AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

ALX202

What's new with Amazon Alexa

Jeff Blankenburg (he/him)
Chief Technical Evangelist, Alexa
Amazon

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“What in the world is an evangelist, and what exactly do you do?”

Everyone, always.

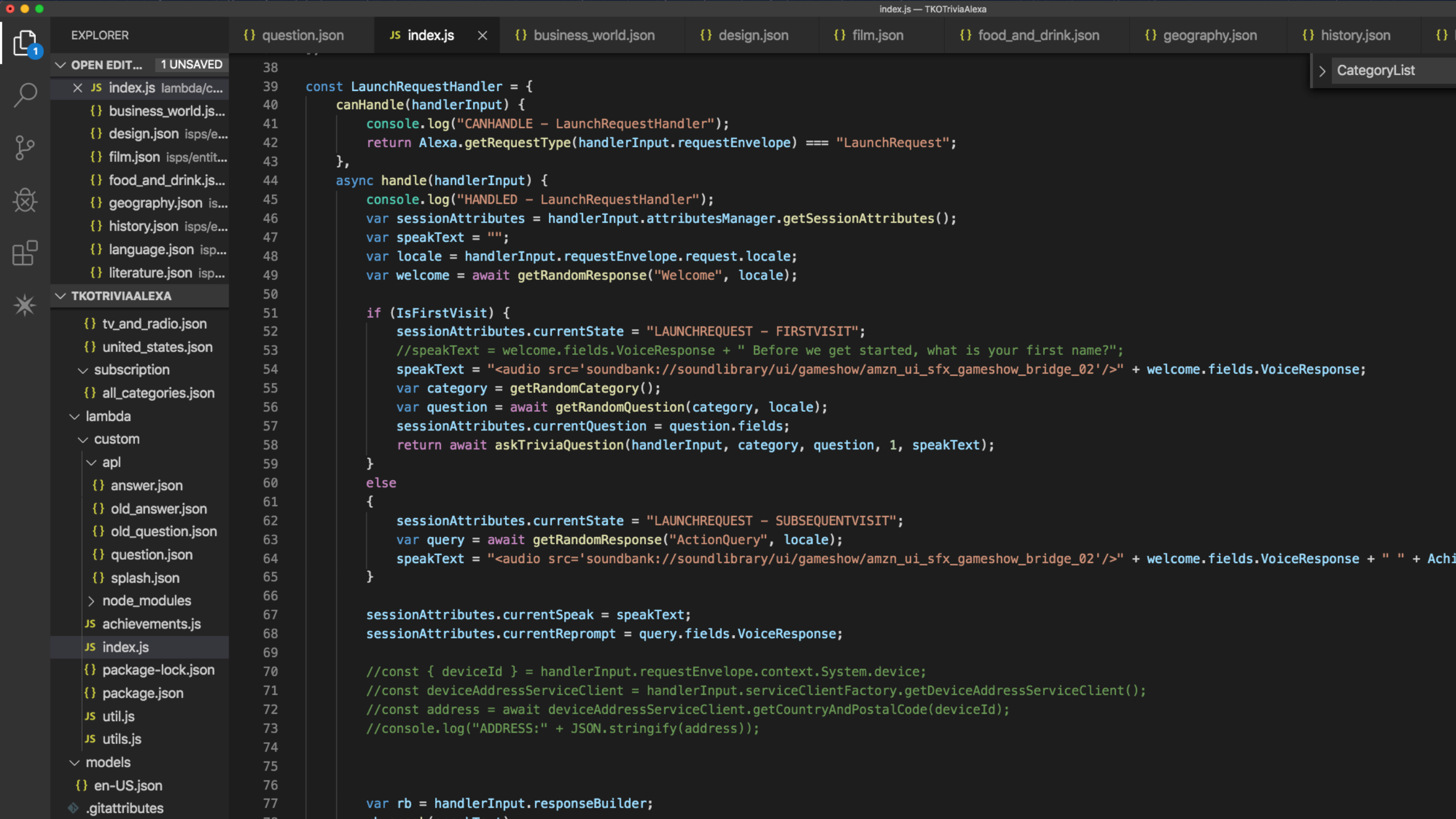
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LISTEN



alexa.design/slack


BUILD


EXPLORER
{} question.json
JS index.js
{} business_world.json
{} design.json
{} film.json
{} food_and_drink.json
{} geography.json
{} history.json
OPEN EDIT... 1 UNSAVED
JS index.js lambda/c...
{} business_world.js...
{} design.json isps/e...
{} film.json isps/entit...
{} food_and_drink.js...
{} geography.json is...
{} history.json isps/e...
{} language.json isp...
{} literature.json isp...
TKOTRIVIAALEXA
{} tv_and_radio.json
{} united_states.json
subscription
{} all_categories.json
lambda
custom
apl
{} answer.json
{} old_answer.json
{} old_question.json
{} question.json
{} splash.json
node_modules
JS achievements.js
JS index.js
{} package-lock.json
{} package.json
JS util.js
JS utils.js
models
{} en-US.json
.gitattributes
CategoryList
const LaunchRequestHandler = {
canHandle(handlerInput) {
console.log("CANHANDLE - LaunchRequestHandler");
return Alexa.getRequestType(handlerInput.requestEnvelope) === "LaunchRequest";
},
async handle(handlerInput) {
console.log("HANDLED - LaunchRequestHandler");
var sessionAttributes = handlerInput.attributesManager.getSessionAttributes();
var speakText = "";
var locale = handlerInput.requestEnvelope.request.locale;
var welcome = await getRandomResponse("Welcome", locale);
if (IsFirstVisit) {
sessionAttributes.currentState = "LAUNCHREQUEST - FIRSTVISIT";
//speakText = welcome.fields.VoiceResponse + " Before we get started, what is your first name?";
speakText = "<audio src='soundbank://soundlibrary/ui/gameshow/amzn_ui_sfx_gameshow_bridge_02'/>" + welcome.fields.VoiceResponse;
var category = getRandomCategory();
var question = await getRandomQuestion(category, locale);
sessionAttributes.currentQuestion = question.fields;
return await askTriviaQuestion(handlerInput, category, question, 1, speakText);
}
else
{
sessionAttributes.currentState = "LAUNCHREQUEST - SUBSEQUENTVISIT";
var query = await getRandomResponse("ActionQuery", locale);
speakText = "<audio src='soundbank://soundlibrary/ui/gameshow/amzn_ui_sfx_gameshow_bridge_02'/>" + welcome.fields.VoiceResponse + " " + Achi
}
sessionAttributes.currentSpeak = speakText;
sessionAttributes.currentReprompt = query.fields.VoiceResponse;
//const { deviceId } = handlerInput.requestEnvelope.context.System.device;
//const deviceAddressServiceClient = handlerInput.serviceClientFactory.getDeviceAddressServiceClient();
//const address = await deviceAddressServiceClient.getCountryAndPostalCode(deviceId);
//console.log("ADDRESS:" + JSON.stringify(address));
var rb = handlerInput.responseBuilder;


TEACH


ALEXA,
FOLLOW
@JEFFBLANK
ON
OHIO

Agenda

Let’s talk numbers

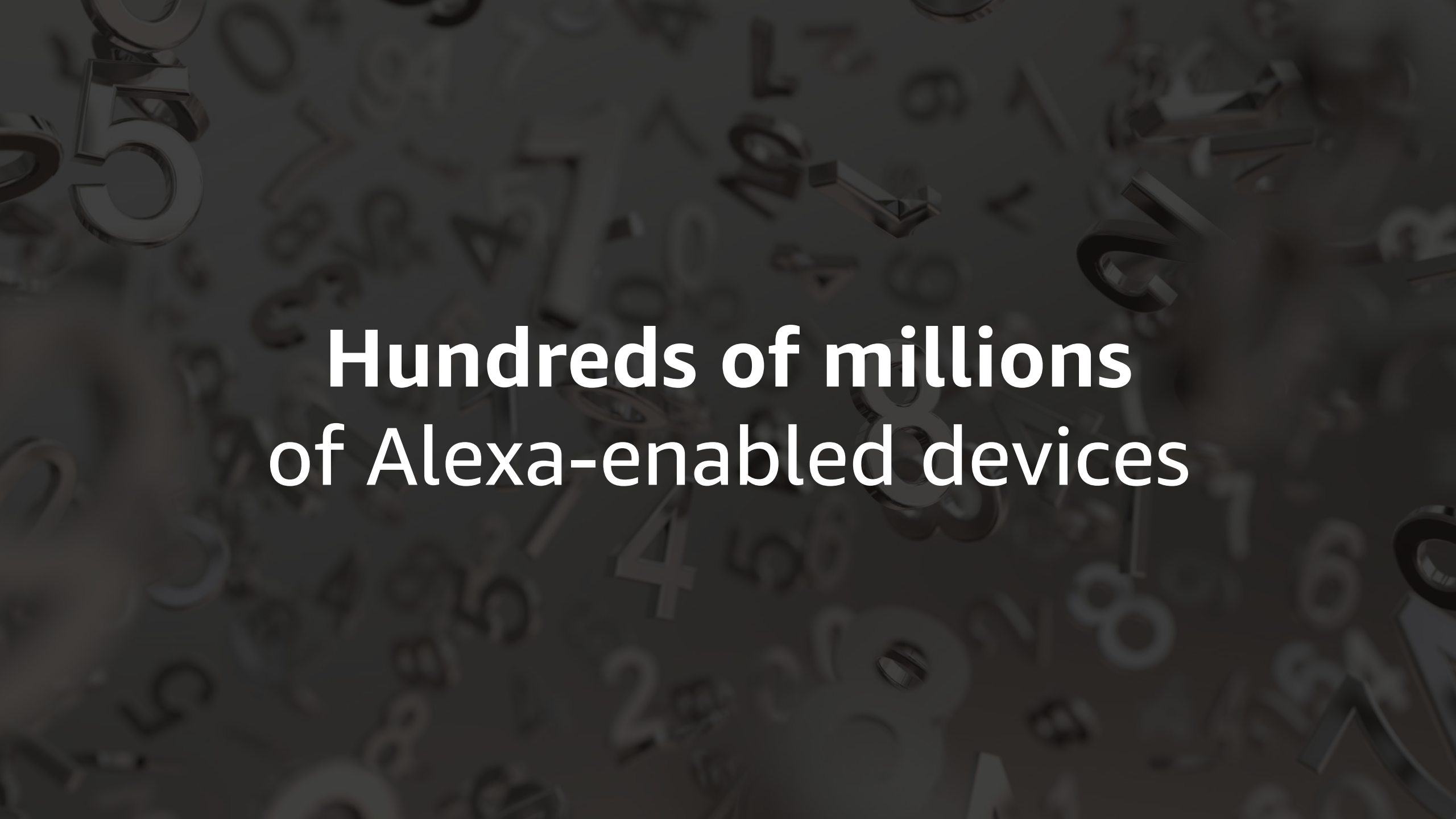
New devices

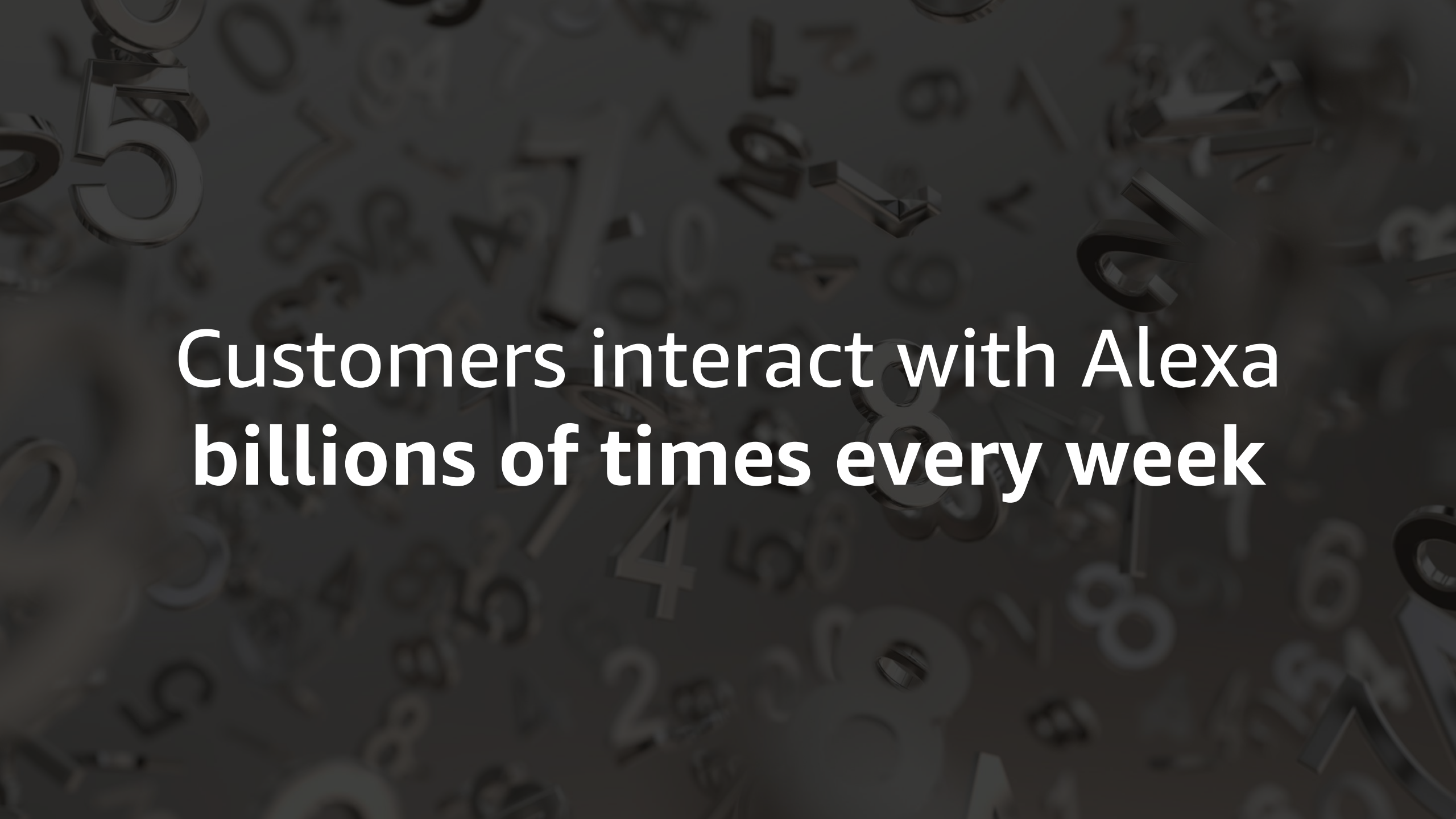
New capabilities

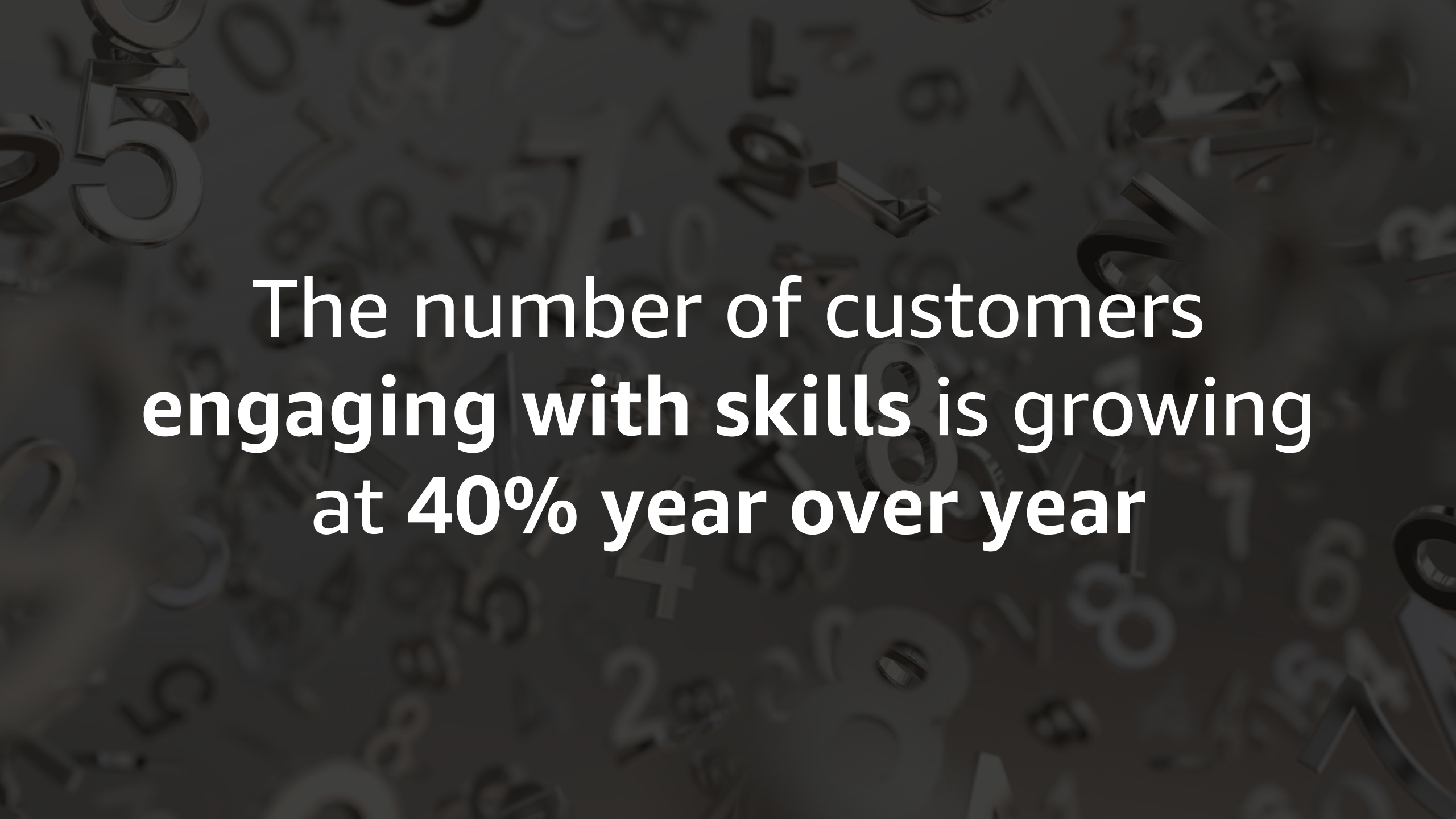
New developer tools

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Hundreds of millions
of Alexa-enabled devices


Customers interact with Alexa
billions of times every week


The number of customers
engaging with skills is growing
at **40% year over year**

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The number of customers **engaging with skills** is growing at **40% year over year**



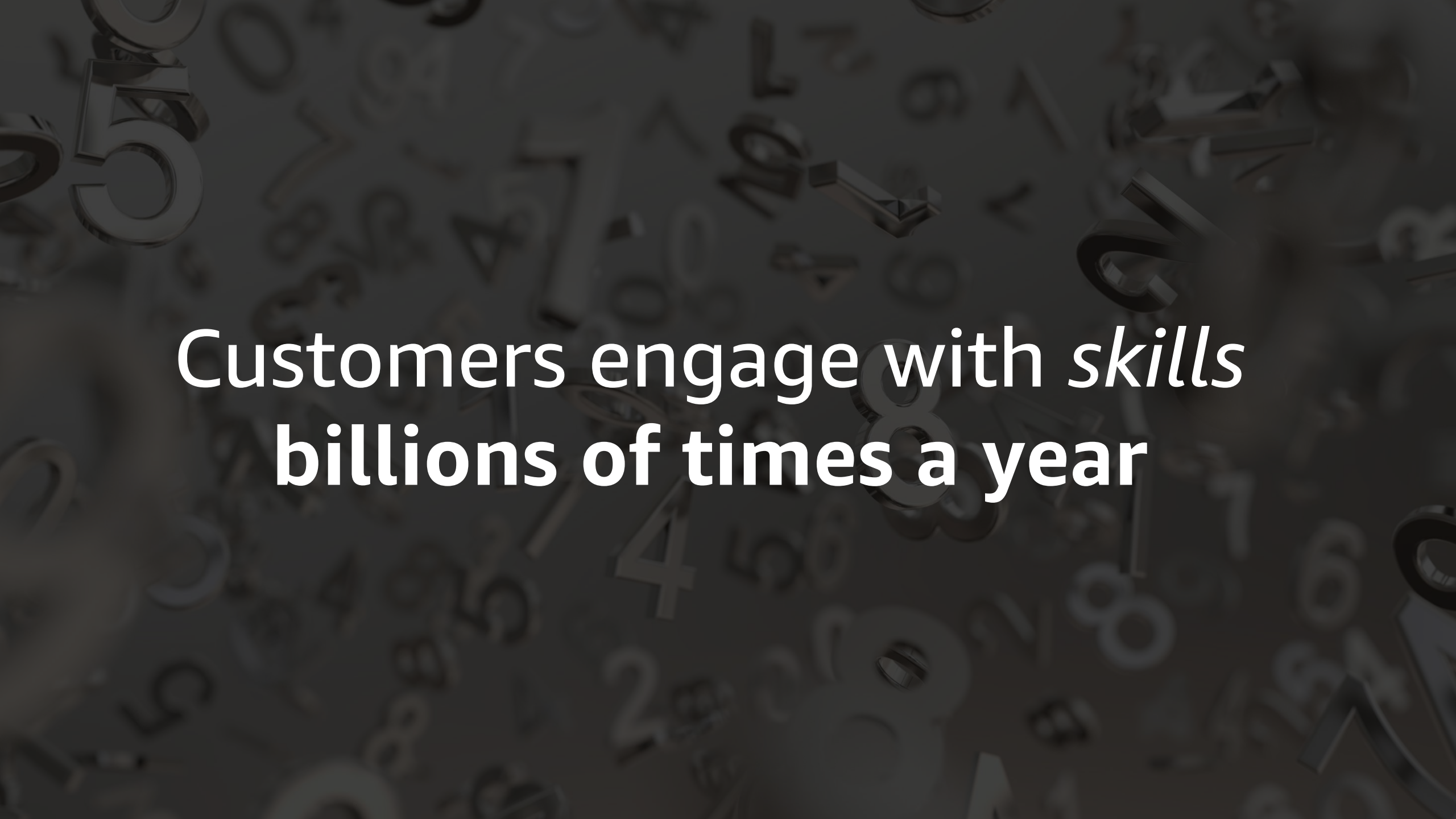


The number of customers **engaging with skills** is growing at **40% year over year**

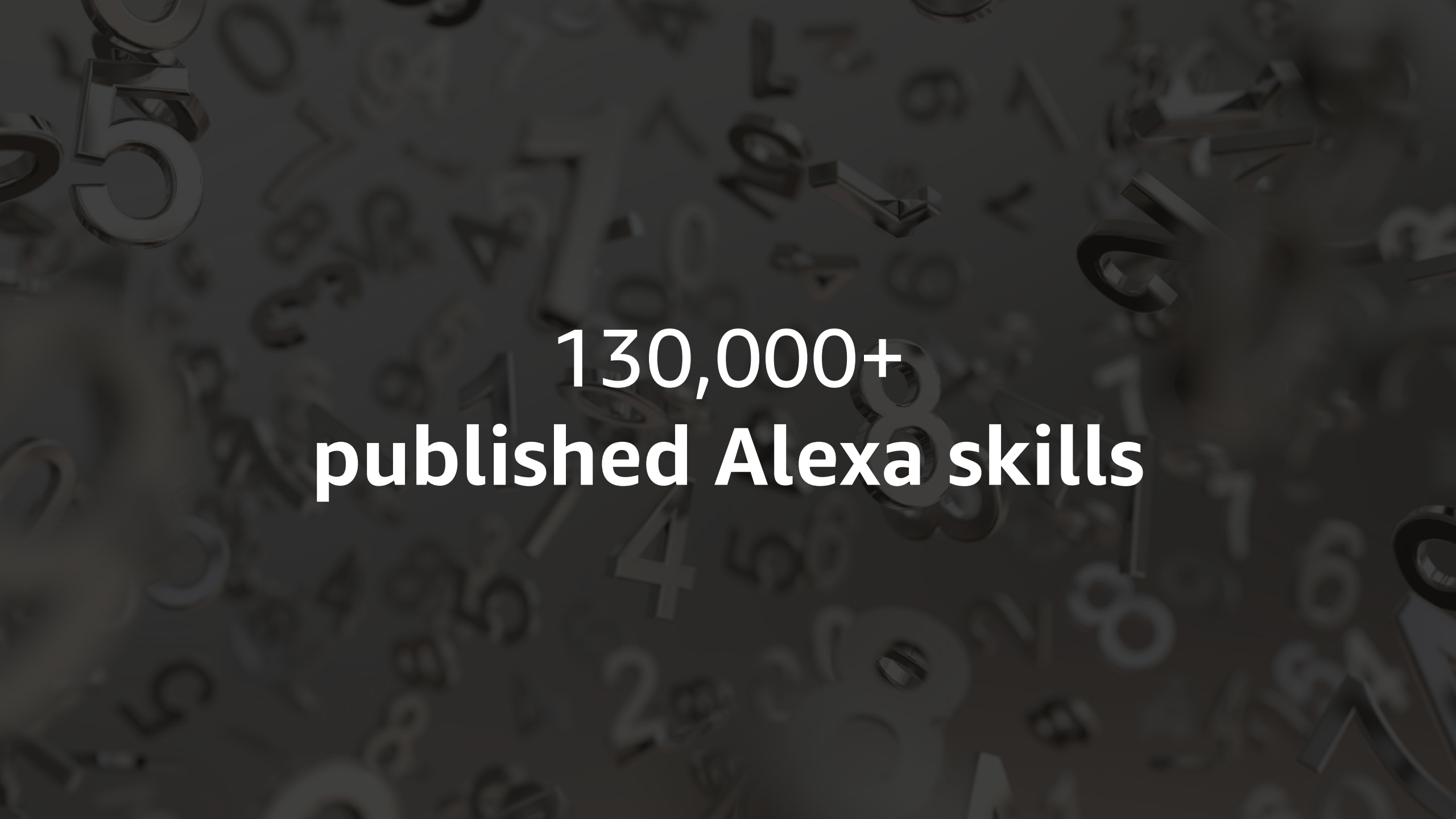


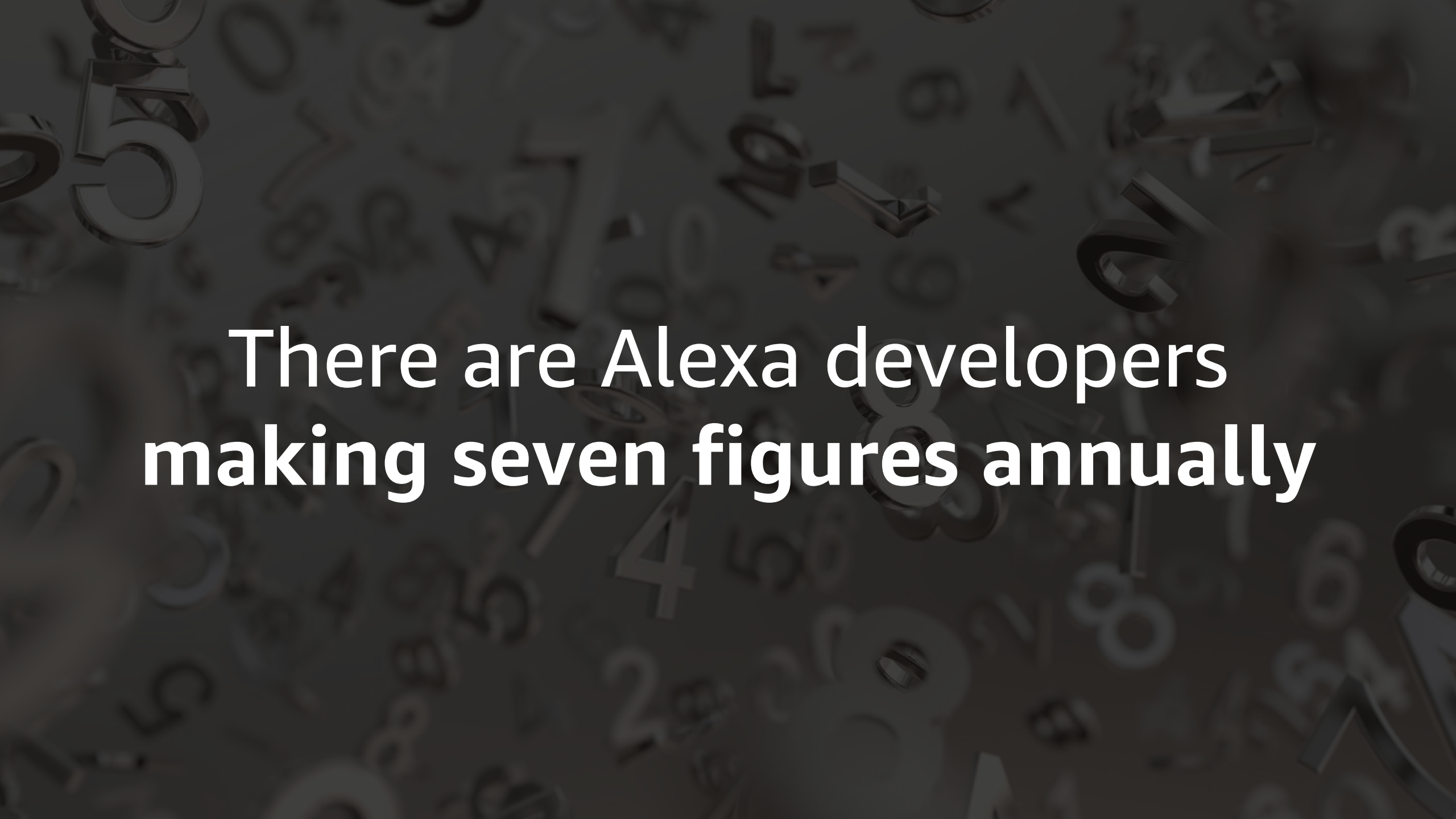


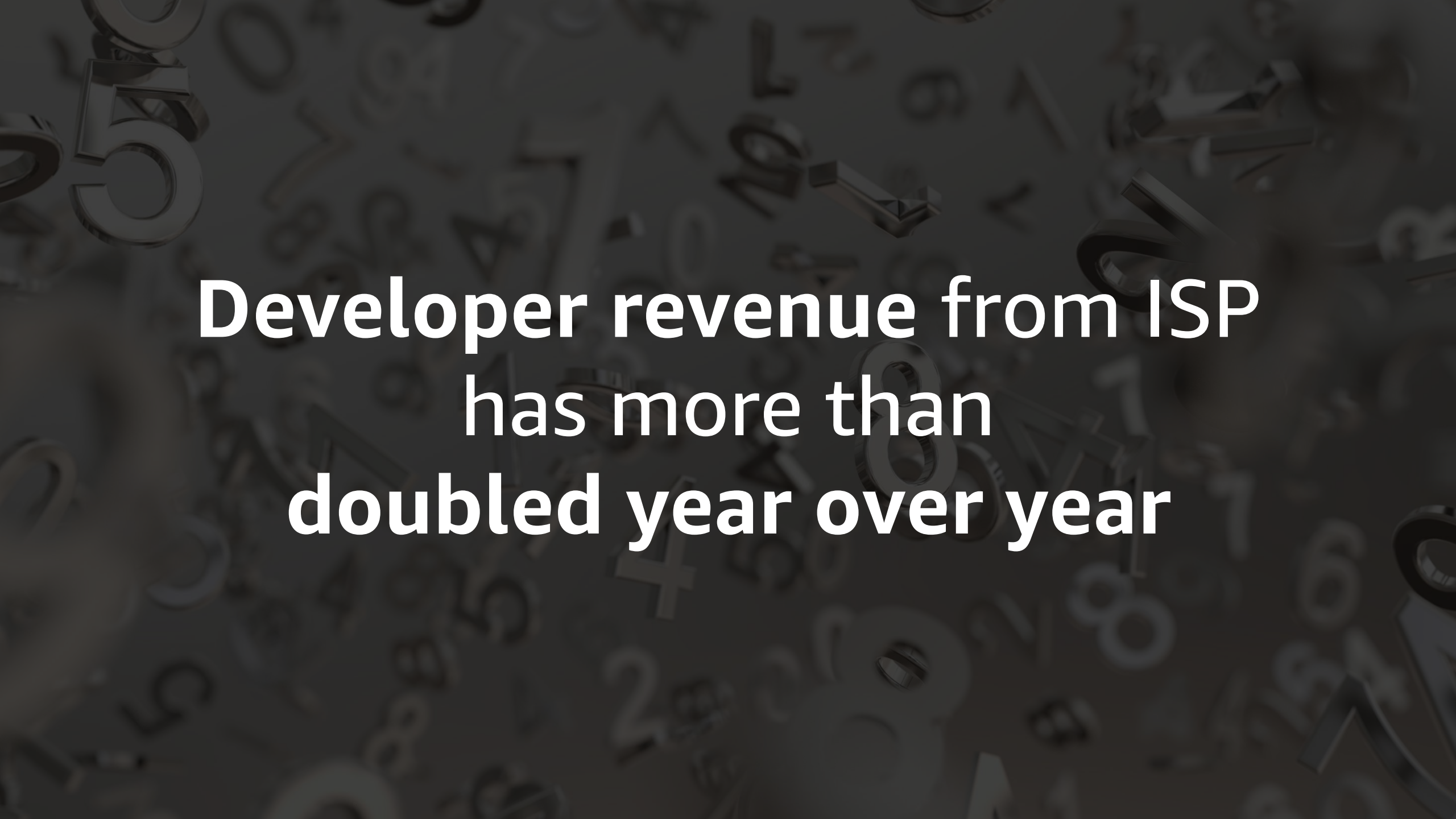



Customers engage with *skills*
billions of times a year


900,000+
registered Alexa developers


130,000+
published Alexa skills


There are Alexa developers
making seven figures annually

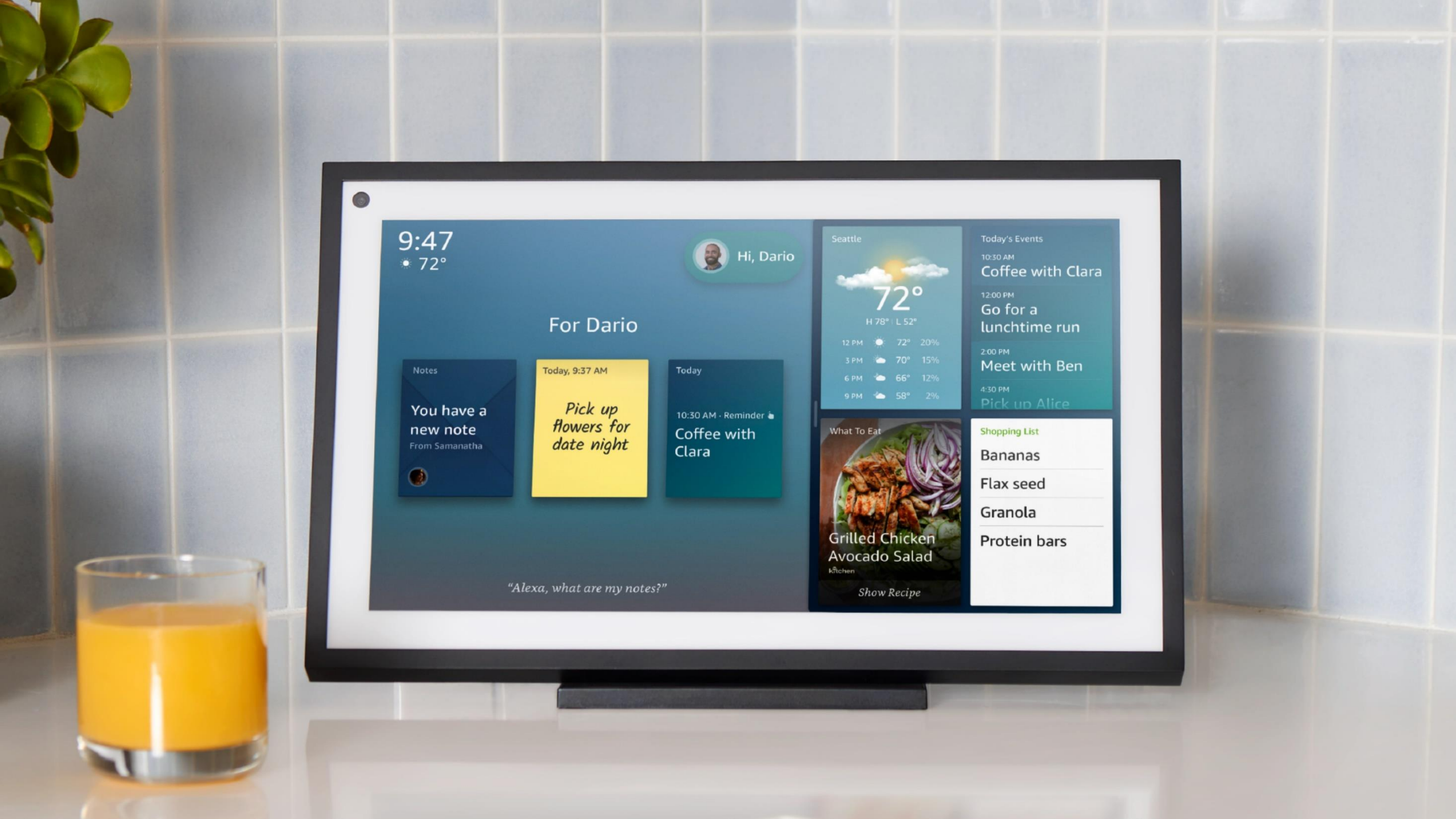

Developer revenue from ISP
has more than
doubled year over year


140,000 smart home products
can be controlled with Alexa

New devices

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10:10
55°
"Alexa, show this album"


9:47
72°
Hi, Dario
For Dario
Notes
You have a new note
From Samanatha
Today, 9:37 AM
Pick up flowers for date night
Today
10:30 AM · Reminder
Coffee with Clara
"Alexa, what are my notes?"
Seattle
72°
H 78° L 52°
12 PM 72° 20%
3 PM 70° 15%
6 PM 66° 12%
9 PM 58° 2%
Today's Events
10:30 AM
Coffee with Clara
12:00 PM
Go for a lunchtime run
2:00 PM
Meet with Ben
4:30 PM
Pick up Alice
What To Eat
Grilled Chicken Avocado Salad
kitchen
Show Recipe
Shopping List
Bananas
Flax seed
Granola
Protein bars















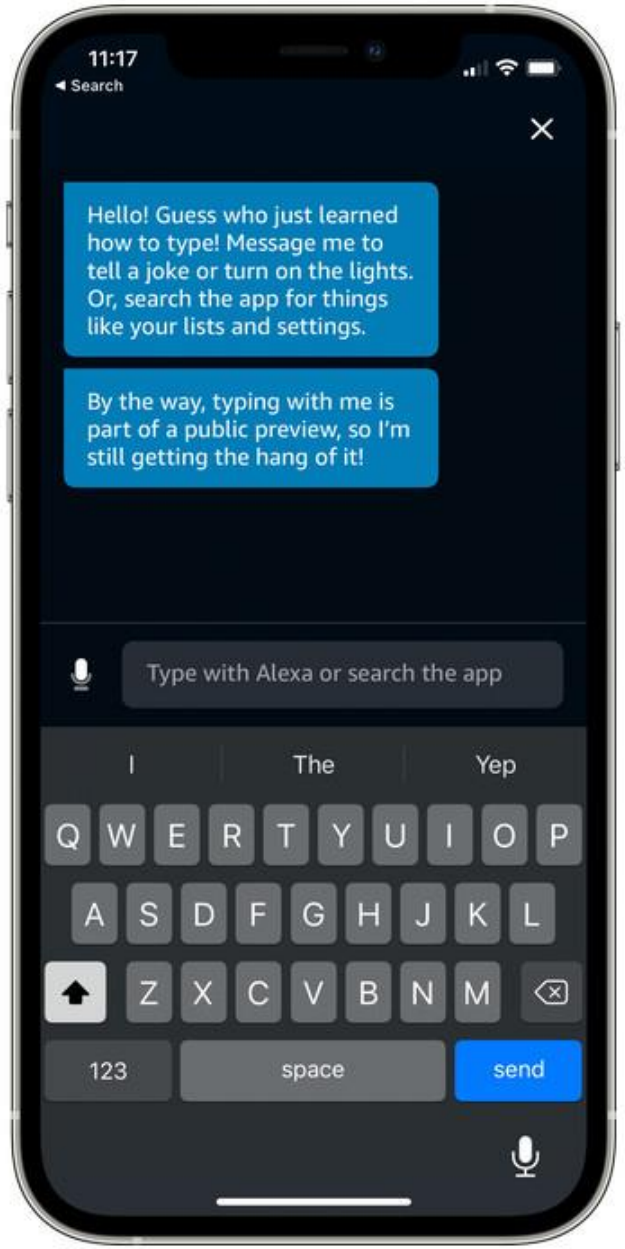


New capabilities

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Keyboard mode

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11:17
Search
Hello! Guess who just learned how to type! Message me to tell a joke or turn on the lights. Or, search the app for things like your lists and settings.
By the way, typing with me is part of a public preview, so I'm still getting the hang of it!
Type with Alexa or search the app
I
The
Yep
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
123
space
send

Ask Alexa widget (iOS)

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16:01
TUE
27
FaceTime
Calendar
Ask Alexa
Photos
Camera
Amazon Alexa

Voice Interoperability Initiative (VII)

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Voice Interoperability Initiative



Customer Choice

Building voice-enabled devices that promote customer choice and flexibility through multiple, simultaneous wake words

Secure Interoperability

Developing voice services that can work seamlessly with others while protecting the privacy and security of customers

Technology Solutions

Releasing technologies and solutions that make it easier to integrate multiple voice services on a single product

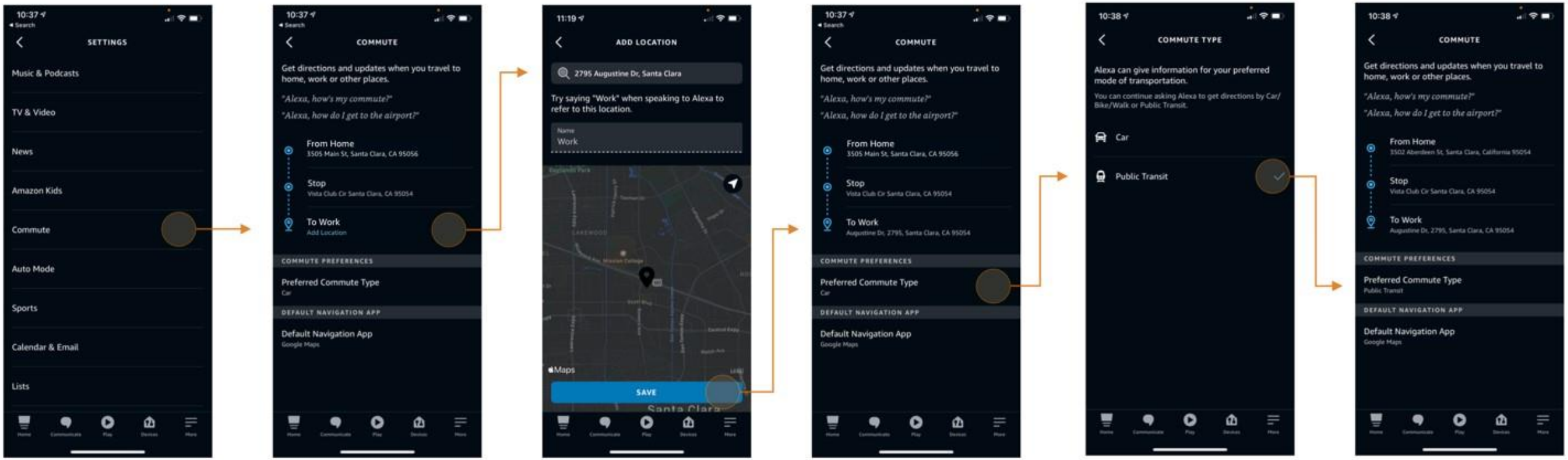
Research and Development

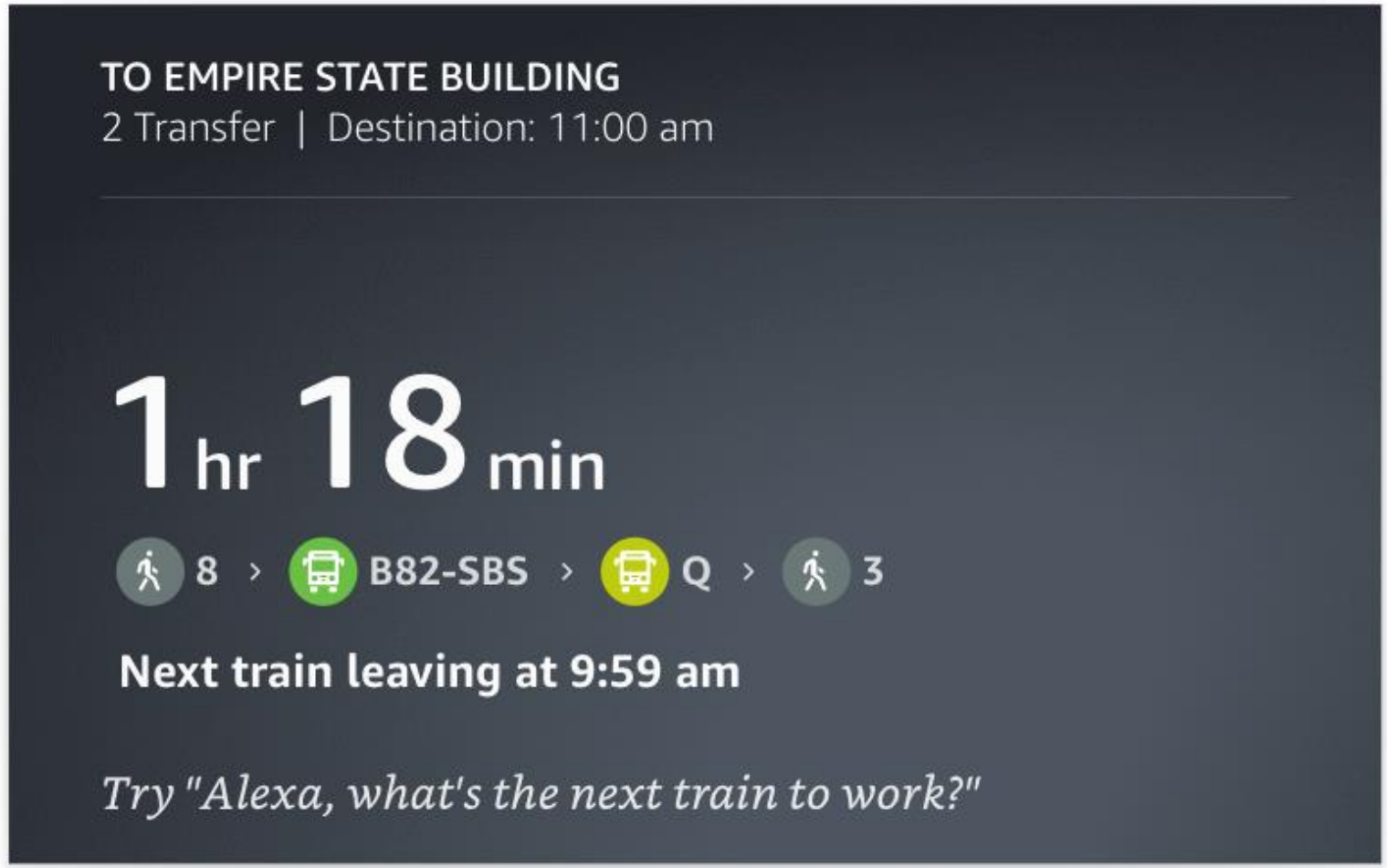
Accelerating machine learning and conversational AI research to improve the breadth, quality and interoperability of voice services

Alexa Transit

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ESTELLE'S
PATISSERIE
BAKERY & ESPRESSO BAR
CLOSED


10:37
SETTINGS
Music & Podcasts
TV & Video
News
Amazon Kids
Commute
Auto Mode
Sports
Calendar & Email
Lists
COMMUTE
Get directions and updates when you travel to home, work or other places.
"Alexa, how's my commute?"
"Alexa, how do I get to the airport?"
From Home
3505 Main St, Santa Clara, CA 95056
Stop
Vista Club Cir Santa Clara, CA 95054
To Work
Add Location
COMMUTE PREFERENCES
Preferred Commute Type
Car
DEFAULT NAVIGATION APP
Default Navigation App
Google Maps
11:19
ADD LOCATION
2795 Augustine Dr, Santa Clara
Try saying "Work" when speaking to Alexa to refer to this location.
Name
Work
Maps
SAVE
10:38
COMMUTE TYPE
Alexa can give information for your preferred mode of transportation.
You can continue asking Alexa to get directions by Car/Bike/Walk or Public Transit.
Car
Public Transit


TO EMPIRE STATE BUILDING
2 Transfer | Destination: 11:00 am
1 hr 18 min
8 › B82-SBS › Q › 3
Next train leaving at 9:59 am
Try "Alexa, what's the next train to work?"

Sound Detection Routines

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Video sharing

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Alexa for Xbox

Alexa, ask Xbox is Jeff Blankenburg online?

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Adaptive Volume

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MIN
MAX
VOLUME

Find My

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New developer tools

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Shopping Actions and Amazon Associates

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amazonassociates





Multi-Value Slots

I'd like a pizza with pepperoni, mushrooms, and sausage.

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“Plan a trip to go *hiking*, *camping*, and *fishing*.”

```
{
  "values": [
    {
      "type": "Simple",
      "value": "hiking",
      "resolutions": {}
    },
    {
      "type": "Simple",
      "value": "camping",
      "resolutions": {}
    },
    {
      "type": "Simple",
      "value": "fishing",
      "resolutions": {}
    }
  ]
}
```

Intents / PlanMyTripIntent / activity

Slot Type

ListOfActivities

Auto delegation is disabled for this intent (set in intent setting).

Multi-Value BETA

Can this slot contain multiple values?

Alexa Entities

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“Tell me more about Canada.”

```
{
  "request": {
    "type": "IntentRequest",
    ...
    "intent": {
      "name": "CountryIntent",
      "confirmationStatus": "NONE",
      "slots": {
        "country": {
          "name": "country",
          "value": "Canada",
          "resolutions": {
            "resolutionsPerAuthority": [
              {
                "authority": "AlexaEntities",
                "status": {
                  "code": "ER_SUCCESS_MATCH"
                },
                "values": [
                  {
                    "value": {
                      "name": "Canada",
                      "id": "https://ld.amazonalexa.com/entities/v1/KergWGkJmd9FT9YSvzn3AL"
                    }
                  }
                ]
              }
            ]
          },
          ...
        }
      }
    }
  }
}
```

```
{
  "request": {
    "type": "IntentRequest",
    ...
    "intent": {
      "name": "CountryIntent",
      "confirmationStatus": "NONE",
      "slots": {
        "country": {
          "name": "country",
          "value": "Canada",
          "resolutions": {
            "resolutionsPerAuthority": [
              {
                "authority": "AlexaEntities",
                "status": {
                  "code": "ER_SUCCESS_MATCH"
                },
                "values": [
                  {
                    "value": {
                      "name": "Canada",
                      "id": "https://ld.amazonalexa.com/entities/v1/KergWGkJmd9FT9YSvzn3AL"
                    }
                  }
                ]
              }
            ]
          },
          ...
        }
      }
    }
  }
}
```



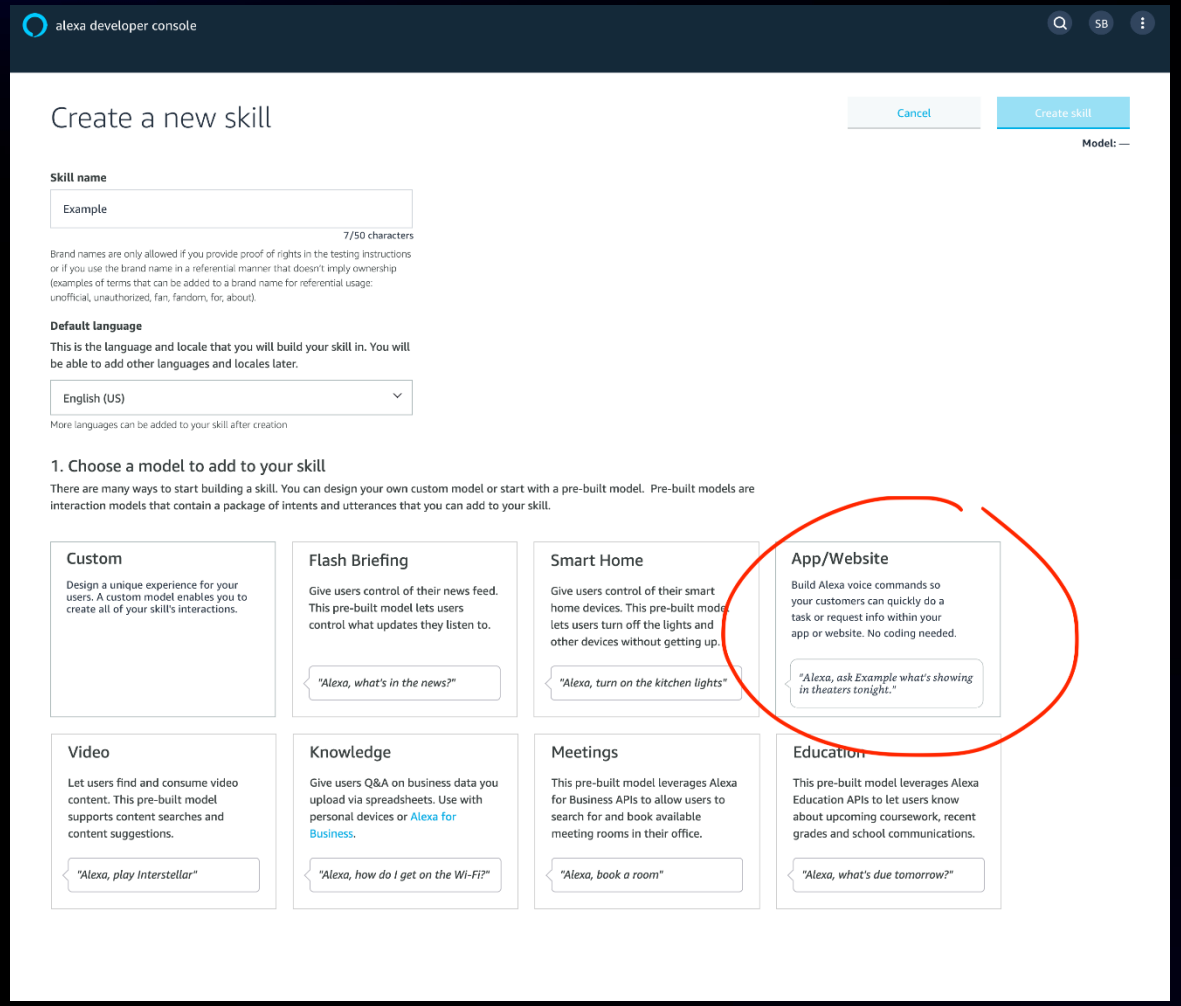

```
{
  "@context": {
    "@vocab": "https://schema.amazonalexa.com/core/1.0/",
    ...
    "xsd": "http://www.w3.org/2001/XMLSchema#"
  },
  "@id": "https://ld.amazonalexa.com/entities/v1/KergWGkJmd9FT9YSvzn3AL",
  "@type": [
    "Country"
  ],
  "borderingCountry": [
    {
      "@id": "https://ld.amazonalexa.com/entities/v1/AJGFaH8FpvdBHPuUlYi9rX",
      "@type": [
        "Country"
      ],
      "name": [
        {
          "@language": "en",
          "@value": "United States"
        }
      ]
    }
  ],
  "capital": [
    {
      "@id": "https://ld.amazonalexa.com/entities/v1/4UReWIgsWRxD1BJaIUA2Ad",
      "@type": [
        "City"
      ],
      "name": [
        {
          "@language": "en",
          "@value": "Ottawa"
        }
      ]
    }
  ],
  "currency": [
    {
      "@type": [
        "Currency"
      ],
      "name": [
        {
          "@value": "Ottawa"
        }
      ]
    }
  ],
  "currency": [
    {
      "@type": [
        "Currency"
      ],
      "name": [
        {
          "@language": "en",
          "@value": "Canadian dollar"
        }
      ]
    }
  ],
  "humanPopulation": [
    {
      "@type": "xsd:integer",
      "@value": "37700000"
    }
  ],
  "name": [
    {
      "@language": "en",
      "@value": "Canada"
    }
  ],
  "politicalLeader": [
    {
      "@id": "https://ld.amazonalexa.com/entities/v1/4v7JvEnQrCSDpwtl6qA05A",
      "@type": [
        "Person"
      ],
      "name": [
        {
          "@language": "en",
          "@value": "Justin Trudeau"
        }
      ]
    }
  ]
}
```

AMAZON.Person
AMAZON.Movie
AMAZON.Animal
AMAZON.City
AMAZON.Country
AMAZON.Book
AMAZON.Author
AMAZON.TVSeries
AMAZON.Actor
AMAZON.Director
AMAZON.Food
AMAZON.MusicGroup
AMAZON.Musician
AMAZON.MusicRecording
AMAZON.MusicAlbum

Alexa for Apps Shortcuts

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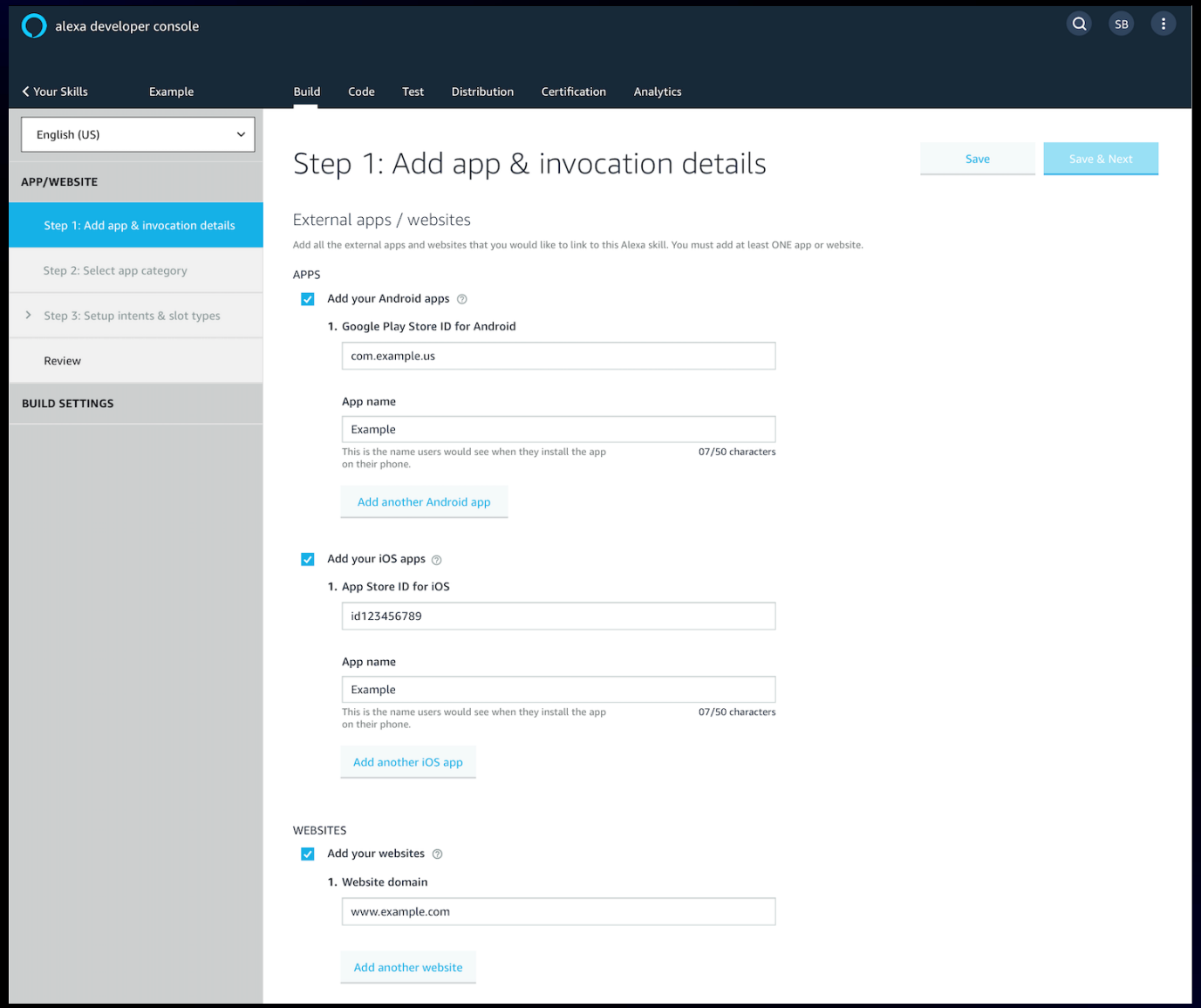
Create Alexa for Apps Shortcuts with no code



Build
Alexa mobile
voice commands
that deep-link
to your apps
and/or websites
in minutes

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Create Alexa for Apps Shortcuts with no code



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Apply for Shortcuts no-code builder

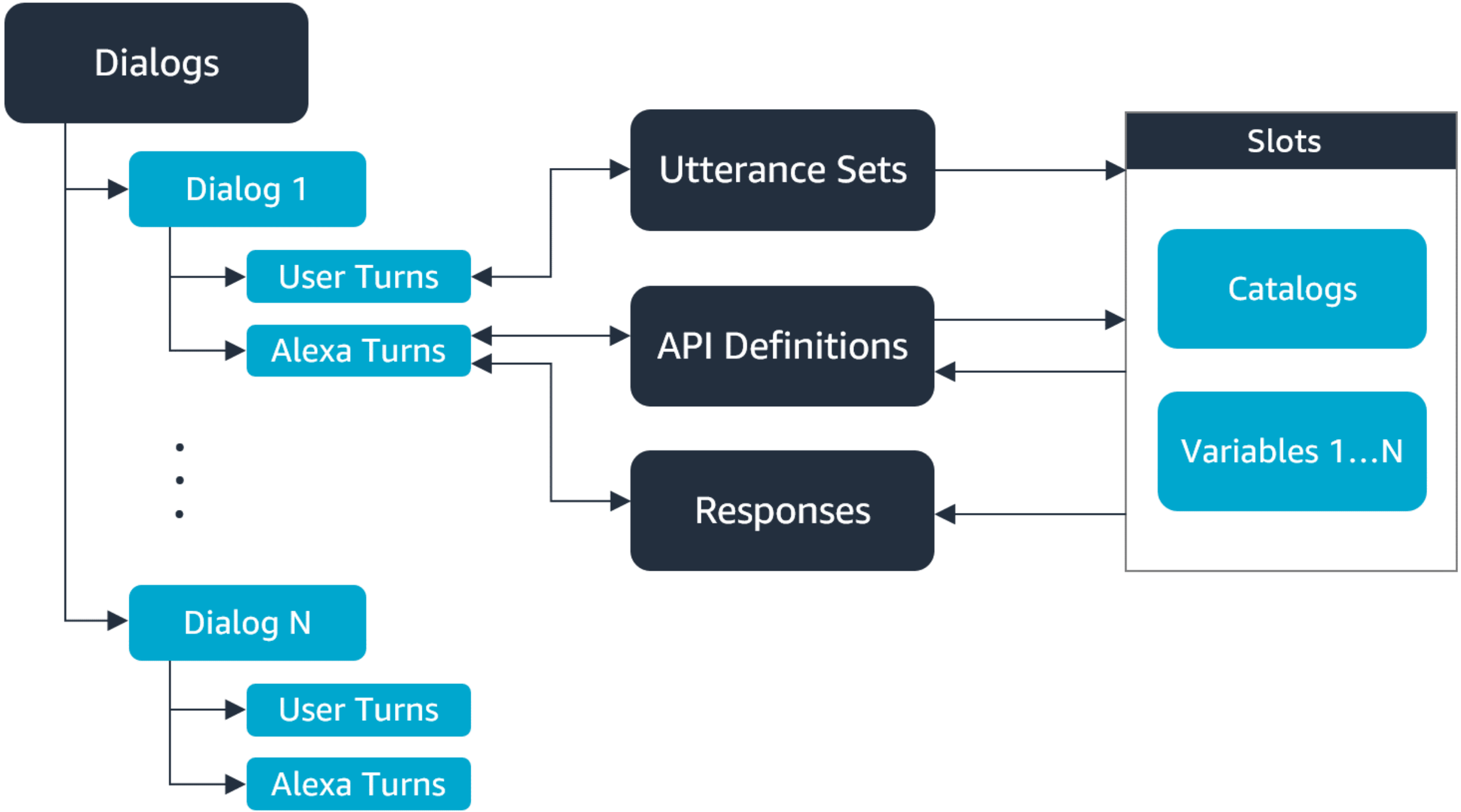
Available in preview in December 2021

https://alexa.design/alexa-for-apps

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Alexa Conversations

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Dialogs
Dialog 1
User Turns
Alexa Turns
Dialog N
User Turns
Alexa Turns
Utterance Sets
API Definitions
Responses
Slots
Catalogs
Variables 1…N

Motion API

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In-Skill Purchasing in India and Canada

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Paid Skills

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User: Alexa, open Quick Trivia.

Quick Trivia: Welcome to Quick Trivia! This fun-filled game offers 10 trivia categories. You can choose between easy, medium, and hard questions. Want to learn more?

User: Yes

Alexa: Quick Trivia is a challenging trivia game for all levels. It costs one dollar and ninety-nine cents plus tax. Would you like to buy it?

User: Yes

Alexa: Great! I emailed the receipt to you.

Quick Trivia: Bring on the trivia! Choose the category you want to play. You can say a category or select a category on the screen.



Thank you!

Jeff Blankenburg

@jeffblankenburg



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