teralco
Innovative beings

amazon web services

Amazon Web Services una nube de servicios

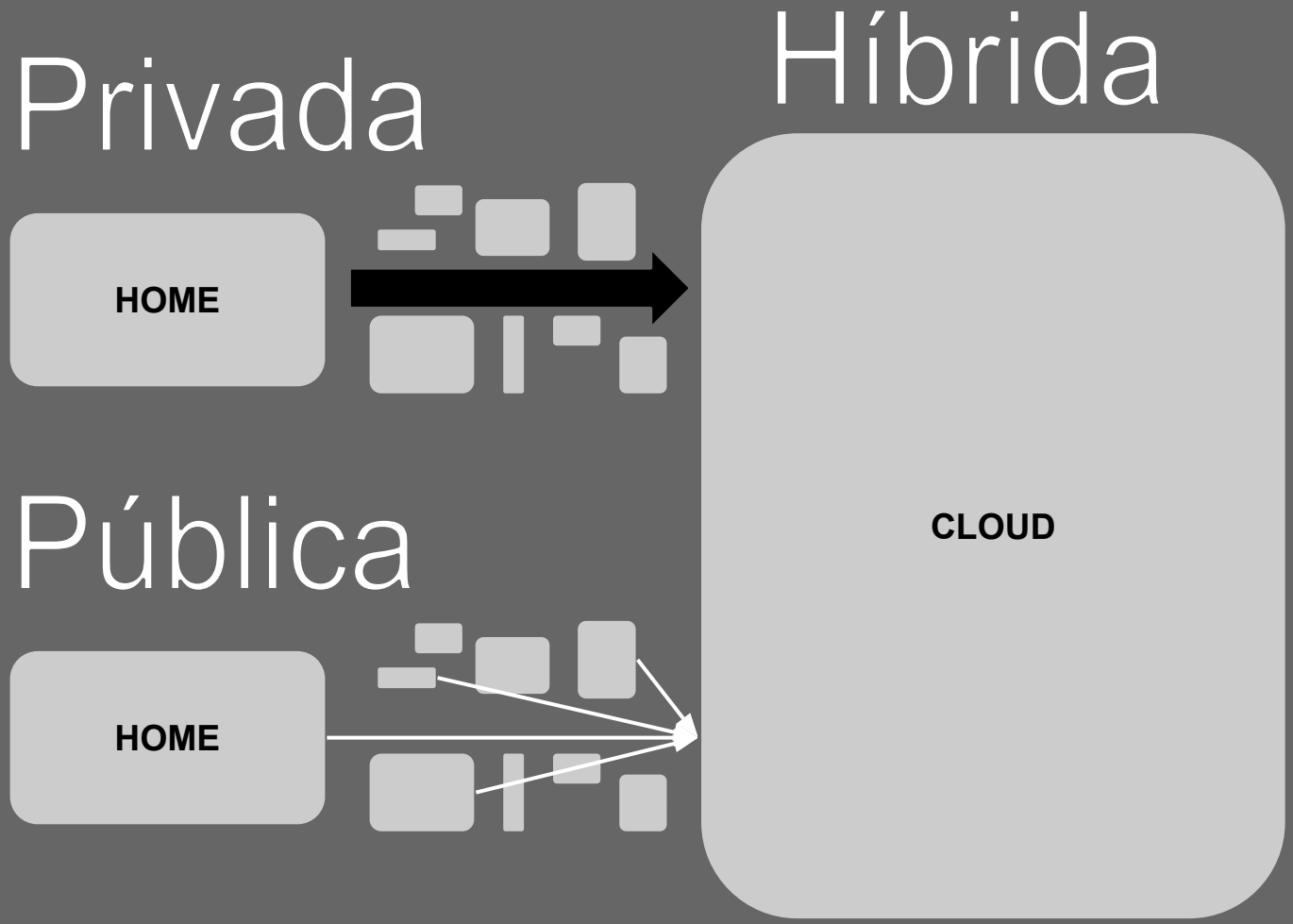
IDC
Analyze the Future

60%

40%

- Aceleración adopción del cloud.
- Reducción de costes como catalizador.
- Adquisición de aplicaciones como servicio.
- Demanda de menores precios por parte de usuarios.
- Mejor integración.
- Mejores niveles de servicio.
- Persiste reticencia que el servicio esté proporcionado fuera de España.

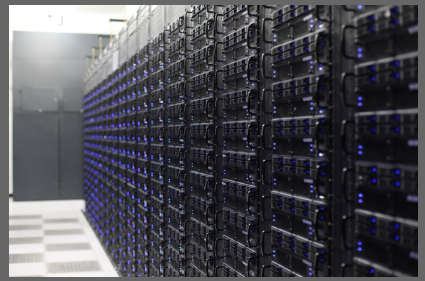
Cloud la tecnología que independiza el HW del SW permitiendo el diálogo entre ambos


Privada
Híbrida
HOME
Pública
CLOUD
HOME

Google SAAS

PAAS

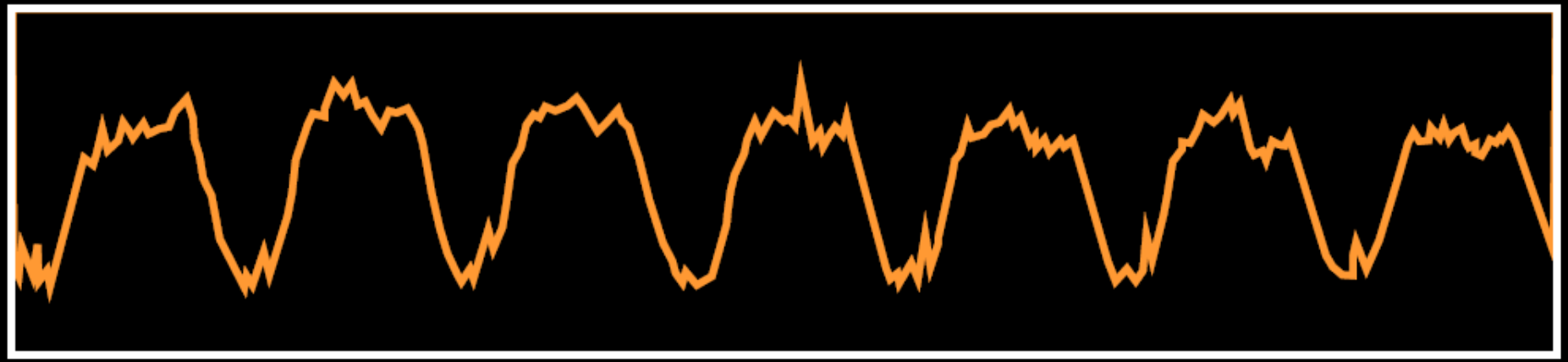
IAAS



¿Qué puedes hacer con cloud?

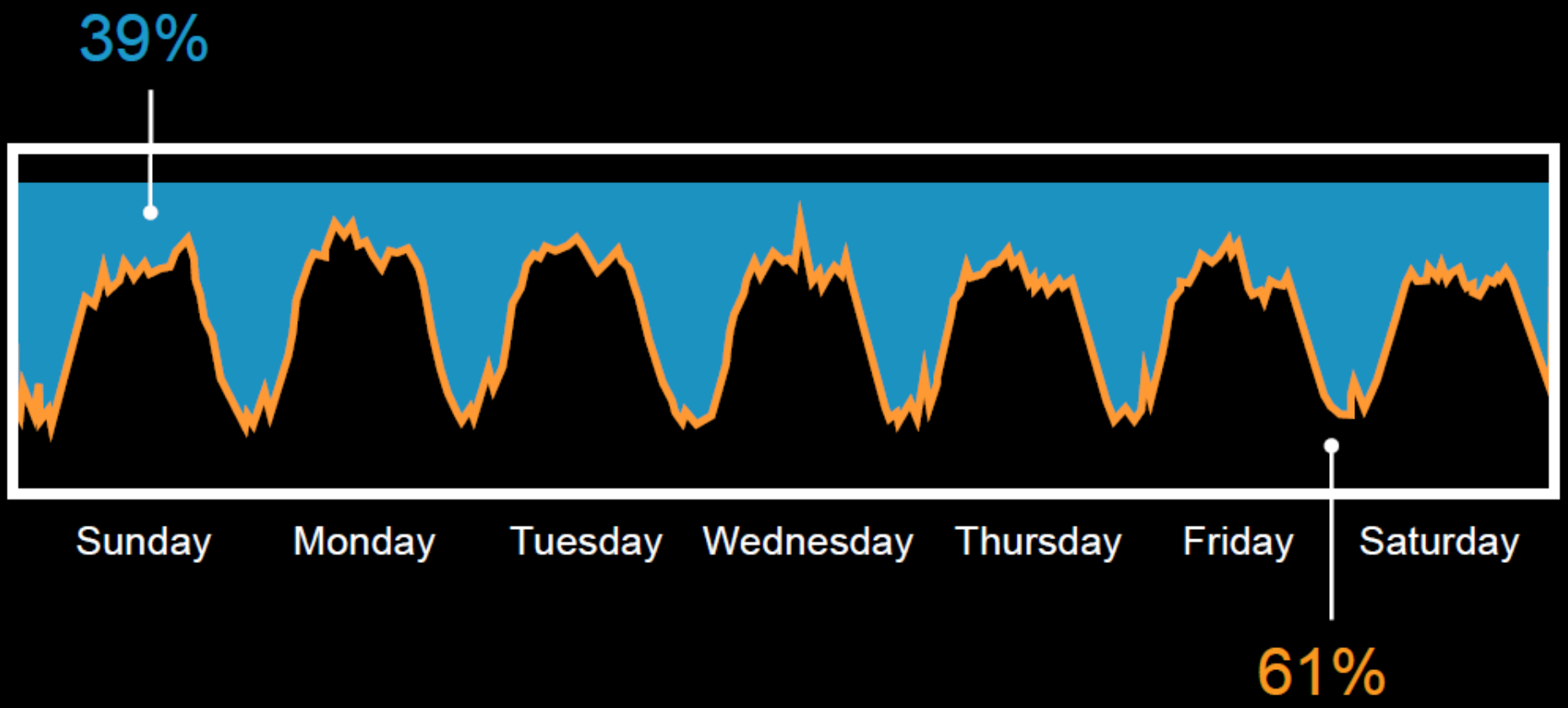

Self Hosting
Actual demand
Customer Dissatisfaction
Predicted Demand
Waste
Rigid
amazon web services
Actual demand
Elastic

TYPICAL WEEKLY TRAFFIC TO AMAZON.COM



Sunday Monday Tuesday Wednesday Thursday Friday Saturday

TYPICAL WEEKLY TRAFFIC TO AMAZON.COM



Gartner®

Infrastructure as a Service Magic Quadrant 2013

Cómo estimar costes de tu infraestructura?

FREE USAGE TIER: New Customers get free usage tier for first 12 months

Services | Estimate of your Monthly Bill ($ 1780.13)

Choose region: Europe (Ireland) — Inbound Data Transfer is Free and Outbound Data Transfer is 1 GB free per

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-developers. Amazon Elastic Block Store (EBS) provides persistent storage to Amazon EC2 instances.

Compute: Amazon EC2 Instances:

	Description	Instances	Usage	Type	Billing Option	Monthly Cost
	Suite01	1	100 % Utilized/Mo	Linux on m1.small Detail Monitored	3 Yr Medium Reserv	$ 19.61
	Carpeta01	1	100 % Utilized/Mo	Linux on m1.small Detail Monitored	3 Yr Medium Reserv	$ 19.61
	Balance	4	100 % Utilized/Mo	Linux on m1.small Detail Monitored	On-Demand (No Co	$ 204.32
	Add New Row					

http://calculator.s3.amazonaws.com/calc5.html

Y controlar el gasto?

Amazon Elastic Compute Cloud	$0.020 per Micro Instance (t1.micro) instance-hou	2013/11/30 23:59:59	USD	7.100000		ogppro	ogp_db02
Amazon Elastic Compute Cloud	$0.020 per Micro Instance (t1.micro) instance-hou	2013/11/30 23:59:59	USD	7.300000	2013_2118	ogppro	ogpjoomla01
Amazon Elastic Compute Cloud	$0.020 per Micro Instance (t1.micro) instance-hou	2013/11/30 23:59:59	USD	7.300000	2013_2118	ogppro	ogp_db02
Amazon Elastic Compute Cloud	$0.020 per Micro Instance (t1.micro) instance-hou	2013/11/30 23:59:59	USD	7.100000		ogppro	ogpjoomla01
AWS Data Transfer	$0.00 per GB - US East (Northern Virginia) data t	2013/11/30 23:59:59	USD	0.000000			
Amazon Elastic Compute Cloud	$0.10 per IOPS-month provisioned	2013/11/30 23:59:59	USD	10.138889	2012_0090	gendidev	teradata01_sdg
Amazon Elastic Compute Cloud	$0.10 per IOPS-month provisioned	2013/11/30 23:59:59	USD	202.777778	2013_1009	Alicante	AlicanteOracle01_sd
Amazon Elastic Compute Cloud	$0.10 per IOPS-month provisioned	2013/11/30 23:59:59	USD	207.083333			
AWS Data Transfer	$0.02 per GB - US East (Northern Virginia) data t	2013/11/30 23:59:59	USD	0.010000			
Amazon Elastic Compute Cloud	$0.095 per GB-Month of snapshot data stored	2013/11/30 23:59:59	USD	13.730000			
Amazon Elastic Compute Cloud	APN_ProgramFee_2000	2013/11/30 23:59:59	USD	-782.570000			
Amazon Elastic Compute Cloud	$0.480 per M1 Standard Extra Large (m1.xlarge)	2013/11/30 23:59:59	USD	2.880000	2013_1009	gexdev	AlicanteOracle01
Amazon Elastic Compute Cloud	$0.480 per M1 Standard Extra Large (m1.xlarge)	2013/11/30 23:59:59	USD	0.960000		gexdev	AlicanteOracle01

Amazon Web Services

Compute & Networking

Direct Connect
Dedicated Network Connection to AWS

EC2
Virtual Servers in the Cloud

Route 53
Scalable Domain Name System

VPC
Isolated Cloud Resources

Storage & Content Delivery

CloudFront
Global Content Delivery Network

Glacier
Archive Storage in the Cloud

S3
Scalable Storage in the Cloud

Storage Gateway
Integrates On-Premises IT Environments with Cloud Storage

Database

DynamoDB
Predictable and Scalable NoSQL Data Store

ElastiCache
In-Memory Cache

RDS
Managed Relational Database Service

Redshift
Managed Petabyte-Scale Data Warehouse Service

Deployment & Management

CloudFormation
Templated AWS Resource Creation

CloudTrail
User Activity and Change Tracking

CloudWatch
Resource and Application Monitoring

Elastic Beanstalk
AWS Application Container

IAM
Secure AWS Access Control

OpsWorks
DevOps Application Management Service

Analytics

Data Pipeline
Orchestration for Data-Driven Workflows

Elastic MapReduce
Managed Hadoop Framework

App Services

CloudSearch
Managed Search Service

Elastic Transcoder
Easy-to-use Scalable Media Transcoding

SES
Email Sending Service

SNS
Push Notification Service

SQS
Message Queue Service

SWF
Workflow Service for Coordinating Application Components

Tipos instancias EC2

- **Instancias Bajo Demanda**
- **Instancias Reservadas**
- **Instancias Puntuales**

Instancias EC2 Bajo Demanda

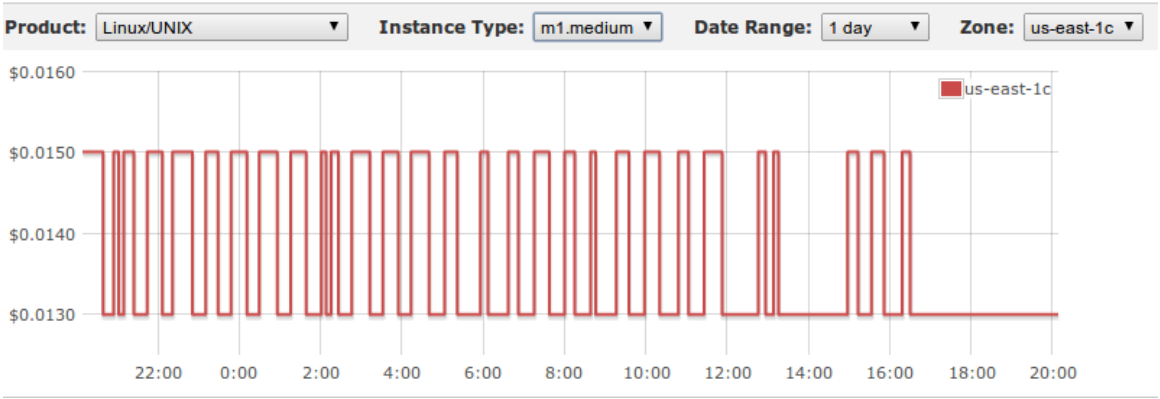
- **Coste x Hora.**
- **Sin compromiso.**

Instancias EC2 Reservadas

- **Coste x hora reducido.**
- **Compromiso por 1 año o 3 años.**

Instancias EC2 Puntuales

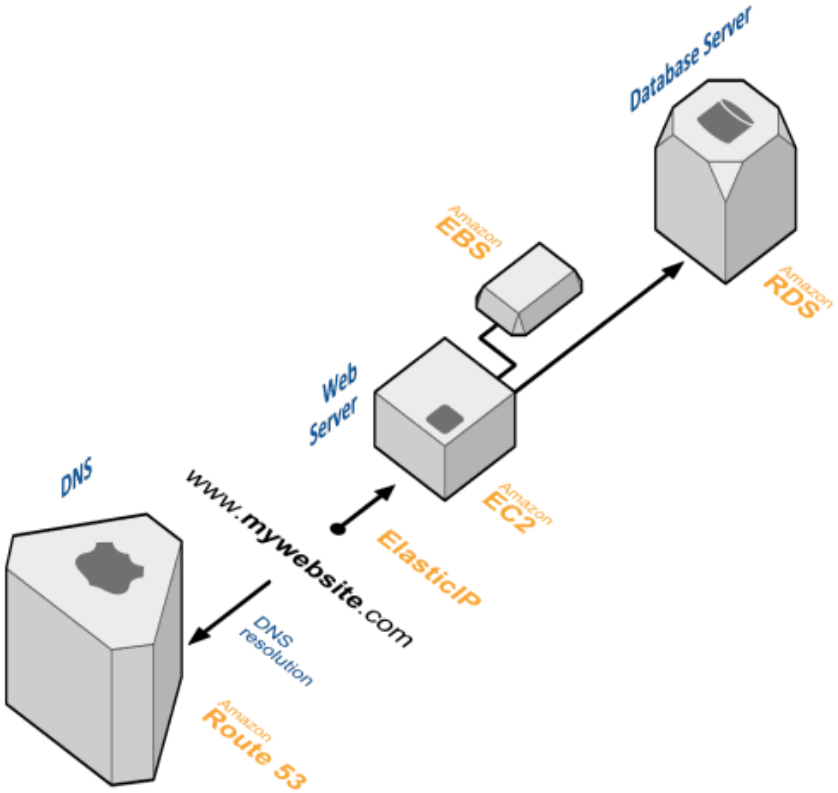
- **Coste x hora muy reducido.**
- **Compromiso delegado a AWS según cotización.**

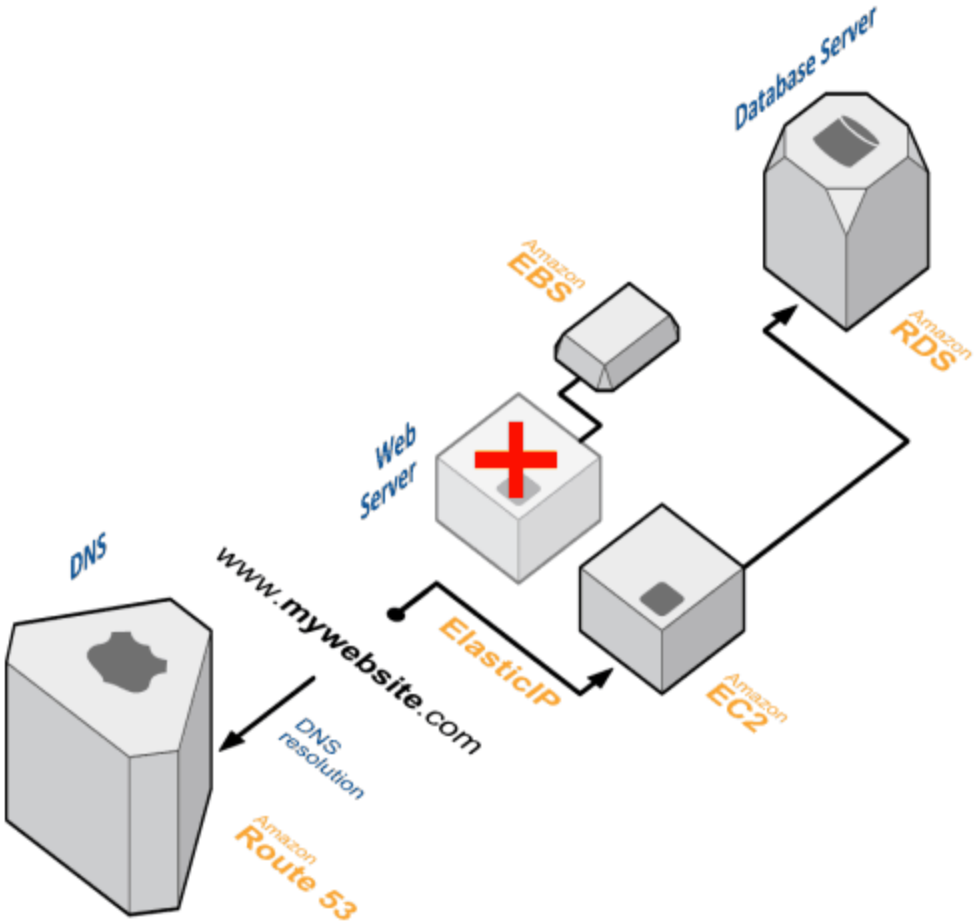


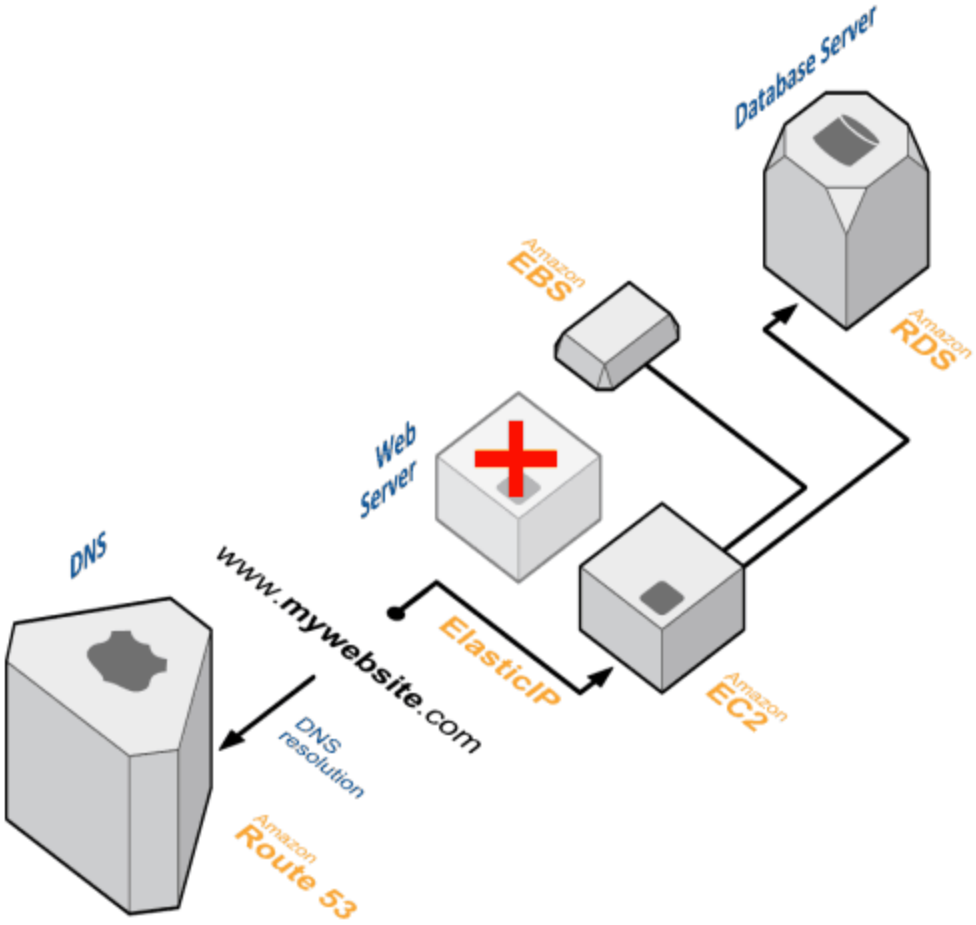
Los elementos de EC2

- Volumes Elastic Block Store
- Snapshots
- AMI’s
- Security Groups
- Elastic IP

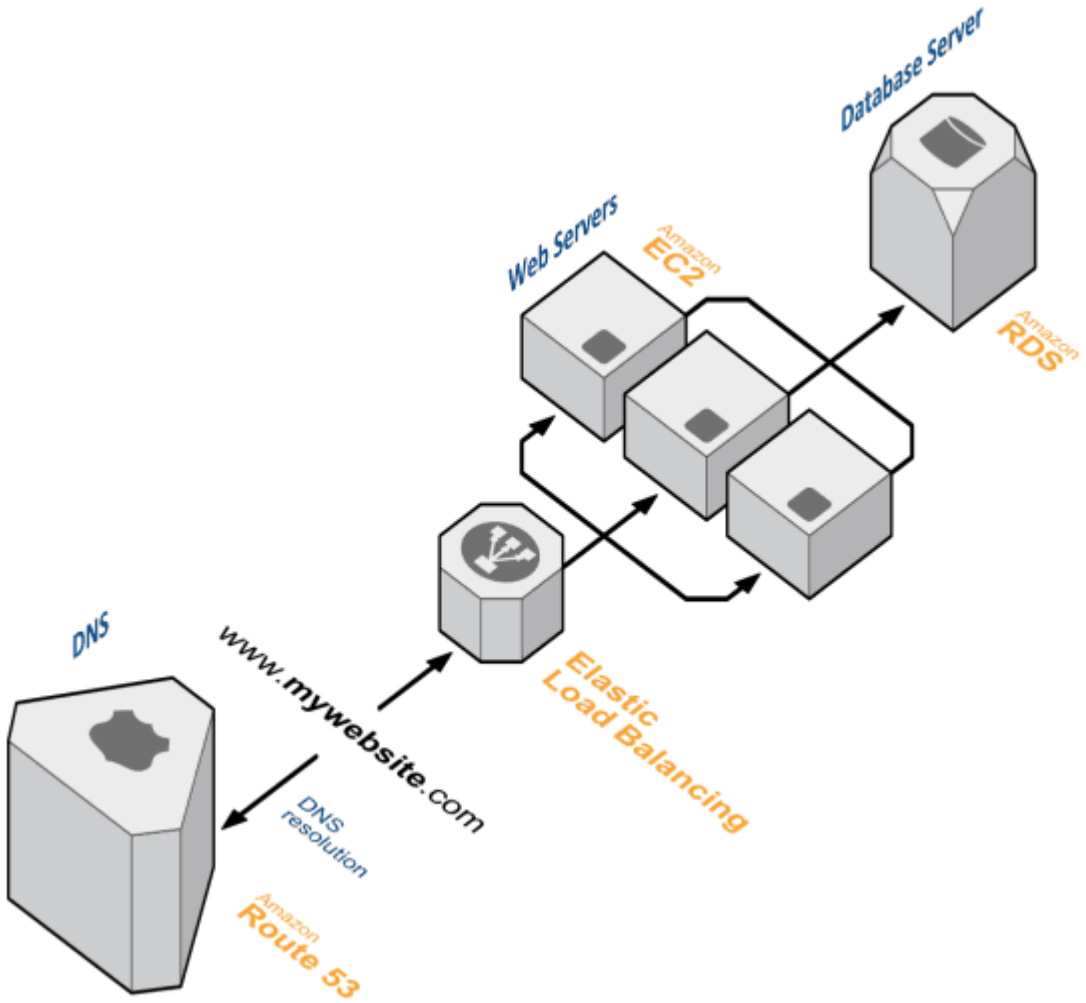
Y todo esto para qué sirve?



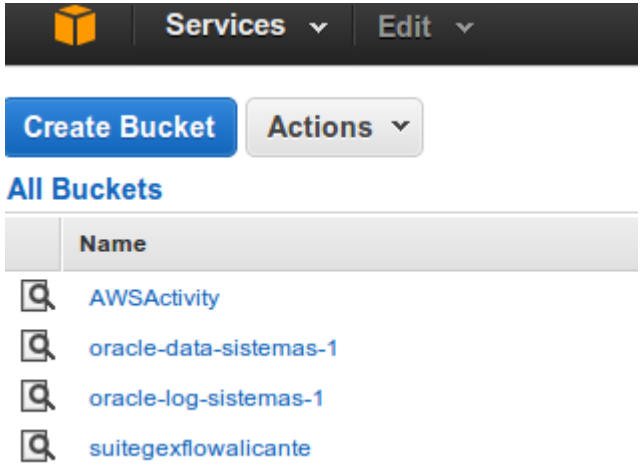

Database Server
Amazon
RDS
Amazon
EBS
Web
Server
DNS
www.mywebsite.com
ElasticIP
Amazon
EC2
DNS
resolution
Amazon
Route 53


Database Server
Amazon
RDS
Amazon
EBS
Web
Server
DNS
www.mywebsite.com
ElasticIP
Amazon
EC2
DNS
resolution
Amazon
Route 53

Solución con balanceo



El Servicio S3

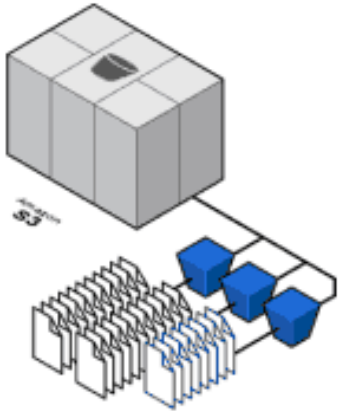


- **Servicio de almacenamiento**
- **Alta durabilidad**
- **Alto rendimiento**

Simple Storage Service (S3)

Almacenamiento de objetos altamente escalable

Objetos desde 1 Byte hasta 5TB, durabilidad 99.999999999%



Amazon S3
Simple Storage Service

Altamente escalable
Almacenamiento en la nube

Acceso programático
A través de las APIs

Es un repositorio web
No un sistema de archivos
Optimizado para WORM
Eventualmente consistente

Rápido, altamente disponible
Durable
Económico

Paradigma	Almacenamiento de objetos
Rendimiento	Muy rápido
Redundancia	Entre CPDs
Seguridad	Llave pública/ Llave privada
Precios	$0.125/GB/mes almacenado
Accesso desde la red	Si
Caso de uso	Escribe una vez, lee muchas

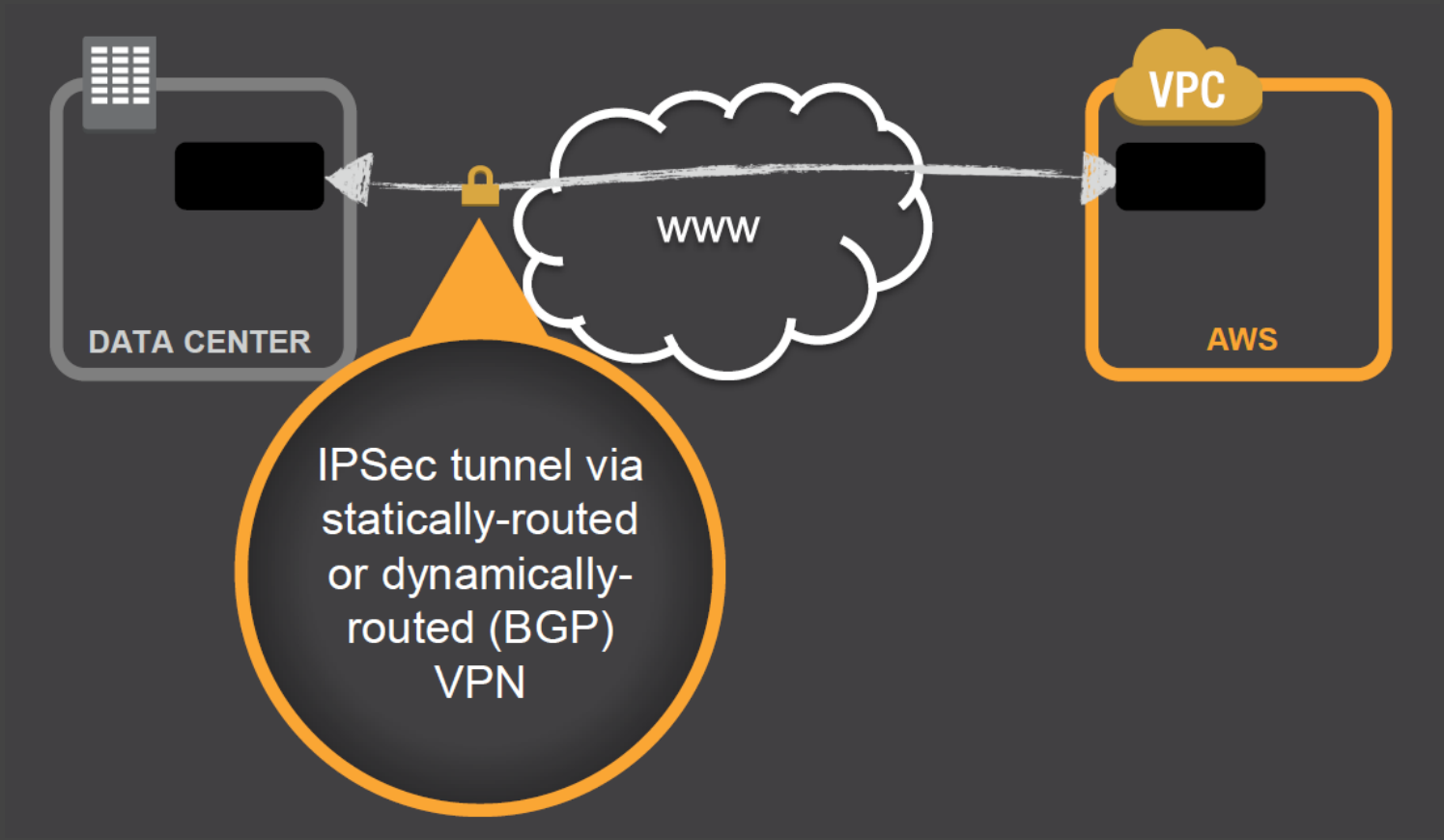
Propiedades de Buckets S3

Bucket: AWSActivity

Bucket: AWSActivity
Region: US Standard
Creation Date: Mon Oct 28 14:08:16 GMT+100 2013
Owner: Me

- Permissions
- Static Website Hosting
- Logging
- Notifications
- Lifecycle
- Tags
- Requester Pays
- Versioning

Virtual Private Cloud


DATA CENTER
www
VPC
AWS
IPSec tunnel via statically-routed or dynamically-routed (BGP) VPN


WWW
VPC
ROUTER
ROUTER
DATA CENTER
AWS

Virtual Private Cloud

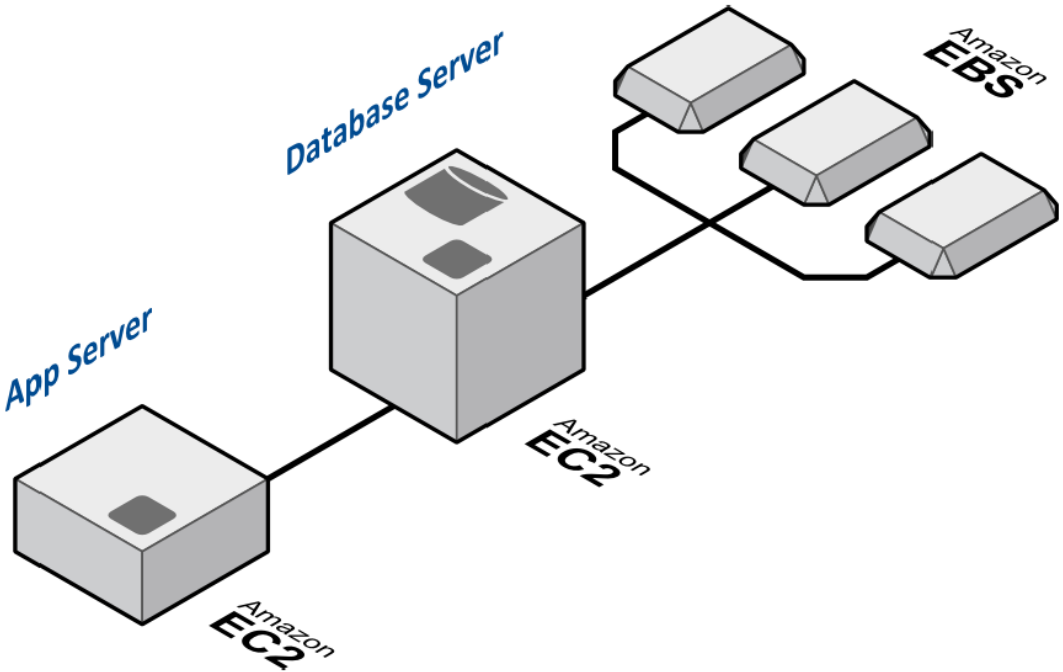
- Red Privada Virtual a tus recursos y servicios de AWS mediante IPSec.
- Permite…. Crear nubes privadas e híbridas.
- Desde tu VPC puedes….
  - Conectar tus instancias a internet directamente.
  - Conectar tus instancias a internet a través de NAT.
  - Conectar tu red local a tu cloud.

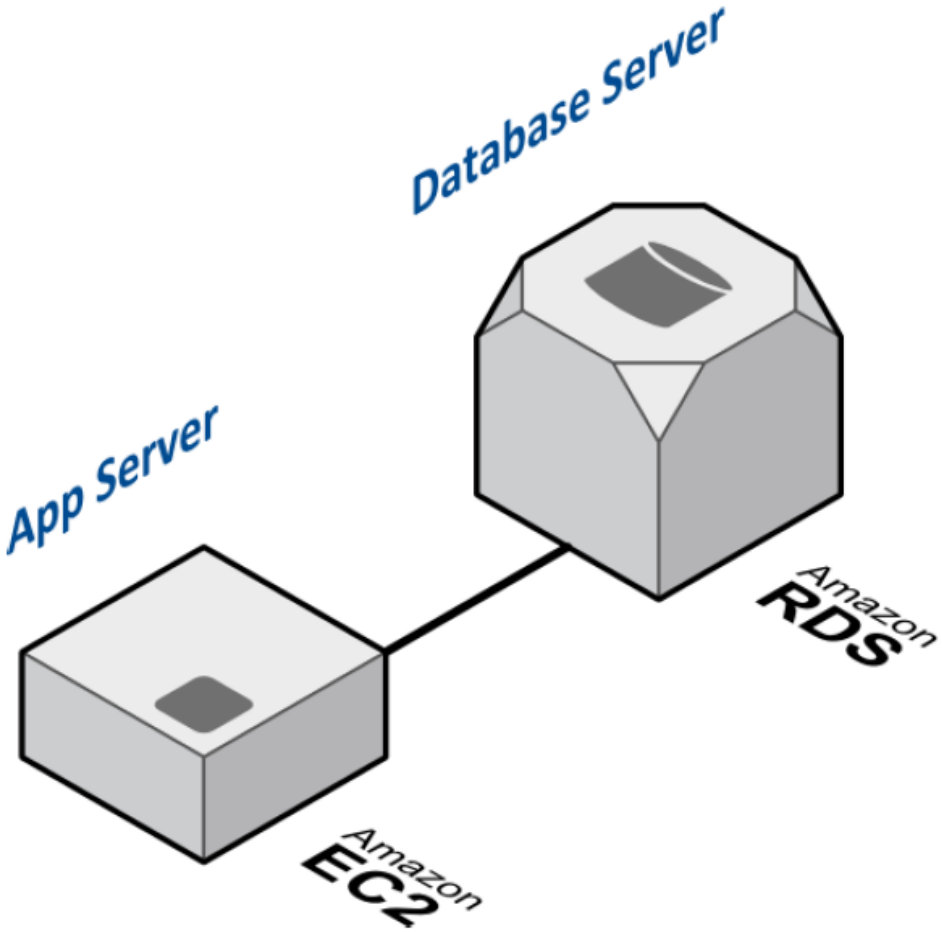
Dispositivos

- Software Cisco ASA 5500 Series versión 8.2 (o posterior)
- Cisco ISR con el software Cisco IOS 12.4 (o posterior)
- Juniper J-Series Service Router con el software JunOS 9.5 (o posterior)
- Juniper SRX-Series Services Gateway con el software JunOS 9.5 (o posterior)
- Juniper SSG con el software ScreenOS 6.1, o 6.2 (o posterior)
- Juniper ISG con el software ScreenOS 6.1, o 6.2 (o posterior)
- Software Microsoft Windows Server 2008 R2 (o posterior)
- Router Yamaha RTX1200

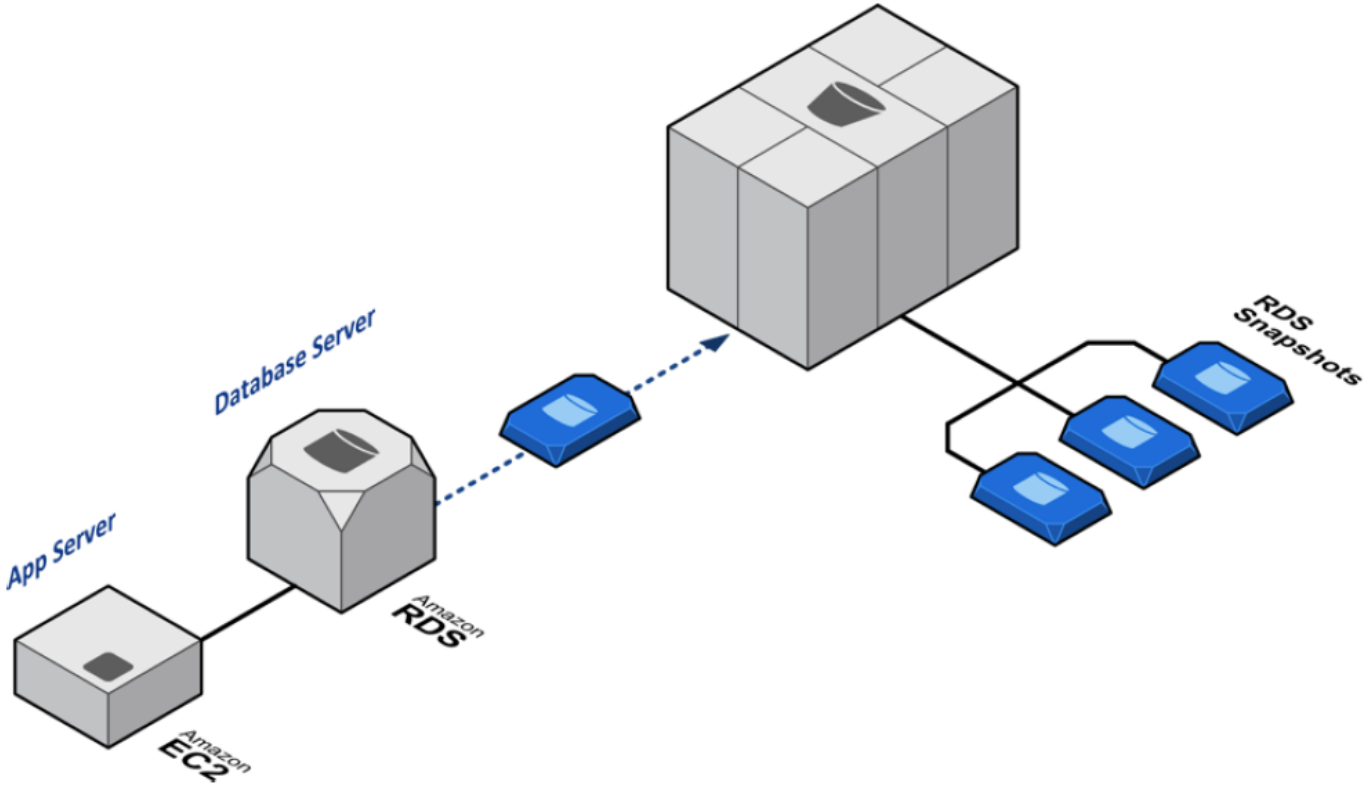
RDS Relational Database Service

- Un servicio de Base de Datos Relacional en nube.
- Motores: MySQL, SQL Server, Oracle y PostgreSQL.
- Gestión delegada
  - Parámetros de preconfigurados.
  - Supervisión y métricas (CloudWatch)
  - Parches y actualizaciones.
  - Copias de seguridad automatizadas.
  - Instantáneas de BD.
  - Notificaciones de eventos.
  - Alta Disponibilidad.

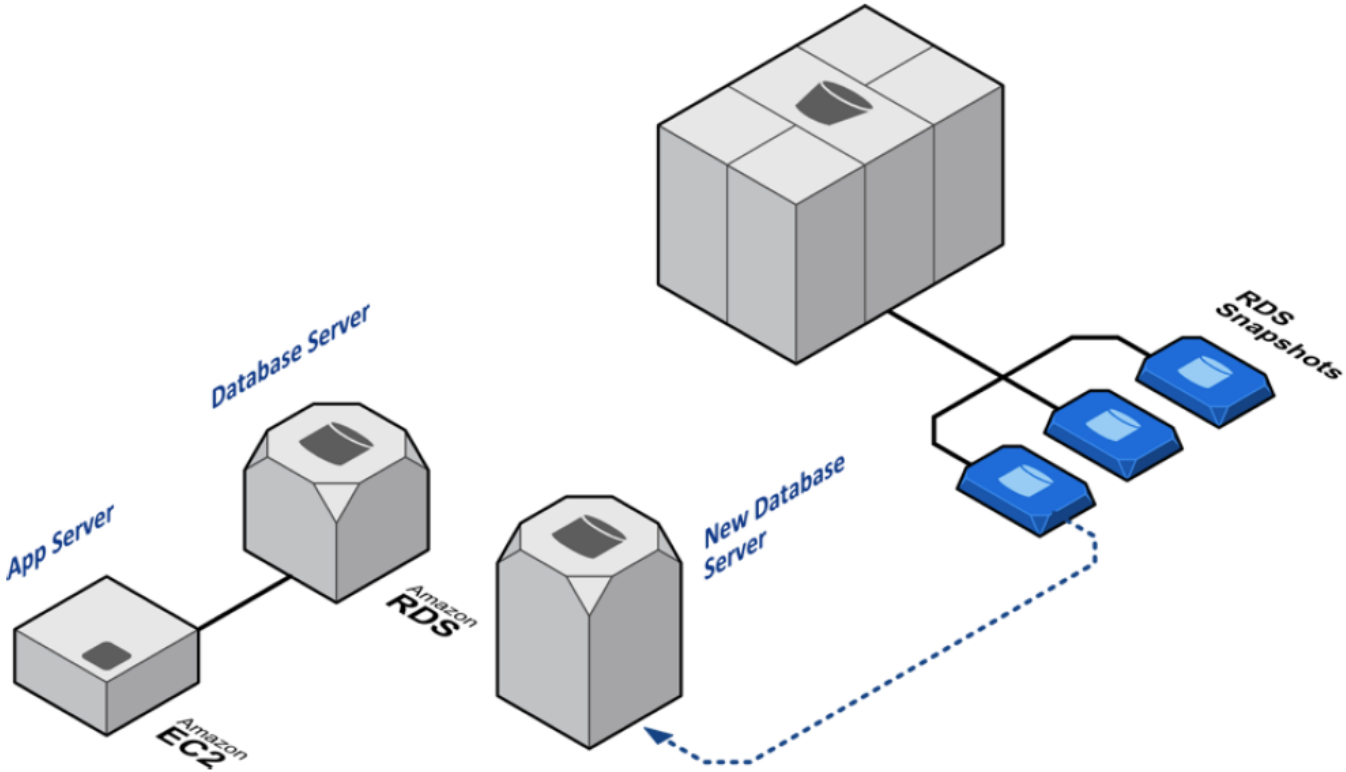

Database Server
App Server
Amazon
EBS
Amazon
EC2
Amazon
EC2


Database Server
App Server
Amazon
RDS
Amazon
EC2

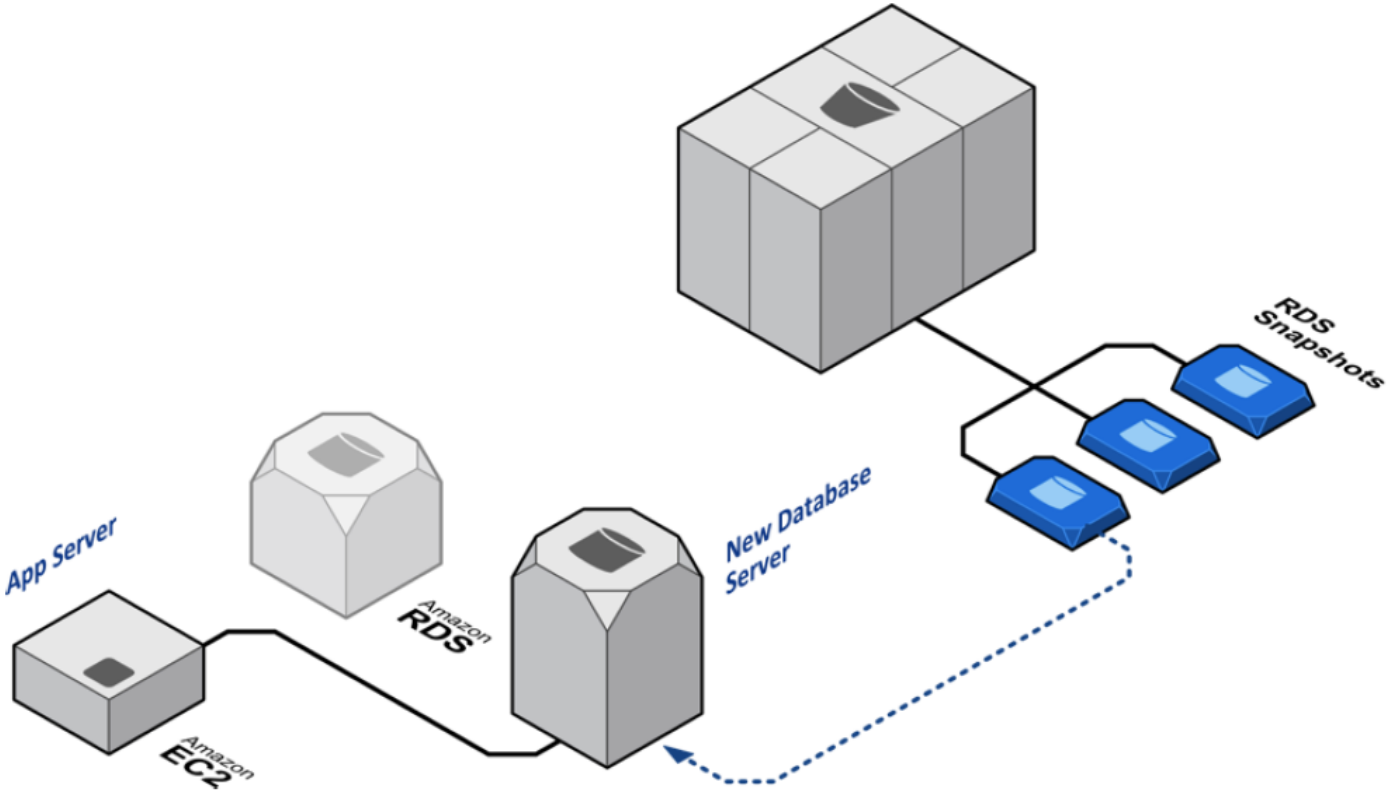
Gestión de Backups con RDS



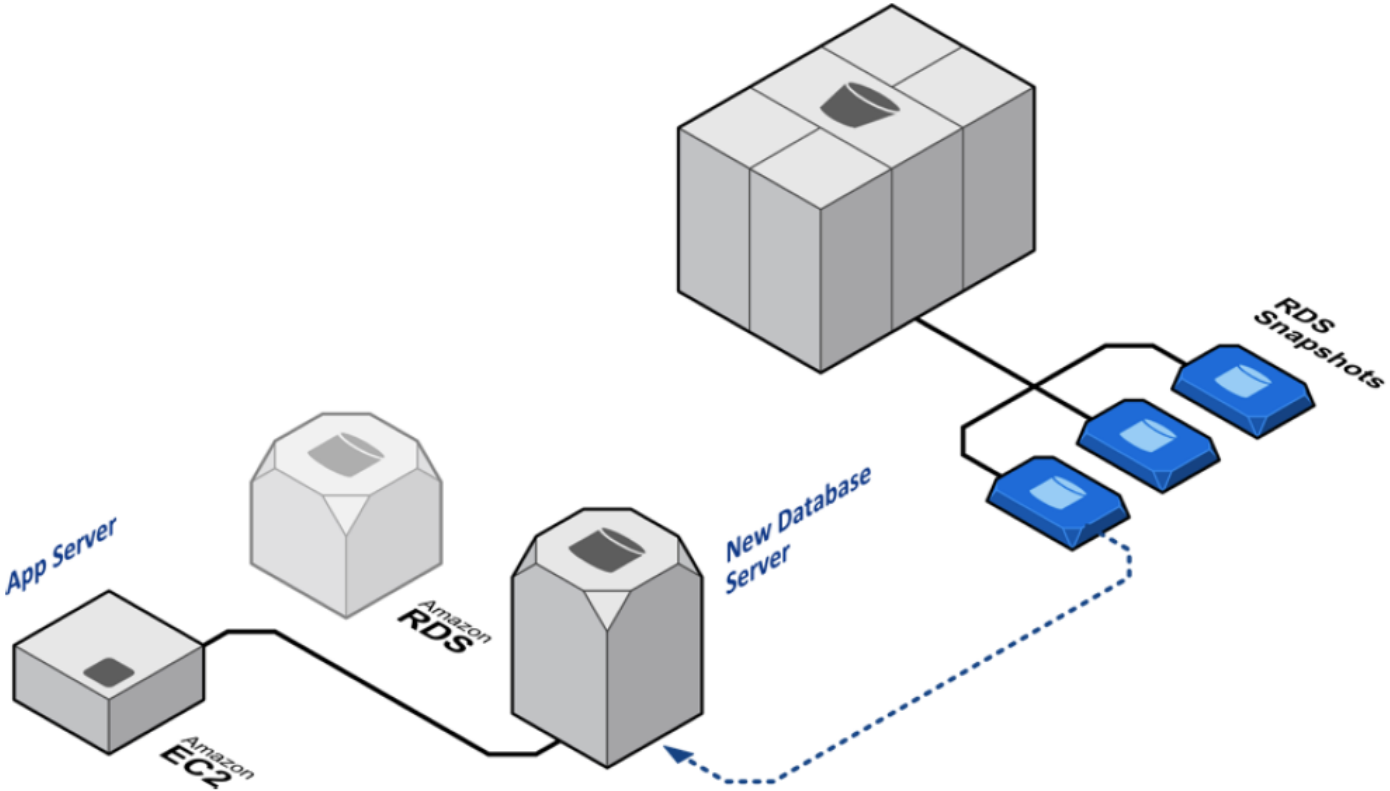
Restauración con RDS



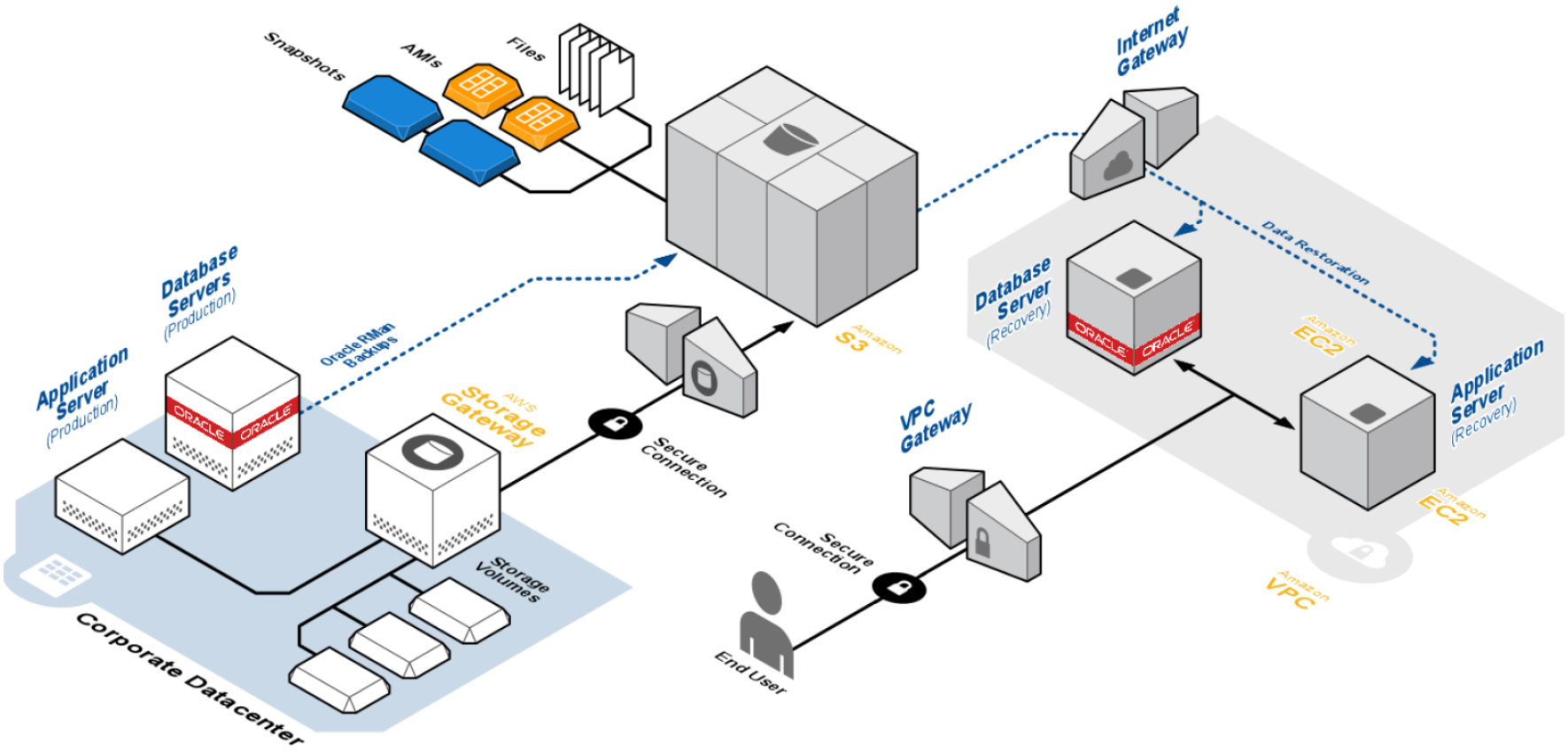
… y cambio a servidor de contingencia



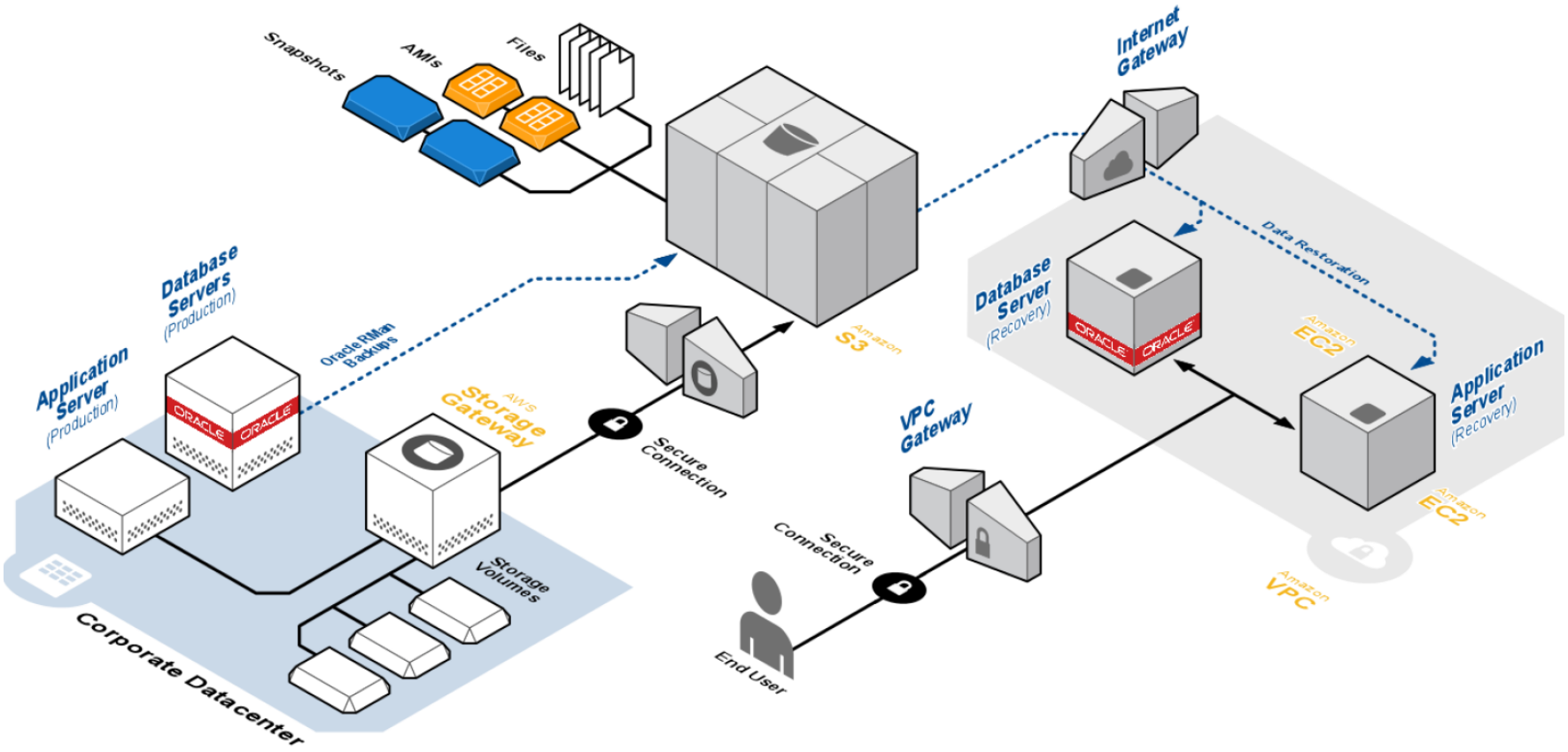
… y cambio a servidor de contingencia



RDS con Oracle RMAN



RDS con Oracle RMAN



Analysis Services Amazon - RedShift

GENERATE → STORE → ANALYZE → SHARE

- Generated and stored in AWS
- Inbound data transfer is free
- Multipart upload to S3
- Physical media
- AWS Direct Connect
- Regional replication of AMIs and snapshots

Amazon S3,
Amazon Glacier,
Amazon DynamoDB,
Amazon RDS,
Amazon Redshift,
AWS Storage Gateway,
Data on Amazon EC2

GENERATE → **STORE** → ANALYZE → SHARE

Amazon S3,
Amazon Glacier,
Amazon DynamoDB,
Amazon RDS,
Amazon Redshift,
AWS Storage Gateway,
Data on Amazon EC2

GENERATE → **STORE** → ANALYZE → SHARE

DESIGN OBJECTIVES:

A petabyte-scale data warehouse service that was…

AMAZON REDSHIFT

A Lot Faster

A Lot Cheaper

A Whole Lot Simpler

DESIGN OBJECTIVES:

A petabyte-scale data warehouse service that was…

AMAZON REDSHIFT

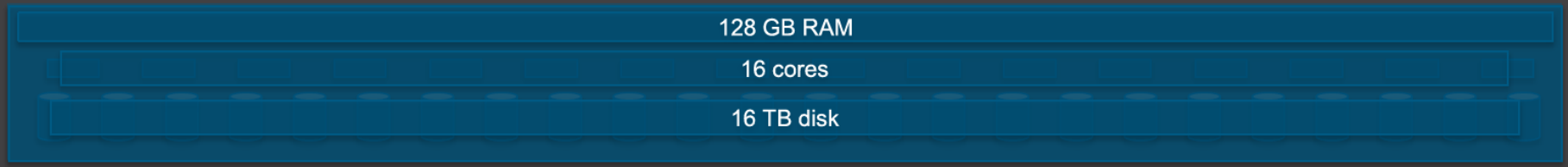
A Lot Faster

A Lot Cheaper

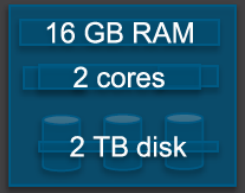
A Whole Lot Simpler

AMAZON REDSHIFT RUNS ON OPTIMIZED HARDWARE

HS1.8XL: 128 GB RAM, 16 Cores, 16 TB compressed user storage, 2 GB/sec scan rate



HS1.XL: 16 GB RAM, 2 Cores, 2 TB compressed customer storage



Modify | Resize | Delete | Reboot | Take Snapshot

Resize Cluster

Choose the number of nodes and optionally a new node type for the resize operation. Note that the available node type and cluster type options may be limited by the cluster's current availability zone.

Node Type: dw.hs1.xlarge

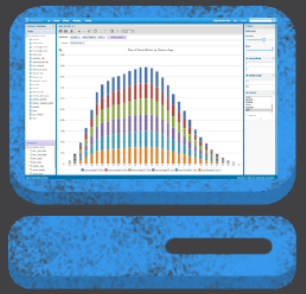
Cluster Type: Multi Node

Number Of Nodes:* 2

Note: Resizing the cluster will cause it to be restarted into read-only mode for the duration of the resize operation. All currently executing queries and database connections on the cluster will be terminated when the resize operation begins and again when it is complete.

Resize | Cancel

JDBC/ODBC



ACTUATE The BIRT Company™

birst

JASPERSOFT the intelligence inside

MicroStrategy

PERVASIVE

pentaho

tableau SOFTWARE

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1

Services | CloudWatch | S3 | Edit | AWS DB Services UX ©® | N. Virginia | Help

- Amazon Redshift
- **Clusters**
- Snapshots
- Security Groups
- Parameter Groups
- Subnet Groups
- Events

- Documentation
- Getting Started
- Dev Guide
- Management Guide
- API
- Command Line (CLI)

- Downloads
- Java SDK
- Command Line (CLI)

Launch an Amazon Redshift Cluster

Launch Cluster

Performance Status

Cluster	Status	DB Health	In Maintenance	Recent Events
postcm-testlaunch	available	healthy	no	1
precm-novpc	available	unknown	unknown	2
precm-vpc	available	healthy	no	3
ui-test-cluster	available	healthy	no	3

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#launch-cluster:

Services | CloudWatch | S3 | Edit | AWS DB Services UX ©® | N. Virginia | Help

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- Dev Guide
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- Command Line (CLI)

- Downloads
- Java SDK
- Command Line (CLI)

CLUSTER DETAILS | NODE CONFIGURATION | ADDITIONAL CONFIGURATION | REVIEW

Provide the details of your cluster.

Cluster Identifier:*	mycluster	This is the unique key that identifies a cluster. This parameter is stored as a lowercase string. (e.g. my-dw-instance)
Database Name:		Name of a database to create when the cluster is created. (e.g. mydb) Note: if no database name is specified then a database with a default name will be created.
Database Port:*	5439	Port number on which the database accepts connections.
Master User Name:*	master	Name of master user for your cluster. (e.g. awsuser)
Master User Password:*	••••••••••••••••	Password must contain 8 to 64 printable ASCII characters excluding: /, ", and @. It must contain 1 uppercase letter, 1 lowercase letter, and 1 number.
Confirm Password:*	••••••••••••••••	Confirm Master User Password.

*Required

Continue

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#launch-cluster:

Services | CloudWatch | S3 | Edit | AWS DB Services UX ©® | N. Virginia | Help

- Amazon Redshift
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CLUSTER DETAILS | NODE CONFIGURATION | ADDITIONAL CONFIGURATION | REVIEW

Choose a number of nodes and Node Type below.

Node Type: dw.hs1.8xlarge

Specifies the compute, memory, storage, and I/O capacity of the cluster's nodes.

CPU: 35 EC2 Compute Units (16 virtual cores) per node

Memory: 120 GiB per node

Storage: 24 HDD with 16 TB of storage per node

I/O Performance: Very High

Cluster Type: Multi Node

Number of Compute Nodes:* 5

The number of compute nodes in the cluster. This does not include the leader node. In addition to the number of compute nodes you specify there will be a leader node added, free of charge. The number of compute nodes is applicable for the multi-node cluster type only.

- Minimum: 2 Nodes
- Maximum: 20 Nodes

*Required

‹ Back

Continue

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#launch-cluster:

Services | CloudWatch | S3 | Edit | AWS DB Services UX ©® | N. Virginia | Help

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CLUSTER DETAILS ✓ | NODE CONFIGURATION ✓ | ADDITIONAL CONFIGURATION | REVIEW

Provide the optional additional configuration details below.

Cluster Parameter Group: default.redshift-1.0 — Parameter group to associate with this cluster.

Configure Networking Options:

Choose a VPC: Not in VPC — The identifier of the VPC in which you want to create your cluster

Availability Zone: No Preference — The EC2 Availability Zone that the cluster will be created in.

If you have security groups you would like to associate with this cluster, select them below, otherwise proceed with default settings.

Cluster Security Groups:
default
other-sg
sg3
test-create-2

List of Cluster Security Groups to associate with this Cluster.

‹ Back

Continue

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#launch-cluster:

Services | CloudWatch | S3 | Edit | AWS DB Services UX ©® | N. Virginia | Help

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- Command Line (CLI)
- Downloads
- Java SDK
- Command Line (CLI)

CLUSTER DETAILS ✓ | NODE CONFIGURATION ✓ | ADDITIONAL CONFIGURATION ✓ | REVIEW

You are about to launch a cluster with following the following specifications:

Cluster Properties

These attributes specify the name of your cluster, what type of virtual hardware it will run on, how many nodes it will contain, and the collection of parameters used to control various aspects of the cluster's operation.

Cluster Identifier: mycluster

Node Type: dw.hs1.xlarge

Number of Compute Nodes: 1 (leader and computation run on a single node)

Cluster Parameter Group: default.redshift-1.0

Cluster Database Properties

These properties specify the database name, port, and username you will use to connect to the database.

Database Name: A default database will be created (dev)

Database Port: 5439

Master User Name: master

Security and Access

These settings control whether your cluster will be created in an existing VPC to allow for simpler integration with other AWS Services, the security groups which define access rules to your cluster, and the availability zone the cluster in which the cluster will be located.

Virtual Private Cloud: Not in VPC

Publicly Accessible: Yes

Cluster Security Groups: default, other-sg

Availability Zone: us-east-1b

‹ Back

Launch Cluster

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#launch-cluster:

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Cluster **mycluster** is being created.
Note: Your cluster may take a few minutes to launch.

View your cluster on the Clusters dashboard.

Close

Redshift Management Co

https://console.aws.amazon.com/redshift/home?region=us-east-1#cluster-details:cluster=ui-test-cluster

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Cluster: ui-test-cluster

Configuration | Events+Alarms | Performance | Queries | Loads

Cluster: ui-test-cluster

Modify | Resize | Delete | Reboot | Take Snapshot

Cluster Properties

Cluster Name:	ui-test-cluster
Node Type:	dw.hs1.xlarge
Cluster Type:	Multi Node
Nodes:	2
Zone:	us-east-1b
Created Time:	2013 January 24 15:40:06 UTC-8
Cluster Version:	1.0
Cluster Parameter Group:	default.redshift-1.0
Cluster Security Groups:	default

Cluster Status

Status:	available
Pending Modifications:	None
Parameter Group Apply Status:	in-sync
Resize Progress:	N/A
Database Health Status:	healthy
In Maintenance Mode:	no

Cluster Database Properties

Endpoint:	ui-test-cluster.cikioam1fdtf.us-east-1.redshift.amazonaws.com
Port:	8192
Database Name:	dev
Master Username:	master
JDBC URL:	jdbc:postgresql://ui-test-cluster.cikioam1fdtf.us-east-1.redshift.amazonaws.com:8192/dev
ODBC URL:	Driver={PostgreSQL}; Server=ui-test-cluster.cikioam1fdtf.us-east-1.redshift.amazonaws.com; Database=dev; UID=master; PWD=insert_your_master_user_password_here; Port=8192

Maintenance and Backup

Automated Snapshot Retention Period:	1
Maintenance Window:	thu:03:30-thu:04:00
Allow Version Upgrade:	Yes

Redshift Management Co

https://aws-db-ux.integ.amazon.com/redshift/home?region=us-east-1#performance:cluster=test-load-files;metrics=

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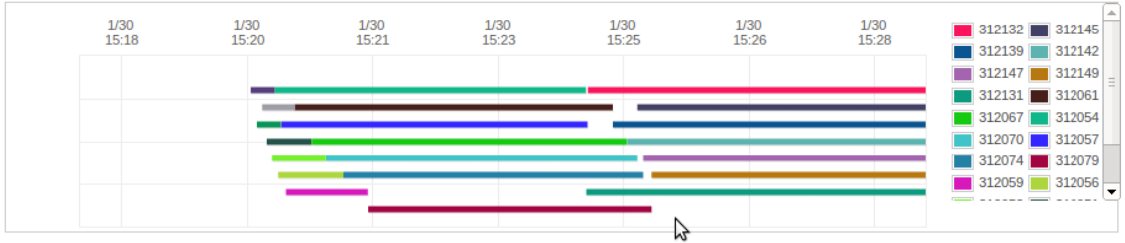
Cluster: test-load-files | Configuration | Events+Alarms | Performance | Queries | Loads

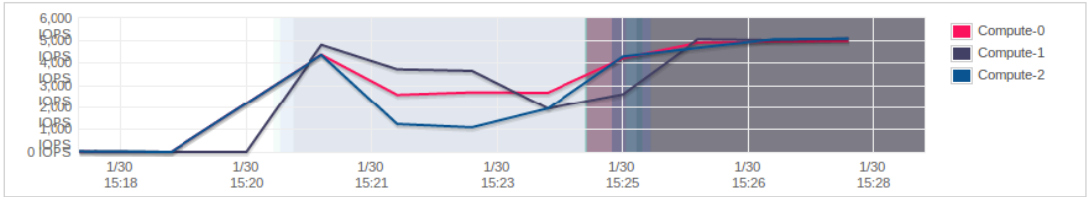
Time Range: 01/30 15:17—01/30 15:29 UTC-8 | Period: 1 Minute | Statistic: Average | Custom Metrics Selection | Nodes | Refresh

Queries

Hover over the queries graph or click on a query ID in the legend to inspect queries. Click and drag on any graph to zoom in.



Read IOPS



Query ID: 312054
Type: Query
User: master
Run Time: 4m 8.71s
Start Time: Wed Jan 30 15:20:21 GMT-800 2013
End Time: Wed Jan 30 15:24:30 GMT-800 2013
SQL:

```
select ps_partkey,
sum(ps_supplycost *
ps_availqty) as value from
partsupp, supplier, nation
where ps_suppkey = s_suppkey
and s_nationkey = n_nationkey
and n_name = 'GERMANY' group by
ps_partkey having
sum(ps_supplycost *
ps_availqty) > ( select
sum(ps_supplycost *
ps_availqty) * 0.0001000000
from partsupp, supplier, nation
where ps_suppkey = s_suppkey
and s_nationkey = n_nationkey
and n_name = 'GERMANY' ) order
by value desc LIMIT 1;
```

Query ID: 312057
Type: Query
User: master
Run Time: 4m 4.7s
Start Time: Wed Jan 30 15:20:26 GMT-800 2013

Sasquatch! Festival 2013 | Redshift Management Co | Main Page - Amazon Wiki | [Redshift][Launch Blocke | reddit: the front page of

https://aws-db-ux.integ.amazon.com/redshift/home?region=us-east-1#performance:cluster=ui-test-cluster;metrics=

c v email env AWS Team Redshift rand RS Pipe RS β RS Γ RS Prod RS Prod [Ext] CR2me OutCR OpsDash tt2me exts Other Bookr

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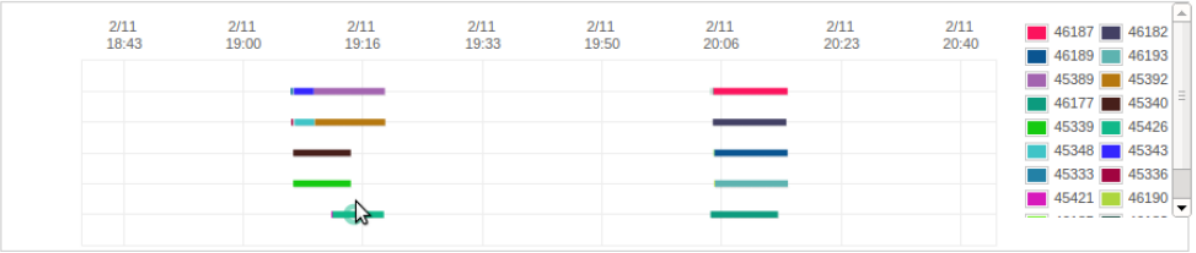
Cluster: ui-test-cluster | Configuration | Status | Performance | Queries | Loads

Time Range: 02/11 18:37—02/11 20:44 UTC-8 | Period: 1 Minute | Statistic: Average | All Metrics | Nodes | Refresh

Queries

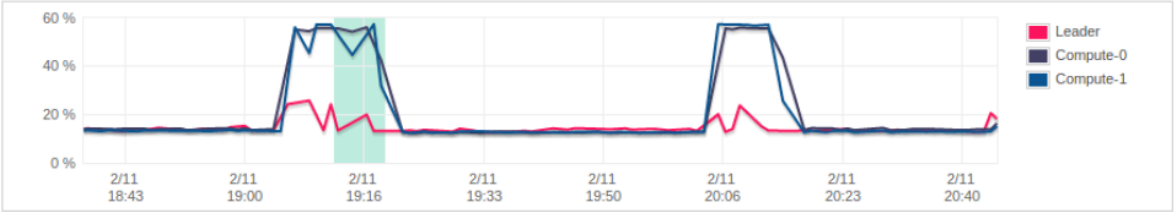
Hover over the queries graph or click on a query ID in the legend to inspect queries. Click and drag on any graph to zoom in.



Query ID: 45426
Type: Query
User: master
Run Time: 7m 8.14s
Start Time: Mon Feb 11 19:12:25 GMT-800 2013
End Time: Mon Feb 11 19:19:33 GMT-800 2013
SQL:

```
select
ps_partkey,
sum(ps_supplycost
* ps_availqty) as
value from
partsupp,
supplier, nation
where ps_suppkey
= s_suppkey and
s_nationkey =
n_nationkey and
n_name =
'GERMANY' group
by ps_partkey
having
sum(ps_supplycost
* ps_availqty) >
( select
```

CPU Utilization



NetworkReceiveThroughput

Redshift Management Co

https://aws-db-ux.integ.amazon.com/redshift/home?region=us-east-1#

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Cluster: test-load-files

Configuration | Events+Alarms | Performance | Queries | Loads | Query

Cluster:	test-load-files
User:	master
Run Time:	1h 26m 4.74s
Start Time:	Fri Jan 25 11:08:28 GMT-800 2013
End Time:	Fri Jan 25 12:34:33 GMT-800 2013

SQL

```
-- using default substitutions select c_count, count(*) as custdist from ( select c_custkey, count(o_orderkey) from
customer left outer join orders on c_custkey = o_custkey and o_comment not like '%special%requests%' group by c_custkey )
as c_orders (c_custkey, c_count) group by c_count order by custdist desc, c_count desc LIMIT 1
```

Explain Plan

```
XN Limit  (cost=132071117583790.86..132071117583790.86 rows=1 width=8)
  ->  XN Merge  (cost=132071117583790.86..132071117583791.36 rows=200 width=8)
        ->  XN Network  (cost=132071117583790.86..132071117583791.36 rows=200 width=8)
              ->  XN Sort  (cost=132071117583790.86..132071117583791.36 rows=200 width=8)
                    ->  XN HashAggregate  (cost=131071117583782.72..131071117583783.22 rows=200 width=8)
                          ->  XN Subquery Scan c_orders  (cost=131071114895782.72..131071116815782.72 rows=153600000 width=8)
                                ->  XN HashAggregate  (cost=131071114895782.72..131071115279782.72 rows=153600000 width=16)
                                      ->
> XN Hash Right Join DS_DIST_BOTH  (cost=1920000.00..131071107215988.88 rows=1535958769 width=16)
                                            ->  XN Seq Scan on orders  (cost=0.00..19200000.00 rows=1535958769 width=16)
                                            ->  XN Hash  (cost=1536000.00..1536000.00 rows=153600000 width=8)
                                                  ->  XN Seq Scan on customer  (cost=0.00..1536000.00 rows=153600000 width=8)
```

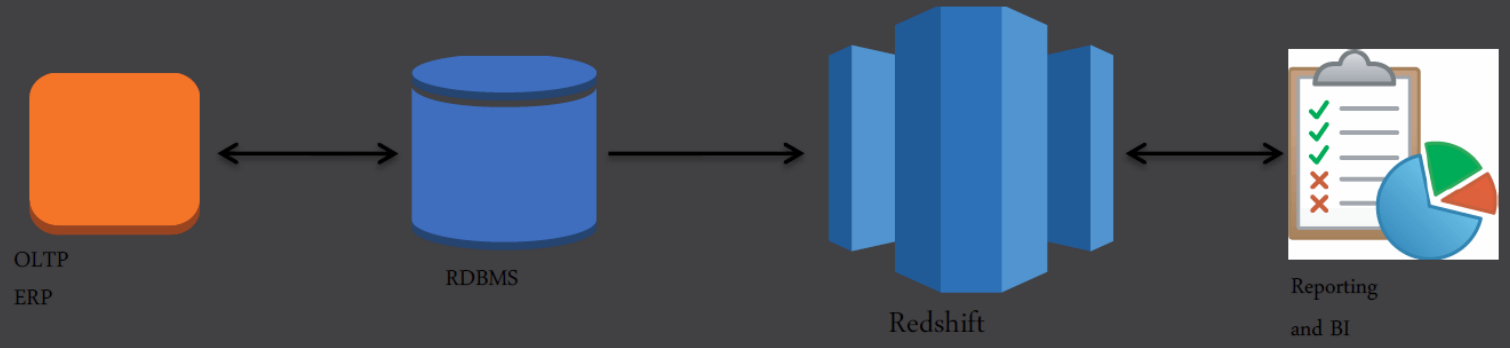
Cluster Performance During Query Execution

Cluster performance is shown from 3 minutes prior to query execution through 3 minutes after query completion.

CPU Utilization

USAGE SCENARIOS

Reporting Warehouse

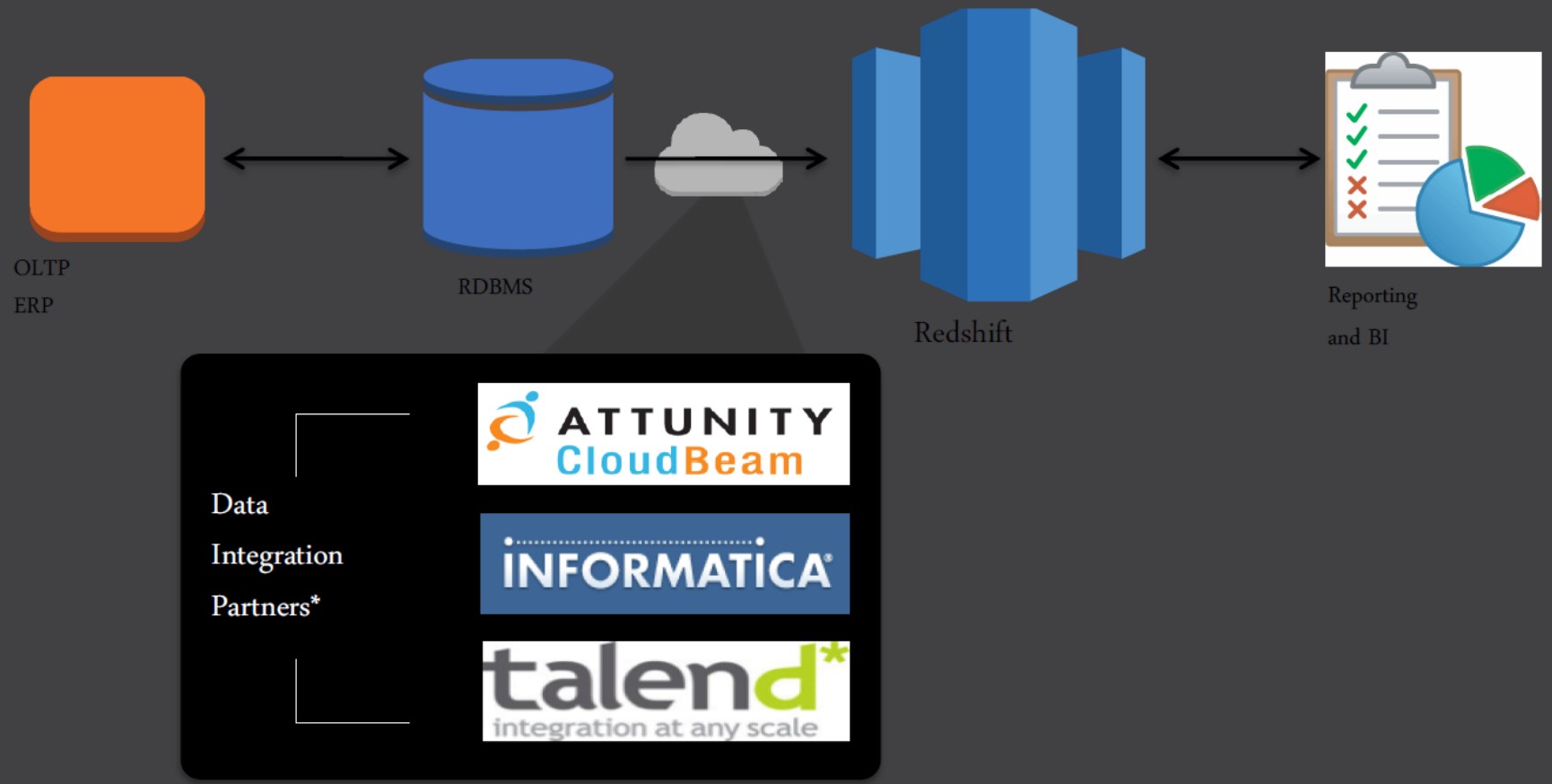


Accelerated operational reporting

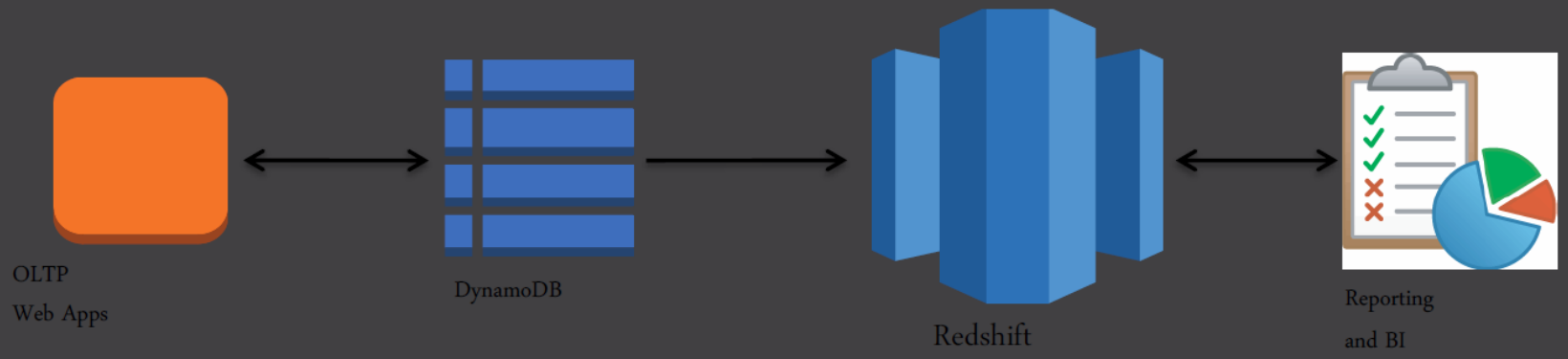
Support for short-time use cases

Data compression, index redundancy

On-Premises Integration

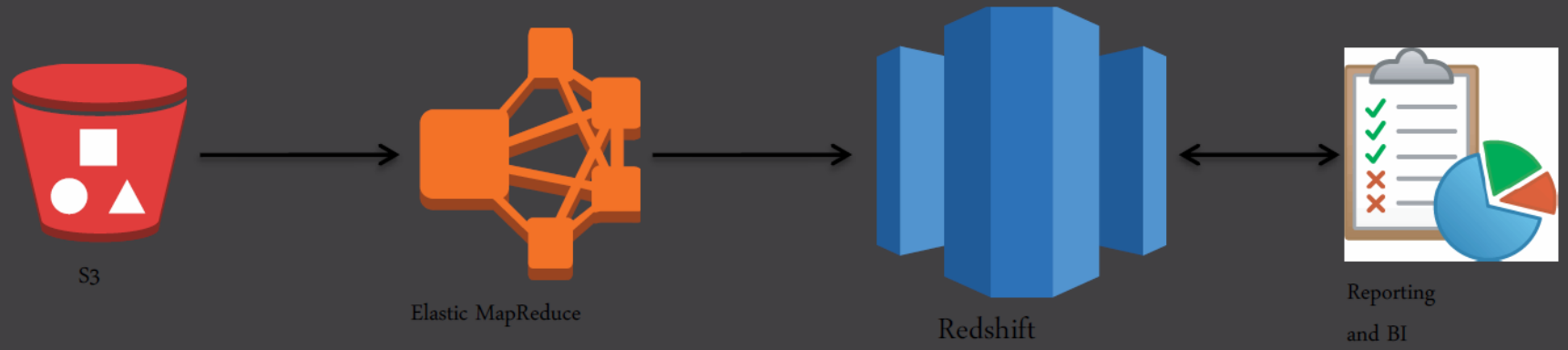


Live Archive for (Structured) Big Data



Direct integration with copy command
High velocity data
Data ages into Redshift
Low cost, high scale option for new apps

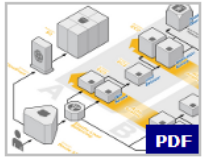
Cloud ETL for Big Data



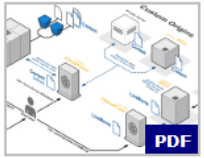
Maintain online SQL access to historical logs
Transformation and enrichment with EMR
Longer history ensures better insight

Arquitecturas de referencia

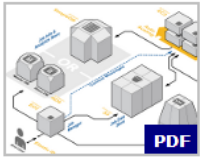
La flexibilidad de AWS le permite diseñar sus arquitecturas de aplicaciones de la forma que desee. Las hojas de datos
arquitectura de referencia de AWS le ofrecen las directrices sobre arquitectura que necesita para crear una aplicación
aproveche al máximo la nube de AWS. Cada hoja de datos incluye una representación visual de la arquitectura y una
descripción básica de cómo se utiliza cada servicio.



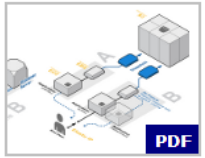
Alojamiento de aplicaciones web
Cree aplicaciones web fiables y muy escalables o aplicaciones web móviles (PDF)



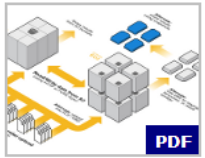
Suministro de contenido y medios
Cree sistemas muy fiables que ofrezcan gran cantidad de contenido y medios (PDF)



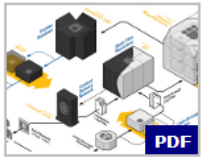
Procesamiento por lotes
Cree sistemas de procesos por lotes autoescalables como canalizaciones de procesos de vídeo (PDF)



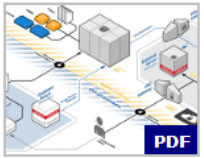
Tolerancia a errores y alta disponibilidad
Cree sistemas que rápidamente conmuten por error a nuevas instancias en caso de fallo (PDF)



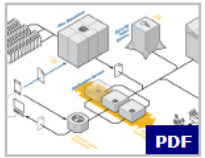
Procesos a gran escala y grandes conjuntos de datos



Publicación de anuncios
Cree soluciones de



Aplicaciones locales de recuperación ante desastres



Sincronización de archivos
Cree un servicio de

http://aws.amazon.com/es/architecture/

Por fin!! Acabó!!!