AWS re:Invent

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CMP309

Building ultra-low latency applications at the edge

Saravanan Shanmugam
Sr. Solutions Architect
Amazon Web Services

Chris McEvilly
Sr. Solutions Architect
Amazon Web Services

aws

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Agenda

AWS global Infrastructure

Services at the various AWS edge infrastructure

Packet routing to AWS public edge infrastructure

Why and where: Wavelength and Local Zones

Architecting ultra-low latency application for AWS edge

Lab workshop

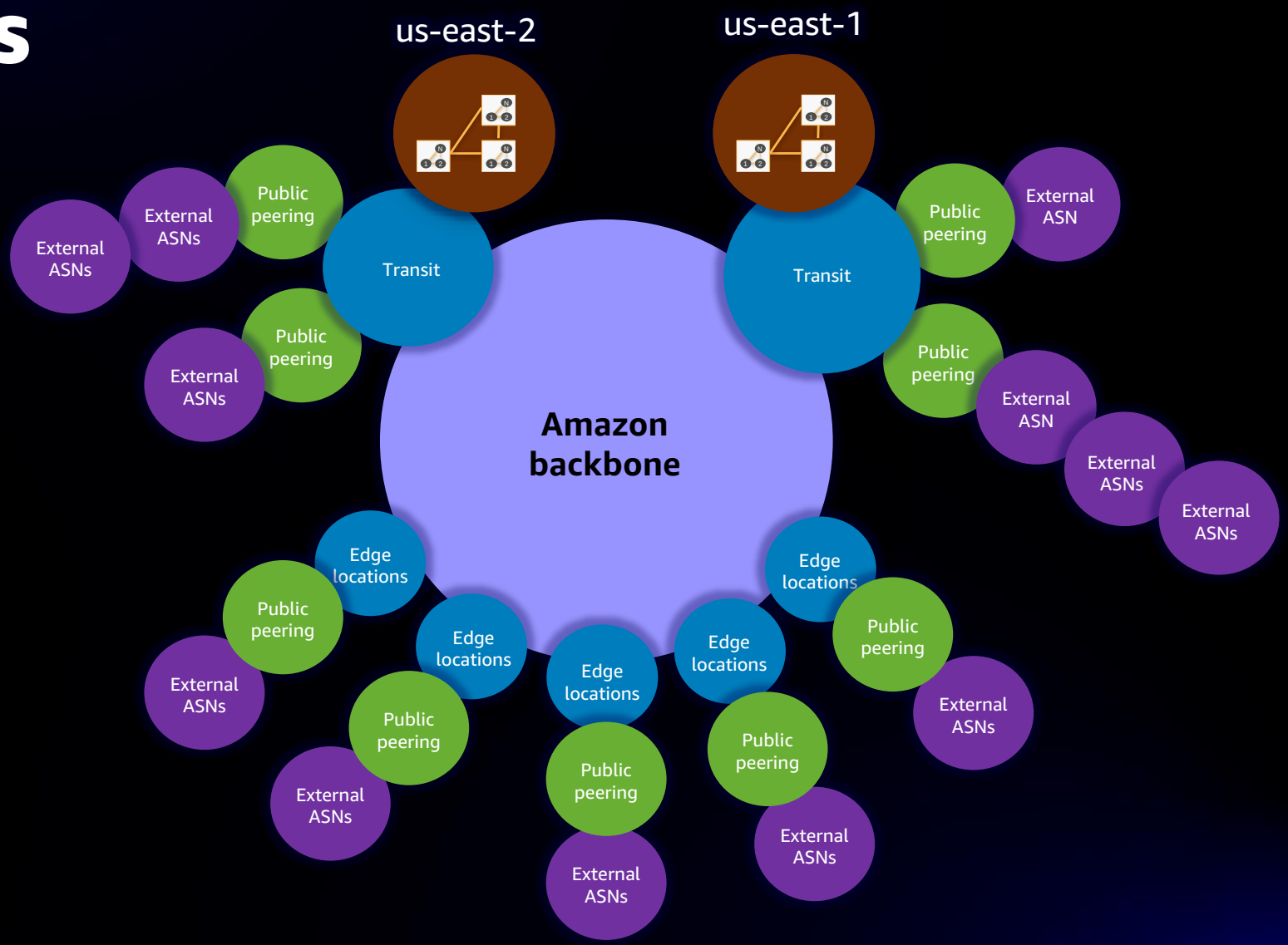
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AWS global infrastructure:

The infrastructure that powers them all

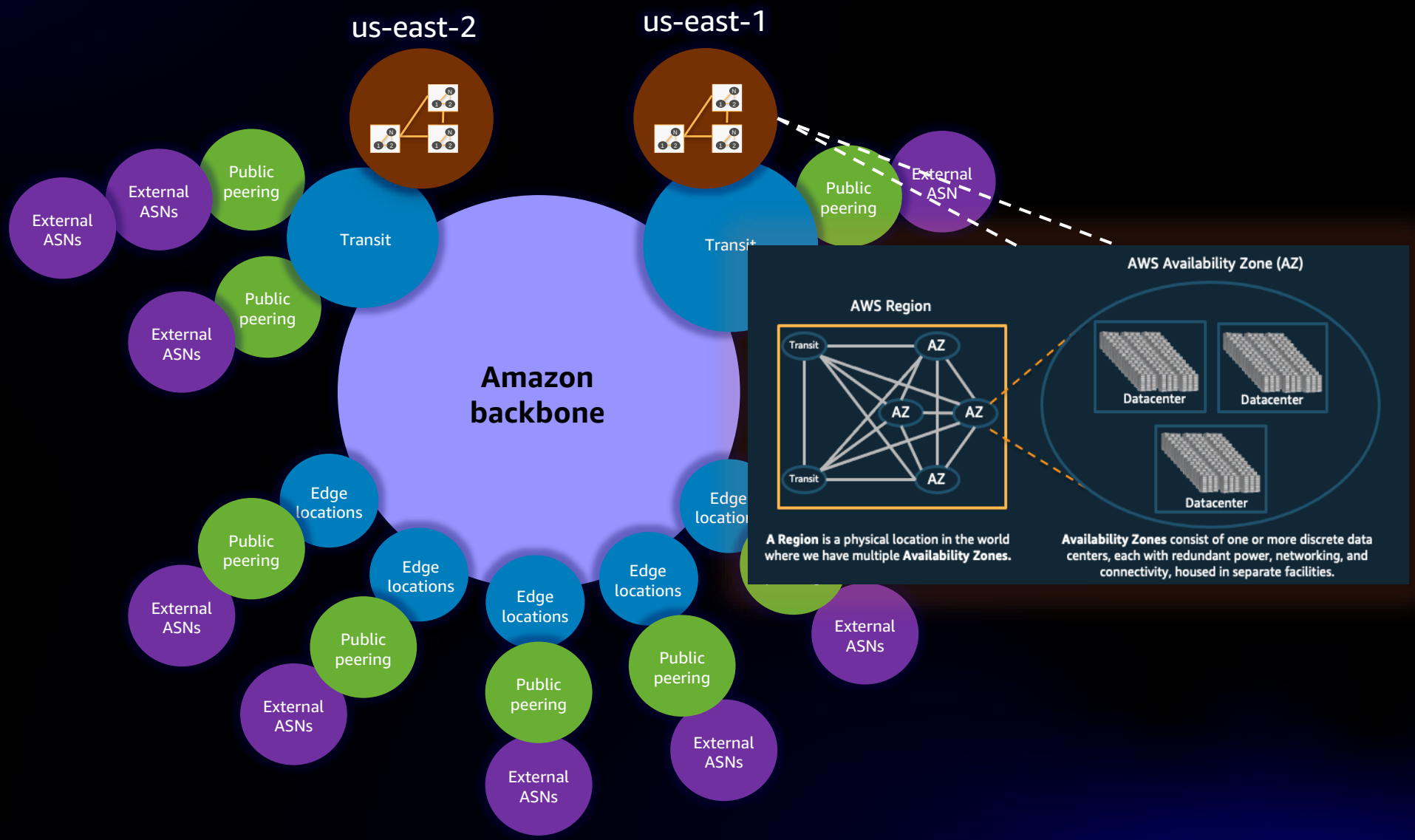
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Regions, Availability Zones, and edge locations



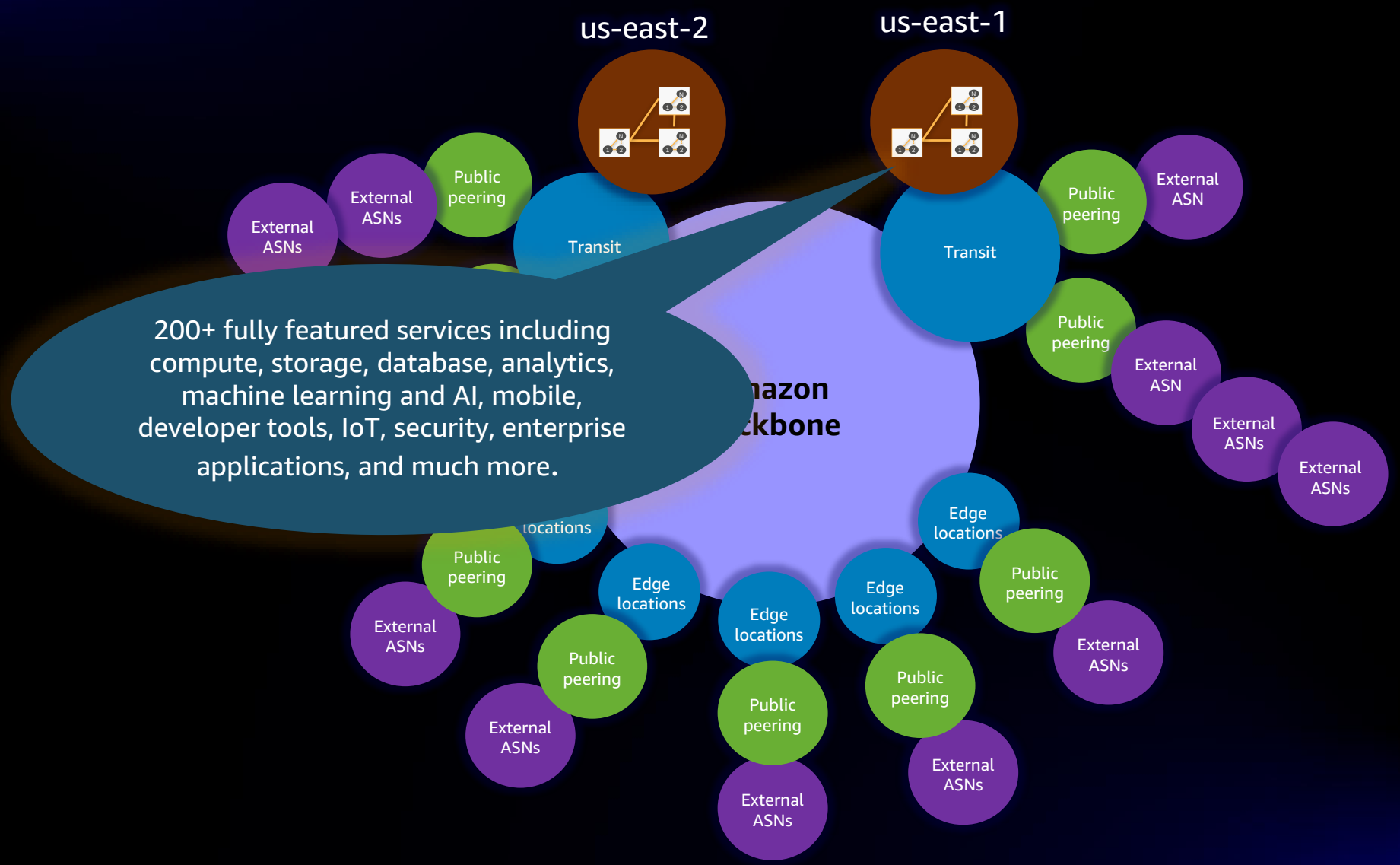
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What's inside a Region?



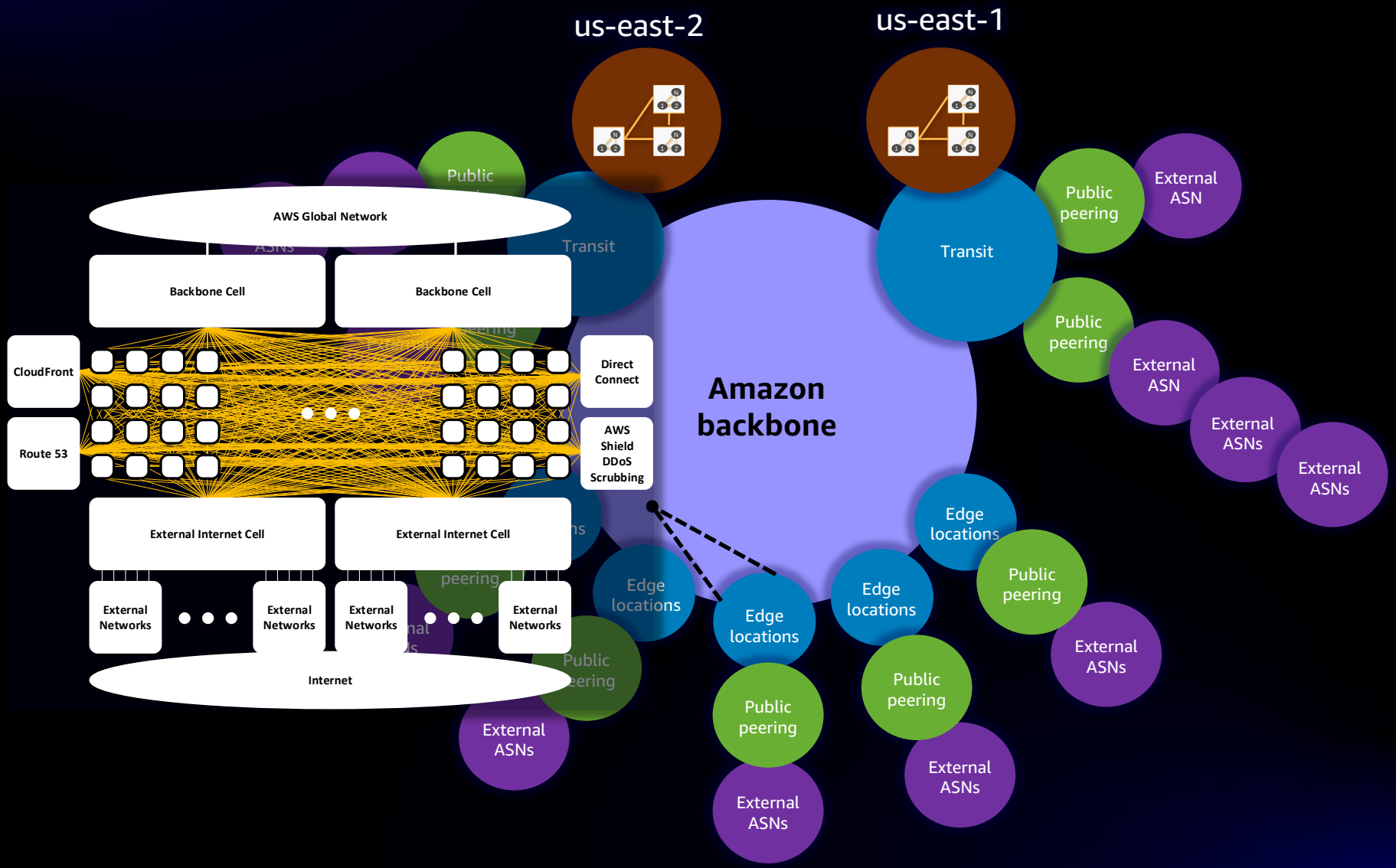
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Services in a Region



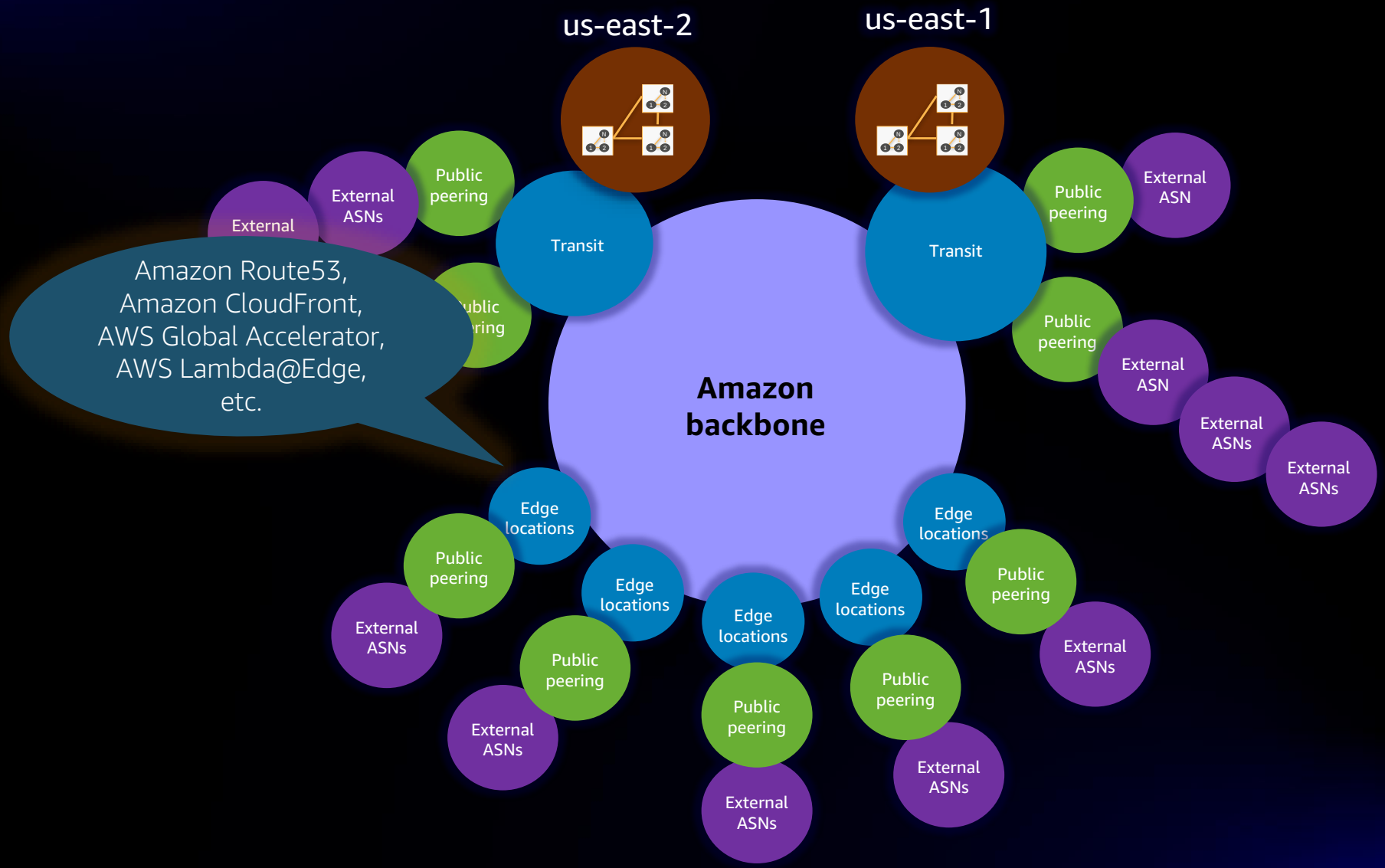
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What's inside an edge location?



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Services in edge locations



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AWS Cloud continuum

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Cloud continuum

DELIVER CLOUD WHERE CUSTOMERS NEED IT

AWS Regions



On premises

Metro centers

5G ASN

IoT

Rugged edge

For most use cases

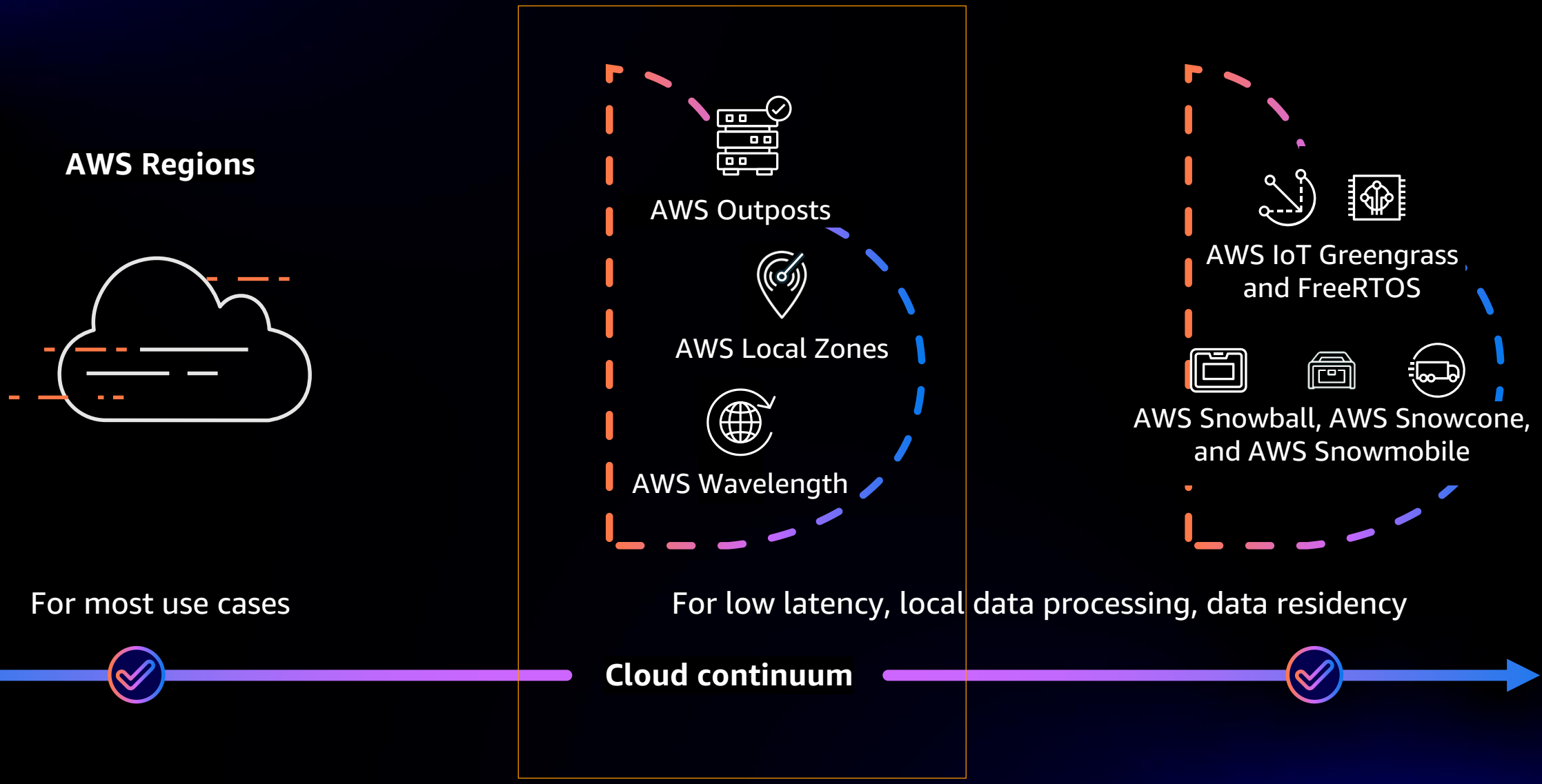
For low latency, local data processing, data residency

Cloud continuum

aws

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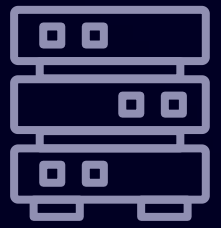
Bringing the cloud to where our customers need it



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Extending the cloud for a truly consistent hybrid experience

AWS OUTPOSTS



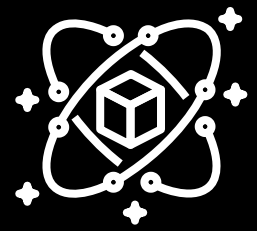
Fully managed AWS infrastructure delivered to virtually any customer data center or on-premises location

AWS LOCAL ZONES



Places compute, store, database, and select AWS services closer to where your end users are located

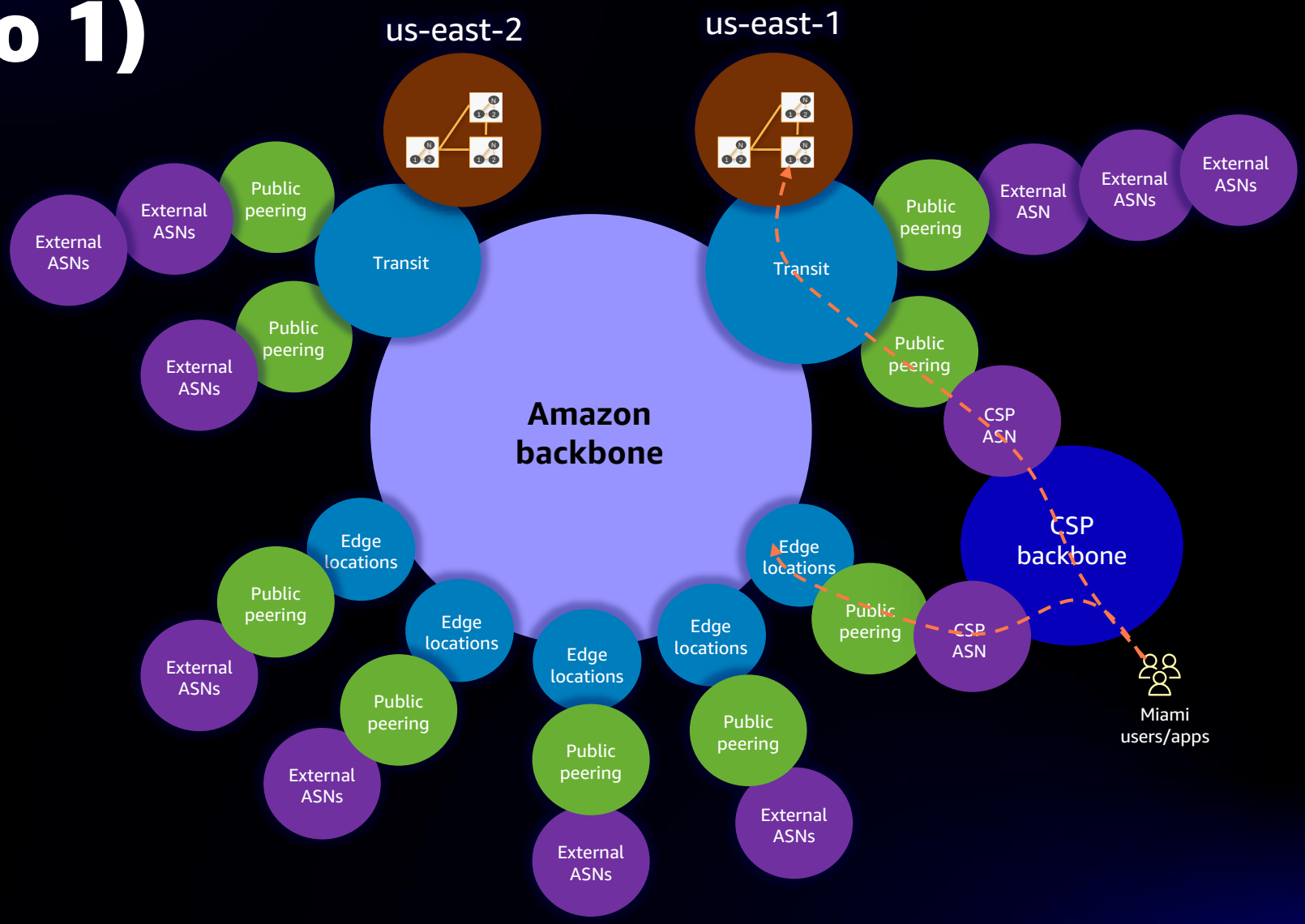
AWS WAVELENGTH



Embedded in 5G ASN to extend AWS infrastructure, services, APIs, and tools

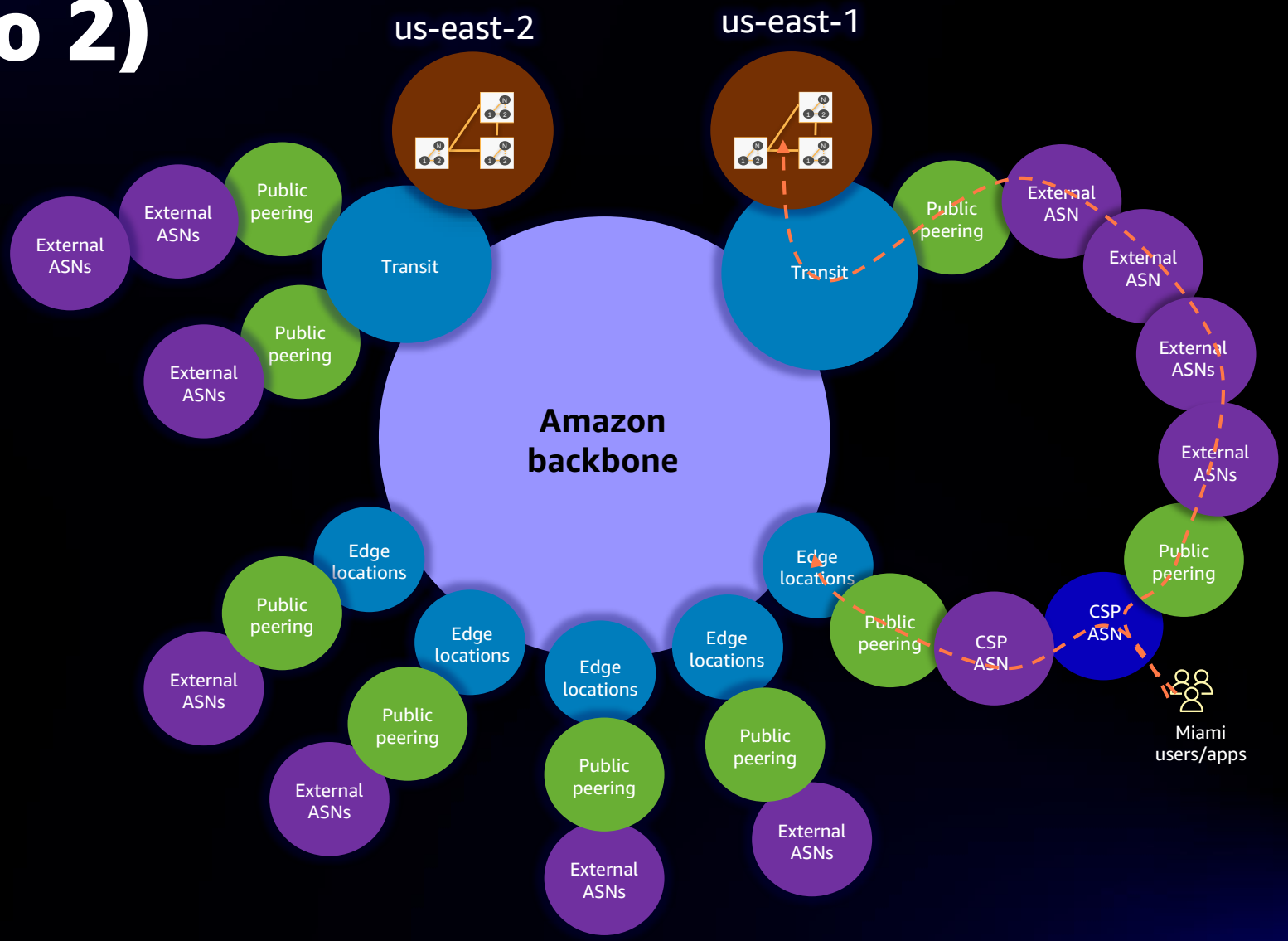
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Routing to the AWS infrastructure (Scenario 1)



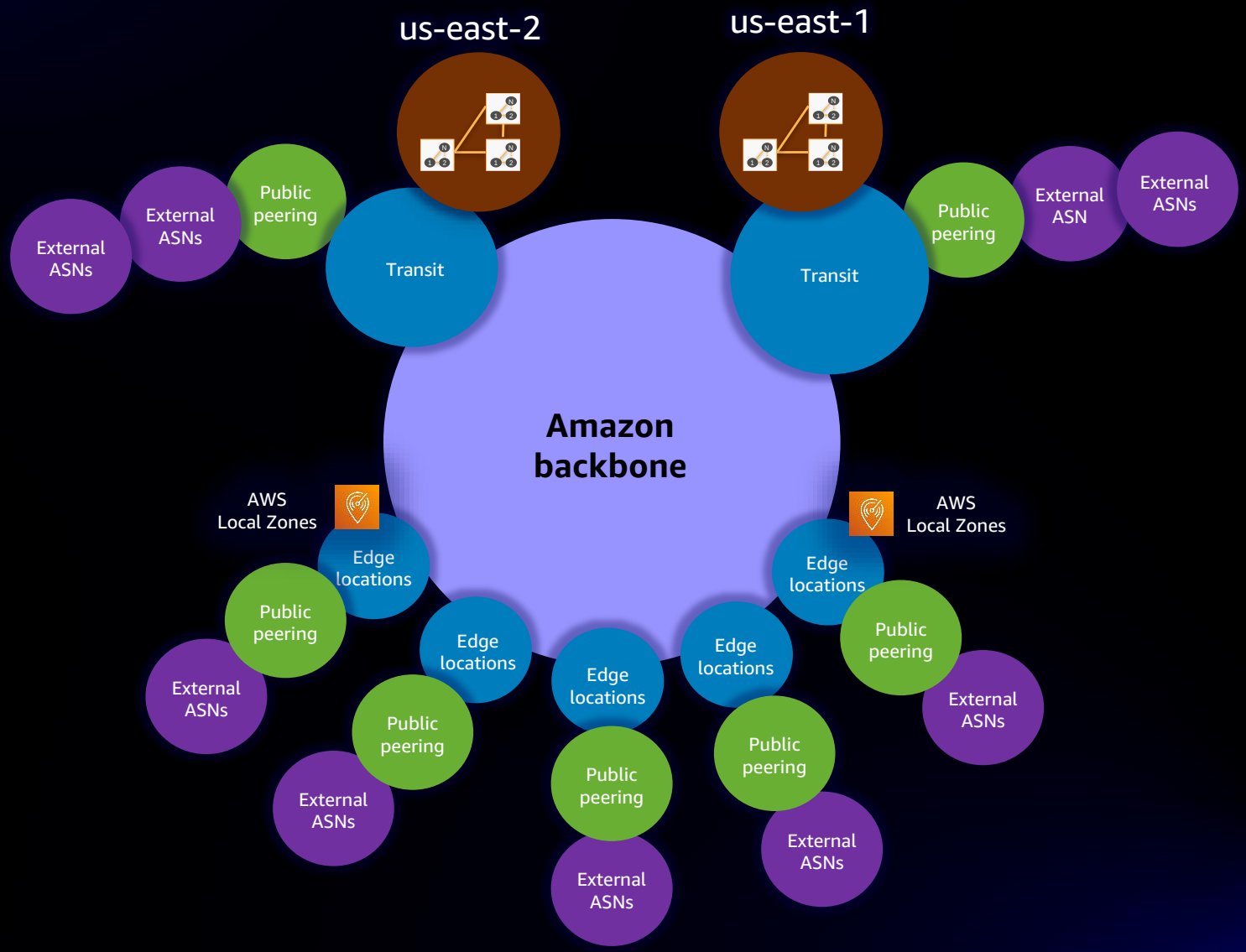
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Routing to the AWS infrastructure (Scenario 2)



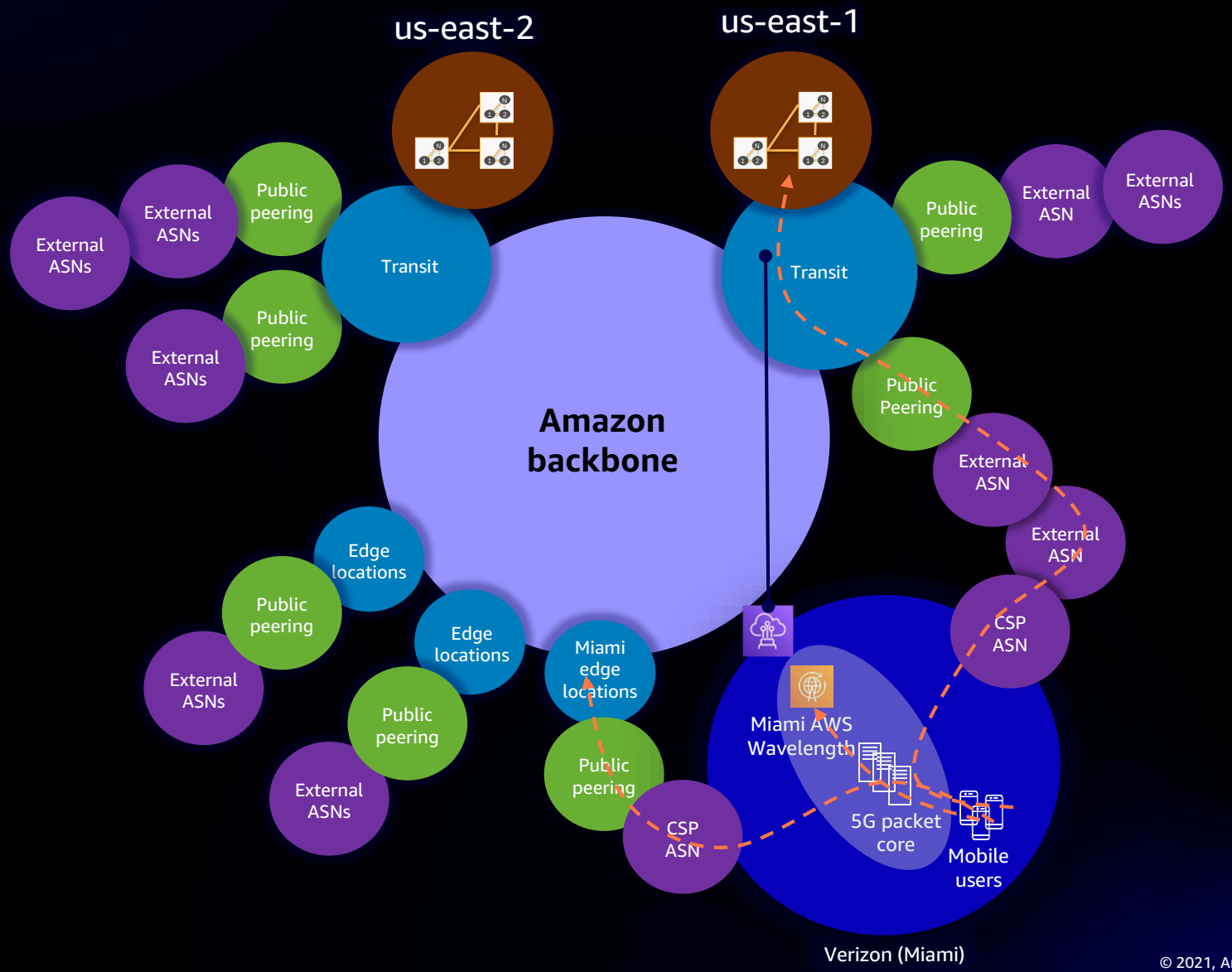
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Where and why: AWS Local Zones



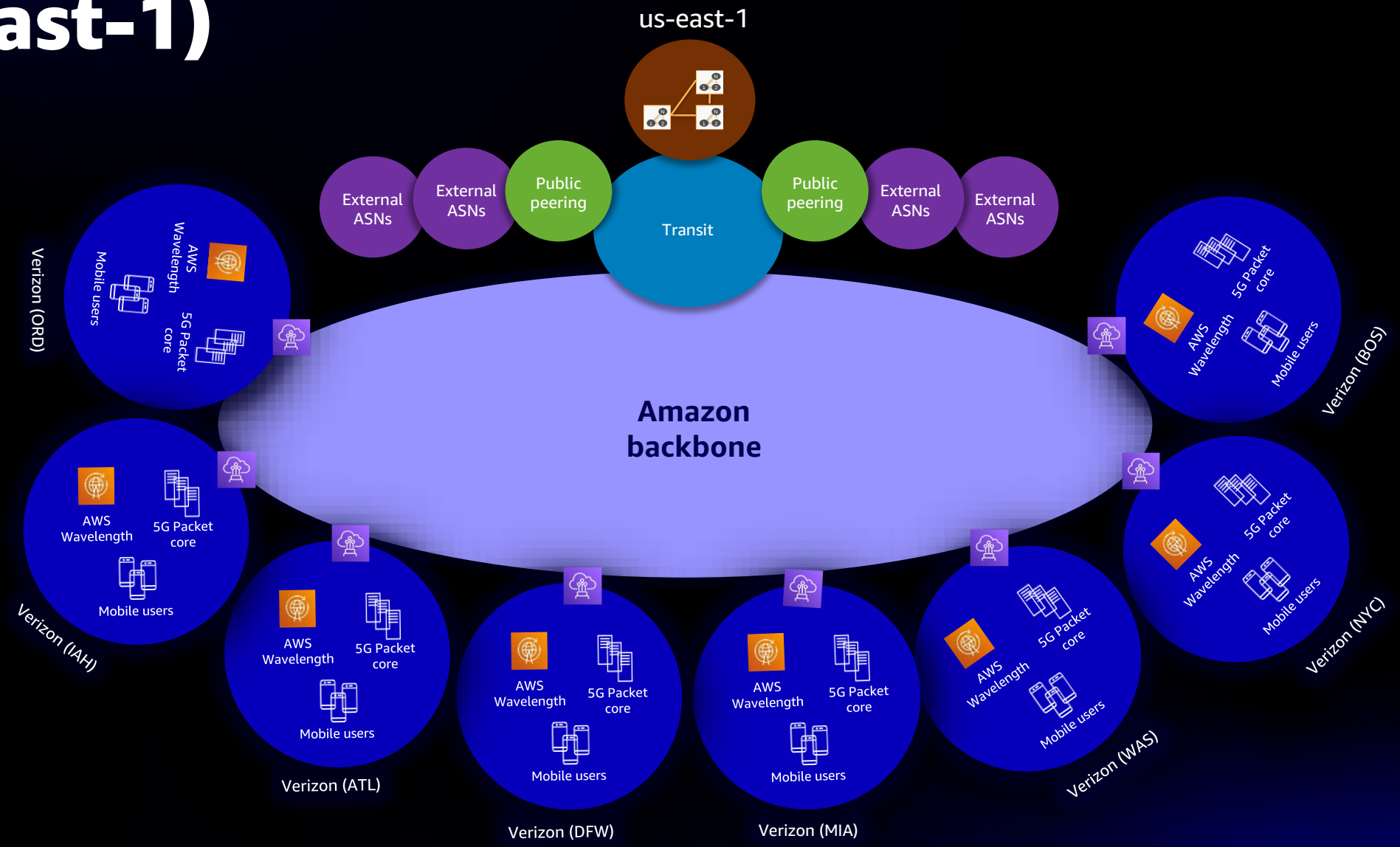
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Where and why: AWS Wavelength Zones



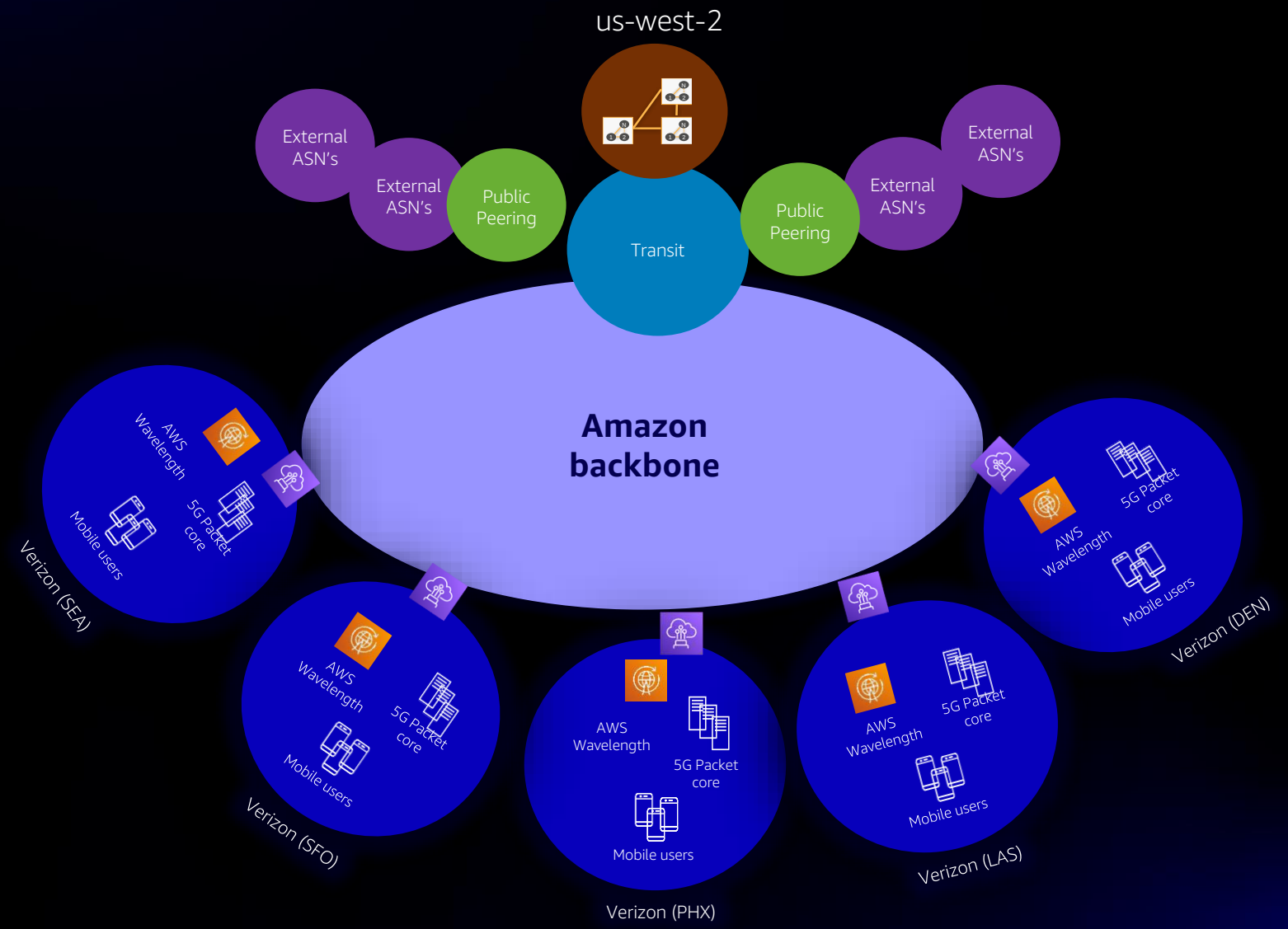
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AWS Wavelength Zone locations (us-east-1)



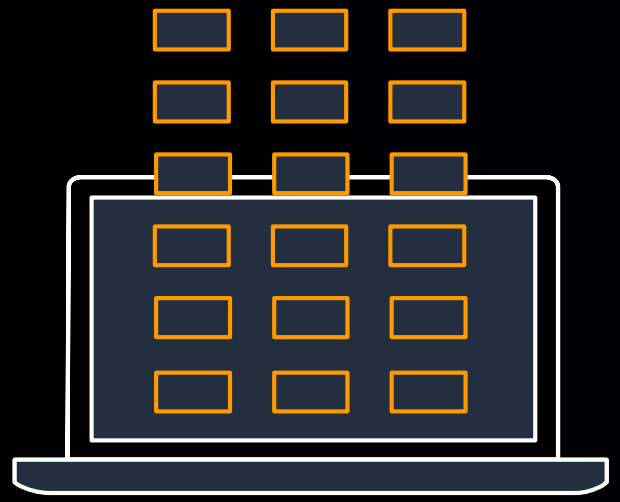
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AWS Wavelength Zone locations (us-west-2)



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Use familiar AWS services





EC2 computes, which provides the building blocks for deploying any applications



Amazon EKS with node groups for running container workloads



EBS Storage Volumes for applications storage requirements



Amazon ECS for running container instances powering container apps

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Accelerating innovation with AWS Wavelength

Growing library of developer tools and infrastructure

NETFOUNDRY

Zero Trust Networking

vmware

SDWAN

RAFAY

Managed K8s operations

CONFLUENT

Application acceleration

zscaler

Private access ZPA

Ant Media

WebRTC streaming

APN solutions made possible with AWS Wavelength

mawari

AR Concierge/Docent experiences

NET4

Reinventing logistics with video analytics

broadpeak

Video delivery over 5G

tcs | TATA CONSULTANCY SERVICES

Intelligent, real-time quality inspections

SPORTABLE

AR & IoT for Sports

Multicasting
Video streaming for live events

aws

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Lab Guide

https://tinyurl.com/2p8ebfe2

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Labs

Core infrastructure

Real-time streaming from the edge

Inferencing from the edge

IoT at edge and AWS Cloud integration

Extending Amazon EKS cluster to the edge

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Verizon wireless network access

SSID : reinvent-cmp309-01
Password: wavelength!23

SSID : reinvent-cmp309-02
Password: wavelength!23

SSID : reinvent-cmp309-03
Password: wavelength!23

SSID : reinvent-cmp309-05
Password: wavelength!23

SSID : reinvent-cmp309-07
Password: wavelength!23

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Thank you!

Saravanan Shanmugam
@shsarava

Chris McEvilly
@mcevillc

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