

Abstract geometric lines in the top-left corner of the slide, consisting of several thin, black, overlapping lines that form a complex, non-representational pattern.

# NEXT-GEN REPORTING: DATA-DRIVEN NOTIFICATIONS FOR INSTANT INSIGHTS

## PROFESSIONAL

Senior Consultant at Inspari – a valantic company, driving Power Platform projects and internal community/knowledge center

## EDUCATION

MSc. Business Administration & E-Business from Copenhagen Business School

## PASSION

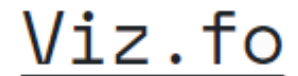
Empowering business users to work better with data, making better decisions, and take matter into their own hands.

## PERSONAL

28 years old, hobby cyclist, puzzle enthusiast and board game nerd

# JON STJERNEGAARD VÖGE

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# AGENDA

## SETTING THE STAGE

Pause and think – Does this need to be a report/dashboard?

## SOLUTION WALKTHROUGH

How to set up data driven notifications with:

- Power BI (Dynamic) Subscriptions
- Power BI Metrics
- Power Automate
- Data Activator

## SOLUTION COMPARISON

Pros & Cons comparison of all the solutions.

## WRAP UP

Main takeaways – What should you do?

DOES ALL INSIGHT HAVE  
TO BE SERVED IN A  
REPORT?

# SOLUTION WALKTHROUGHS



SUBSCRIPTIONS



METRICS



DATA ACTIVATOR



POWER AUTOMATE

EASIEST



HARDEST



## SOLUTION 1: POWER BI SUBSCRIPTIONS

### AUTOMATED SUBSCRIPTION OF REPORT SNAPSHOT

Send recurring snapshot of report as .pdf or .pptx, including link to actual Power BI report. Choose to send full report, or specific pages.

### EMAIL RECIPIENTS OR SAVE TO ONEDRIVE/SHAREPOINT

Customize Email Subject / Message, or save snapshots with timestamp to a folder in OneDrive/Sharepoint.

### FLEXIBLE SCHEDULING OPTIONS

Repeat on a logical schedule (hourly, daily, weekly, monthly) at a specific time, or schedule to send upon model refresh.



Demo\_AutoGenTaxiReport

No label

Search

Fabric Trial: 31 days left

FileExportShareChat in TeamsExplore this dataGet insightsSubscribe to report

Quick summary

Demo\_TaxiSemanticModel

Sum of TripDurationSeconds by County

County	Sum of TripDurationSeconds
New York	115549753
Queens	39270486
Kings	32912092
Bronx	7564750
Hudson	42046
Richmond	12981
Essex	7062
Union	4887
Nassau	3846
Westchester	2333
Bergen	1574
New Haven	1440
(Blank)	1438
Division No. 4	1119
Monmouth	900
Ocean	780
Rockland	720
Dare	701

At 44586903, 41 had the highest Sum of TripDurationSeconds and was 46.81% higher than 44, which had the lowest Sum of TripDurationSeconds at 30370699.

41 accounted for 22.82% of Sum of TripDurationSeconds.

Across all 5 WeekOfYear, Sum of TripDurationSeconds ranged from 30370699 to 44586903.

Total Fare Amount by DayName

DayName	Total Fare Amount
Wednesday	
Thursday	
Friday	
Tuesday	
Saturday	
Sunday	
Monday	

Total Fare Amount by MonthName

MonthName	Total Fare Amount
October	3.2M

Subscriptions

Keep track of your data by subscribing to this report.

Manage all

Automatic Subscription

Unsaved changes

Subscription name

Automatic Subscription

Recipients

JS Jon Stjerneqaard Vöqe Enter email addresses

Attach full report

PDF (.pdf)

Send to

Email

Scheduled date and time

Start date

15/05/2024

End date

Select a date

Save

New subscription



## SOLUTION 1B: POWER BI DYNAMIC SUBSCRIPTIONS

### DYNAMIC VERSION OF CLASSIC SUBSCRIPTIONS

By including a table of recipients in your data model, you can dynamically alter both the list of recipients as well as the content for each recipient.

### FILTER DATA IN SNAPSHOTS BASED ON USERS

Classic subscriptions are limited to sending Full Reports/Report Pages. Dynamic subscriptions can filter each page, based on what each user should see (imilar to RLS)

### PARAMETERIZED PAGES AND ATTACHMENTS

You may even use information from your datamodel to alter which filetype each recipient should receive their snapshot in.

New dynamic subscription

Connect to recipient data

Select and filter data

Email details

Map your data

Schedule

Review and finish

Select and filter data

Choose the data you want to map to the subscription's dynamic fields. The following fields can be set dynamically:

Email address

Email subject

Report filters

Attachment file type

UserEmail	State
jonAdmin@60xtth.onmicrosof	PA
jonvoge@60xtth.onmicrosof	CT
jonvoge@60xtth.onmicrosof	NY

New dynamic subscription

Connect to recipient data

Select and filter data

Email details

Map your data

Schedule

Review and finish

Email details

Provide the email addresses, message, and any attachments or permissions. You can also choose to get the data from your connected data source. [Learn more.](#)

Subscription name \*

DynamicSubscriptionPerUser - Taxi Demo

Recipients \*

Usertable.UserEmail

Email subject

Enter manually

Your Personal Report

New dynamic subscription

Connect to recipient data

Select and filter data

Email details

Map your data

Schedule

Map your data

Define the filters applied to the reports sent in this subscription.

Dynamic filters

+ Add filter

Report field	Value
ABC Geography.State	Usertable.State



## SOLUTION 2: POWER BI METRICS (AKA SCORECARDS)

### CREATE METRICS BASED ON POWER BI VISUALS

Choose a value in a report to monitor, and set up manual or data driven status rules, to change the status of your metrics.

### FOLLOW METRICS TO RECEIVE NOTIFICATIONS

Following a metric creates automated Teams notifications with links to metric and report, when the status of your metrics change.

### COLLABORATE ON METRICS WITH YOUR TEAM

Add qualitative input via check-ins on metrics, assign metrics to team members, and group metrics together in aggregate metrics.

# Jons Scorecard

Filter by keyword

List view

+ New

✓ Metrics

3

● Overdue

1

● Behind

1

● At risk

1

● On track

0

● Not started

0

● Completed

0

⌵ Name

Assigned to

Status

Progress

Trend

Due

⌵ Capacity Metrics



JS Jon Stjernegaard Vøge

Behind

0.27%/0.20%

↑ 122.99% DoD



13 Jun 2024

Capacity Background %



JS Jon Stjernegaard Vøge

Overdue

0.27%/0.10%

↑ 122.99% DoD



13 Jun 2024

Test Submetric



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At risk

5/12

13 Jun

## Jons Scorecard

✓ Metrics

● Overdue

1

● Behind

1

● At risk

⌵ Name

Assigned to

Status

⌵ Capacity Metrics



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Capacity Background %



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Test Submetric



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## Capacity Background %

Details History Status rules Time period Connections

0.27%/0.10%

↑ 122.99% DoD

Overdue



Show targets

Current value source: Fabric Capacity Metrics

Check-in history

## Activity



Unread only



Capacity Metrics is now...  
Capacity Metrics  
Workspaces > Demo

00.05



Capacity Background %...  
Capacity Background %  
Workspaces > Demo

13/05



Test Submetric is now At risk  
Test Submetric  
Workspaces > Demo

13/05



## SOLUTION 3: DATA ACTIVATOR

### LISTEN ON EVENTSTREAMS OR (MOST) POWER BI VISUALS

Data Activator uses Reflexes to monitor incoming data streams. Eventstreams are evaluated every minute, while Power BI visuals every hour.

### CREATE TRIGGERS TO CONTROL NOTIFICATION BEHAVIOUR

Elaborate trigger controls on the incoming data stream allow you to define very specific behaviour:

- A value enters a range, and stays within that range for x minutes
- A value exceeds a threshold x number of times in x number of hours
- A value increases by x % compared to last measurement/time point

### ACT ON TRIGGERS BY SENDING EMAILS/TEAMS MESSAGES

Send notifications by Email / Teams which includes link to reflex, as well as any dynamic properties defined.

Home

SettingsNew sourceNew destinationRefreshActivate allDeactivate all

Data

Sources

BicycleEvents

Destinations

KQLDB\_Bicycle

DemoBicycleReflex

AggregatedBicycles

BicycleEvents

Active

DemoEventstream

KQLDB\_Bicycle

Active

DemoBicycleReflex

Active

AggregatedBicycles

Active

Data previewData insights

Data formatJson

Get data

Events

Average of No\_Empty...

DemoEventstream-...

Sum of No\_Empty\_Do...

DemoEventstream-DemoBicycleReflex

Showing 5000 rows

Search

Signal.Timestamp ↓	BikepointID	Street	Neighbourho...	Latitude
15 May 2024, 10:22:24 UTC	BikePoints_491	Queen Mary's	Mile End	51.5225067
15 May 2024, 10:22:21 UTC	BikePoints_460	Burdett Road	Mile End	51.5161972
15 May 2024, 10:22:21 UTC	BikePoints_714	Stewart's Road	Wandsworth Road	51.4731178
15 May 2024, 10:22:18 UTC	BikePoints_602	Union Grove	Wandsworth Road	51.4729919
15 May 2024, 10:22:18 UTC	BikePoints_624	Courland Grove	Wandsworth Road	51.47292
15 May 2024, 10:22:15 UTC	BikePoints_381	Charlotte Street	Fitzrovia	51.51953

Event Count

Last 24 Hours

Number of Events per hour

New PropertyNew TriggerCustom ActionsDeleteSaveStartUpdateStopSend me a test alert

Objects

BikeStation

Triggers

Low Bike...

Properties

Average E...Bike CountNeighbour...Street

Events

DemoEven...

Neighbourhood

Triggers

Average of ...

Low Bike Count in Station!

SelectNo Bikes

DemoEventstream-DemoBicycleReflexNo Bikes

BikePoints\_161BikePoints\_226BikePoints\_312BikePoints\_518BikePoints\_610

New PropertyNew TriggerCustom ActionsDeleteSaveStartUpdateStopSend me a test alert

Objects

BikeStation

Triggers

Low Bike...

Properties

Average E...Bike CountNeighbour...Street

Events

DemoEven...

Neighbourhood

Triggers

Average of ...

Low Bike Count in Station!

DetectBecomes less than or equal

Becomes less than or equal10Each time

BikePoints\_226

Time: 14 May 2024, 16:39:45 UTCObject ID: BikePoints\_226

Trigger activations

Tuesday, 12 March

Jon Stjernegaard Vøge via Data Activator 12/03 08:45

This notification is a test action.

The trigger condition for the following object has been met

[View details](#)

Trigger Time:	Mar 11, 2024 11:50:24 UTC
BikeStation:	BikePoints_628
Street:	William Morris Way
Neighbourhood:	Sands End
Bike Count:	10
Average Empty Docks per 24H:	13.5971074380165

Modified by Jon Stjernegaard Vøge on Mar 12, 2024 7:45:47 UTC, UID: b4e1f78c





## SOLUTION 4: POWER AUTOMATE

### CUSTOM ACTIONS FOR DATA ACTIVATOR, METRICS & SUBSCRIPTIONS

Power Automate integrates with all the previously mentioned tools to provide completely custom notification solutions based on the triggers.

### IMAGINATION IS THE ONLY BOUNDARY

While the other tools natively just supports Email & Teams notifications, Power Automate can send messages to Slack, SMS, create Jira tickets, or anything else you can imagine.

### QUERY DIRECTLY ON SEMANTIC MODELS

In addition, Power Automate lets us query Semantic Models directly, allowing us to create very specific alerts based on DAX.

← ApiConnection -> Run a query against a dataset - 2

Undo Redo Comments Save Save and apply

Run a query against a dataset

...

\*Workspace  
Demo

\*Dataset  
Fabric Demo Report

\*Query text

```
DEFINE  
  
VAR _MyTable =  
    FILTER(SUMMARIZECOLUMNS('FactOnlineSales'[ProductKey], 'DimProduct'[ProductName], "Sales",  
        Sum('FactOnlineSales'[SalesAmount])), [Sales] > 20000000)  
  
Evaluate  
    _MyTable
```

Show advanced options

← When a Power BI goal status changes, send e-mail

Send feedback Copilot Save Flow checker Test

When a property of some goal changes

:

<

Parameters Settings Code View About

Workspace \*  
Demo

Scorecard Id \*  
Jons Scorecard

Goal Id \*  
Test Submetric

Polling Interval (Sec) \*  
300

> How often do you want to check for items?

Connected to jonAdmin@60xtth.onmicrosoft.com. [Change connection](#)

When a property of some goal changes

+

Selected workspace id

+

Selected scorecard id

+

Condition

True

False

Send an email (V2)

← Report

Send feedback Copilot Save Flow checker 1

Export To File for Power BI Reports

:

<

Parameters Settings Code View Testing About

Workspace \*  
The unique identifier of the workspace.

Report \*  
The unique identifier of a pbi report.

Advanced parameters  
Showing 8 of 8 Show all Clear all

Export Format

Recurrence

+

Export To File for Power BI Reports

+

When a Data Activator trigger fires -> Send SMS

Send feedback Copilot Save Flow checker Test New design

Parameters Settings Code View About

Content \*

Input File...

Schema \*

```
{
  "type": "object",
  "properties": {
    "Street": {
      "type": "string"
    },
    "Neighbourhood": {
      "type": "string"
    },
    "Bike Count": {
      "type": "string"
    },
    "Average Empty Docks per 24H": {
      "type": "string"
    }
  }
}
```

When a Data Activator trigger fires

Parse JSON

Send SMS

When a Data Activator trigger fires -> Send SMS

Send feedback Copilot Save Flow checker Test

Send SMS

Parameters Settings Code View Testing About

Body/Messages \*

To - 1 \*

+4553700989

Body - 1 \*

Hi. An alert was triggered for Street: Body Str..., Neighbourhood: Body Nei..., Bike Count: Body Bik...

Custom String - 1

This is your reference. It will show on all reports and will be passed b...

+ Add new item

Search

Parse JSON

Body Street

Body Neighbourhood

Body Bike Count

Body Average Empty Docks per 24H

When a Data Activator trigger fires See More (8)

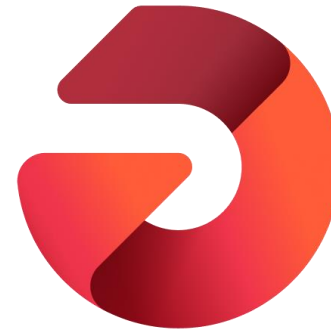
# PROS



- Easy and fast setup
- Easy Dynamic Recipients – may use existing RLS model.
- Only requires Power BI for simple subscriptions.



- Monitor Power BI visuals
- Easy goal and status change tracking
- Easy to get started with notifications



- Listen on Eventstreams and Power BI visuals
- Easy but comprehensive trigger setup



- Extremely Customizable
- Enhances functionality of other tools

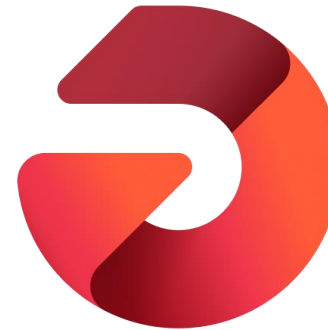
## CONS



- Only available on schedule.
- Limited to Email/Sharepoint/Onedrive delivery
- Dynamic subs require Capacity.



- Can't listen on data model – requires a Power BI visual.
- Not very customizable in terms of notification content.



- Requires Fabric
- Power BI triggers limited to hourly checks.
- Notifications only somewhat customizable



- Requires Power Automate
- Can be complex to configure, depending on use case.

# WHAT SHOULD YOU CHOOSE?



PRE-REQS

Power BI / Fabric

Power BI

Fabric

Power Automate

USE CASE

Easy, scheduled  
snapshots of reports

Easy notifications on  
Power BI visuals on  
model refresh

Best compromise  
between ease-of-use  
and timeliness

Complex trigger and  
action requirements.

# Fabric Symposium

## Microsoft Fabric Conference

28. November 2024 – Microsoft Lyngby, Denmark

[Buy Tickets](#)

[www.fabricsymposium.com](http://www.fabricsymposium.com)



## QUESTIONS?

FEEL FREE TO CONNECT WITH ME.

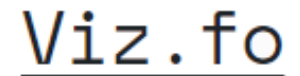
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[HTTPS://WWW.LINKEDIN.COM/IN/JONVOGE/](https://www.linkedin.com/in/jonvoqe/)

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