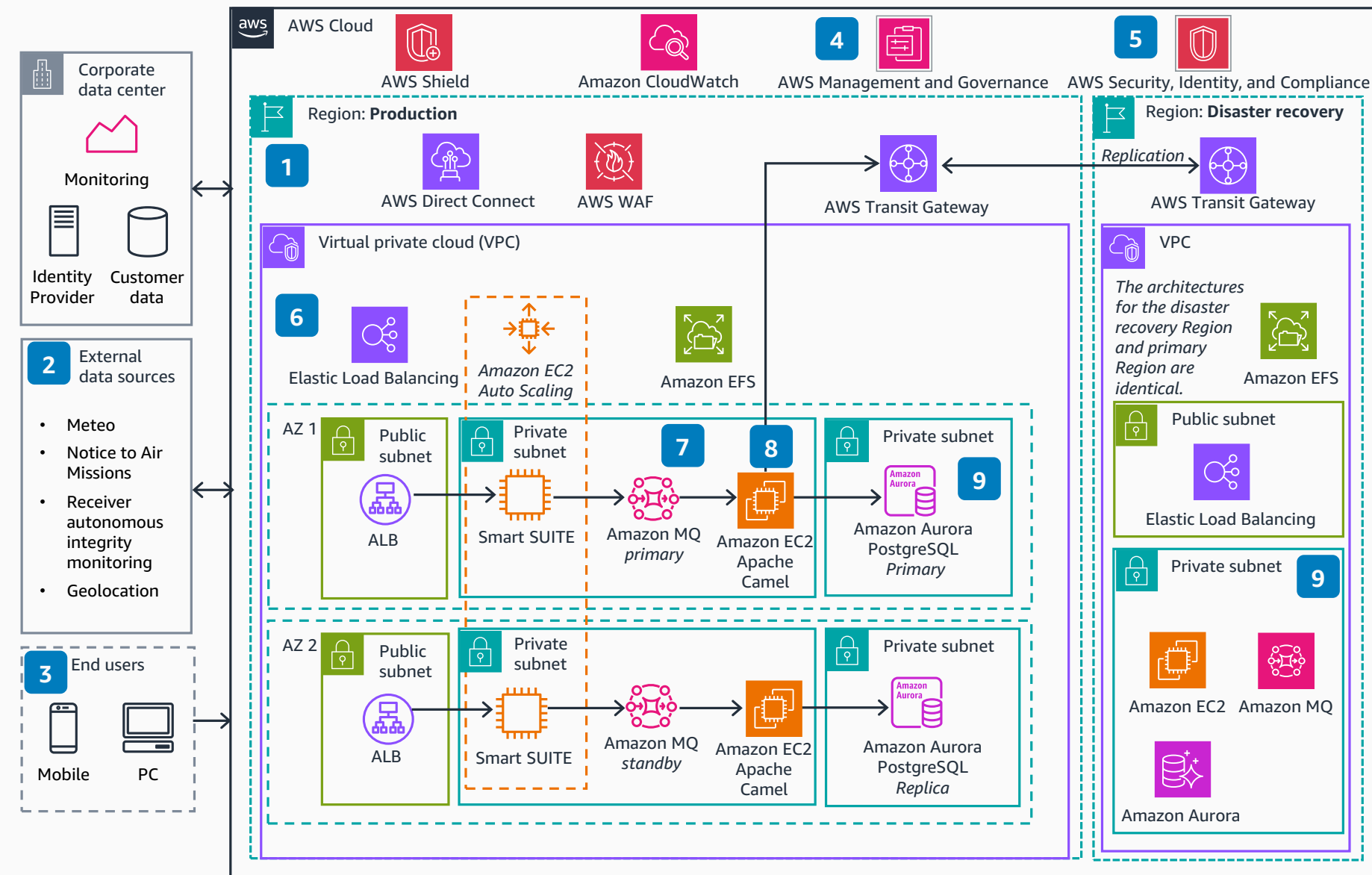


Guidance for Smart4Aviation Smart SUITE on AWS

This architecture diagram shows one way to set up Smart4Aviation Smart SUITE for automation and exception handling.



- 1** AWS Direct Connect or AWS Site-to-Site VPN integrates with your existing systems and data on premises.
- 2** Smart SUITE integrates with external third-party data sources to augment datasets you use for business logic.
- 3** Your airline end users and supporting company employees securely access this Guidance with browsers or mobile extensions through the **Application Load Balancer (ALB)**. **AWS Shield** provides managed layer 3 and layer 4 distributed denial of service (DDoS) protection. **AWS WAF** provides Layer 7 protection against common exploits and pervasive bots.
- 4** **AWS Management and Governance** services facilitate business agility and governance control in this Guidance.
- 5** **AWS Security, Identity, and Compliance** services align with the functions of the National Institute of Standards and Technology Cybersecurity Framework—identify, protect, detect, respond, and recover—to improve security, risk management, and resilience.
- 6** Smart SUITE achieves Regional high availability with a multi-Availability Zone (AZ) deployment. Requests use **Elastic Load Balancing** and go through **Application Load Balancer**. They reach modular business suite for Smart4Aviation on **Amazon Elastic Compute Cloud (Amazon EC2)** instances within an Amazon EC2 Auto Scaling group to manage capacity. Logs stream to **Amazon CloudWatch**.
- 7** **Amazon MQ** stores data redundantly across multiple AZs and shares it between active and standby brokers with **Amazon Elastic File System (Amazon EFS)**.
- 8** As the integration layer, Apache Camel is installed on at least two nodes to provide high availability in production. It replicates messages to the disaster recovery AWS Region through **AWS Transit Gateway**.
- 9** Through **Amazon Aurora PostgreSQL-Compatible Edition**, Amazon Aurora Global Database provides in-Region high availability and cross-Region disaster recovery capabilities.



Reviewed for technical accuracy September 6, 2023
© 2023, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS Reference Architecture