

# Microservice-Powered Applications

## It worked for Voltron, it can work for you!



Bryan Soltis – Kentico Technical Evangelist

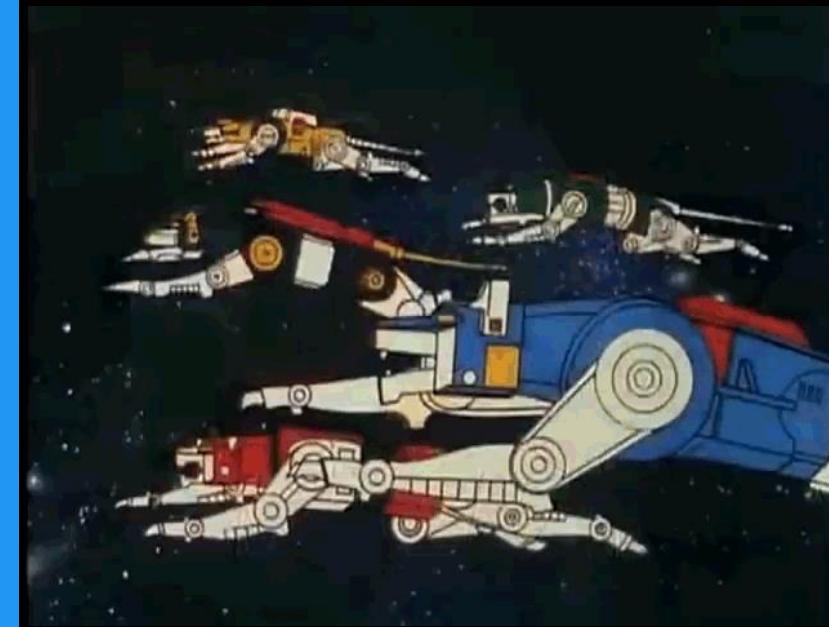
# Voltron?

- Originally aired in 1984 (all others don't count)
- Based on Planet Arus (Castle of Lions)
- Originally a great robot split into 5 lions by Witch Haggar
  - Black Lion (Lightning) – Keith
  - Red Lion (Magma) - Lance
  - Blue Lion (Water) – Sven / Princess Allura
  - Green Lion (Wind) - Pidge
  - Yellow Lion (Sand) – Hunk
- Enemies
  - Witch Haggar
  - Emperor Zeppo
  - Prince Lotor
  - Robearsts!



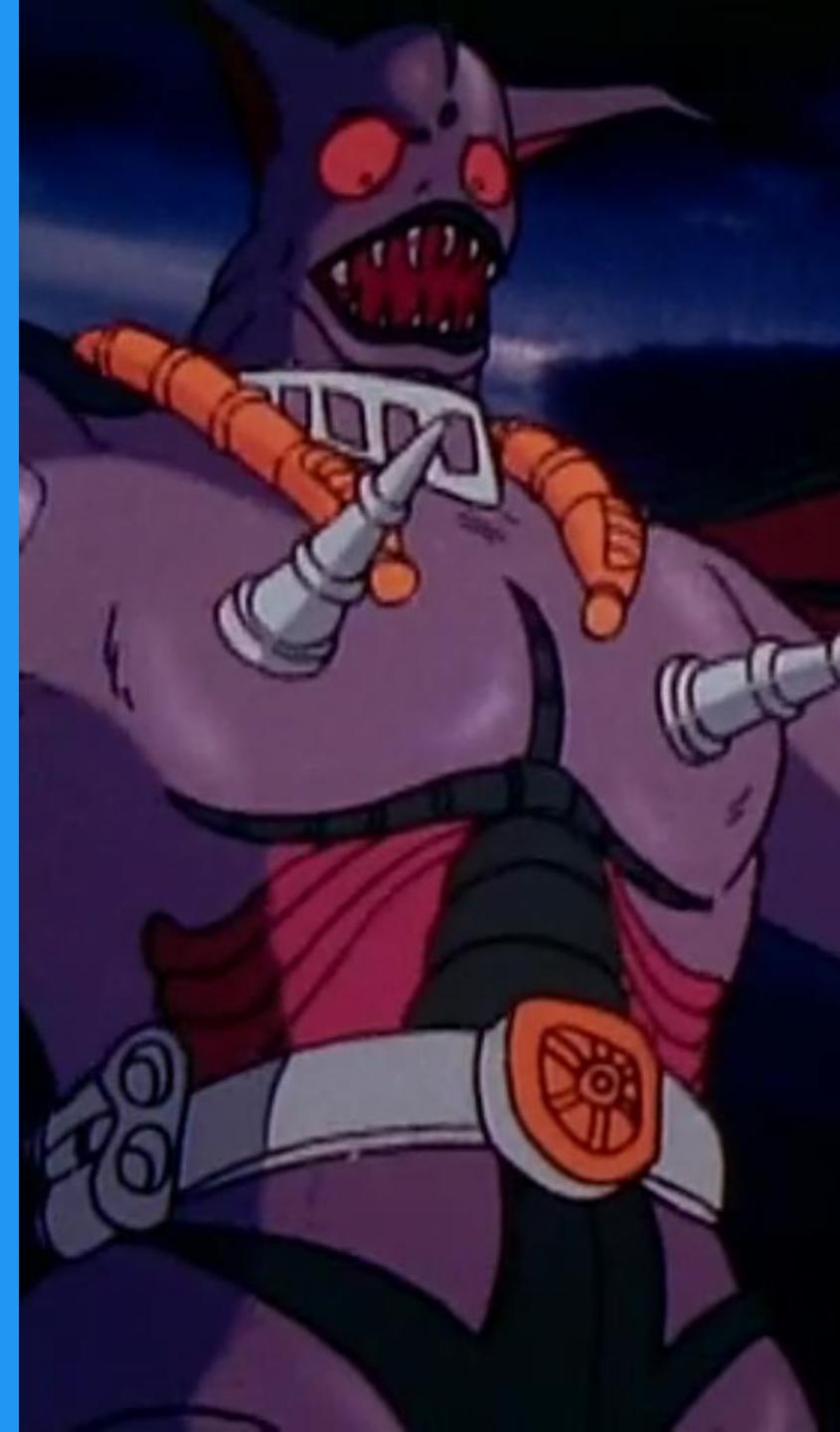
# What are micro services?

- Small, independent processes
- Communicate using language-agnostic APIs
- Decoupled building blocks for larger applications
- Remove single points of failure
- Best of breed services
- Allow for unique integrations/capabilities



# Identify the bad guys

- Complex, restrictive content management
- Technology lock-in
- Inflexible, non-scalable platforms
- Ineffective, static search
- Complex integrations, processes
- Boring, static user experience



# How are companies using them?

- Integrating systems
  - Microsoft Azure
  - Amazon AWS
- Scalable platforms
  - Netflix
  - Uber
- Remove technology monoliths
  - Groupon
- Serve multiple services
  - Amazon
- Deploy changes easier
  - Ebay

The Amazon logo, featuring the word 'amazon' in a lowercase, black, sans-serif font with a yellow arrow underneath pointing from the letter 'a' towards the letter 'z'.The Microsoft logo, which consists of four colored squares (red, green, blue, and yellow) arranged in a 2x2 grid, followed by the word 'Microsoft' in a gray, lowercase, sans-serif font.The Netflix logo, featuring the word 'NETFLIX' in a large, bold, red, sans-serif font.  
The eBay logo, featuring the word 'eBay' in a large, bold, blue and yellow, sans-serif font.  
The Groupon logo, featuring the word 'GROUPON' in a large, bold, green, sans-serif font.



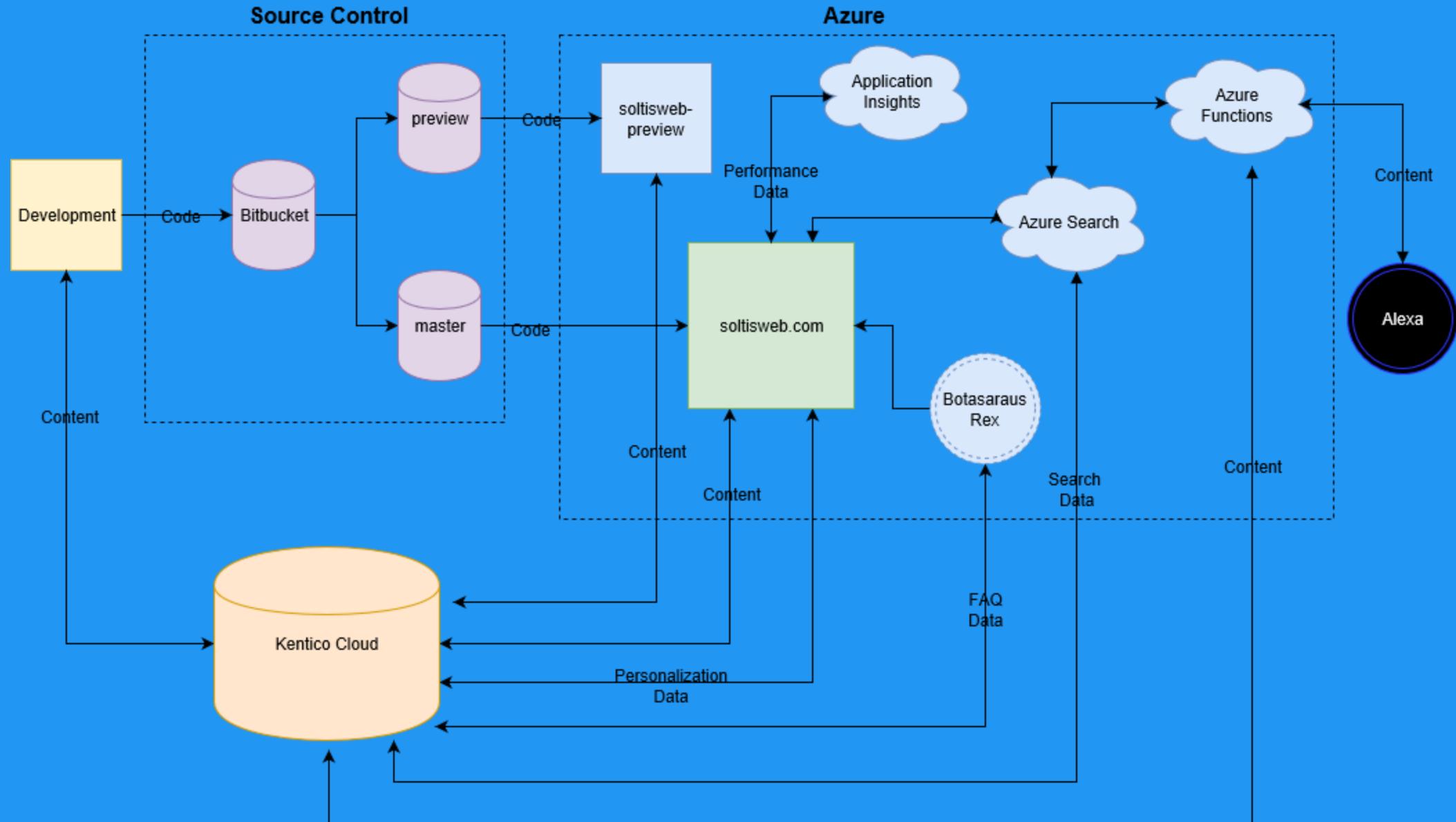
# Assembling my team

- Kentico Cloud – SaaS Content Repository
- Azure App Services – Web Hosting
- Azure Search – SaaS Search
- Azure Functions – Kentico Cloud / Search Integration / Alexa
- Azure Bot Service – Interactive FAQs
- Application Insights – Performance reporting



# Let's see it in action







# PROS

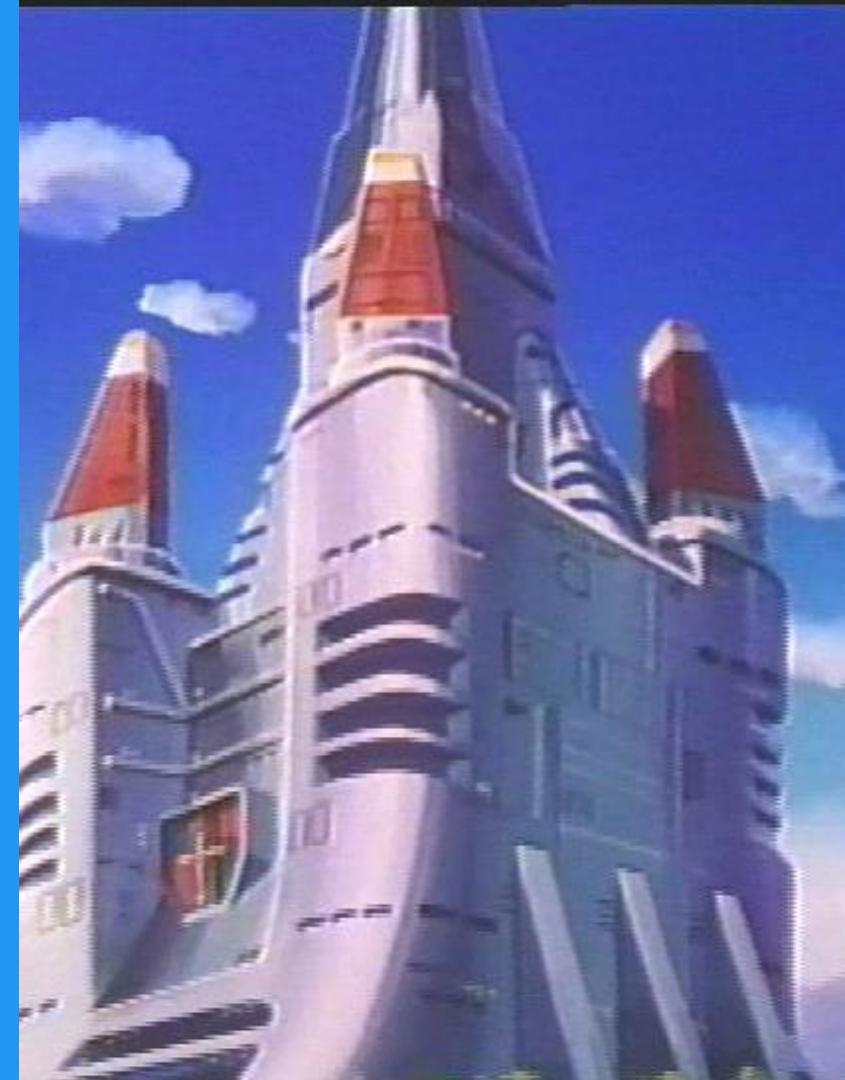


# CONS

- Functionality isolation
- Ability to choose services / systems
- Easily swap out services, if needed
- Blend multiple platforms / languages
- Smaller components
- Information barriers
- More calls between systems
- Larger, more complex systems
- Increased latency / processing time
- Multiple support channels

# Learn more

- Why a microservices approach to building applications?  
<https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-overview-microservices>
- Design patterns for microservices  
<https://azure.microsoft.com/en-us/blog/design-patterns-for-microservices/>
- Kentico Cloud  
<https://kenticocloud.com/>
- Azure Functions  
<https://azure.microsoft.com/en-us/services/functions/>
- Azure Search  
<https://azure.microsoft.com/en-us/services/search/>
- Azure Bot Service  
<https://azure.microsoft.com/en-us/services/bot-service/>



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