



Architecture diagrams for manufacturing

Smart Factory on AWS Outposts



Smart Factory on AWS Outposts: Architecture diagrams for manufacturing

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Table of Contents

Smart Factory on Outposts **i**

Smart factory architecture diagram 1

Further reading 2

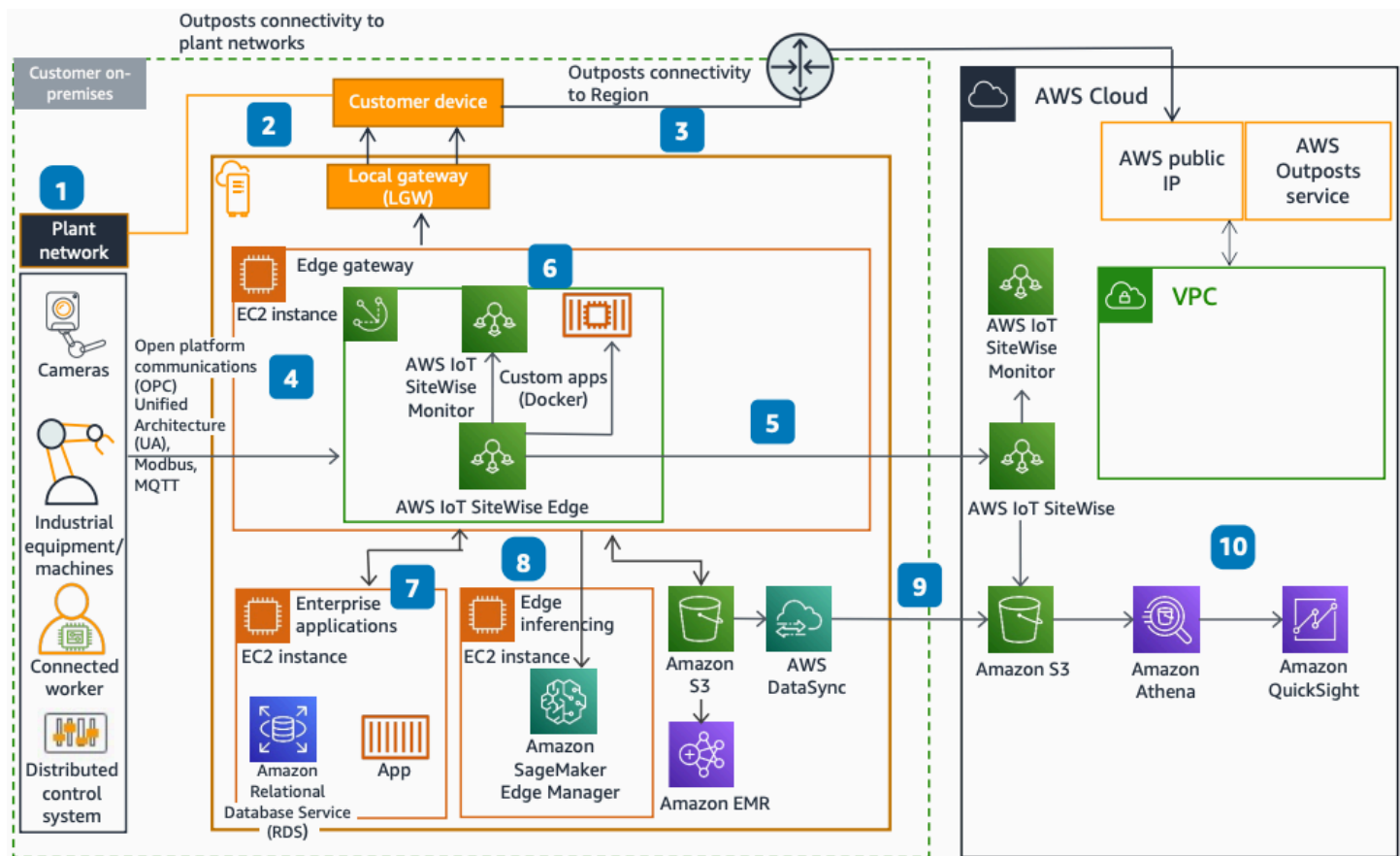
Diagram history 2

Smart Factory on AWS Outposts

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With this architecture, you can build a scalable, secure IoT-backed smart factory by using [AWS Outposts](#) and AWS Regions. This architecture uses [AWS IoT Greengrass](#), [AWS IoT SiteWise](#), [Amazon Elastic Compute Cloud](#) (Amazon EC2), and [Amazon SageMaker AI](#).

Smart factory architecture diagram



The following steps describe the architecture:

1. The Outpost is located on the factory premises and connected to the factory network through the local gateway (LGW).
2. The Outpost also connects back to the AWS Region, so you can use AWS services in the Region.
3. The plant network connects devices like cameras, equipment, and programmable logic controller (PLC) systems to run plant operations.

4. An Amazon EC2 instance on Outposts acts as an edge gateway. It runs AWS IoT Greengrass and AWS IoT SiteWise Edge to connect with the plant network.
5. The AWS IoT SiteWise Edge component ingests real-time equipment data to the Cloud. It also buffers the data during disconnections.
6. Deploy local dashboards and custom applications on AWS IoT Greengrass for time-critical monitoring and processing.
7. Enterprise apps and point solutions deployed on Outposts as containers can consume data locally from AWS IoT Greengrass.
8. SageMaker AI Neo-optimized models deploy on Outposts for edge inferencing.
9. [AWS DataSync](#) automates transfer of data between [Amazon S3](#) on Outposts and in the AWS Region.
10. Use Amazon Athena and Quick in the Region for running weekly analytics on the data.

Further reading

For additional information, see the following resources:

- [AWS Architecture Icons](#)
- [AWS Architecture Center](#)
- [AWS Well-Architected](#)

Diagram history

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