

# RAD Server

*Delivering Enterprise data via REST in minutes*



**BLOG:**

<https://blogs.embarcadero.com/using-trestrequestdatasetadapter-to-update-data-via-a-restful-server-api/>

**Stephen Ball**

**Pre-sales Director**  
**Embarcadero Technologies**  
stephen.ball@embarcadero.com  
@DelphiABall



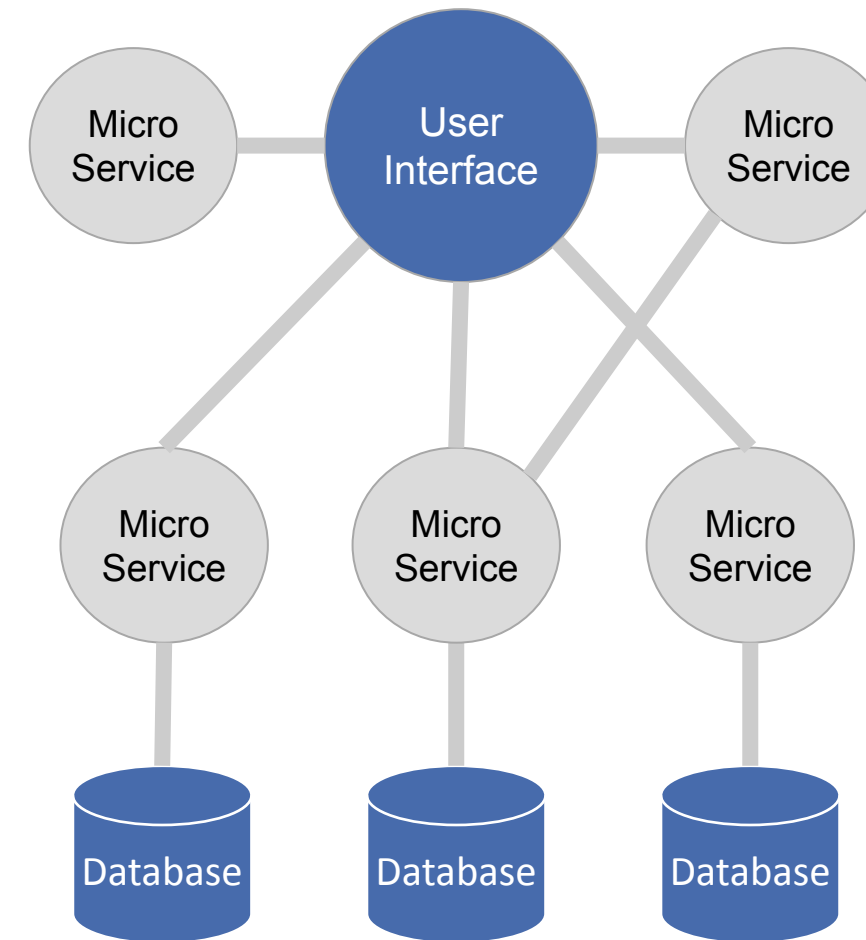
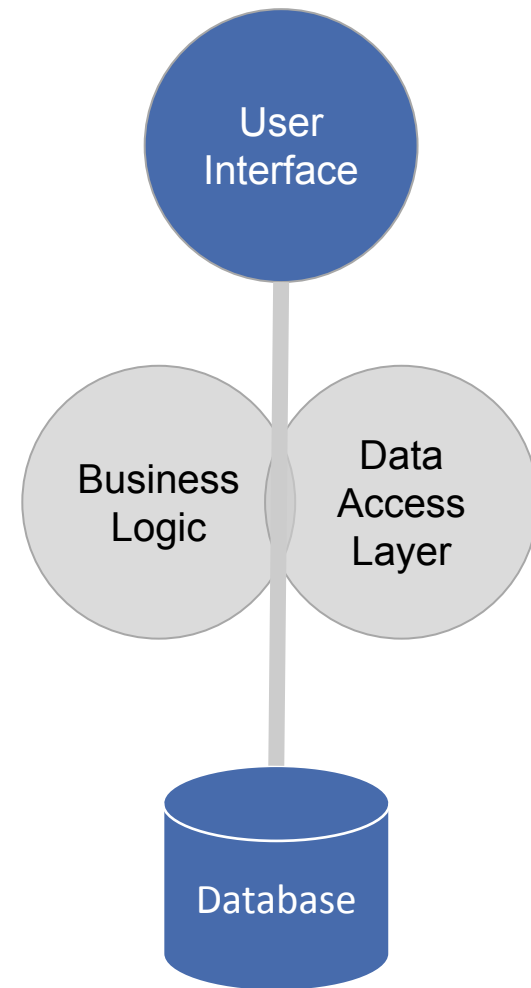
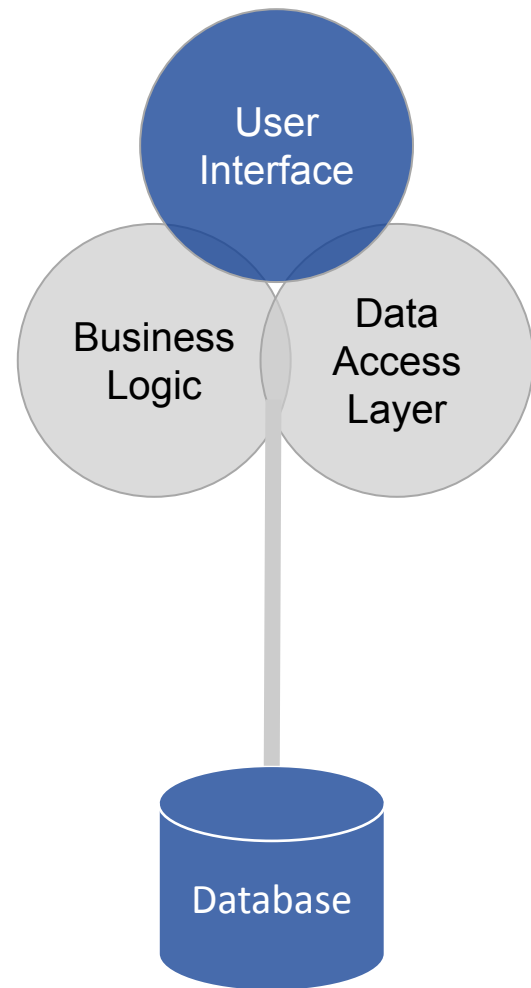
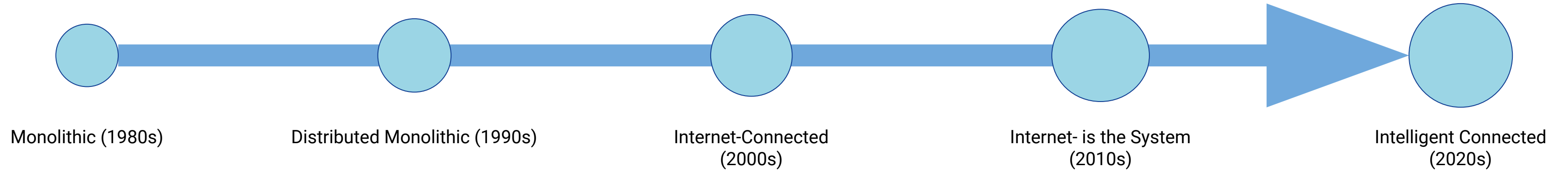
# RAD Server - Agenda

- System Architecture Evolution
- RAD Server Overview
- Demonstrations
- More information
- Next steps
- Q&A

# System Architecture Evolution

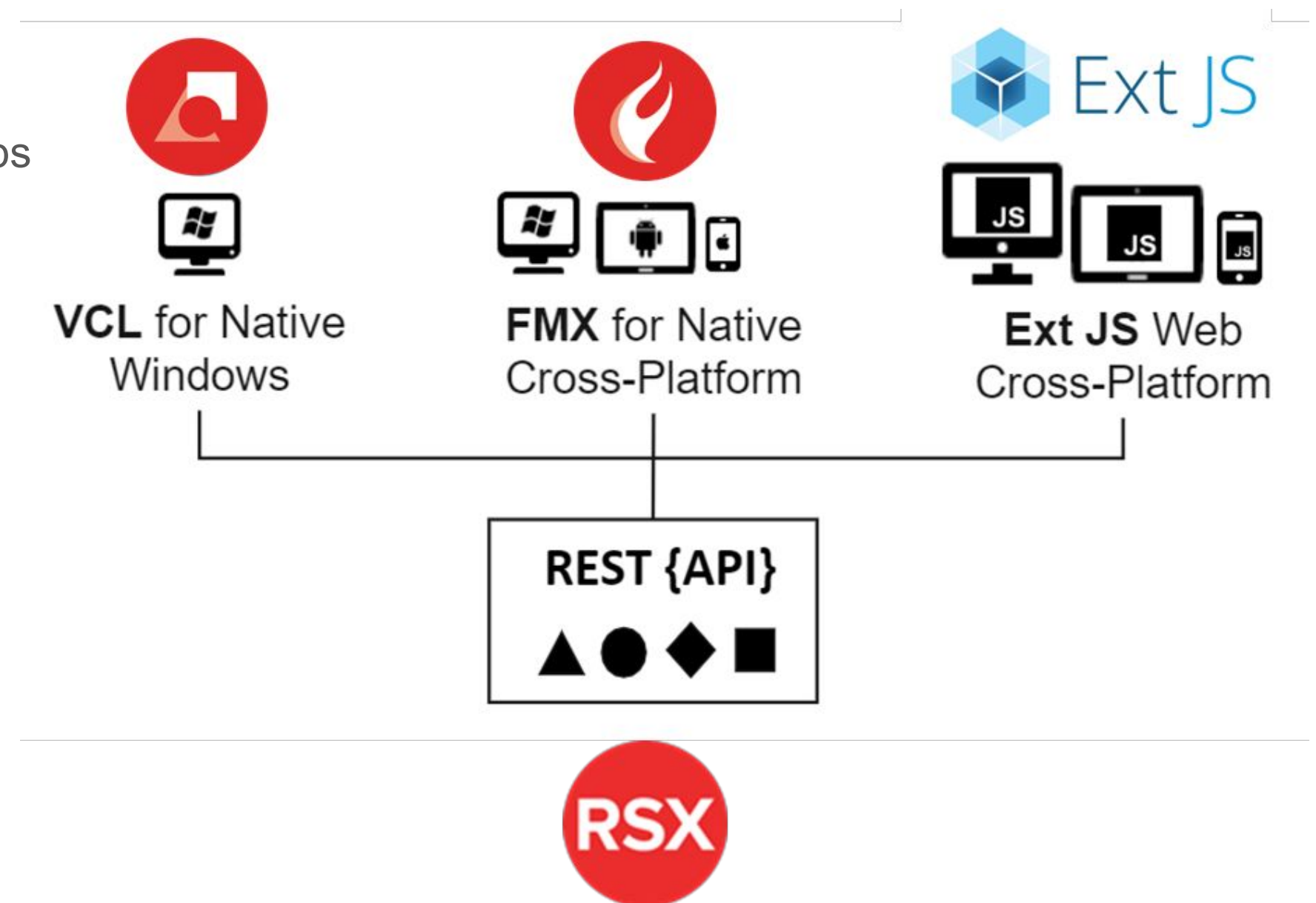
System Evolutions

Architecture Innovations



# What is RAD Server (in one slide)?

- The engine for multi-tier applications
  - Deploy on premise or in the cloud
  - Comes with tons of ready-to-use features: users and groups management, multi-tenancy, detailed analytics, push notifications support, swagger documentation support, beacon fencing...
- Migrate your data access logic to a web service
- Build flexible and thin Windows VCL clients, multi-device clients for desktop and mobile or Web + JavaScript clients
- Works on Windows and Linux, IIS and Apache (standalone not recommended beyond development)



# RAD Server - Multi-tier Made Easy!

Finally... a back-end for multi-tier applications as easy as Delphi

A fully powered M.E.A.P. (Mobile Enterprise Application Platform) REST/JSON end-points are auto-created and managed. Access control is handled. Data storage is built-in or you can easily connect to any popular Enterprise RDBMS or cloud service. Track and respond to user location. Push notifications to users. Integrated smart IoT devices into your solution. And deploy on site or in the cloud. Multi-tier has never been this simple, turn-key, flexible, and powerful



## REST End Point Publishing

An all-in-one turnkey foundation for your application back end APIs and Services.

- REST End-Point Publishing
- Access Control
- API Analytics
- Reach from Desktop, Mobile & Web



## Integration Middleware

Integrations provide out of the box connectivity with external servers, applications and services.

- Enterprise SQL Data Access and Connection Pooling
- IoT Smart Devices
- Cloud Services



## Application Services

A collection of ready to use key built-in services to power your application. Includes core functions such as user directory services and user management, push notifications, user location tracking, and built-in data storage.

- Push Notifications
- User/Group Management
- JSON Datastore
- User Location/Proximity

# RAD Server - Included Features

## Access Control

You can set up group and user level access, with authentication, to all application APIs and control who has access to your application's API functionality.

## API Analytics

All REST API end-point activity is recorded and measured for robust statistics tracking and analytics.

## Desktop, Mobile & Web Client Apps

All C++ and Delphi code hosted on RAD Server is published as REST/JSON end points consumable by any client application on multiple platforms for extreme flexibility and future-proofing.

## Enterprise Data

RAD Server delivers high performance built-in connectivity to all popular Enterprise RDBMS servers such as Oracle, DB2, Microsoft SQL Server, InterBase, Informix, MySQL Server, etc.

## IoT Smart Device Connectivity

RAD Studio's IoT components enable fast and easy integration of IoT Smart devices into your application's services.

## Cloud Services

Easily integrate REST cloud services from a variety of cloud, social, and BaaS platforms such as Google, Amazon, and more.

## Push Notifications

RAD Server currently supports push notification systems including Apple Push Notification service (APNs) and Firebase Cloud Messaging (FCM).

## Built-in Secure Datastore

You can use built-in APIs to store and retrieve JSON data without requiring a separate database server

## User Location/Proximity

RAD Server applications can track user movement, both indoors and outdoors, and respond to proximity events when users enter and exit custom beacon zones or approach designated beacon points through RAD Studio's support for GPS, beacons, and beacon fence technology.

## Windows & Linux

RAD Server solutions run on IIS on Windows and Apache on Windows & Linux (with Delphi).

## Multi-tenancy Support

A single RAD Server instance with a single RAD Server database connection can support multiple isolated tenants. Each tenant has a unique set of RAD Server resources including Users, Groups, and other data.

## Active Directory Support

Includes sample code on how to synchronize RAD Server user accounts with Active Directory users.

## Swagger Open API Docs

Allows for quick documentation of your APIs via the use of a metadata language such as YAML or JSON for the representation of RAD Server REST APIs.

## No Code Instant APIs

Quickly build endpoints to access database tables and queries with paging and sorting using the build-in wizards.

## Docker Support

RAD Server provides custom and pre-built Docker images for RAD Server on Linux available from Docker Hub. Deploy on AWS, Google Cloud, Azure, or on-premise.

# RAD Server - Demo

101 - Serving Data



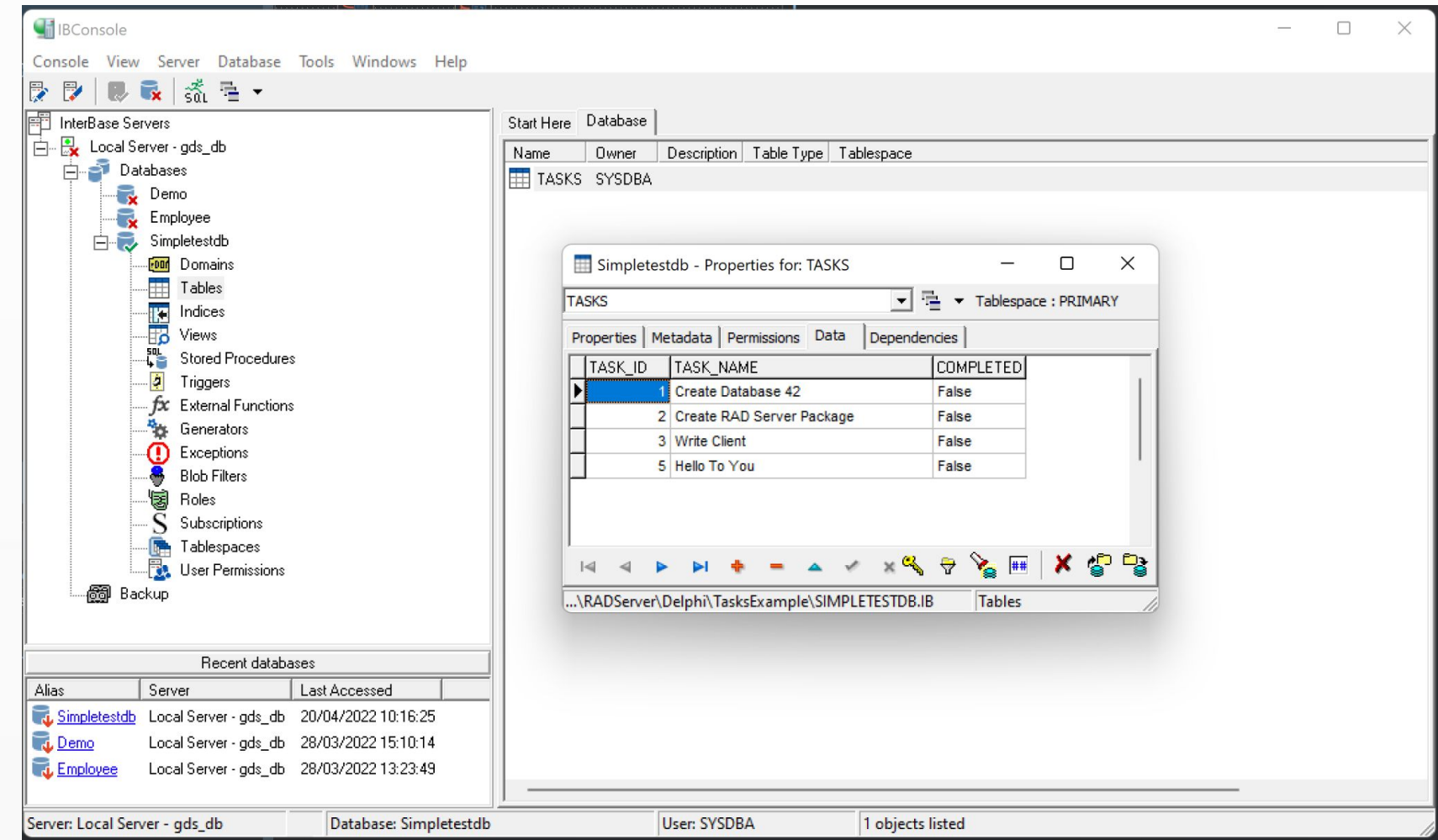
# REST Debugger



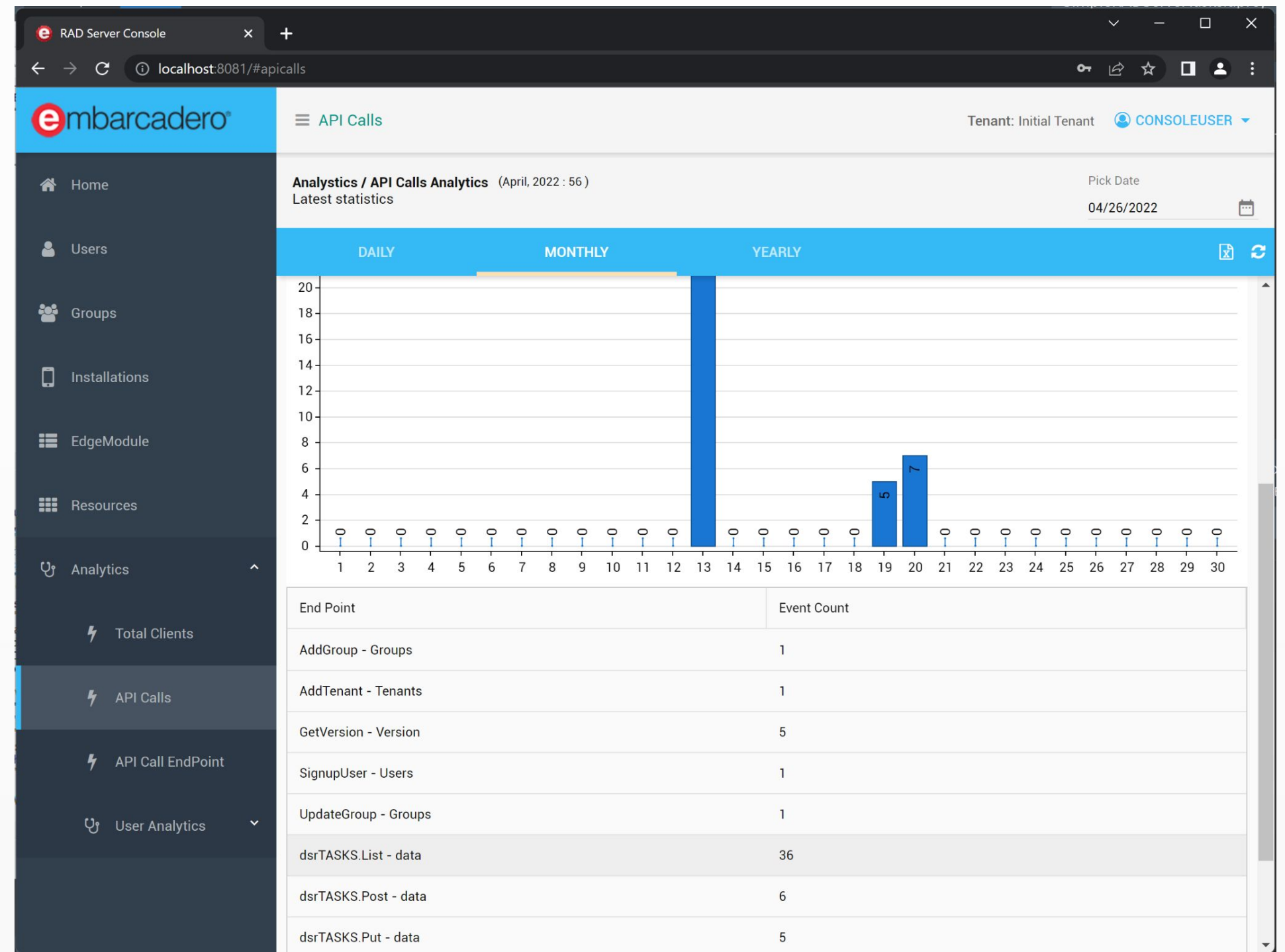


# Tasks Example

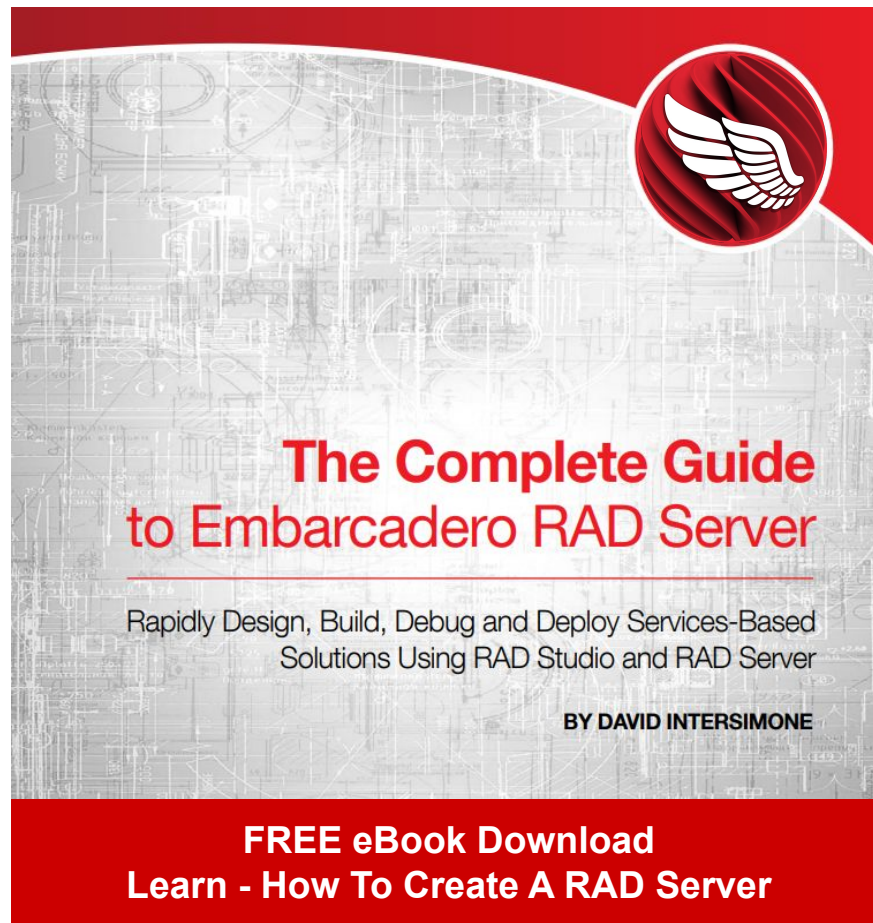
<https://github.com/DelphiABall/RADServer>



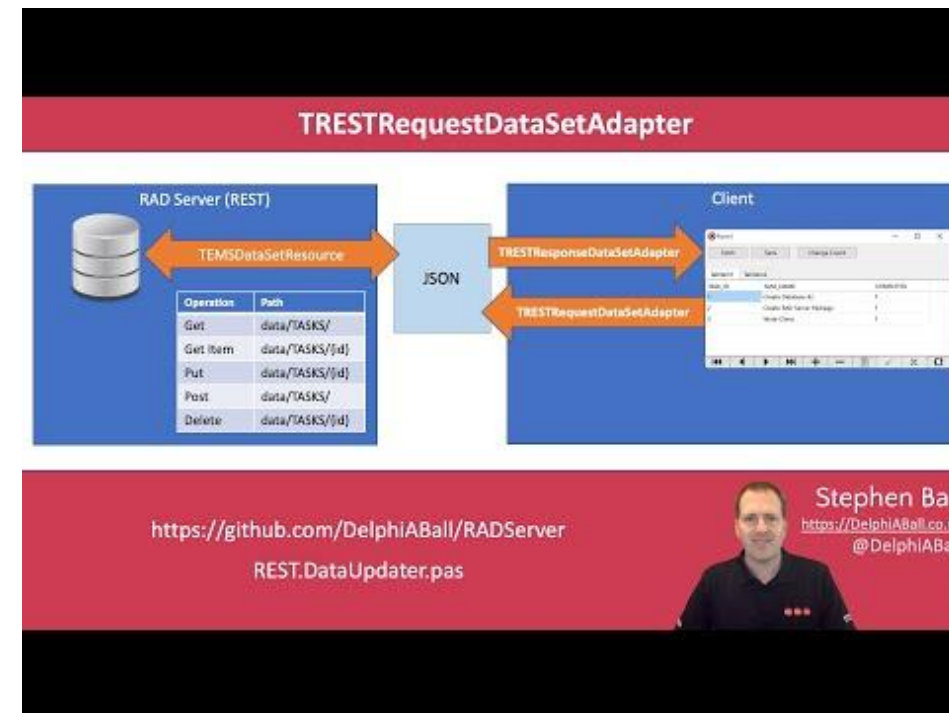
# Analytics



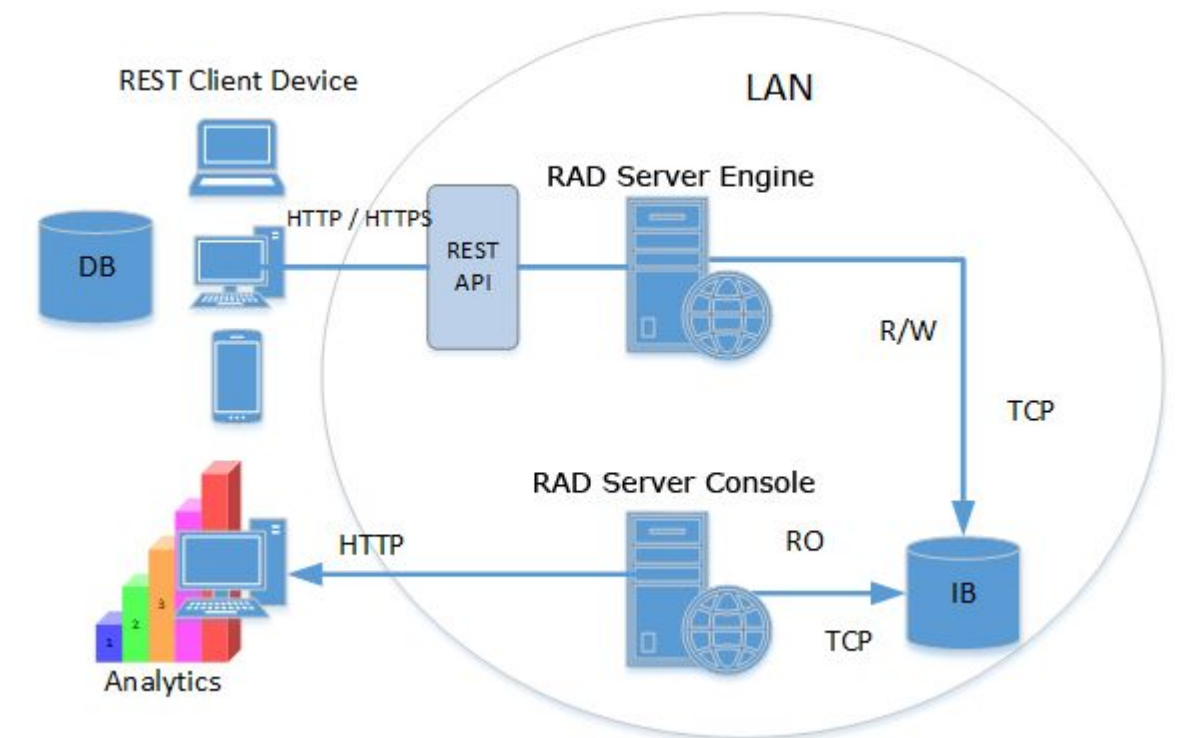
# More information



Blogs



YouTube



DocWiki

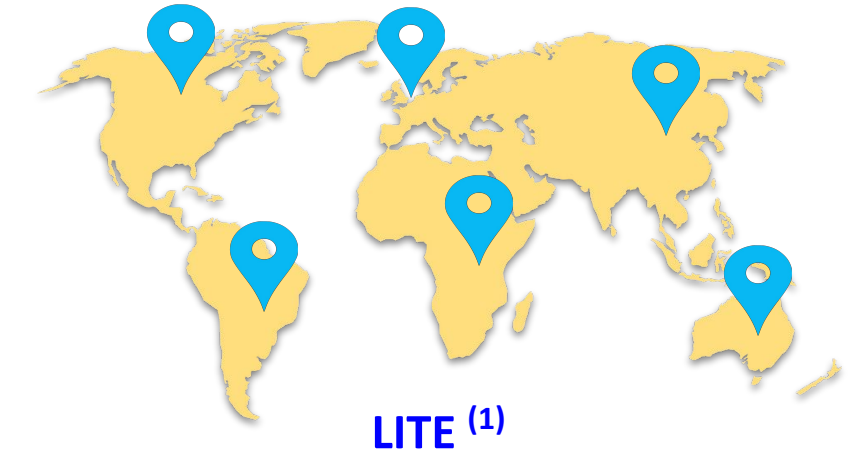
- [www.embarcadero.com/products/rad-server](http://www.embarcadero.com/products/rad-server)
- [blogs.embarcadero.com/learn-how-to-create-a-rad-server-with-david-i-intersimone-in-delphi-and-c/](http://blogs.embarcadero.com/learn-how-to-create-a-rad-server-with-david-i-intersimone-in-delphi-and-c/)
- [delphiaball.co.uk/tag/rad-server/](http://delphiaball.co.uk/tag/rad-server/)
- [docwiki.embarcadero.com/RADStudio/en/Developing\\_RAD\\_Server,\\_Cloud,\\_and\\_REST\\_Applications](http://docwiki.embarcadero.com/RADStudio/en/Developing_RAD_Server,_Cloud,_and_REST_Applications)

# Licensing RAD Server

Developers build RAD Server API's for their customers to use in Delphi or C++Builder. Each deployment license uses the same packages developers compile from their code, making it easy to choose one, and scale up as demand increases.



**RAD Server  
FEATURE/LICENSE**



<b>Description</b>	Deploy to multiple locations, on premise or in the cloud. Deploy via IIS or Apache (inc Docker support)	Deploy to a single on premise or cloud data centre Deploy via IIS or Apache (inc Docker support)	Freely deploy to multiple locations Deploys as a Standalone Server Application
<b>Scalability</b>	Unlimited <sup>(2)</sup> RAD Server license server supports multiple nodes for load balancing		Single Node - Ideal for small users numbers RAD Server license management runs inside the standalone app. <sup>(3)</sup>
<b>Supported Server Platforms</b>	Windows / Linux		
<b>Supported Backends</b>	Web Server - IIS / Apache		Stand-alone Executable
<b>Deployment Model</b>	Multiple physical sites with one or multiple clustered servers each site	Single physical site with one or multiple clustered servers	Unlimited physical sites with one stand-alone server per site
<b>Licensed as part of RAD Studio</b>	Architect <sup>(4)</sup>	Enterprise <sup>(4)</sup>	Architect/Enterprise
<b>Security</b>	Security level compatible with the selected backend	Security level compatible with the selected backend	No HTTPs support out of the box. A proxy can be used to secure data exchange
<b>InterBase (service database)</b>	Requires Interbase Server Installation	Requires Interbase Server Installation	No InterBase Installation. Uses InterBase ToGo - just copy paste
<b>License Management</b>	Requires a license registration for each deployment	Requires a license registration for each deployment	No registration is needed when <a href="#">deploying the final solution</a>
<b>EMS Features and Services</b>	Complete <sup>(5)</sup> - Modules built for RAD Server work with ALL deployment models for ultimate flexibility		

(1) New license model introduced in Delphi 11, C++ Builder 11 and RAD Studio 11  
 (2) The results will depend on the selected infra and development quality  
 (3) Enough performance to replace a stand-alone Datasnap application, for example. The final number of simultaneous calls will vary in accord of the kind of application/endpoints and development quality as well  
 (4) License remains the property of the developer. For [OEM distribution, please contact sales.](#)  
 (5) All other RAD Server features and capabilities are available through all license models

# Next Steps

- Start a RAD Studio trial [embarcadero.com/products/rad-studio/start-for-free](https://embarcadero.com/products/rad-studio/start-for-free)
- Upgrade Today! [Talk to Alfasoft](#)
- Read the whitepaper [embarcadero.com/resources/white-papers](https://embarcadero.com/resources/white-papers)
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# Session Title Again

Q&A

CTA, Links, etc.



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**Stephen Ball**  
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Embarcadero Technologies  
stephen.ball@embarcadero.com  
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# Handout

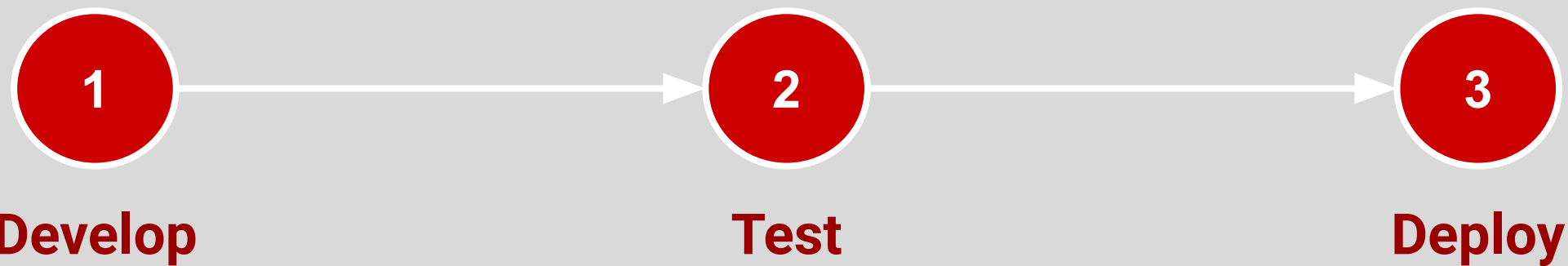
Save slide as PDF



# What is RAD Server?



RAD Server is a turn-key application foundation for rapidly building and deploying services based applications. RAD Server enables developers to quickly build new application back-ends or migrate existing Delphi or C++ client/server business logic to a modern services based architecture that is open, stateless, secure and scalable.



- Rapidly build your backend API
- Benefit from Single Sign On, Push notification, APIs calls analytics
- Combine multiple data sources
- Automatically document with Swagger

- Use the developer edition to test locally on your machine
- Full debugger support
- No web server required

- Deploy via Docker, IIS, Apache for ultimate scalability.
- For smaller deployments, RAD Server lite provides simpler deployment using a standalone application server.

[Click here](#) - Discover more about RAD Server

**The Complete Guide to Embarcadero RAD Server**

Rapidly Design, Build, Debug and Deploy Services-Based Solutions Using RAD Studio and RAD Server

BY DAVID INTERSIMONE

FREE eBook Download  
Learn - How To Create A RAD Server

## Getting Started

RAD Server is part of RAD Studio, Enterprise / Architect editions [Download a FREE 30 day trial of RAD Studio](https://www.embarcadero.com/products/rad-studio/start-for-free)

[View the RAD Server Developer Documentation](https://docwiki.embarcadero.com/RADStudio/en/RAD_Server_Overview)

**Blogs and Videos!**  [Sample Applications, Docker, API Analytics, User Security and more](#)

## Need Advice / Help?

Embarcadero pre-sales engineers are available to discuss your project requirements and help point you in the right direction. [Ask your local sales rep for an appointment](#)

Want to see RAD Server in action? [Request a demo of RAD Server](#)

Documentation [YAML - Swagger Master Detail Server - Client PDF - Creating a Report Server](#)