

The background features a dark blue gradient with large, overlapping, semi-transparent shapes in shades of purple and magenta. Two thin, light blue lines intersect to form a large 'A' shape on the right side of the image.

AWS re:Invent

DECEMBER 2 - 6, 2024 | LAS VEGAS, NV

MFG310

Deploying an MES in the cloud and at the edge on AWS Outposts

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Agenda

- 01 MES deployment evolution
- 02 MES in AWS Region: Example of Siemens Opcenter
- 03 Siemens Opcenter on AWS Outposts: Discussion and demo
- 04 Deep dives: High availability, disaster recovery, scalability
- 05 How to get started

Introduction



Emad Mankbadi

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Principal Solutions Architect
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The background features a vibrant, futuristic cityscape at night, with numerous illuminated skyscrapers and a glowing blue and purple color palette. Overlaid on this is a digital world map composed of a grid of points and lines, representing a global network. Several 3D models of shipping containers are positioned across the map, suggesting international trade and logistics. The overall aesthetic is high-tech and digital.

**10,000,000
factories**



82%

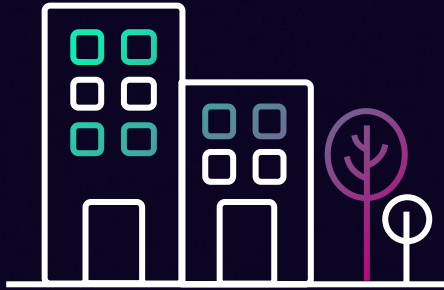
adopting manufacturing execution system (MES)



**What are your
requirements to MES?**

Manufacturing execution system (MES) evolution

SHIFT TOWARD MORE FLEXIBILITY, SCALABILITY, AND ADAPTABILITY



On premises

- Large-scale implementations
- Full scope
- Hardware requirements



On cloud

- Flexible sizing
- Modularity
- SaaS or self-managed

AWS Regions



On edge/ hybrid cloud

- Bringing AWS experience on premises

AWS Outposts

MES in the cloud delivers immediate benefits

Optimized TCO

Up to 50% reduction

Faster time to productive use

From months to days

Streamlined operations

Agile and secure

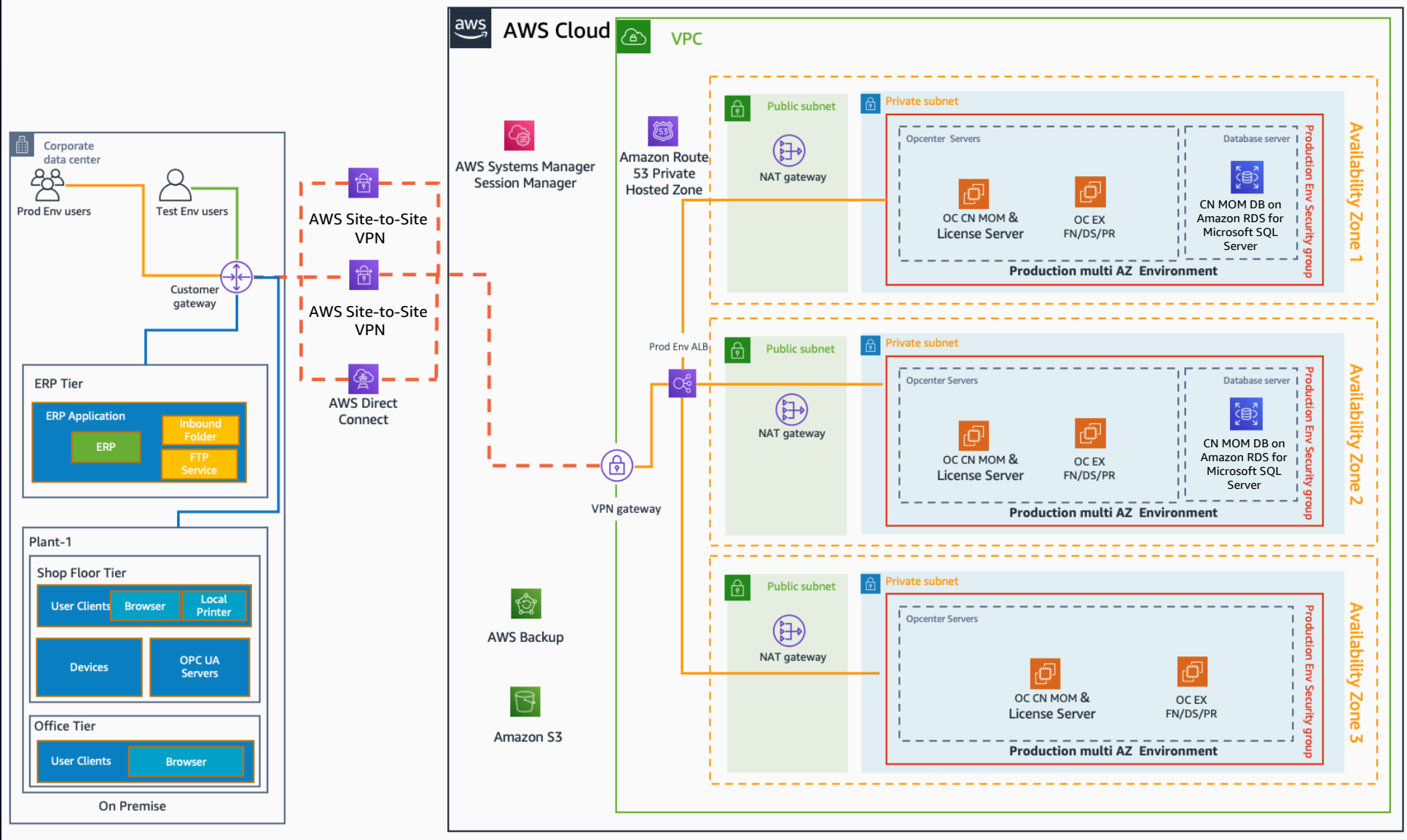
Data-driven innovations

Global transparency and actionable insights

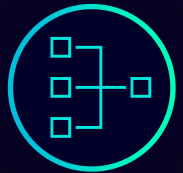


MES in AWS Region: Example of Siemens Opcenter

Siemens Opcenter Execution foundation on AWS



Running MES in the cloud: Key points to consider



Latency sensitivity



Security & data residency



Two solutions, one experience
AWS Cloud or AWS Outposts



Siemens Opcenter on AWS Outposts: Discussion and demo



Console Home Info

Reset to default layout + Add widgets

Recently visited Info

- AWS Outposts
- EC2
- Billing and Cost Management
- RDS
- Systems Manager
- Amazon Inspector

- Secrets Manager
- Directory Service
- Support
- IAM
- AWS Chatbot
- VPC

[View all services](#)

Applications (0) Info

Region: Europe (Frankfurt)

eu-central-1 (Current Region)

Name	Description	Region	Originating account
<p>No applications</p> <p>Get started by creating an application.</p> <p>Create application</p>			

[Go to myApplications](#)

Welcome to AWS

- [Getting started with AWS](#)
Learn the fundamentals and find valuable information to get the most out of AWS.
- [Training and certification](#)
Learn from AWS experts and advance your skills and knowledge.
- [What's new with AWS?](#)
Discover new AWS services, features, and Regions.

[Go to AWS Health](#)

AWS Health Info

Open issues: 0 Past 7 days

Scheduled changes: 0 Upcoming and past 7 days

Other notifications: 0 Past 7 days

[Go to AWS Health](#)

Cost and usage Info

Current month costs: \$19,504.88
↑ 0% compared to last month for same period

Forecasted month end costs: \$21,187.70
↑ 1% compared to last month's total costs

Savings opportunities: Enable Cost Optimization Hub

[Go to Billing and Cost Management](#)

Solutions (18) Info

Vetted Solutions from AWS for popular business and technical use cases.

Generative AI Application Builder
Develop and deploy generative AI apps
[Learn more](#) | [Deploy \(10 mins\)](#)

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Extract text with OCR
[Learn more](#)

Cross Region Failover & Graceful Failback
Design a resilient 3-tier web application
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Deliver a reliable livestreaming experience
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Custom Search with Enterprise Knowledge Base
Query an enterprise knowledge base
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Cell-Based Architecture
Implement a reliable cell-based architecture
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[Go to AWS Solutions Library](#)

Explore AWS Info

- [Deploy LLMs with confidence](#)
Transform your business with the right LLM and price-performant, purpose-built infrastructure
- [Tighten console security with WorkSpace...](#)
Protect your AWS resources from client device or browser vulnerabilities
- [Discover serverless and fully managed ...](#)
Enjoy all the benefits of consistent single-digit millisecond performance at any scale.
- [Fully managed benefits of Amazon Aur...](#)
Free your teams from time consuming database management tasks. Learn how AWS fully...

Security Info

Region: Europe (Frankfurt)

Security score [Details](#)

85%

Failed controls: 38/260

Critical severity findings: 8

High severity findings: 488

Scope: [This account, eu-central-1](#)
Last updated: [9 hours ago](#)

[Go to Security Hub](#)

Trusted Advisor Info

Action recommended: 12 [Details](#)

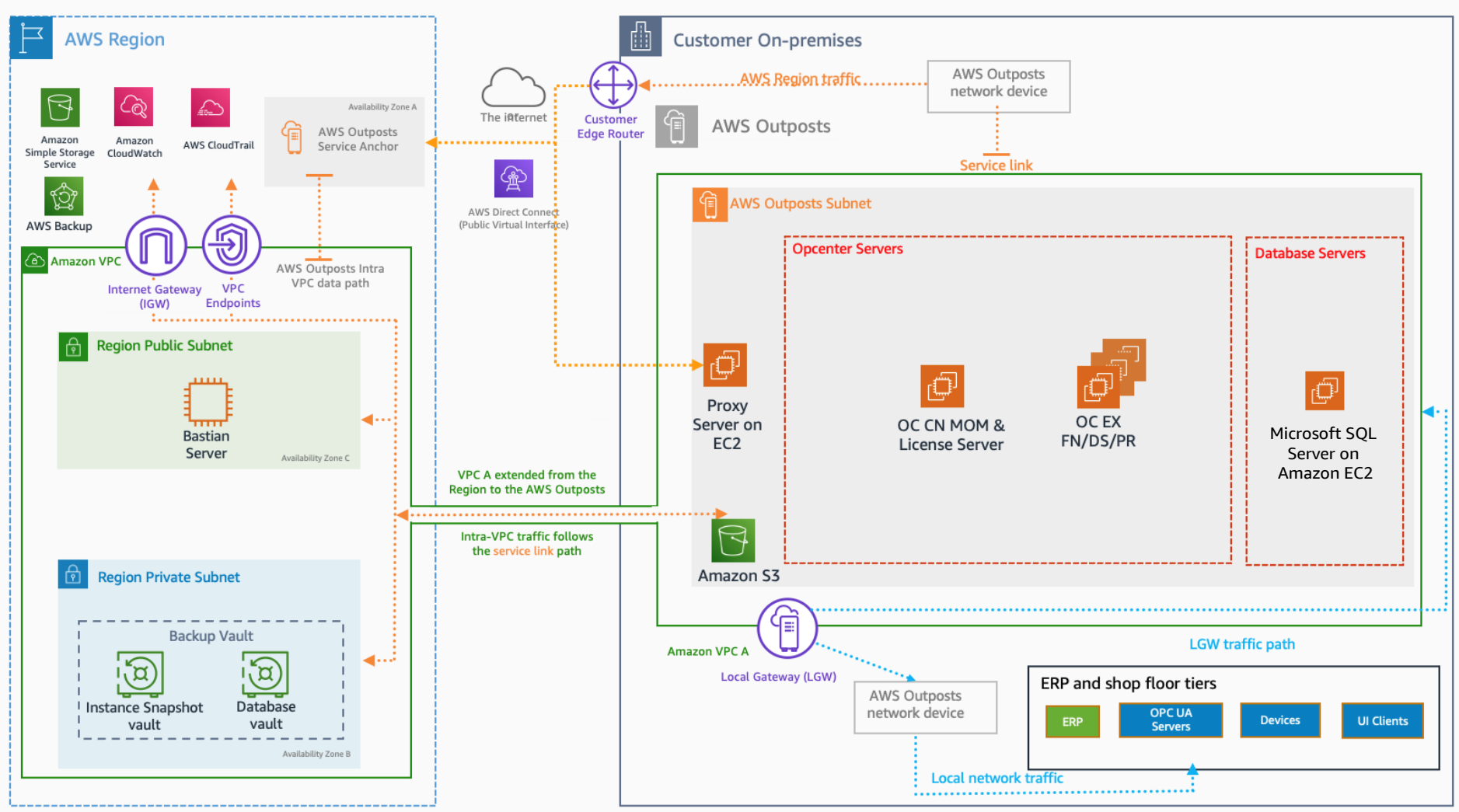
Latest announcements Info

OCT 11 [Bring your conversations to WhatsApp with AWS End User Messaging Social](#)

Recent AWS blog posts Info

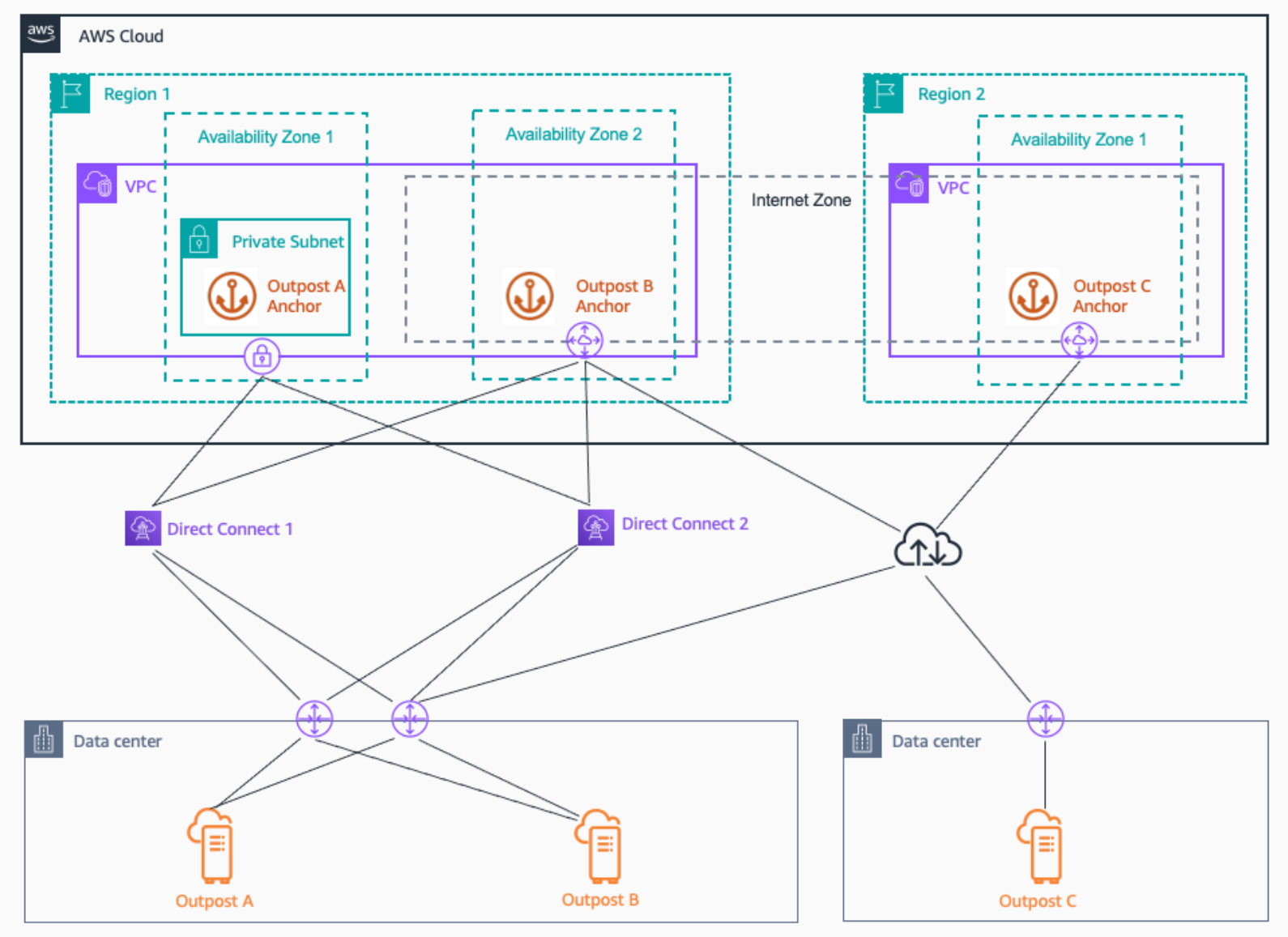
OCT 14 [The Institut Pasteur is creating a searchable DNA database of all life on Earth using AWS](#)

Siemens Opcenter Execution foundation on AWS Outposts



Deep-dives: High availability, disaster recovery, and scalability

High availability anchor connectivity



Outposts cost considerations

WHAT DRIVES THE COST OF AN AWS OUTPOST?

- Compute capacity
- Storage capacity
- Direct Connect
- Upfront or monthly payments
- Data transfer from the AWS Region to the Outpost
- Enterprise or Enterprise On-Ramp Support is required

How to get started



Learn more



Siemens Blog
[Cloud-based MES: Opcenter Execution for process and discrete industries on AWS](#)



AWS Guidance
[Deploying Siemens Opcenter Execution Foundation on AWS](#)



Siemens Guidance
[Opcenter Execution Foundation on AWS Cloud](#)



GitHub AWS Sample
[AWS Outposts Lab](#)



Blog & presentation with customer
[Unlocking Manufacturing Efficiency: Can Opcenter EX Foundation on AWS Cloud Revolutionize Your Production Line?](#)

Thank you!

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