
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

MFG204

Smart products and machines for new revenue streams

Michel Putnik

WW Lead
Smart Products & Services
Amazon Web Services

Gabriele Ballarin

Chief Information Officer
UNOX S.p.A.

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Agenda



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Wrap-up and outlook

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The manufacturing data flywheel

SUPPLY CHAIN

Improved factory operations improves the product

Smart factory

Yield

Quality

OEE

Uptime

SUPPLY CHAIN

Smart products & services

Lifecycle management

Improvements & updates

Loyalty

Customer satisfaction

LOWER COSTS
INCREASE REVENUES
IMPROVE SUSTAINABILITY

Efficient product and process design improves factory operations

Product performance and usage data improves product and process design

SUPPLY CHAIN

Engineering & design

CAD/CAM/EDA

NPI

Lower changeover time

Process optimization

SUPPLY CHAIN

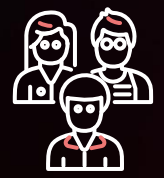
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Smart products and services challenges



Price
What should I charge?



Market segment
Who am I offering this to?



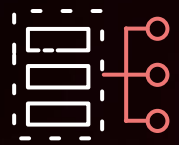
Value proposition
What is the real value here, and for whom?



Data sharing
Why should customers share?



Scale
Manage assets, device fleets, and data across sites



Channel conflict
What is the role of my channel?

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Common manufacturing solution areas



Engineering and design

- Speed time to market
- Lower infrastructure costs
- Secure, worldwide collaboration



Production and asset optimization

- Lower costs
- Improve asset availability, quality, productivity
- Reduce production downtime
- Improve employee productivity
- Monitor & improve safety



Sustainability

- Reduce WAGES use (Water, Air, Gas, Electricity, Steam)
- Identify production processes for optimization
- Meet top-line sustainability targets



Supply chain management

- Improve forecast accuracy
- Reduce inventory costs
- Improve resiliency



Smart products and services

- Enhance user experiences
- Create new revenue streams
- Improve product or service quality

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Smart products and services

AWS SERVICES (BUILD)

- AWS IoT Core
- AWS IoT Greengrass
- Amazon Kinesis
- AWS Lambda
- Amazon OpenSearch Service
- Amazon DynamoDB

USE CASES

- Smart product (B2C)
- Smart industrial machinery (B2B)
- Technician scheduling
- Warranty and recall execution
- Maintenance business transformation

AWS SOLUTIONS (BUILD)

- Smart Product Solution
- IoT Device Simulator
- Machine to Cloud Connectivity Framework
- AWS Connected Mobility Solution

SAMPLE AWS PARTNERS (DEPLOY)

SIEMENS

HITACHI
Inspire the Next

Luxoft
A DXC Technology Company

OSIsoft

ptc

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UNOX case study

Gabriele Ballarin

Chief Information
Officer
UNOX S.p.A.

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Our industry and product range

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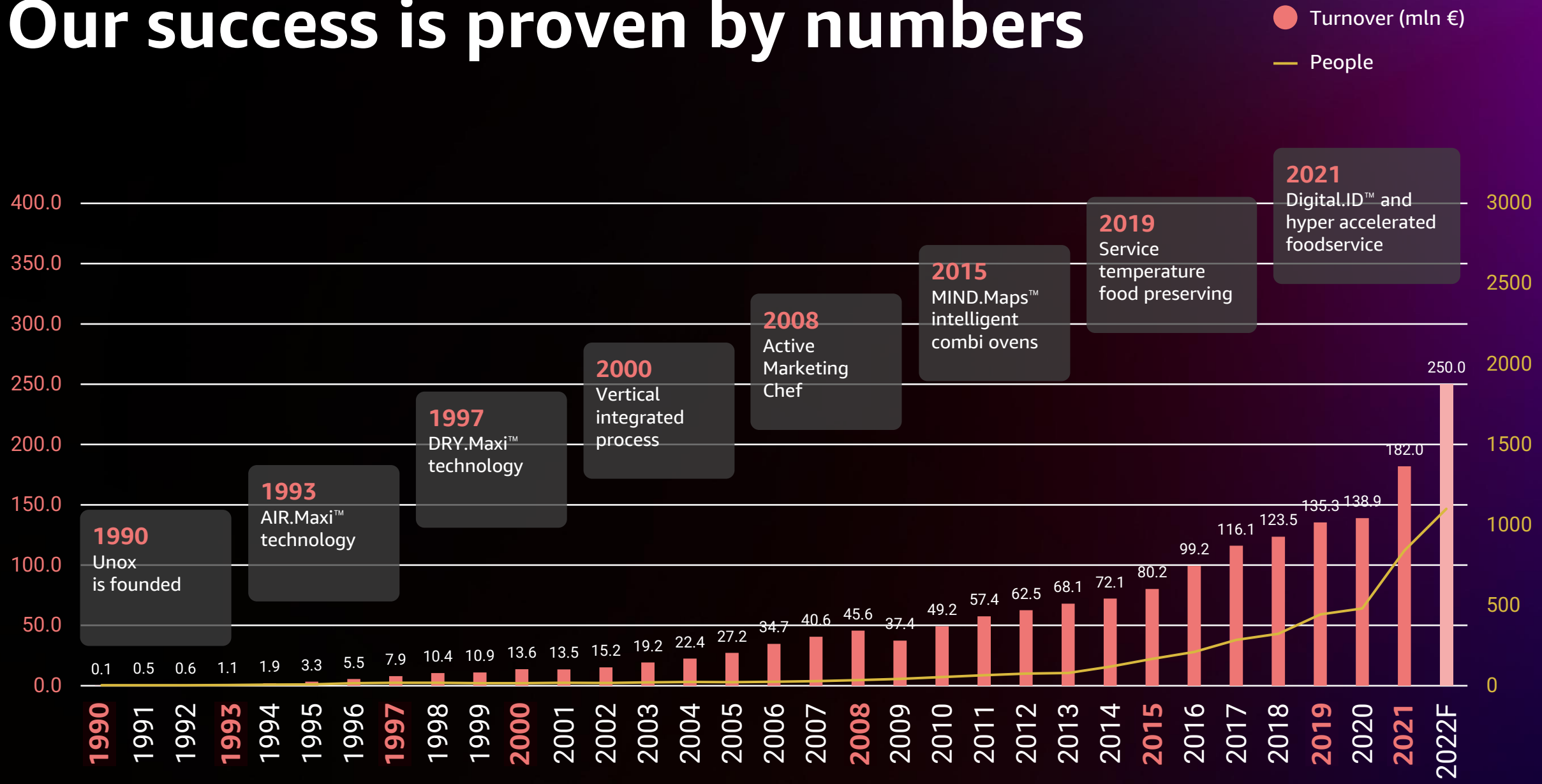
The taste of building success

For all people driven by the taste of building success, UNOX creates and offers state-of-the-art ovens, services, and experiences, inspired by Inventive Simplification and driven by the pursuit of perfection.

UNOX. The taste of building success.



Our success is proven by numbers



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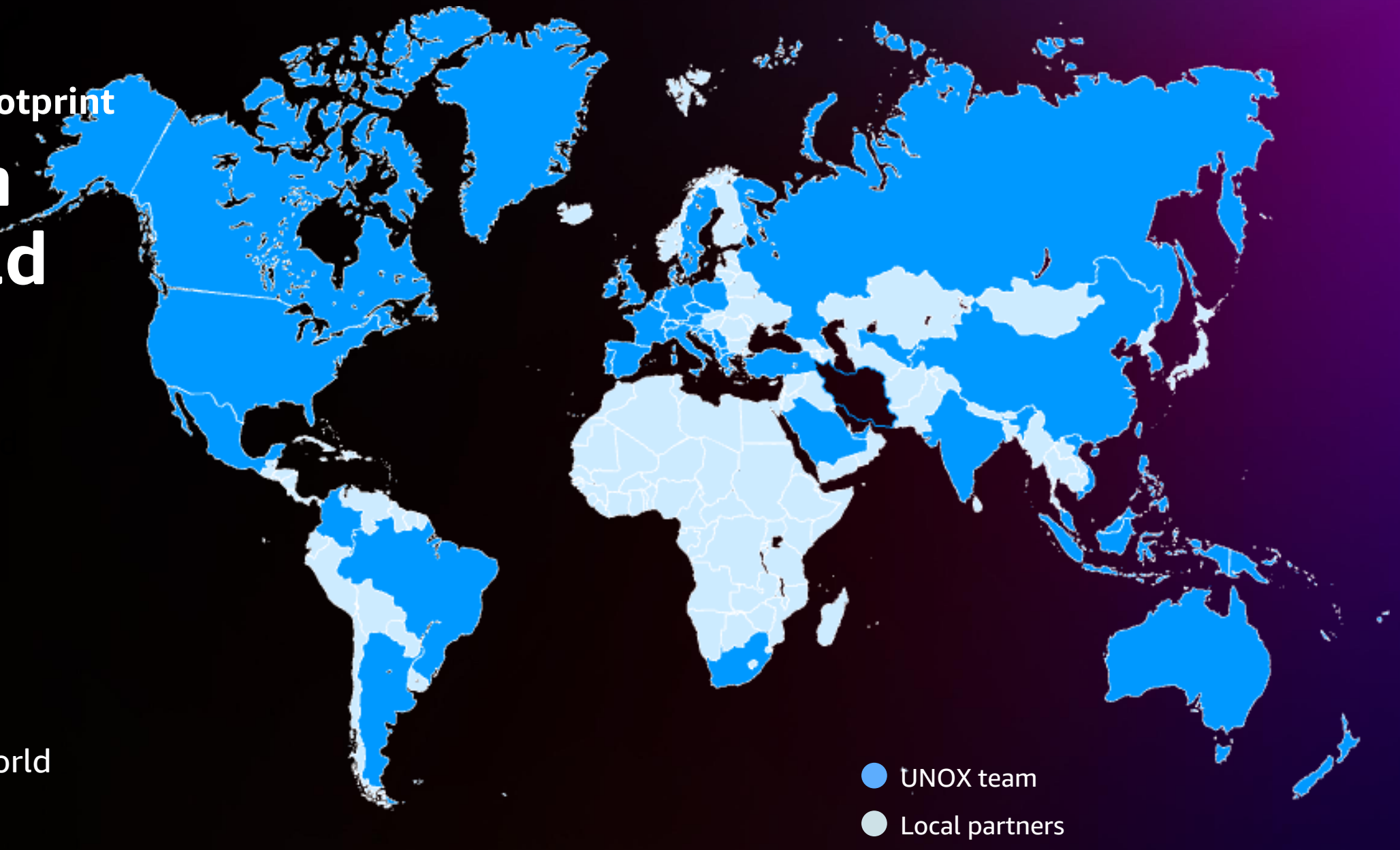
A widespread footprint

UNOX in the world

938
people

40%
of them live and work outside Italy

42
Branches in the world



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References

Our customers

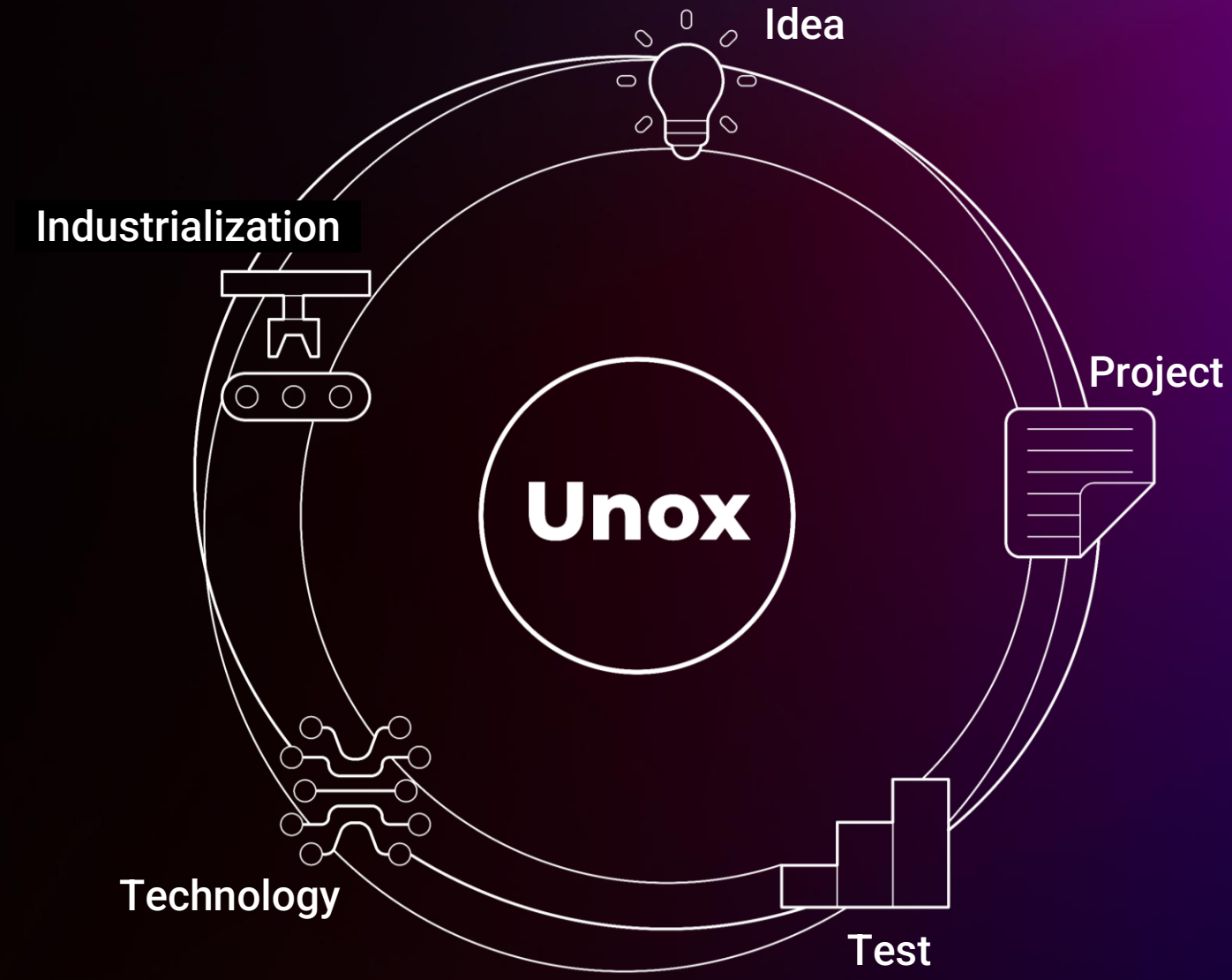


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From ideas to solutions

Value driven innovation

Our team of chemists, physicists, and engineers face the challenge of developing the innovative technologies we provide to our customers day after day.

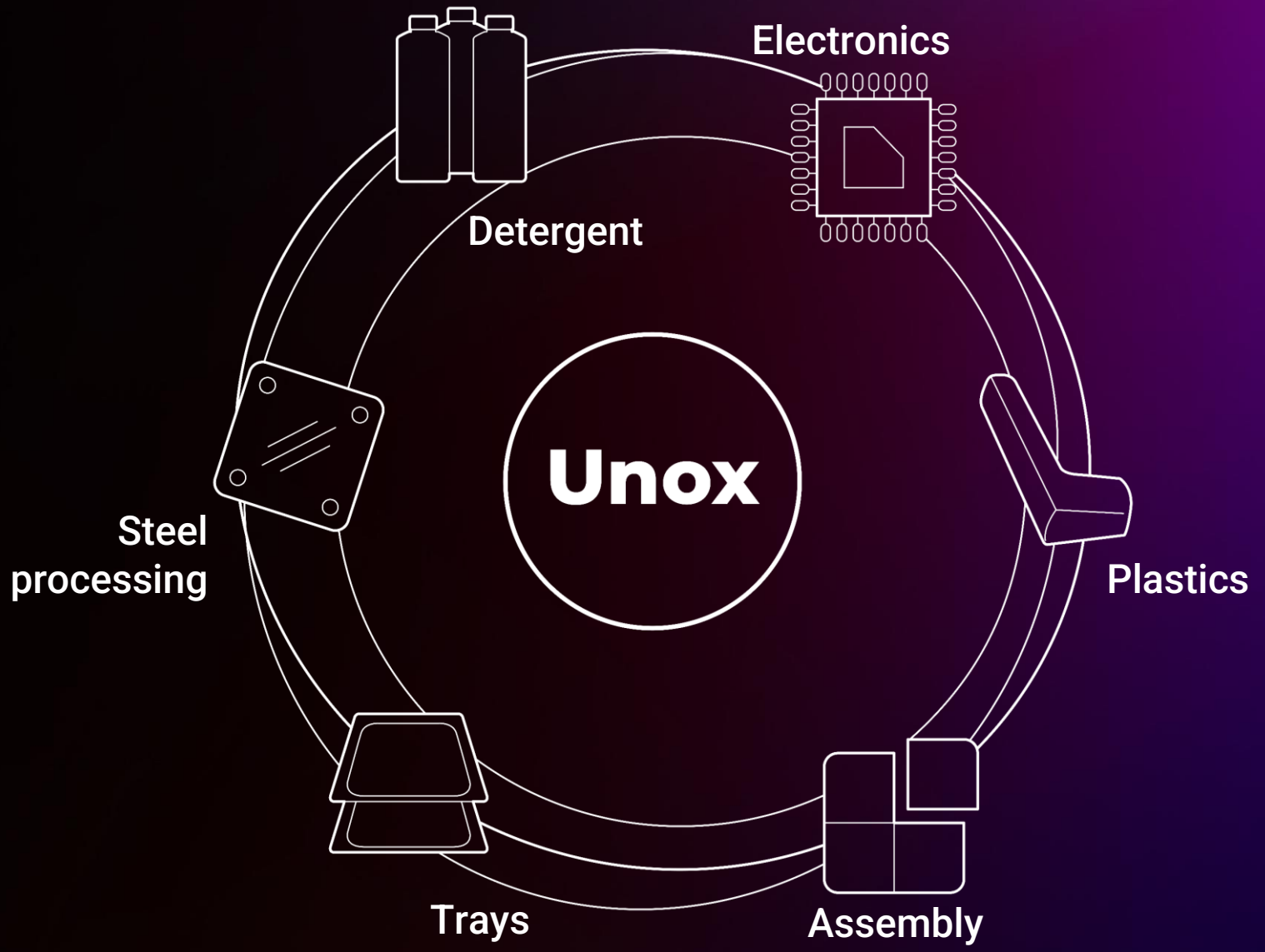


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Designed and made in UNOX

Vertical integrated process

We have created a fully integrated design and production platform that allows us to keep all the key processes in-house, giving us maximum control over the quality of products.

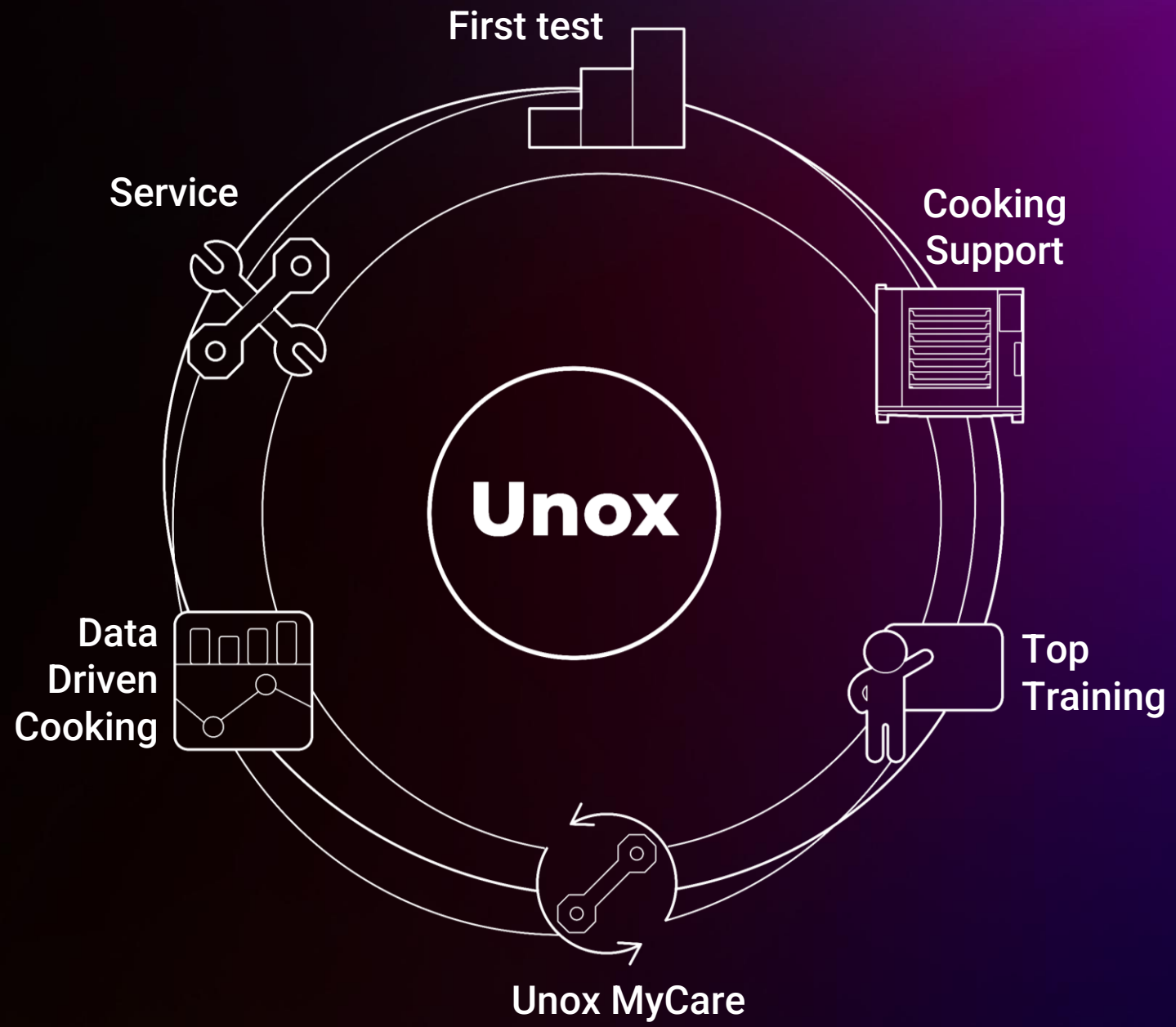


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Your success is our success

Customer success creation

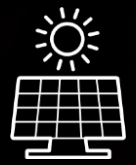
Unox supports you in the creation of your success with services available both before and after purchasing. We will always be by your side.



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We are committed to a better future

net zero e-mission 2030

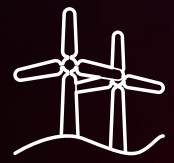


2030 Target

10 MW



Green
mobility



Green
energy



Smart buildings

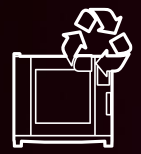
ISO5001 – ISO14064



Energy Star
Certification



Recyclable
packaging



Green
materials



Green
behaviors

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What is a professional oven

	Gastronomy	Bakery	Snack	Trolley ovens
Combi ovens				
Convection ovens + humidity				
Convection ovens				
Speed ovens				
Food preserver				

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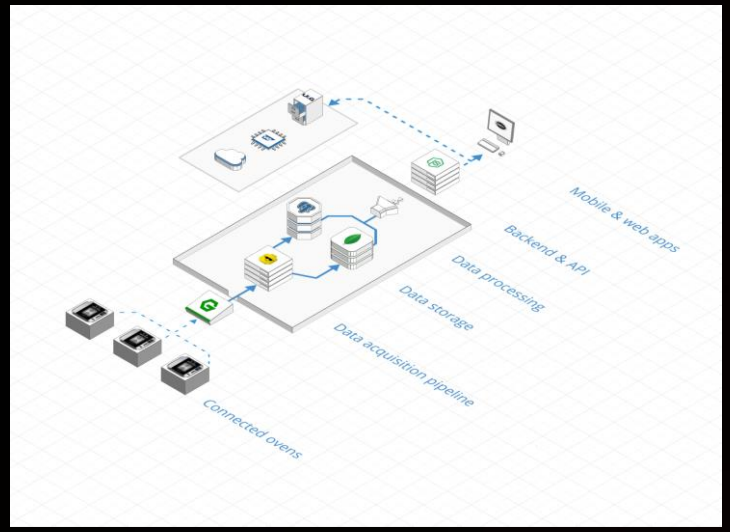
Our IoT path

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Our IoT path

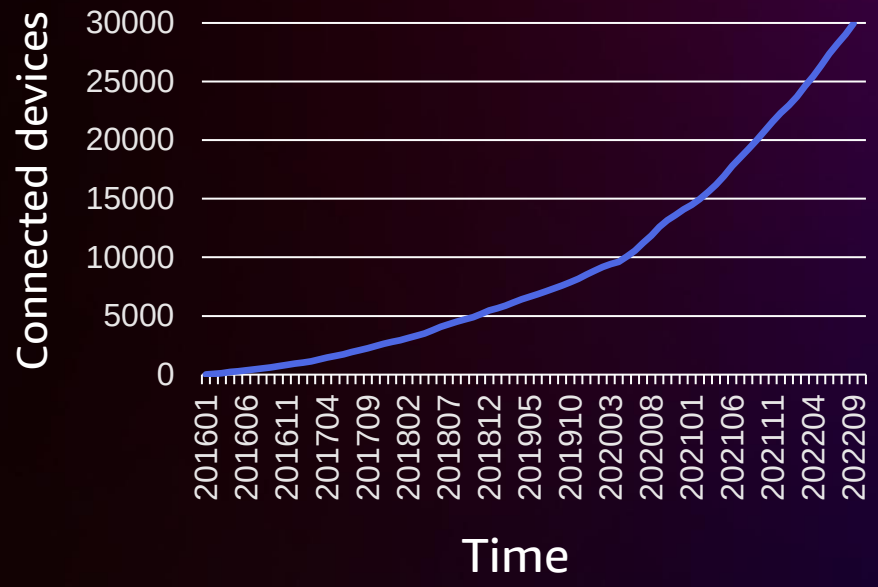
First architecture (2015)

- 300 ovens, 5 GB data logs
- On-prem monolith
- Web app for service operations



Current landscape (2022)

- 30k+ ovens
- Serverless, HA and fault tolerance
- Multiple mobile & web apps / workloads



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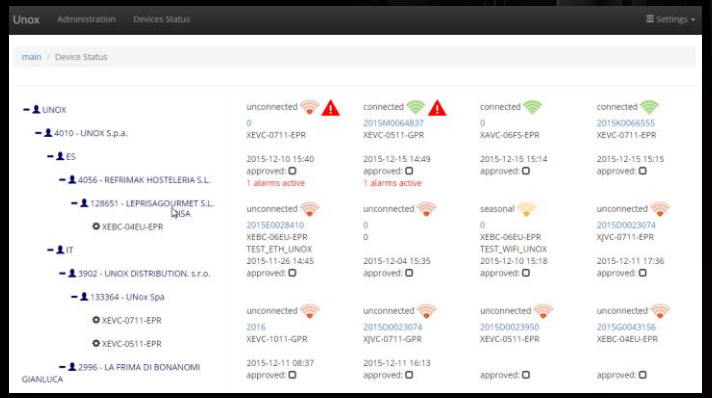
Challenges – Customer adoption

BEFORE

Warranty extension, embedded ethernet, service dashboard



LONGLife 4!



AFTER

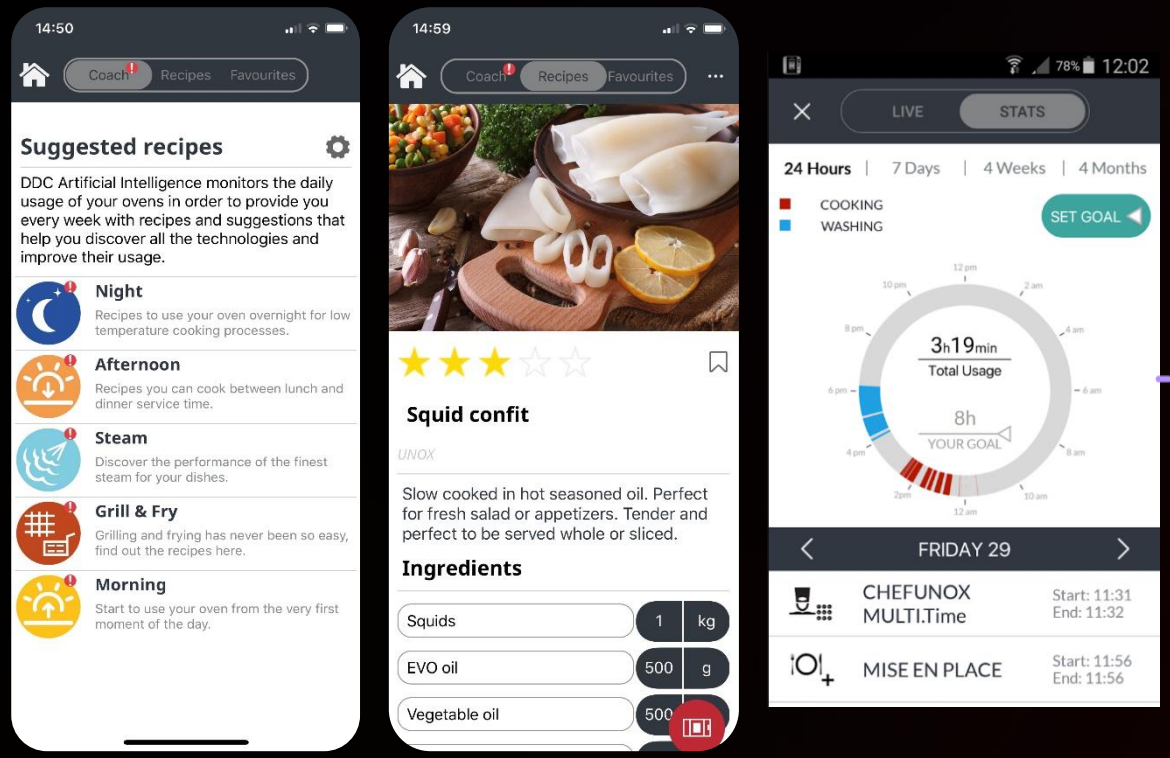
End user value-adding apps, embedded Wi-Fi



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Challenges – Customer adoption

2017 – DDC app: usage KPIs and recipe coach



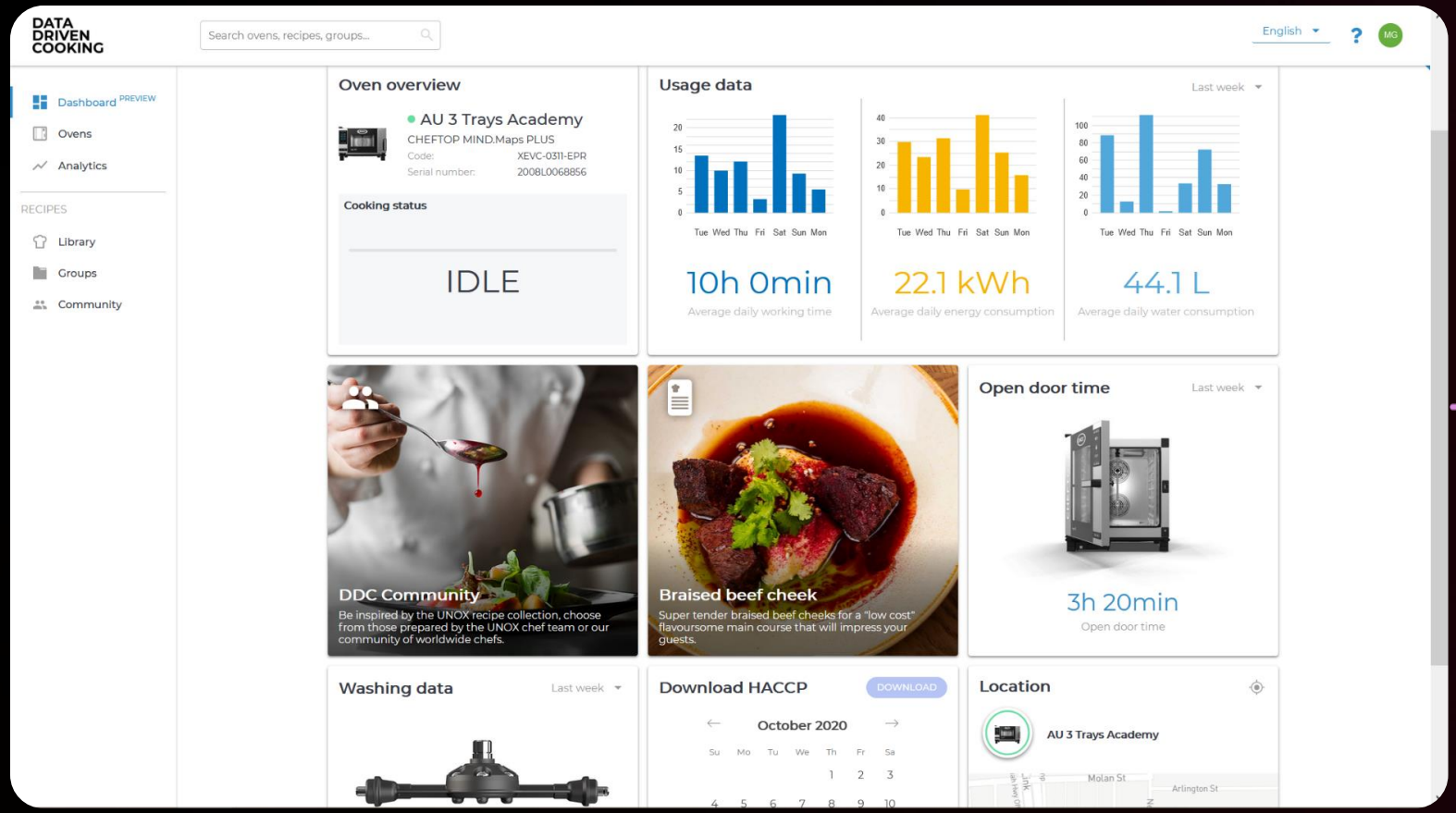
Inverse recommendation system – gives suggestions to use the oven in better ways

+30% usage in the first month

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Challenges – Customer adoption

2018–2019 DDC analytics

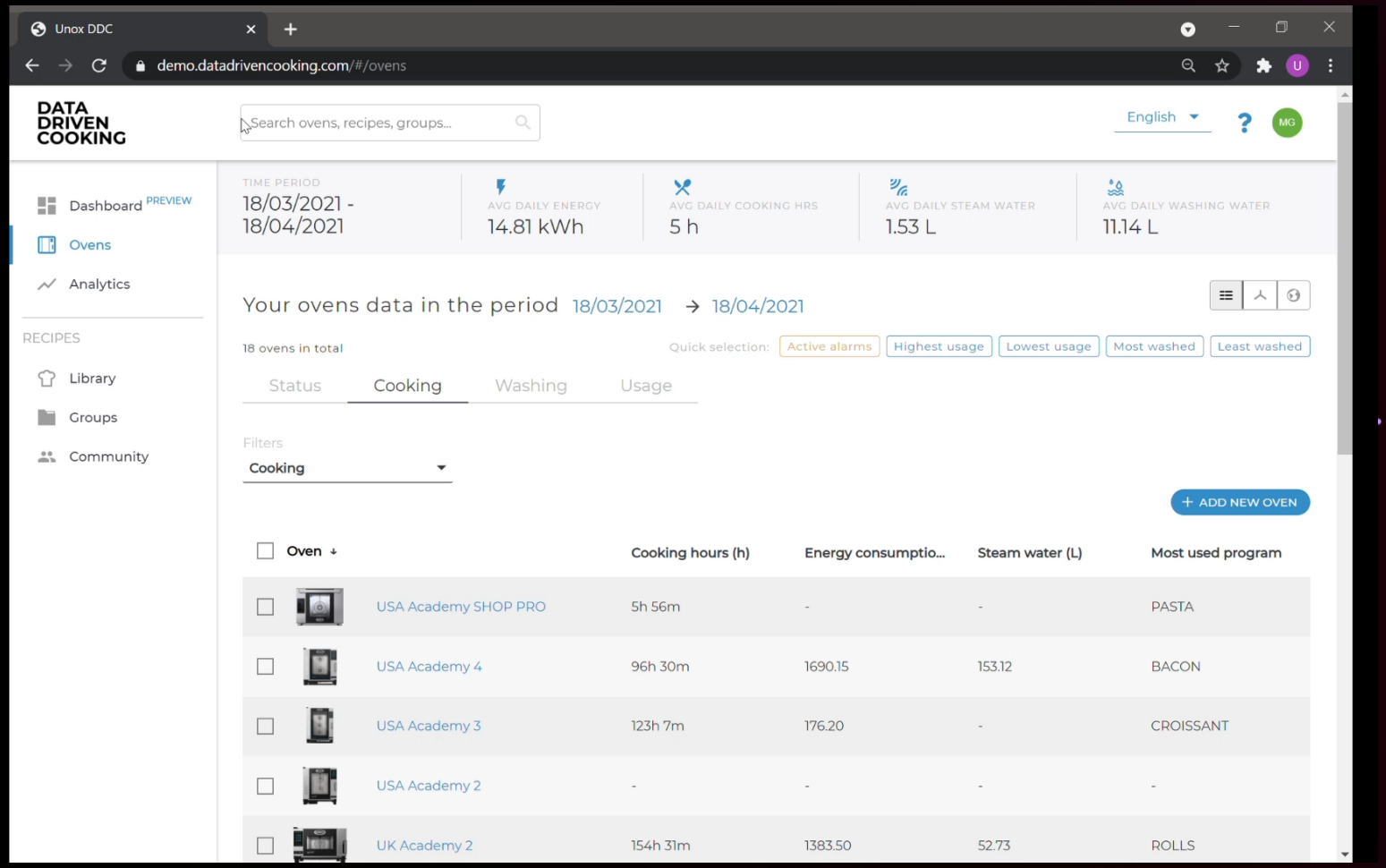


Monitor the entire device fleet; analyzes usage patterns and consumptions

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Challenges – Customer adoption

2018–2019 DDC analytics

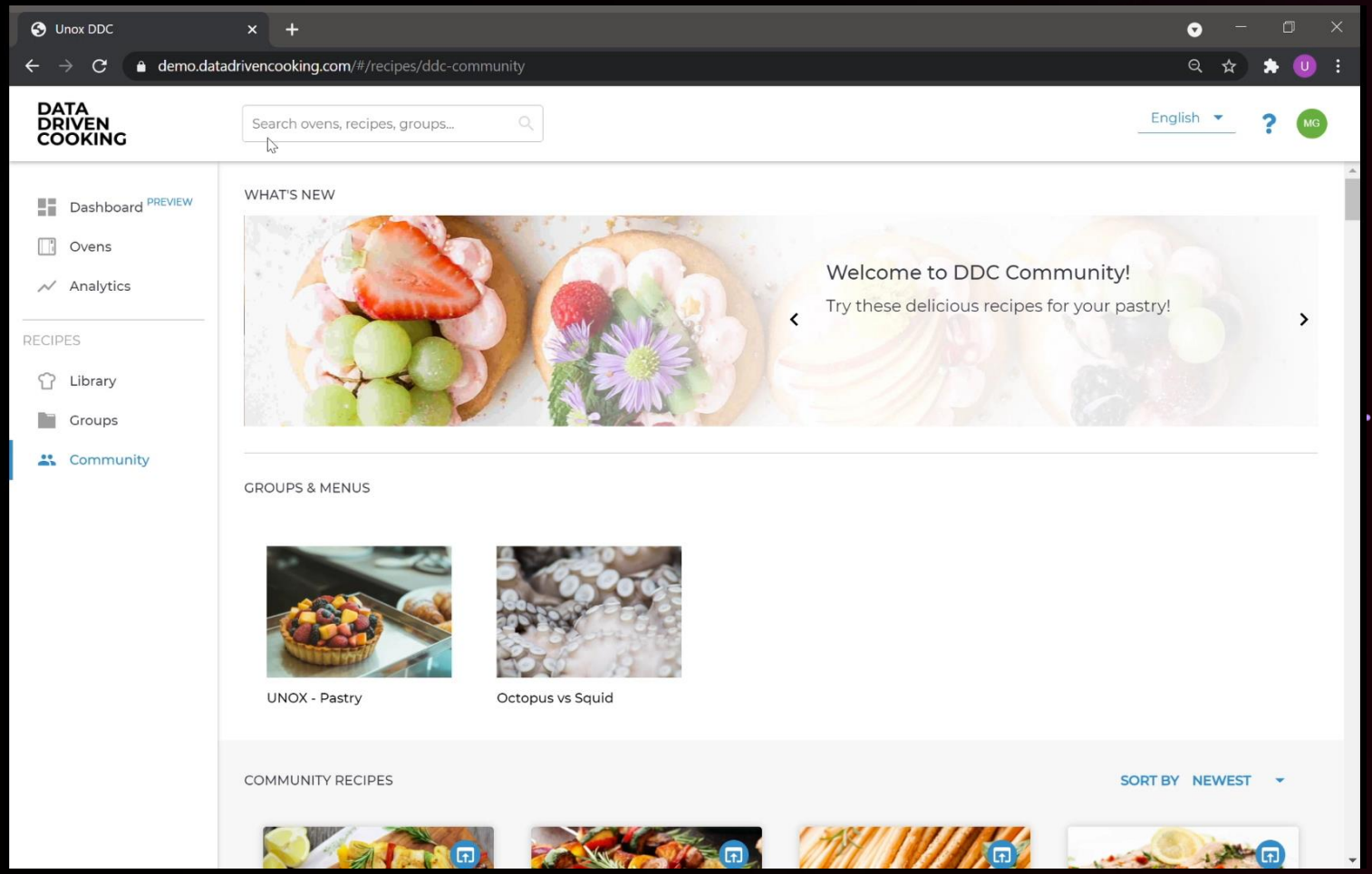


Monitor the entire device fleet; analyzes usage patterns and consumptions

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Challenges – Customer adoption

2019–2020 DDC recipe management

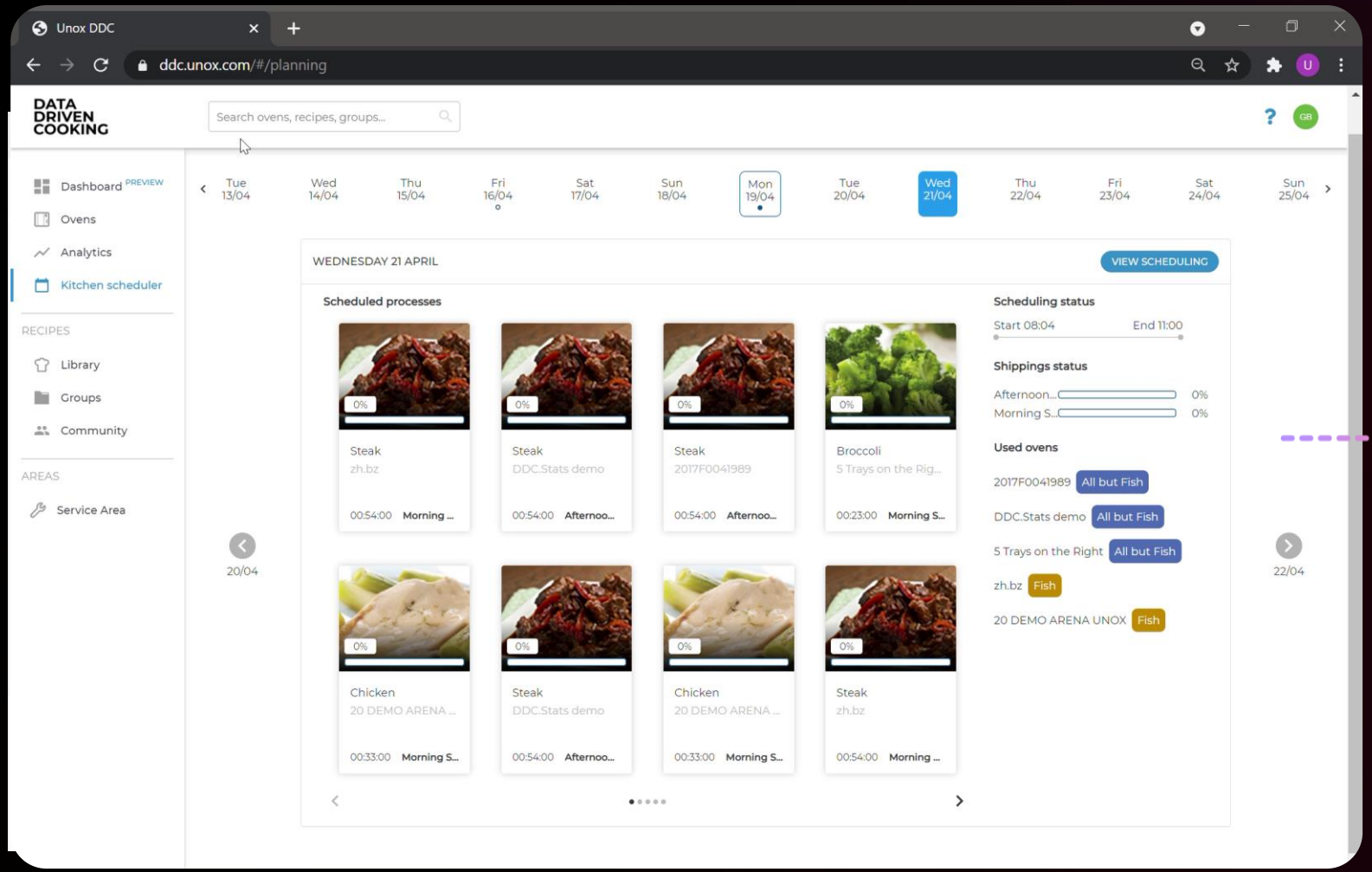


Remotely send and standardize cooking program among devices

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Challenges – Customer adoption

2021 DDC kitchen scheduler



Automatically plan cooking and washing to maximize oven usage time, minimize downtime, and reduce shipment delays

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Challenges – Scalability

All-in AWS Migration



New Dev Team focused on IoT



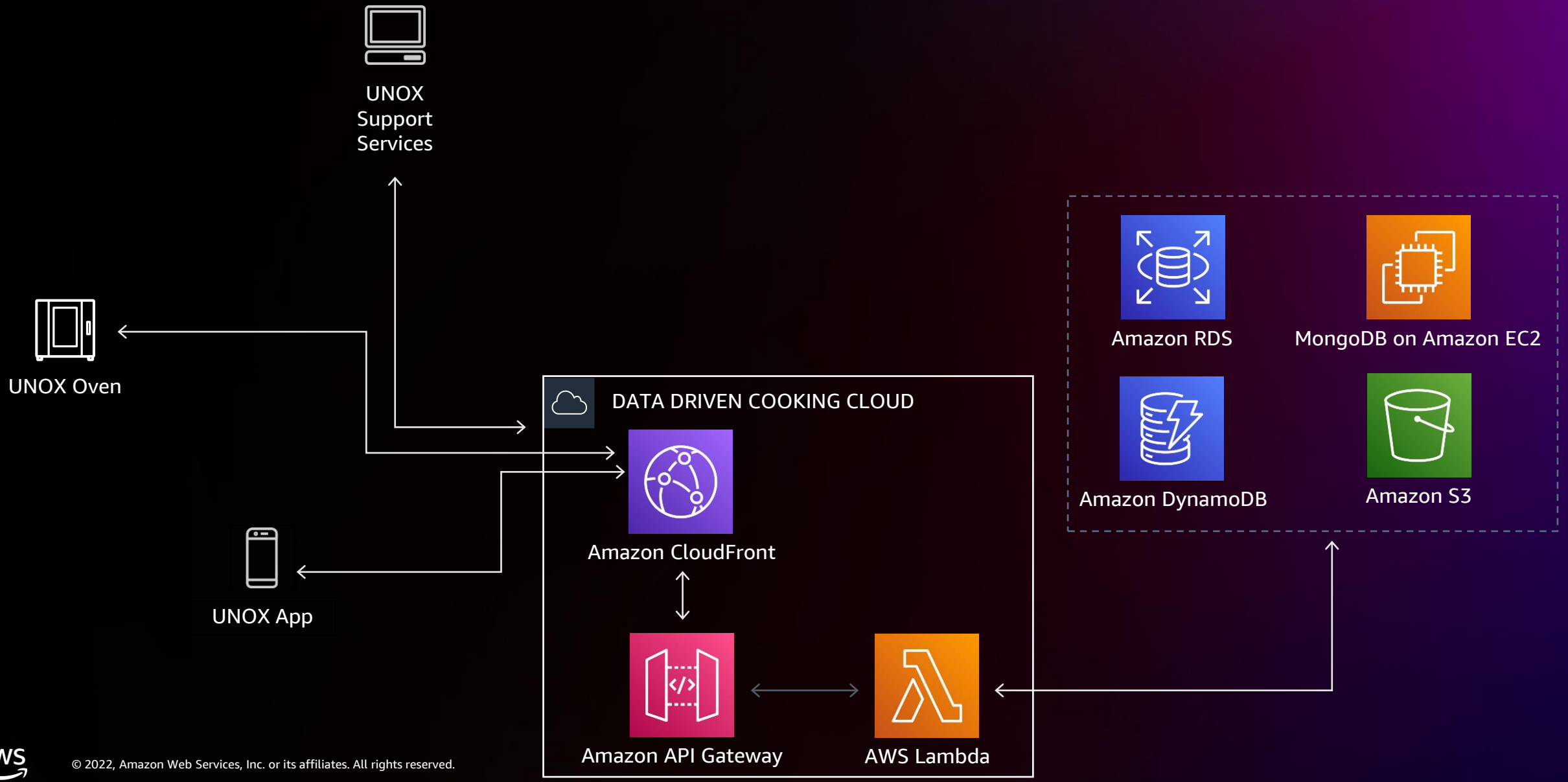
Address connectivity and performance issues



IaaS to serverless

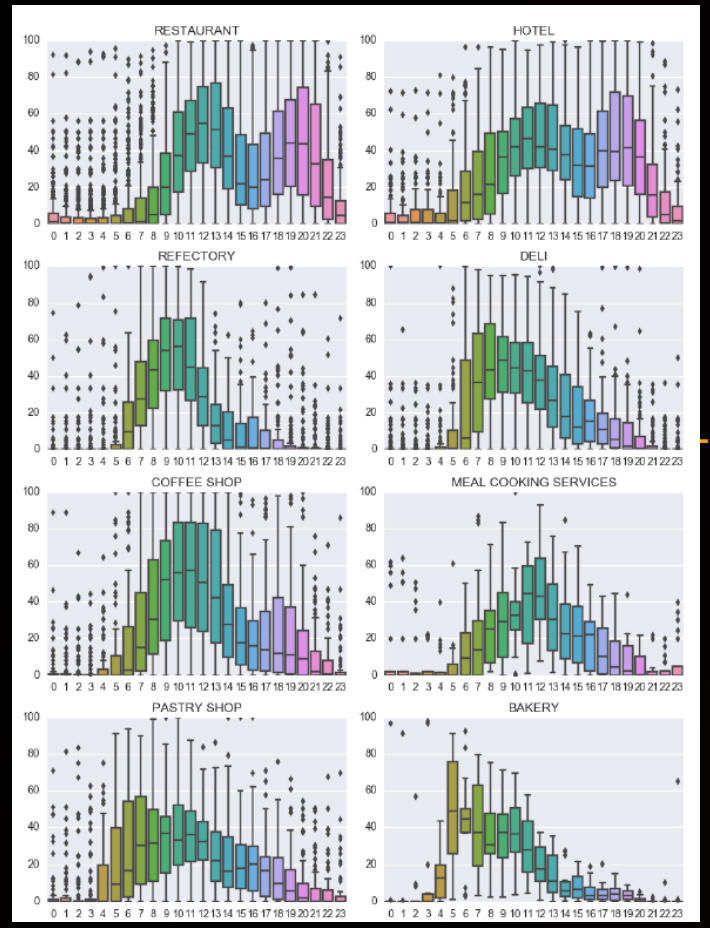
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Data Driven Cooking architecture

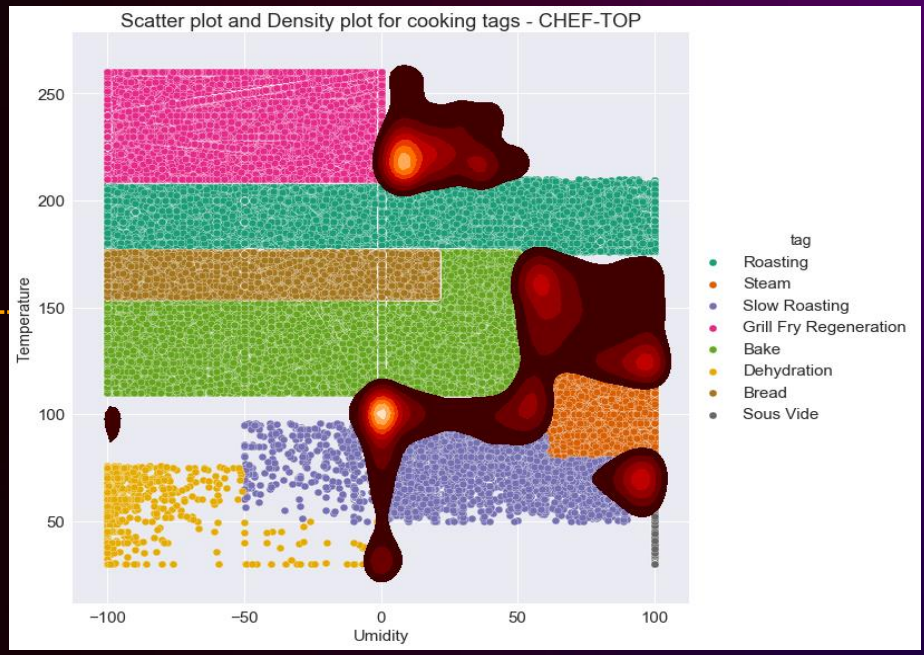


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Using data to predict customer behavior



Used machine learning to understand the market segment of end users



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Our new generation of Smart Ovens

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2015 MIND.Maps™

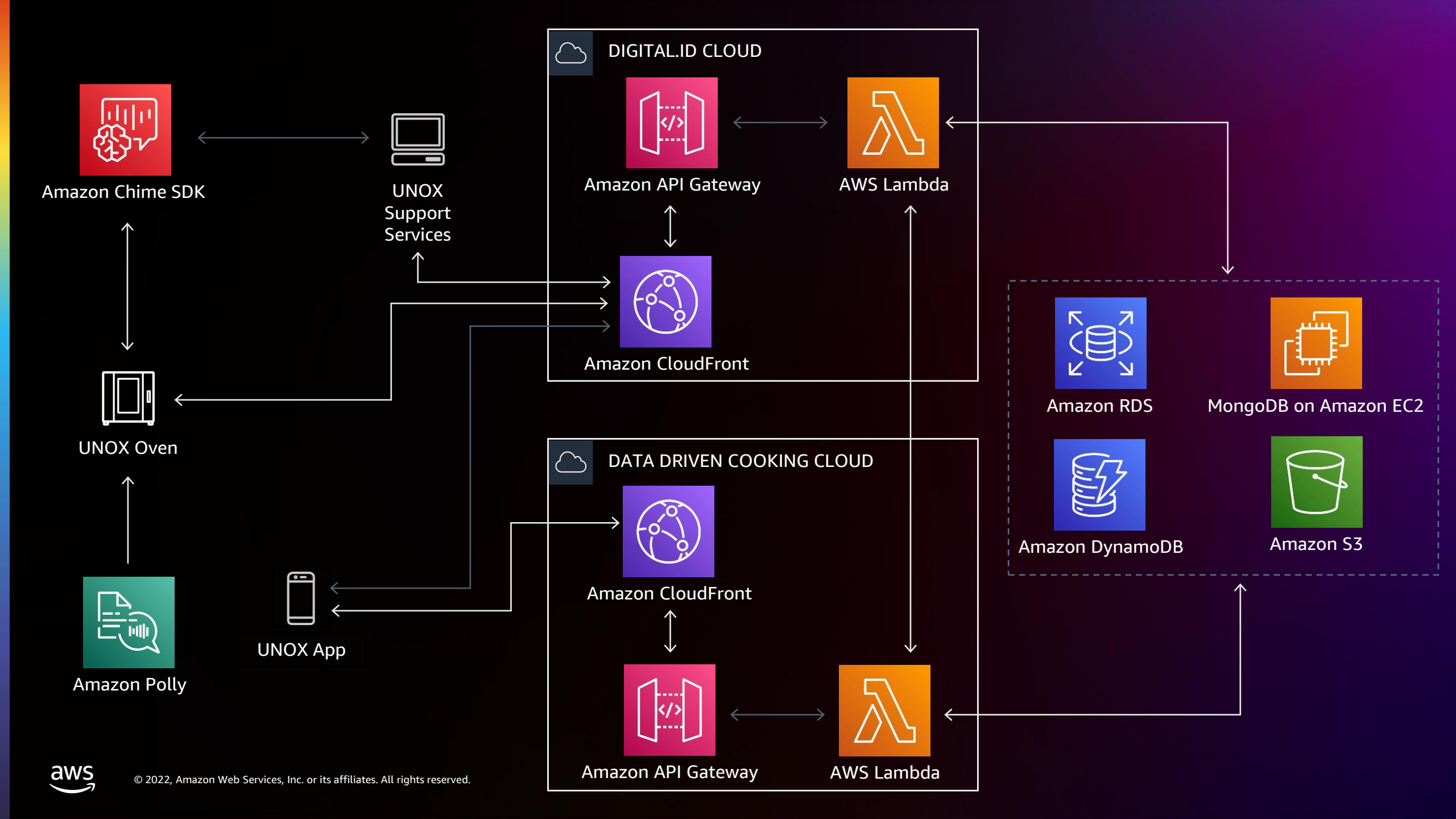


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reddot winner 2022
best of the best

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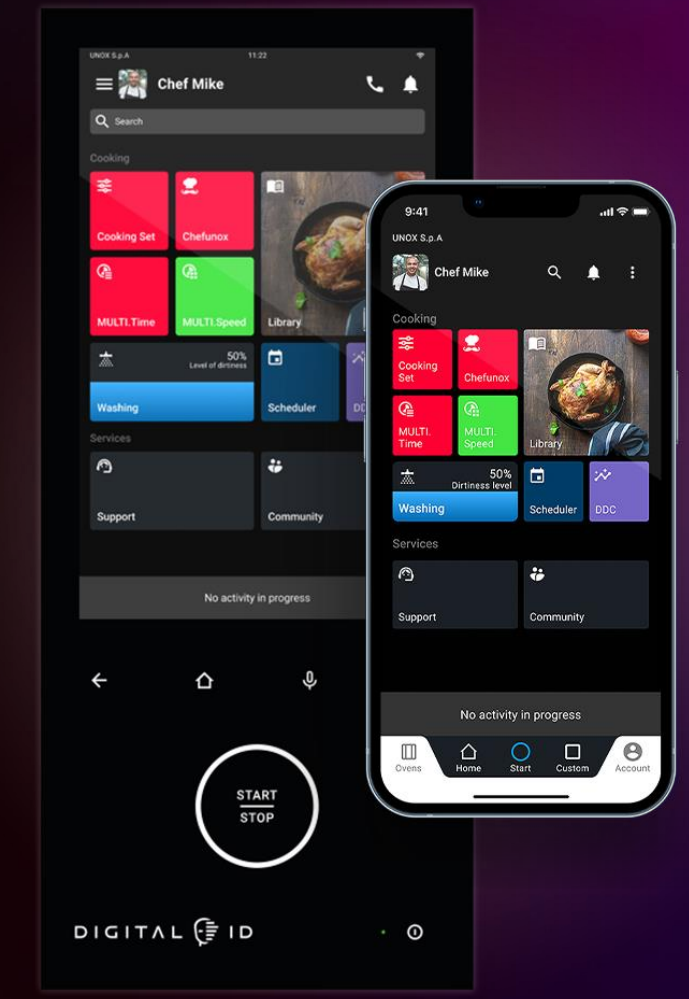


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Features

UI synchronization with AWS Lambda and WebSocket

Cross-platform synchronization mechanism that keeps the status of the oven continuously up to date across every device connected.



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Features

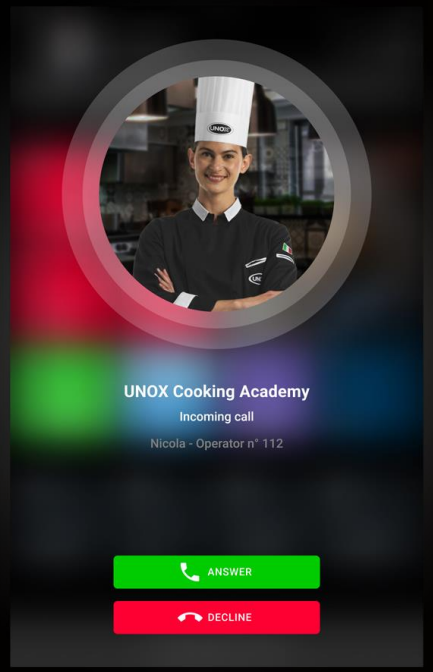
Customizable UI to load your own recipes and profile

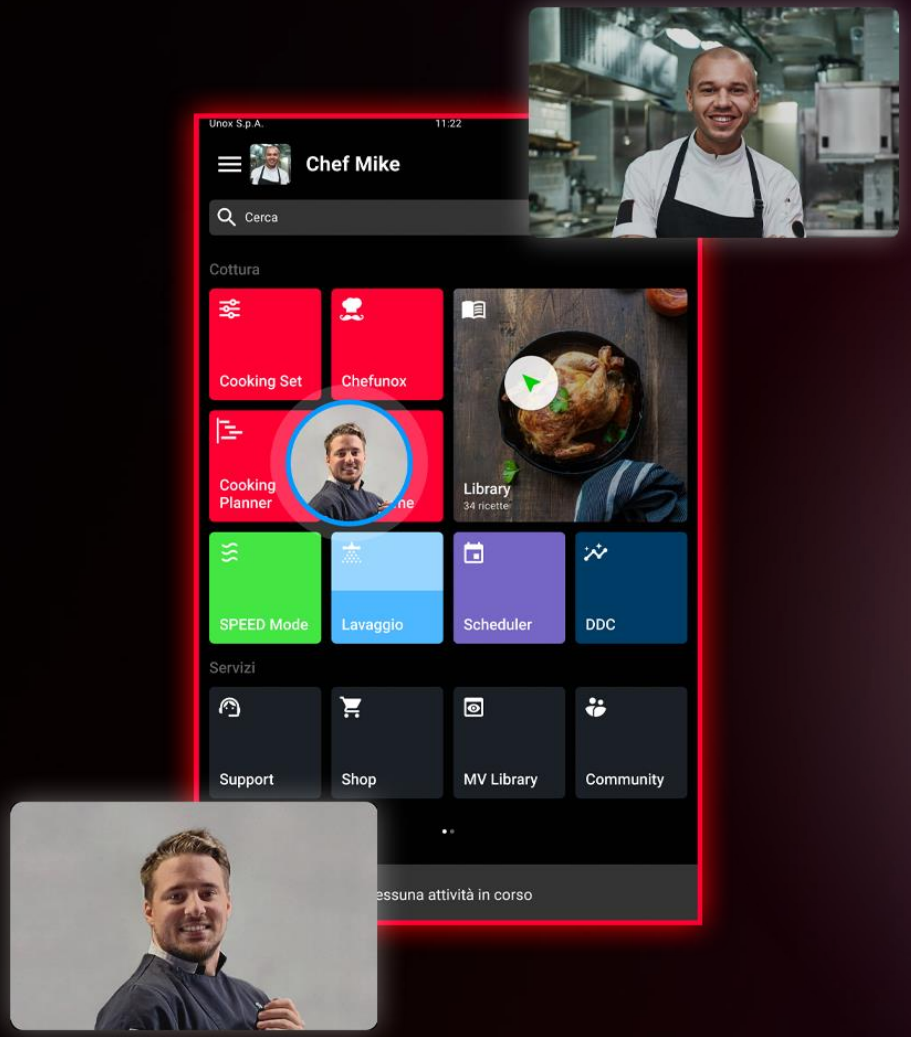


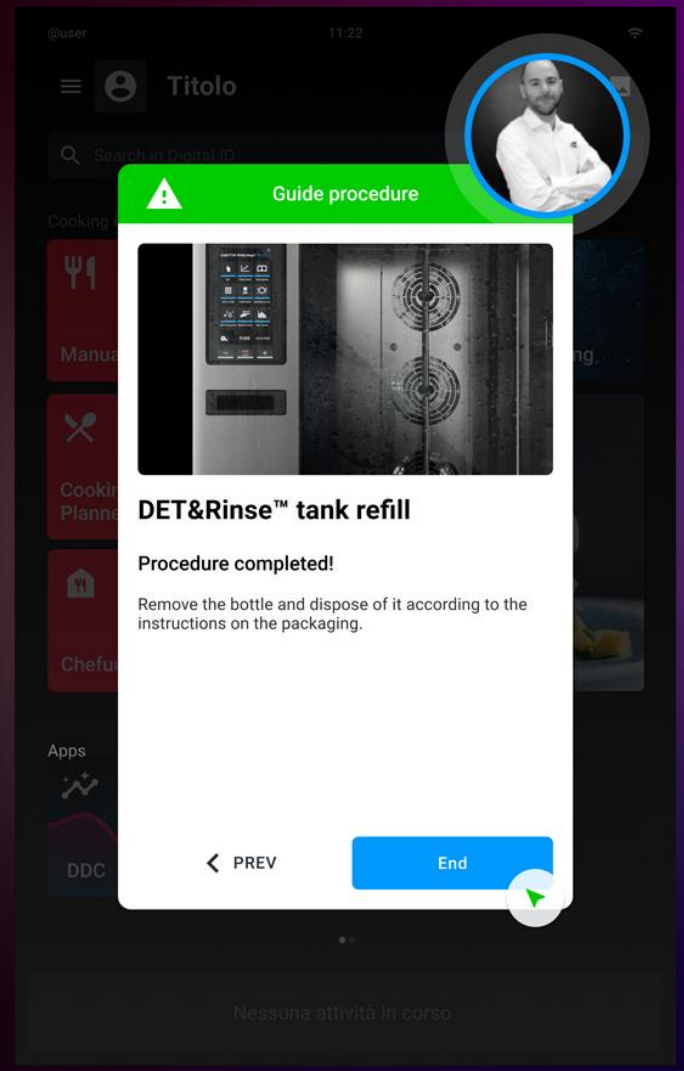
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Features

Remote assistance with Chime SDK



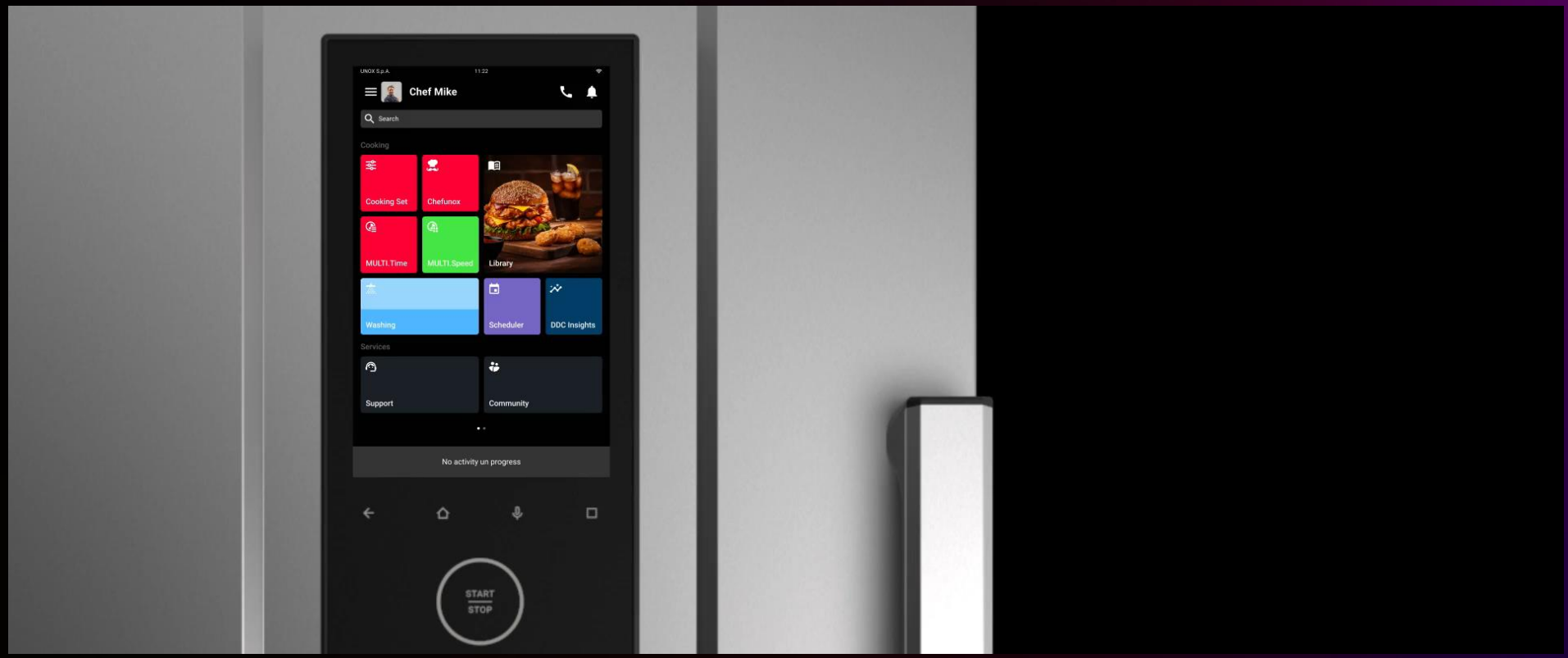




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Features

Voice control



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Physical Experience



02
Oven
Installation

01
Individual Cooking
Experience

06
Scheduled
Maintenance

Digital Experience

03
DIGITAL
Training

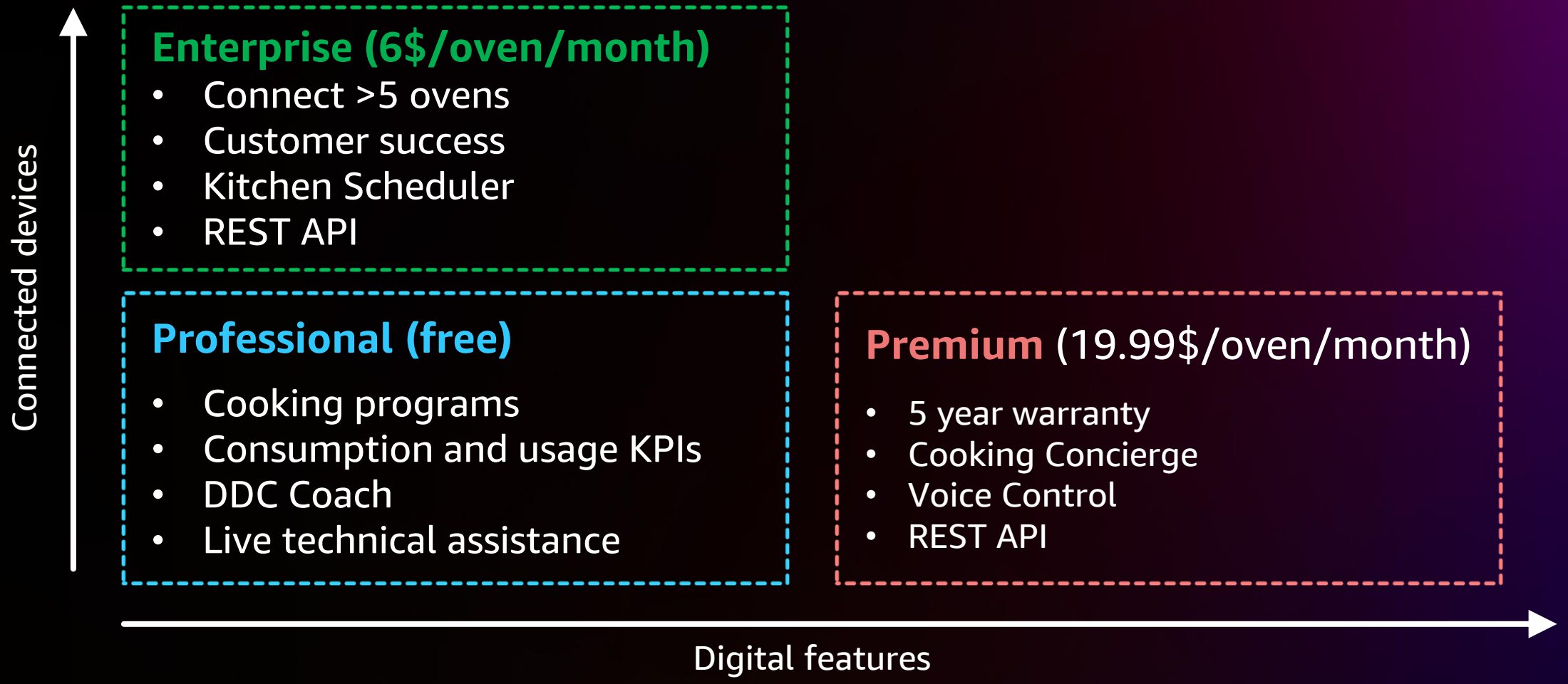
04
COOKING
Concierge

05
Live Technical
Assistance



Created new revenue streams

Subscription-based models



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Key benefits for UNOX



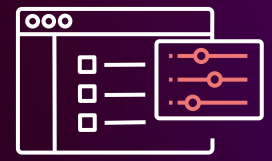
New revenue streams



Faster support with less costs



Customer retention and upsell opportunities



Position to premium

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Our operations processes

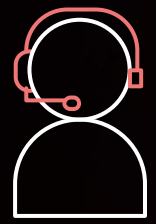
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SAP S/4 HANA on AWS

Implementing and expanding features since 2019



High flexibility and scalability



Fast, accurate AWS Support



Quick configuration and deployment

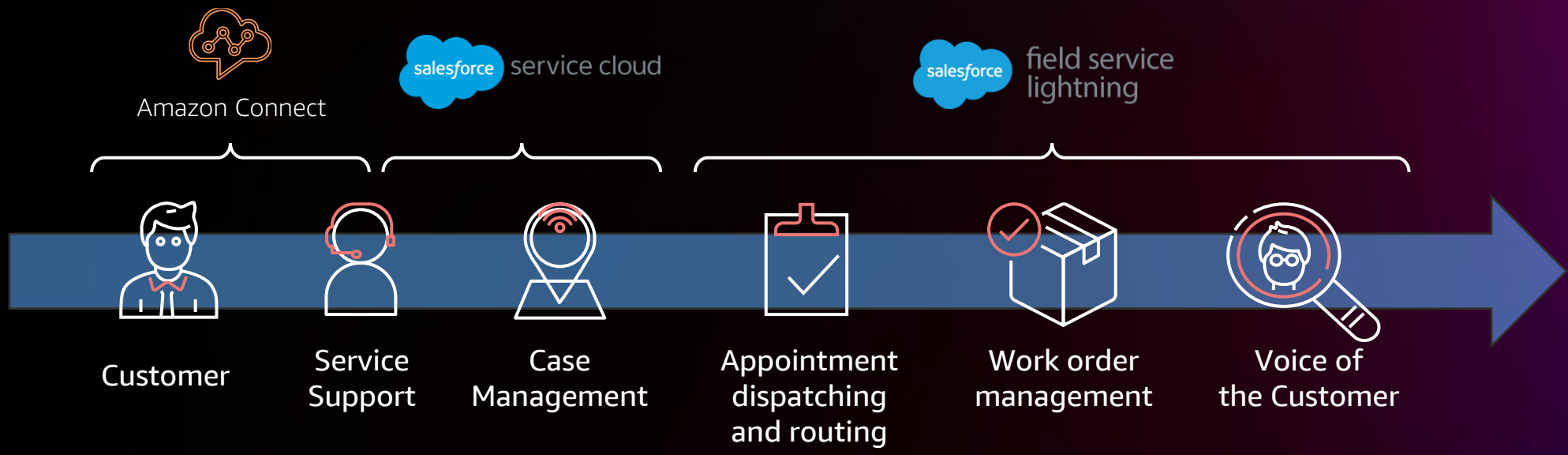


Migrated all SAP solutions in one week

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Amazon Connect



2019 (5 agents)

3000 calls/month
Service Level 90S 67%

2022 (9 agents)

5000 calls/month
Service Level 90S 93%

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Thank you!

Michel Putnik
mputnik@amazon.com

Gabriele Ballarin
linkedin.com/in/gabll



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