

# Lessons Learned from LuckyDraw App



Tony Xia



# Users of your Teams app

- Your Teams app will be installed and used worldwide

The image shows a tweet card from Jeff Teper (@jeffteper) on Twitter. The card has a light gray background with rounded corners. At the top left is a circular profile picture of Jeff Teper, a man with short hair. To his right, the name "Jeff Teper" is displayed in bold black font, followed by the handle "@jeffteper" in a smaller, lighter font. In the top right corner of the card is the Twitter logo. The main body of the tweet contains the following text in a black sans-serif font:  
Excited and grateful to announce that **#MicrosoftTeams** now serving 115 million daily active users. Thank you to our customers and partners betting on us as a hub for their collaboration. Much more to come.  
Below the tweet text, the timestamp "7:45 AM · Oct 28, 2020" is shown in a smaller gray font. To the right of the timestamp is a small circular icon containing a lowercase letter "i".  
At the bottom of the card, there is a horizontal line separating the tweet from the engagement metrics. To the left of this line is a heart icon followed by the number "729". To the right of the line is a speech bubble icon followed by the text "175 people are Tweeting about this".

# Lessons I learned

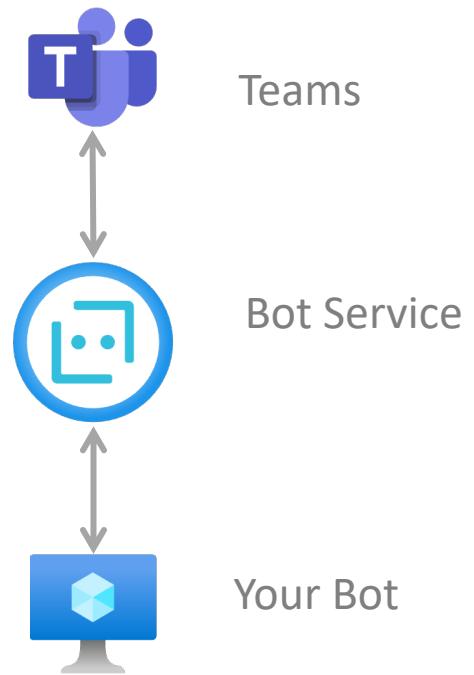
- Infrastructure
- Application



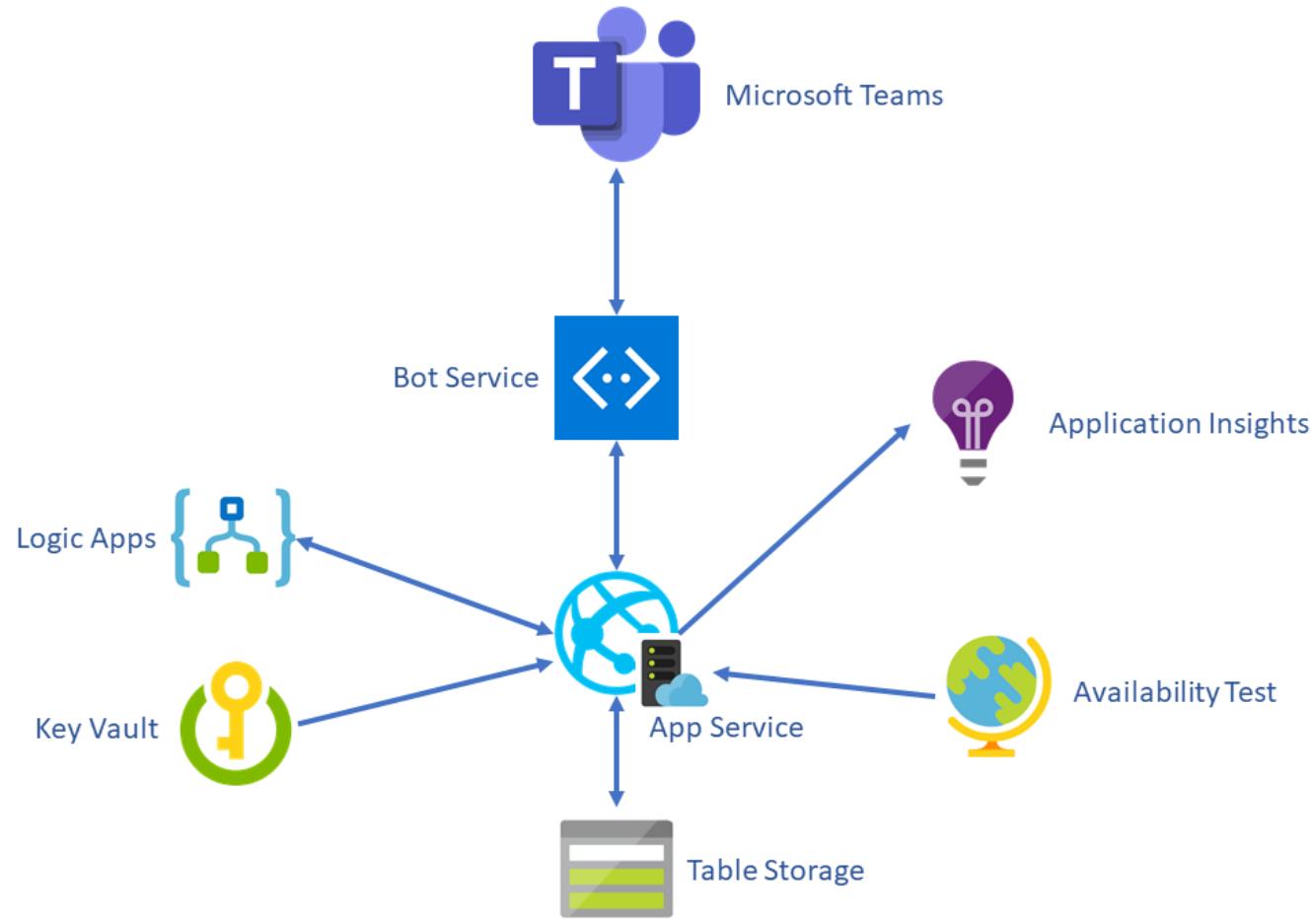
A perspective view looking down a dark aisle between two rows of server racks. The racks are densely packed with hardware, and numerous blue and white glowing lights are visible along the top and bottom edges of the server units, creating a futuristic and high-tech atmosphere.

# Infrastructure

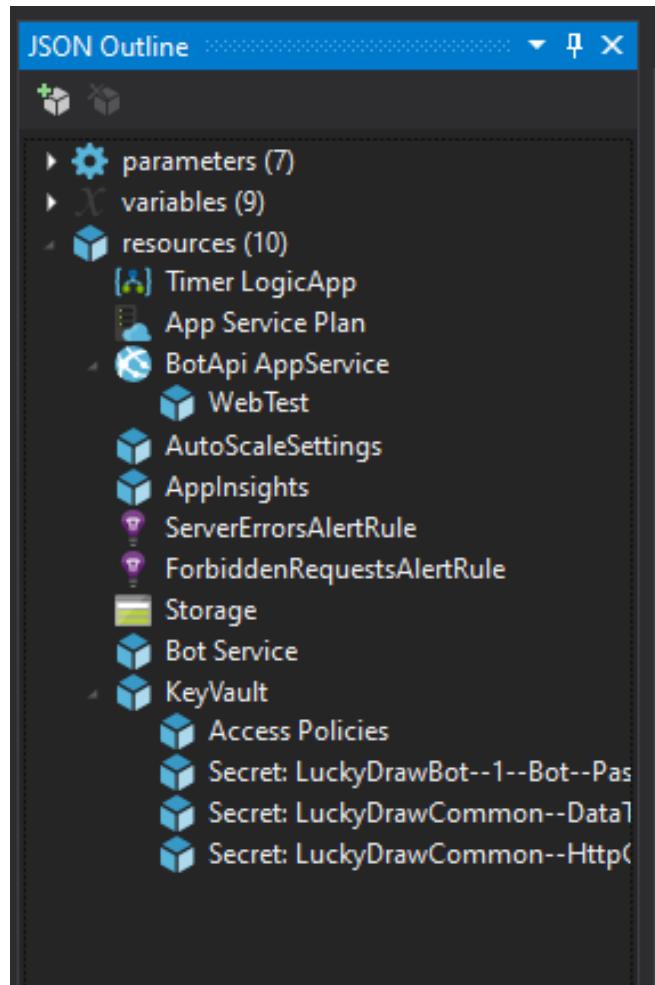
# Teams Bot



# Cloud Native - Azure



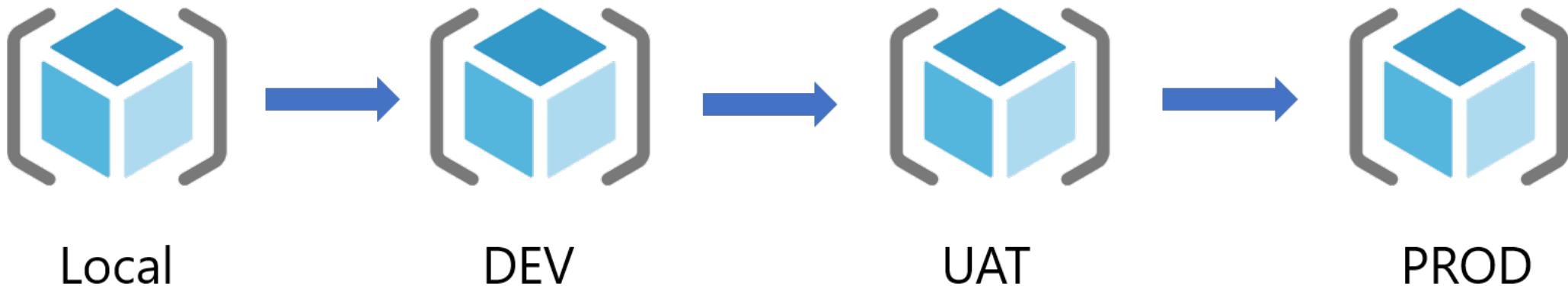
# IaC (Infrastructure as Code)



<input type="checkbox"/>	Name ↑↓	Type ↑↓	Location ↑↓
<input type="checkbox"/>	<a href="#">luckydraw-appinsights-prd</a>	Application Insights	East US
<input type="checkbox"/>	<a href="#">luckydraw-applan-prd</a>	App Service plan	East Asia
<input type="checkbox"/>	<a href="#">luckydraw-bot-prd</a>	Bot Channels Registration	global
<input type="checkbox"/>	<a href="#">luckydraw-botapi-prd</a>	App Service	East Asia
<input type="checkbox"/>	<a href="#">luckydraw-botapi-prd-webtest</a>	Availability test	East US
<input type="checkbox"/>	<a href="#">luckydraw-keyvault-prd</a>	Key vault	East Asia
<input type="checkbox"/>	<a href="#">luckydraw-timer-prd</a>	Logic app	East Asia
<input type="checkbox"/>	<a href="#">luckydraw4prd</a>	Storage account	East Asia

# CI/CD

- Environments

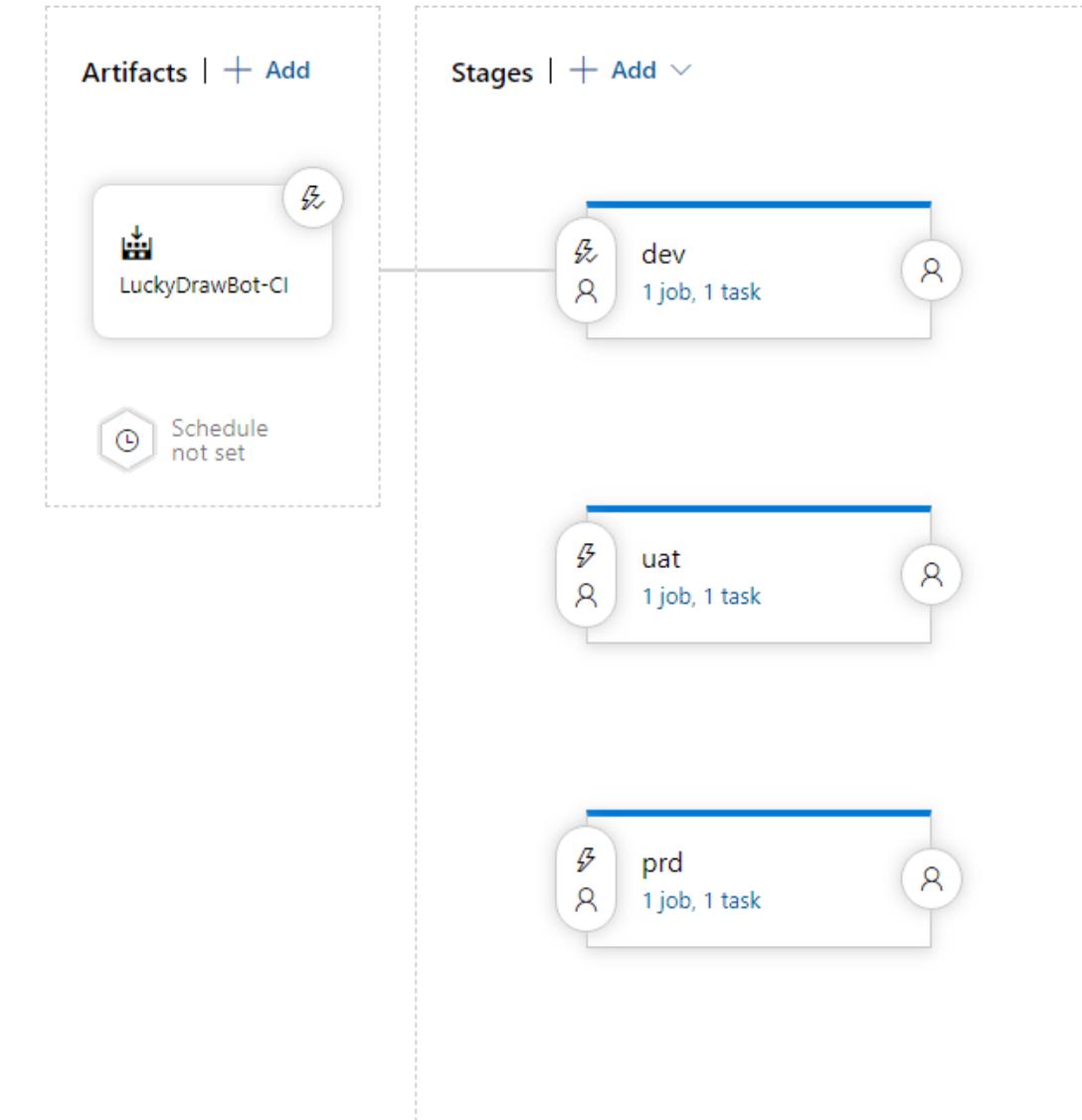


# CI/CD

- Azure DevOps

All pipelines >  LuckyDrawBot-CD

Pipeline Tasks Variables Retention Options History

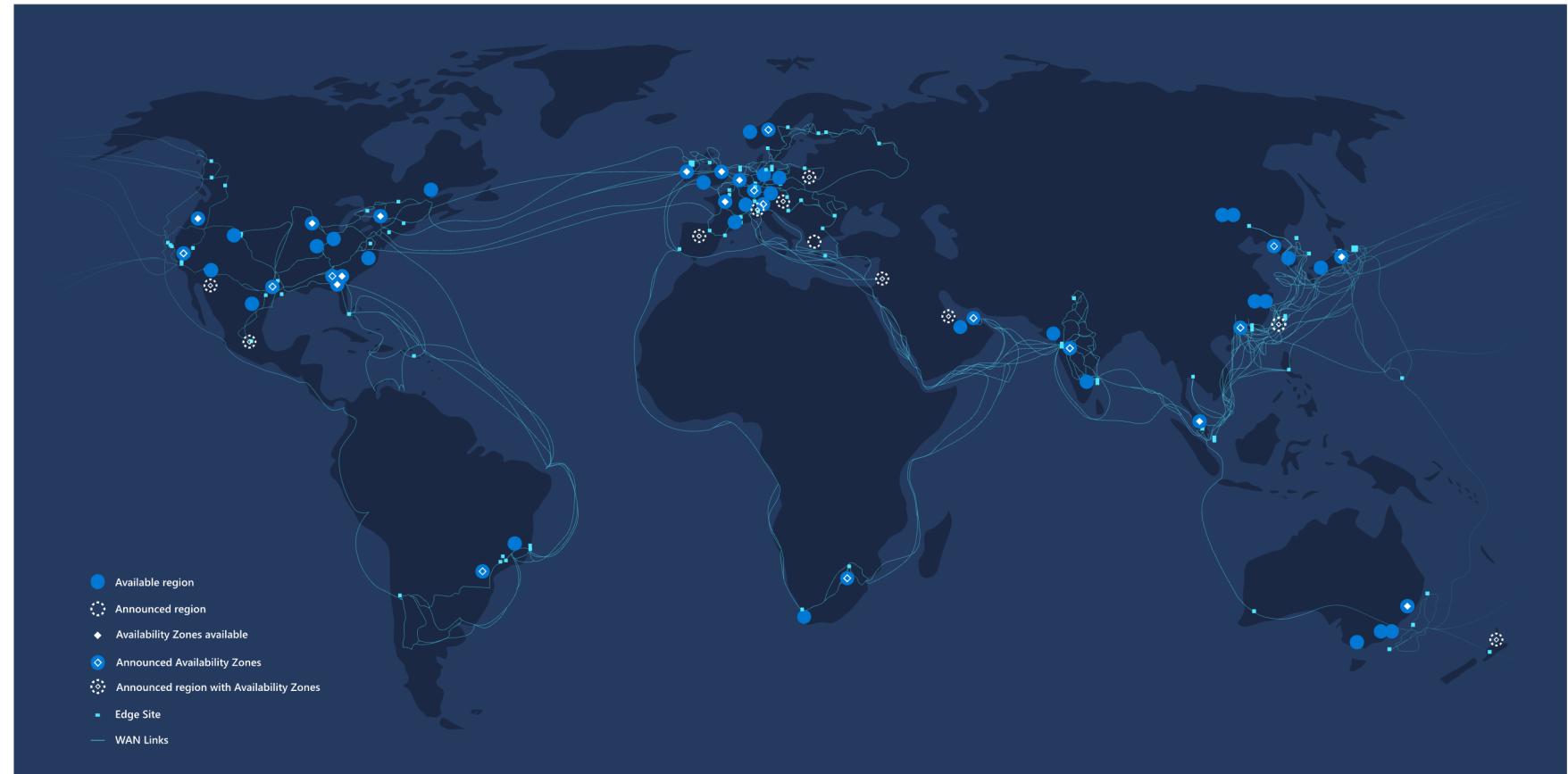


# Azure

- Global data location, Multi-Geo
  - Performance optimization
  - Meet data residency requirements

# Data Residency

- Azure Regions



<https://azure.microsoft.com/en-us/global-infrastructure/global-network/>

# Azure global compliance

The following compliance standards apply globally

[CIS Benchmark](#) | [CSA-STAR attestation](#) | [CSA-STAR certification](#) | [CSA-STAR self-assessment](#)  
[ISO 20000-1:2011](#) | [ISO 22301](#) | [ISO 27001](#) | [ISO 27017](#) | [ISO 27018](#) | [ISO 27701](#) | [ISO 9001](#)  
[PCI DSS](#) | [SOC](#) | [WCAG](#) | [CDSA](#) | [PCI DSS](#) | [Shared Assessments](#) | [TruSight](#)



## Azure regions

Azure has more global regions than any other cloud provider—offering the scale needed to bring applications closer to users around the world, preserving data residency, and offering comprehensive compliance and resiliency options for customers.

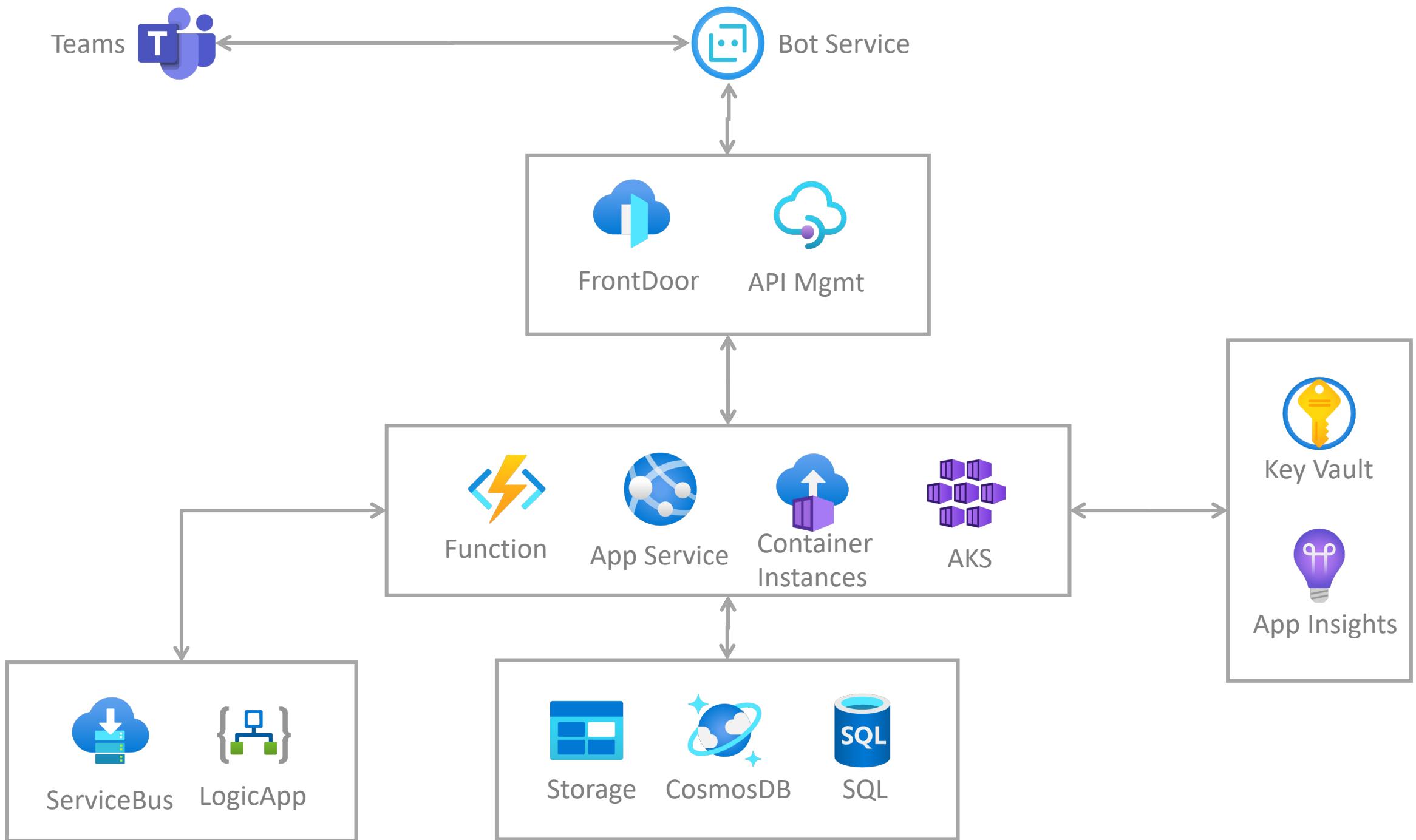
over  
60  
regions  
worldwide

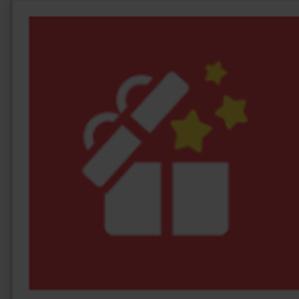
140 available in  
140 countries

- Available region
- Announced region
- ♦ Availability zones

# Use Serverless

- Compute
  - Azure Functions
  - Serverless Kubernetes
  - ...
- Database
  - Azure SQL Database serverless
  - Azure Cosmos DB Serverless(Preview)
  - ...





## LuckyDraw

Tony Xia

Teams

4.5 (4 Ratings)

[Get it now](#)

Save to my list



Microsoft 365 App Award

# Application

[Overview](#)[Reviews](#)[Details + support](#)

### A smart bot for lucky draw activities in channels

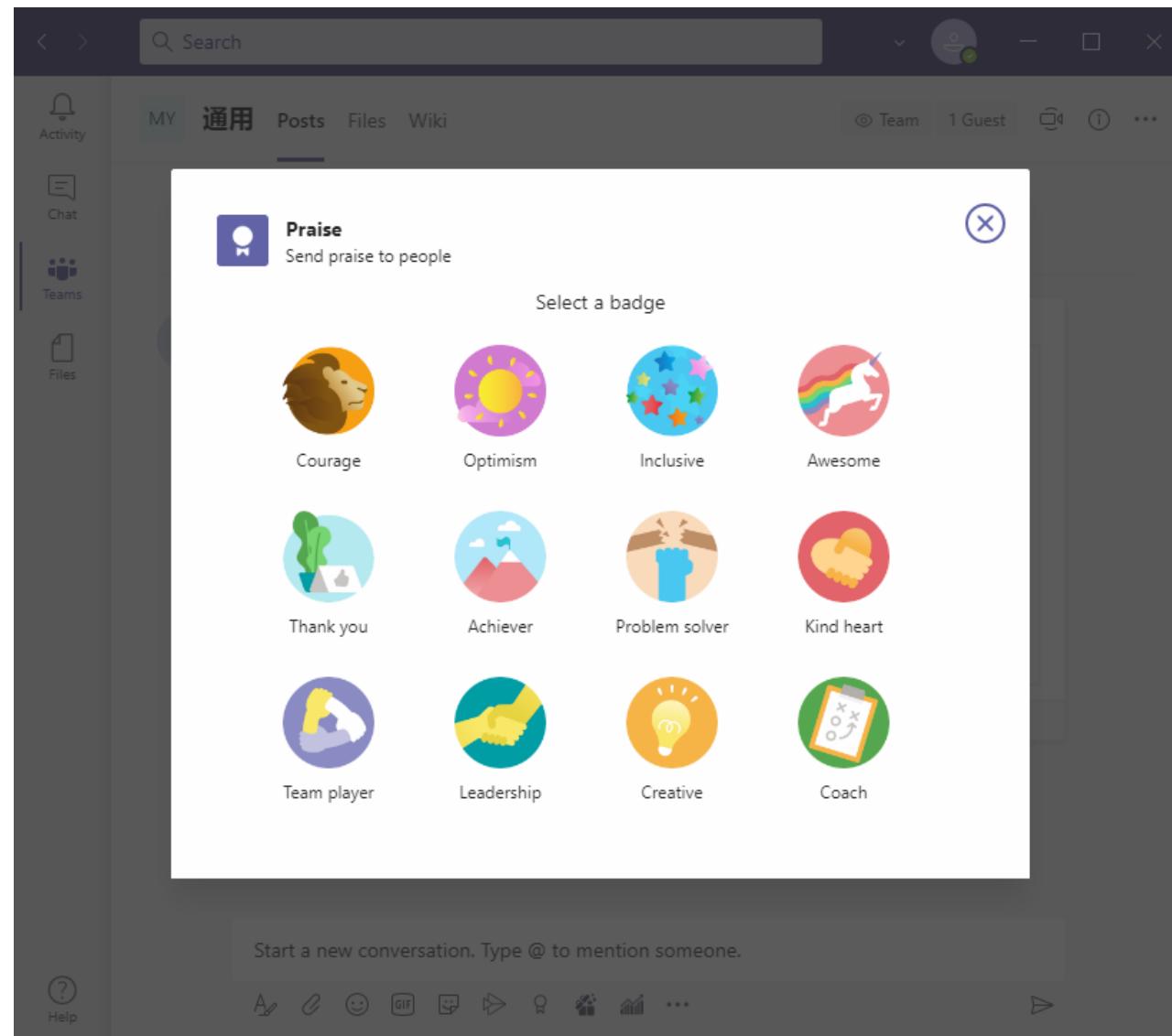
People can use this bot to create lucky draw activities with prize name, the number of prizes, draw time and prize image. All users in the channel can join the activity by simple one-click. The Lucky-Draw bot randomly picks the winners when the number of joined users is bigger than the number of prizes. It posts an announcement message listing all the winners in the channel immediately after the activity is closed. Everyone in the channel can see all the people joined the draw. Multiple lucky-draw activities can be run simultaneously.

The Lucky-draw bot is well designed and developed to address couple pain points in teamwork, collaboration and productivity. It leverages gamification to motivate your team members, to improve performance of your team, and to increase competition of your organization and your company.

You or your colleagues can use Lucky-draw bot to:

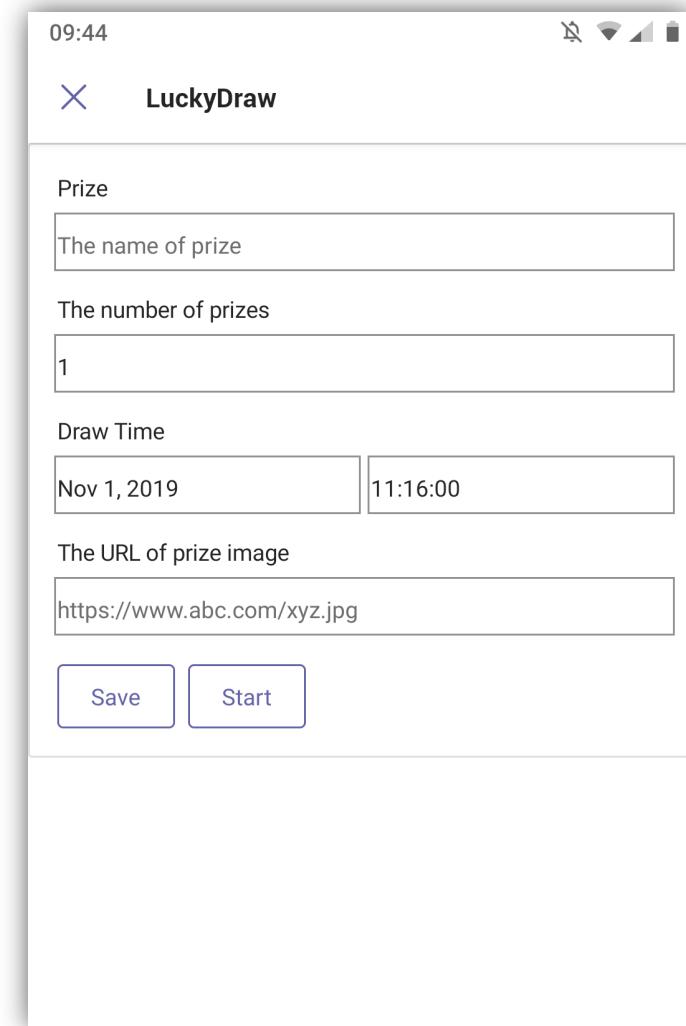
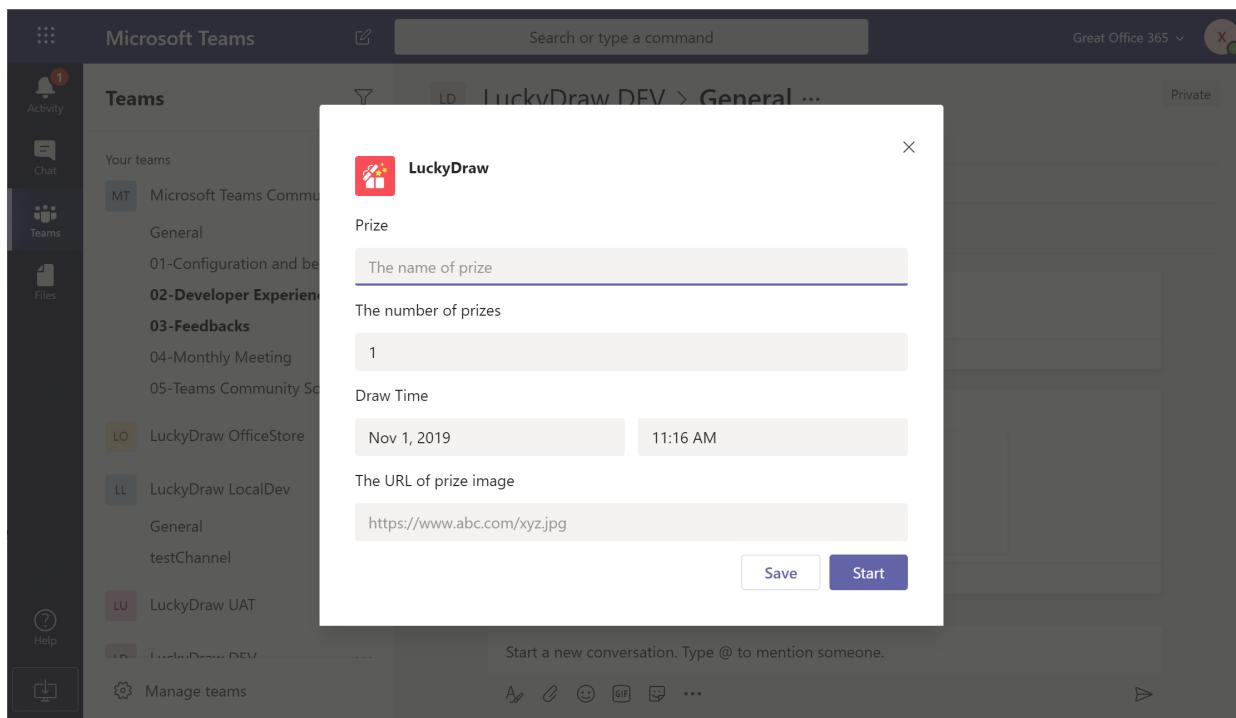
# UI Layout

- Adaptive Cards



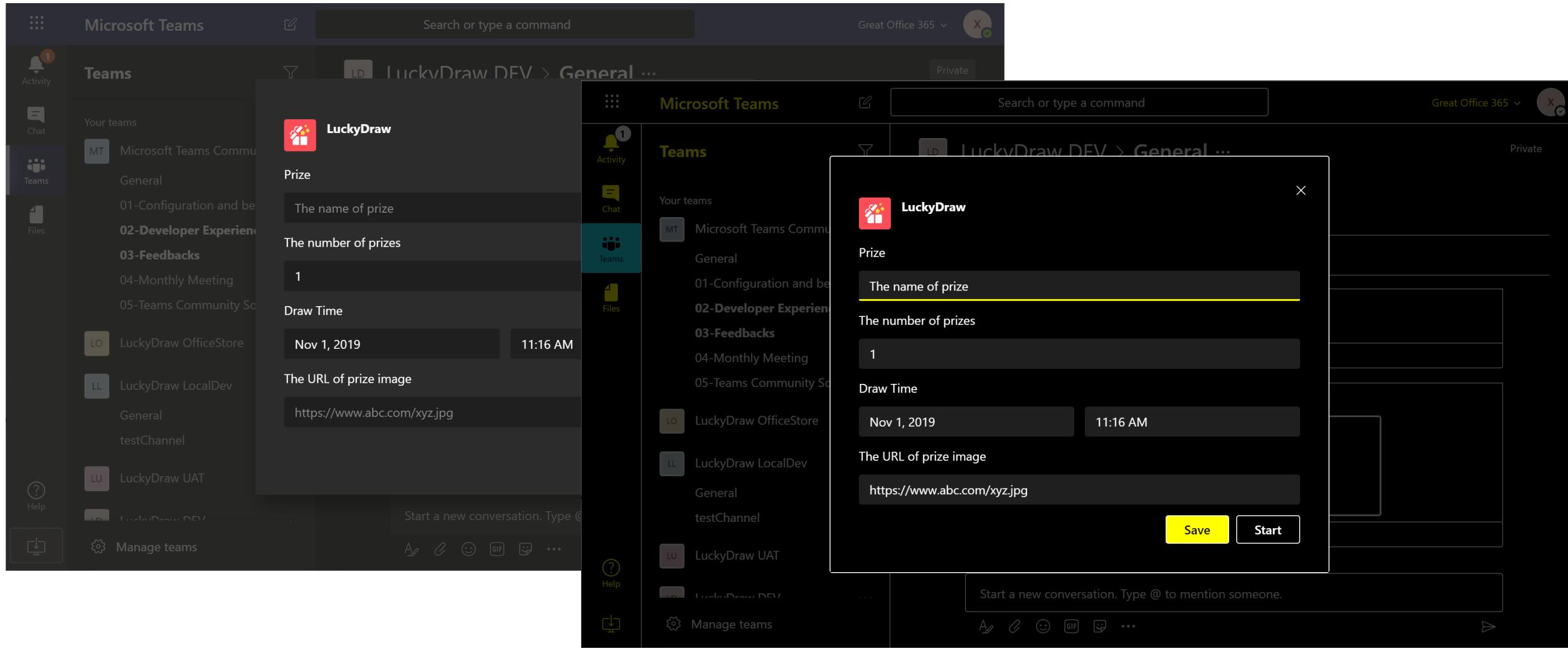
# UI Layout – Adaptive Cards

- Desktop & Mobile



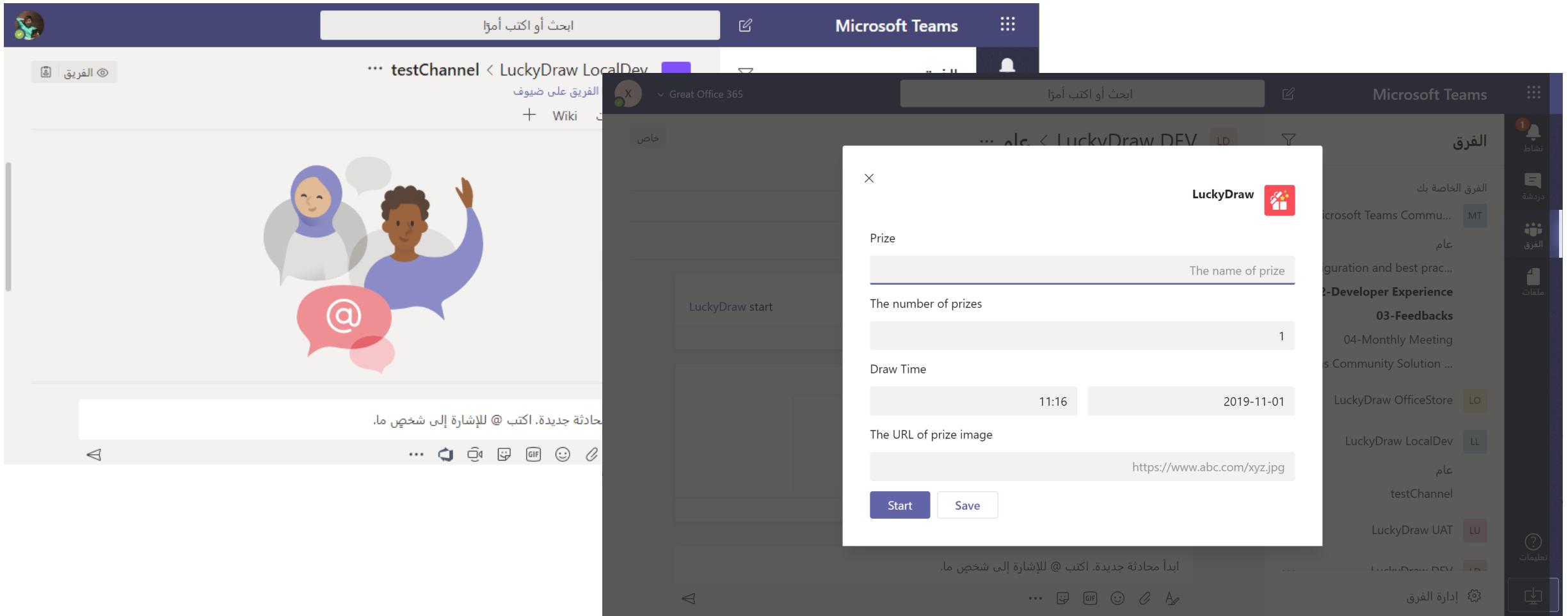
# UI Layout – Adaptive Cards

- Themes



# UI Layout – Adaptive Cards

- Layout: Left-to-Right, Right-to-Left





# Culture

# Culture - Multiple Languages

- Keep it in mind from the beginning
- Images Containing Text
- More space

# Culture - Date

- Date: 2/10/2019
  - United States: 10 February 2019
  - United Kingdom: 2 October 2019

# Culture - Measurement Units

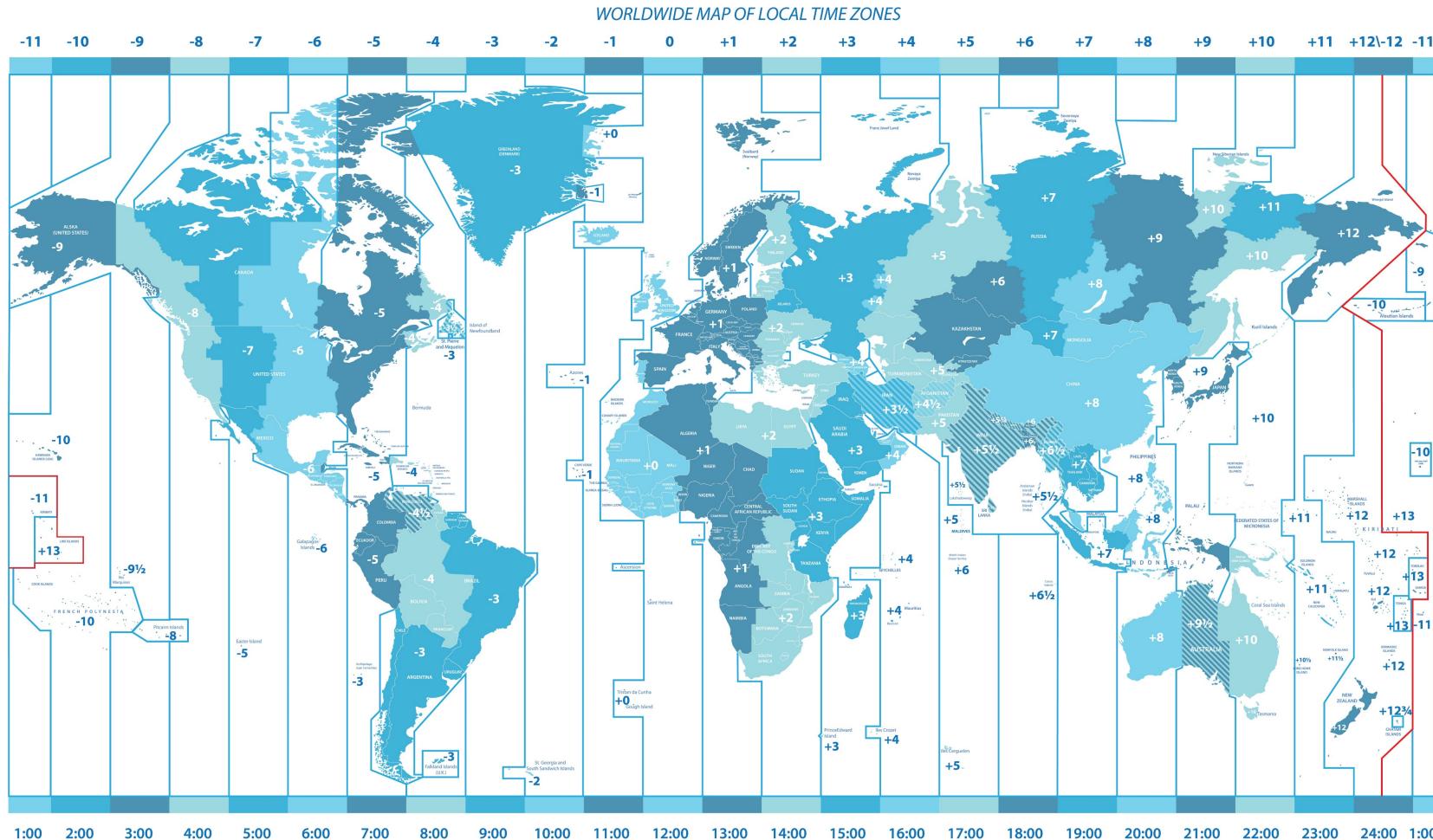
- ‘你正在以每小时67英里的速度驾驶’
- ‘明天室外温度是38度’
- Imperial and metric measurement units
  - Distance: 1 kilometer = 0.6 miles
  - Volume: 1 liter = 33.8 ounces
  - Weight: 1 kilogram = 2.2 pounds

# WORLDWIDE MAP OF LOCAL TIME ZONES

# Time

# Time Zone

- Multiple time zones in one country



# Time Zone

- Half hour
  - India runs on GMT+5 ½
  - Iran runs on GMT+3½
  - ...
- Nepal
  - GMT+5¾
- Do not use integer for timezone

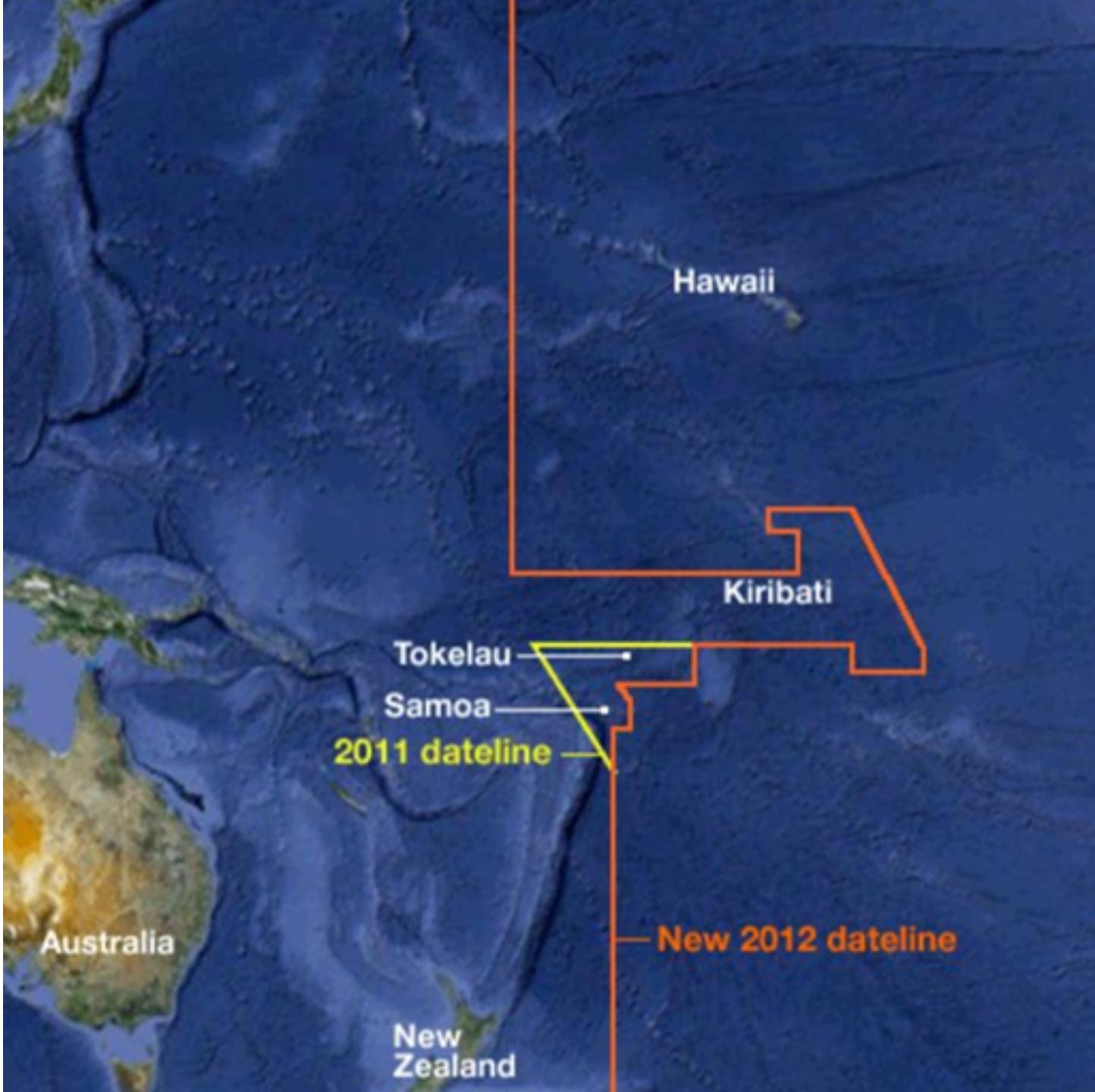
# Time Zone

Samoa and Tokelau

The lost day:

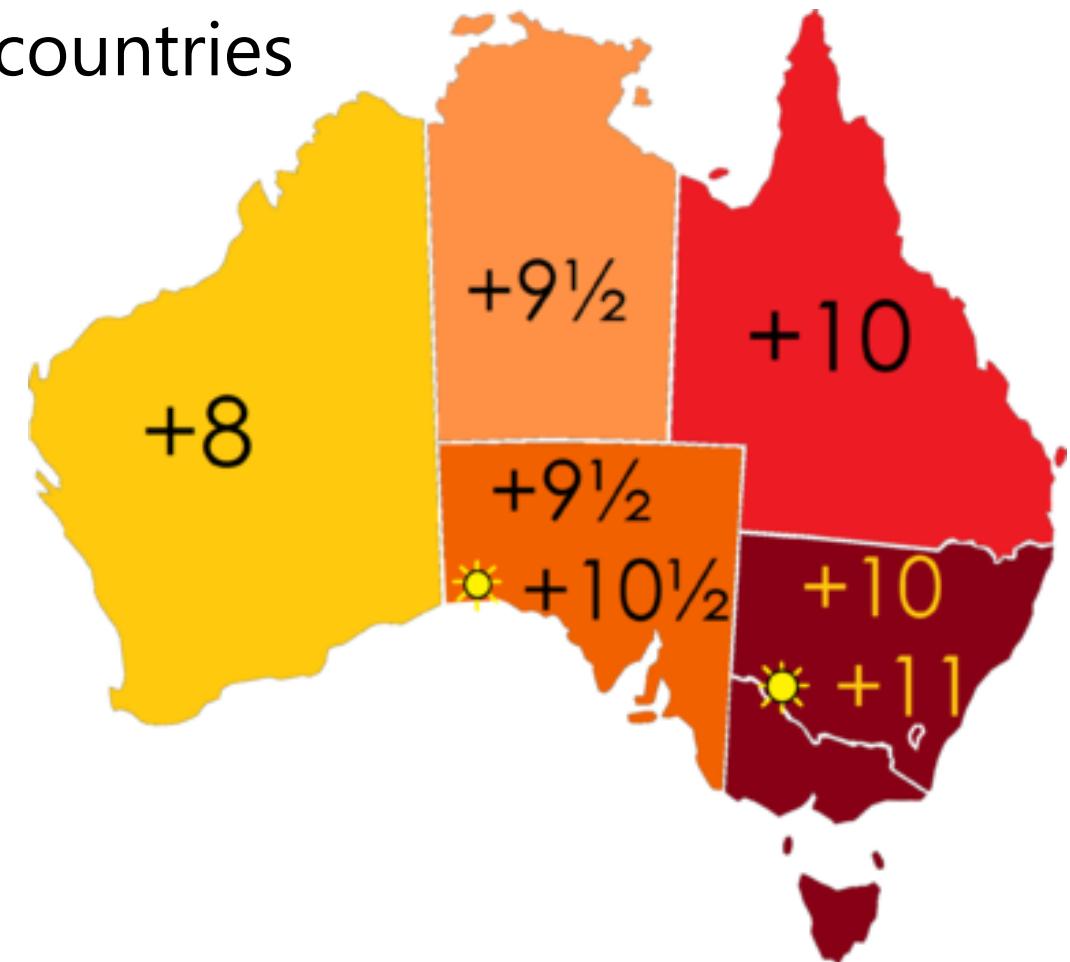
30 December 2011

UTC-11 → UTC+13



# Daylight Saving

- The time offset might change
- Different start/end date for different countries



# Other Challenges of Time

- Calendar
  - Japanese new Calendar: Windows updates – KB4469068
- Different workdays/weekend
  - Egypt: Sunday through Thursday
- Different first day of a week
  - Monday is the first day of the week according to the international standard ISO 8601, but in the US, and some other countries, it's counted as the second day of the week.

# How to deal with time?

- Use libraries, do not build it from scratch
  - Don't be confident that you can build it by yourself, or by your team
- Store UTC or DateTimeOffset

# How to build a successful Teams app?

# Growth Mindset

"We need to be always learning and insatiably curious. We need to be willing to lean into uncertainty, take risks and move quickly when we make mistakes, recognizing failure happens along the way to mastery."

- Satya Nadella



# Thanks

