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

BSI202

Migrate to cloud-native business analytics with Amazon QuickSight

Sean Boon

Principal Product Manager,
Amazon QuickSight
AWS

Rahul Easwar

Senior Product Manager,
Amazon QuickSight
AWS

Massimiliano Ponticelli

Product Manager
Siemens

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Agenda

- Put data to work
- Challenges of fragmented BI
- Amazon QuickSight: Unified BI service at hyperscale
- Use cases for QuickSight
- Demo
- Siemens Opcenter Intelligence

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Put data to work



Make better decisions



Improve efficiencies



Respond faster



Uncover opportunities

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

A data-driven organization in the cloud era means...

Data is an organizational asset

No longer kept in silos or as the property of individual departments

Data is pervasive and accessible

Available easily, pervasively and securely to anyone who needs access to it—data is no longer solely the property of analysts and scientists

Data is augmented and put to work

Used in analytics and ML to make better decisions, create efficiencies, and drive new innovations



aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

The Unmet Promise of BI

< 20%

DECISION-MAKERS
USE BI IN ENTERPRISE

Forrester Study 2022

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Fragmented BI to meet varying user needs

Data Sources



Formats

Reports

Dashboards

Natural Language Queries

Embedded Analytics

Users

Executives

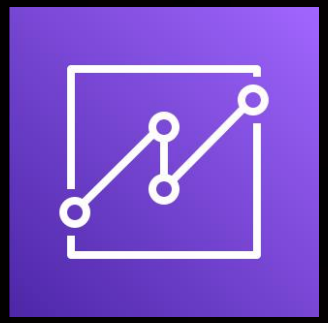
Analysts

Operational Users

Functional Users

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Amazon QuickSight

UNIFIED BI SERVICE AT HYPERSCALE

Unified BI for all your analytics needs

Build data-rich experiences fast

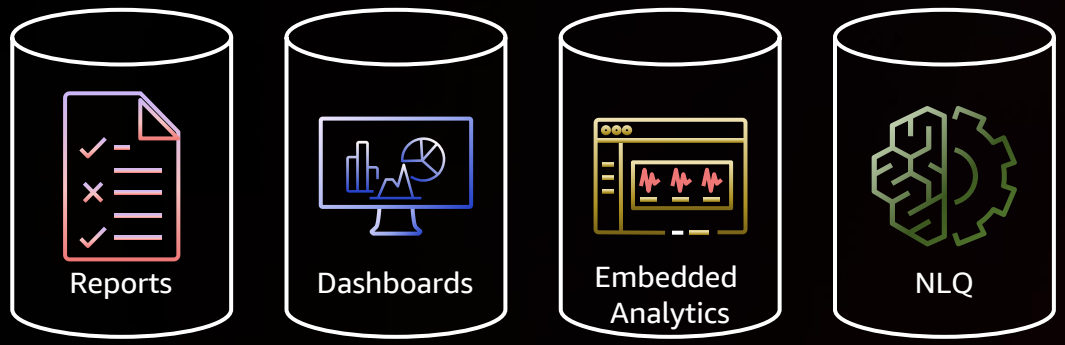
Consistent high performance with auto scale

Lower costs with consumption-based pricing

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

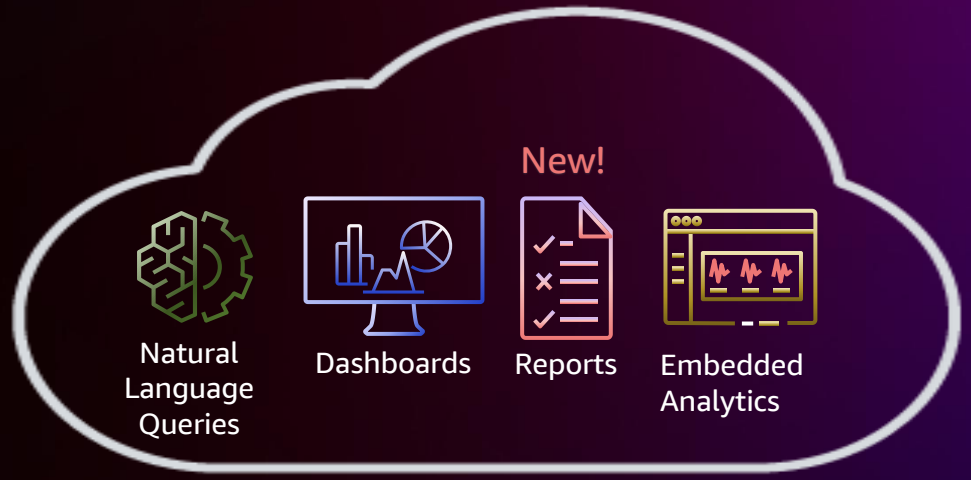
Unify approaches with QuickSight

Legacy



- Silos of BI environments
- Specialized training, staff for each
- Different UI for each

QuickSight



- Unified BI service at hyperscale
- No additional training required
- Same UI

aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Amazon QuickSight benefits



Unified BI for all needs

Interactive dashboards, Q, embedded analytics, and paginated reports from the same source of truth



Insights anywhere

Embed easily with extensive APIs, look-and-feel customizations for seamless data experiences in any app or portal



Augmented analytics

Ask questions in natural language with Q—explore forecasts, anomalies, narratives with built-in ML



Auto-scaling

Scale effortlessly to 100Ks of users with no servers to manage; scale to 1B+ row datasets with SPICE in-memory data engine



Policy based governance, security

Share securely with row and column-level security, role-based access control, with automated user provisioning



Get more with less

Reduce costs with pay-per-use pricing—no long-term contracts or hidden costs for scaling

Over 100,000 customers use QuickSight

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Over 100,000 Customers Use QuickSight



aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Amazon QuickSight



MODERN DASHBOARDS



NLQ



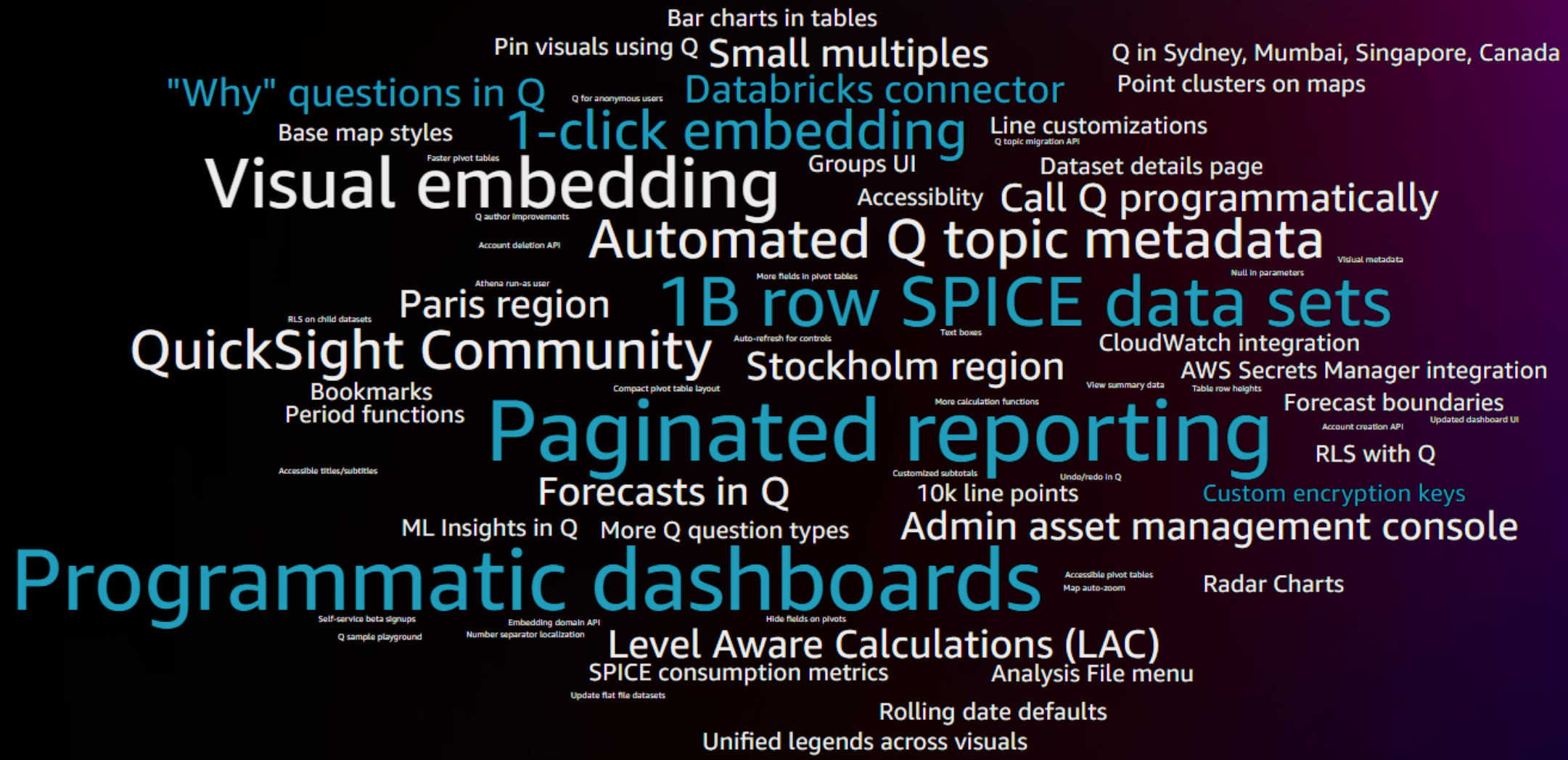
EMBEDDED ANALYTICS



REPORTS

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

80+ new features in 2022!

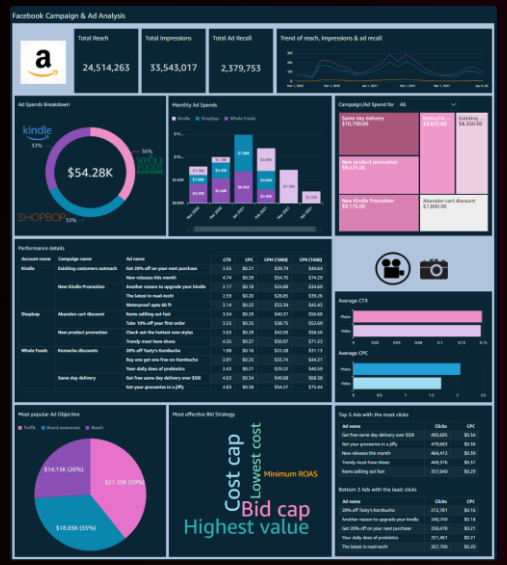


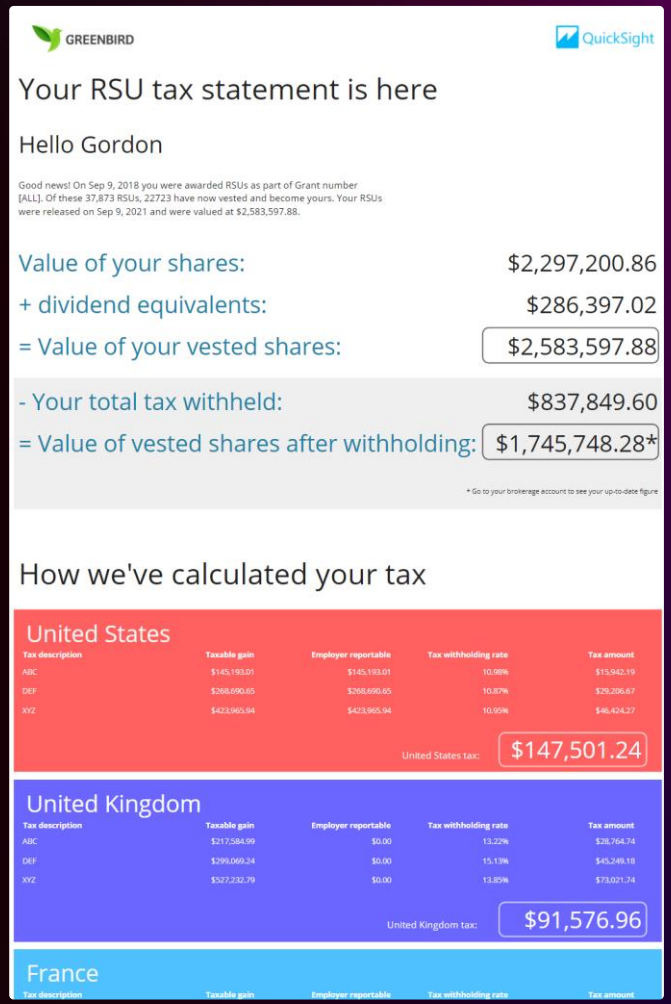
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

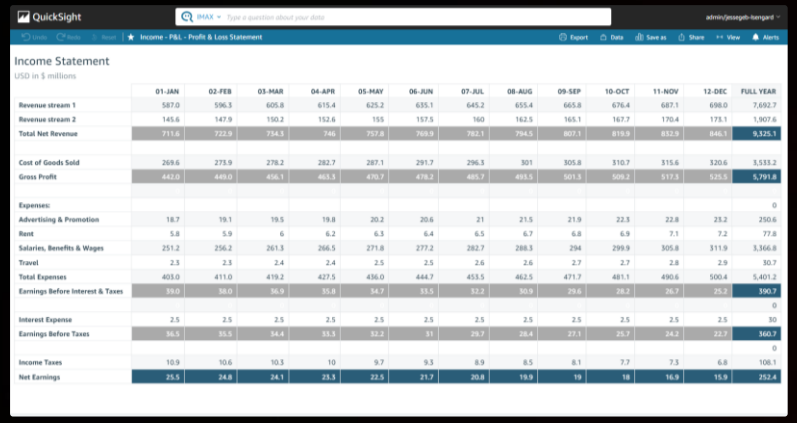
Build and deploy rich, interactive dashboards











© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Line chart customizations

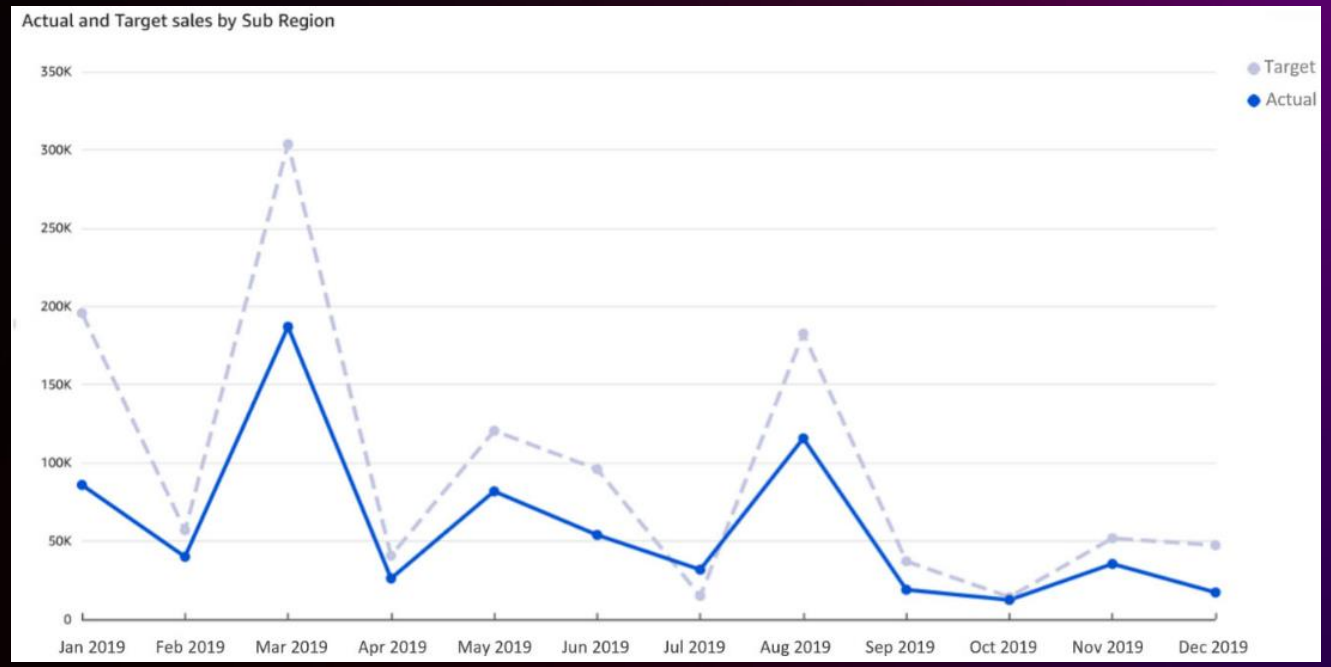
Control over missing data points
Choose how to display missing data points

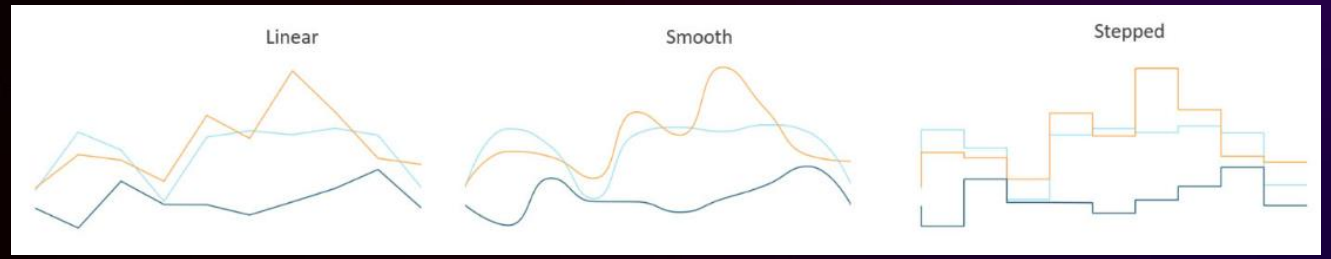
Marker customizations
Choose shape, size, and color

Line style options
Linear, smooth, and stepped interpolation
Solid, dotted, and dashed styles

Increased data limits
Line charts now support 10,000 points

Assign color
Improved experience for
assigning colors to series

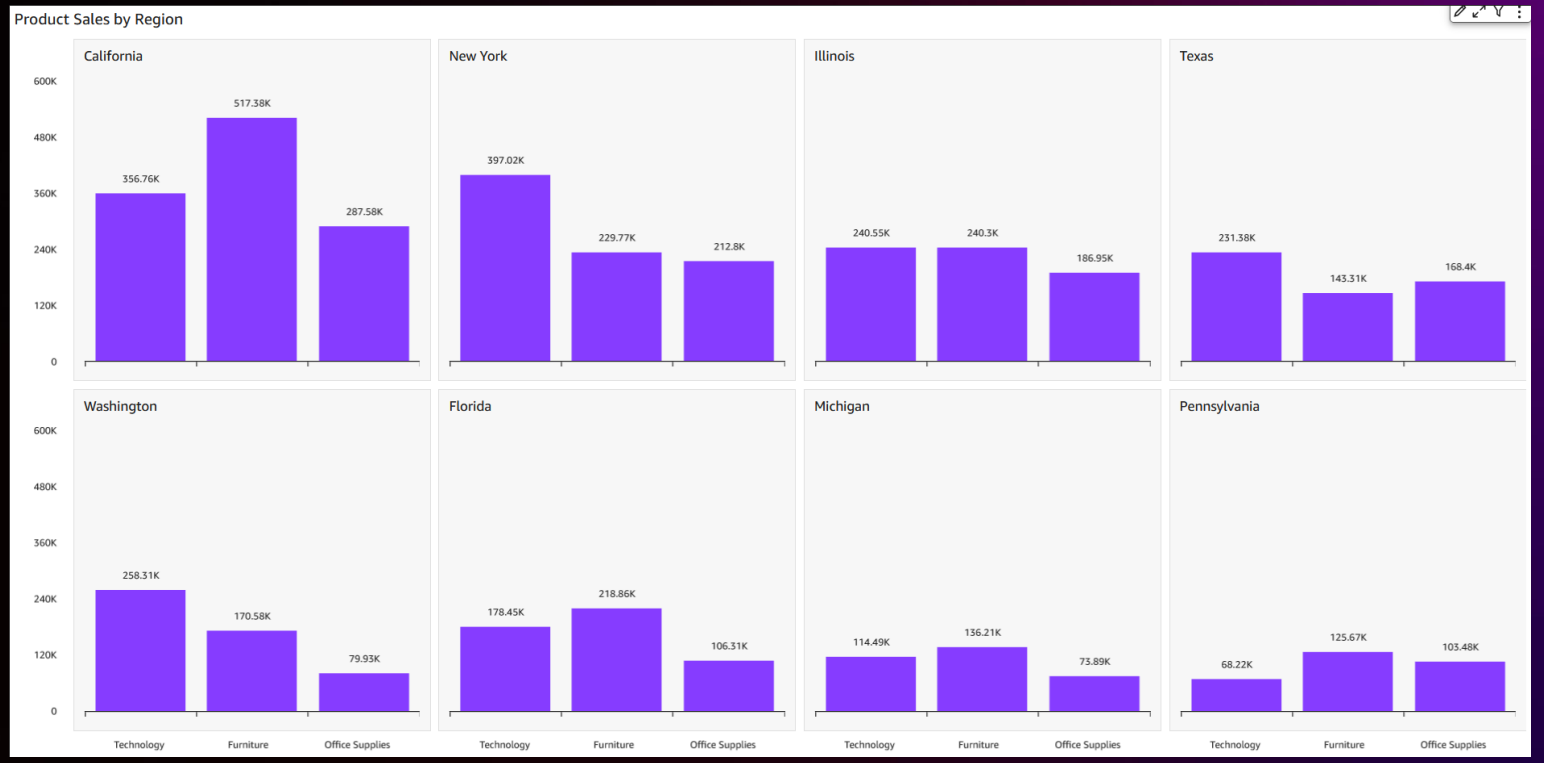




aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Small Multiples

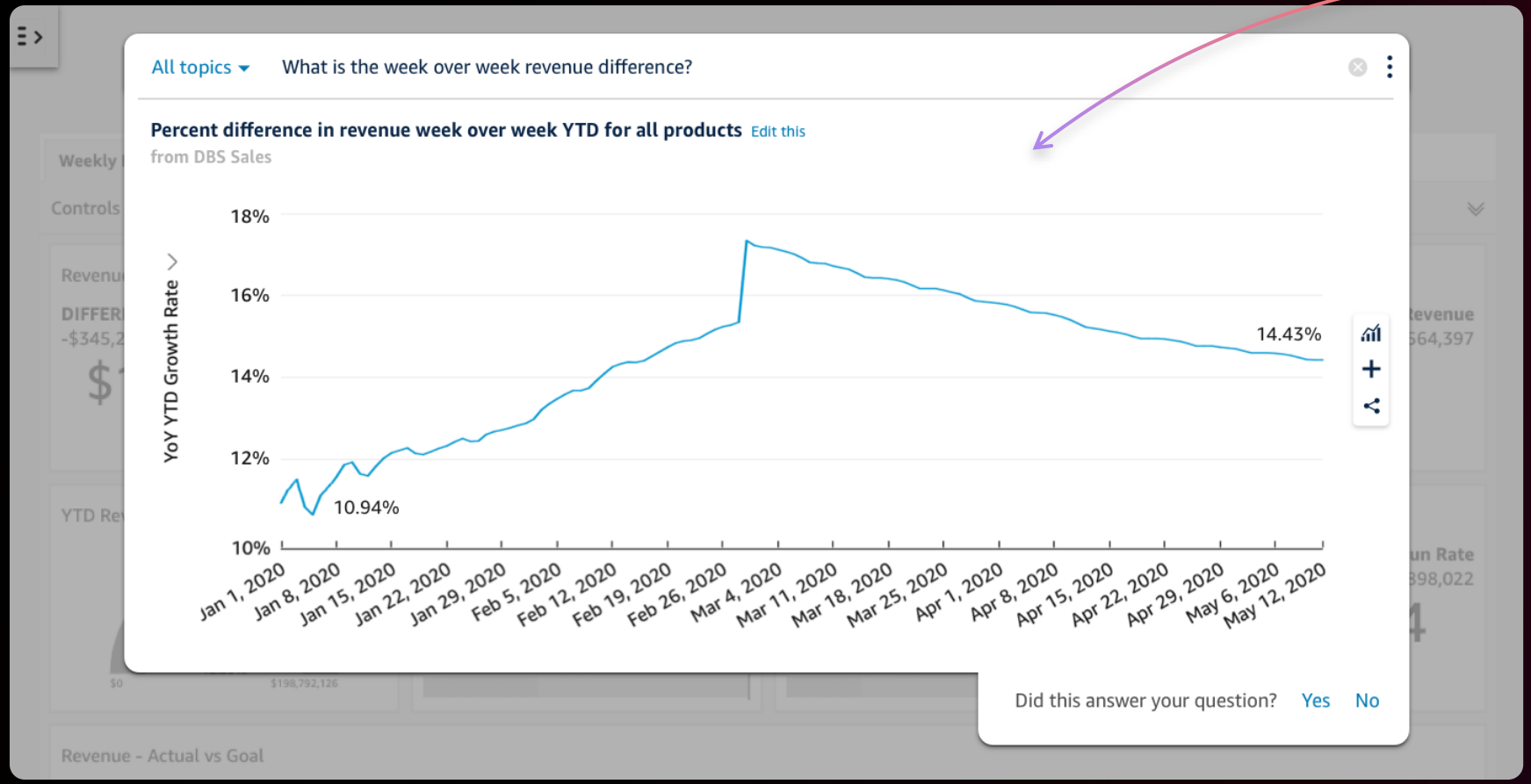
- Comparative analysis with easy pattern recognition
- Clean and digestible data
- Supported on line, bar and pie charts



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Foster a data-driven culture with Amazon QuickSight Q

NLP-POWERED SELF-SERVICE ANALYTICS FOR ANYONE



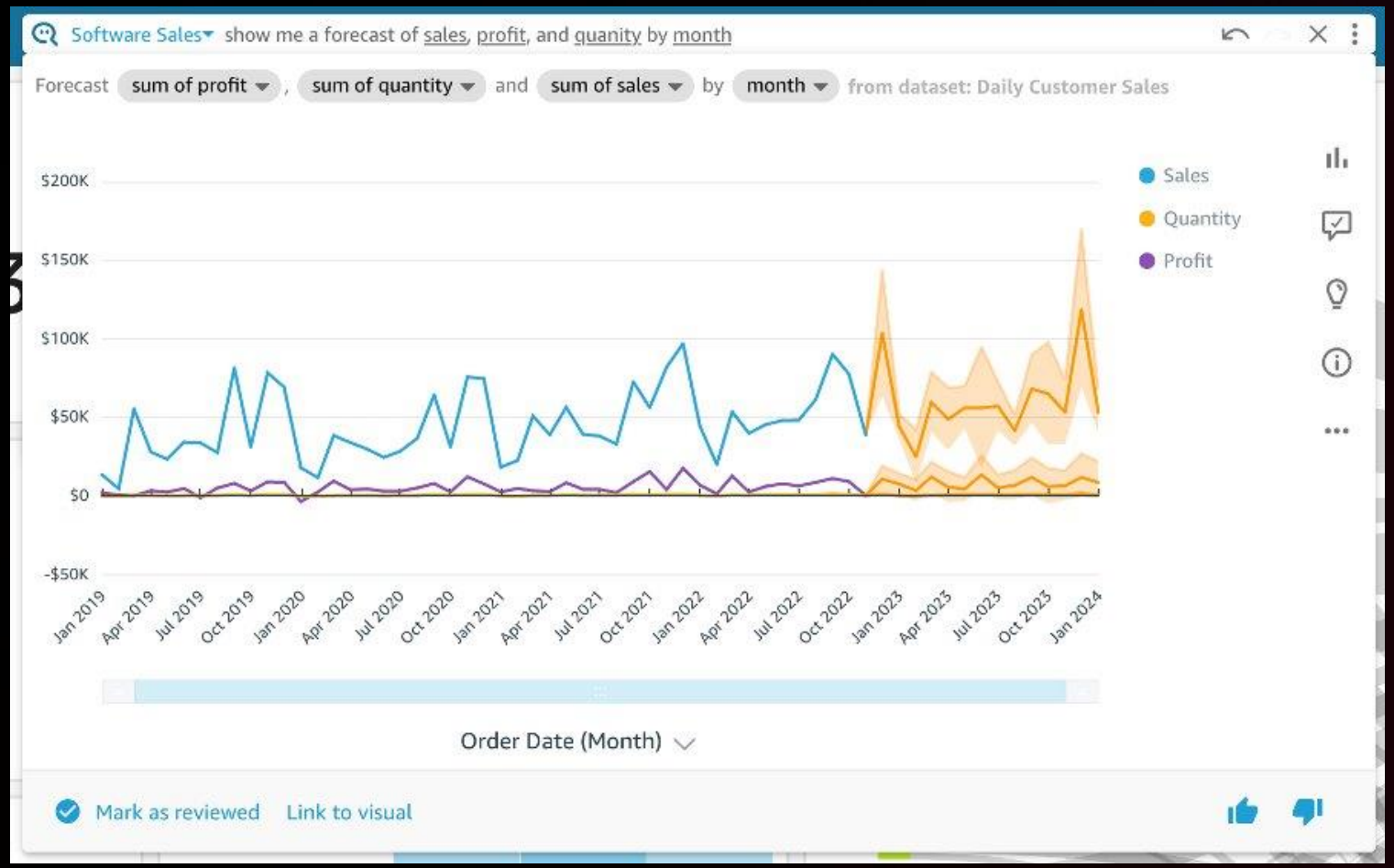
ML models interprets user question and intent, retrieves the data from source and generates a QuickSight visualization.

Knowledge layer adds semantics and relationships for customers to the underlying physical data.

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

New Question Types for Q

NLP-POWERED SELF-SERVICE ANALYTICS FOR ANYONE



Ask forecasting questions on up to three measures

Ask “why” questions to identify key drivers

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Pinboards for saving and sharing Q responses

NLP-POWERED SELF-SERVICE ANALYTICS FOR ANYONE



Save and share responses with pinboards

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Now available

Automated data prep for Amazon QuickSight Q

Amazon QuickSight Q now includes artificial intelligence (AI)-enhanced automated data preparation, making it fast and straightforward to augment existing dashboards for natural language questions.

Automated data preparation for QuickSight Q saves authors time by automatically selecting fields, classifying dimensions and measures, creating name labels, and applying column value formats.

It also enriches topics with related synonyms for fields, semantic type, and default date information, improving the ability of QuickSight Q to match results to users' intent out of the box.

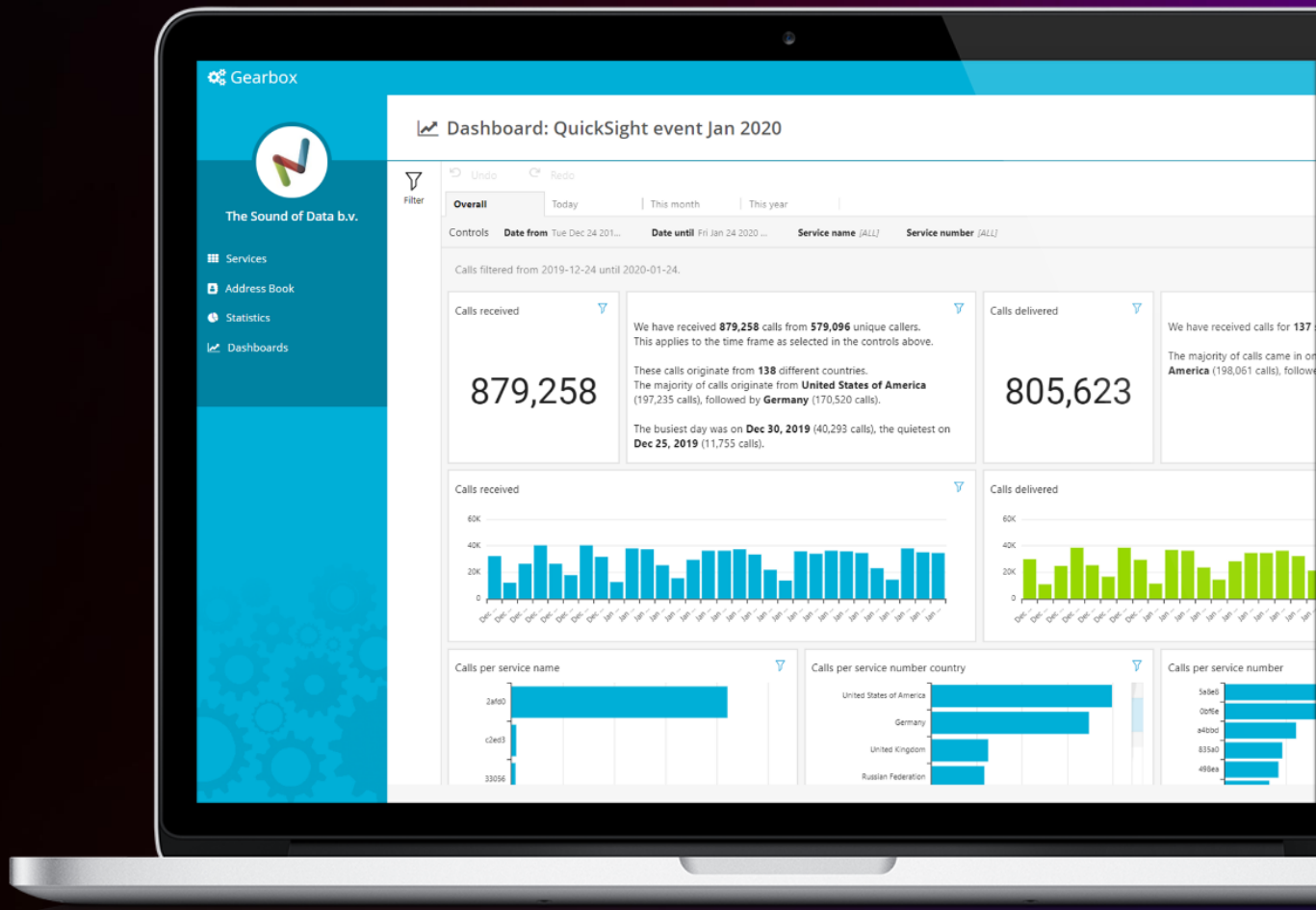
aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Embed analytics into your apps

ENHANCE YOUR PRODUCTS, INTERNAL PORTALS, AND PUBLIC WEBSITES WITH ENRICHED CUSTOMER EXPERIENCES

- Embed dashboards, power user, and NLQ experiences
- Easy maintenance, no servers to manage
- Fast! No custom development or domain expertise needed
- Ad-hoc analytics via embedded authoring



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Now available

New Expanded APIs for programmatic creation and management of dashboard



Programmatic access to assets



Accelerated migration

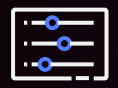


DevOps integration

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Augment your data with machine learning



Auto narratives

Summarize your business metrics in plain language



ML predictions

Visualize and build predictive dashboards with Amazon SageMaker models



QuickSight Q

Ask questions using natural language



Anomaly detection

Discover unexpected trends and outliers against millions of business metrics



Forecasting

Machine learning forecasting with point-and-click simplicity

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Now available

QuickSight Paginated Reporting

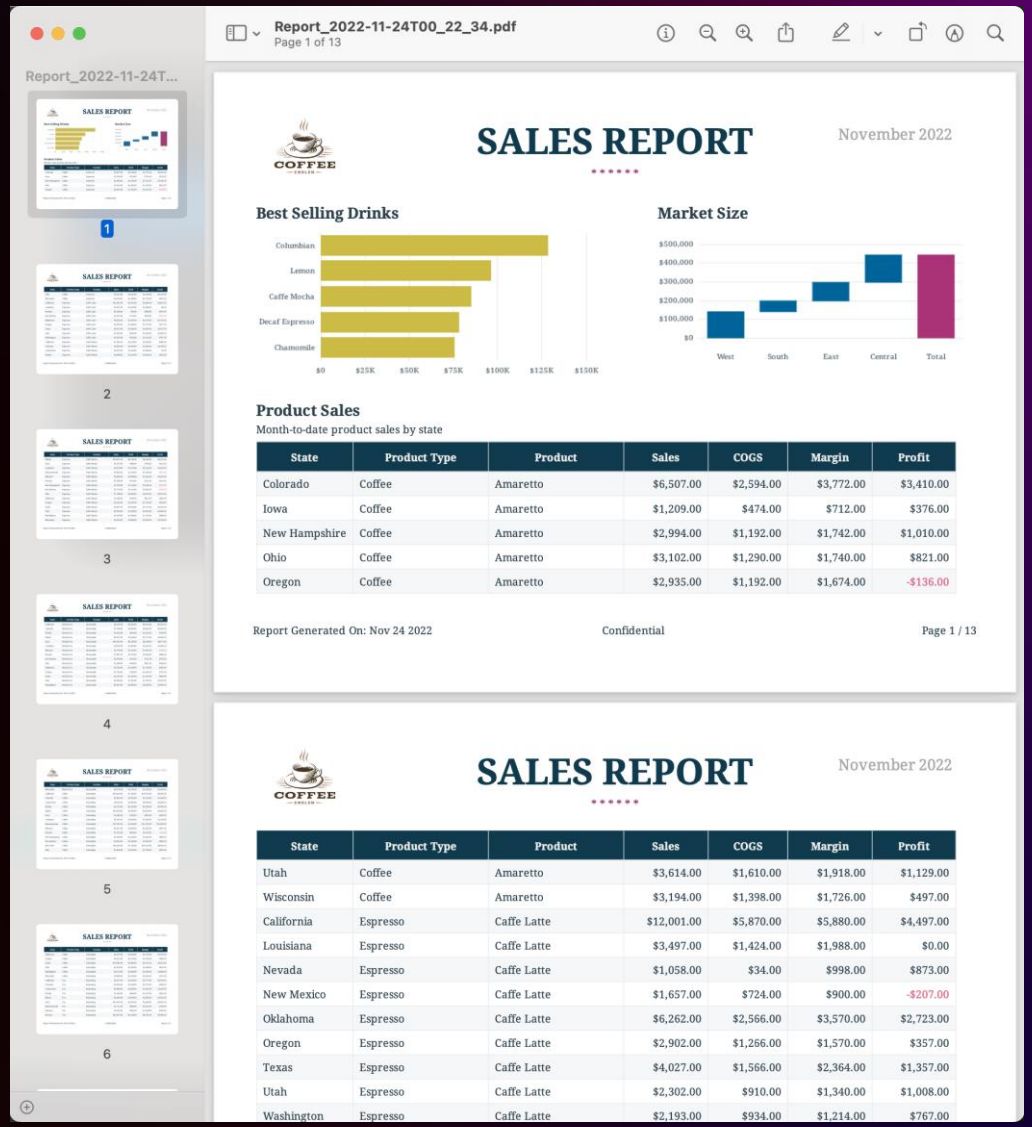


© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

QuickSight Paginated Reporting

Multipage reports

- Generate PDF reports that render all the rows of a table/pivot table when exported
- Author-defined explicit page breaks to control the flow of the generated output



Design and functionality are conceptual and can change

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

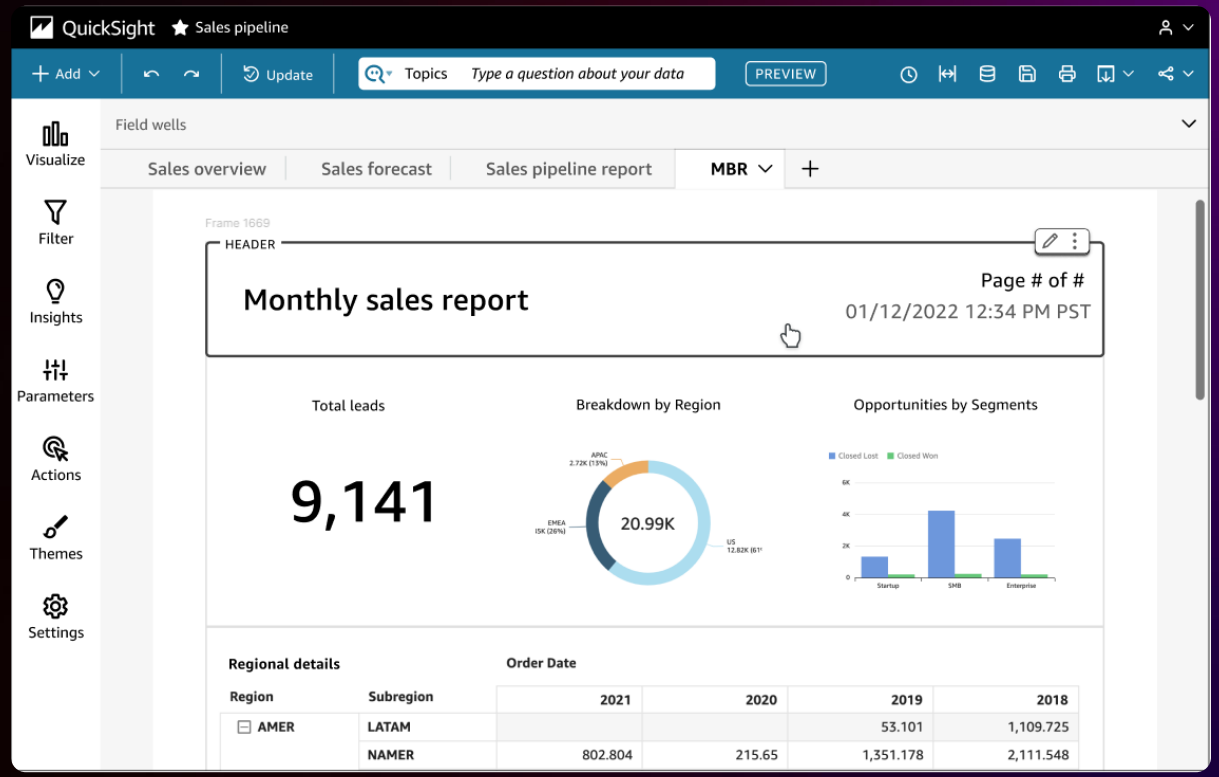
QuickSight Paginated Reporting

Multipage reports

- Generate PDF reports that render all the rows of a table/pivot table when exported
- Author-defined explicit page breaks, to control the flow of the generated output

Headers and footers

- Add predefined system parameters such as page numbers
- Create rich visuals by adding text and images to the header and footer area



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

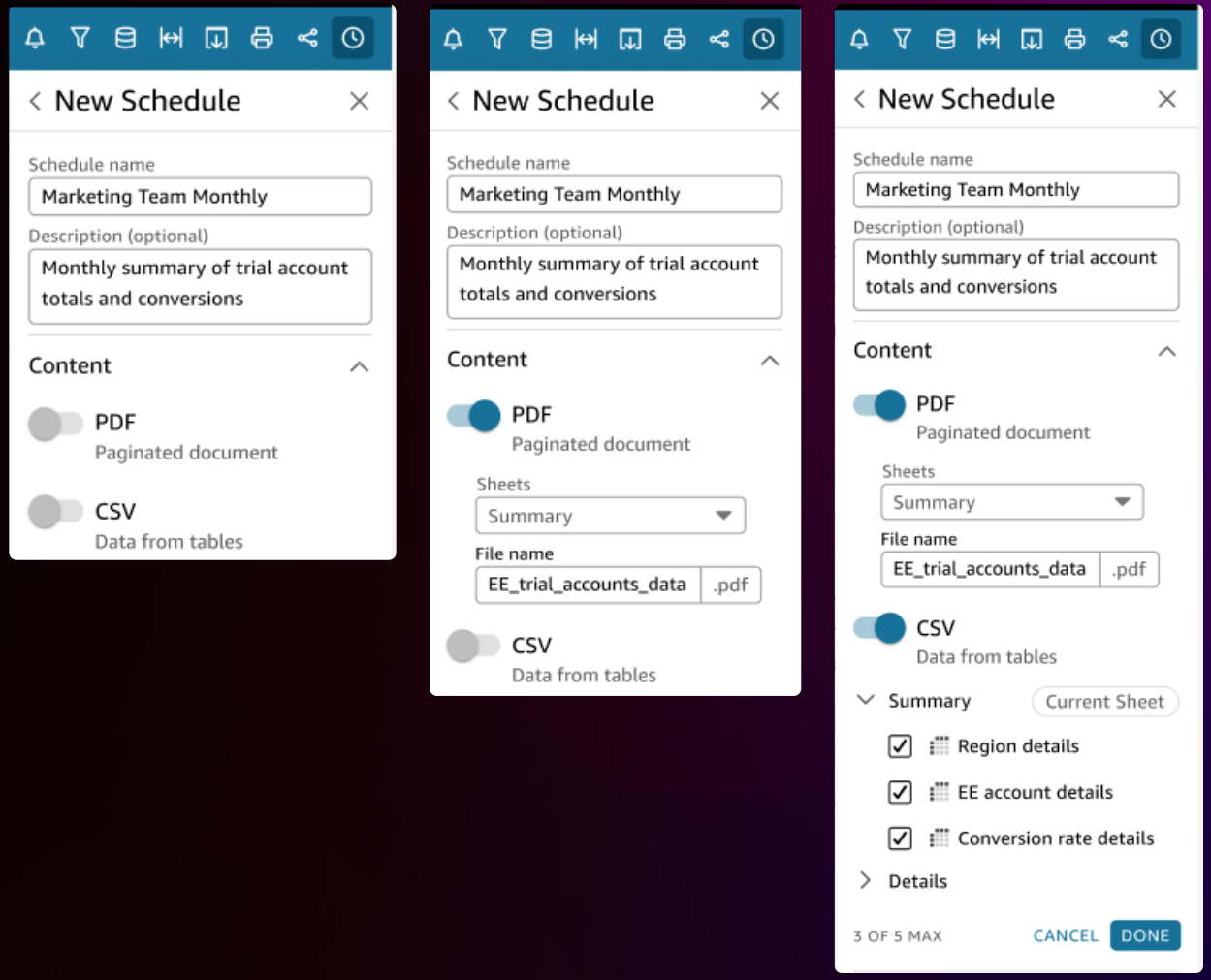
QuickSight Paginated Reporting

Scheduled delivery

- Ability to schedule PDF documents with content that spans multiple pages
- Choose summary data to export to CSV

Snapshot history

- Access report snapshots on demand



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Benefits of Paginated Reporting in the cloud

CONSOLIDATE DASHBOARD AND REPORTING USE CASES COST EFFECTIVELY IN THE CLOUD

- Build all insights, independent of preferred consumption model, on single-source-of-truth governed datasets

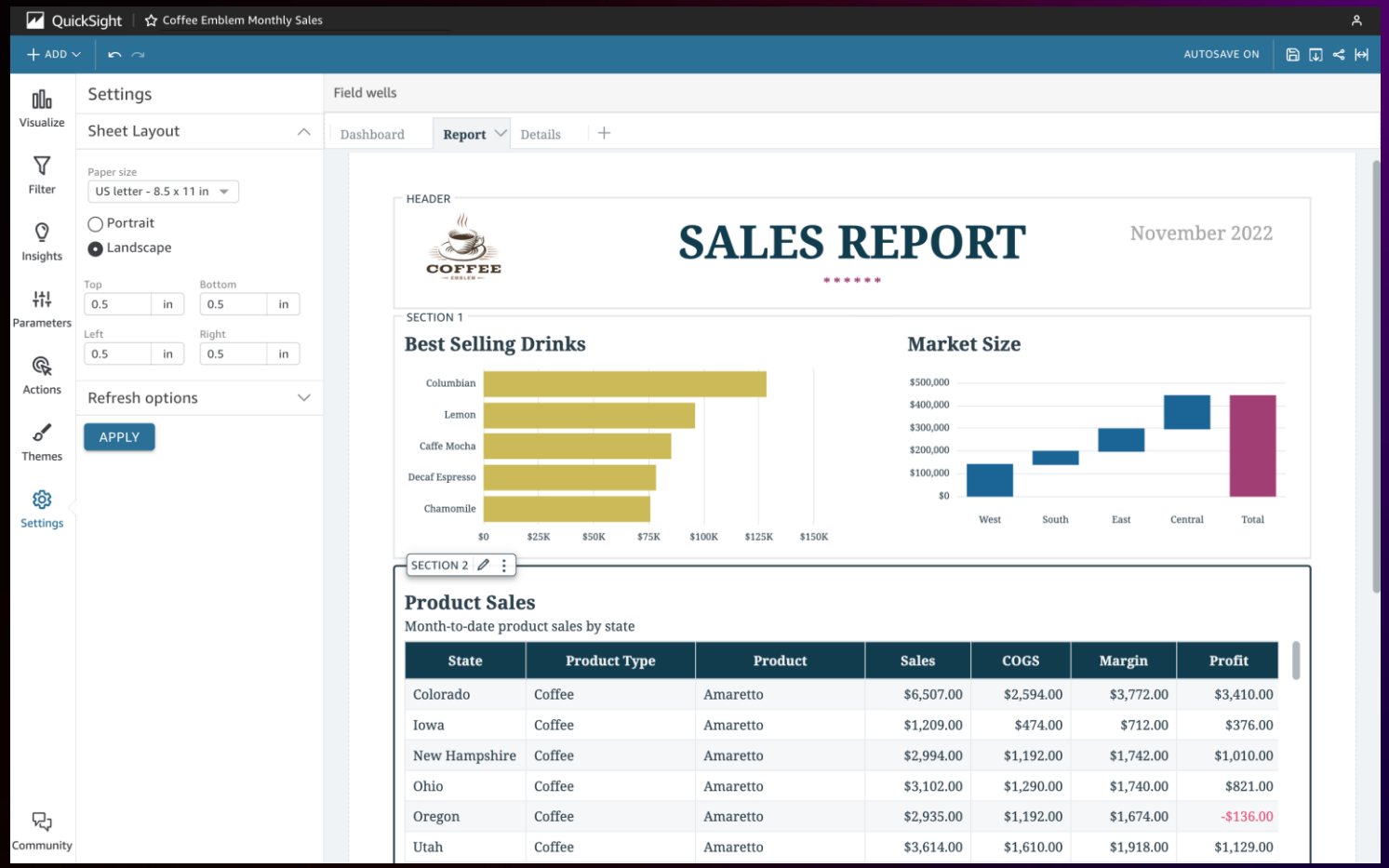


© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Benefits of Paginated Reporting in the cloud

CONSOLIDATE DASHBOARD AND REPORTING USE CASES COST EFFECTIVELY IN THE CLOUD

- Build all insights, independent of preferred consumption model, on single-source-of-truth governed datasets
- Single authoring experience for dashboards and reports
- Unified consumption experience allows users to choose dashboards and reports
- Pay for what you use
- No software updates to manage



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

QuickSight

Find analyses & more

Favorites

Recent

My folders

Shared folders

Dashboards

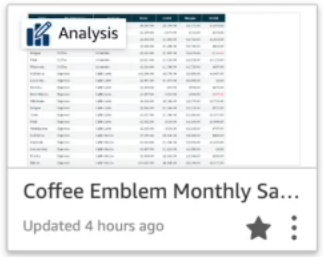
Analyses

Datasets

Topics New

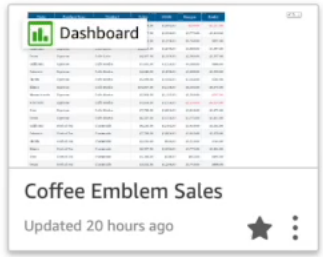
Community New

Favorites



Coffee Emblem Monthly Sa...

Updated 4 hours ago



Coffee Emblem Sales

Updated 20 hours ago

QuickSight Paginated Reporting Pricing

Type	Included report units*	Price	Additional per report unit*
Monthly plan	500/month	$500/month	$1.00
Annual plan	4,000/month	$2,000/month ($24,000/year)	$.50

Contact us for pricing options available for larger reporting needs.

** A report unit is defined to be up to 100 pages long or 100 MB in size. For example, a 200-page report constitutes 2 report units.*

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Siemens Opcenter Intelligence unlock the power of smart data with Amazon QuickSight

Massimiliano Ponticelli

Product Manager
Siemens

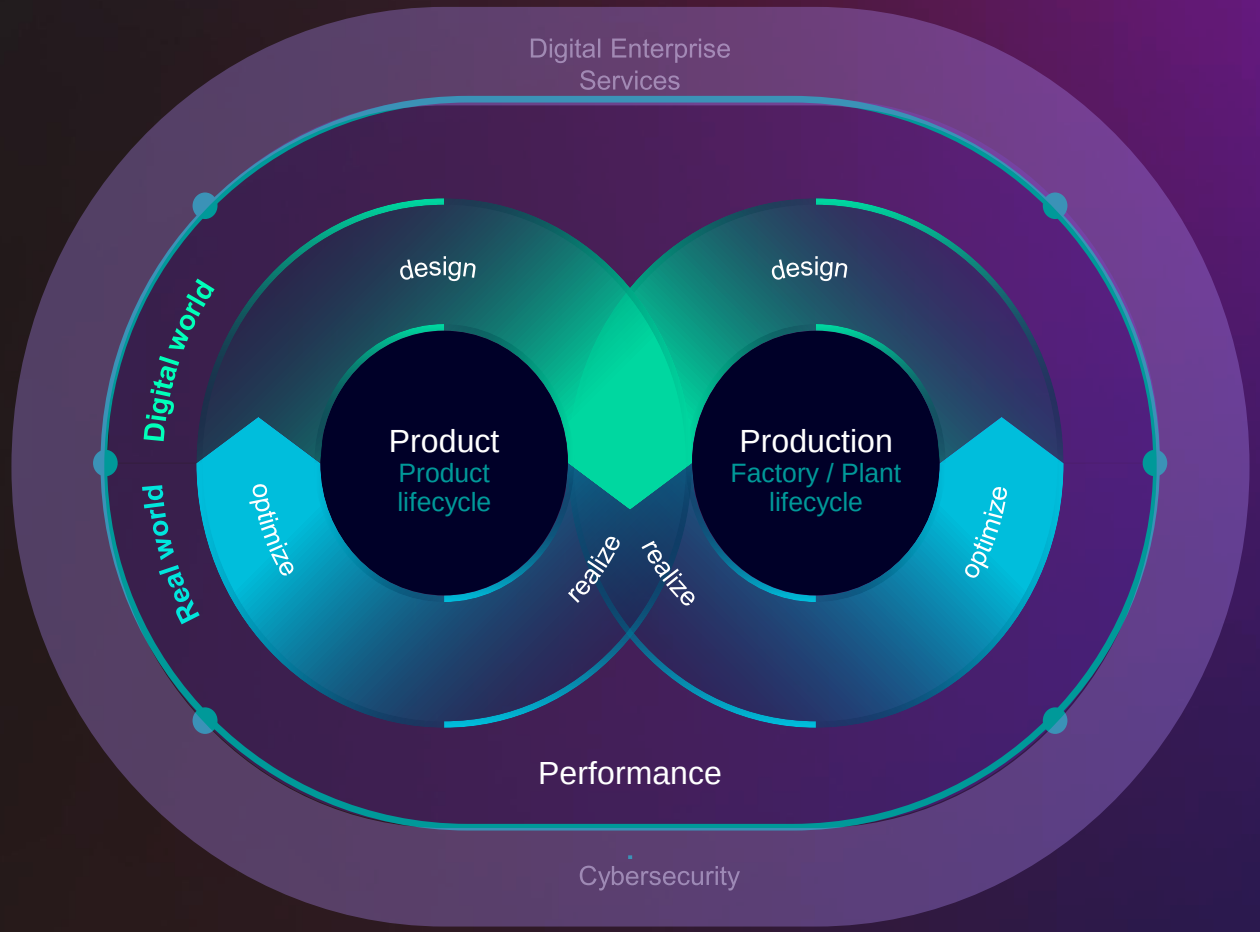
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Siemens Digital Manufacturing

Digital Enterprise
The comprehensive
Digital Twin approach

Continuous improvement of product and production in a data-driven industry

- Increase throughput, speed, efficiency
- Reducing operation expenses – agility, quality, WIP, first-time-right, …



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Data-Driven Manufacturing Analytics with Opcenter Intelligence

Automotive



CPG/Process



Electronics



Aerospace/Defense



Industrial Machinery



Medical Devices



- Plant performance
- Data into insight
- Product performance

Unlock the Power of “Smart Data” to turn data into **actionable and reliable insights** … through Manufacturing Operations Management and an integrated and collaborative approach across IIoT and Shop-floor OT

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

SIEMENS

Opcenter Intelligence & AWS QuickSight foster Manufacturing Data-Driven Analytics



Easy data analysis w/o SQL

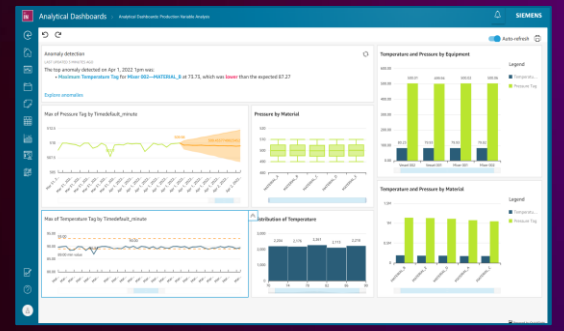
Embedded in the Siemens Opcenter Portfolio

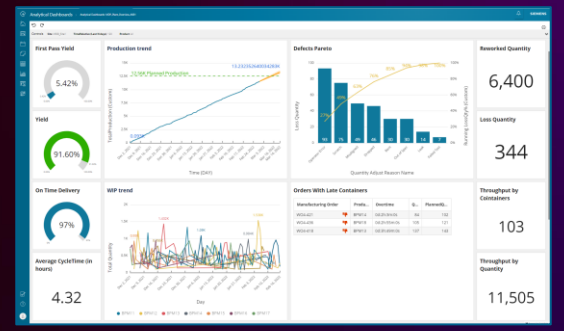
Interactive dashboarding and paginated reporting

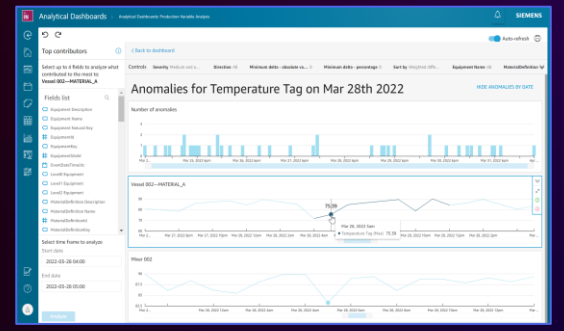
Enterprise visibility & local segregation

Scalability from small to large enterprise

Smart data & machine learning for everyone



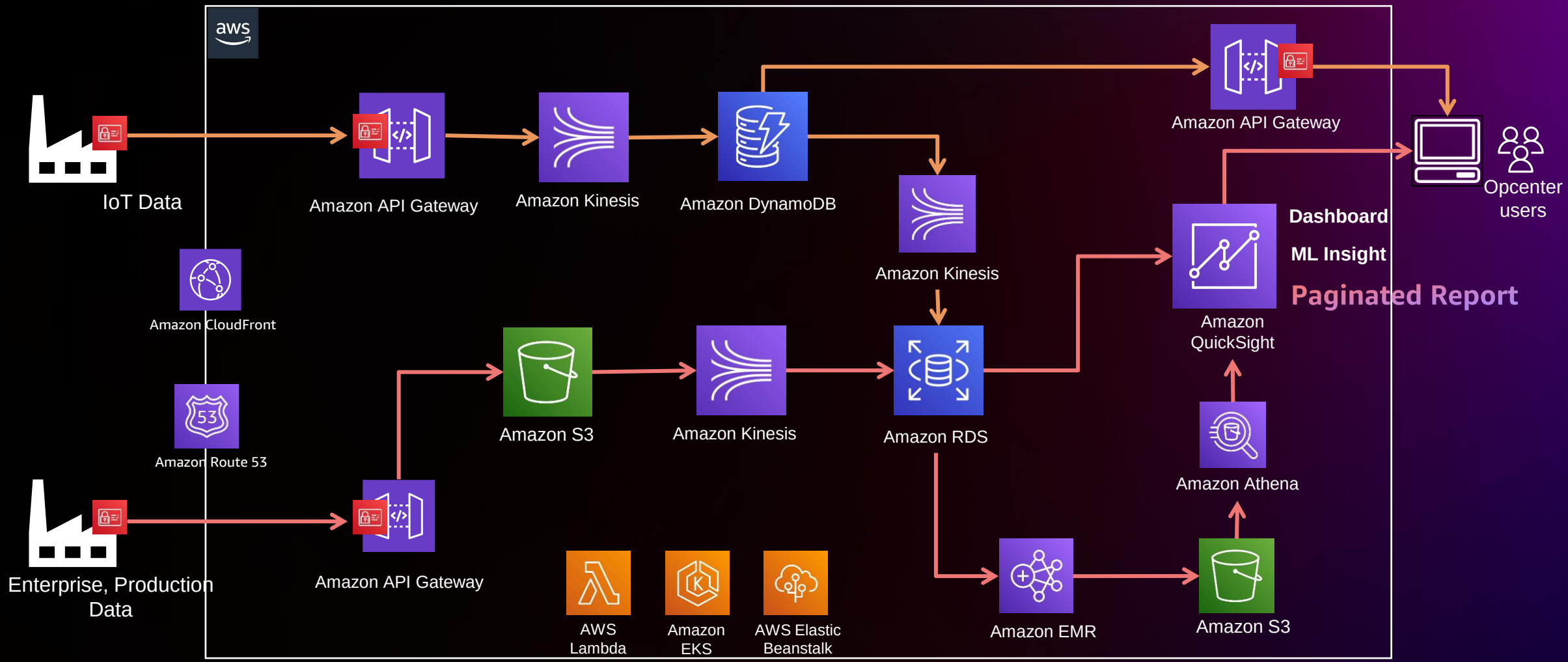




© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

SIEMENS

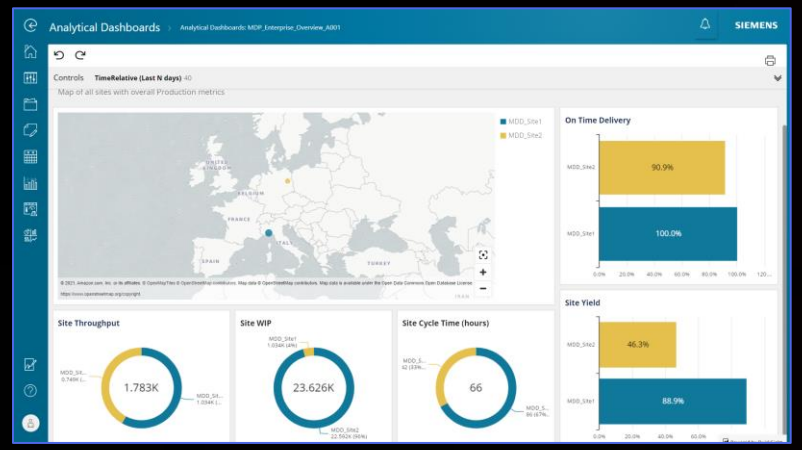
High-level architecture

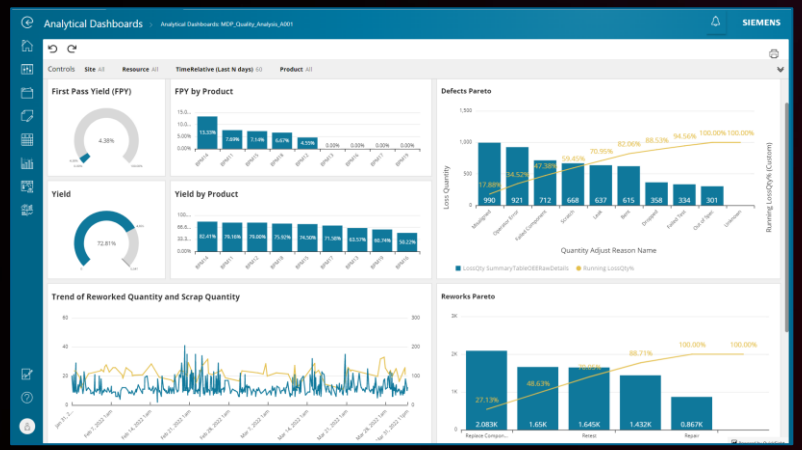


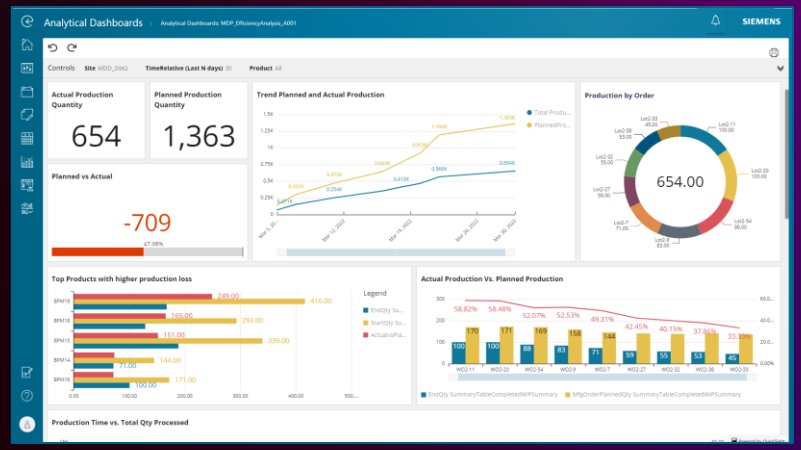
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

SIEMENS

Manufacturing data analysis







Siemens Opcenter Intelligence customers using dashboards...

VORWERK

The Absolut Company

SIEMENS

and more...

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

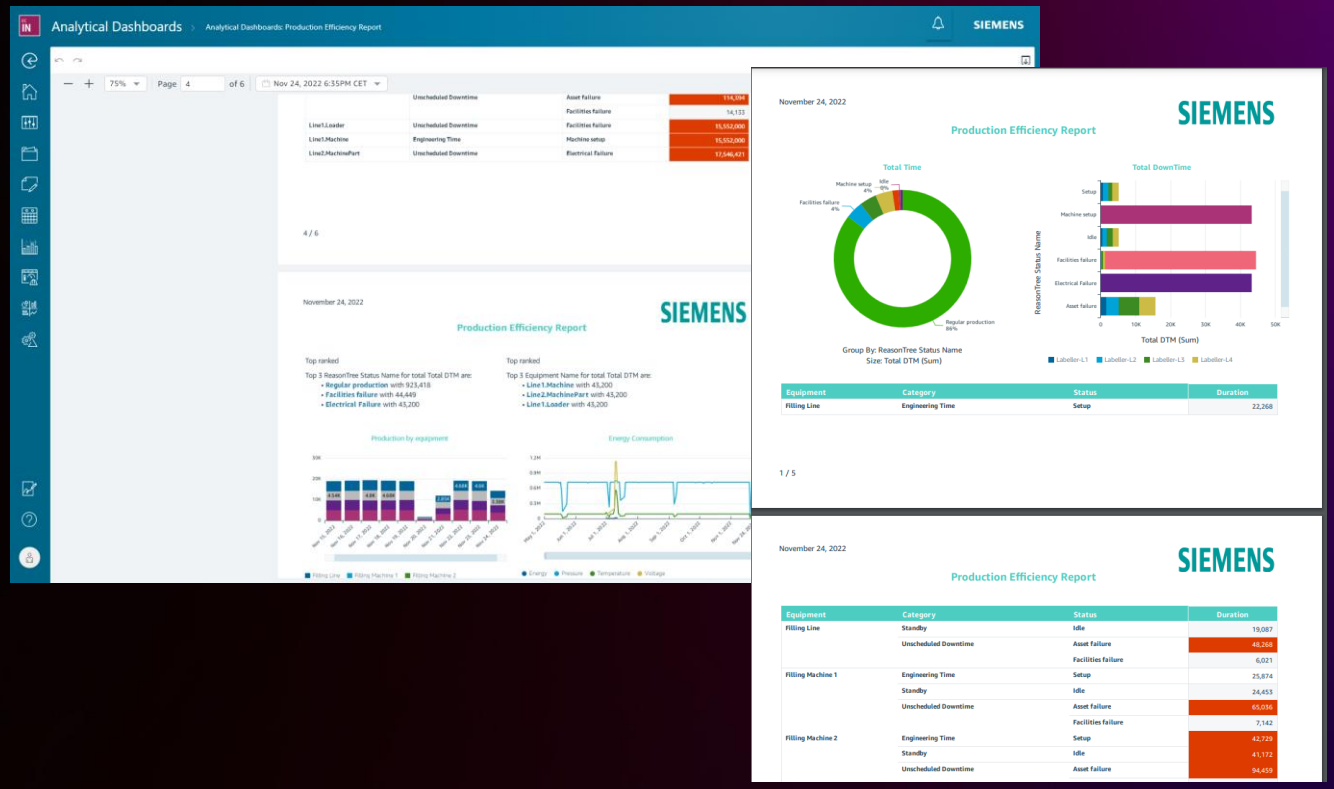
SIEMENS

Production Efficiency Report

Head of Manufacturing
Quality Manager
Line Supervisor

Customer issues

- Track production, process and quality behavior in a tabular and paginated format for a specific Batch\Final Product
- Save in a printable format for a successive review and/or regulatory rules all the information related to a certain production



Data visibility at the component, equipment, manufacturing line across multiple data sources allows for examination of machine, process, and human **impacts to product, quality, and process**

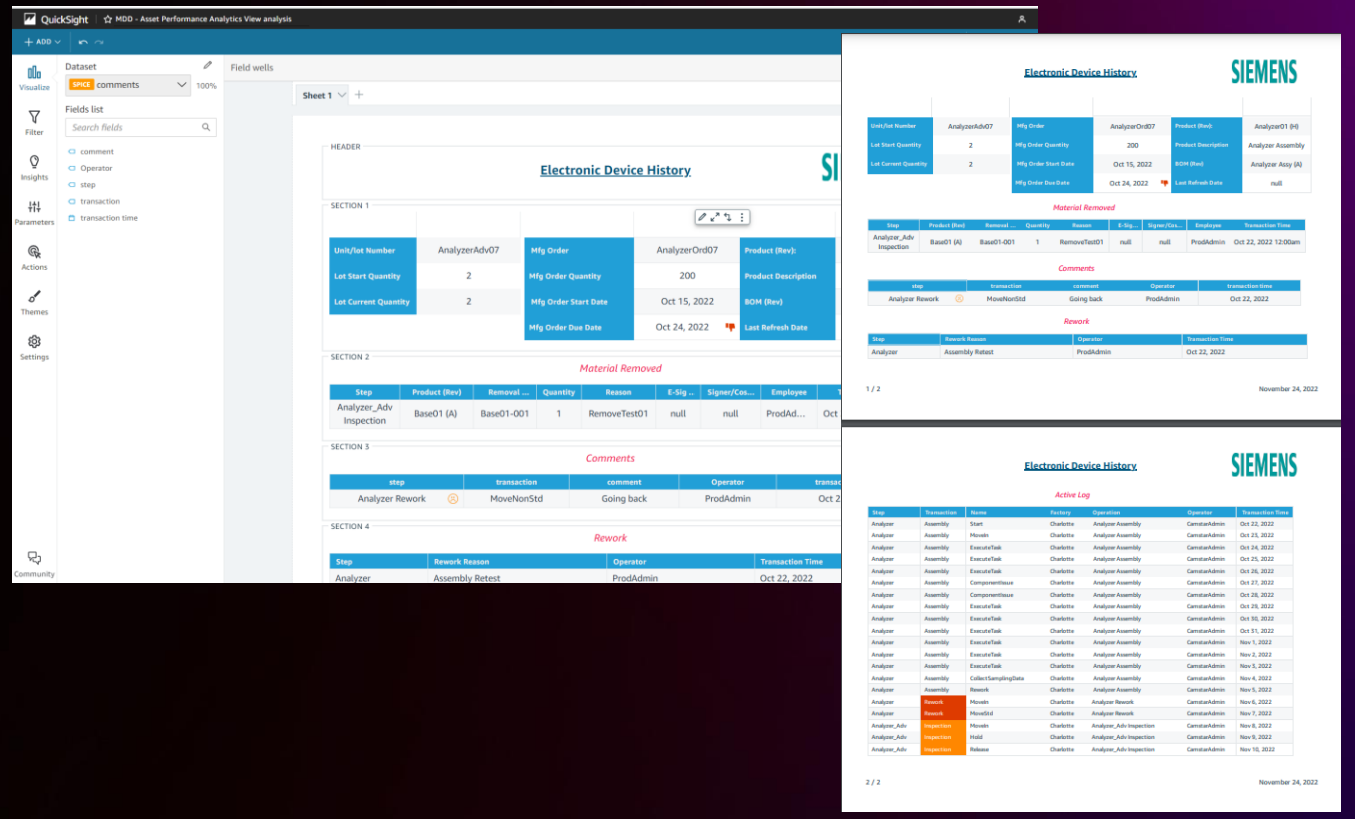
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Production Batch Report

Head of Manufacturing
Quality Manager
Operations

Customer issues

- Error-proof processes for right-first-time, more consistent product quality
- Improve process visibility, minimize manufacturing and regulatory overhead



Thanks to MES and a flexible reporting capabilities, “batch report” provides the error-proofing and real-time visibility necessary to produce consistent product quality

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

SIEMENS

Continuous challenges for data analysis … and beyond

REQUEST

Bring cost under control, streamline operation for scalable and integrated product solution

Single tool for dashboard and report, easy to use



Head of Operations – Native scalability and easy deploy/maintain

save around 10%-15% of our cost

Chief Architect – Same architecture to manage dashboard and paginated report save months of effort





Product Owner – APIs layer and embedded functions enables a faster time to market for Opcenter Intelligence Industries solution



Head of Manufacturing – Single solution for dashboard, ML and paginated reports provide a full visibility and simplified self-service

COO – Scalable and flexible approach allow to adapt to business change



aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

SIEMENS

Amazon QuickSight @ re:Invent

Wednesday, 11/30

Breakout
2:30PM | @WYN
Migrate to cloud-native business analytics with Amazon QuickSight

Breakout
4:45PM | @MGM
Get clarity on your data in seconds with Amazon QuickSight Q

Workshop
5:30PM | @WYN
Seamlessly embed analytics into your apps with Amazon QuickSight

Chalk Talk (repeat)
7:45PM | @WYN
Architecting multi-tenancy for your apps with Amazon QuickSight

Thursday, 12/1

Workshop (repeat)
11:45PM | @CSR
Build stunning customized dashboards with Amazon QuickSight

Breakout
12:30PM | @CSR
Differentiate your apps with Amazon QuickSight embedded analytics

Breakout
3:30PM | @Encore
Optimize your AWS cost and usage with Cloud Intelligence Dashboards

Visit the business intelligence kiosk in the AWS village to speak with QuickSight experts + free swag

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Join the QuickSight Community



Ask questions. Learn together. Get QuickSight re:Invent updates!

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!



Please complete the session survey in the **mobile app**

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.