POWERSHELL CONFERENCE EUROPE 2020

INTERNET, WORLD

JUNE 2-3, 2020

REALTIME COMMUNICATION WITH POWERSHELL – SIGNALR AND AZURE FUNCTIONS

JAN-HENRIK DAMASCHKE

PSCONF.EU 2020 WOULDN'T BE POSSIBLE WITHOUT OUR AWESOME SPONSORS

Microsoft

ScriptRunner®

powershell.one

JanDamaschke

AGENDA

IDEA

TECHNOLOGIES

ARCHITECTURE

SUMMARY

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IDEA

- Real-time messaging with PowerShell
- Example application: SessionFeed
  - Chat with your participants during talks and let them discuss
- Vue.js based frontend with SignalR library
- Serverless PowerShell based backend with Azure Functions

DEMO

SESSIONFEED

SERVERLESS IN A NUTSHELL

PAY-PER-EXECUTION

FULLY MANAGED

HIGHLY SCALABLE IN DEVELOPMENT + OPERATIONS

FAST PROTOTYPING

PLUG AND PLAY EXPERIENCE

TECHNOLOGIES - SIGNALR

FULLY MANAGED

SERVERLESS MODE

USED FOR:

- MESSAGE BROADCASTING

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TECHNOLOGIES - AZURE FUNCTIONS

MICROSOFT SERVERLESS OFFERING

TRIGGERS, INPUT AND OUTPUT BINDINGS

USED FOR:

- HTTP ENDPOINTS
- SIGNALR INPUT/OUTPUT BINDINGS
- COSMOS DB INPUT/OUTPUT BINDINGS

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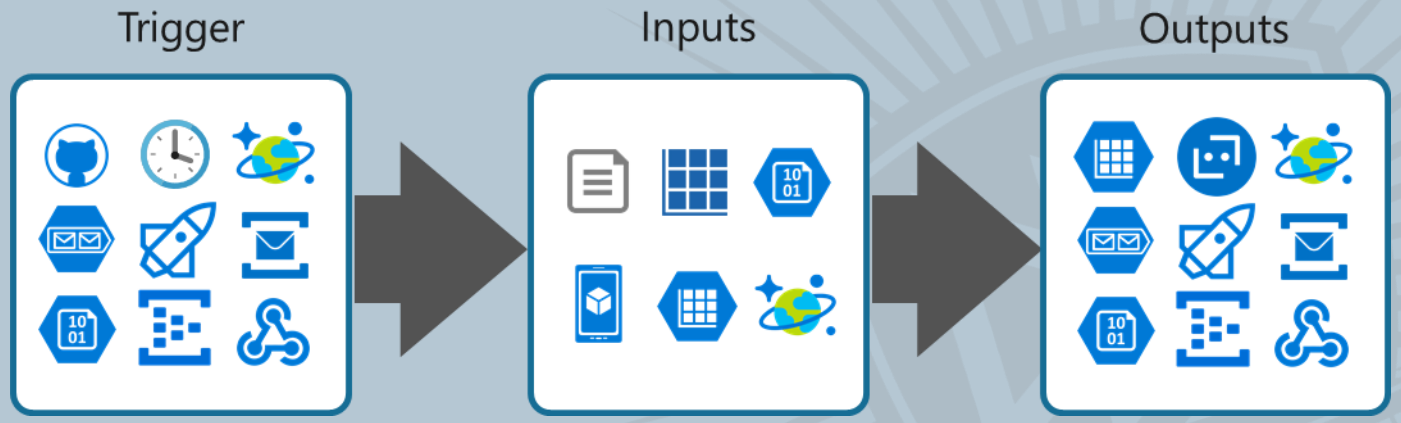
TECHNOLOGIES - AZURE FUNCTIONS



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TECHNOLOGIES - COSMOS DB

MULTI MODEL DATABASE /W NOSQL ENGINE

GLOBALLY DISTRIBUTED, FULLY MANAGED

CHANGE FEED

USED FOR:

- DATA PERSISTENCY
- EVENT SOURCE FOR BORADCASTING CHANGES

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TECHNOLOGIES - AZURE STORAGE

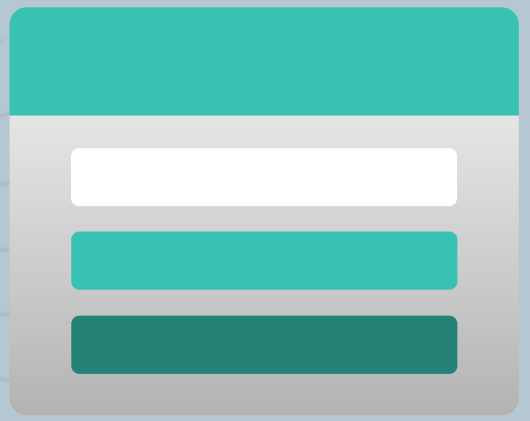
GENERAL PURPOSE STORAGE

BLOB, QUEUE, TABLE, FILE

SIMPLE STATIC WEBSITE HOSTING

USED FOR:

- STATIC WEBSITE HOSTING



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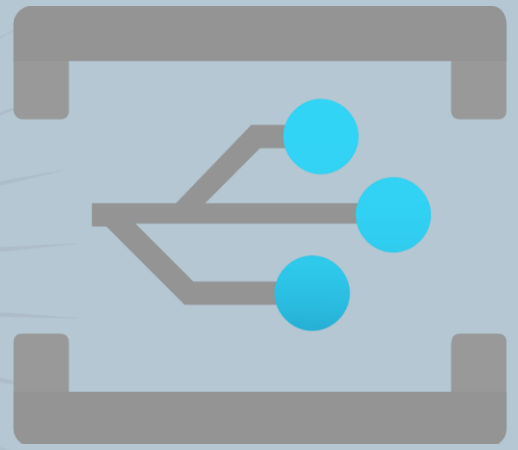
TECHNOLOGIES - EVENT GRID

EVENT ROUTING

AZURE INTERNALLY AND CUSTOM EVENTS

BACKEND FOR EVENT-DRIVEN AND SERVERLESS APPS



USED FOR:

- SIGNALR EVENT ROUTING

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DEMO

AZURE RESOURCES

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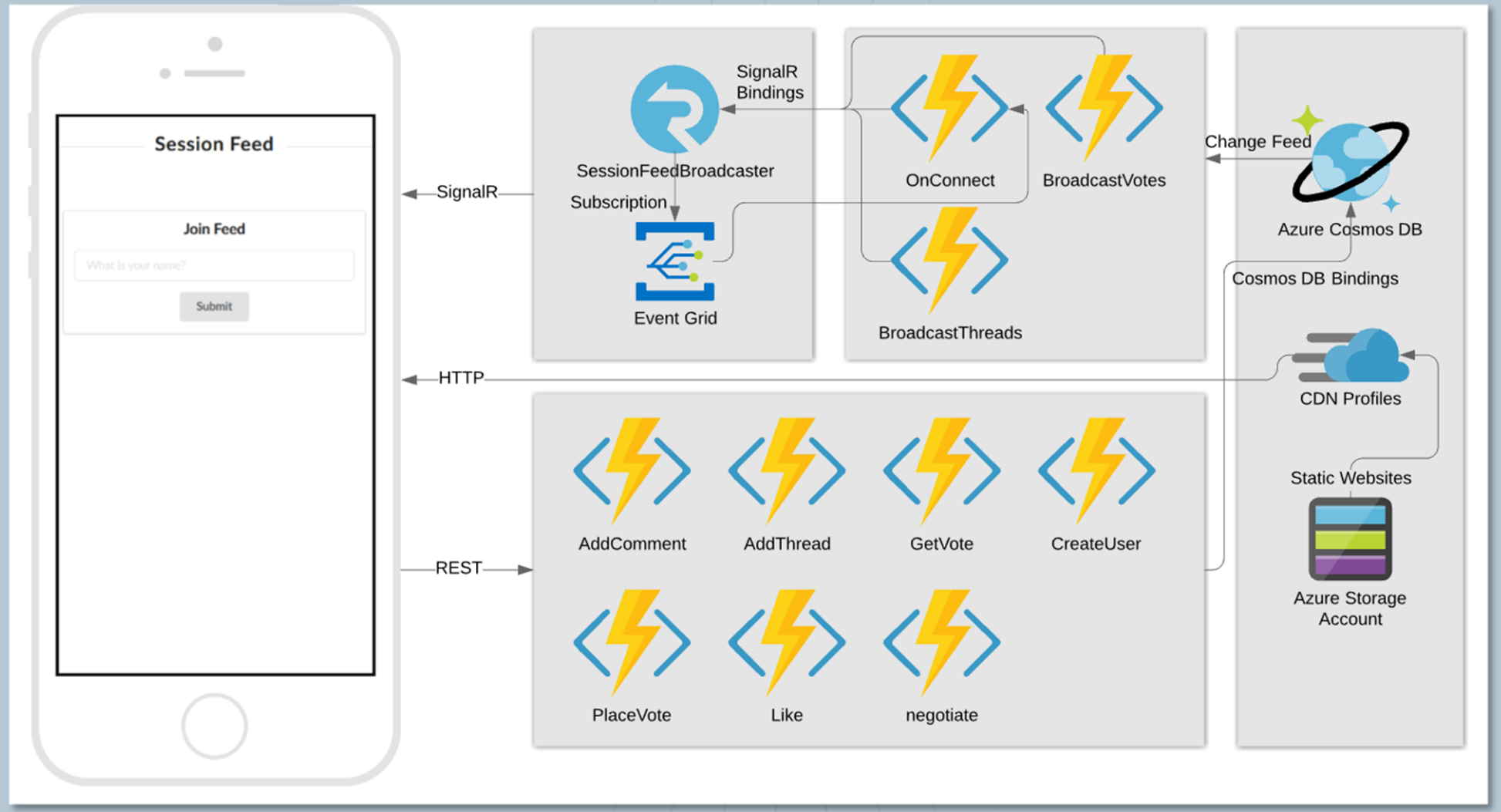
ARCHITECTURE



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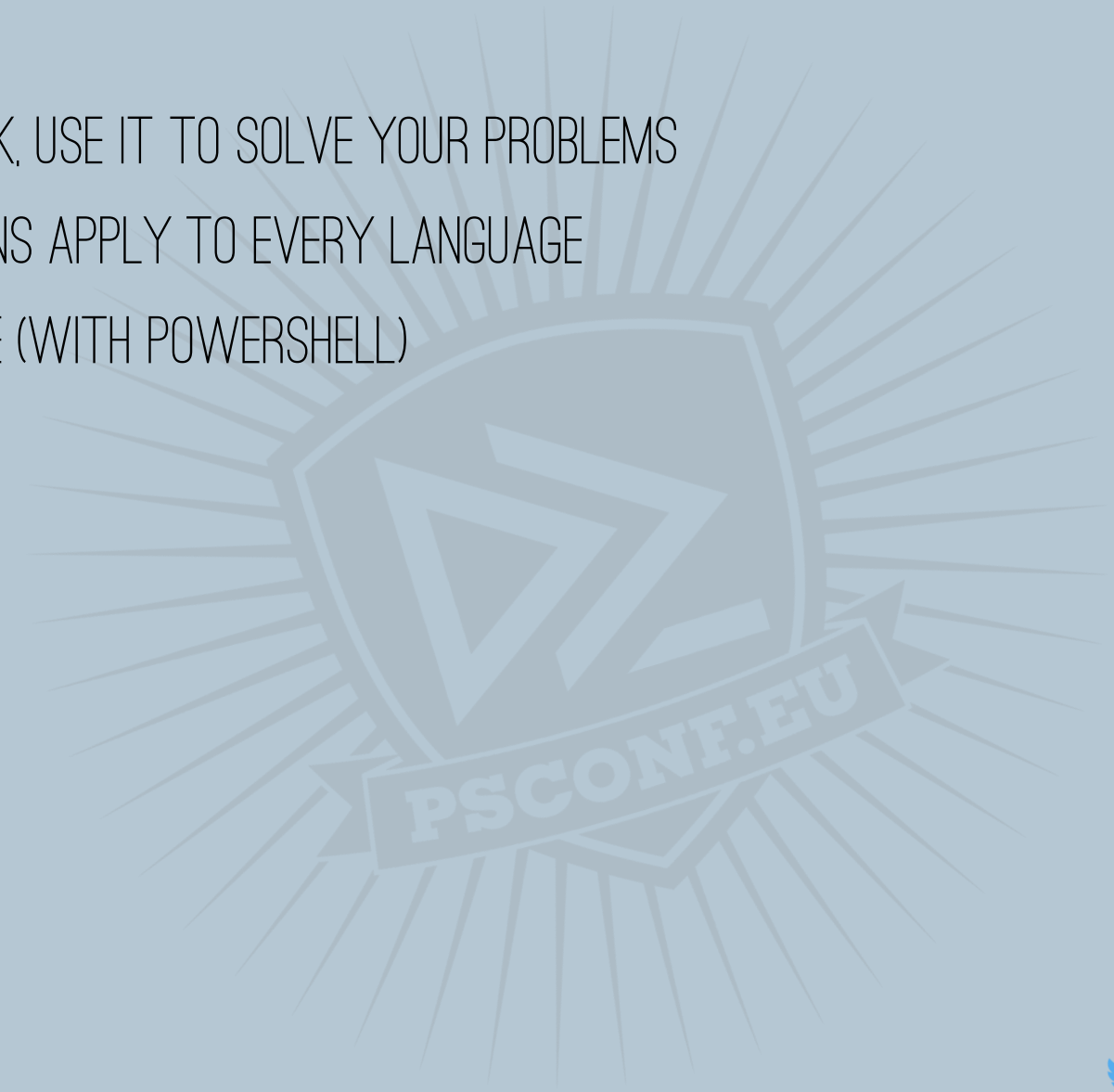
SUMMARY

AZURE IS A FRAMEWORK, USE IT TO SOLVE YOUR PROBLEMS

ARCHITECTURE PATTERNS APPLY TO EVERY LANGUAGE

EVERYTHING IS POSSIBLE (WITH POWERSHELL)



SLIDES + DEMO CODE

```
Start-Process -FilePath https://github.com/psconfeu/2020
```

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ABOUT_SPEAKER

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PowerShell Conference Europe 2021
Hannover, Germany
June 1-4, 2021

DELEGATE SIGN-UP OPENS NOVEMBER 2020 AT HTTPS://PSCONF.EU