
AWS
re:Invent

BSI201

Embed analytics in your applications with Amazon QuickSight

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AWS

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Agenda

Why embed analytics?

The Amazon QuickSight difference

Embedded scenarios

Demo

Pricing



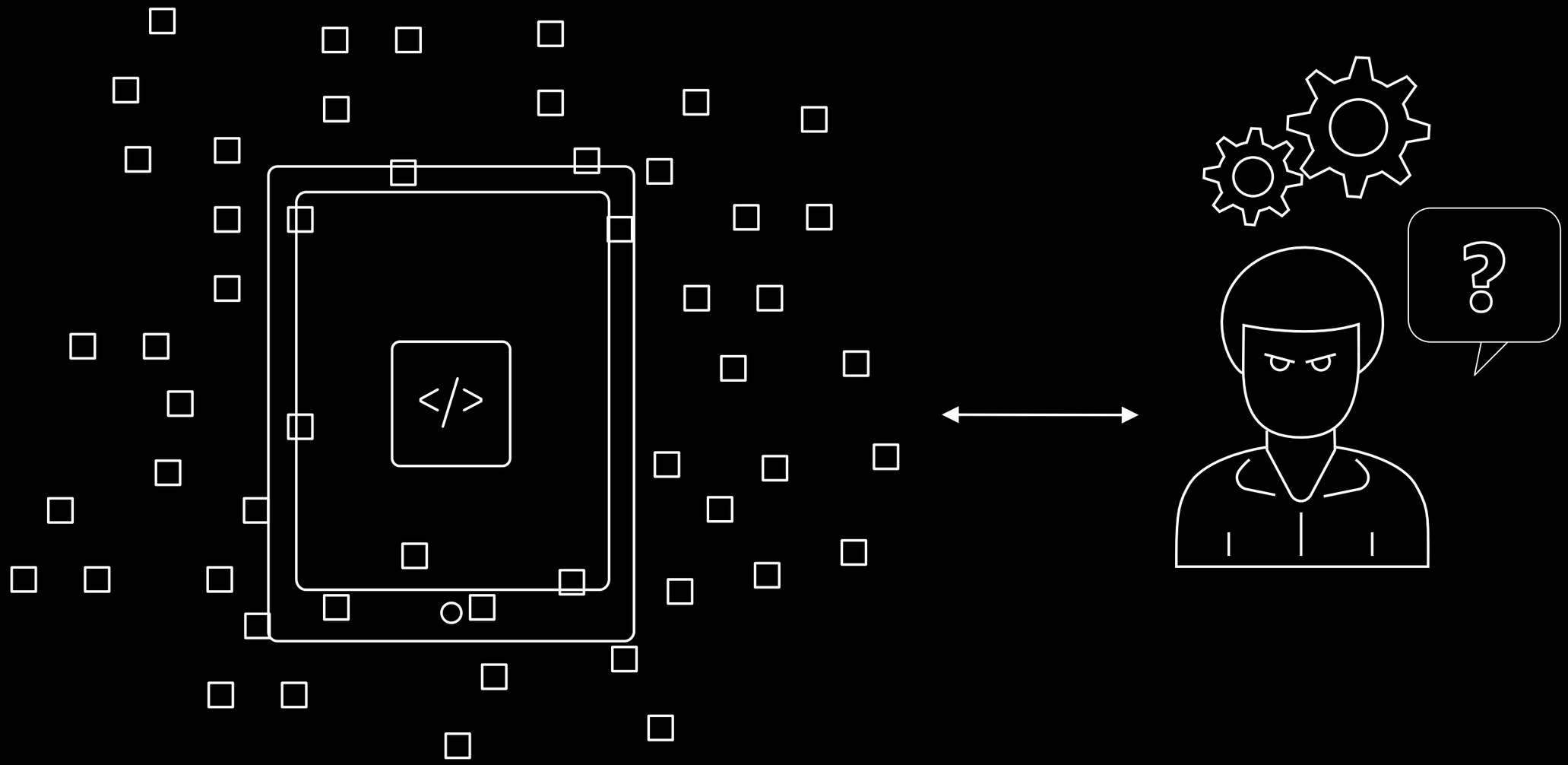
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Why embed analytics?

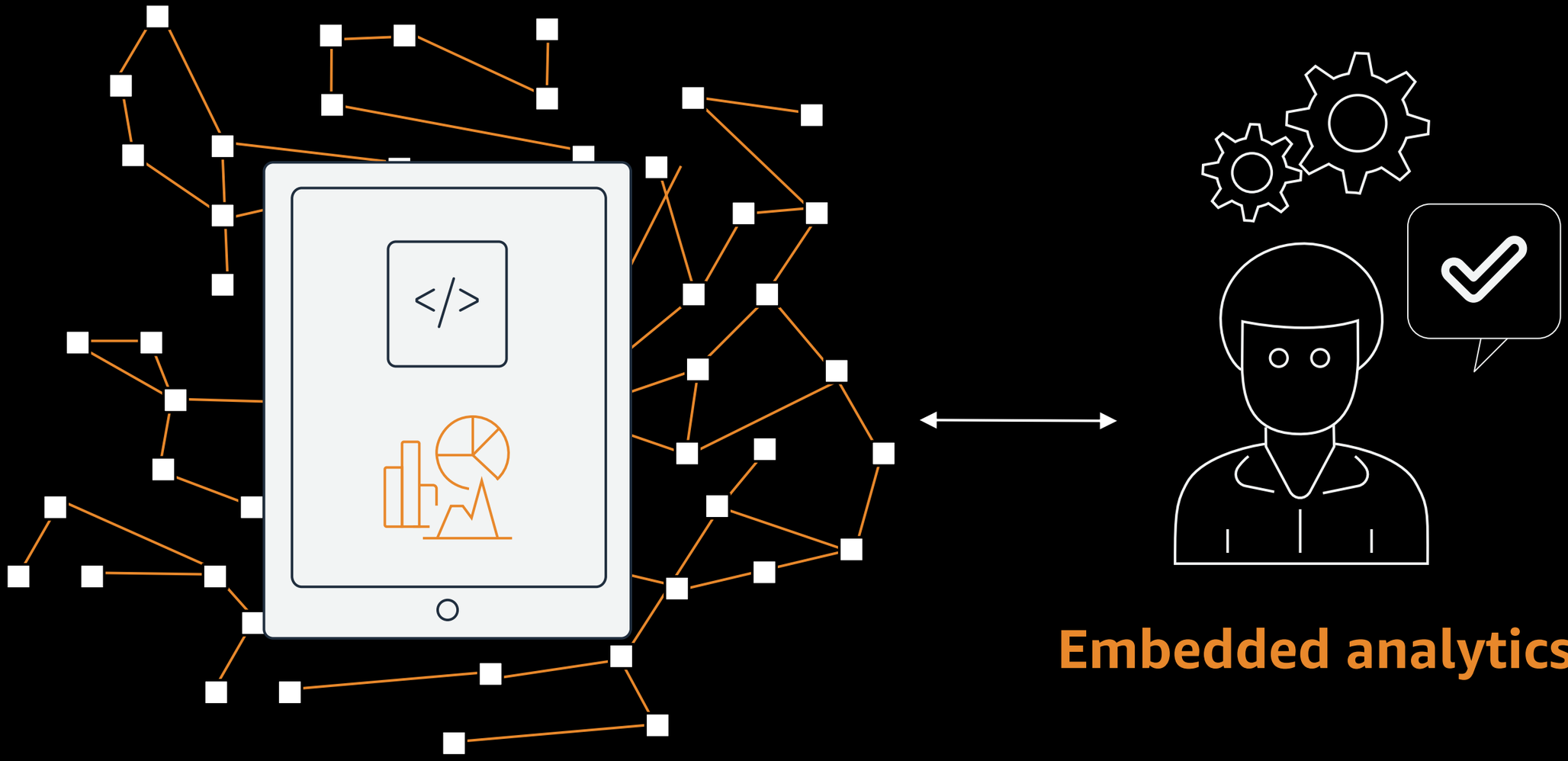


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Applications generate a lot of data



Application owners are looking to delight their users



Embedded analytics

Benefits for ISVs and developers

Interactive analytics in user workflows

- Increase user engagement
- Enrich core app offerings
- Create new revenue streams



Why QuickSight?



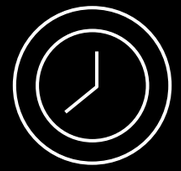
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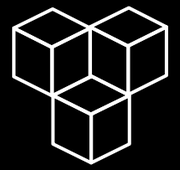
Challenges with building your own embedded analytics solutions



Expensive



Time-consuming

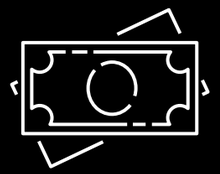


Resource-intensive

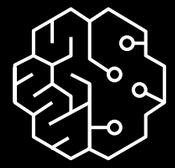
Embedded out-of-the-box solutions have their own challenges



Hard to scale



Restrictive pricing



Lack of
advanced features

Introducing QuickSight embedded analytics

Easily embed interactive visualizations and dashboards in your applications, websites, and portals

Seamless, embedded analytics

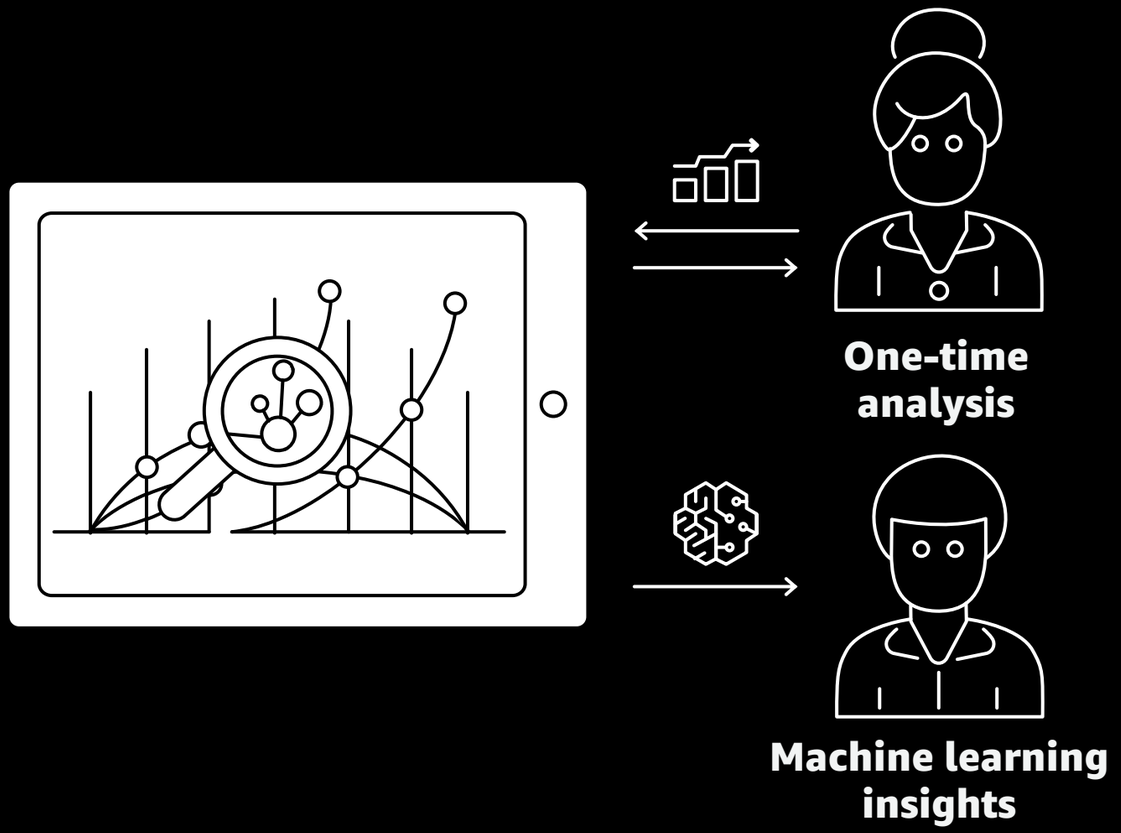


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Easily embed interactive visualizations and dashboards in your applications, websites, and portals

Seamless, embedded analytics

Enable deeper data insights



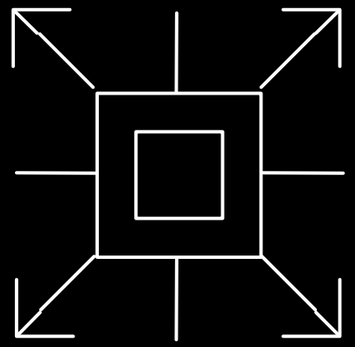
Introducing QuickSight embedded analytics

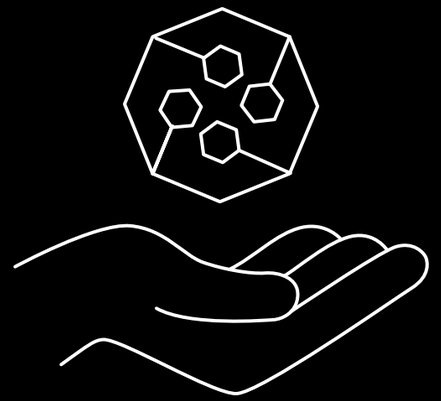
Easily embed interactive visualizations and dashboards in your applications, websites, and portals

Seamless, embedded analytics

Enable deeper data insights

Scalable and fully managed



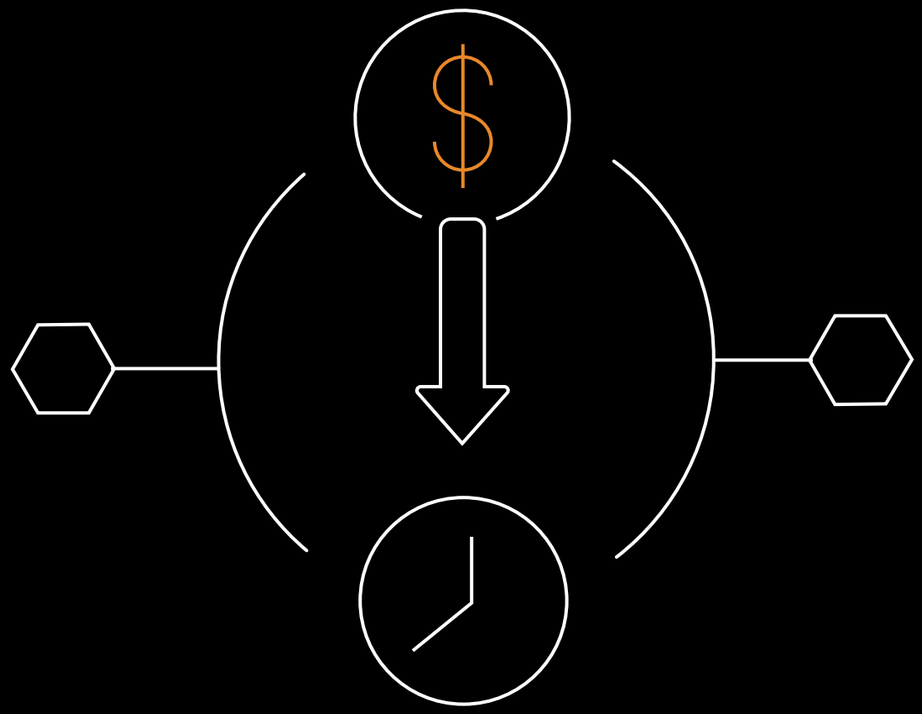


Introducing QuickSight embedded analytics

Easily embed interactive visualizations and dashboards in your applications, websites, and portals

- Seamless, embedded analytics
- Enable deeper data insights
- Scalable and fully managed

Pay for what you use

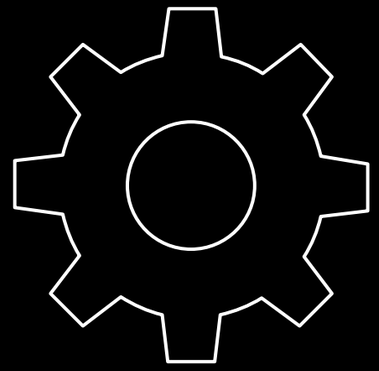


Introducing QuickSight embedded analytics

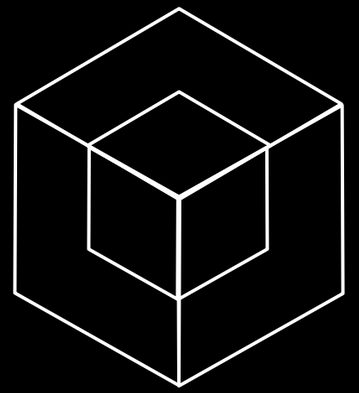
Easily embed interactive visualizations and dashboards in your applications, websites, and portals

- Seamless, embedded analytics
- Enable deeper data insights
- Scalable and fully managed
- Pay for what you use

Rich APIs and SDKs



API



SDK

Why serverless matters

	Server-based BI architecture	Session-based QuickSight architecture
More concurrent users	More servers + management needed	Automatically scales to your user populations
More complex dashboards	More servers + management needed	All you can use in 30 min
Geographic distribution	More servers + management needed	Deploy as needed, no infrastructure mgmt.
High availability	More servers + management needed	Native HA, no infrastructure mgmt.
True Total Cost of Ownership (TCO)	License + Infrastructure costs + management staff	**Session price = all-in pricing for dashboard consumption**

Seamlessly embed and make QuickSight look and feel like your app

Themes and theme editor

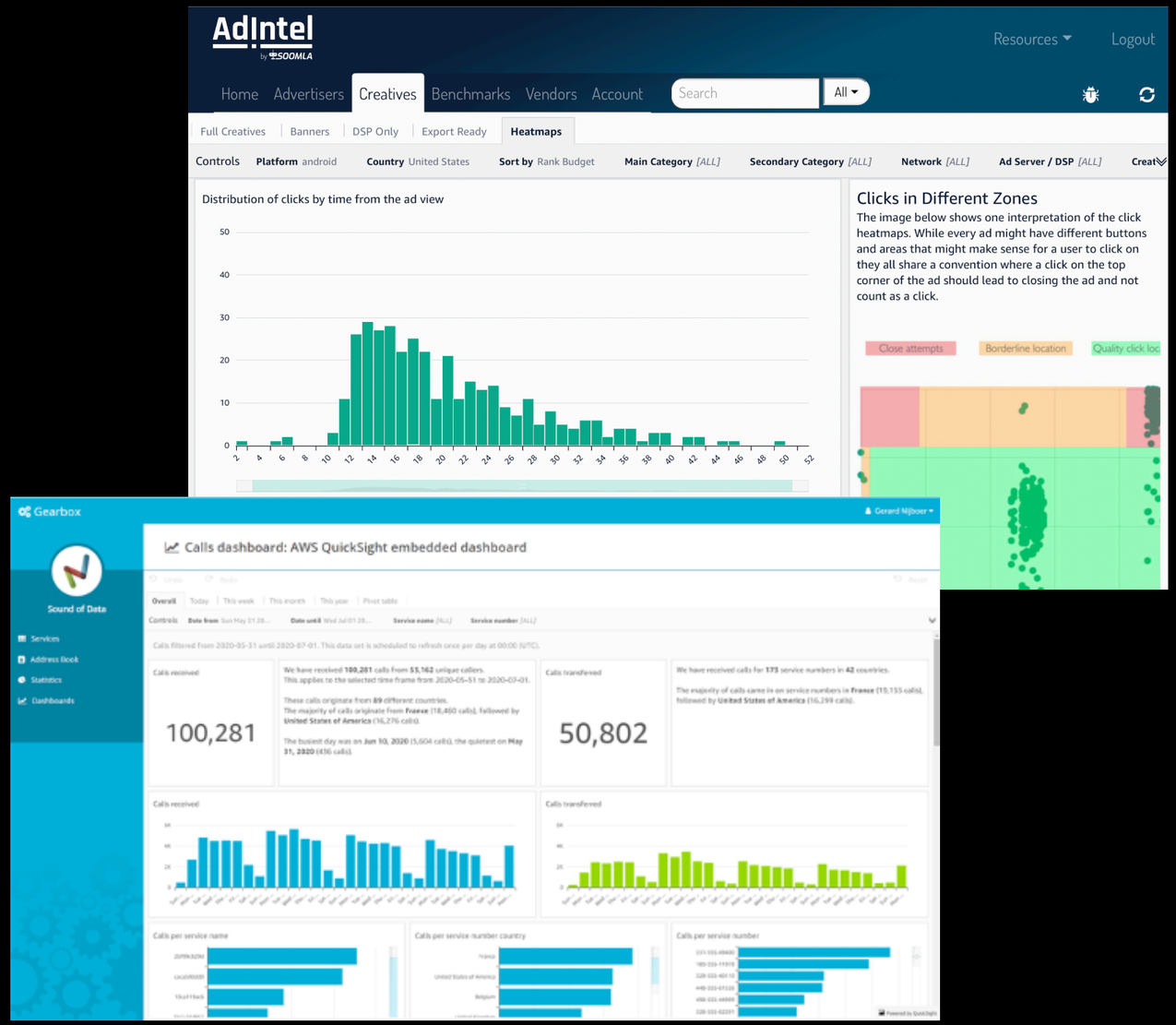
- Use different colors, spacing, backgrounds, fonts, to match app branding and UI

QuickSight Embedding SDK

- JavaScript SDK lets you efficiently integrate dashboards in your application pages, set defaults, connect controls, and more

Single-Sign On (SSO)

- QuickSight supports SAML / Open ID Connect federation



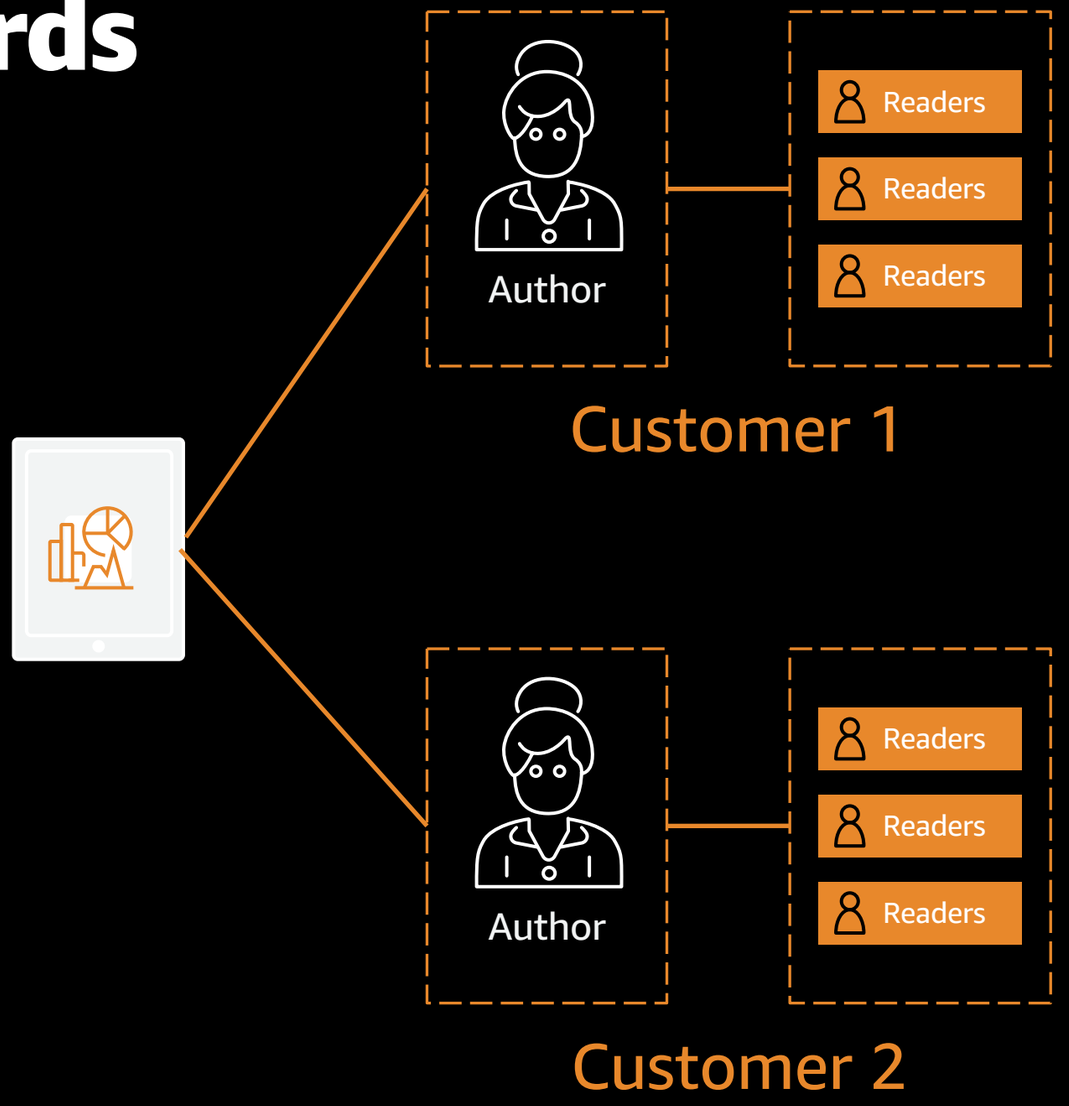
Enable deeper insights: Empower users to author their own dashboards

One-time data exploration

- Relying on the ISV or enterprise application team to author new dashboards can often be a bottleneck
- Provide author privileges to customers to perform one-time analysis, build and share specific views with their teams

Monetize and differentiate

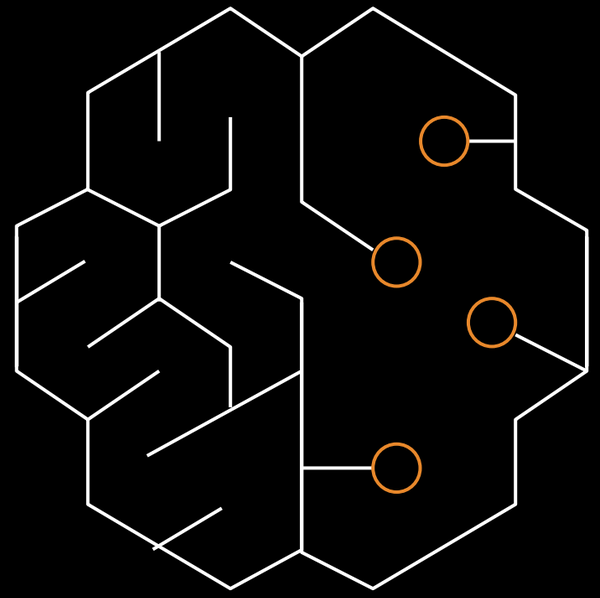
- ISVs can provide QuickSight author licenses to their customers as a premium feature and leverage this as a new way to increase their revenue



Enable deeper insights: Machine learning–enabled insights

ML insights

- With built-in ML algorithms, easily perform anomaly detection and forecasting analysis, discovering anomalies and variations, or do a what-if analysis on forecasted data
- Or use Amazon SageMaker integration and your own models



Natural language narratives

- QuickSight automatically generates natural language narratives that can be customized and woven into your dashboards and reports to provide deeper context for users

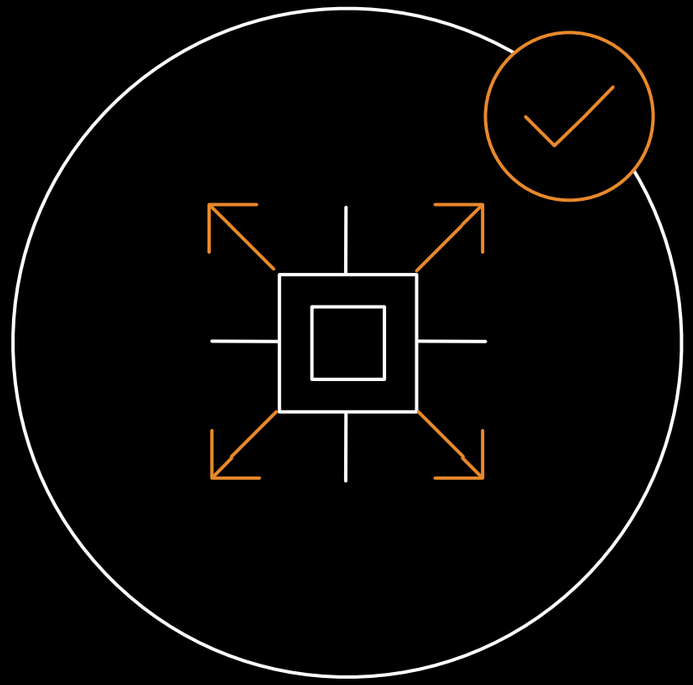
Scalable with high performance

Serverless architecture scales from tens of users to hundreds of thousands

- QuickSight is built with a serverless architecture; automatically scales with your usage and activity, with no need to set up or manage infrastructure

SPICE: In-memory engine

- QuickSight provides consistent performance even with thousands of concurrent users with SPICE, which is a cloud-native Super-fast, Parallel, In-memory Calculation Engine



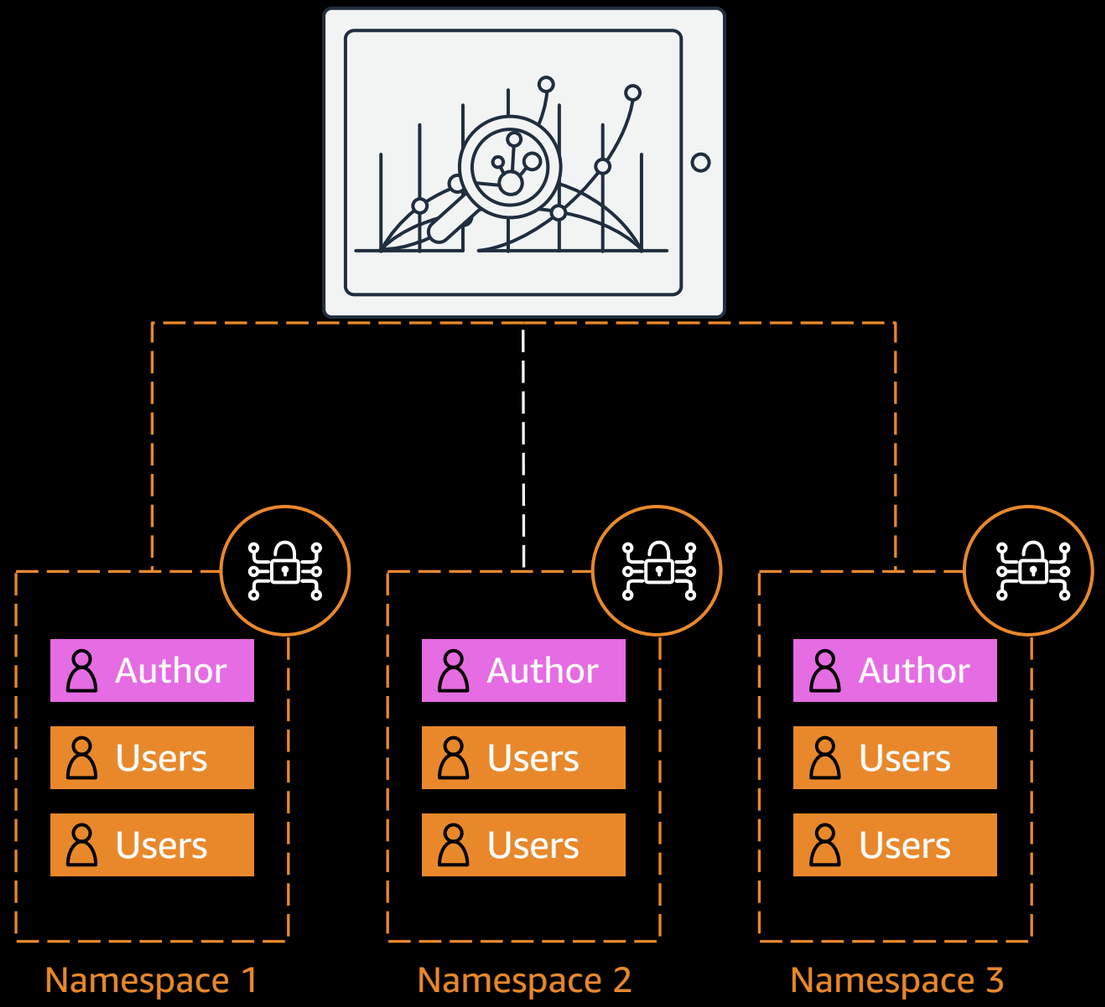
Easy to manage: Multitenant architecture

Namespaces

- Logically group and isolate sets of users (authors and readers) within an organization for enhanced security
- Authors from one namespace are restricted to sharing and collaborating with members within the same namespace only

Govern data access

- Allow admins to provide a restricted set of capabilities to embedded or regular authors
- Create a customized experience for authors by sharing specific datasets or data sources with curated datasets



APIs and SDKs

QuickSight API operations provide:

- User and group management
- Data management (data sources, datasets, templates, and SPICE ingestion)
- Dashboard management
- Template management
- Permissions management

QuickSight supports following SDKs:

- Java SDK
- Javascript (Node.js SDK)
- Python 3 SDK
- .NET/C# SDK
- AWS CLI

Three embedded scenarios

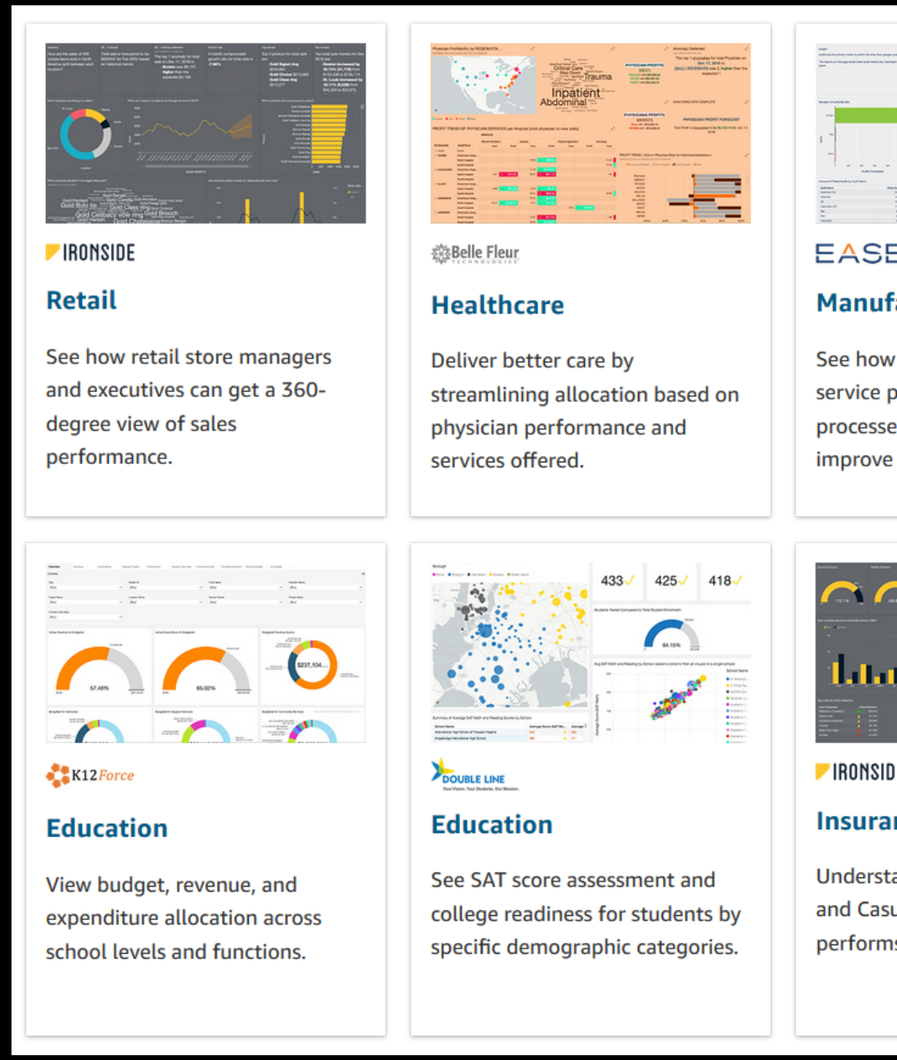


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Embed dashboards without user provisioning

NEW

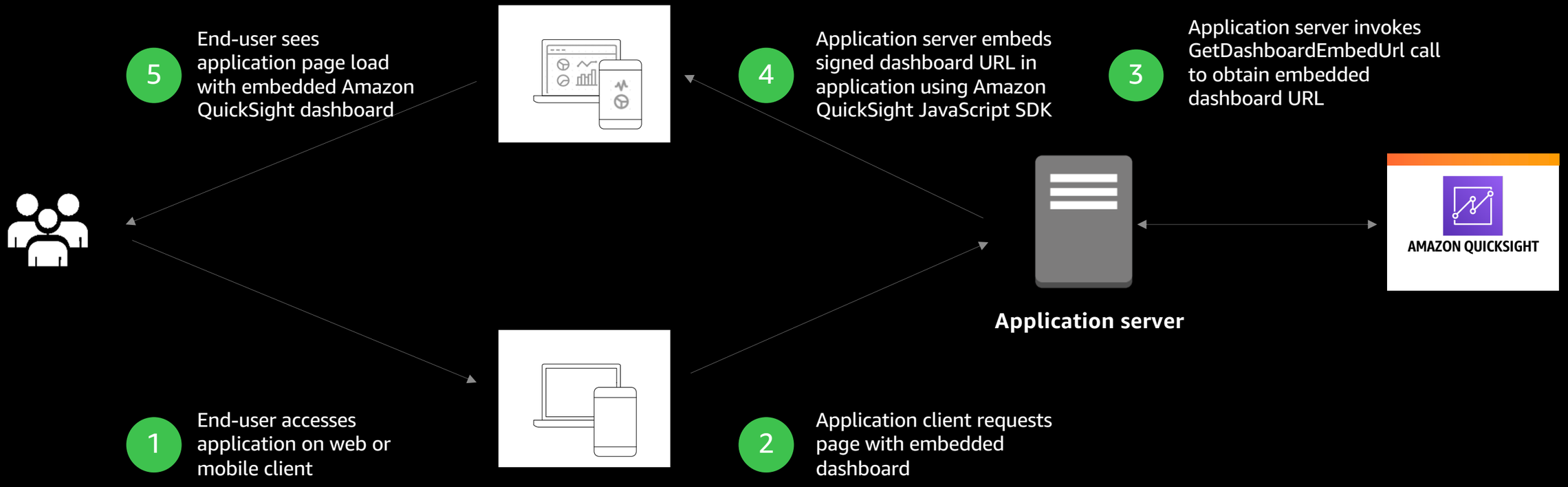
- Dashboards in apps, wikis, websites for end-users
- Display same data for all users
- No named users required
- Scale to 10s of 1000s of users



Check out sample dashboards at
https://aws.amazon.com/quicksight/gallery

Embed dashboards without user provisioning

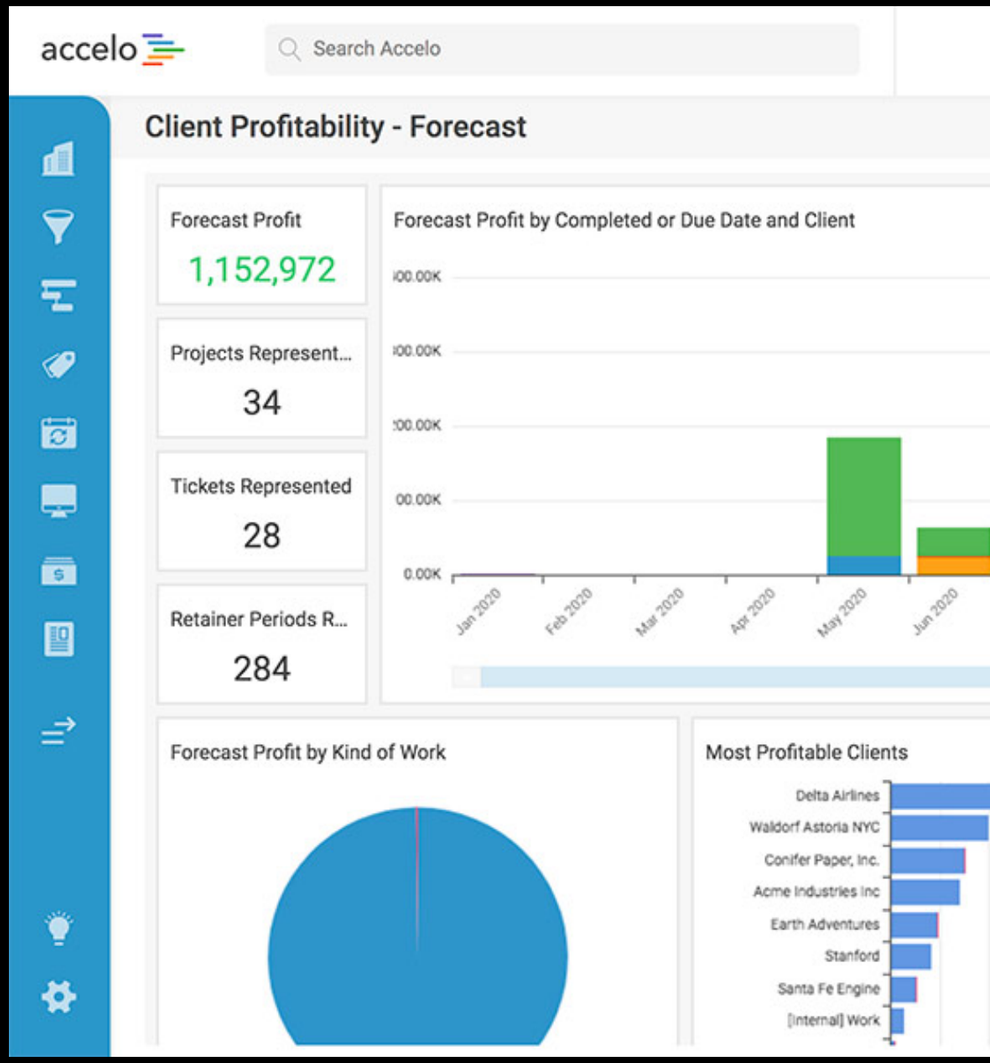
NEW



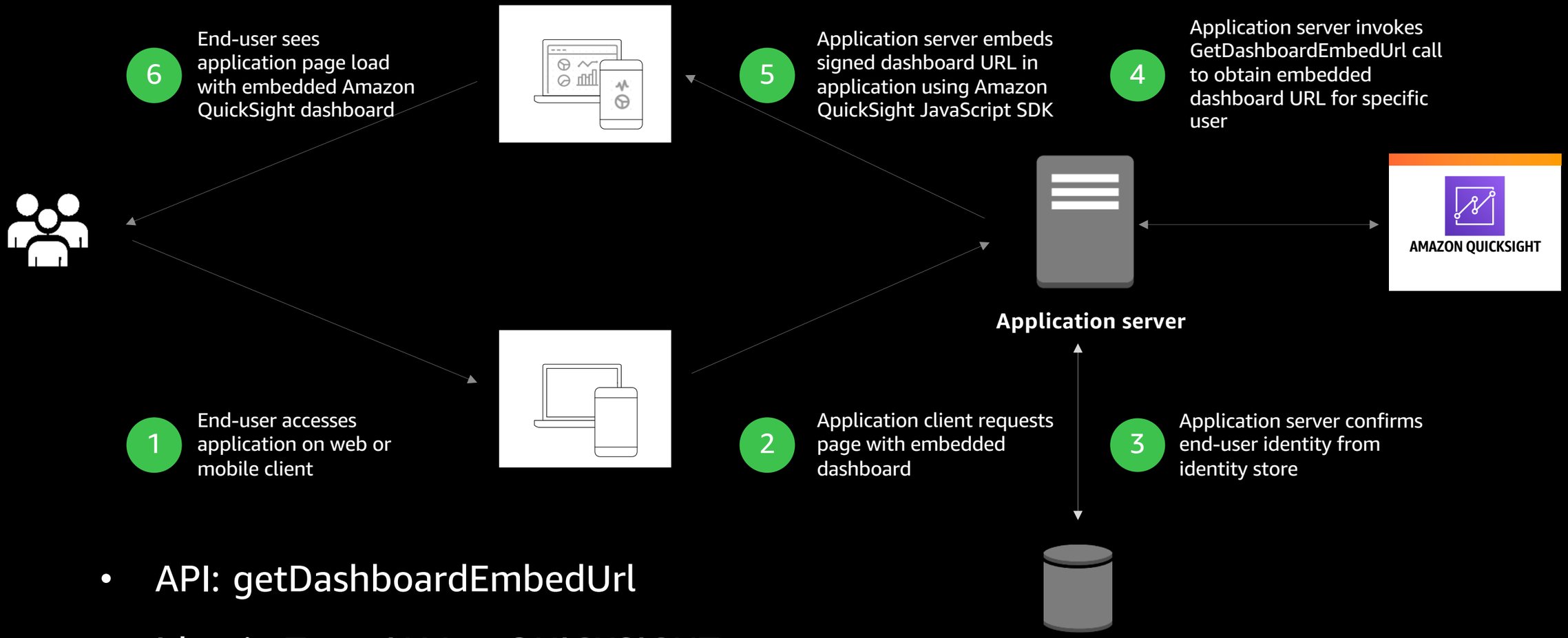
- API: getDashboardEmbedUrl
- IdentityType: ANONYMOUS

Embed dashboards for authenticated users

- Dashboards in apps with distinct end-users
- Personalize views of data for users with Row or Column Level Security
- Named users
- Scale to 10s of 1000s of users



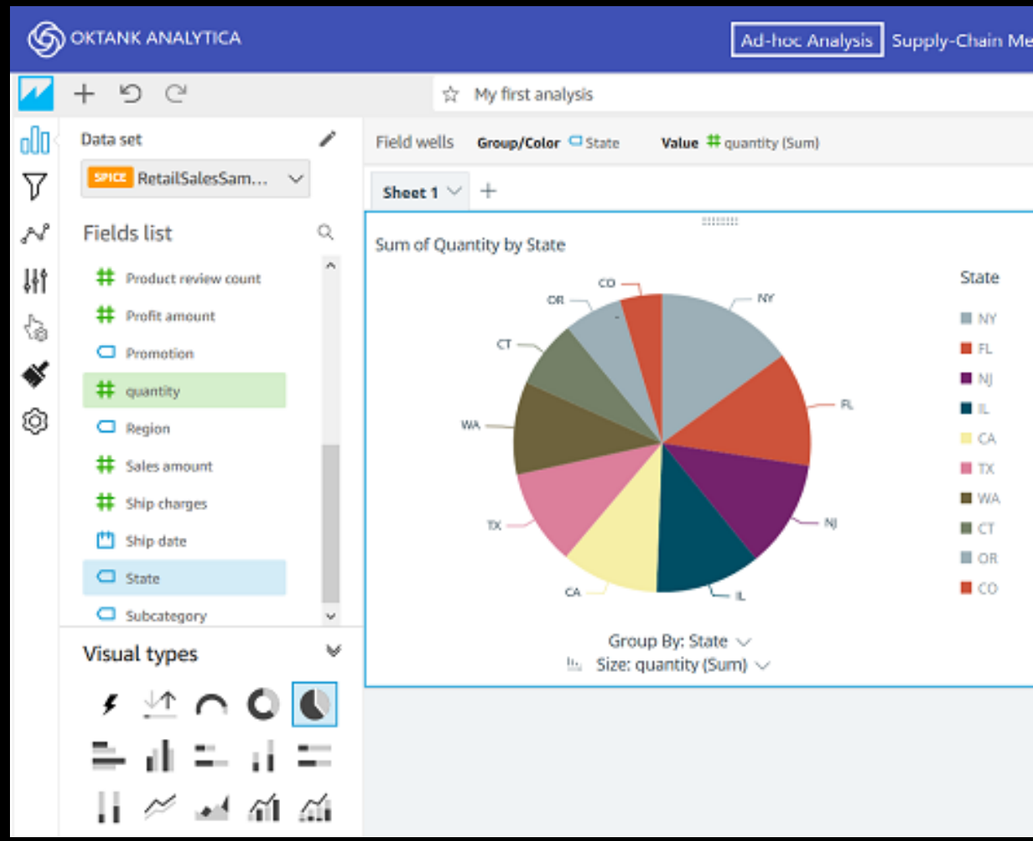
Embed dashboards for authenticated users



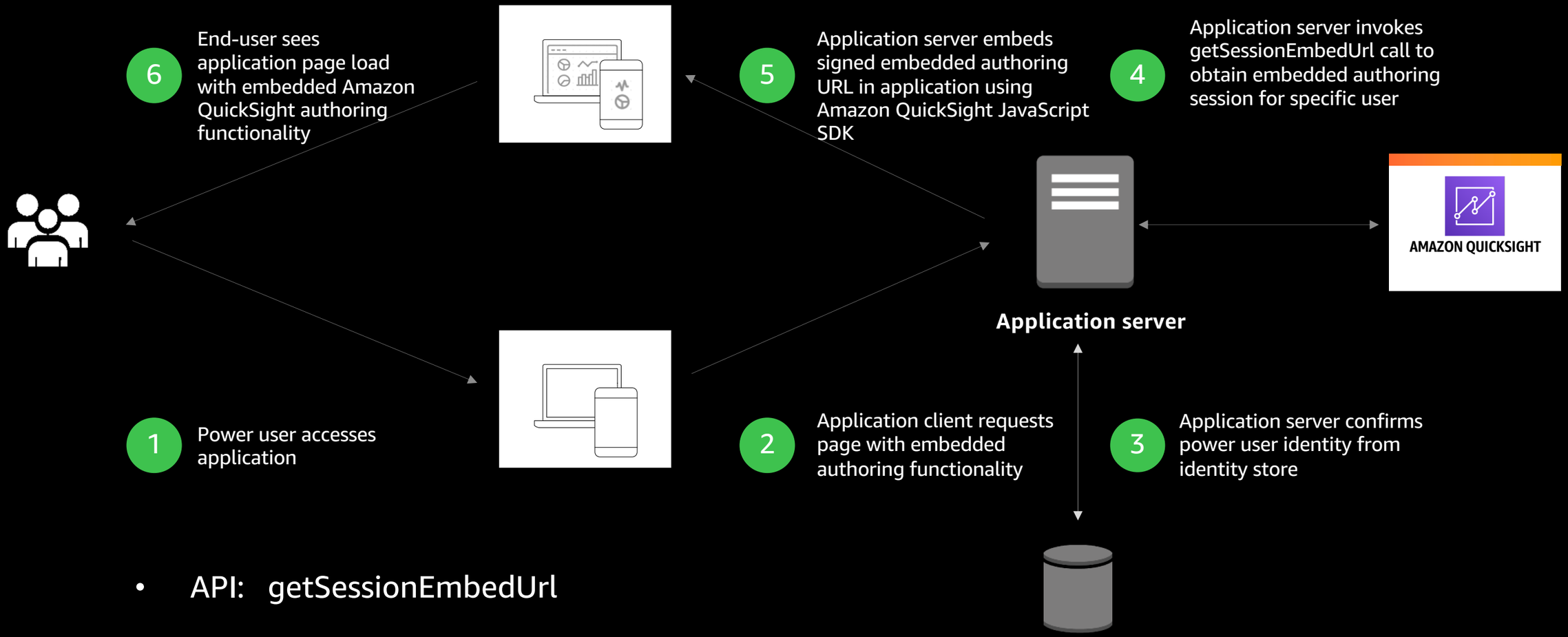
- API: getDashboardEmbedUrl
- IdentityType: IAM or QUICKSIGHT

Embed dashboard authoring in apps

- Data exploration and dashboard creation/sharing for power users
- Provide curated datasets with Row / Column level security
- Customize end-user authoring / sharing capabilities
- Scale to 1000s of customers with 10s of 1000s of users with multi-tenancy via Namespaces

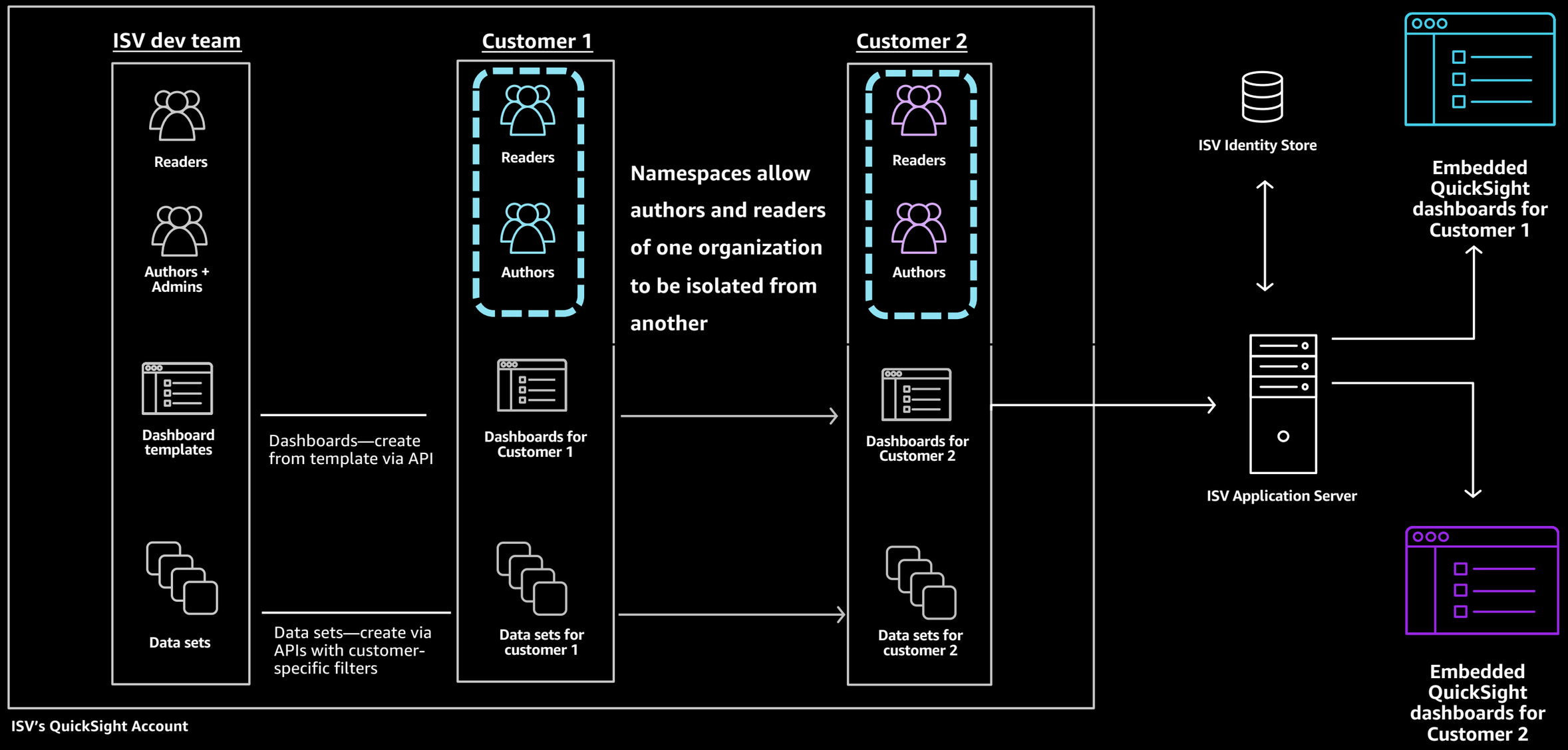


Embed dashboard authoring in apps



- API: getSessionEmbedUrl
- IdentityType: IAM or QUICKSIGHT

Multi-tenant architecture with Namespaces



Pricing



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NEW

Enterprise Edition Author pricing

100% web-based authoring | No client downloads

Author pricing

$18

/ author / month
with annual commitment

$24 / author / month without commitment

NEW

Enterprise Edition Reader pricing

Consistent performance | Scale to millions of users without servers

User pricing

Up to

$5

/ reader / month

$0.30 / session* up to $5

Predictable BI spend for organizations

OR

Capacity pricing

Starting at

$250

/ month
for 500 sessions valid monthly
Addl. sessions $0.50 / session

Ideal for embedded applications, ISVs, and OEMs

**1 session = 30 mins. from login*
*** Session includes all dashboard usage and interactions within 30-min period*

New launch: Capacity pricing

NEW

Capacity (# sessions / 12 months) *	Total annual commitment $$	Overage $ / session
50,000	$20,000	$0.40
200,000	$57,600	$0.28
400,000	$96,000	$0.24
800,000	$162,000	$0.20
1,600,000	$258,000	$0.16
3,000,000+	**Contact us**	

All capacities offer no-touch scaling: QuickSight automatically scales to # of sessions requested with no infrastructure management

** Total sessions available over 12 month period and maybe be consumed anytime during this period*

Additional resources

re:Invent sessions

ANT302 – How Vyaire uses AWS analytics to scale ventilator production & save lives

BSI202 – BI at hyperscale: Quickly build and scale dashboards with Amazon QuickSight

Blog posts

Multi-tenancy in QuickSight – https://aws.amazon.com/blogs/big-data/embed-multi-tenant-analytics-in-applications-with-amazon-quicksight/

QuickSight developer portal

https://developer.quicksight.aws

Thank you!



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