



Generative AI & Innovation with AWS

Sebastian Eckler

Head of Enterprise &
Deputy Country Manager AWS Austria

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Question: What is generative AI?

- Creates new content and ideas, including conversations, stories, images, videos, and music
- Powered by large models that are pretrained on vast corpora of data and commonly referred to as foundation models (FMs)

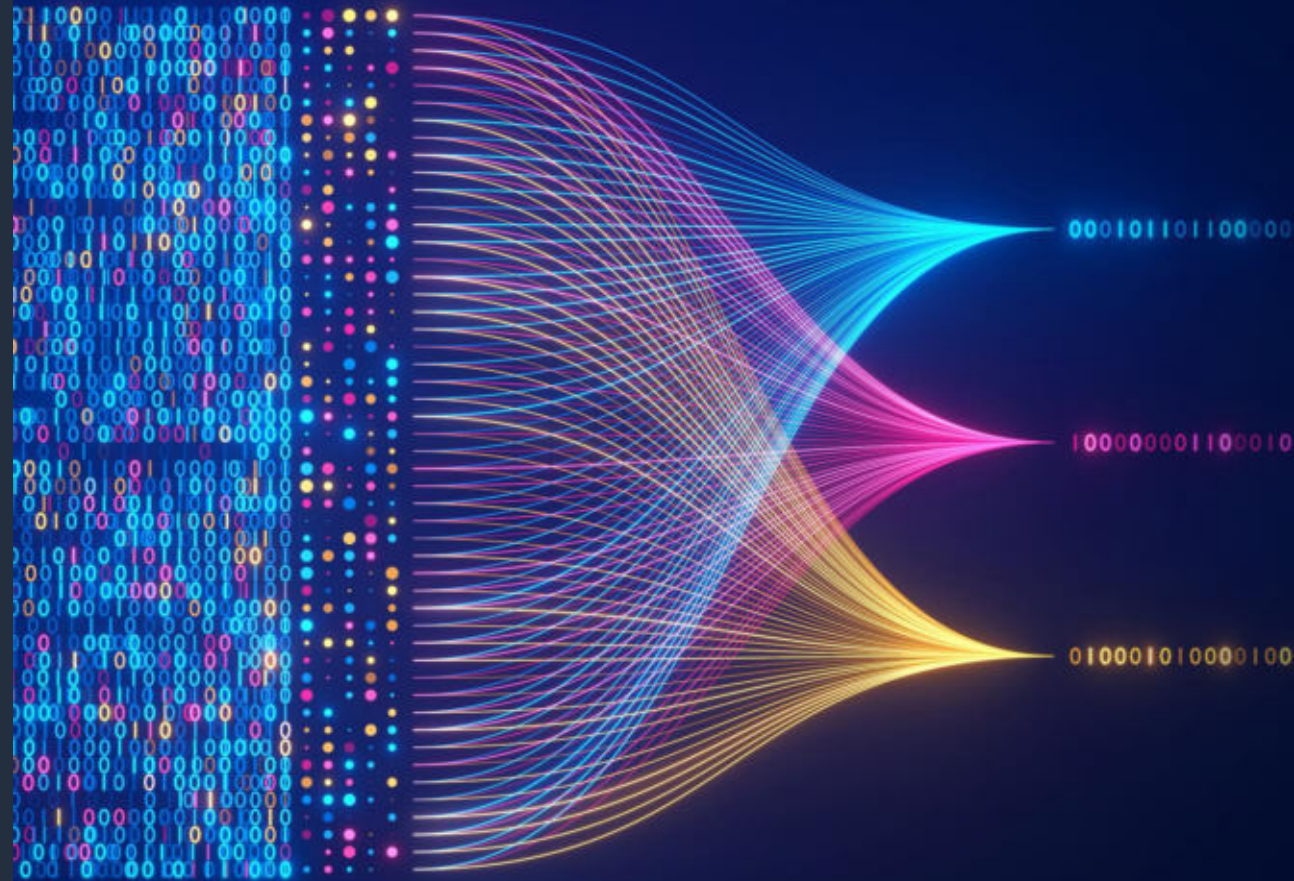
Generative AI is powered by foundation models

Pretrained on vast amounts of unstructured data

Contain large number of parameters that make them capable of learning complex concepts

Can be applied in a wide range of contexts

Customize FMs using your data for domain specific tasks



Generative AI can be used for a wide range of use cases

Chatbots &
Virtual assistants

Agent Assist

Contact Center
Analytics

Personalization

Conversational search

Content Localization

Text, image,
video generation

Text summarization

Code generation

Document processing

Content moderation

Synthetic data creation

Maintenance assistance

Anomaly detection

Image generation
for web pages

Video enhancement

Music creation

Image enhancement

Creating animations

**Enhance
customer
experience**

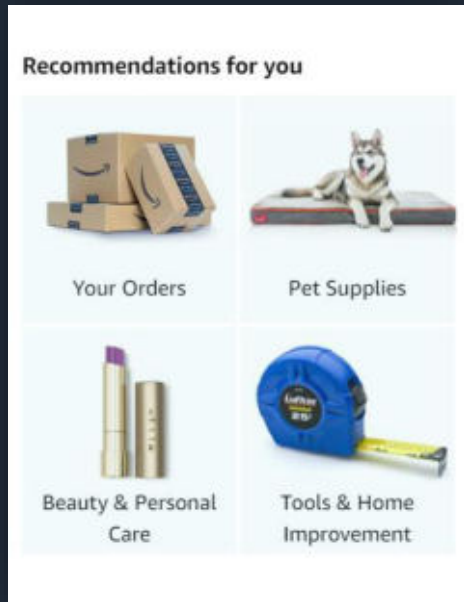
**Boost
employee
productivity**

**Improve
business
operations**

Creativity



ML innovation is in the Amazon DNA



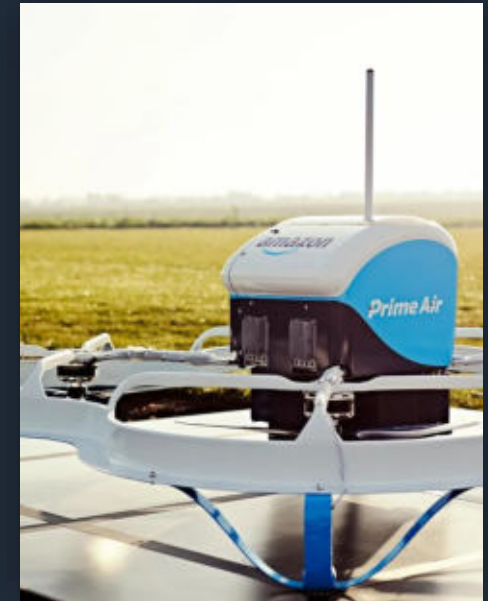
**4,000 products
per minute** sold
on Amazon.com



1.6M packages
every day



Billions of Alexa
interactions each week



First Prime Air delivery
on **December 7, 2016**

Innovate faster with the most comprehensive set of AI/ML services

AI powered use cases

Hundreds of pre-built algorithms, models, and solutions for common use cases and industries
Faster time to value with 23 pre-trained AI Services

Democratize access to ML

Empower any business analyst to make predictions without writing code with Amazon SageMaker AI Services to easily add AI capabilities to your applications, no ML skills required

Scale ML

Build, train, and deploy ML models for any use case with Amazon SageMaker
Harness the exponential growth of ML models with foundation models on AWS

Grow ML skills

Learn more with AWS Training, AWS DeepRacer, AI & ML Scholarship Program, and AWS Machine Learning University
Accelerate your journey with AWS ML Embark Program or Amazon ML Solutions Lab

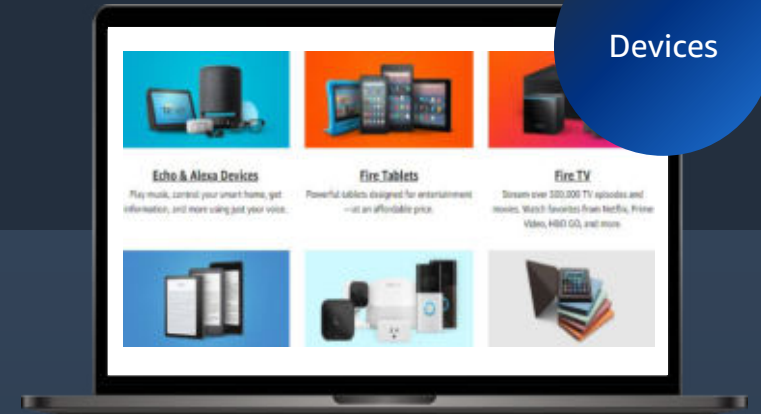
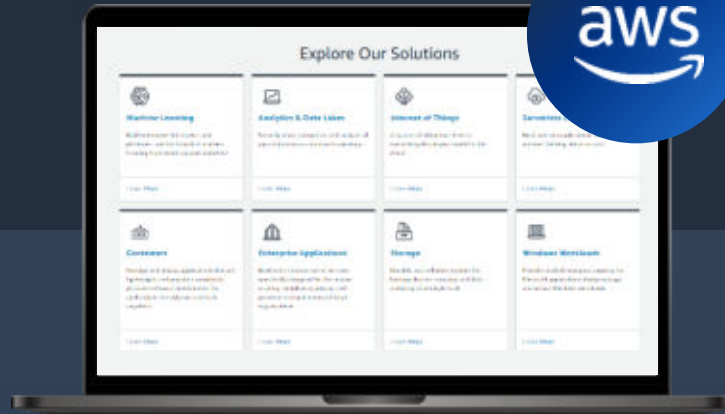




Working backwards with AWS



E-commerce



Devices



Streaming
Content



Consumables



Physical
Retail



Where innovation begins:

start with the
customer and work
backwards



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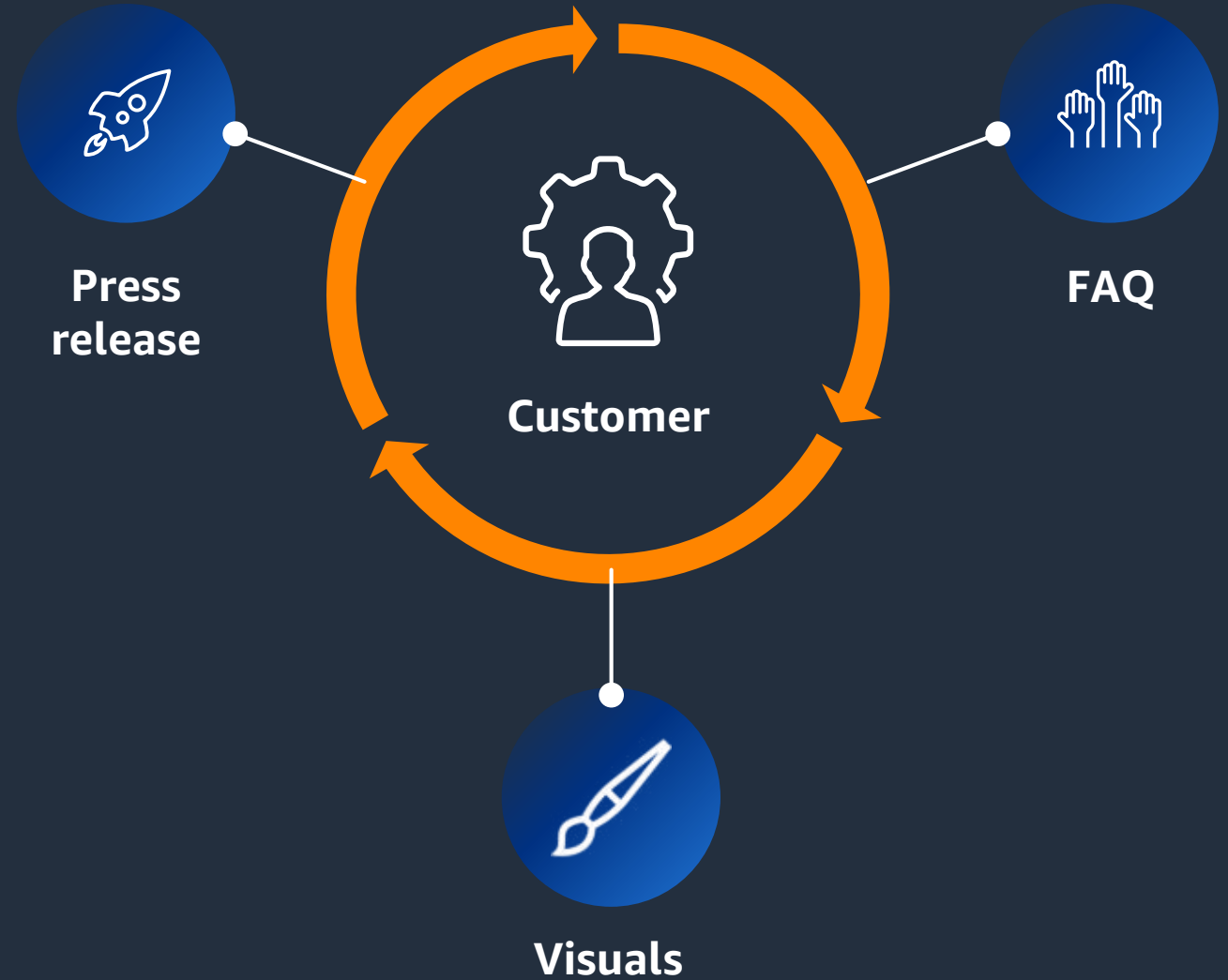


“There are many advantages to a customer-centric approach, but here’s the big one: **Customers are always beautifully, wonderfully dissatisfied**, even when they report being happy and business is great. Even when they don’t yet know it, customers want something better, and your desire to delight customers will drive you to invent on their behalf.”

- Jeff Bezos, Founder and Executive Chair, Amazon.com, Inc.
- 2016 letter to shareholders

Working backwards: A mechanism for innovation

Use it to get clarity, not to document
what you've already decided to do





5 Customer Questions

Who is the customer, and what insights do we have about them?

What is the prevailing customer problem or opportunity?

What is the solution and the most important customer benefit?

How do we describe the solution and experience to customers?

How do we test the solution with customers and measure success?

Working Backwards artifacts



Press Release

AWS Announces General Availability of Amazon Location Service

New service makes it easier for customers to add location functionality to their applications without compromising on privacy or security at as low as 1/10th the cost of the most common location-based service (LBS) provider

SEATTLE—(BUSINESS WIRE)—Jun. 1, 2021— Today, Amazon Web Services, Inc. (AWS), an [Amazon.com](#) company (NASDAQ: AMZN), announced the general availability of Amazon Location Service, a new service that makes it easier and more cost-effective for customers to add location functionality to their applications without compromising on user privacy or data security. With Amazon Location Service, customers can embed location functionality in their applications using data from location-based service (LBS) providers Esri and HERE Technologies to provide maps, points of interest, geocoding (converting location information to a point on a map), route planning, geofencing (creating virtual perimeters), or asset tracking. Amazon Location Service is as low as 1/10th the cost of the most common LBS providers, and customers pay only for the number of user requests, assets tracked, or devices managed. To get started, visit: <https://aws.amazon.com/location/>

Location data is vital for companies of all sizes and across every industry to support a range of use cases (e.g. asset tracking, route planning, and location-based marketing experiences) that rely on the explosion of connected devices in the world today. However, due to privacy and security compromises, cost-prohibitive pricing, and a difficult integration process, many companies face significant barriers when integrating location functionality into their applications. For example, some LBS providers impose licensing terms that give the LBS provider the rights to access, use, and commercialize a customer's location data (e.g. the position of users, facilities, or vehicles). Additionally, the pricing from LBS providers often makes it too expensive for customers to use location functionality in all of the ways a customer may want to use it. Even when the licensing terms and price are less prohibitive, onboarding an LBS provider requires customers to invest significant resources integrating data and building supporting tools before using the provider's location data in an application. For more advanced use cases like asset tracking or geofencing, a customer may need to build the solution from scratch, which can add months of development time. Furthermore, some customers may want to use an



FAQs

FAQ – Customer

1. What is Amazon Location Service?

Amazon Location Service is a fully managed service that makes it easy for developers to add location functionality, such as maps, points of interest, geocoding, routing, tracking, and geofencing to their applications, without sacrificing data security, user privacy, data quality, or cost.

2. Why should I use location data in my applications?

Location functionality is increasingly used in business and consumer applications. You can use location services to solve problems such as displaying data on top of a map to provide geographic context, determining travel time and distance, looking up points of interest, and constraining actions to specific locations. The use of location functionality enables capabilities such as map-based visualizations, asset tracking, location-based customer engagement, and delivery or ride-sharing applications. Visit the [Amazon Location Services Customers](#) page for real world examples.

3. What can I do with Amazon Location Service?

With Amazon Location Service, you have access to cost-effective location-based services (LBS) using high-quality data from global, trusted providers Esri and HERE, and you can easily integrate maps, points of interest, geocoding, routing, tracking, and geofencing in to your applications. Amazon Location Service enables you to bring sophisticated location-enabled applications to production quickly, without the high cost of custom development. Its affordable data, including tracking and geofencing capabilities, and built-in metrics for health monitoring reduce your costs and development time. Additionally, Amazon Location Service integrates with several AWS services to further speed application development. For more information on AWS integrations see Q: How does Amazon Location Service integrate with other AWS services? Also, visit the features page to learn more about each of the [Amazon Location Service Features](#).

4. Where is Amazon Location Service available?

Amazon Location Service is available today in US East (N. Virginia), US East (Ohio), US West (Oregon), Europe (Frankfurt), Europe (Ireland), Europe (Stockholm), Asia Pacific (Singapore), Asia Pacific (Sydney) Region, and Asia Pacific (Tokyo) regions. Amazon Location Service provides global location data from multiple data providers.

Please click our [data providers](#) page to learn more.



Visuals





diaper sizing. By signing up for a single subscription, Amazon Family customers will have the peace of mind of knowing that Amazon will send them the right sized diaper at the right time.

Custom Benefit?

~~Babies need an average of about 3,800 disposable diapers across seven sizes in three years, and remain in a size anywhere between a few weeks to several months. A baby might need just one box of size 1 diapers but need as many as eight boxes of size 4 diapers. To complicate matters, weight – and not age – is the best predictor of a baby's diaper size.~~

With Amazon's Subscribe & Save program, customers previously created diaper subscriptions in a specific size which was replenished until the customer decided it was time to move up a size. This meant that parents needed to anticipate the change in diaper size and either cancel their existing subscription to create a new one, or go to the Manage Your Subscriptions page to update the existing diaper subscription with the new size. This caused endless frustration for parents, added to the stress of having a new baby, and the experience ran counter to the concept of a subscription that should run smoothly with minimal touch points.

Not a good name for this

With the introduction of the new auto-sizing feature, customers who subscribe to diapers will be asked to provide their child's weight, in addition to the existing child info. They will then be able to set up a single subscription that will take them through the various sizes at the right time. Customers will be notified before the next box of diapers is due to ship that it has automatically sized up – if it's too soon, there will be a simple one-click process to keep the current size.

Would a customer really say this?

"I love using Subscribe & Save. But for my older child, I have had to return boxes that were one size too small, which actually increased my work load," says Mara Steiner, who has used Subscribe & Save for her baby needs for several years. "As I expect my second child, I am very excited at the thought of having the right size diapers show up at my door each month. New parents have enough to do without having to keep calculating which size of diapers they should be buying for their baby."

~~"We want parents to always have the right sized diaper for their child at the right time," said Greg, director of Subscribe & Save. "This single subscription experience for diapers will ensure that customers can depend upon Subscribe & Save to do the work for them, and never have to worry about changing size as their children grow."~~

Amazon's Subscribe & Save ships thousands of items to their customers on a regular basis with additional discounts. With the diaper subscription service, the program has simplified the experience for new parents.

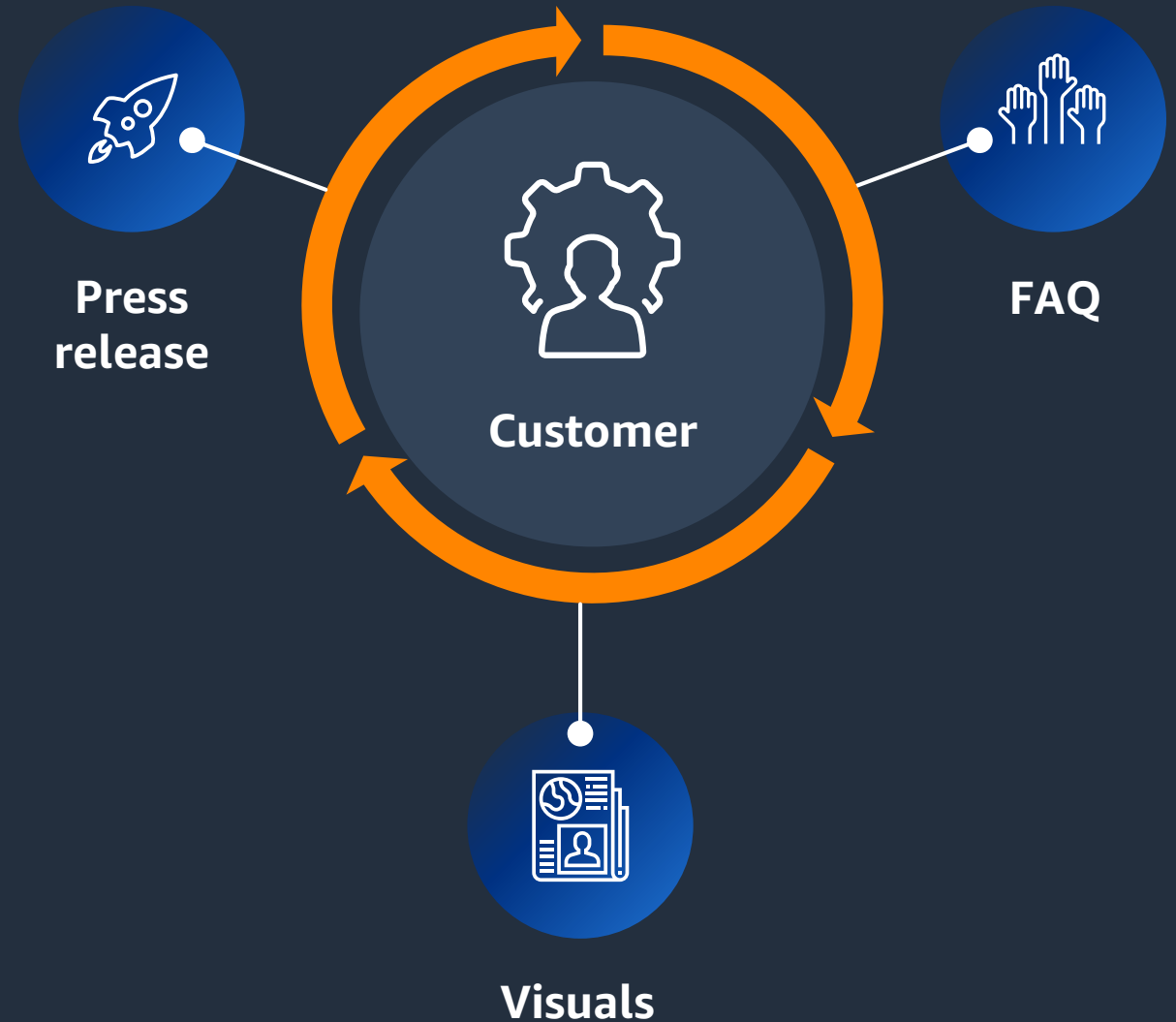
To learn more about Subscribe & Save's diaper subscriptions auto-sizing, go to www.amazon.com/diaper-subscription

What about mobile?



Working Backwards engagement

1. Engage with the AWS Digital Innovation team to explore and align on your specific end-customer problem or opportunity
2. Define a new product, service, or experience; starting with the customer and working backwards
3. Build a prototype in the cloud to bring your solution to life, and test it with customers





Thank you!