



AWS Summit

Barcelona 2015

Welcome
Benvinguts
Bienvenidos



Guillem Veiga

Country Manager Amazon Web Services, Iberia



@Guillem_Veiga



Cloud Has Become The New Normal

Más de 1 Millión de
Usuarios Activos



The chart is an area plot with a blue, low-poly fill. The x-axis represents years from 2008 to 2014. The y-axis represents the number of active users. The data shows a steady increase from 2008 to 2010, followed by a more rapid growth in 2011 and 2012, and then a significant spike in 2013 and 2014, reaching over 1 million users by the end of 2014.

Año	Usuarios Activos (aproximados)
2008	100,000
2009	150,000
2010	200,000
2011	350,000
2012	500,000
2013	750,000
2014	1,200,000

2008 2009 2010 2011 2012 2013 2014

Active customer is defined as a non-Amazon customer with AWS account usage activity in the past month, including the free tier

Una pequeña muestra de nuestros Clientes



bankinter.

BBVA

DATA & ANALYTICS



Kellogg's



grupoGodo



NASDAQ OMX

GrupoSantillana



Pinterest



LA VANGUARDIA



amazon.com



CONDÉ NAST

AWS Summit Barcelona 2015

+1,000 asistentes

22 sesiones

14 exposiciones de partners

8 ponencias de clientes



#AWSSummit

@AWS_Espanol

Agenda del AWS Summit

09:00 – 10:00 Registro y Expo Partners

08:30 – 18:00 Hands-on Labs

10:00 – 11:30 Bienvenida y Keynote- re:Invent Update

Guillem Veiga – *AWS Country Manager, Iberia*

Jeff Barr – *Chief Evangelist of Amazon Web Services*

11:30 – 11:45 Coffee Break y Expo Partners

11:45 – 12:30 Keynote de Seguridad en AWS

Bill Murray – *Director of AWS Security Programs*

12:30 – 18:00 Tracks

13:30 – 14:30 Almuerzo y Expo Partners

18:00 – 20:00 Battle of the Startup Bands

	BUSINESS TRACK	NUEVOS SERVICIOS	LIVE DEMOS	ZONA STARTUP
12:30-13:30	Integración de Infraestructuras Híbridas	Construyendo Back Ends escalables para IoT y Serverless Mobile	Todo lo que Necesitas Saber sobre Autoscaling Gestionando Containers a Escala	Mesa Redonda de Negocio: 10 Consejos para que tu idea crezca en el Cloud y Testimonios de Clientes
13:30-14:30	Comida y Expo de Partners			
14:30-15:30	De Arquitecturas Monolíticas a Microservicios: Desarrollando los Patrones de Arquitectura en el Cloud	Introducción a AWS IoT	Despliegue Continuo en AWS Amazon QuickSight: Business Intelligence basado en el Cloud	Financiación y "Pitching": Cómo Hacerlo Correctamente
15:30-16:30	Creando una Cultura de Gestión de Costes en tu Organización	AWS Mobile Hub: La Forma más Rápida de Crear Aplicaciones en AWS	Amazon API Gateway Utilizando Instancias Spot de Amazon EC2	Crecimiento Empresarial: Manteniendo el ADN Cuando Crece tu Negocio
16:30-17:00	Coffee Break y Expo de Partners			
17:00-18:00	Desplegando Escritorios Virtuales a Escala	Amazon EC2 Container Service: Aplicaciones Distribuidas a Escala	Amazon Elastic Filesystem Amazon Machine Learning	
18:00-20:00	Battle of the Startup Bands & Drinks			

Tracks— Agenda dentro de la Acreditación

Tracks y Ponentes Invitados

Keynotes



CARTODB



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Bussines track - Patrocinadas por nuestro partner **LinkelT**



Creando una Cultura de
Gestión de Costes en tu
Organización



Integración de
Infraestructuras Híbridas



jobandtalent

Microservicios: Desarrollando
los Patrones de Arquitectura en
el Cloud

Abengoa

Desplegando Escritorios
Virtuales a Escala

Live Demos - Patrocinadas por nuestro parner **Palo Alto Networks**

Nuevos Servicios – Patrocinadas por nuestro partner **CloudMas**

Platinum Sponsor



CloudMas

Gold Sponsors

itconic



claranet
hosting | redes | aplicaciones

Silver Sponsors



Bronze Sponsors



Training Sponsors

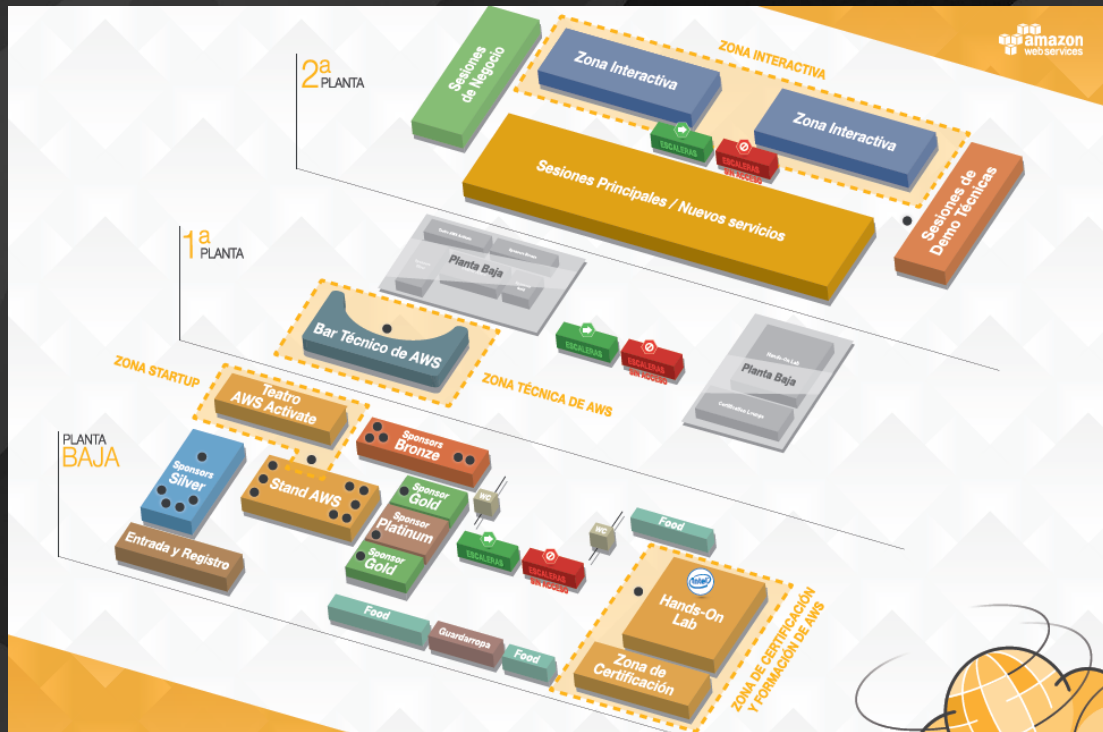


Zonas del Summit

AWS
SUMMIT
BARCELONA

PASAPORTE

VIAJA A TRAVÉS DEL
CLOUD DE AWS



¡Ven a hablar con nosotros!



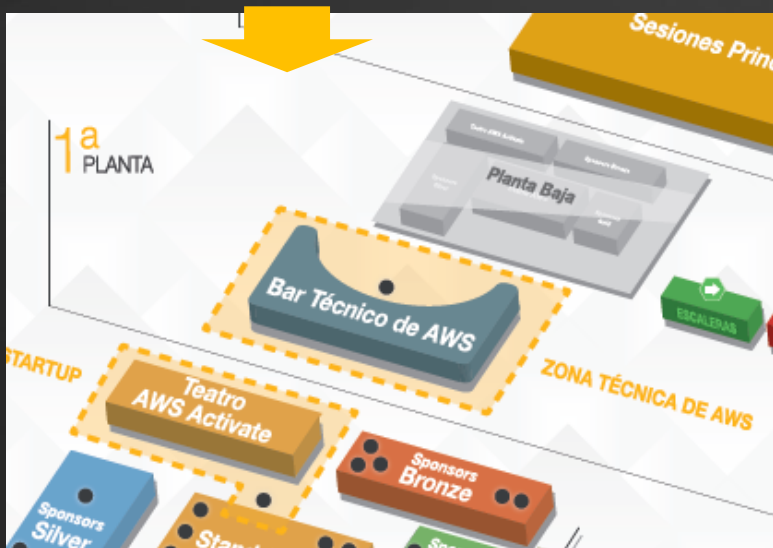
Negocio



Cuéntas tu Proyecto



Técnico



Zona Técnica de AWS

Tendremos un 'bar' de Solutions Architects donde serás atendido por un equipo de líderes técnicos de AWS y Partners de nuestra APN. Las sesiones durarán hasta 20 minutos por asistente, sin necesidad de reservar tu plaza.

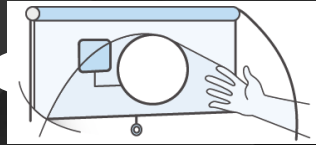
Certificación y Formación de AWS

Cursos guiados por
Instructores



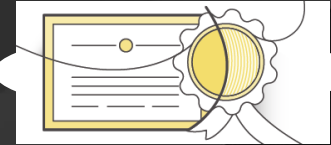
Empieza a utilizar los
servicios de AWS en minutos
con los videos formativos y
laboratorios online gratuitos

Videos y Laboratorios
Online



Aprende a diseñar, desplegar, y
gestionar aplicaciones altamente
disponibles, seguras y
económicamente eficientes en AWS

Certificación



Valida tus habilidades
técnicas en la plataforma de
AWS y obtén reconocimiento
de tu experiencia

Cloud Skill Demand

1.7M

Unfilled cloud jobs in 2012

7M

projected jobs in three years



Internal champions
= faster adoption

A man and a woman are seated at a table, focused on their laptops. The man, on the left, has a beard and is wearing a dark shirt. The woman, on the right, has long blonde hair and is smiling. They are in a dimly lit room with other people blurred in the background, suggesting a conference or workshop setting. The overall color scheme is warm and yellowish.

Hands-On Labs

Obtén experiencia de primera mano en la AWS Management Console sobre los casos de uso más comunes, proporcionándote práctica en entornos reales de AWS. Abierto 08.30 – 18:00

Ya estás certificado?

Recoge tu Regalo en la Zona de Certificación

No estás certificado aún?

20% de descuento en todos los exámenes de nivel
'Associate' para los asistentes al Summit



Battle of the Startup Bands

El User Group de AWS organizará una Batalla de Bandas de Música de Startups (Battle of the Startup Bands) al final del Summit (18:00 – 20:00). ¡Únete para disfrutar de bebida, comida y música en directo!



AWS re:Invent re:Cap

Jeff Barr

Chief Evangelist

jbarr@amazon.com

@jeffbarr

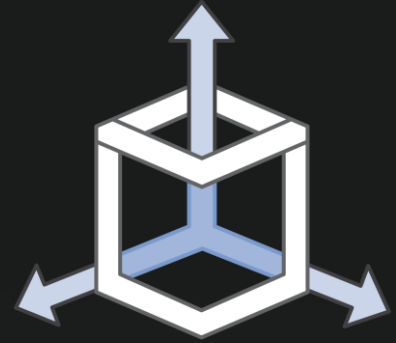


2007



Thinks to Think About Today

- The cloud is expanding rapidly
 - Locations, services, features
- Even the vocabulary changes
 - New words, new concepts
 - Microservices, containers, serverless architectures, IoT
- You need a new learning model



re:Invent 2015 Overview

- Fourth annual event
- Held in Las Vegas
- Focus on education
- Attendees
 - Customers – CxO, Dev[Ops], Architect
 - Partners – Consulting & ISV
 - Journalists – Domestic and international
 - Analysts
 - AWS employees



Cloud Computing has Become the New Normal

DEPLOYING NEW
APPLICATIONS TO THE CLOUD
BY DEFAULT



MIGRATING EXISTING
APPLICATIONS AS QUICKLY
AS POSSIBLE

Some AWS Metrics

- **Over 1 million active customers**
(non-Amazon accounts with activity in last 12 months, including free tier)
- **95% increase in EC2 instance usage YoY (Year over Year)**
(Q2 2014 vs. Q2 2015)
- **120% increase in S3 data transfer YoY**
(Q2 2014 vs. Q2 2015)
- **127% increase in database service usage YoY**
Now a \$1B annual revenue run-rate business
(Q2 2014 vs. Q2 2015)

AWS Customers

- Startup
- Oil & Gas
- Financial Services
- Health Care
- Manufacturing
- Technology
- Media
- Public Sector



CartoDB





Inside Out

CartoDB

A overview of a geospatial analysis platform

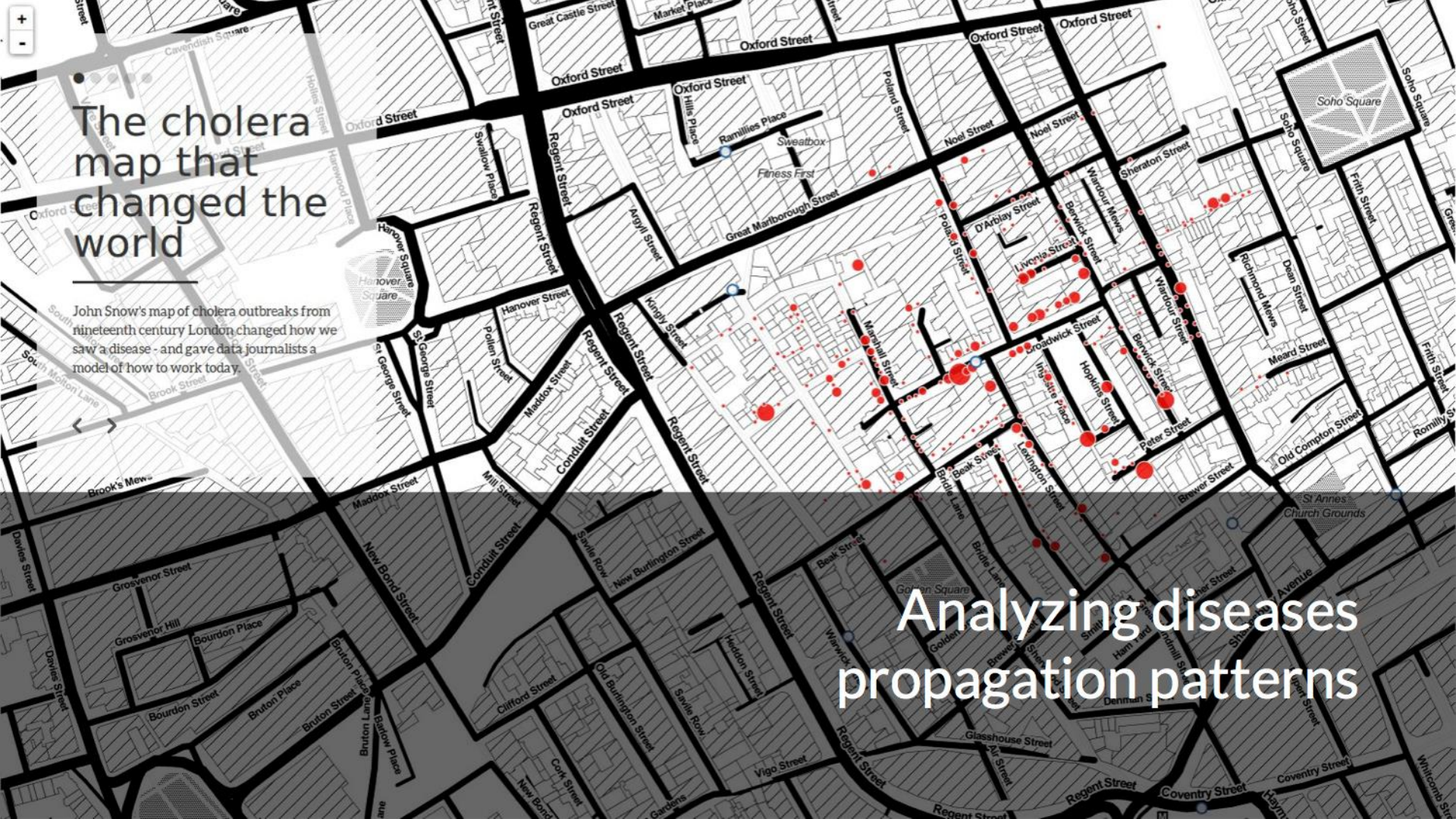
Luis Bosque · Systems Lead at CartoDB

Github: @luisbosque

Twitter: @luisico

CartoDB helps decision making based on data





The cholera map that changed the world

John Snow's map of cholera outbreaks from nineteenth century London changed how we saw a disease - and gave data journalists a model of how to work today.

Analyzing diseases
propagation patterns

FOREST CHANGE

Tree cover gain

(12 years, 30m, global, Hansen/UMD
/Google/USGS/NASA)

Tree cover loss

(annual, 30m, global, Hansen/UMD
/Google/USGS/NASA)

Displaying loss with **> 30 %** canopy
density.

Tree cover loss is not always
deforestation. ?



View country data

SELECT COUNTRY

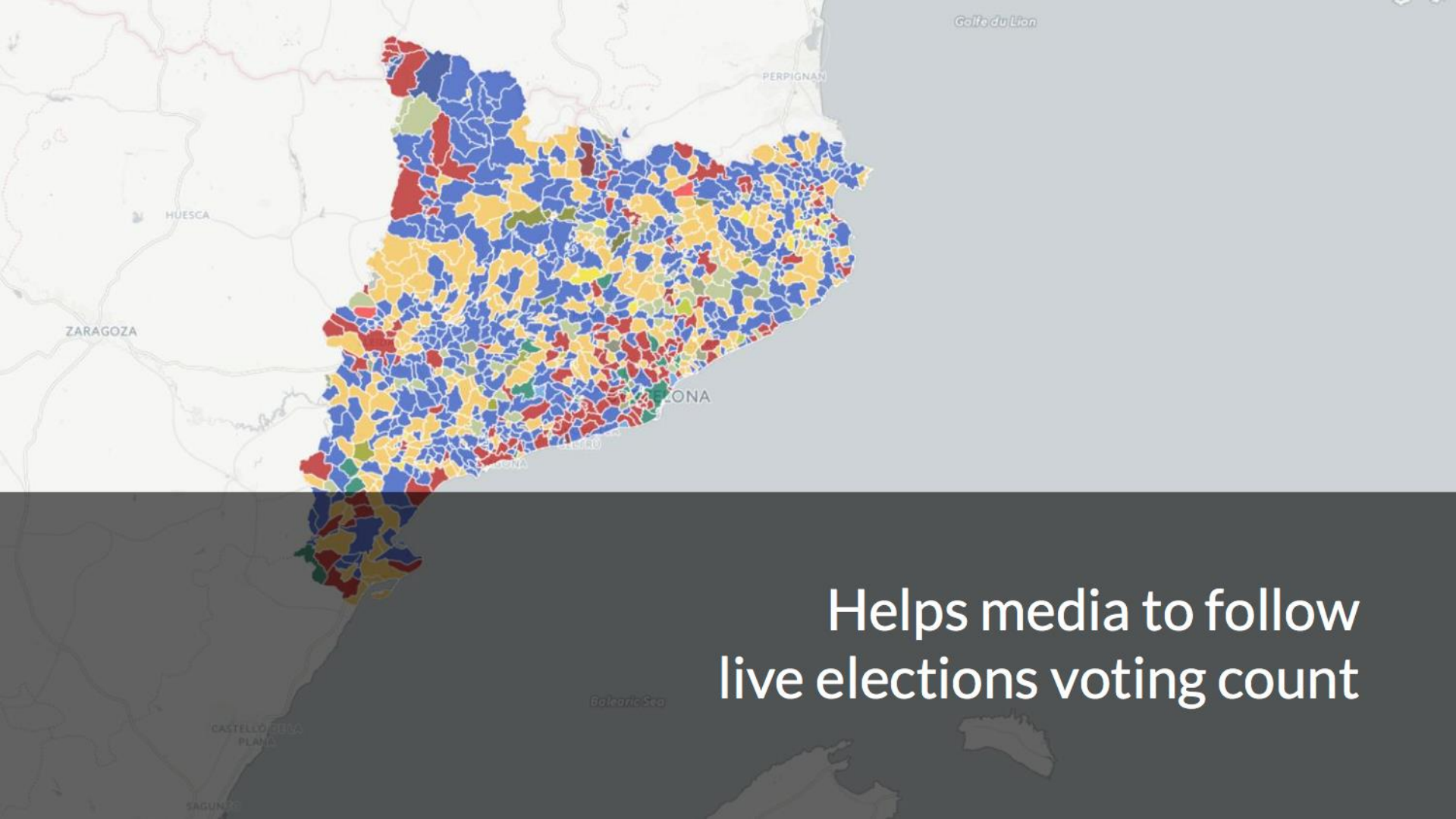


FEEDBACK

Helps organizations and governments to control deforestation

Tree cover loss (zoom in for most accurate)

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

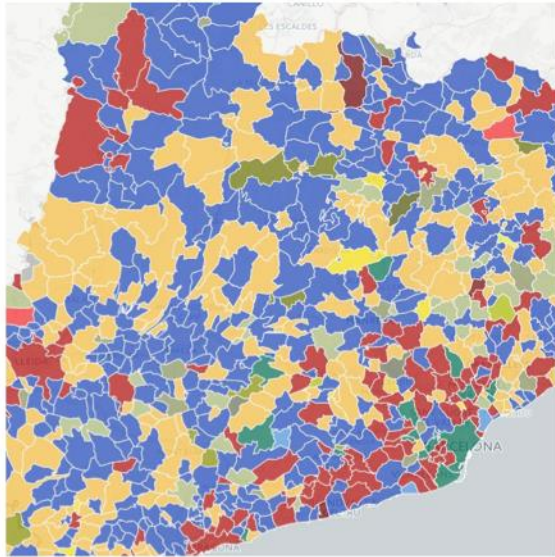


Helps media to follow
live elections voting count

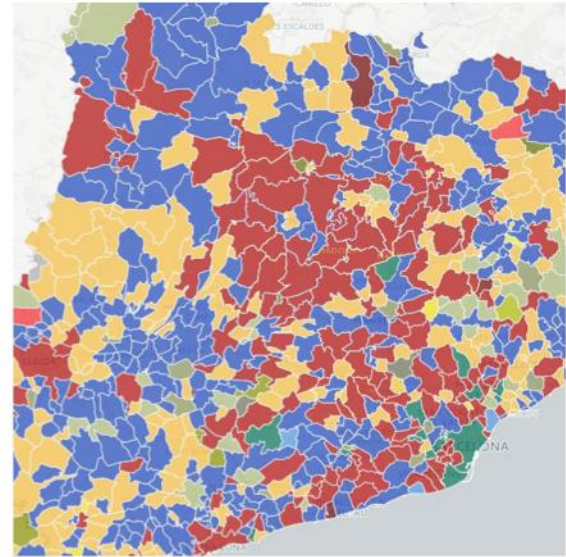
The background of the slide is a solid blue color with a pattern of white, wavy, concentric lines that resemble topographic map contour lines. These lines are more densely packed in some areas and more spread out in others, creating a sense of depth and movement.

Dynamic mapping is hard.
One map vs millions of them

User expectations when data changes



— Votos —



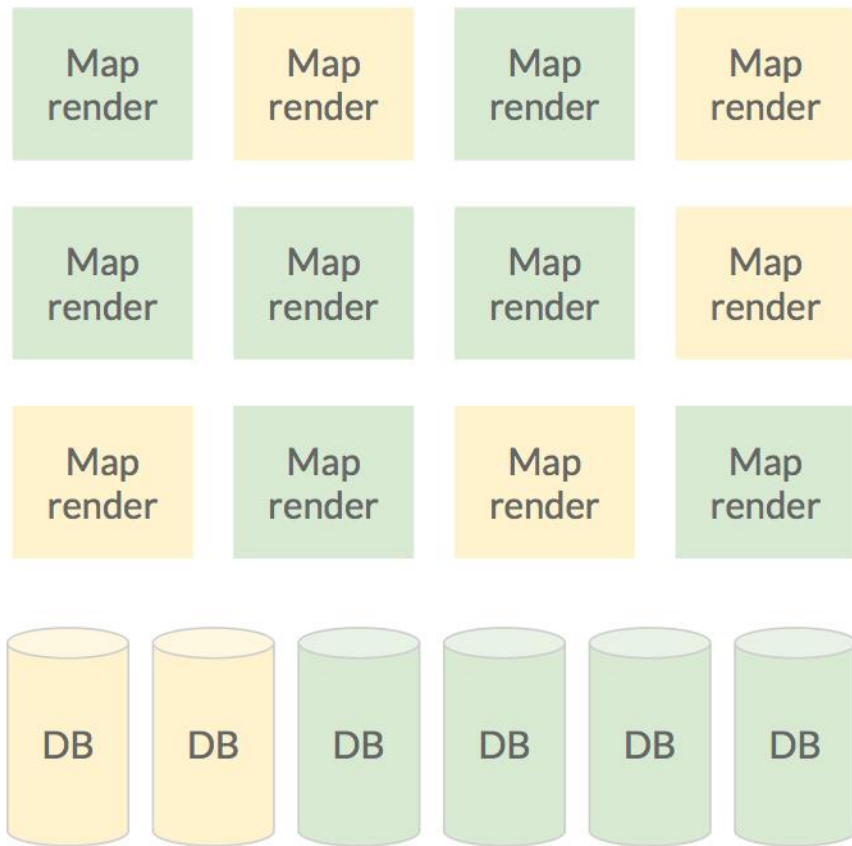
> 100M dynamic requests / day

They get multiplied during elections

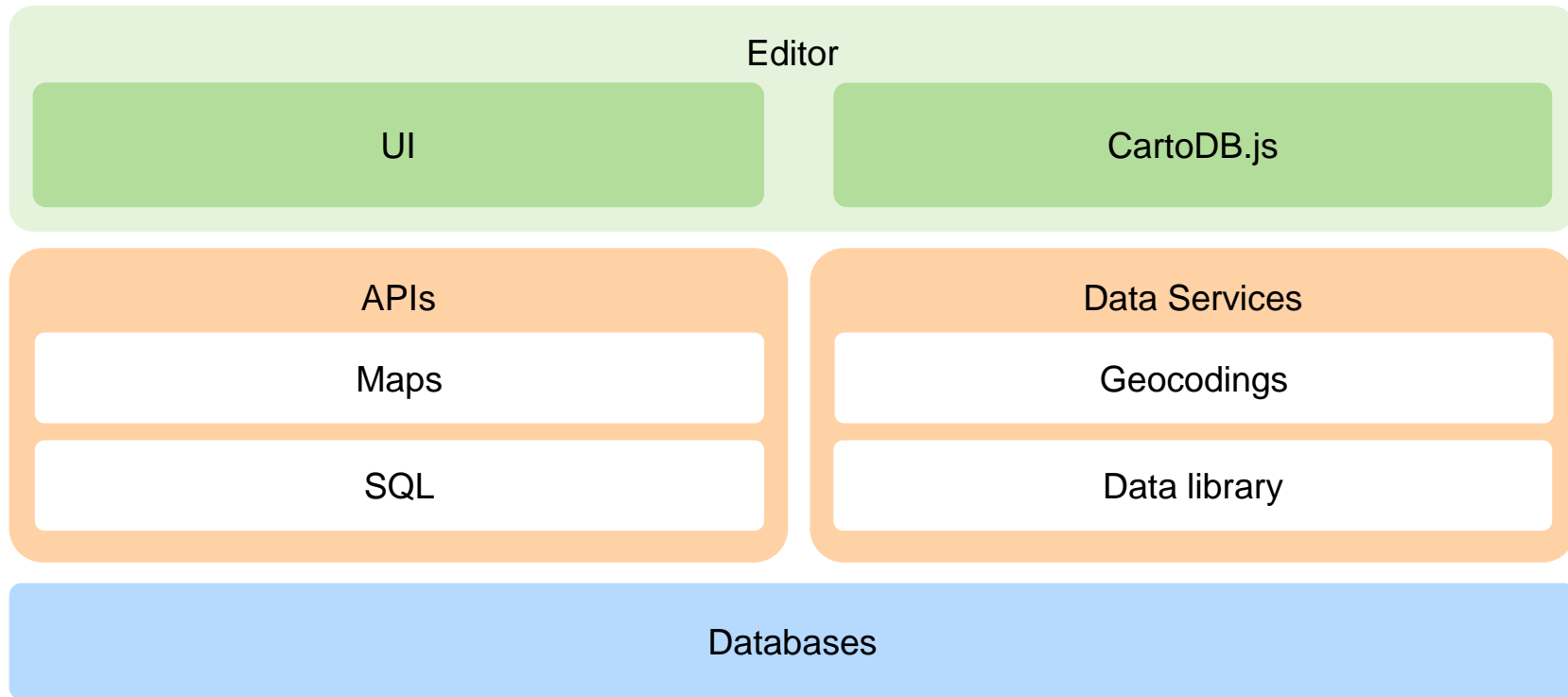
It's hard to process random user queries
- CPU + IO DB peaks -

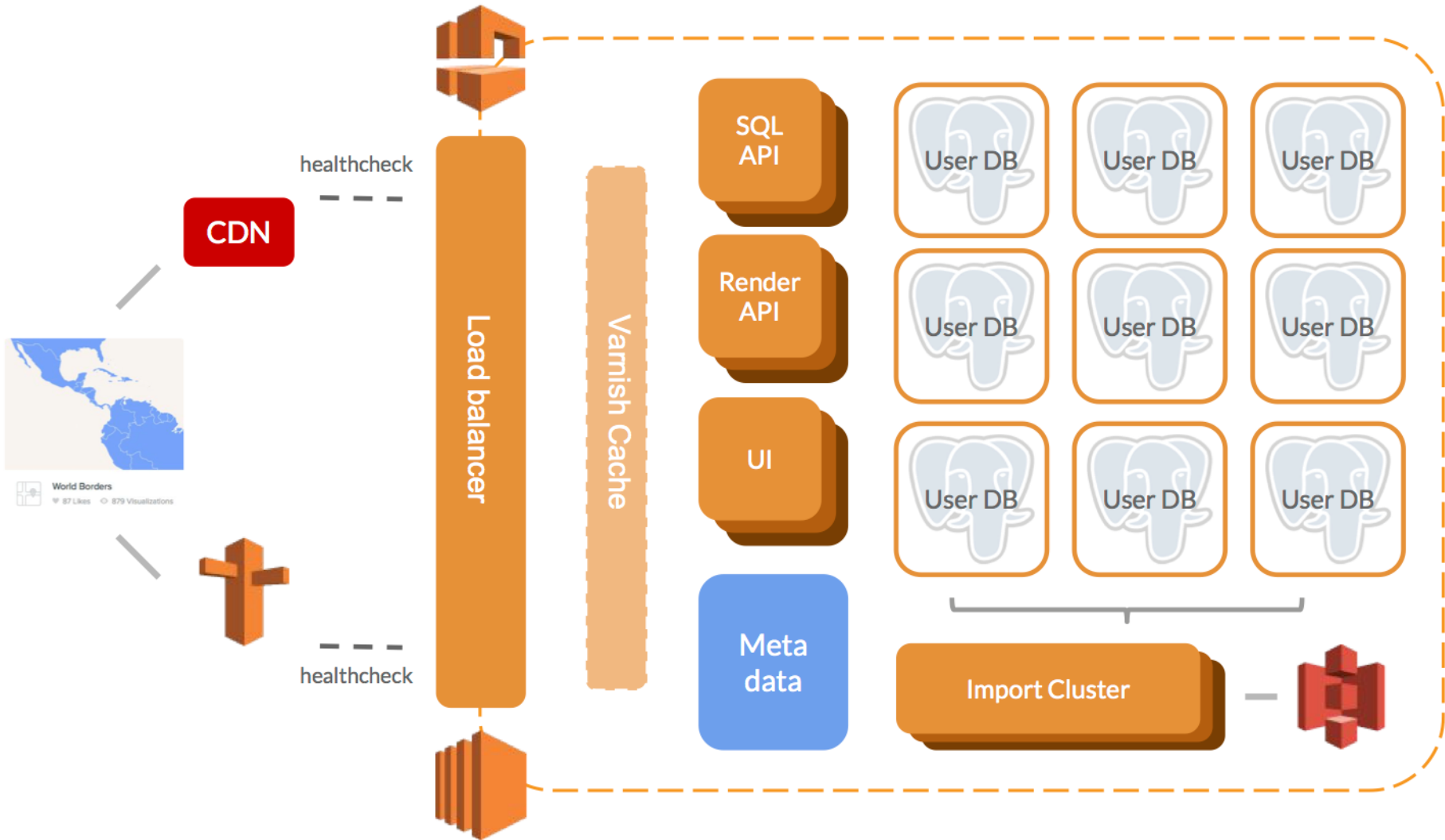
It's hard to render random styled user maps tiles
- CPU peaks -

CartoDB needs a elastic provider
Platform based on AWS services



The CartoDB platform





Strong points of AWS at CartoDB

- Route 53 + Healthchecks
- EC2 multi type instances
- EBS gp2 volumes with burst performance are great for database peaks cache backed
- Snapshots backups + PostgreSQL WAL streaming for fast recovery
- S3 to support the data import flow

Some numbers

- > 100M dynamic requests/day
- > 30 people working on product technical development

(Most of them put new code every day in production platform)

- ~10 new production releases per day
- > 500K current maps published
- > 200 GB served every day

THE FUTURE

Bringing Location intelligence to the masses

- Big data becomes normal
- Make maps more actionable
- Visual analysis tool
- Data augmentation



Thanks!

- Growing the ecosystem
- We are hiring
- We love partners

Why Are Companies Flocking to the Cloud?

Move from capital expense
to variable expense

Lower variable expense
than they could achieve on their own

Increased agility

Stop guessing capacity

Remove undifferentiated heavy lifting

Go global in minutes

Broad and Deep Functionality

The image shows a screenshot of the AWS Management Console with a central green box containing a large yellow question mark and a list of five steps for adopting AWS. The console interface includes various service categories and a list of services.

TECHNICAL & BUSINESS SUPPORT

- Support
- Professional Services
- Partner Ecosystem
- Training & Certification
- Solutions Architects
- Account Management
- Security & Pricing Reports

HYBRID ARCHITECTURES

- Integrating Network
- Direct Connect
- Identity Federation
- Integrating Deployment
- Data Lake
- Integrating Resource Management

MARKETPLACE

- Business Apps
- Business Intelligence
- DevOps Tools
- Security
- Networking
- Databases
- Storage

ENTERPRISE APPS

- Virtual Desktops
- Sharing & Collaboration
- Corporate Email
- Backup
- Resource & Usage Auditing
- Networking (VPC, DX, DNS)
- Points of Presence

Regions

Availability Zones

Central Box Content:

1. Don't use a service
2. Start simple
3. Be a continuous learner
4. Follow along (Blog & Twitter)
5. Learn one service at a time



Re:Invent Announcements

Day 1

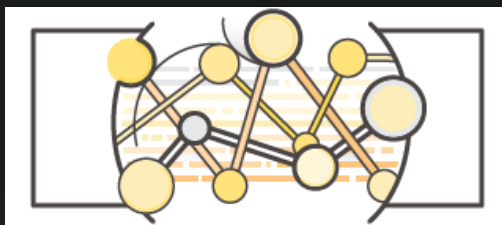
Announcements



Amazon QuickSight

Fast, easy-to-use, cloud-powered business intelligence

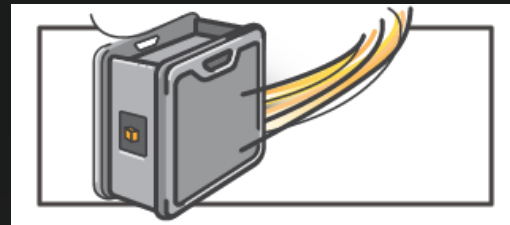
Amazon QuickSight is a fast, cloud-powered business intelligence (BI) service that makes it easy to build visualizations, perform ad-hoc analysis, and quickly get business insights from data. Amazon QuickSight integrates with AWS data stores, flat files, and third-party sources, and it remains super-fast and responsive while seamlessly scaling to hundreds of thousands of users and petabytes of data.



Amazon Kinesis Firehose

Easily load streaming data into S3 & Redshift

Amazon Kinesis Firehose is the easiest way to load streaming data into AWS. It can capture and automatically load streaming data into Amazon S3 and Amazon Redshift, enabling near real-time analytics with existing business intelligence tools you're already using today. It is a fully managed service that requires no ongoing administration.



AWS Import/Export Snowball

Petabyte-scale data transport solution

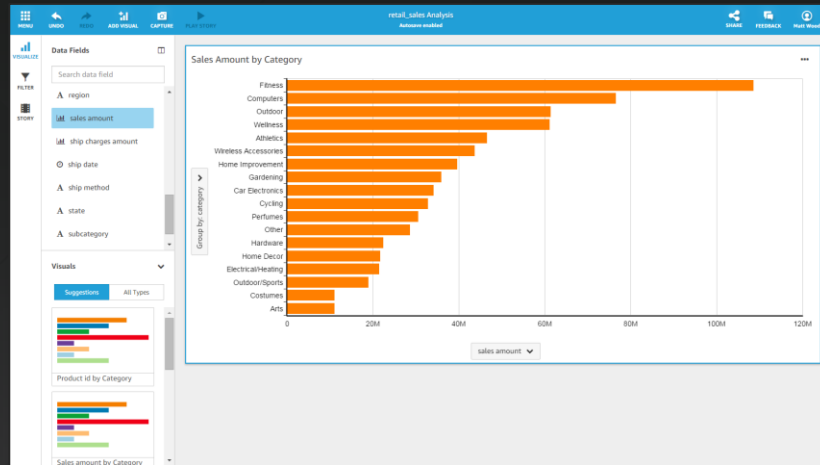
AWS Import/Export Snowball uses secure appliances to help accelerate petabyte-scale data transfers into and out of AWS. Using Snowball addresses common challenges with large-scale data transfers including high network costs, long transfer times, and security concerns. Transferring data with Snowball is simple, fast, secure, and can be as little as one-fifth the cost of high-speed Internet.

Amazon QuickSight

A Very Fast, Cloud-Powered Business Intelligence Service For 1/10th the Cost of Traditional BI Software

Get Started Quickly

- Requires no IT effort or complex dimensional modeling
- Auto-discovery of all AWS data sources
- Reduces time to first visualization down to a minute



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Juan Carlos Plaza

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César Silgo

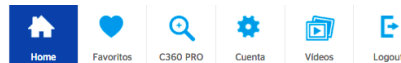
cesar.silgo@beeva.com

¿QUÉ ES COMMERCE360?

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DATA & ANALYTICS



Commerce**360**



¿Qué te parece la nueva vista de Análisis? [Danos tu opinión](#)

MI NEGOCIO:

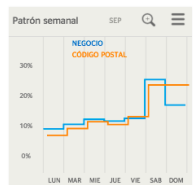
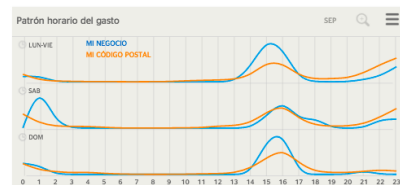
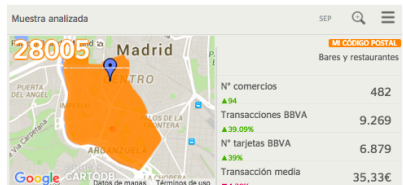
Restaurante Miguel

C/EJEMPLO, 20, 28005 MADRID

Hoy quiero ver...

Análisis (6) Datos Módulos Imprimir Guardar posición Ajustes panel

Buscar zona o tienda...



Cargar más módulos

AYUDA
SUGERENCIAS

Inteligencia para el retail
basada en datos
agregados y anónimos de
pagos con tarjeta.

¿QUÉ ES COMMERCE360?



MI NEGOCIO:

Restaurante Miguel

C/EJEMPLO, 20, 28005 MADRID

Hoy quiero ver...

Análisis (6)

Datos

Módulos

Imprimir

Guardar posición

Ajustes panel

Buscar zona o tienda...

¿Conoces cuál es tu base de clientes?

Hay **174 clientes** (un 16,10%) que compraron en tu establecimiento hace 6 meses y no han vuelto desde entonces. Por el contrario, **246 clientes nuevos** te han visitado en Septiembre, lo que supone un 22,76% de tus clientes totales de este semestre.

Descontando a unos y a otros, se estima que tienes una base de **661 clientes fidelizados**, un 61,15% de tus clientes totales.



NUESTRA SUGERENCIA

Para fidelizar a tus clientes puedes pedirles que te sigan en las **redes sociales de tu negocio**, a cambio de alguna promoción especial. Así es más fácil que conozcan tus novedades, o incluso que te recomienden a otras personas. ¿Cómo de activo es tu negocio en redes sociales?

Valorar

La fidelidad de tus clientes disminuye

¡Atención al Domingo!

El **Domingo** es el día de la semana en el que hay una mayor diferencia entre el porcentaje de gasto realizado en **Bares y restaurantes de 28005** y el realizado en tu establecimiento. ¡La diferencia es del **6,70%**!



NUESTRA SUGERENCIA

Prueba a estimular tus ventas el **Domingo** con descuentos o eventos especiales ese día de la semana, como por ejemplo un 2x1.

Valorar

En Septiembre han bajado los precios...

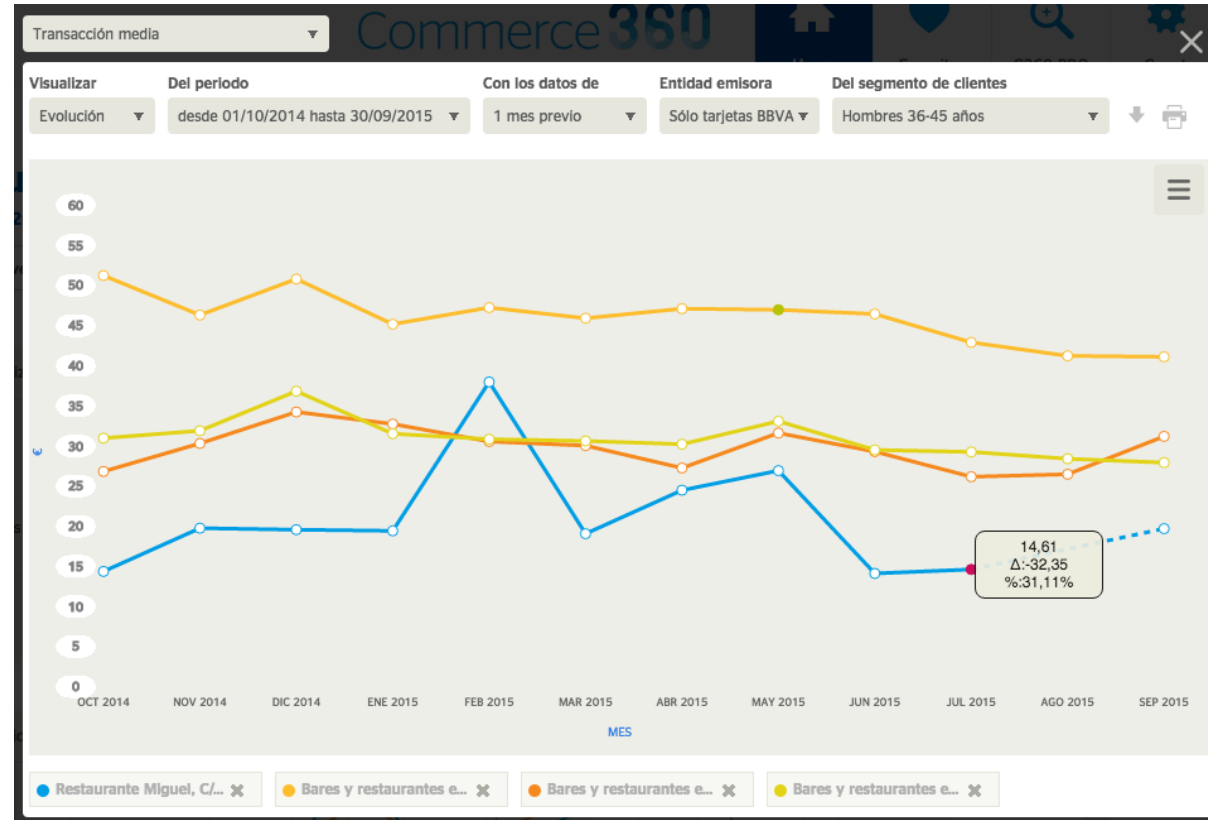
Alertas y recomendaciones personalizadas

COMMERCE360 PRO

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Profundidad **histórica**
Filtrado por **segmento**
Descarga de estadísticas



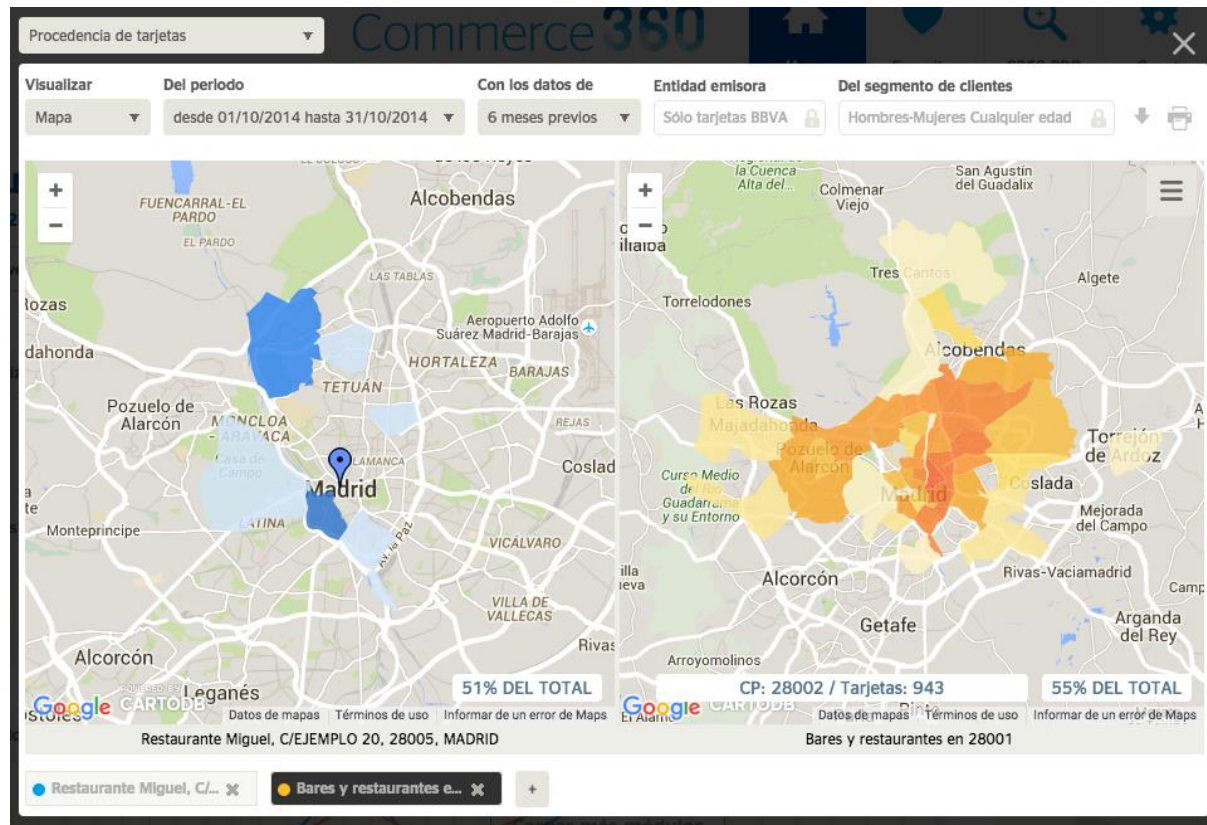
COMMERCE360 PRO

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Estudios de mercado **bajo**
demanda para zonas y
sectores de interés.



RETO: ESCALABILIDAD

200M de transacciones por mes

Millones de comercios geolocalizados

Tablas de hechos con **miles de millones de registros**

Cientos de millones de agregaciones espacio-temporales



RETO: PATRONES DE USO

Analítica intensiva

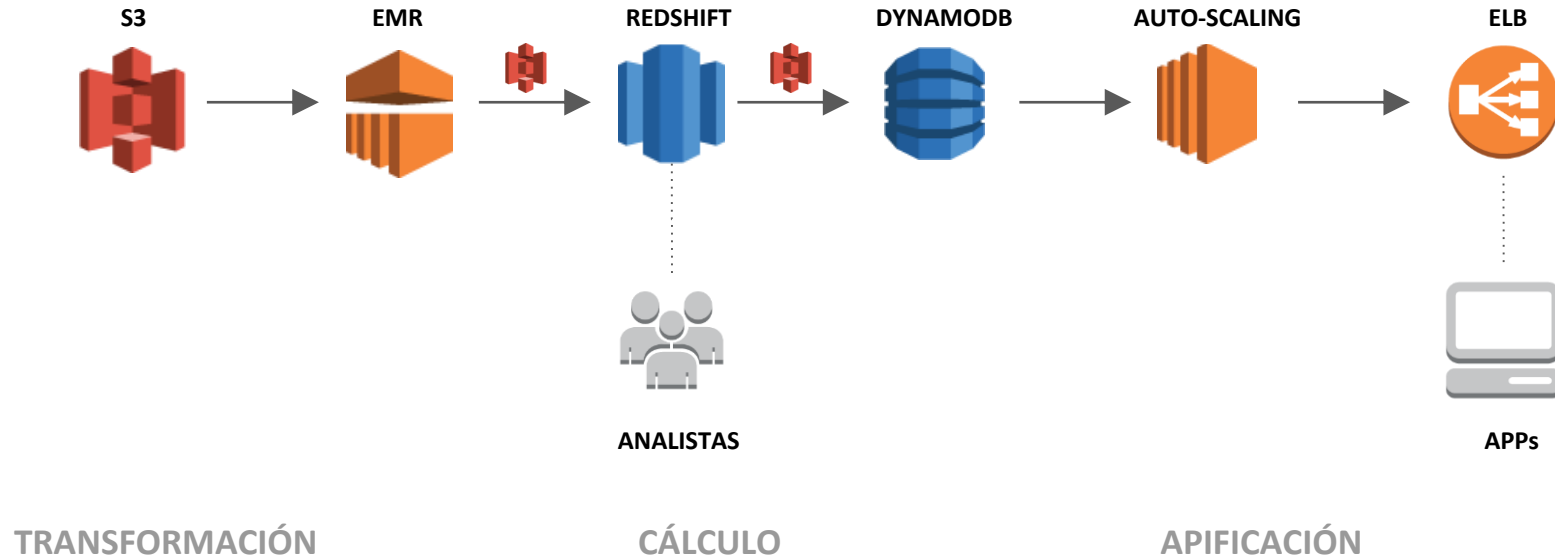
Picos de computación cada mes/semana

Información en bruto accesible para los analistas

Datos precalculados accesibles mediante **API REST**



SOLUCIÓN: AWS



ALGUNOS NÚMEROS



36 clusters EMR

209 instancias

8,4 TB RAM

1054 CPUs



9 clusters Redshift

8-16 instancias c/u



+100 tablas Dynamo

~60.000 WU/s



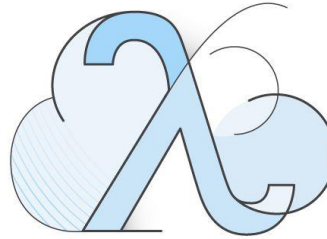
90% aprox

ahorro de costes

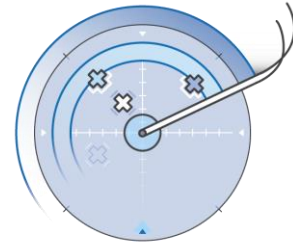
PRÓXIMOS PASOS



QUICKSIGHT - SPICE



LAMBDA



INSPECTOR

Commerce360

www.commerce360.es

Amazon Kinesis Firehose

Easiest Way to Load Streaming Data into AWS



- Zero administration - Capture and deliver streaming data into S3, Redshift, and other destinations without writing any applications or managing infrastructure.
- Direct-to-Data Store Integration - Batch, compress, and encrypt streaming data for delivery into data destinations in as little as 60 secs using simple configurations.
- Seamless Elasticity - Seamlessly scales to match data throughput without intervention.

AWS Import/Export Snowball Appliance



- Rugged & portable
- Tamper-resistant enclosure
- E ink shipping label
- 256-bit encryption
- Chain-of-custody tracking
- 50 TB per appliance

Using AWS Import/Export Snowball



CREATE A JOB

Create a new data transfer job in the [AWS Management Console](#). AWS will ship you one or more Snowball appliances based on the amount of data.



CONNECT THE SNOWBALL

Connect the appliance to your network and set the [IP address](#). Download the Snowball client and job [manifest](#) from the Console, run the client to connect and identify data to transfer.



COPY TO THE SNOWBALL

The client will encrypt and copy data to the appliance at high speed. Once complete, the E ink shipping label will automatically update.

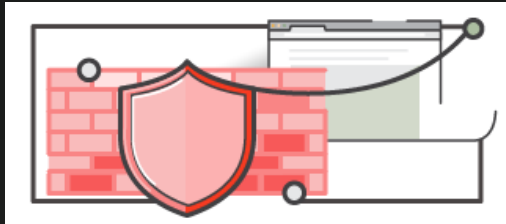


AWS WILL MOVE YOUR DATA TO S3

Track the job status via Amazon SNS, text messaging, or directly in the Console.



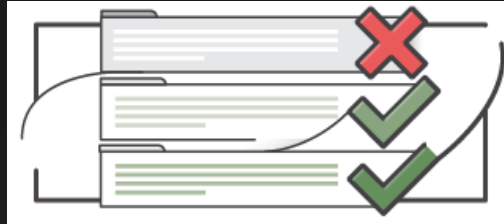
Day 1 (continued #2)



AWS WAF

Filter malicious web traffic

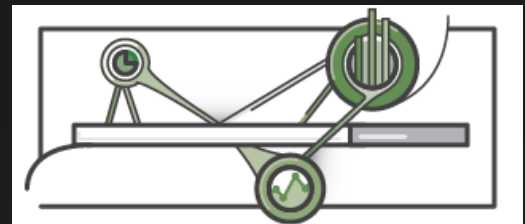
AWS WAF is a web application firewall that helps to protect web applications from attack by blocking common web exploits like SQL injection and cross-site scripting. AWS WAF integrates seamlessly with Amazon CloudFront, our global content delivery network, and includes an API that you can use to automate the creation, deployment, and maintenance of web security rules.



AWS Config Rules

Cloud governance & compliance

AWS Config Rules is a new set of cloud governance capabilities that allow IT administrators to define guidelines for provisioning and configuring AWS resources and then continuously monitor compliance with those guidelines. AWS Config Rules ensures EBS volumes are encrypted, EC2 instances are properly tagged, and Elastic IP addresses (EIPs) are attached to instances.



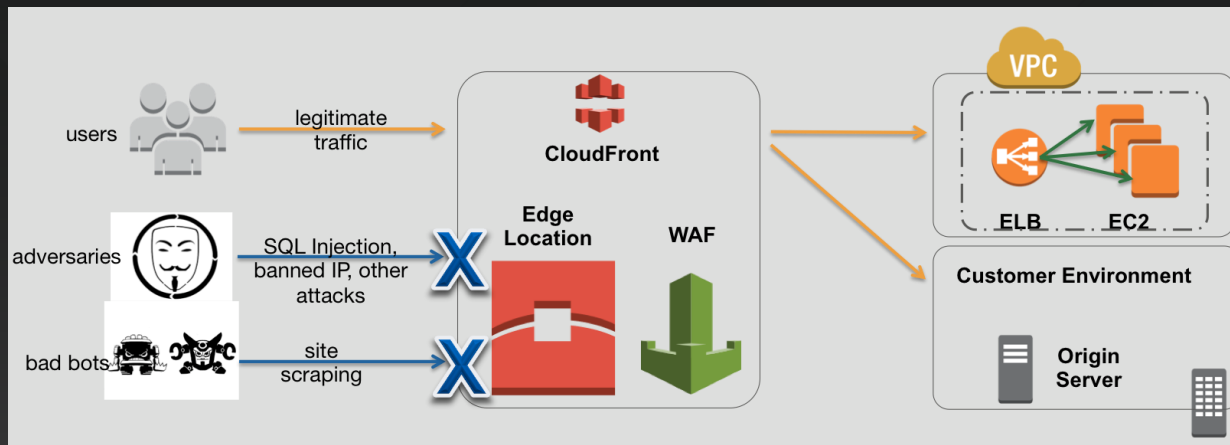
Amazon Elasticsearch Service

Easily run Elasticsearch in AWS

Amazon Elasticsearch Service is a managed service that makes it easy to deploy, operate, and scale Elasticsearch in the AWS Cloud. Elasticsearch is a popular open-source search and analytics engine for use cases such as log analytics, real-time application monitoring, and clickstream analytics. You can get started with Amazon Elasticsearch Service as part of the AWS Free Tier.

AWS WAF (Web Application Firewall)

- AWS WAF is a web application firewall that runs together with CloudFront at every edge location
- Helps protect web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources
- Create custom rules to block common attack patterns designed specifically for a web application – rules deploy in minutes
- Filter web requests based on IP addresses, HTTP headers, or URI strings



Using AWS Config Rules

Rules > Add rule

Status ?

Add a rule to evaluate your resources. Customize any of the specified rules that suit your needs, or add your own custom rule. To add a custom rule, you must first create an AWS Lambda function for the rule. The AWS Lambda console has blueprints for rules to help you get started rules.

[Add custom rule](#)

« < Viewing 8 of 8 managed rules > »

encrypted-volumes

Checks whether volumes in use are encrypted. Optionally, you can specify a KMS key ID that should be used to

cloud-trail-enabled

Checks whether CloudTrail is enabled with optional details about the S3 bucket, SNS topic and CloudWatch

eip-attached

Checks whether EIPs are attached to instances.

incoming-ssh-disabled

Ensures that incoming SSH traffic is disabled on security groups.

instances-in-vpc

Checks that instances belong to my VPC or a specific VPC if an ID is provided.

required-tags

Checks whether taggable resources have all the tags provided.

restricted-common-ports

Checks whether incoming TCP traffic to the specified ports is disallowed on security groups.

Rules > Configure rule

Add AWS managed rule

Set up this rule and define how to trigger evaluation of this rule. You can specify attributes through parameters, and the rule will check the configuration of resources for these attributes.

Name*

Provide a unique name for this rule.

Description

Managed rule name

Trigger

Trigger type* ☒ Configuration changes ☐ Periodic

Scope of changes* ☒ Resources ☐ Tags ☐ All changes

Specify changes to which resources trigger this rule.

Resources*

Resource identifier (optional)

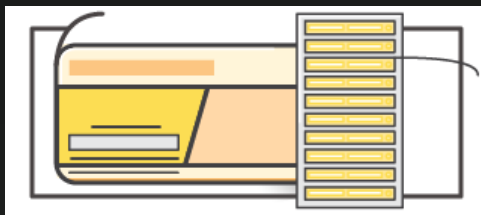
Configuration changes for specified resources must be actively recorded by AWS Config. See settings page.

Rule parameters

Key	Value
<input type="text" value="vpclid"/>	<input type="text" value="Parameter value"/>

* Required

Day 1 (continued #3)



Amazon EC2 Dedicated Hosts

A physical server dedicated to your use

An Amazon EC2 Dedicated Host is a physical server with EC2 instance capacity fully dedicated to your use. Dedicated Hosts can help you address compliance requirements and reduce costs by allowing you to use your existing server-bound software licenses.



Social Point in AWS

Marc Canaletta (CTO &
CO-Founder)

November'2015

Social Point: the company

- Mobile “Free to Play” Gaming Company
- Founded in Barcelona in 2008
- 250 employees
- 2 Hits: Dragon City and Monster Legends
- > 6 million of DAUs



(3.5M)

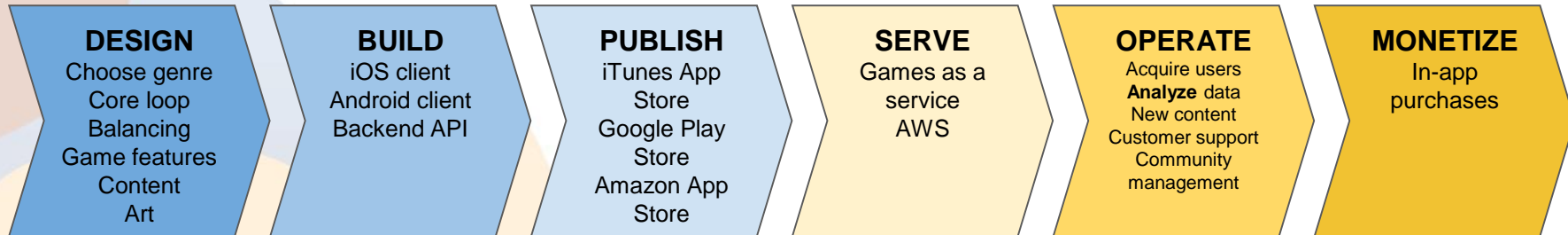


(1,5M)



The business: How does Social Point work?

- Freemium: games are free but users can spend money inside the game to get exclusive items, move faster, ...
- Games as a Service: we don't sell games, we serve fun to our users!



We serve our games using AWS. Our entire business relies on AWS!

AWS: Social Point Operations

Social Point facts in AWS:

- 2011: A small team of **unexperienced developers** launches and grows a game up to **1M DAUs** on AWS
- 2015: A small team of 4 (1.6% of Social Point) talented systems engineers (or better call them cloud engineers?) maintain 7 multiplatform games (+1000 EC2 servers). They still manage to invest almost 50% of their time in future projects!

To do this 10 years ago you would have needed a team of experts in hardware, networking, systems, ...

2005 (estimated)

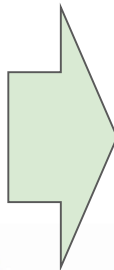
Estimated scenario of operating current Social Point infrastructure with 2005 technology (data center based)

big team (12?) of experts - hardware, networking, systems, ...

complex organization with lots of dependencies

slow

operations, provisioning, changes, ...



2015

Operate current Social Point infrastructure with 2015 technology (AWS)

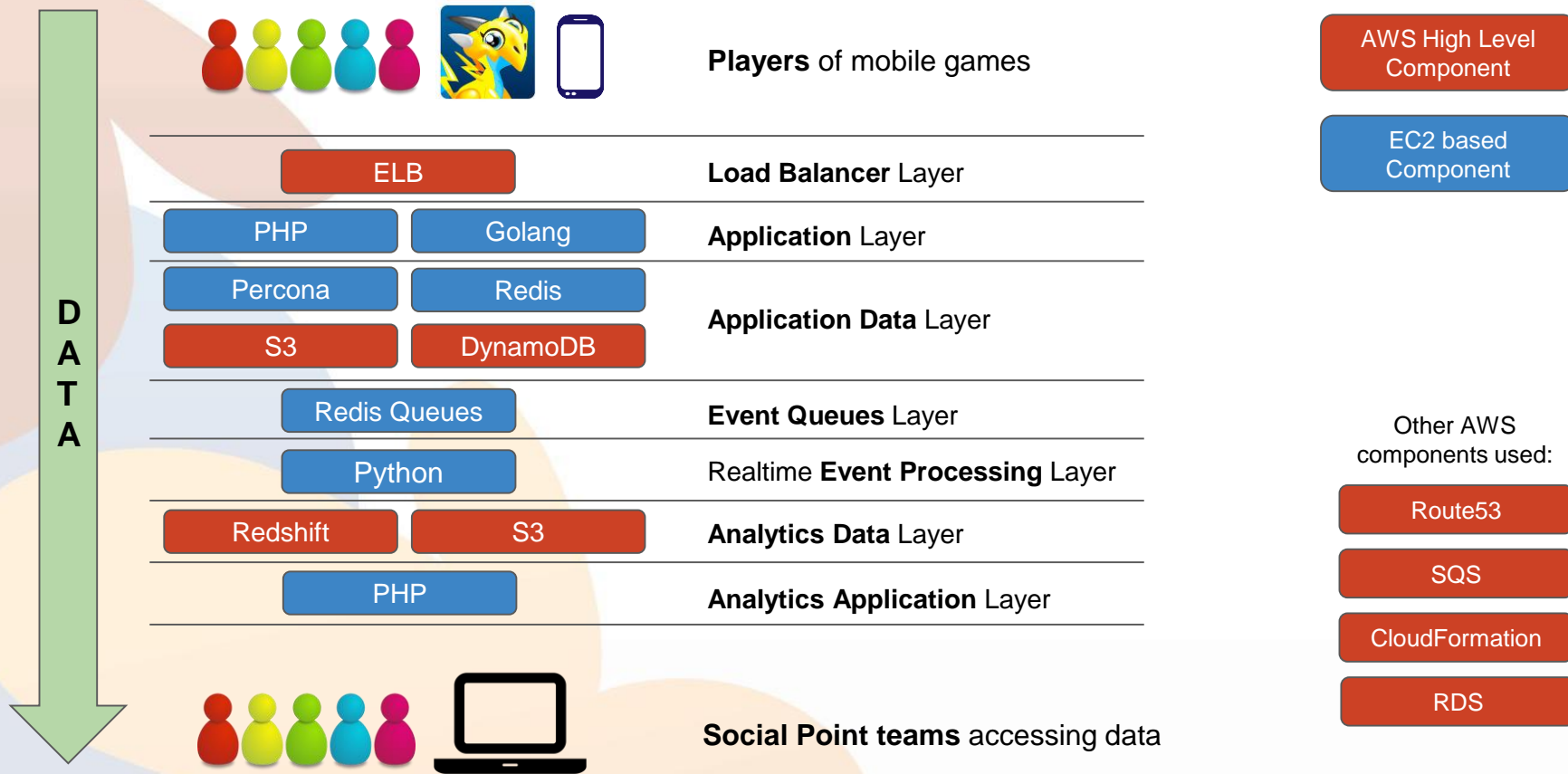
small team (4 talented cloud engineers)

simple organization with few dependencies

fast

operations, provisioning, changes, ...

Social Point stack



Recent success story: GoLang

+ DynamoDB

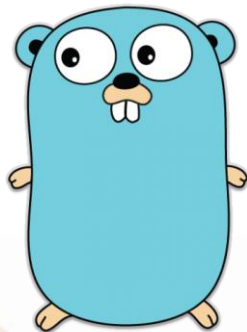
- Until now, we've been using **sharded databases** (Percona, Redis), difficult to scale
- We've been trying to use a **scalable NoSQL database since 2011**
- This summer we launched our **first feature in production using DynamoDB**
- The usage of DynamoDB allowed us to **focus on developing the feature**, and no longer need to worry about database management

The feature includes (all **realtime** - this is why we chose **golang**):

- **Chat / Messaging**
- **Player Team Management**
- **Realtime Matchmaking**

Some numbers:

- 35 K concurrent connections per server
- 80 K goroutines per server
- 165M daily Web Socket messages



Recent success story: GoLang

+ DynamoDB

DynamoDB Pros

- **High Availability** and Seamless Scaling
- Ready to use **SDK** for all the languages in our stack
- **Flexible** data schema, support for both documents and key-value structures
- Advanced features (**Streams**, **Triggers**, etc...)
- **But most important: very robust and predictable**

DynamoDB Tips

- Develop **local**, but be sure to **test also with the real service** (the local version differs from the DynamoDB service in some ways)
- Design for **uniform data access** across items in your tables
- Take advantage of **indexes**, mainly **sparse indexes**
- Use **One-to-Many Tables** Instead Of Large Set Attributes
- **Break up large attributes** across multiple items

Success story: Redshift

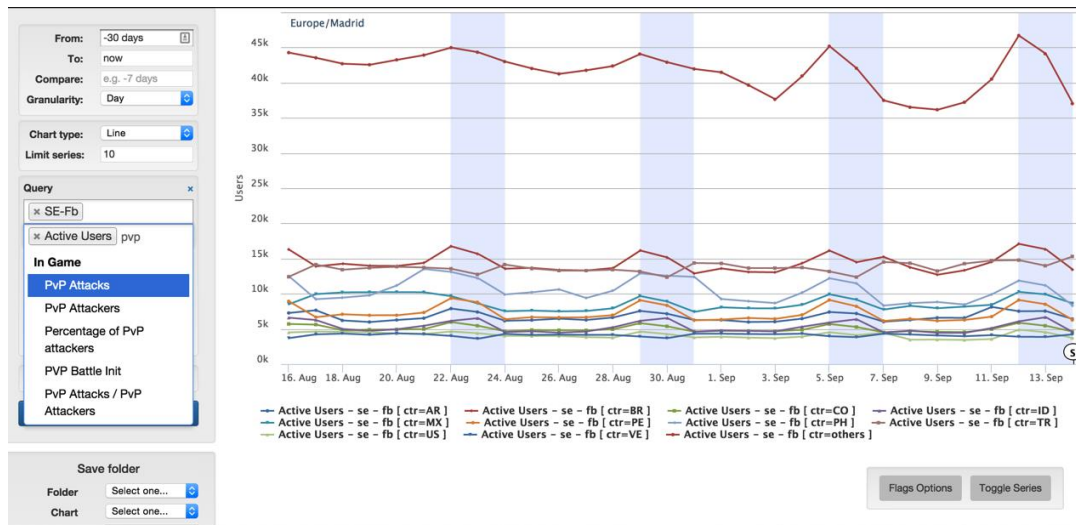
Redshift is the **core** of our **analytics** since 2013.

We use redshift to:

- Store ALL **events** generated from the game
- Generate **reporting tables** (ex: users table)
- Calculate **daily metrics**
- Give direct **access to data** to anybody in the company
- Feed our SP Backoffice (**custom analytics tool**)

How Big is **Big Data** in Social Point?

- 3 Billion **events** generated every day
- 25 redis **servers** (queues)
- 15 python **consumers** (processors)
- 20 **terabytes** of **redshift** data
- 170K **charts displayed** in our tool



Success story: Redshift

Pros of Redshift

- Extremely **simple operations** (clicks in the console)
 - No need of sysadmins, DBAs, ...
- **Horizontally scalable**
- **High performance**
- **Pay per use**: No licenses, investments, negotiations, ...

Redshift Tips

- Remember to do weekly **vacuums** to keep performance!
- Use **columns compression** for performance
- **Don't load** data too **often** (we do it hourly)
- **Split** into 1 redshift **instance per product** (per game in SP) - increase concurrency



Goal for 2016: containers

We are **already** using **docker** in **development**. Why containers?



- **No more differences** between environments
- **Isolation of components**
- **Developers** have much more **autonomy**

Ambitious goal: **Delegate ownership of the infrastructure to the development teams:**

- **Split** our 1 big AWS **account** into 1 account per team
- Build (end the development) a **tool to manage docker based infrastructures**
 - Based in **docker**, **cloudformation**, and will evaluate also **ECS**
 - Provides **management components** by default: nagios, collectd, kibana, consul, ...
 - **1 unique infrastructure definition** for **all environments** (local, dev, prod, ...)
 - We will try to **open source** this tool
- Use **only AWS managed databases** -> **DynamoDB**, **S3**, **ElastiCache**, ...
 - Much simpler operations, and docker with persistence is not good
- Focus **systems team** on **training**, **supporting** and **providing tools**



socialpoint

Thanks!

Social Point is hiring talent!

Data Scientists
Backend Engineers
Mobile Engineers

...

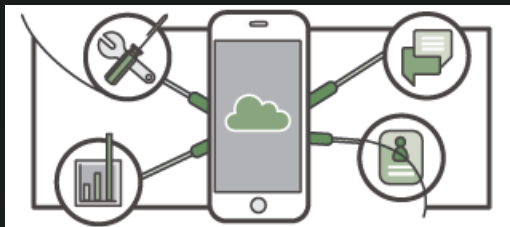
and much more in www.socialpoint.es/jobs!

Day 2 Announcements



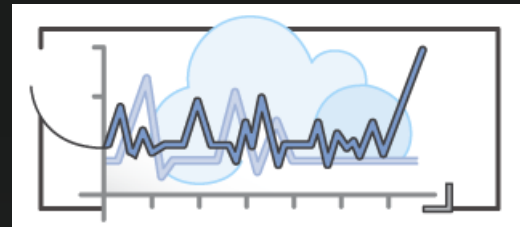
AWS IoT

AWS IoT is a managed cloud platform that lets connected devices easily and securely interact with cloud applications and other devices. AWS IoT can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints, such as AWS Lambda and Amazon Kinesis, and to other devices reliably and securely.



AWS Mobile Hub

AWS Mobile Hub is the fastest way to build mobile apps powered by AWS. It lets you easily add and configure features for your apps, including user authentication, data storage, backend logic, push notifications, content delivery, and analytics — all from a single, integrated console, and without worrying about provisioning, scaling, and managing the infrastructure.



Amazon CloudWatch Dashboards

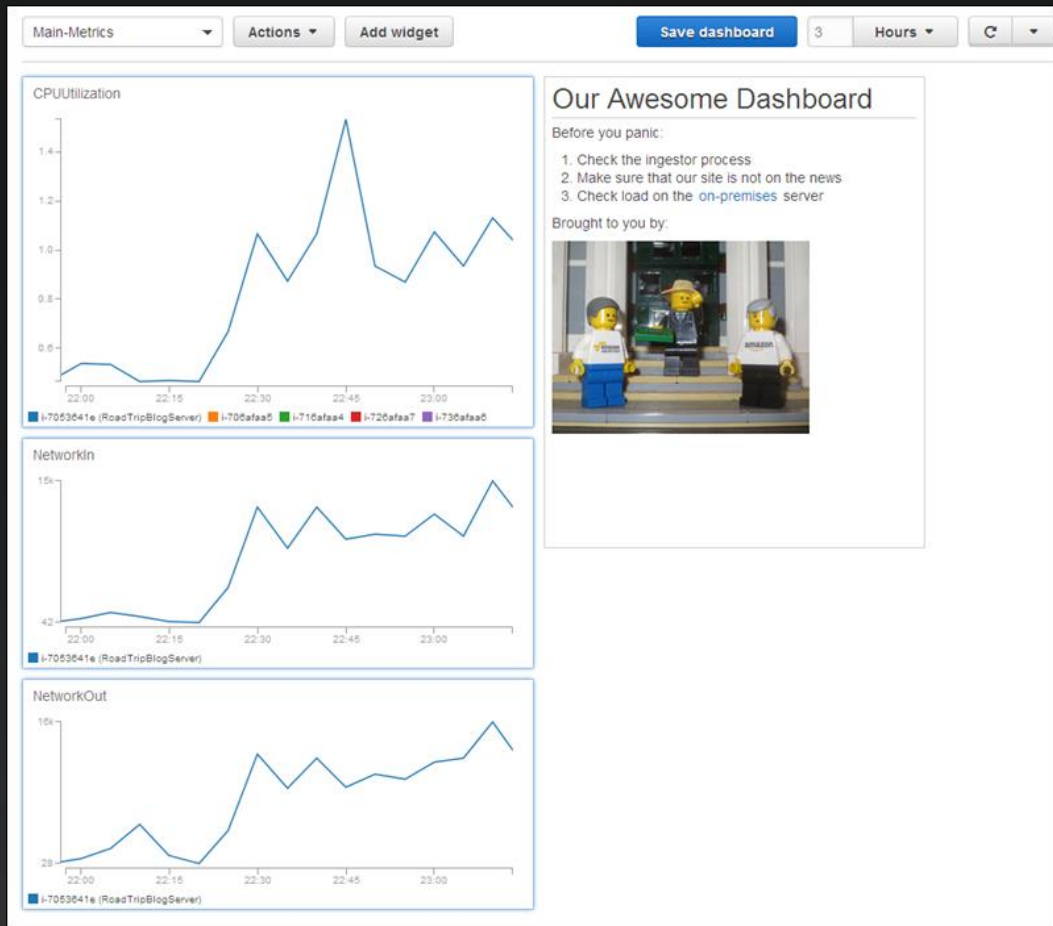
With CloudWatch Dashboards, you can monitor operational metrics with custom graphs of your AWS resources from a single pane of glass. You can create text-based or graphical widgets, add custom text annotations and links to graphs, change the time range, resize and reorganize widgets, and reuse and share dashboards.

CloudWatch Dashboards

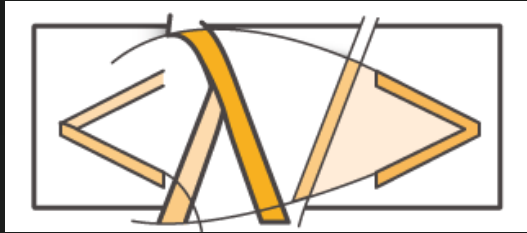
- Customized dashboards for CloudWatch metrics
- Display multiple metrics and accessorize with text and images
- Pull metrics from multiple regions for global status dashboard for complex, multi-region applications and deployments
- Resizable graphs you can interact with
- Link graphs and correlate between metrics, and zoom and take other actions across all linked graphs



AWS CloudWatch Dashboards



Day 2 (continued #1)



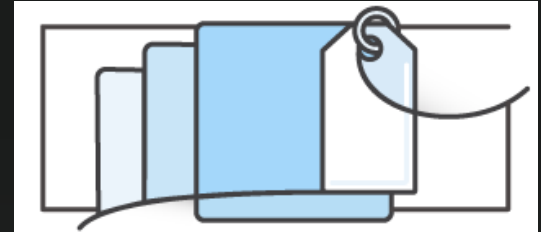
AWS Lambda

You can now develop your AWS Lambda function code using Python, maintain multiple versions of your function code, invoke your code on a regular schedule, and run your functions for up to five minutes.



Amazon WorkSpaces

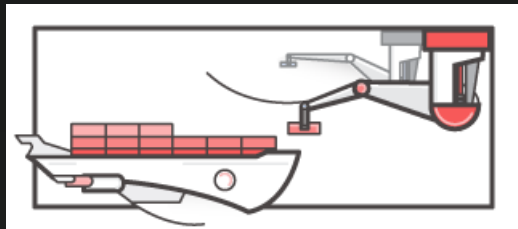
Amazon WorkSpaces allows you to easily provision cloud-based desktops and provide users access to the documents, applications, and resources they need from any supported device including Windows and Mac computers, Chromebooks, iPads, Kindle Fire, and Android tablets. Amazon WorkSpaces now supports encryption and lets you bring your existing Windows 7 Desktop Licenses by providing physically dedicated hardware.



Amazon EC2 Spot Instances

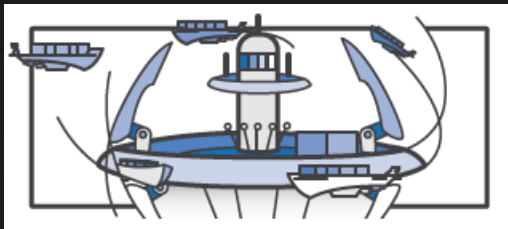
You can now request Amazon EC2 Spot instances to run continuously, for up to six hours, at a flat rate that saves you up to 50% compared to On-Demand prices. This enables you to reduce costs when running finite duration tasks such as batch processing, encoding and rendering, modeling and analysis, and continuous integration jobs.

Day 2 (continued #2)



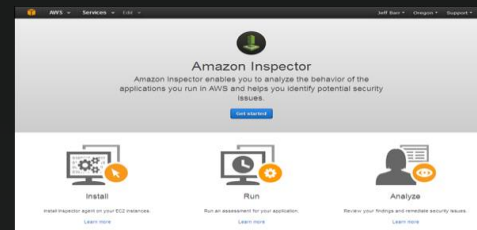
Amazon EC2 Container Registry

Amazon EC2 Container Registry (ECR) is a fully-managed Docker container registry that makes it easy for developers to store, manage, and deploy Docker container images. Amazon ECR is integrated with Amazon EC2 Container Service (ECS), simplifying your development to production workflow. Amazon ECR eliminates the need to operate your own container repositories or worry about scaling the underlying infrastructure. Integration with AWS Identity and Access Management (IAM) provides resource-level control of each repository.



Amazon EC2 Container Service

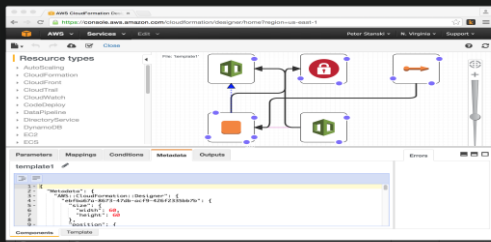
You can now use the Amazon ECS CLI with Docker Compose to easily launch multi-container applications. We have also added availability zone awareness to the Amazon ECS service scheduler, allowing the scheduler to spread your tasks across availability zones.



Amazon Inspector

Quickly and easily assess the security of your AWS resources for forensics, troubleshooting or active auditing purposes at your own pace.

Other re:Invent Announcements



CloudFormation Visual Designer

Created and edit CloudFormation templates inside the Web Console. Simply drag and drop your AWS resources to the design surface and see your CloudFormation appear in the JSON editor.

X1 + t2.nano Instances

New instance types are in the works. The X1 instances will provide up to 2 TB of memory and over 100 cores.

The t2.nano will have half of the memory of the t2.micro, and will offer the same ability to burst to full-core processing power on an as-needed basis.

Amazon RDS for MariaDB

Another database option for RDS (joins Aurora, MySQL, SQL Server, Oracle Database, and PostgreSQL).

Variant of MySQL with increased customer demand.

Does not require an enterprise license for access to advanced features.



Thank You

BARCELONA

jbarr@amazon.com

@jeffbarr





AWS Summit

BARCELONA





Moving Fast and Staying Safe in the AWS Cloud

Bill Murray
AWS Security Programs

November 5, 2015

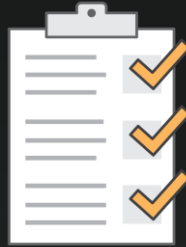


1) Why is security such a hot topic?



Because it's important, and it's hard

2) Why is enterprise security traditionally so hard?



Because so much planning is needed

3) Why does planning take so long?



Because it requires so many processes

4) Why so many processes?



Because mistakes are easy to make and hard to correct

5) Why are mistakes so hard to correct?



Lack of visibility

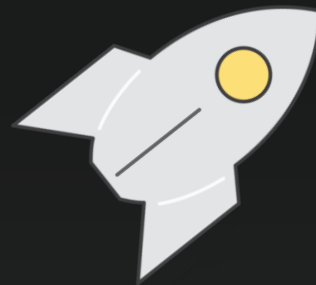


Low degree of automation

So where does AWS come in?

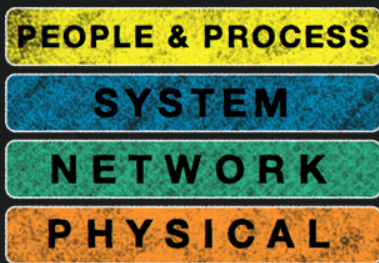


AWS makes security
more agile



Lets you move fast while
staying safe

Security is Job Zero



Familiar security model



Validated by security experts
Collaboration on Enhancements



Physical
Security

Network
Security

Platform
Security

People &
Procedures

SECURITY IS **SHARED**



Build everything on a **constantly improving** security baseline



GxP
ISO 13485
AS9100
ISO/TS 16949



AWS Foundation Services

Compute

Storage

Database

Networking

AWS Global
Infrastructure

Availability Zones

Regions

Edge Locations

AWS is
responsible for
the security **OF**
the Cloud



Security & compliance is a **shared responsibility**



Customers

Customer applications & content

Platform, Applications, Identity & Access Management

Operating System, Network, & Firewall Configuration

Client-side Data
Encryption

Server-side Data
Encryption

Network Traffic
Protection

Customers have
their choice of
security
configurations **IN**
the Cloud

AWS Foundation Services

Compute

Storage

Database

Networking

AWS is
responsible for
the security **OF**
the Cloud

AWS Global
Infrastructure

Availability Zones

Regions

Edge Locations



SECURITY IS **FAMILIAR**



AWS Enterprise Summit

Security is Familiar

- We strive to make security at AWS as **familiar** as what you are doing right now
 - Visibility
 - Auditability
 - Controllability
 - **Agility**

AWS Marketplace: One-stop shop for familiar tools



Advanced Threat Analytics



Application Security



Identity and Access Mgmt



M-Pin SSO
Authentication
for Enterprises

Server & Endpoint Protection



Network Security



Encryption & Key Mgmt



Vulnerability & Pen Testing



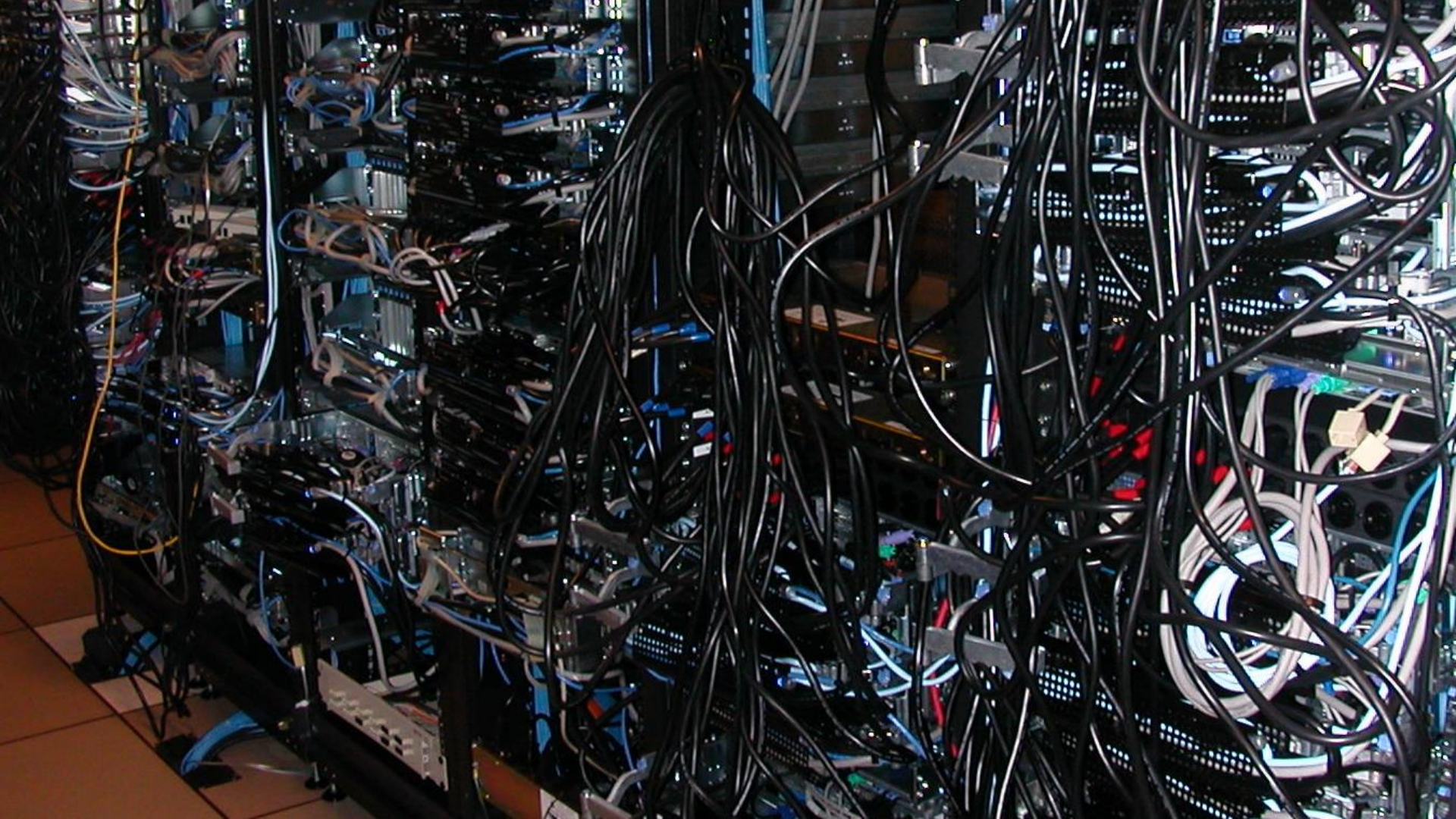
SECURITY REQUIRES **VISIBILITY**



VISIBILITY

HOW OFTEN DO YOU MAP YOUR NETWORK?

WHAT'S IN YOUR ENVIRONMENT
RIGHT NOW?



Firefox

EC2 Management Console

https://console.aws.amazon.com/ec2/v2/home?region=eu-west-1#Instances:

admin @ 670934762290 | Ireland | Help

EC2 Dashboard

Events

Tags

INSTANCES

Instances

Spot Requests

Reserved Instances

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Launch Instance

Connect

Actions

Filter: All instances | All instance types | Search Instances

1 to 4 of 4 Instances

	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status
<input checked="" type="checkbox"/>	git	i-157c445d	m1.small	eu-west-1b	running	2/2 check...	None
<input type="checkbox"/>	adrien	i-38ea8477	m1.medium	eu-west-1b	running	2/2 check...	None
<input type="checkbox"/>	mail	i-4e507502	t1.micro	eu-west-1a	running	2/2 check...	None
<input type="checkbox"/>	minecraft	i-bee14ef3	m1.large	eu-west-1c	running	2/2 check...	None

Instance: i-157c445d | Public DNS: ec2-46-137-170-115.eu-west-1.compute.amazonaws.com

Description

Status Checks

Monitoring

Tags

Instance ID	i-157c445d	Public DNS	ec2-46-137-170-115.eu-west-1.compute.amazonaws.com
Instance state	running	Elastic IP	46.137.170.115
Instance type	m1.small	Private DNS	ip-10-55-77-33.eu-west-1.compute.internal
Availability zone	eu-west-1b	Private IPs	10.55.77.33
Security groups	Git_Repository. view rules	Secondary private IPs	-
Scheduled events	No scheduled events	VPC ID	-

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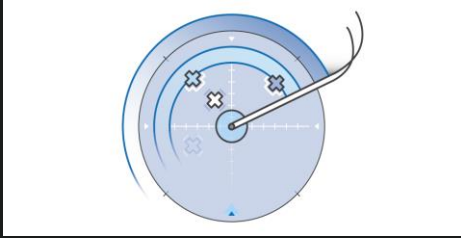
Feedback

Security is Visible

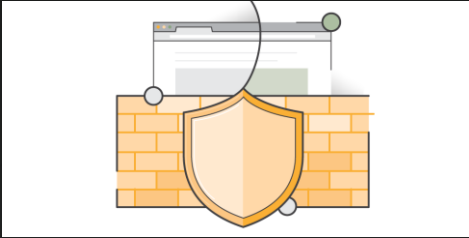
- Who is accessing the resources?
- Who took what action?
 - When?
 - From where?
 - What did they do?
 - Logs Logs Logs



New tools to move fast and stay safe



- Amazon Inspector



- AWS WAF



- AWS Config Rules

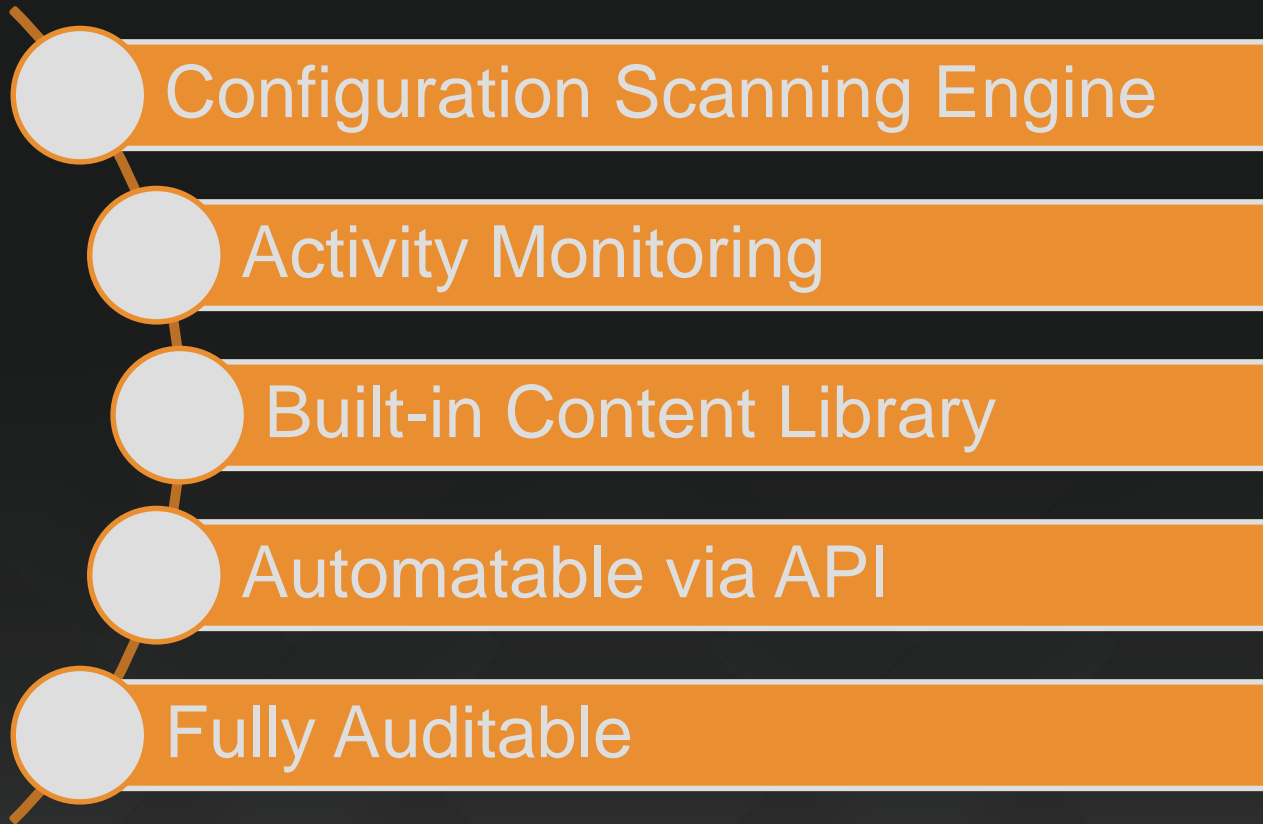
Amazon Inspector (Preview)

Security assessment tool analyzing end-to-end application configuration and activity

Why Amazon Inspector?

- Applications testing key to moving fast but staying safe
- Security assessment highly manual - resulting in delays or missed security checks.
- Valuable security subject matter experts spending too much time on routine security assessment

Amazon Inspector Features



Amazon Inspector Rule Sets



Amazon Inspector Benefits



Increased Agility



Embedded Expertise



Improved Security Posture



Streamlined Compliance

Getting started



Install

Install Inspector agent on your EC2 instances.

[Learn more](#)



Run

Run an assessment for your application.

[Learn more](#)



Analyze

Review your findings and remediate security issues.

[Learn more](#)

Prioritized Findings

Amazon Inspector - Findings

Inspector findings are potential security issues discovered during Inspector's assessment of the specified application. [Learn more.](#)

Add/Edit attributes

Last updated on September 24, 2015 4:12:42 PM (20m ago)



Filter

« < Viewing 1-10 of 24 > »

<input type="checkbox"/>	Severity	Application	Assessment	Rule package	Finding
<input type="checkbox"/>	High ⓘ	Customer Processing	Comprehensive-Assessment	Authentication Best Practices	Instance i-aac4c46f is configure
<input type="checkbox"/>	High ⓘ	Customer Processing	Comprehensive-Assessment	Common Vulnerabilities and Ex...	Instance i-aac4c46f is vulnerabl
<input type="checkbox"/>	High ⓘ	Customer Processing	Comprehensive-Assessment	Authentication Best Practices	No password complexity mecha
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Initial app	PCI DSS 3.0 Readiness	Instance i-aac4c46f was found t
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Initial app	PCI DSS 3.0 Readiness	The machine i-aac4c46f was fo
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Comprehensive-Assessment	Operating System Security Best...	No potential security issues four
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Comprehensive-Assessment	PCI DSS 3.0 Readiness	The machine i-aac4c46f was fo
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Comprehensive-Assessment	Network Security Best Practices	No potential security issues four
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Comprehensive-Assessment	PCI DSS 3.0 Readiness	Instance i-aac4c46f was found t
<input type="checkbox"/>	Informational ⓘ	Customer Processing	Initial app	PCI DSS 3.0 Readiness	A machine with Instance ID i-aa

Detailed Remediation Recommendations

Finding for application - Customer Processing

Application name Customer Processing

Assessment name Comprehensive-Assessment

Assessment start Today at 3:51 PM (GMT-4)

Assessment end Today at 4:12 PM (GMT-4)

Status COMPLETED

Rule package [Authentication Best Practices](#)

Finding Instance i-aac4c46f is configured to allow users to log in with root credentials over SSH. This increases the likelihood of a successful brute-force attack.

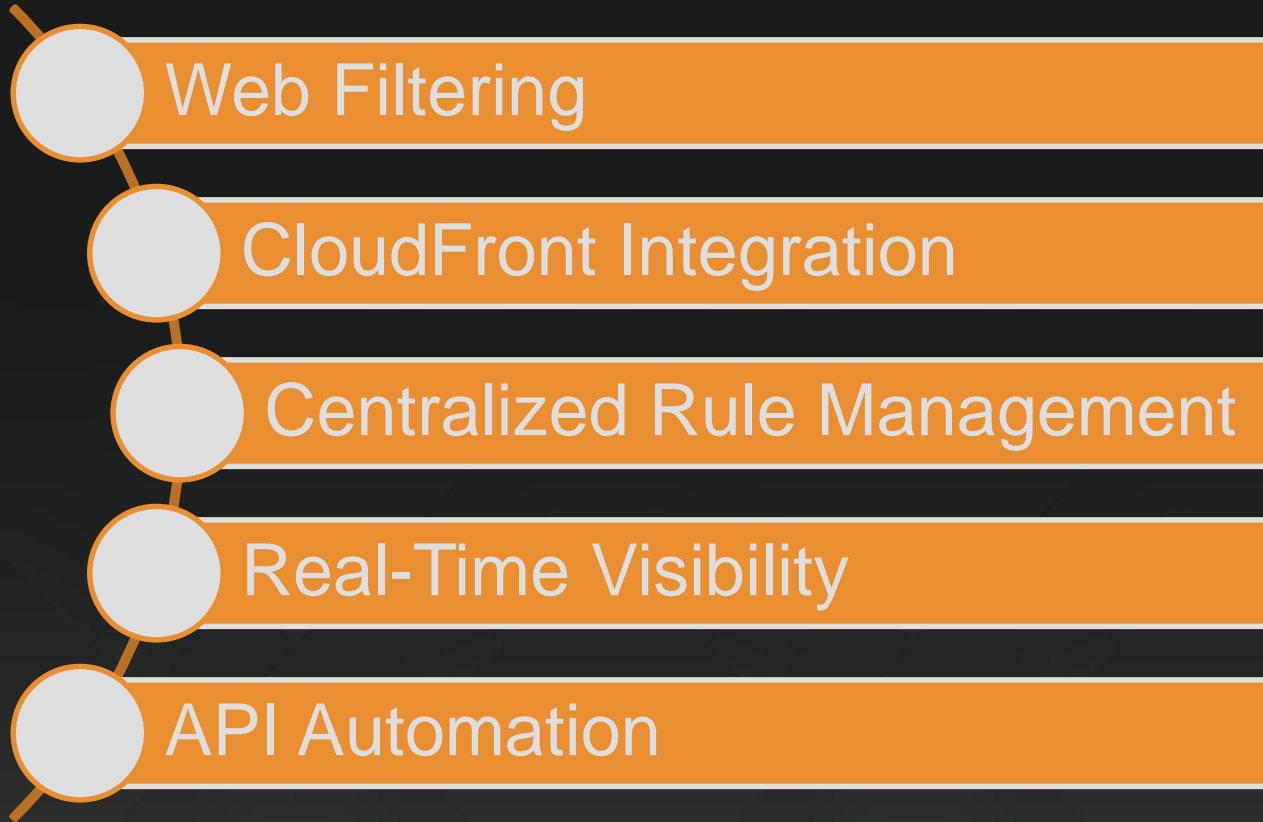
Severity High ⓘ

Description This rule helps determine whether the SSH daemon is configured to permit logging in to your EC2 instance as root.

Recommendation It is recommended that you configure your EC2 instance to prevent root logins over SSH. Instead, log in as a non-root user and use **sudo** to escalate privileges when necessary. To disable SSH root logins, set **PermitRootLogin** to "no" in **/etc/ssh/sshd_config** and restart sshd.

AWS WAF (Web Application Firewall)

AWS WAF Features



AWS WAF Benefits



Increased Protection
Against Web Attacks

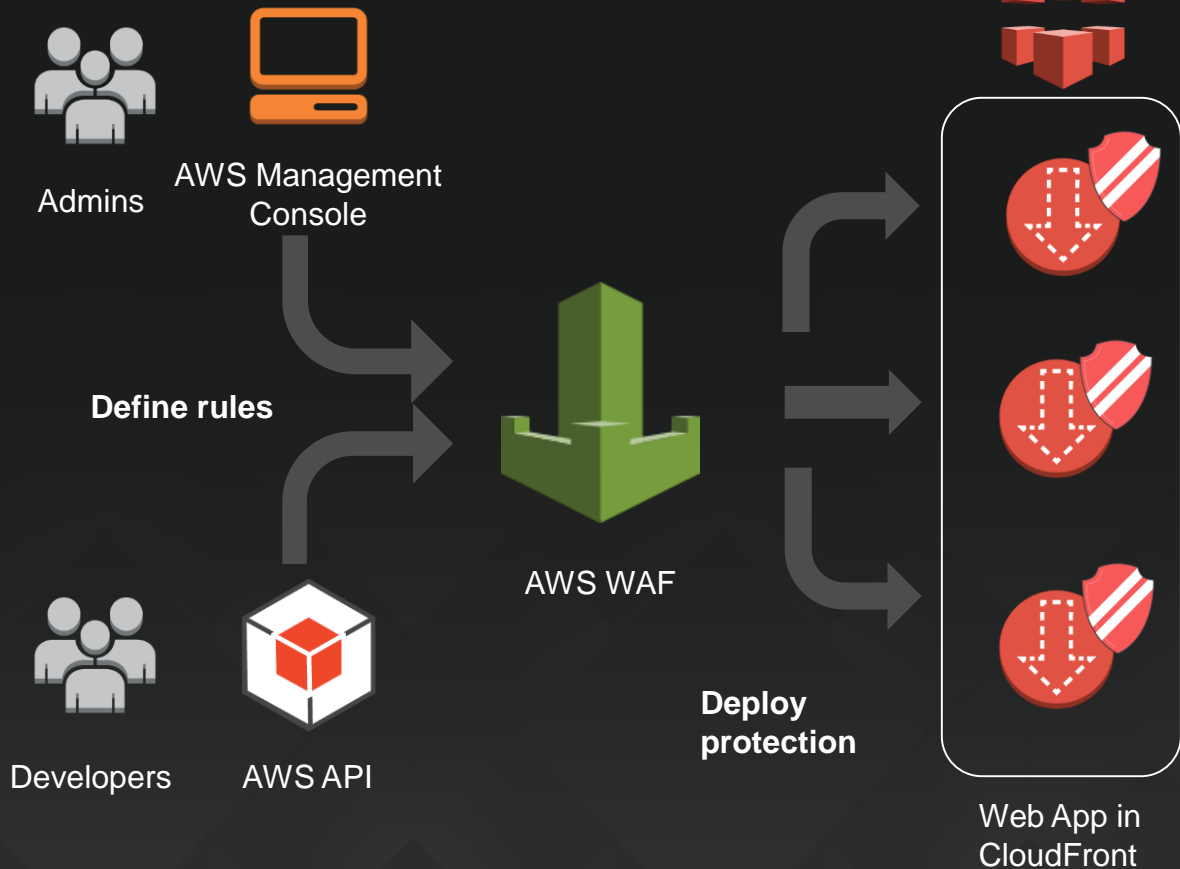


Ease of Deployment and
Maintenance



Security Embedded in
Development Process

AWS WAF in Action



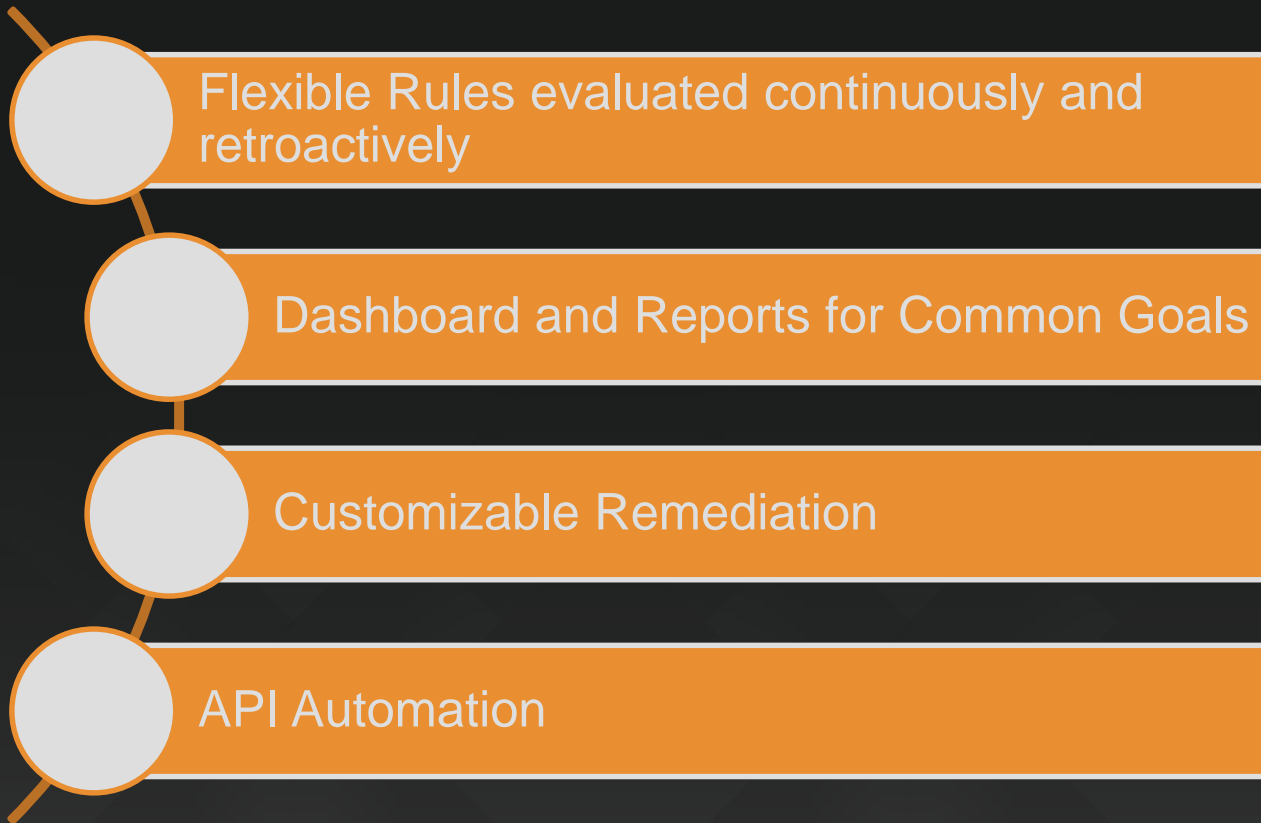
AWS WAF Partner integrations



- Alert Logic, Trend Micro & Imperva integrating with AWS WAF
- Offer additional detection and threat intelligence
- Dynamically modify rulesets of AWS WAF for increased protection

AWS Config Rules

AWS Config Rules Features



AWS Config Rules

Broad **Ecosystem** of solutions



AWS Config Rules Benefits



Continuous monitoring for unexpected changes



Shared Compliance across your organization



Simplified management of configuration changes

AWS Config Rules

AWS Config

Rules

Resources

Settings

Rules

This view determines if any rule that applies to the resource is currently non-compliant. You can view compliance by rule, which tells you if any resource within scope of the rule is currently non-compliant.

Add rule(s)

Rule name	Compliance status	Edit rule
CloudTrailEnabled	1 Non-compliant resource(s)	
VerifyVolumeEncrypted	1 Non-compliant resource(s)	
AttachedEIPs	Compliant	
EC2InstanceProfileRoleRestricted	Compliant	
InstancesInVPC	Compliant	
SecurityGroupPorts	Compliant	
SecurityGroupSSHPort	Compliant	
TagsOnResources	Compliant	
UpdatedUsersKeys	Compliant	

Status

Rules overview at Aug 18th 2015 4:35 AM

Category	Count
Non-compliant	2
Compliant	7
Total	9

All rules Trend overview

Time range: 30 days

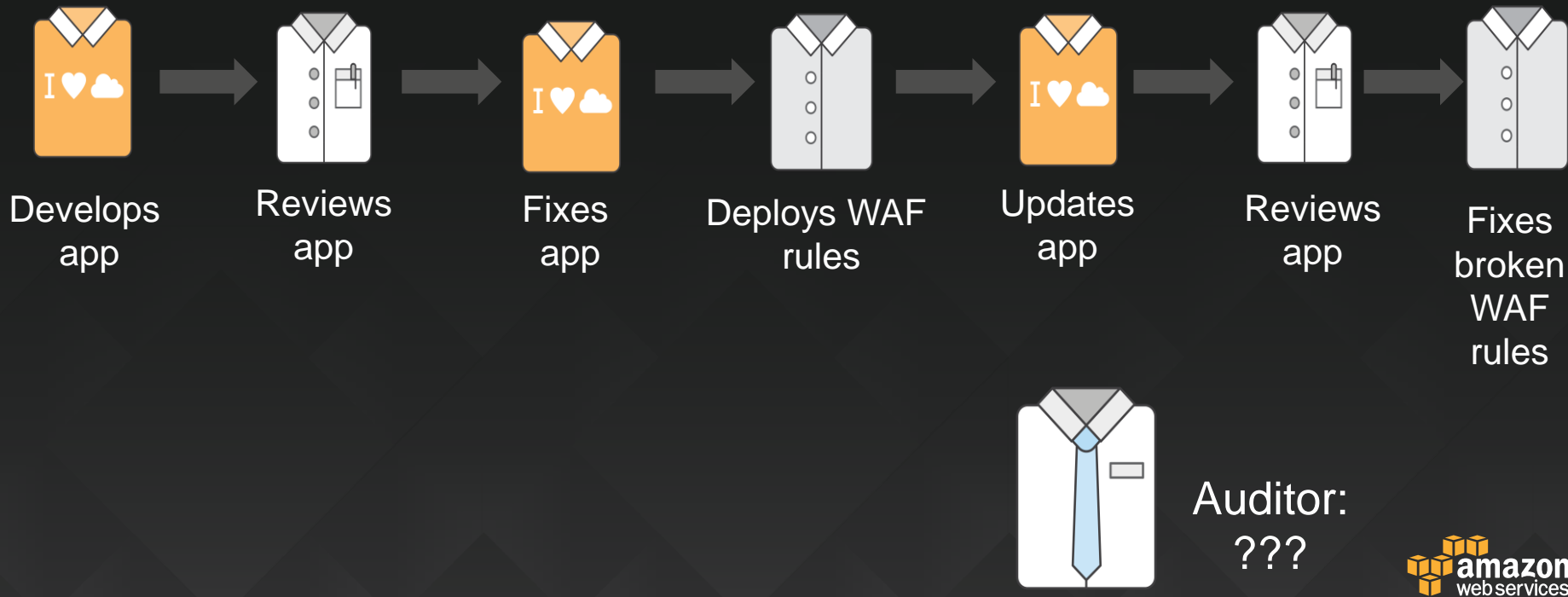
Rules vs Days

Feedback

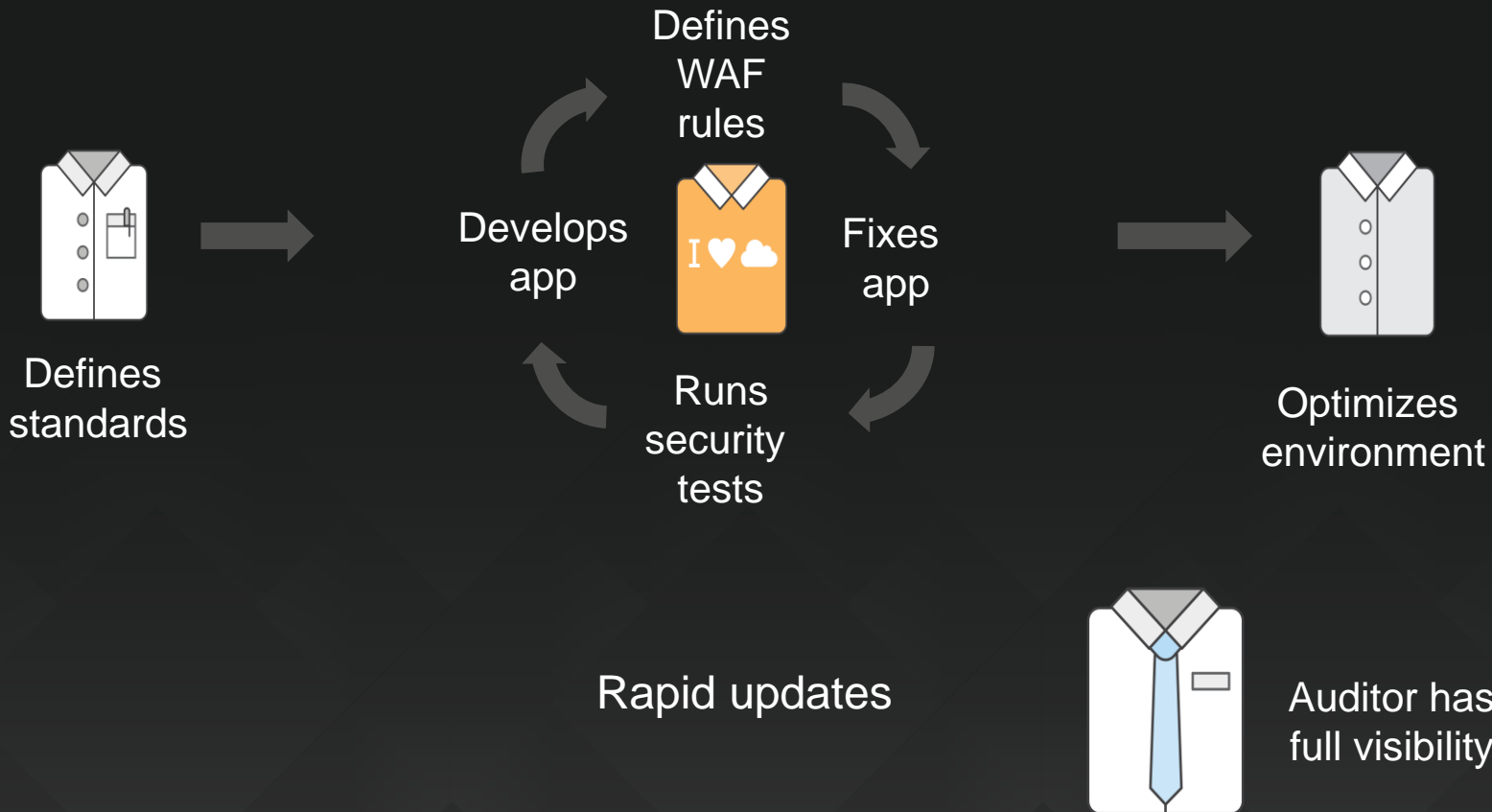
English

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Putting it all together: *Before*



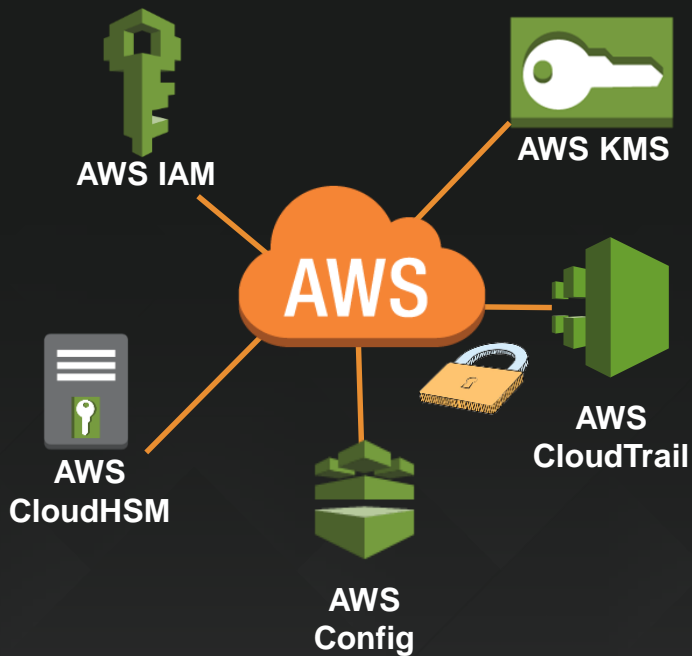
Putting it all together: *After*



Making Life **Easier**

Security by Design (SbD)

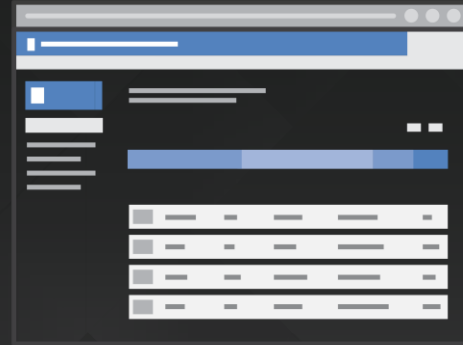
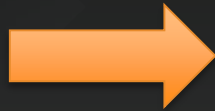
Security by Design - SbD



- Systematic approach to ensure security
 - Formalizes AWS account design
 - Automates security controls
 - Streamlines auditing.
- Provides control insights throughout the IT management process

SbD - Scripting your governance policy

- Set of CloudFormation Templates that accelerate compliance
- **Result:** Reliable technical implementation of administrative controls



How we **build** our organization

AWS Security Team

Operations

Engineering

Application Security

Compliance

Aligned for agility

Security Ownership as part of DNA



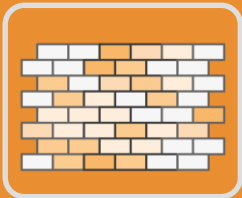
Distributed



Embedded

- Promotes culture of “everyone is an owner” for security
- Makes security stakeholder in business success
- Enables easier and smoother communication

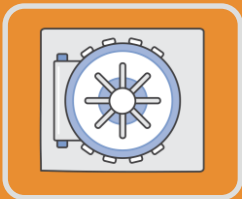
Operating Principles



Separation of duties



Different personnel across service lines



Least privilege

Technology to automate operational principles



Visibility through automation



Shrinking the protection boundaries



Ubiquitous encryption

Security Training

New Security Training



Training

Security Fundamentals on AWS

(Free online course)

Security Operations on AWS

(3-day class)

Details at aws.amazon.com/training

The Bottom Line.....

Making Life Easier

Choosing **security** does not mean giving up
on **convenience** or introducing complexity

Design & Deploy



Define sensible defaults



Inherit compliance controls



Use available security features



Manage templates - not instances

Operate & Improve



Constantly reduce the role of people



Reduce Privileged accounts



Concentrate on what matters

Conclusions



Security is critical



We're creating tools to make it easier



We're creating ways help you build a world class team



You can move fast and stay safe

Don't take my word for it.....

CIOs and CISOs need to stop obsessing over unsubstantiated cloud security worries, and instead apply their imagination and energy to developing new approaches to cloud control, allowing them to securely, compliantly and reliably leverage the benefits of this increasingly ubiquitous computing model.

Clouds Are Secure: Are You Using Them Securely?
Published: 22 September 2015

-- Jay Heiser **Gartner.**



Thank You

BARCELONA

