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How to optimize multi-robot fleet performance

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Agenda

Enterprise business drivers for automation

Benefits of multi-robot fleet orchestration

Why multi-robot fleet orchestration is difficult today

How AWS IoT RoboRunner plans to solve these challenges

Customer use case discussion

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Business drivers for automation



Scale



Customer experience



Standardization



Cost improvement

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Challenges in highly automated operations

Realizing full value of automation requires optimization at system level

Operators lack system-wide process flow visibility and tools

In highly automated operations, retrofitting is costly and disruptive

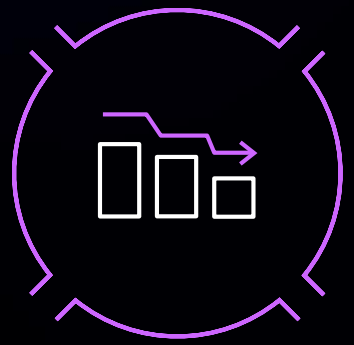
Substantial investment is required to deploy automation

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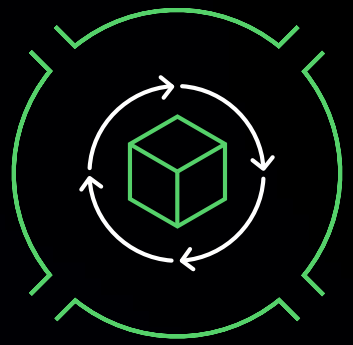
Benefits of multi-robot fleet orchestration



Increased operational efficiency



Reduced CapEx and OpEx



Supply-chain diversity



Unified system view

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Why fleet orchestration is difficult today

It’s challenging to integrate with different robot systems

Deploying robotics requires complex software integration work

Each system integration requires customization effort

User-facing applications require integrating with multiple systems

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How RoboRunner addresses these challenges



- Central data repositories to standardize robot control software and data
- Prebuilt integrations with vendors for easier deployment of automation
- Software library for common task orchestration use cases
- APIs to build user applications on top of the central data repositories

aws

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Whiteboarding session

- AWS IoT RoboRunner customer use case
- Fleet orchestration architecture with RoboRunner

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How to get started with RoboRunner

1. Developer guide: https://docs.aws.amazon.com/iotroborunner/latest/dev/iotroborunner-welcome.html
2. Tutorials with sample code: https://docs.aws.amazon.com/iotroborunner/latest/dev/gettingstarted-tutorials.html
3. Contact us: https://aws.amazon.com/contact-us/?pg=ln&cp=bn or via the *Contact service team* button in the console

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Thank you!

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