

Lessons Learned from LuckyDraw App



Tony Xia



Users of your Teams app

- Your Teams app will be installed and used worldwide



Lessons I learned

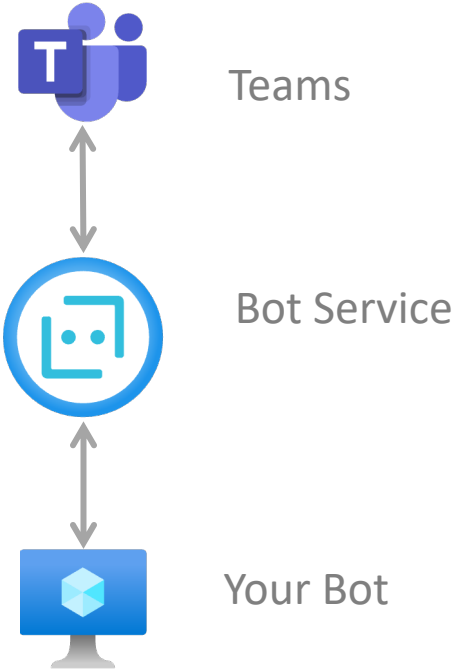
- Infrastructure
- Application



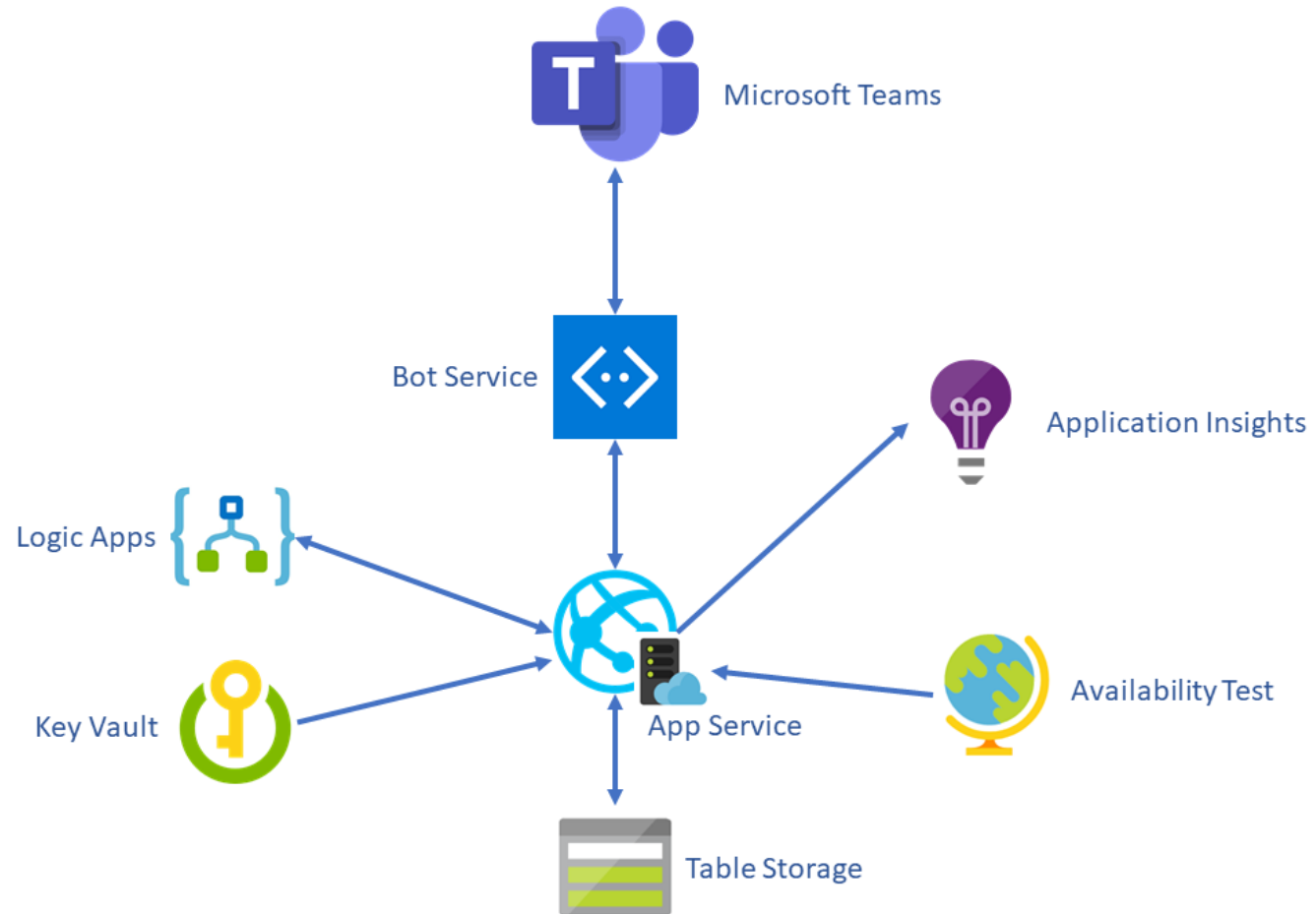
A photograph of a server room with rows of server racks. The racks are filled with server units, and there are many cables connected to them. The lighting is blue, and the perspective is looking down a long aisle between the racks. The word "Infrastructure" is overlaid in white text in the center of the image.

Infrastructure

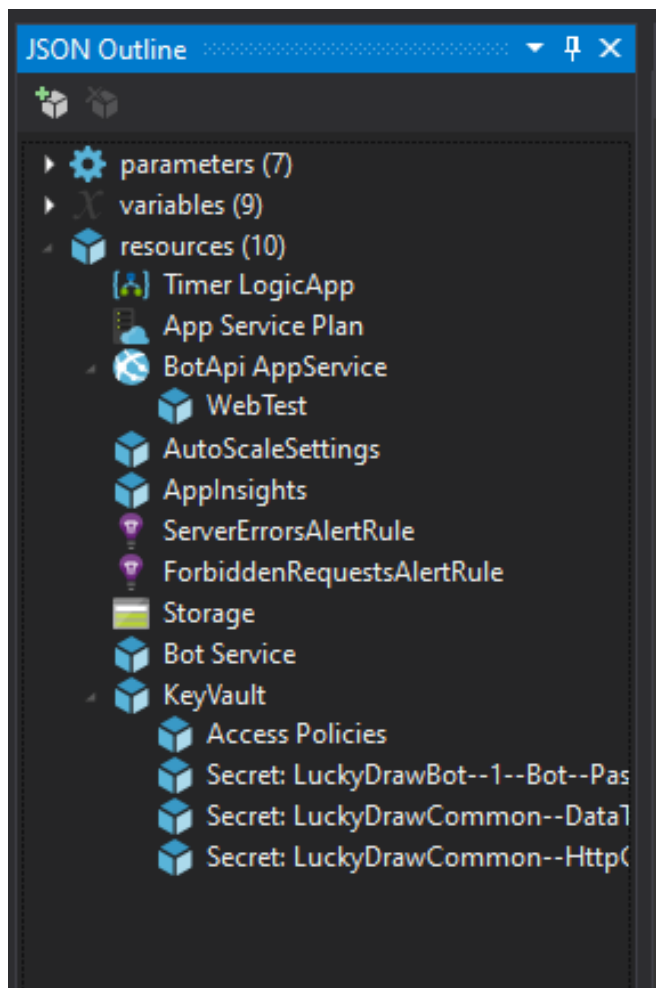
Teams Bot











Cloud Native - Azure



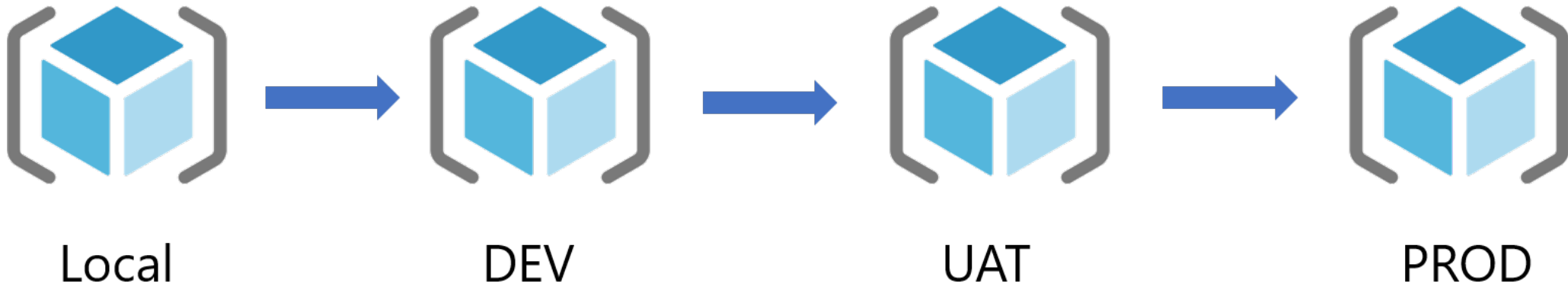
IaC (Infrastructure as Code)



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

CI/CD

- Environments

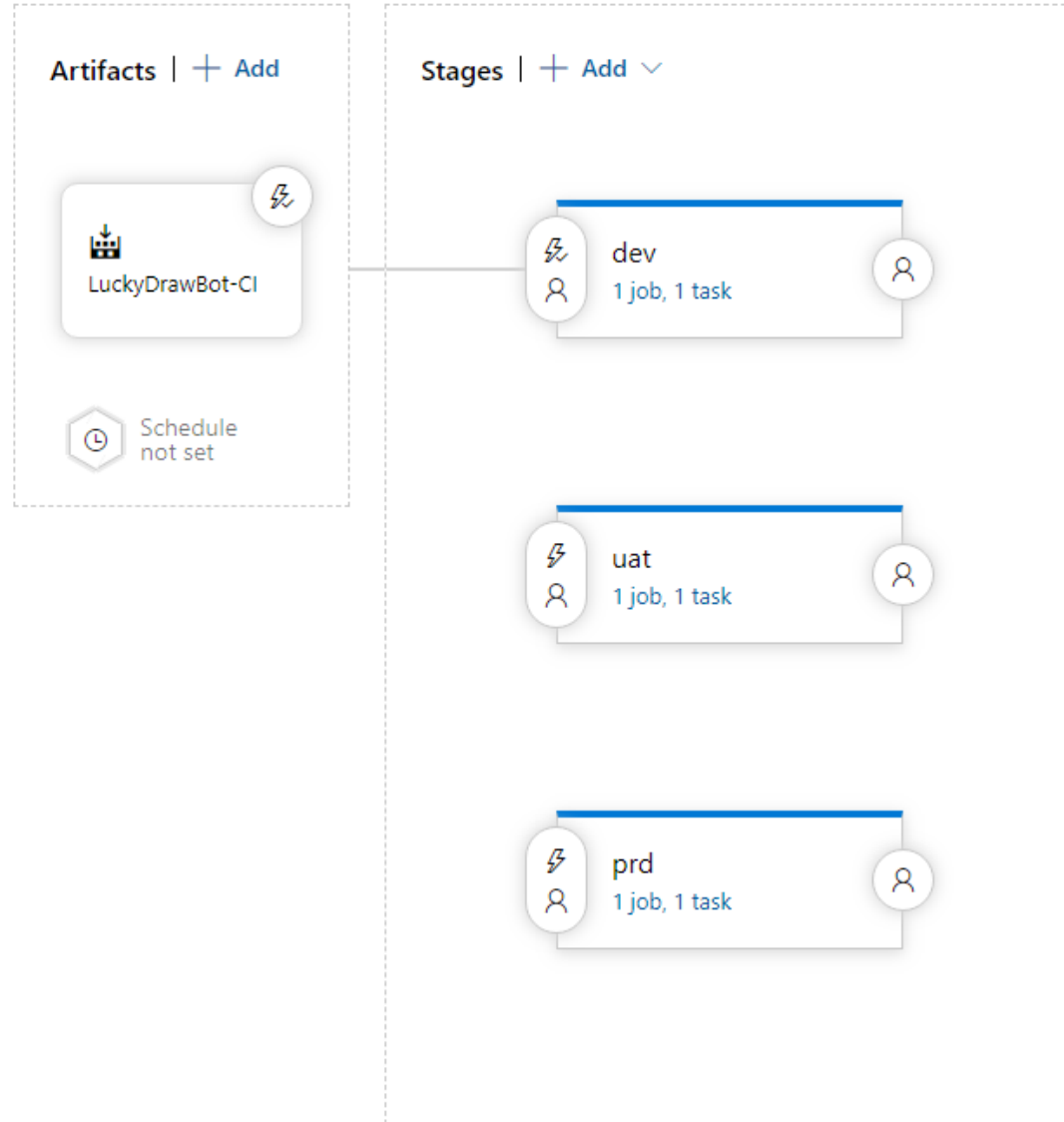


CI/CD

- Azure DevOps

All pipelines > LuckyDrawBot-CD

Pipeline Tasks Variables Retention Options History

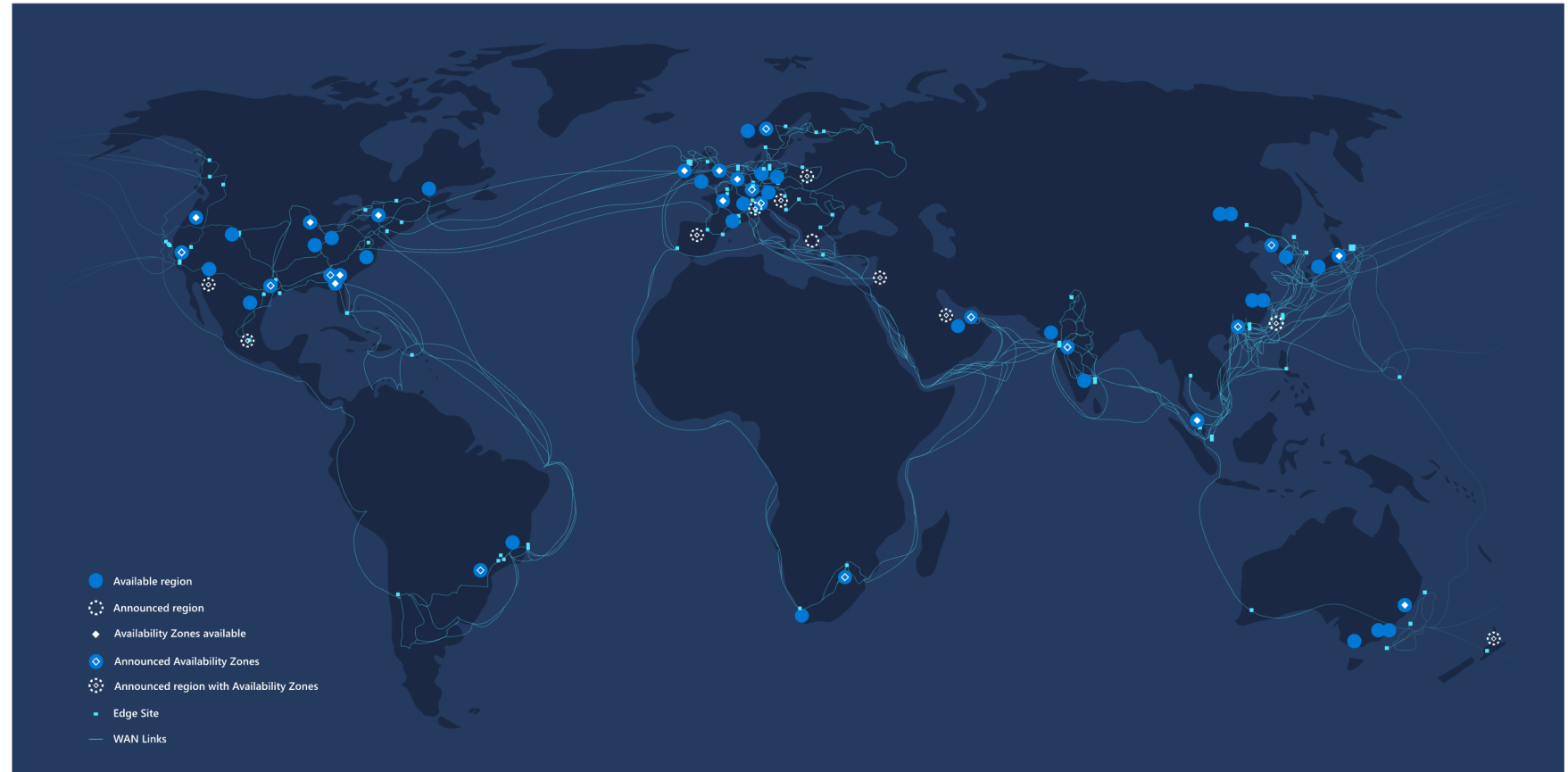


Azure

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

Data Residency

- Azure Regions



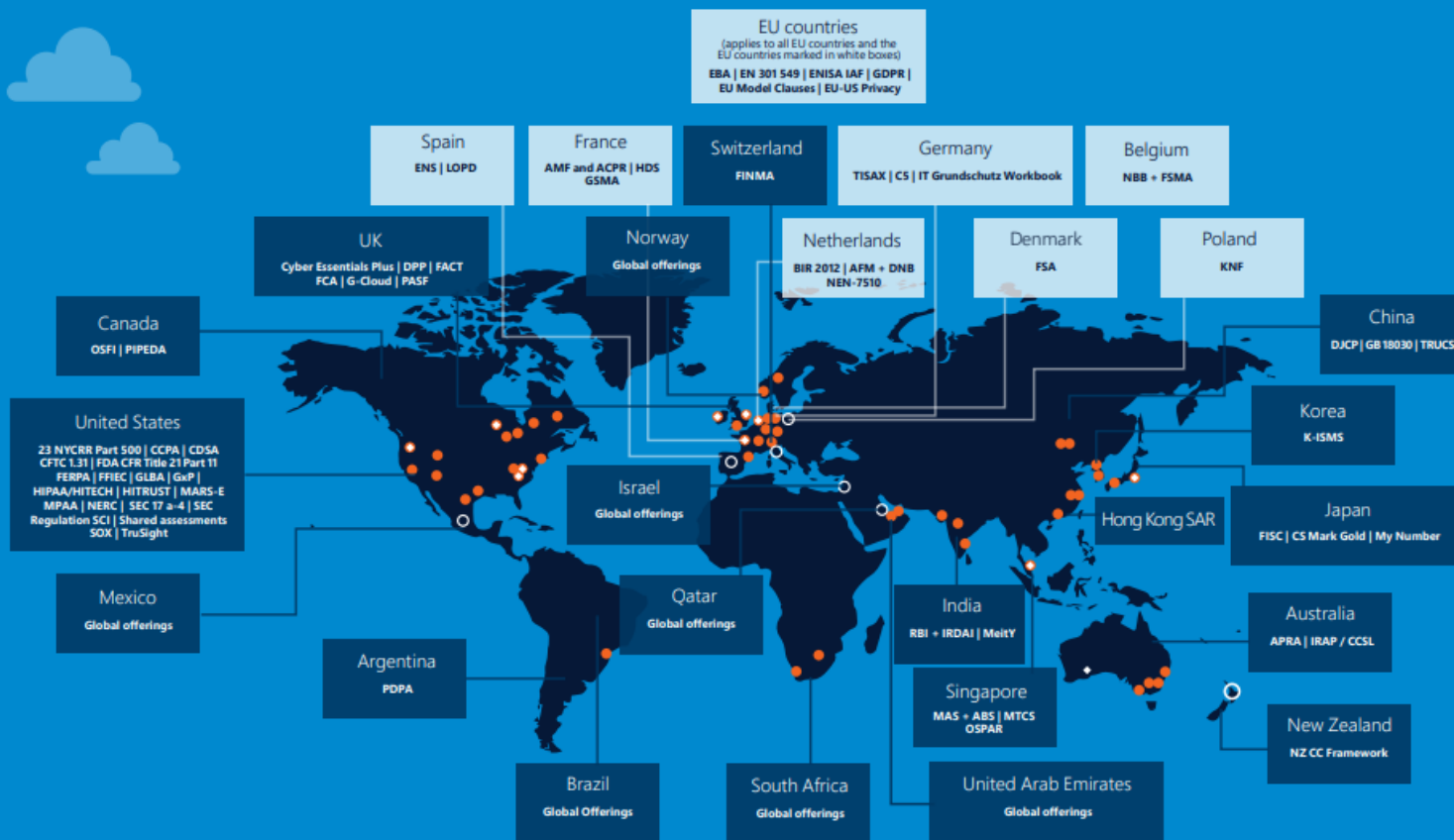
<https://azure.microsoft.com/en-us/global-infrastructure/global-network/>

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

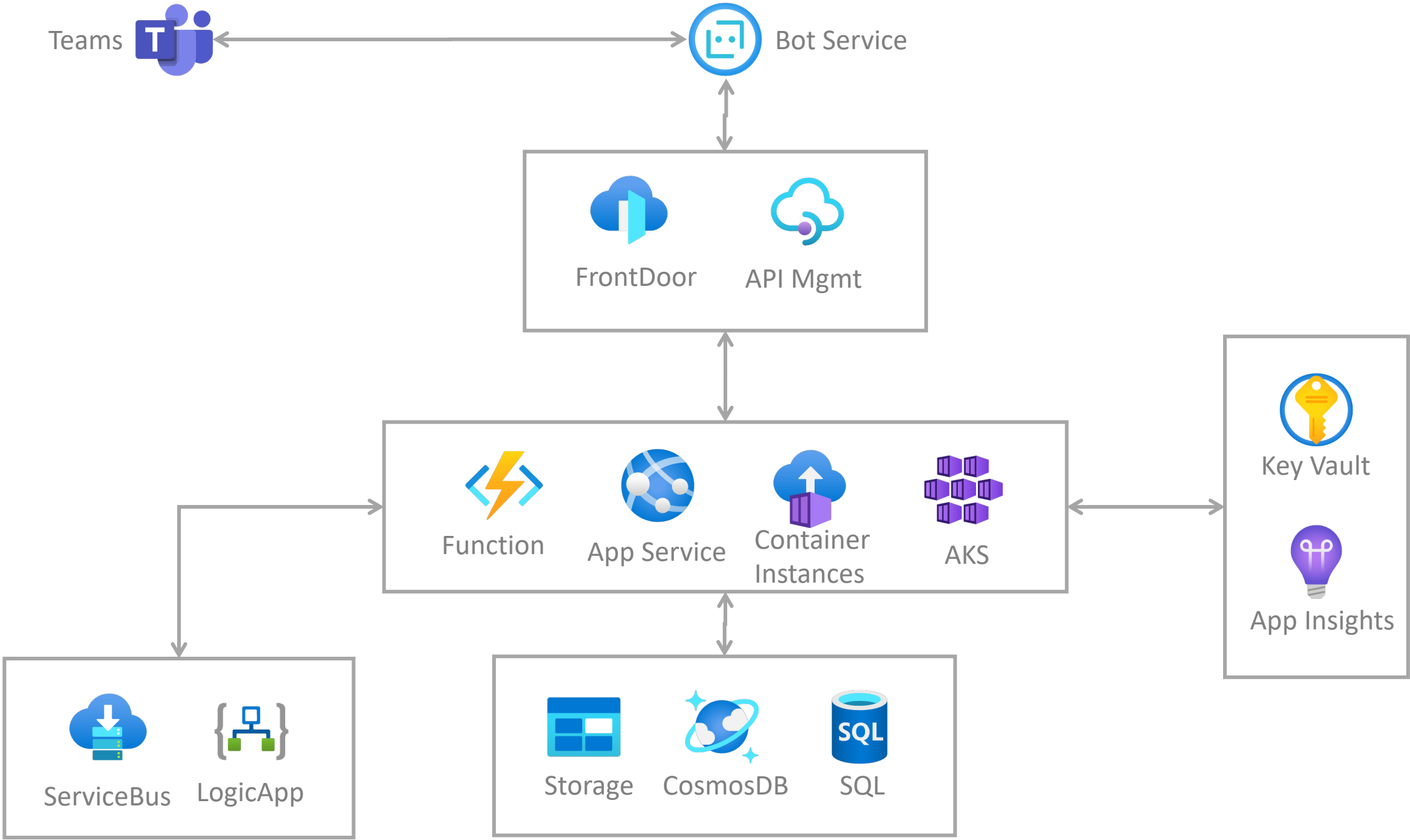
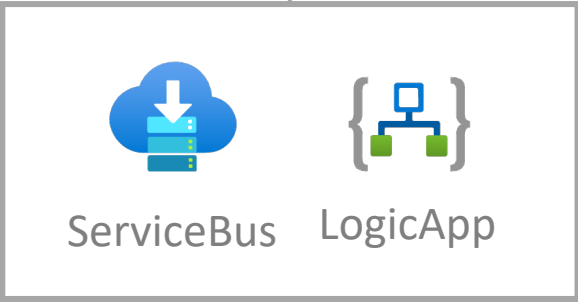
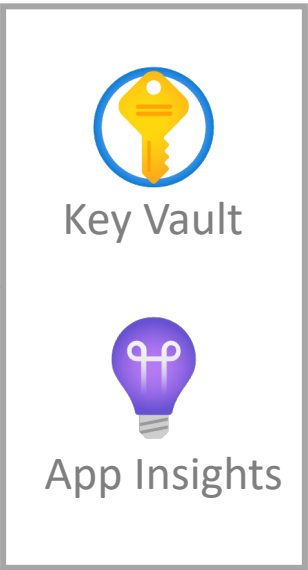
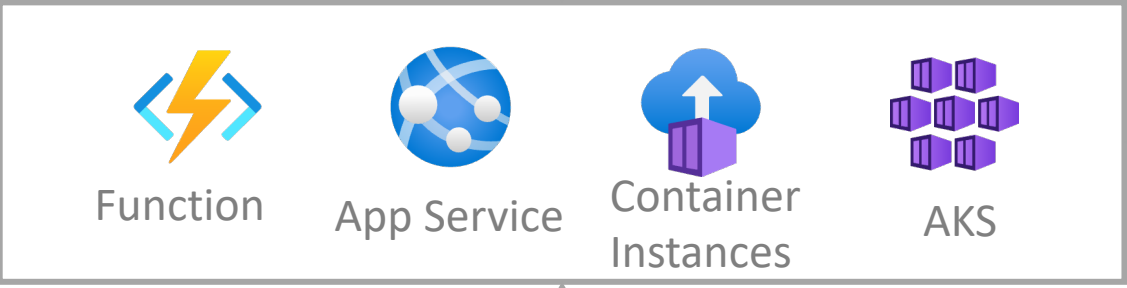
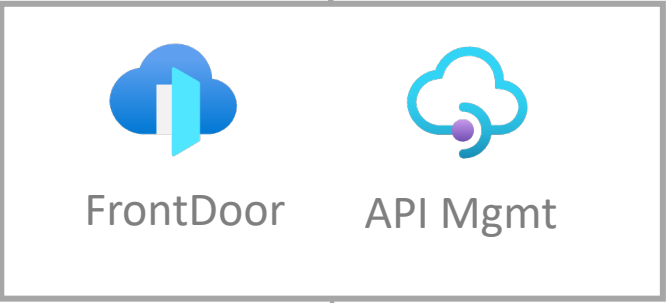
140 available in 140 countries

- Available region
- Announced region
- ◆ Availability zones

Use Serverless

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

Teams   Bot Service





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

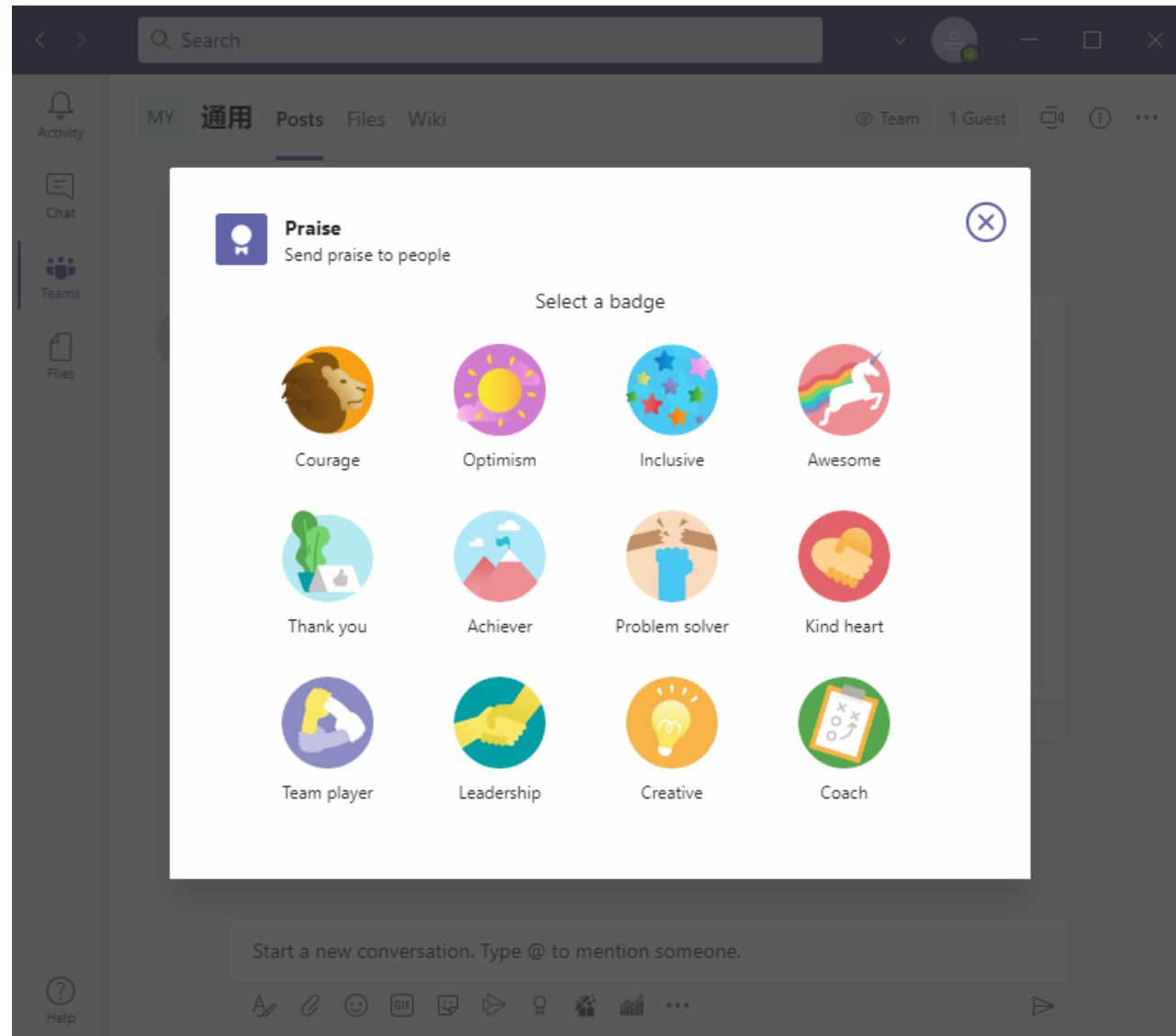
People can use this bot to create lucky draw activities with prize name, the number of prizes, draw time and prize image. All users in the channel can join the activity by simple one-click. The Lucky-Draw bot randomly picks the winners when the number of joined users is bigger than the number of prizes. 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:

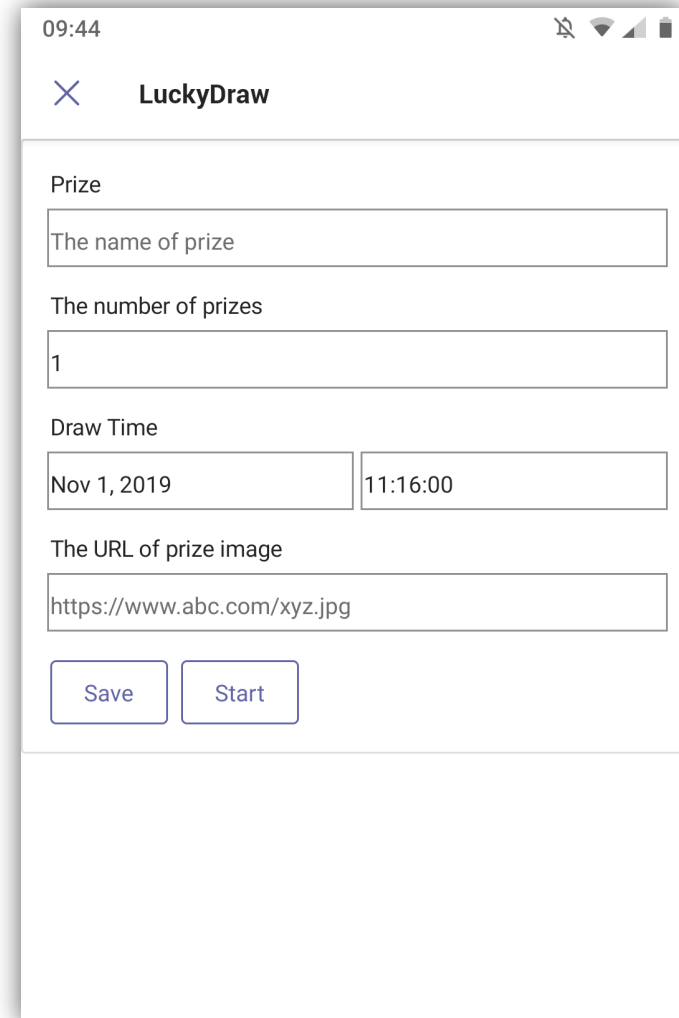
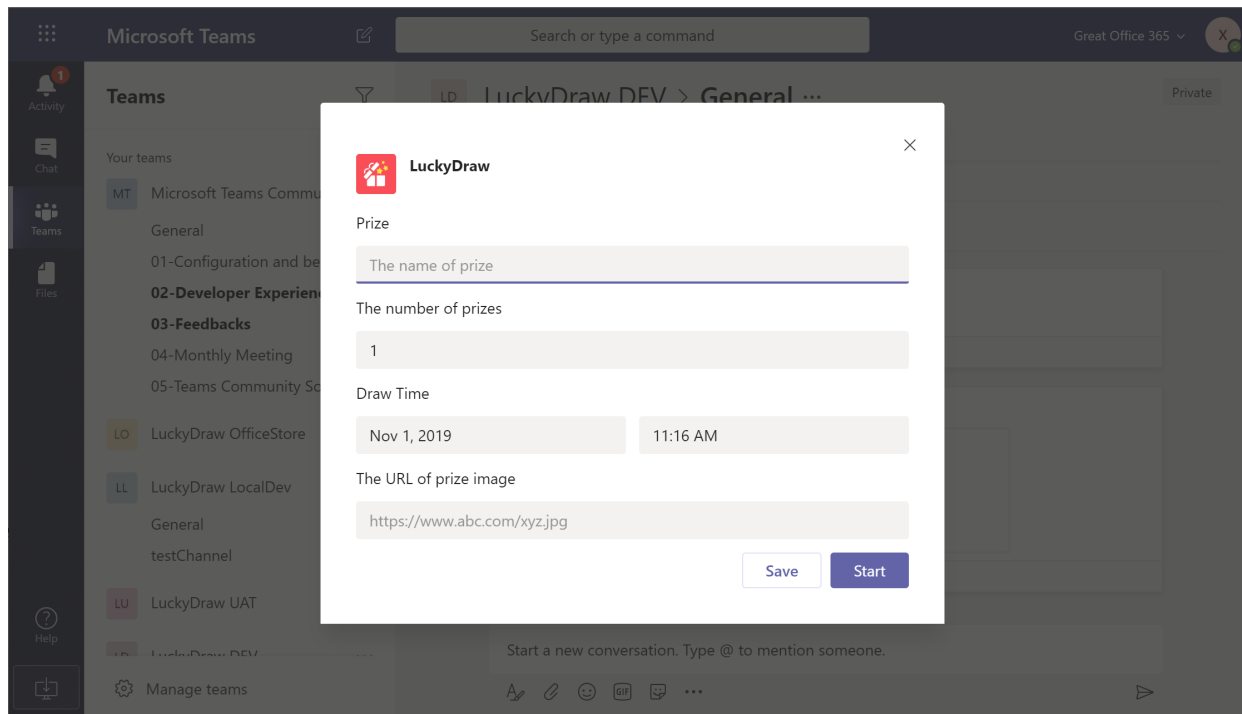
UI Layout

- Adaptive Cards



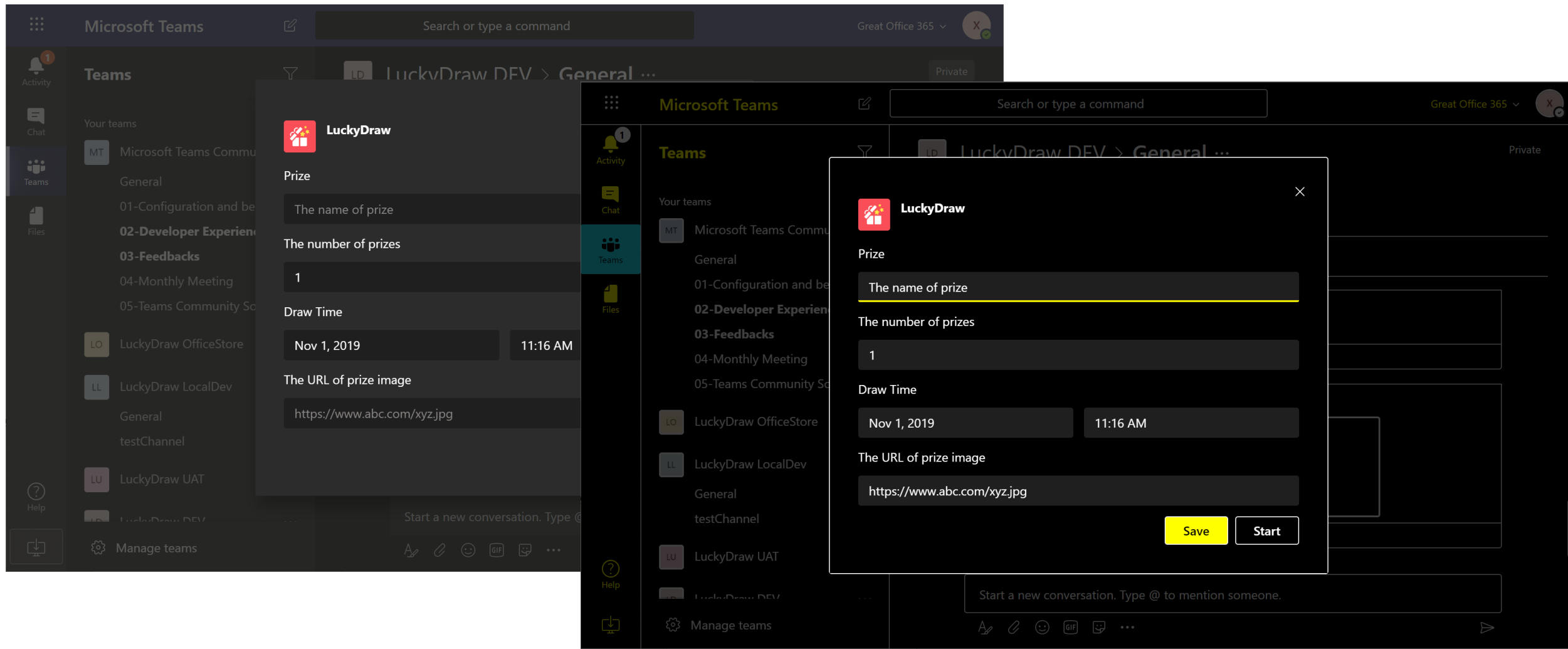
UI Layout – Adaptive Cards

- Desktop & Mobile



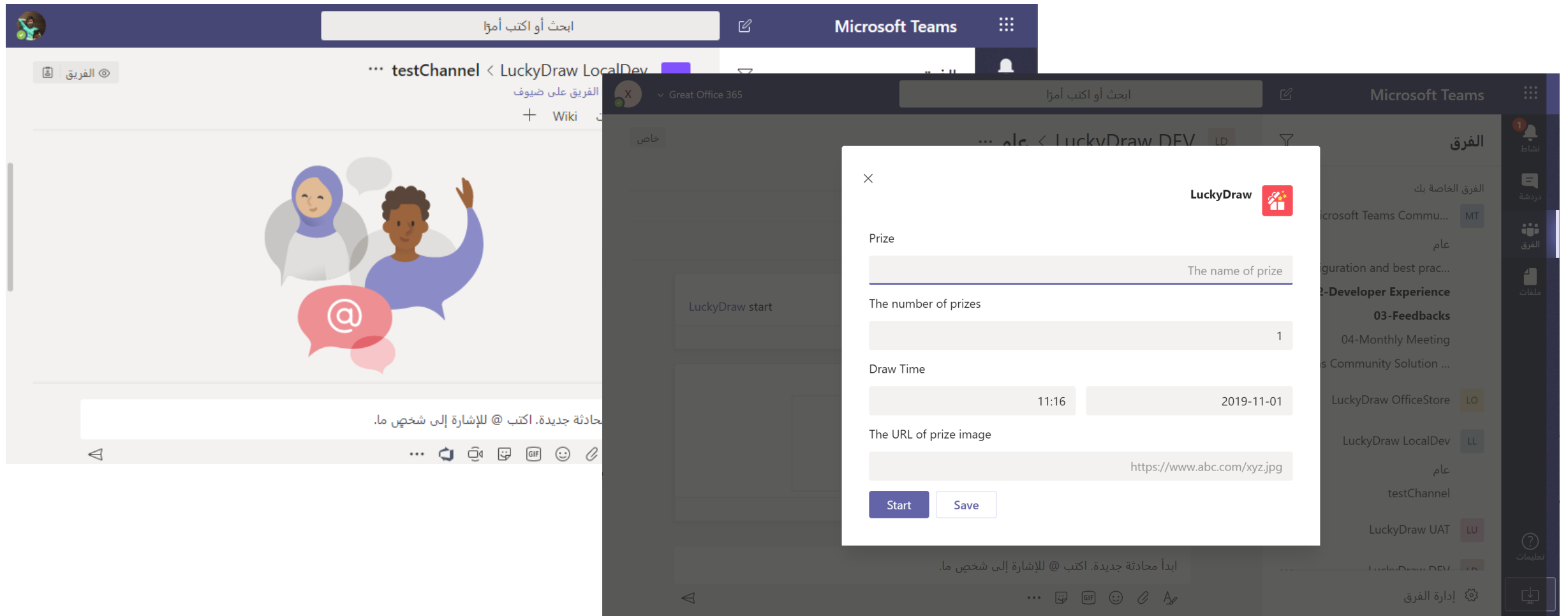
UI Layout – Adaptive Cards

- Themes



UI Layout – Adaptive Cards

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



A vibrant illustration of a globe in the center, surrounded by a circle of diverse children holding hands. Each child is dressed in traditional or cultural attire from various parts of the world, including a cowboy, a woman in a sari, a boy in a sombrero, a girl in a hula skirt, and a boy in a beret. The globe shows the continents of North and South America in shades of green and yellow, with blue oceans. The word "Culture" is written in white, sans-serif font across the middle of the globe.

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

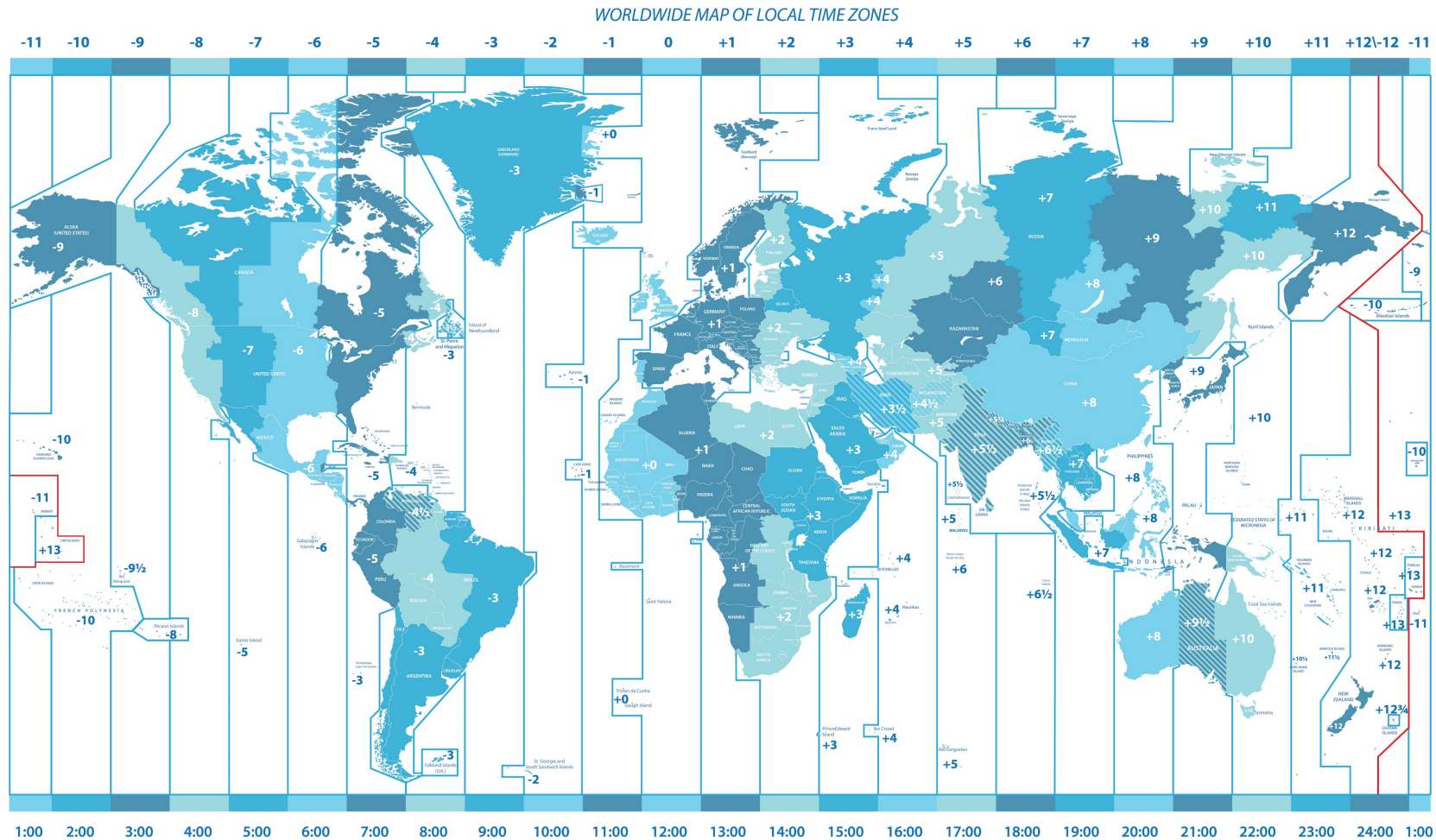
- '你正在以每小时67英里的速度驾驶'
- '明天室外温度是38度'
- Imperial and metric measurement units
 - Distance: 1 kilometer = 0.6 miles
 - Volume: 1 liter = 33.8 ounces
 - Weight: 1 kilogram = 2.2 pounds

WORLDWIDE MAP OF LOCAL TIME ZONES



Time Zone

- Multiple time zones in one country



Time Zone

- Half hour
 - India runs on GMT+5 1/2
 - Iran runs on GMT+3 1/2
 - ...
- Nepal
 - GMT+5 3/4
- Do not use integer for timezone

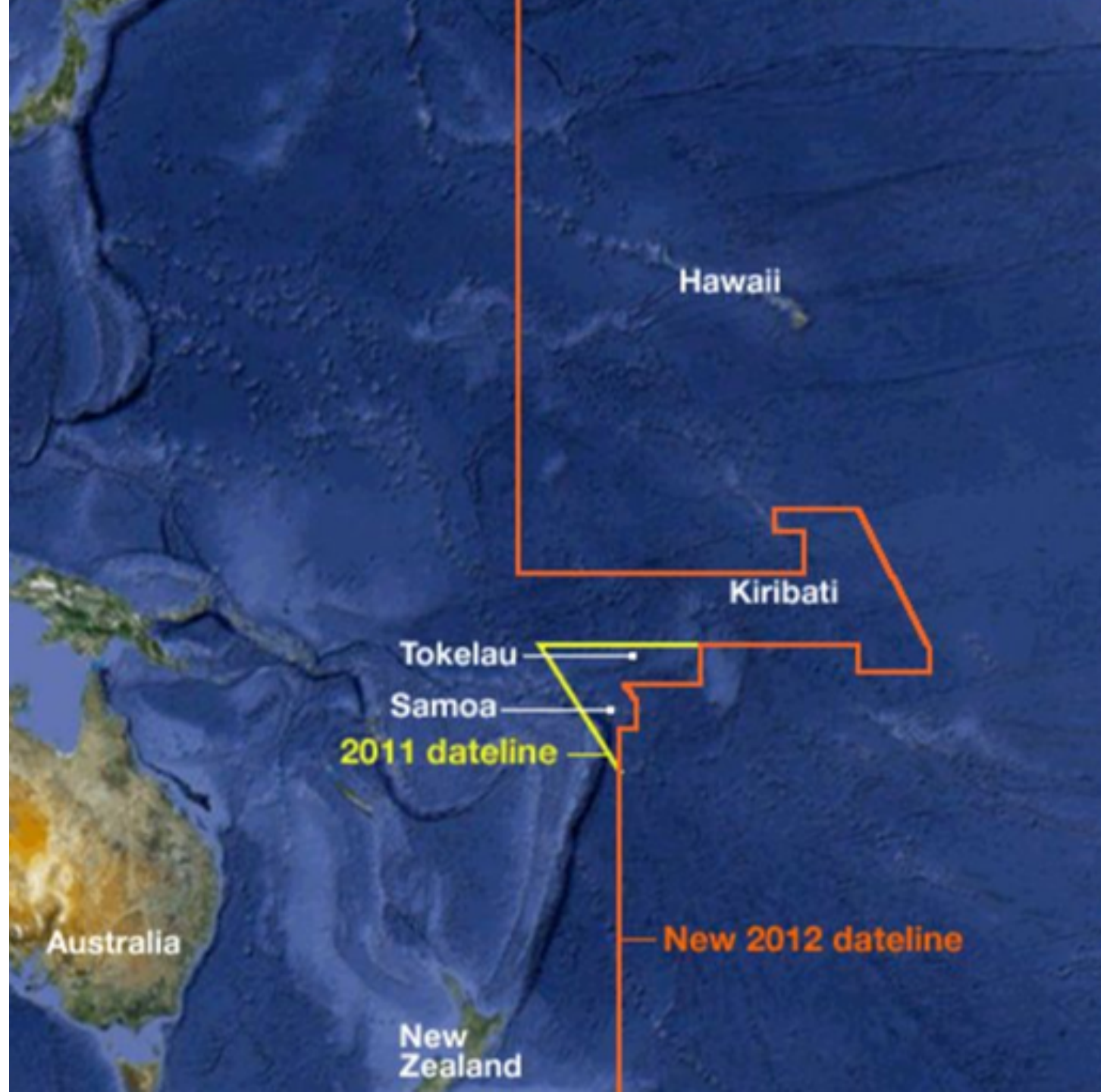
Time Zone

Samoa and Tokelau

The lost day:

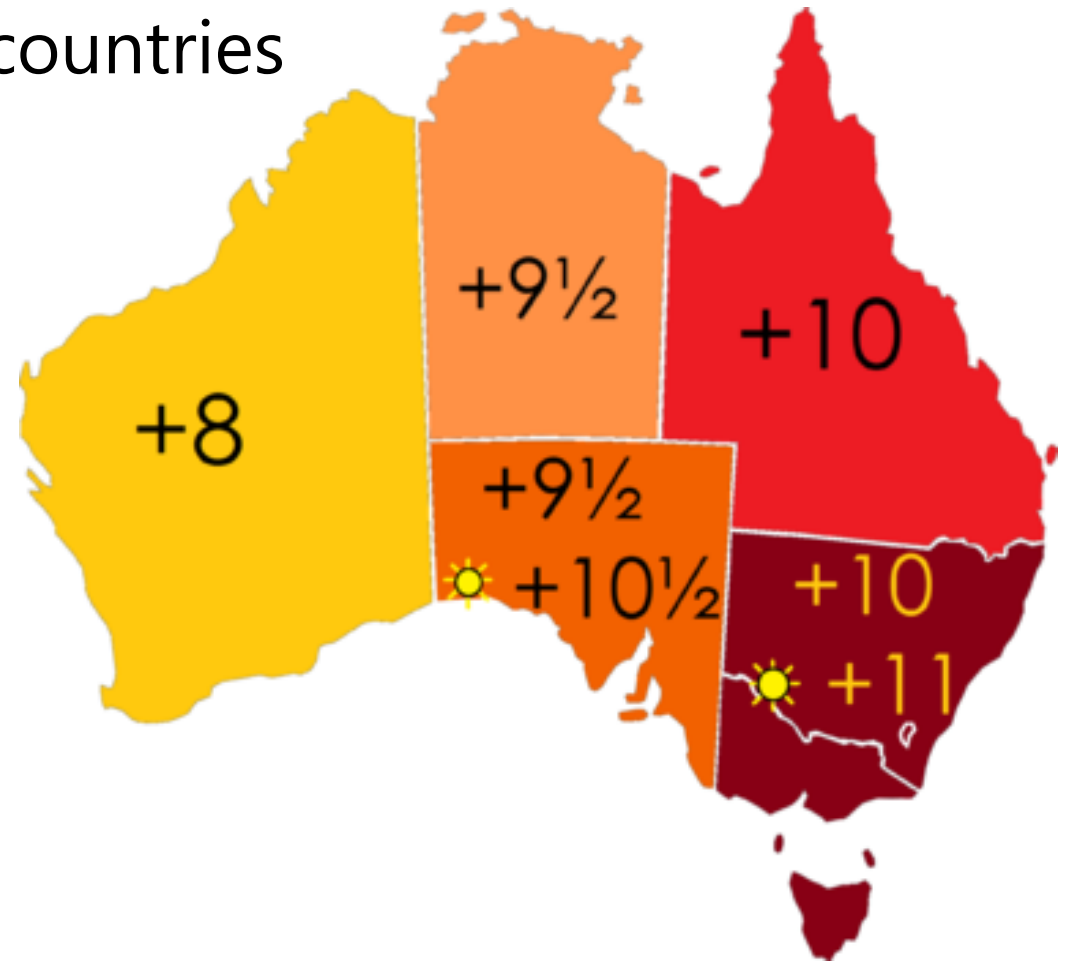
30 December 2011

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

