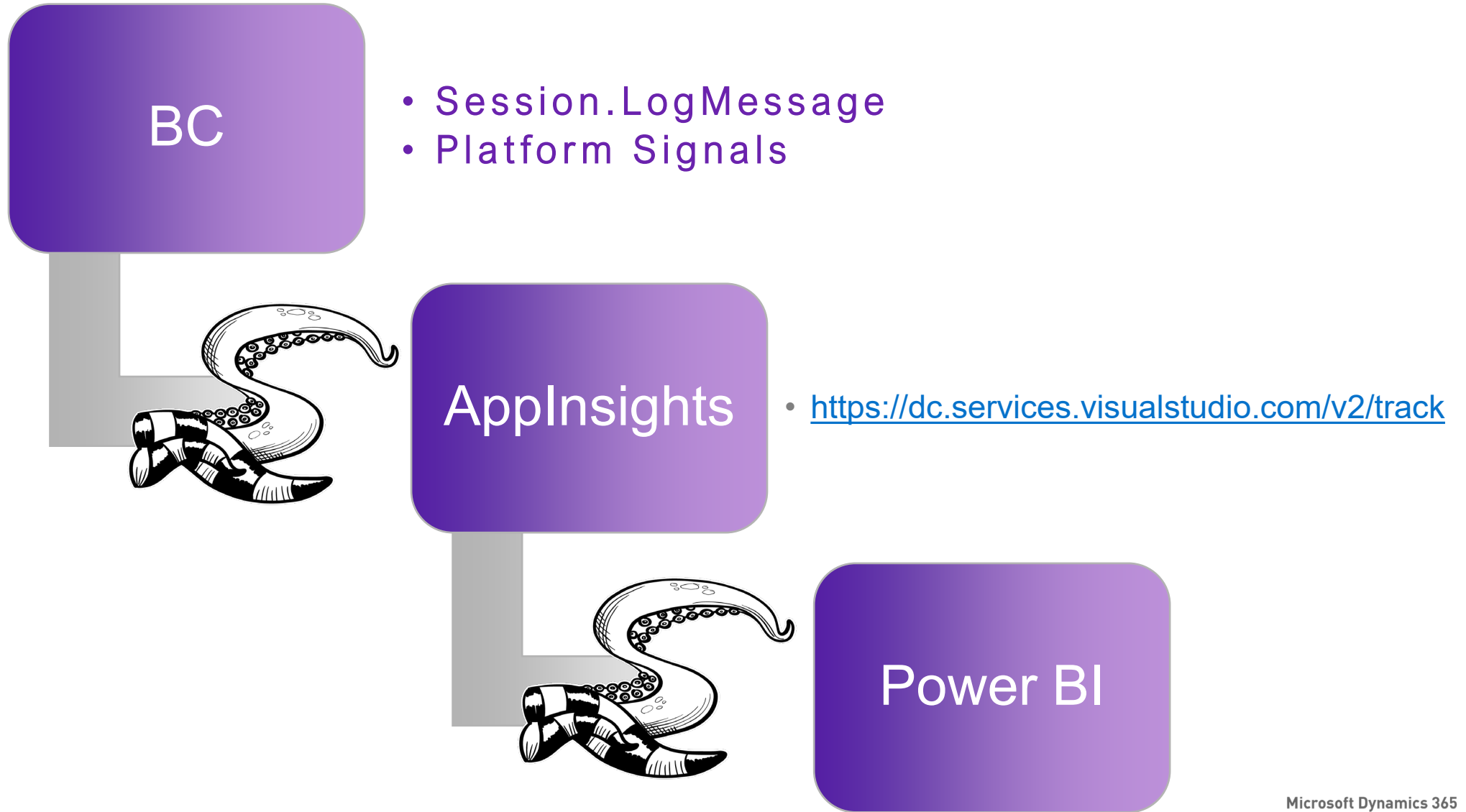




# Feature of telemetry or not?



# Current working process

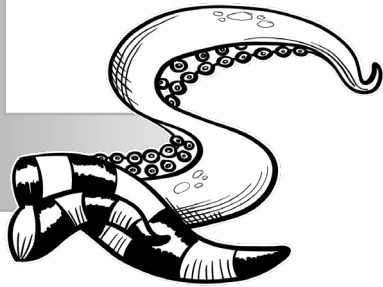




# New concept... (work in progress for next session)

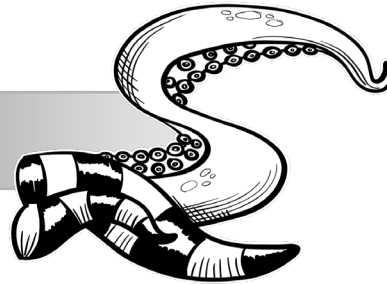
BC  
SDK for  
OpenTelemetry

- OpenTelemetry standard used widely, even for C#



AppInsights  
Proxy to  
custom server

- <https://dc.services.visualstudio.com/v2/track>



Sentry

- Visualizations
- Issue tracking
- Integration with GitHub
- ...

# Sentry Telemetry using OpenTelemetry

B

BCILITY

Stefan Sasic

Issues

Projects

Performance

Queries

Requests

Caches

Web Vitals

Queues

Screen Loads

App Starts

Resources

Profiling

Metrics

Replays

User Feedback

Crons

Alerts

Discover

Dashboards

Issues

Prioritized 1 For Review 1 Regressed Escalating Archived

Help make Sentry less noisy and more precise

Learn More

All Projects All Envs 14D Custom Search is:unresolved issue.priority:[high, medium]

↑↓ Last Seen

GRAPH:

24h 14d

EVENTS

USERS

PRIORITY

ASSIGNEE

Operation exceeded time threshold (AL method)

AL CallStack: "BCY Save Temp PDF"(CodeUnit 71194575).ShowPdfInViewer line 211

cd0f5886-3000-4834-afc1-a88aad33c1ae

Ongoing

DYNAMICSMINDS2024-1

3d ago | 3d old

2

1

Med

SS

1-1 of 1

# Sentry Telemetry using OpenTelemetry

The screenshot displays the Sentry web interface for an issue titled "Operation exceeded time threshold (AL method) 'BCY Save Temp PDF'(CodeUnit 71194575).S...". The issue is in the "Ongoing" state. The left sidebar shows the user "Stefan Sosic" and a navigation menu with options like Issues, Projects, Performance, Queries, Requests, Caches, Web Vitals, Queues, Screen Loads, App Starts, Resources, Profiling, and Metrics. The main content area shows the issue details, including the event ID "9b1b732a" and the timestamp "May 19, 9:06 PM". The "Event Highlights" section shows a table with columns for handled, level, release, environment, and url. The "transaction" section shows a table with columns for transaction, status\_code, Trace: trace\_id, Runtime: name, and Runtime: version. The right sidebar shows the "Assigned To" section with "Stefan Sosic" and the "Last 24 Hours" section with a count of 0. The "Last 30 Days" section shows a count of 2.

Stefan Sosic

Issues > DYNAMICSMINDS2024-1

Operation exceeded time threshold (AL method) "BCY Save Temp PDF"(CodeUnit 71194575).S... Ongoing

0db2cd10-b5d9-4820-aeb0-2c532ba1a4ab

EVENTS 2 USERS 1 PRIORITY Med

Details Activity 0 User Feedback 0 Attachments Tags All Events Merged Issues Similar Issues Replays 0

Event ID: 9b1b732a May 19, 9:06 PM No Trace Available

Event Highlights

|             |       |                  |    |
|-------------|-------|------------------|----|
| handled     | --    | transaction      | -- |
| level       | error | status_code      | -- |
| release     | --    | Trace: trace_id  | -- |
| environment | --    | Runtime: name    | -- |
| url         | --    | Runtime: version | -- |

Feedback View All Edit

Assigned To SS Stefan Sosic

Last 24 Hours 0

Last 30 Days 2

# Sentry Telemetry using OpenTelemetry

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## GitHub Issue

CreateLink

GitHub Repository

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Title

Operation exceeded time threshold (AL Method)

Description

Sentry Issue: [DYNAMICSMINDS2024-1]  
([https://bcility.sentry.io/issues/443923/?referrer=github\\_integration](https://bcility.sentry.io/issues/443923/?referrer=github_integration))  
...  
alStackTrace  
AppObjectType: CodeUnit  
AppObjectId: 71194575  
AL CallStack: "BCY Save Temp PDF"(CodeUnit 71194575).ShowPdfInViewer  
line 211 - PDF Viewer Integration by BCILITY  
"BCY Save Temp PDF"(CodeUnit 71194575).OnRun(Trigger) line 7 - PDF Viewer

Assignee

--

Labels

--

Create Issue

Get deeper context with the new trace view, which links events directly inside traces. Read [why](#) we are doing this and how it helps you

Performance > Transaction Summary > Trace

Open in DiscoverGive Feedback

Search in trace

Reset Zoom

1 Trace — 7f193c7c008a46bc87d476fee0002d17

NET execution time — (CodeUnit 71194575).ShowPdfInViewer line 211

0.00ms500.00ms1.00s1.50s2.00s2.50s3.00s3.50s4.00s4.50s

FCPLCP

TraceWeb Vitalsexecution time - ShowPdfInViewer

transaction execution time - ShowPdfInViewer

General

Duration3.00s

Date RangeMay 22, 8:56 PM (1716411387.215)May 22, 8:56 PM (1716411390.215)

Event ID29f02de10abd4a6bb35ac93d62fd9f31

Description/ShowPdfInViewer

View transaction summary

Tags

browserFirefox 87.0

environmentprod

levelinfo

alobjectid71194575

bc\_version23.0.19560.0

Contexts

User

Emailstefan.sasic@bcility.com

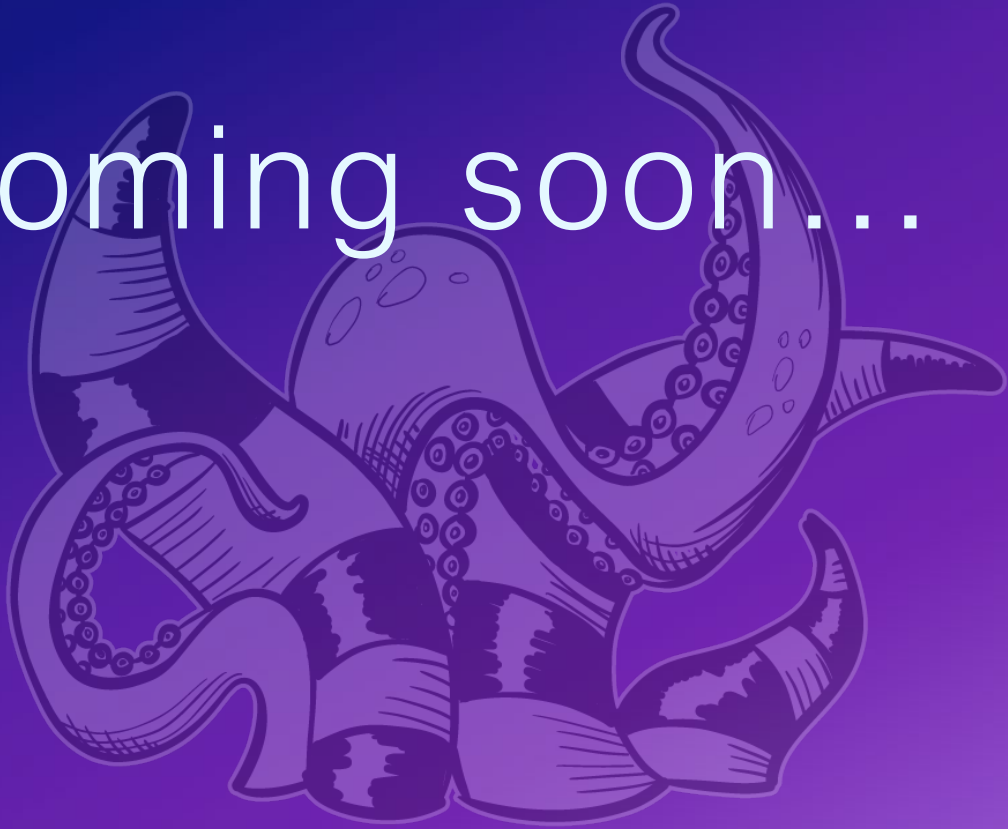
ID1667

Browser

NameFirefox

Version87.0

Coming soon...



Q & A

