Creating Applications that can See, Hear, Speak and Understand

Using Azure Cognitive Services

<NAME>- <TITLE/COMPANY>
<TwitterHandle/Social>

Microsoft

"Azure Cognitive Services can help me build Intelligent Applications"

“I can customize some services to build bespoke applications”

“Intelligence is powerful when it’s a full solution”

Azure Cognitive Services

Creating applications that can see, hear, speak and understand

Build it Yourself

https://aka.ms/ai-nights-beginner

Customized language understanding

Text-to-speech

Content moderation

Spell check

Speech translation

Custom image classification

Speaker recognition

Entity linking & augmentation

Sentiment analysis, key phrase extraction

Image tagging

Custom voice

Object detection

Text translation

Intend analysis

OCR handwriting

Emotion detection

Video insights

recognition

Custom translation

Face identification

Custom speech

Assisted text moderation

Speech transcription

AI

Vision

Speech

Language

Azure AI

AI apps & agents

Azure Bot Service
Azure Cognitive Services

Knowledge mining

Azure Cognitive Search

Machine learning

Azure Databricks
Azure Machine Learning
Azure AI Infrastructure

Azure AI

AI apps & agents

Azure Bot Service
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Knowledge mining

Azure Cognitive Search

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Azure Databricks
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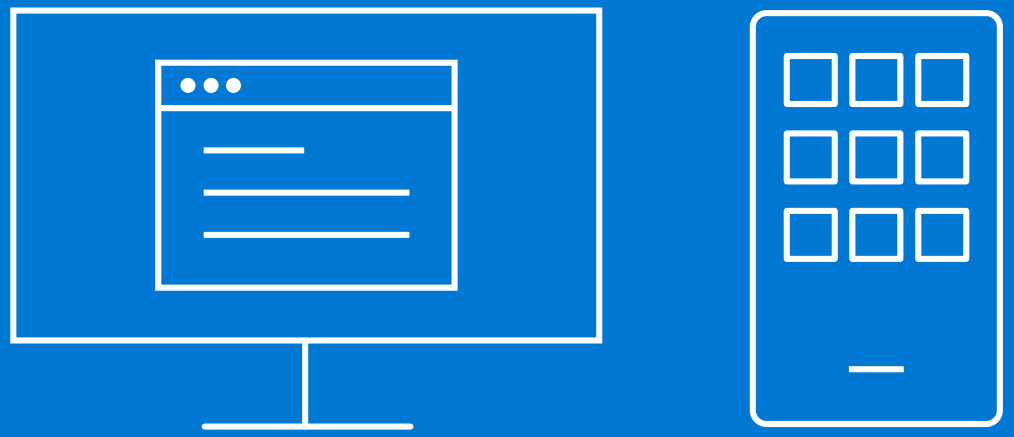
Building AI apps & agents



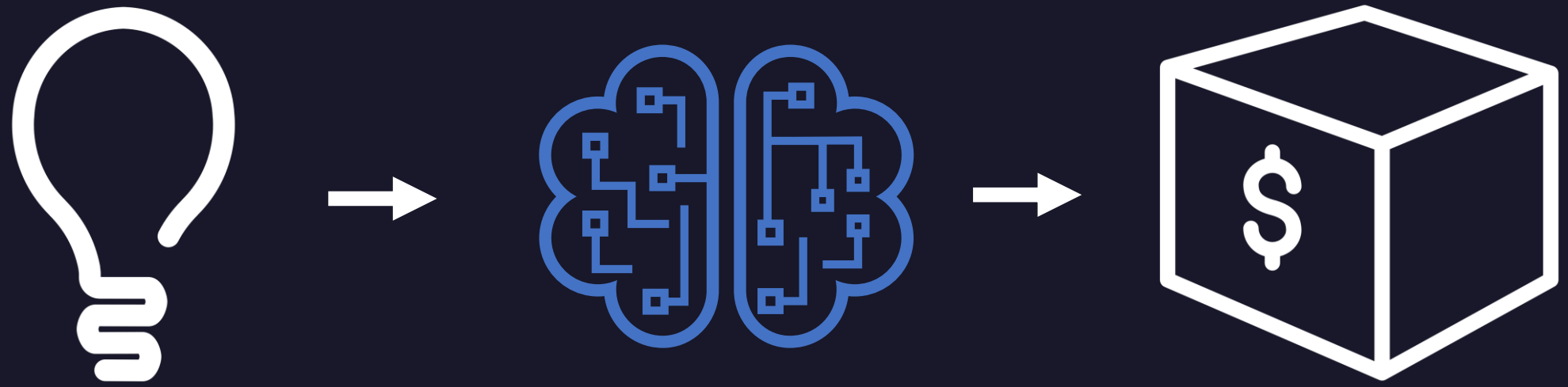
Your apps

Vision

Speech

Language

Option 1



idea → prebuilt AI → reality

Azure Cognitive Services

Vision

Recognize, identify, caption, index, and moderate your pictures, videos, and digital ink content.

Speech

Convert spoken audio into text, use voice for verification, or add speaker recognition to your app.

Language

Allow your apps to process natural language with pre-built scripts, evaluate sentiment and learn how to recognize what users want.

Decision

Build apps that surface recommendations for informed and efficient decision-making.

Search

Add Bing Search APIs to your apps and harness the ability to comb billions of webpages, images, videos, and news with a single API call.

Give your apps a human side

Azure Cognitive Services

Vision

Video Indexer

Computer Vision

Face

Custom Vision

Form Recognizer

Ink Recognizer

Speech

Speaker Recognition

Speech Services

Language

Text Analytics

Bing Spell Check

Translator Text

QnA Maker

Language Understanding (LUIS)

Decision

Anomaly Detector

Content Decision

Personalizer

Search

Bing Entity Search

Bing Autosuggest

Bing Web Search

Bing Visual Search

Bing Video Search

Bing Custom Search

Bing News Search

Bing Image Search

Bing Local Business Search

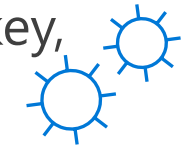
Why Azure Cognitive Services?

Easy

Roll your own with REST APIs

Simple to add: just a few lines of code required

Get a key, Build



Flexible

Integrate into the language and platform of your choice

Breadth of offerings helps you find the right services for your app

Bring your own data for your custom experience

Tested

Built by experts in their field from Microsoft Research, Bing, and Azure Machine Learning

Quality documentation, sample code, and community support

Demo

Azure Cognitive Services

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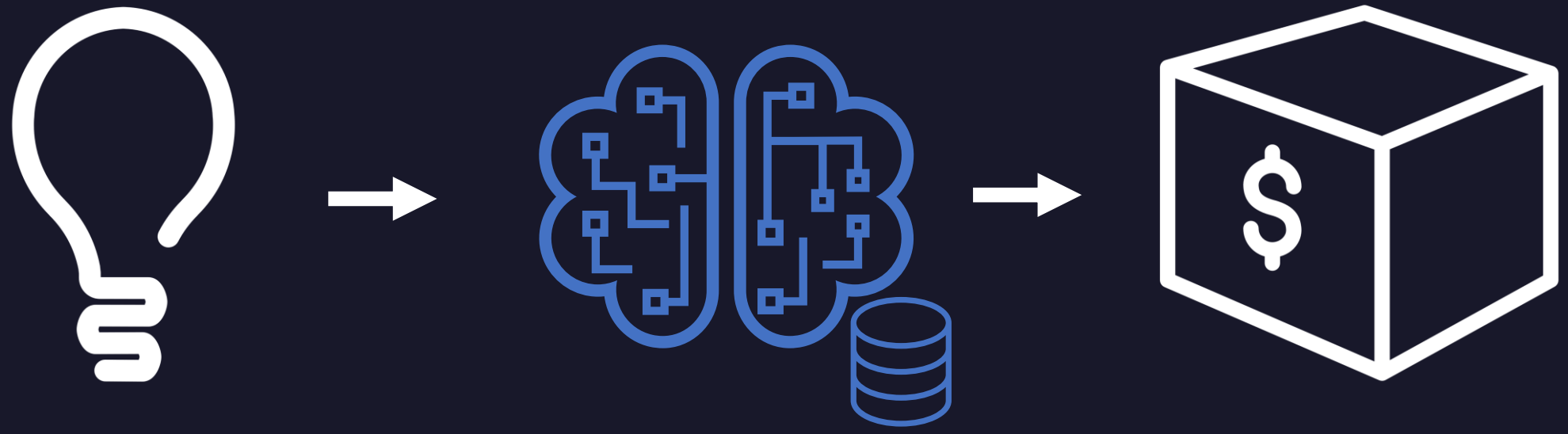
Option 2



idea

customize
prebuilt AI

reality

Custom Vision

A customizable web service that learns to recognize specific content in imagery

Upload images

Upload your own labeled images, or use Custom Vision Service to quickly tag any unlabeled images

Train

Use your labeled images to teach Custom Vision Service the concepts you want it to learn

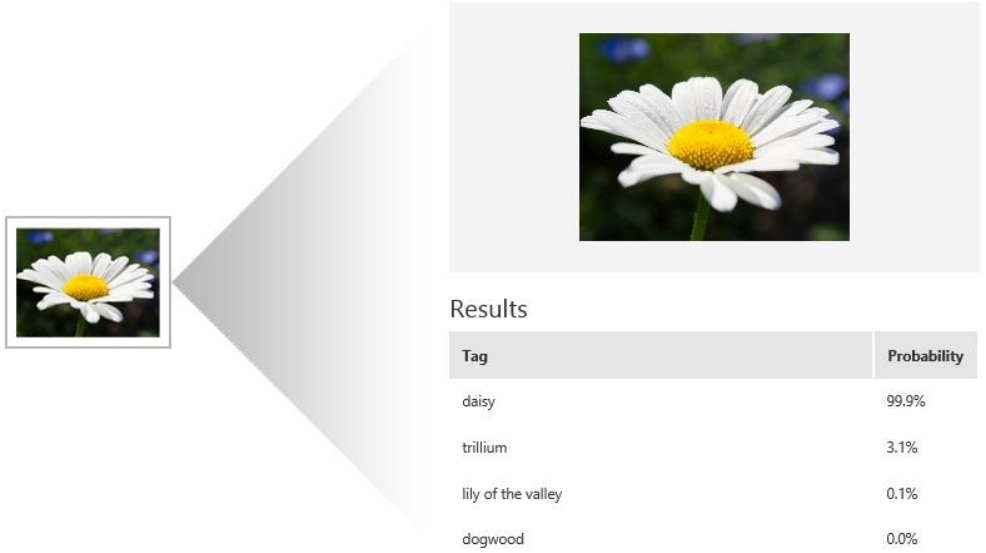
Evaluate

Use simple REST API calls to quickly tag images with your new custom computer vision model

Active learning

Images evaluated through your custom vision model become part of a feedback loop you can use to keep improving your classifier

Custom Vision

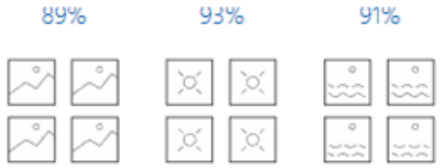


Upload Images

Bring your own labeled images, or use Custom Vision to quickly add tags to any unlabeled images.

Train

Use your labeled images to teach Custom Vision the concepts you care about.



Evaluate

Use simple REST API calls to quickly tag images with your new custom computer vision model.

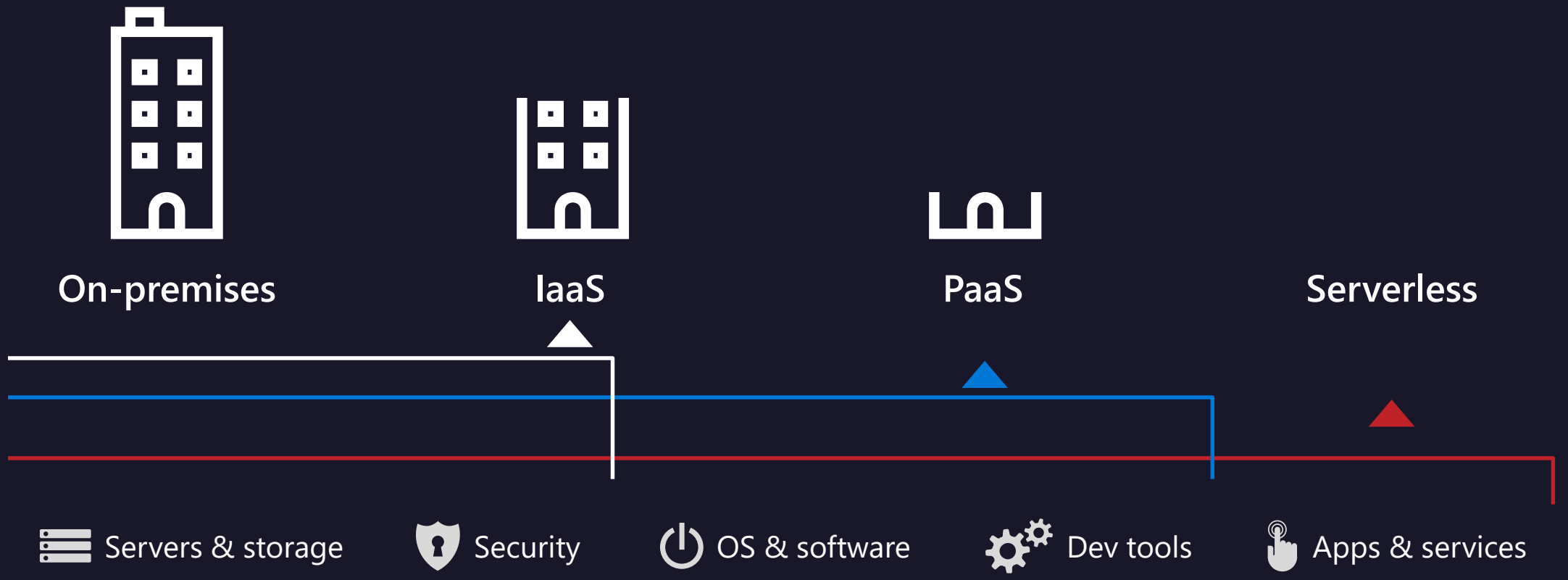
Demo

Azure Custom Vision

https://aka.ms/ai-nights-beginner

History of cloud development

Increasingly advanced cloud technologies have led companies to entrust more and more of their IT activities to service providers



What is serverless?

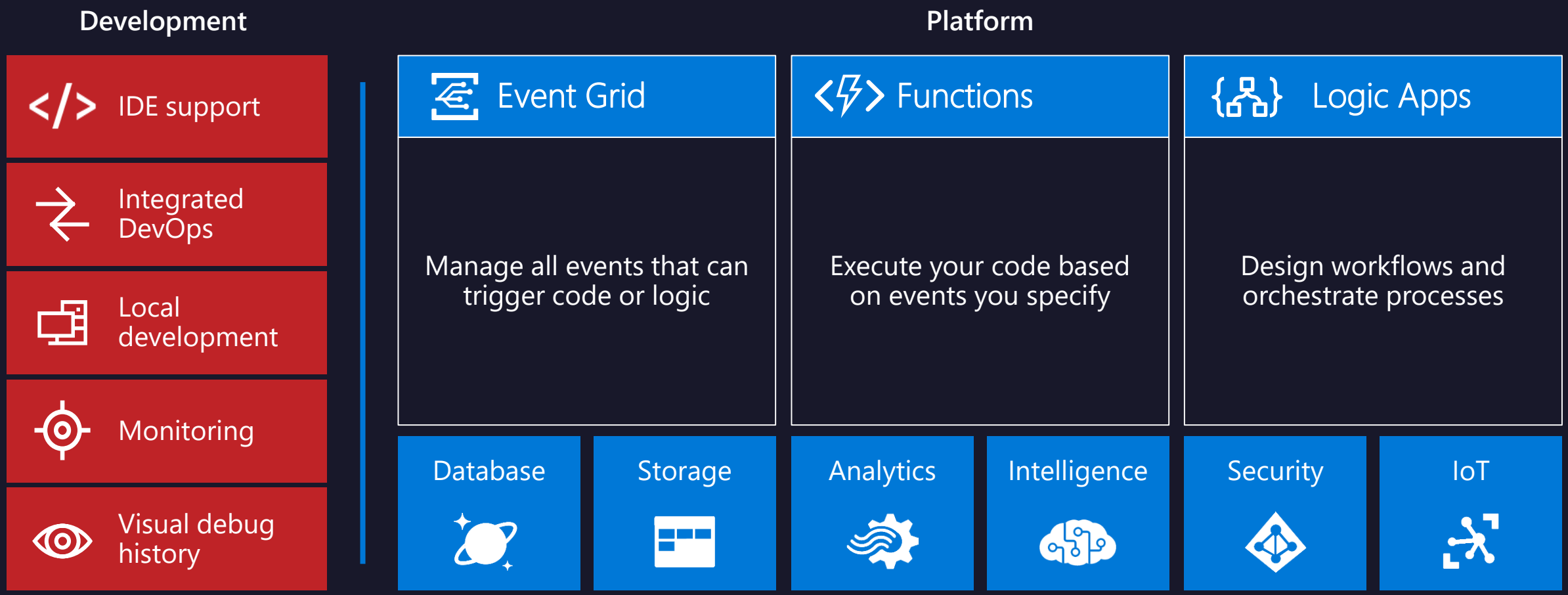
Full abstraction of servers
Developers can just focus on their code—there are no distractions around server management, capacity planning, or availability.

Instant, event-driven scalability
Application components react to events and triggers in near real-time with virtually unlimited scalability; compute resources are used as needed.

Pay-per-use
Only pay for what you use: billing is typically calculated on the number of function calls, code execution time, and memory used.*

*Supporting services, like storage and networking, may be charged separately.

Azure Serverless Ecosystem



Demo

Custom Vision and Logic Apps

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- Azure Cognitive Services can help me build intelligent applications
- I can customize some services to build bespoke applications
- Intelligence is powerful when it's a full solution

Azure Cognitive Services

- Azure Cognitive Services Documentation:
  https://aka.ms/gaib-cognitive
- Azure Custom Vision Service:
  https://aka.ms/gaib-customvision
- Azure Logic Apps Documentation:
  https://aka.ms/gaib-logicapps

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