WAZUGNL 31

AZURE FUNCTIONS UNDER THE HOOD

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Before we begin... Raise your hand!

- What's your experience?
  - Azure App Service (Web Apps)
  - WebJobs and SDK

What are we gonna talk about?

- Introduction: What's Azure Funtions all about?
- Going under the hood
- Demo time & some code
- Wrap-up with Q&A

What is Azure Functions?

- Announced during **//build 2016**, **in preview**
- New (PaaS) addition to Web+Mobile
- Allows developers to **easily write & run code in the Cloud**

What is Azure Functions?

- Runs **C#**, **Node.JS**, PowerShell, Python, F#, PHP, Batch, Bash, Java
- Event driven, compute-on-demand

What is Azure Functions?

- Integrates with other Azure Services:
  - Storage
  - Service Bus
  - DocumentDB
  - Notification Hub
  - Mobile Apps table

What is Azure Functions?

- "Serverless" execution model
  - Abstraction of the OS layer from the code
  - **Pay-per-execution** model, only for the time your code is running

What is Azure Functions?

- Open source runtime
  - Inspired by Azure WebJobs and SDK
  - **Will be Portable!**

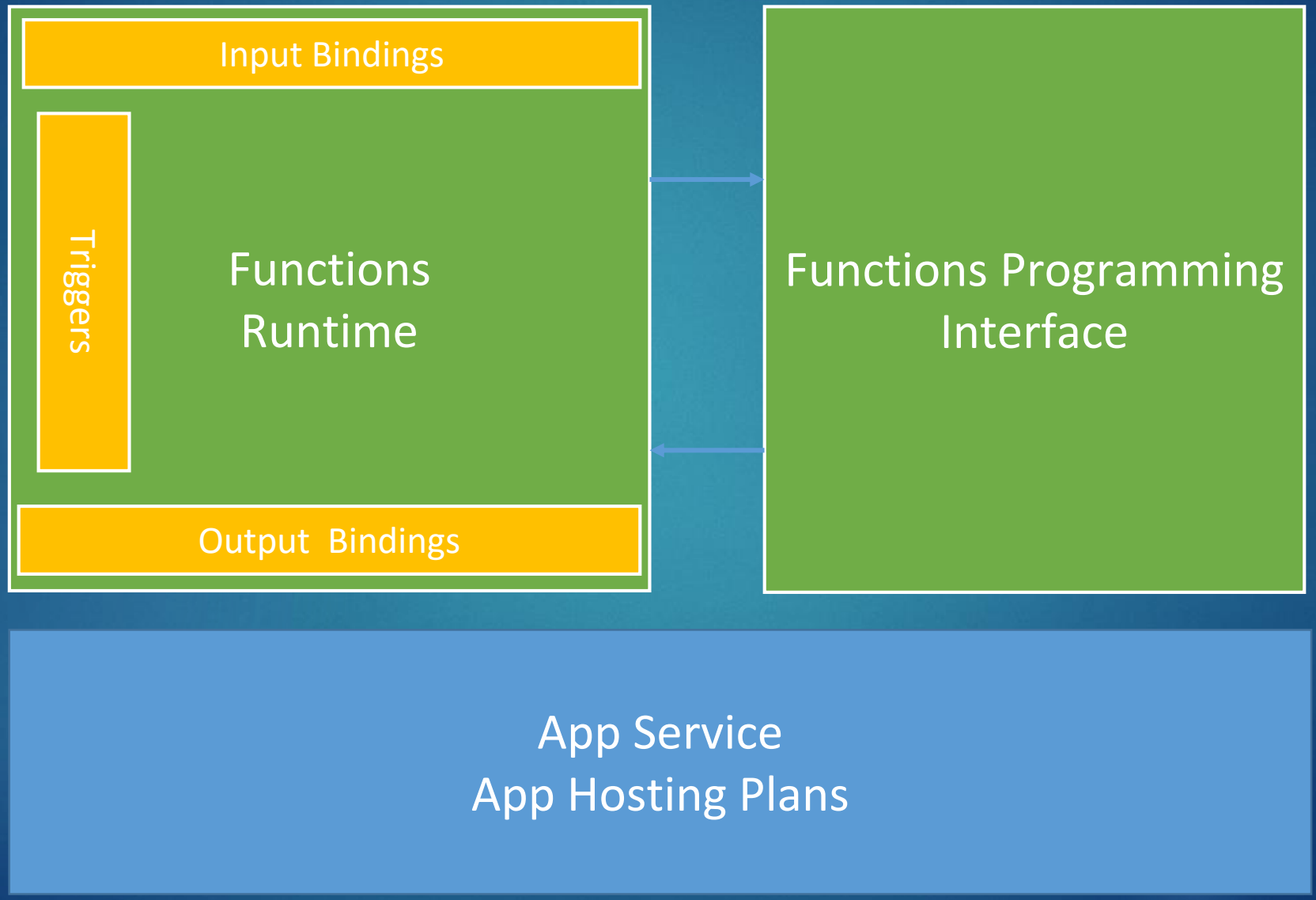
What is Azure Functions?

- Easily start with the Azure Functions web portal
- Continuous Deployment
  - Github, BitBucket, Visual Studio Team Services
  - OneDrive, Dropbox

What is Azure Functions?

- Benefit from App Service
  - Deployment Slots
  - Environments, fully isolated and dedicated

Azure Functions Under the Hood



Azure Functions Under the Hood

- What type of triggers?
  - Schedule (Timer, cron expression)
  - Event (ie: Storage Tables, Queues and Blobs)
  - HTTP (REST or WebHook)
  - Manually

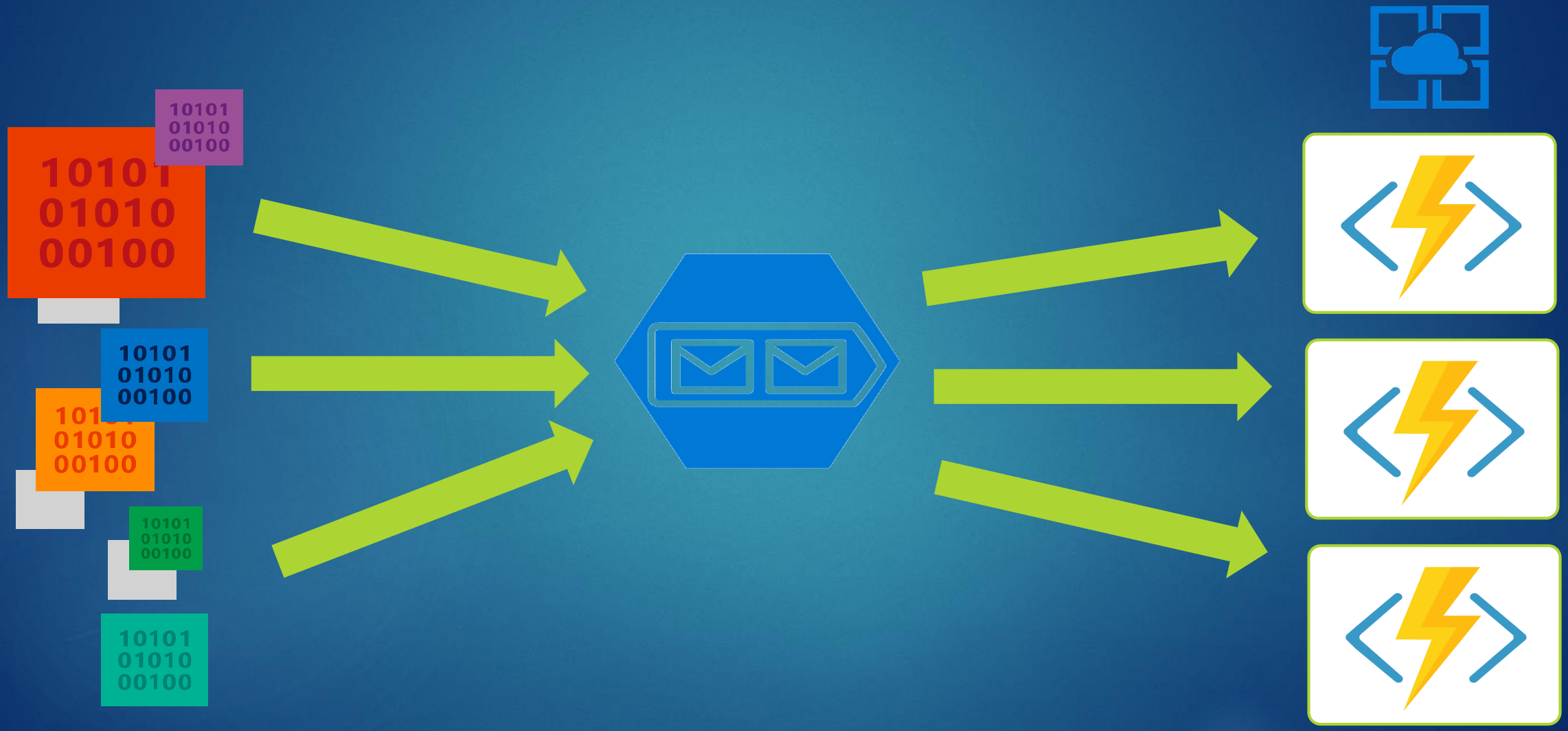
Azure Functions Under the Hood

- How does it Scale?
  - With a new Dynamic Service plan, the platform allocates compute power when your code is running, scaling up as necessary to handle load, and then back down again when code is not running

Azure Functions Under the Hood

- How does it Scale?
  - Functions will run in parallel
  - You can select the amount of memory required to run them in the Function App (from **128MB to 1536MB**)

Azure Functions Under the Hood



Azure Functions example use cases

- Job to delete old data from a database, running on a schedule
- Processing messages (ie: orders) from a queue, on event trigger
- Resizing images (blobs), event trigger

Azure Functions example use cases

- Integrate with other services, reacting on a WebHook
- Complement a more complex arquitecture

Pricing Model

- Pay for what you use with compute metered to the nearest 100ms at Per/GB
- Based on the time your function runs and the memory size of the function space you choose
- Requests are charged per million requests, first 1 million requests free

Demo time!

- AF Web Portal
- Event Trigger, Azure Storage Queue
- Continuous Deployment using Bitbucket.org
- Visual Studio 2015
- SourceTree (Git)

Questions?

Thank you!

- Documentation
  - https://azure.microsoft.com/en-us/documentation/articles/?product=functions
- Videos
  - https://channel9.msdn.com/Events/Build/2016/B858
  - https://channel9.msdn.com/Events/Build/2016/T692
- More questions
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