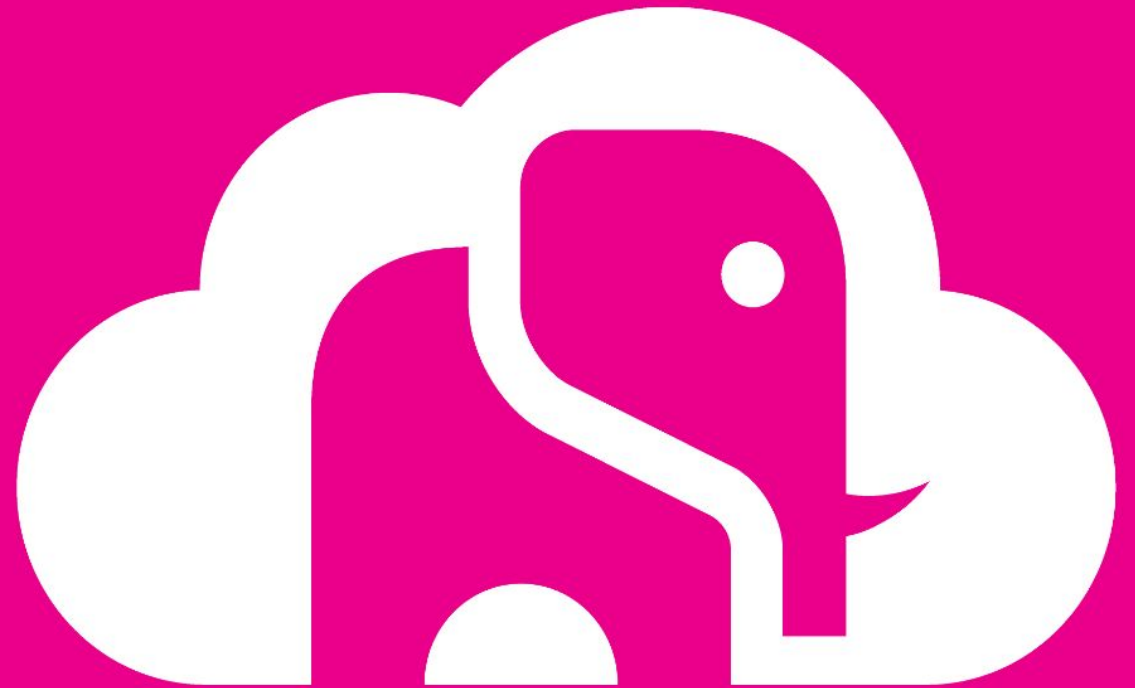# How to simplify development with Cloud Databases using APIs

Doug Ortiz

March 2022

EDB™

Welcome

Housekeeping Items

Slides and recording will be
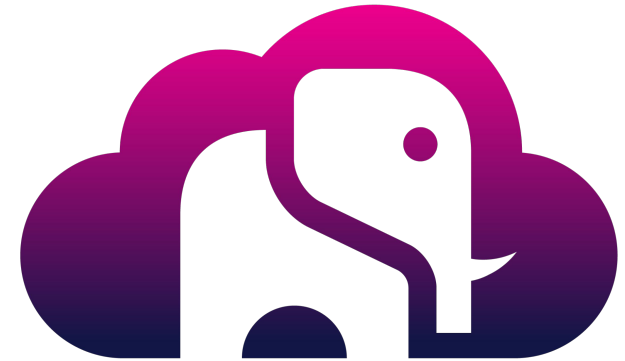available within 24 hours

?

Questions will be
answered at the end

Agenda

How to simplify development with Cloud Databases using APIs

- What are APIs and why are they important
- API development, and how they are related to Cloud Databases
- Walk through an API example with BigAnimal
- BigAnimal API authentication, and cluster management
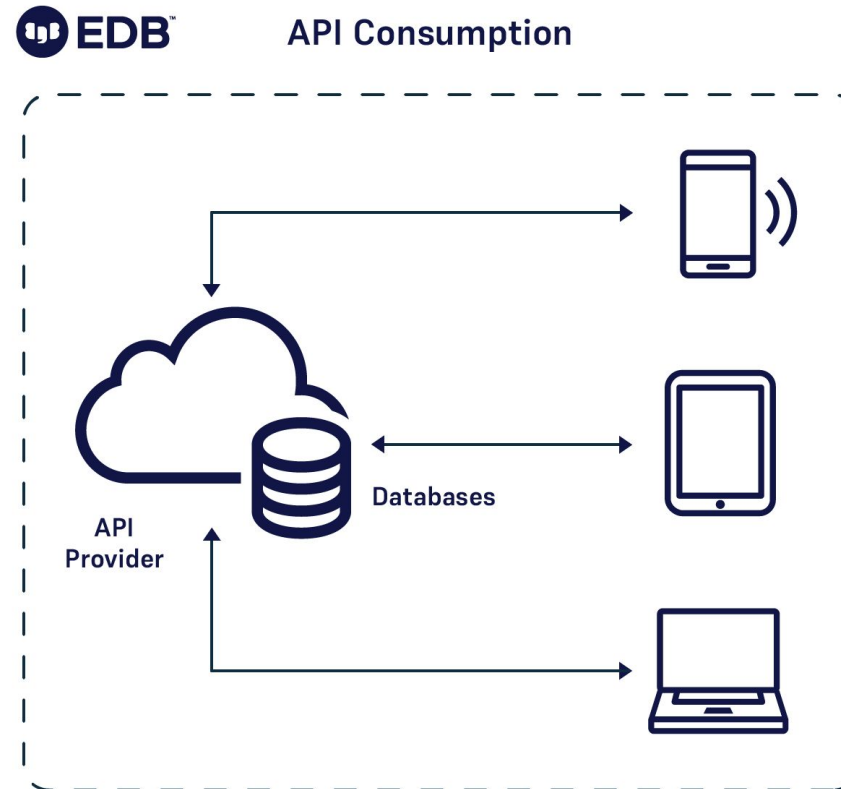
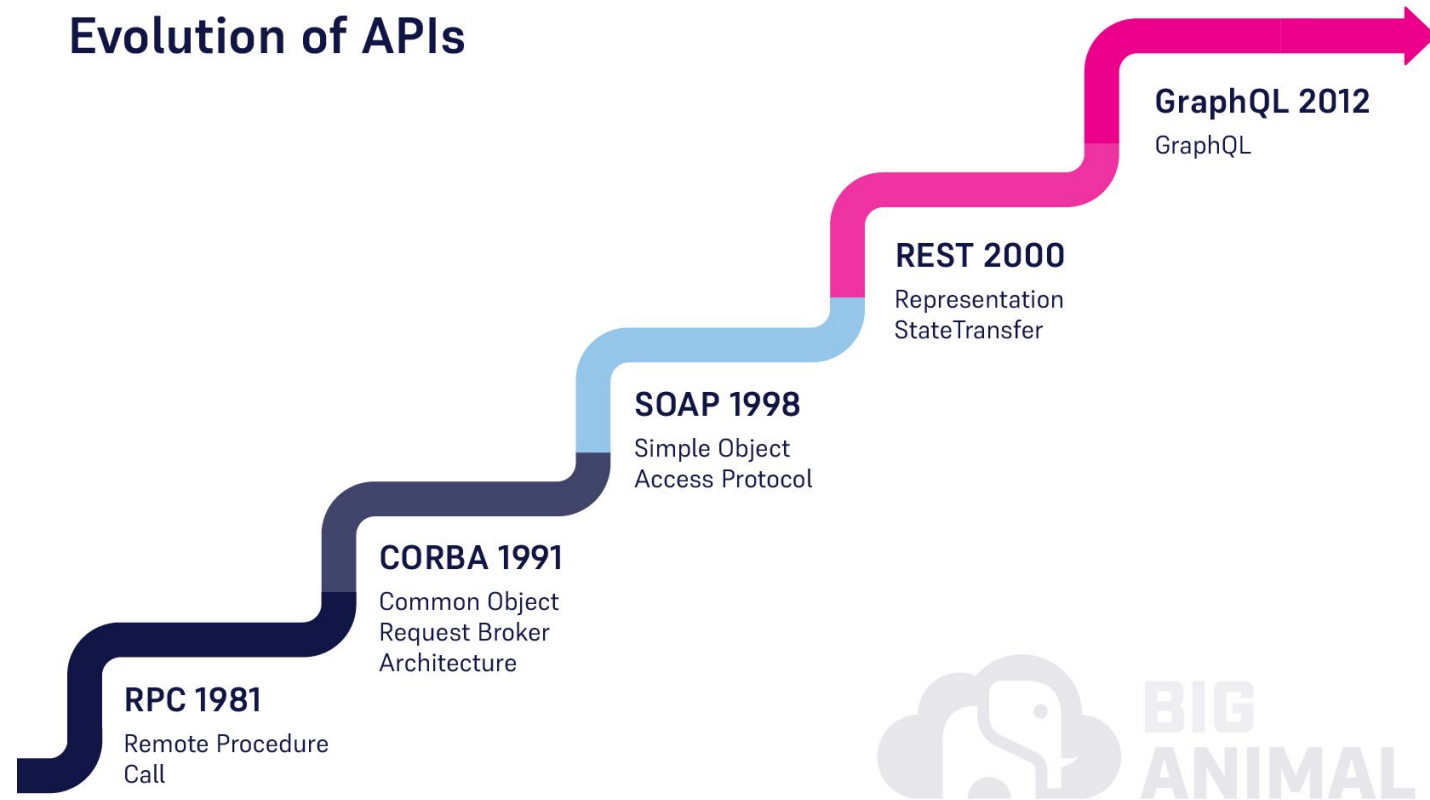# What are APIs?

The rise of APIs

- API also known as Application Programming Interface
- An API is a set of protocols, routines, functions, and/or commands that facilitate interaction between software services.
- Modern APIs have been around since the early 2000s.

BIGANIMAL

Importance of APIs

APIs

Evolution of APIs

GraphQL 2012
GraphQL

REST 2000
Representation
StateTransfer

SOAP 1998
Simple Object
Access Protocol

CORBA 1991
Common Object
Request Broker
Architecture

RPC 1981
Remote Procedure
Call

BIG ANIMAL

API Development

Multiple development languages

- A few examples
  - Bash
  - Python
  - Go
  - Ansible

API Examples

Google APIs Explorer

Google APIs Explorer

https://developers.google.com/apis-explorer/#p/

Facebook APIs

Facebook APIs

https://developers.facebook.com/docs

How APIs relate to cloud databases

API

Read

Create

Update

Delete

BigAnimal

Databases in the cloud today

Challenges for enterprises
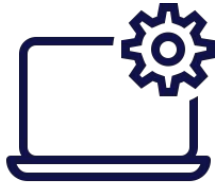
Behind with bug fixes, security updates, and new capabilities

Don't provide the control, capabilities, and performance tuning enterprises need
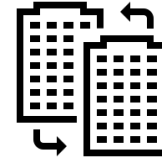
Lack easy migration for existing on prem PostgreSQL or Oracle databases

Meeting the demands of the modern enterprise

- Product focused on Enterprise cloud journey
- Aggressive security and compliance roadmap
- Extensive Enterprise-grade features
  - SSO
  - Audit logging
  - RBAC

Why BigAnimal?

- Fully managed Database-as-a-service
  - Built-in Oracle compatibility
  - Running in the cloud
  - Operated by **the Postgres Experts**
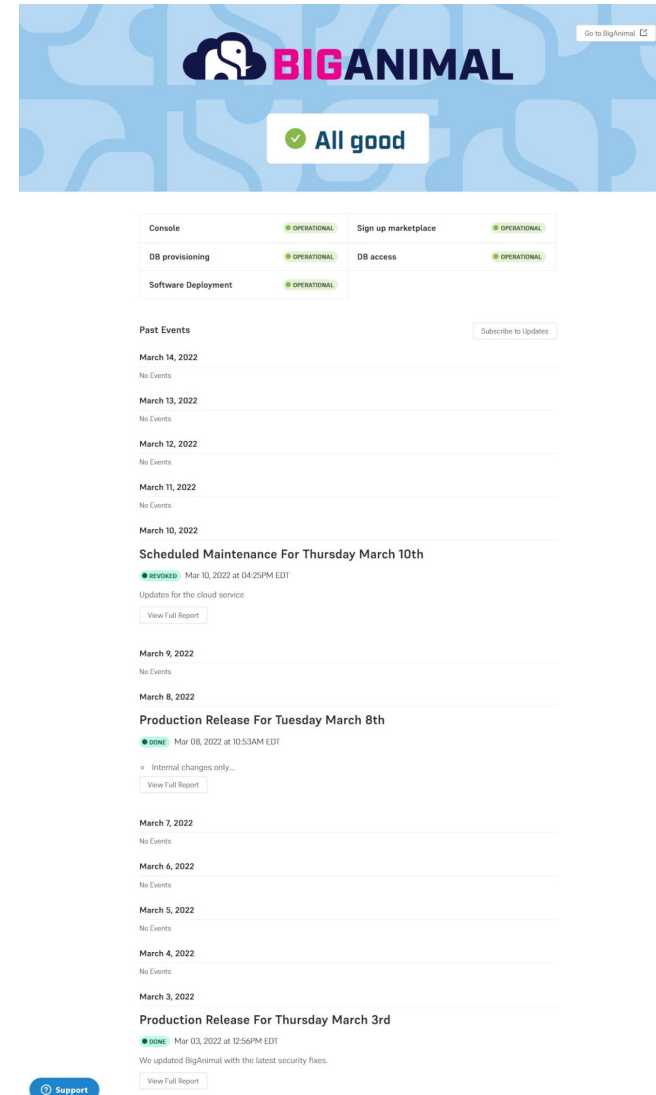 - **15 years in the making**
  - **Goes above and beyond the basics**
- Closes the gap between
  - What enterprises need
  - What the cloud service providers are offering today

BigAnimal Status

Available at: https://status.biganimal.com/

- GUI based
- Display status for
  - Console
  - Database provisioning
  - Software deployment
  - Sign up marketplace
  - Database access
- Lists events
  - Past events
  - Releases and changes

BigAnimal Documentation

Available at: https://portal.biganimal.com/api/docs/

-

Authentication towards API

Authentication

Performed via a Token

- Token
  - Unique identifier utilized to authenticate towards an API as an application of user
- Where to obtain a token
  - https://github.com/EnterpriseDB/cloud-utilities/tree/main/api
- Obtain a token
  - get-token.sh

```
{ "access_token": "<yourtoken>", "refresh_token":
"v1.MZY5PHwcVWeDw82c5C2qkRa5U3Cenp3eD2beagy6DmQCxf7FGU9U9XczyDjWaJmboe
oDYwbzgyUBt80lNINMOfk", "scope": "openid profile email
offline_access", "expires_in": 86400, "token_type": "Bearer"}
```

Managing clusters with BigAnimal API

Managing clusters with BigAnimal API

https://github.com/EnterpriseDB/blogpostings/tree/main/BigAnimal

- Why Go?
  - Cloud native
  - Cross platform
- Steps
  - Authenticating
  - Provisioning
  - Listing
  - Deleting

Walk through example with BigAnimal in Go

Takeaways

Takeaways

Where to from here?

Many routes and choices, a few to cite:

- Automation
- Pipelines
- Scheduling
- Templates

Sounds familiar, doesn't it?

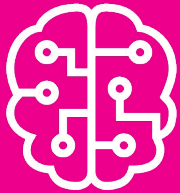Still doesn't ring a bell? Maybe this will ring: **DevOps**

Your thoughts?

Q&A

Thank you!

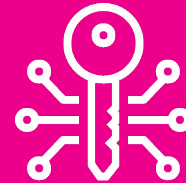## BigAnimal: Faster, safer, smarter, better

Postgres Expertise

Expertise beyond the generalist cloud provider; we help steer the database roadmap and patch its bugs

Oracle Compatibility

Leave Oracle and further your cloud journey with a fully managed Postgres service

Greater transparency and control

BigAnimal runs in your Azure account and leverages your existing discounts

Curious? Request a free trial today!
https://resources.biganimal.com/cloud-postgresql-trial