

Rollbase for OpenEdge Dudes*

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***Synonyms** *bastard, bloke, buck, cat, chap, chappie, fella, fellow, galoot; [slang] gent, gentleman, guy, hombre, jack, joe, joker, lad, male*

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Topics Covered in This Session

- What is **Progress Pacific**
- What is **Progress Rollbase**
- Rapid App Dev (**RAD**) in Rollbase
- How to use **Progress OpenEdge** with Rollbase
- How to get more information

What Is Progress Pacific?



What Is Progress Pacific?

From the beginning, Progress has helped **business professionals** build powerful **applications** with purpose

Business professionals have unique requirements:

1. Need **simplicity** without having to rely on deep technical skills
2. Need to connect to critical **data**
3. Need to see before they build
4. Need to show **results** right away
5. And they need to do it without a long, expensive IT project



Rapid
development

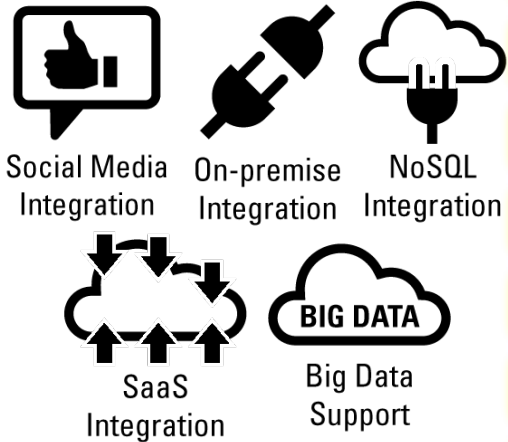


Data driven

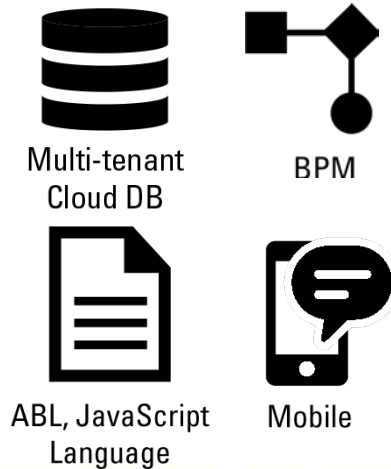


Open standards

PROGRESS DATADIRECT



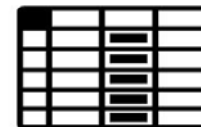
PROGRESS OPENEDGE



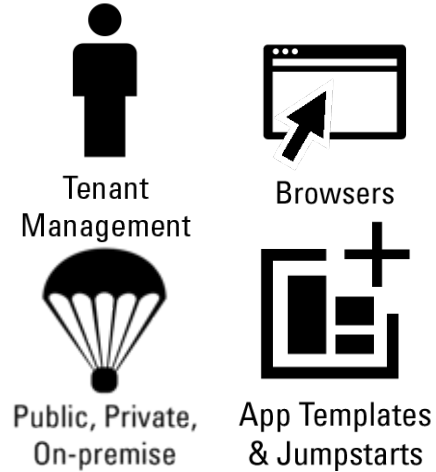
PROGRESS CORTICON



PROGRESS EASYL



PROGRESS ROLLBASE



COMMUNITY

CONSISTENT USER EXPERIENCE

Gartner Magic Quadrant for Enterprise Application Platform-as-a-Service (aPaaS)

Magic Quadrant

Figure 1. Magic Quadrant for Enterprise Application Platform as a Service



Source: Gartner
January 2014

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Renewed Focus for on Business Application Development



What Is Progress Rollbase?

What Is **PROGRESS** Rollbase[®] ?

Progress Rollbase is a **cloud platform for development and delivery of software as a service (SaaS) business applications** using point & click, drag & drop tools in a standard web browser with a minimal amount of code.

Rollbase continues to extend Progress' commitment to empowering business users and other people who are not professional programmers to enable them create their own applications.

In this talk we introduce you to this new, easy application development and deployment platform that can complement your existing Progress OpenEdge applications.

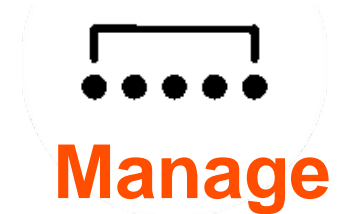
Rollbase: Build Data-driven Applications on Any Cloud for Any Device



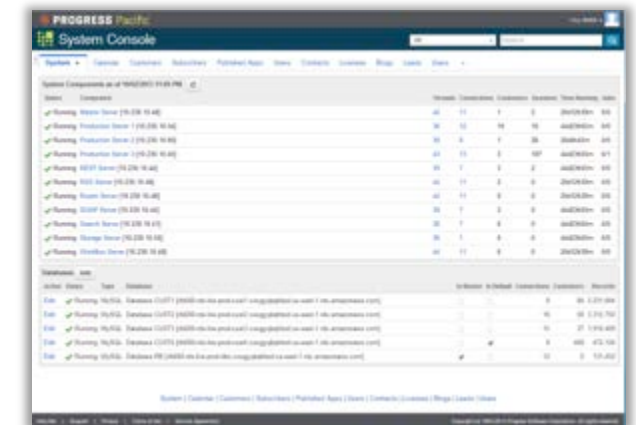
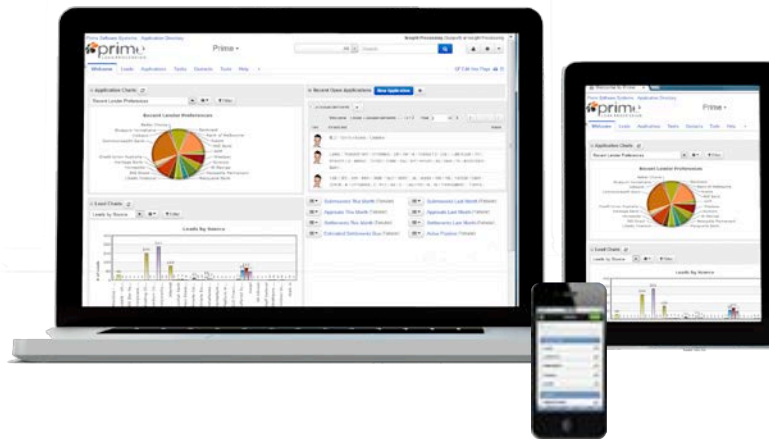
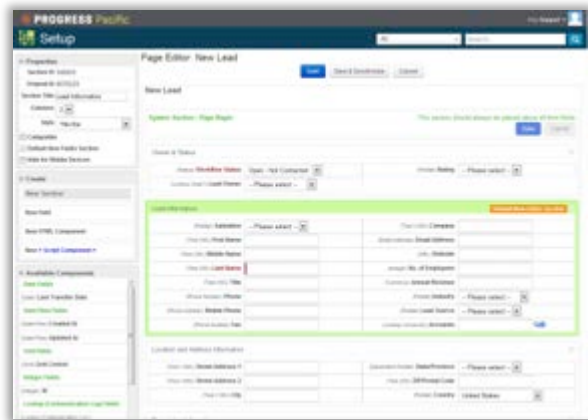
- **Drag & drop** development enables business users to create apps without coding
- Developers can go much further with **JavaScript**, APIs and custom components



- Publish and deploy applications to one or more tenants
- Choose your hosting environment **public, hybrid or private** cloud



- Central dashboard to **manage** servers, databases, tenants, users, applications and more
- **Monitor** system components and user activity, access tenants to provide support, resource metering, etc.

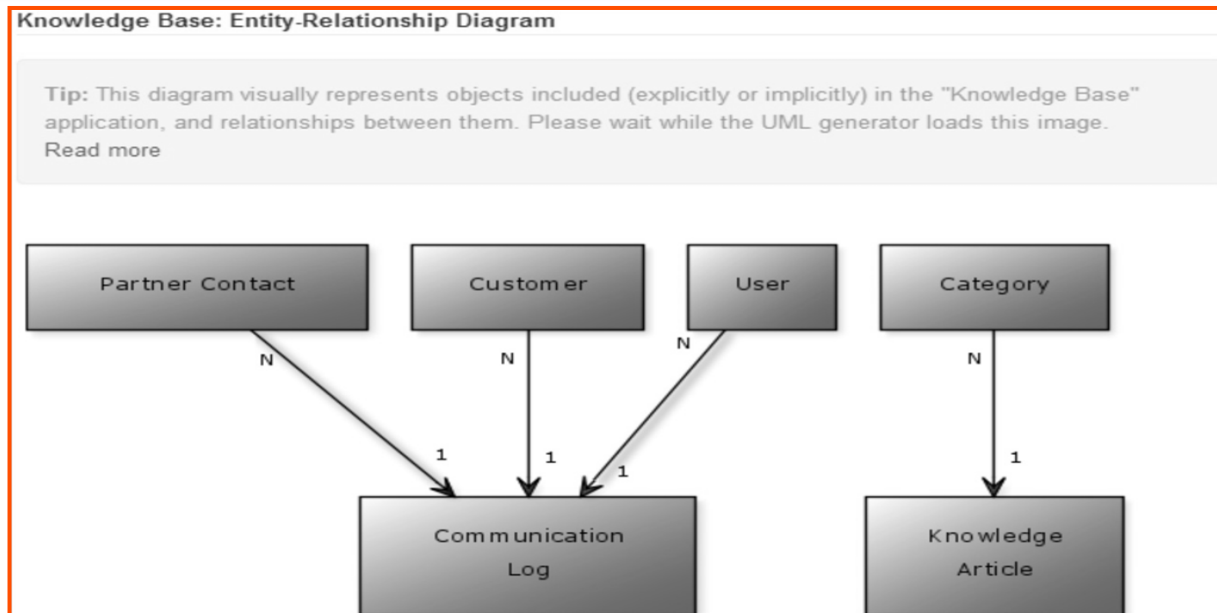


Progress Rollbase in Action

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Core Concepts: Objects, Fields, Relationships and Cardinalities

Action	Object ▲	Deployed	Attributes	Integration Name	Last Updated
Edit	Approval	✓	Workflow	\$APPROVAL	06/14/2013 05:07 PM
Edit	Catalog Item	✓		catalog_item1	06/24/2013 10:12 AM
Edit	Category	✓	Workflow	category	07/04/2013 02:25 PM
Edit	Communication Log	✓	Communication Log	COMMLOG	07/04/2013 02:25 PM
Edit	Customer	✓	Contact, Location, Portal Visitor	customer5	06/24/2013 10:12 AM
Edit	Department	✓		\$ORG_DEPT	06/13/2013 11:23 AM
Edit	Function	✓		\$ORG_FUNC	06/13/2013 11:23 AM
Edit	Group	✓	Organization	\$GROUP	06/13/2013 11:23 AM
Edit	Knowledge Article	✓	Workflow	knowledge_article	07/04/2013 02:25 PM



- Applications are data-driven – Objects are the core business entities
- Objects have properties and attributes associated with them
- Objects have Fields associated with them
- Object relationships and cardinalities are modeled visually
- Underlying database physics are completely hidden – it's aPaaS!

Create Object

The screenshot displays the Progress Pacific web application interface. The main window shows the 'Object: New Object' creation form, which includes fields for Singular Name, Plural Name, Record Name, and Integration Name. A tip explains that objects are like database tables. The form also has 'Save' and 'Cancel' buttons.

An inset window shows the configuration for 'Object: Customer'. It includes a navigation bar with tabs for Fields (8), Relationships, Pages (9), Views (1), Templates, Reports, Charts, Gauges, Triggers, Buttons, Data Maps, and Permissions. Below the navigation bar, there are sections for Object Properties, Object Attributes, and System Information, each with 'Edit', 'Delete', and 'More actions...' buttons.

The 'Fields' section is expanded, showing a table of fields for the 'Customer' object:

Action	Field Label	Data Type	Integration Name	Def. Value	Text Index	Track Changes
Edit Events Permissions	Comments	TextArea	comment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Edit Permissions	Created At	Date/Time	createdAt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Edit Permissions	Created By	User Link	createdBy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Edit Validation Events Permissions	Customer	Record Name	name	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Edit Permissions	ID	Integer	id	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Building the User Interface (UI)

The screenshot displays the 'Page Editor: View Category' interface. On the left, there are three panels: 'Properties' (No component selected), 'Create' (New Section, New Field, New HTML Component, New < Script Component >), and 'Available Components' (List Components, Lookup (Knowledge Article) Fields, Knowledge Article, Process Fields, Workflow Process, Report Link Fields). The main editor area shows a 'View Category' page with sections for 'System Section - Page Begin', 'Category Information', and 'System Information'. A 'Create New Field' dialog is open, showing a 'Field Type' dropdown set to 'Text' and 'Next >' and 'Cancel' buttons. A tip at the bottom of the dialog states: 'Tip: Advanced fields such as Auto-Number, File Upload, Image Upload, Captcha, etc, cannot be created from within the Page Editor. To create new advanced fields you must edit the object definition.'

- Build UI using integrated WYSIWYG editor
- UI Tabs are automatically generated for each Object
- Page elements are created and edited using drag-and-drop
- Changes immediately reflected in the UI

Publishing Applications

APPLICATIONS Setup

Personal Setup Applications Setup Administration Setup

Application Setup > Portals > New

Portal: New Portal

Save Cancel

Define Portal

Portal Name [German]

Is Deployed

Use HTTPS

Field-Level Help If checked, Field-Level Help will be available when hovering over the icon.

"Powered By" Logo Show "Powered By" logo on the bottom of portal pages

Language English

Date Format 07/22/2013 05:19 AM

Time Zone (GMT+01:00) Central European Time (CET) Europe/Amsterdam

Description [German]

- Applications can be published and accessible via a user-facing Portal
- Several portals can be defined per application
- Fine-grained (user/role) authentication and access control fully configurable

Installing and Updating Applications

Application: Knowledge Base

Edit Delete More actions...

Application Details

Application Name Knowledge Base

Deployed

Field-Level Help

Mobile Enabled

Description The Knowledge Base applications provides a low article takes only seconds. Users will have the al users. Additionally, you can tag knowledge articl of common question / issues without necessarily you time and money by creating an indexed libra

Installed from Knowledge Base

Tabs Categories, Knowledge Articles, Knowledge Port

Core Objects Communication Log, Knowledge Article, Category

Portals Knowledge Portal

More actions... dropdown menu:

- View Diagram
- Application Tree
- Generate XML
- Update from XML
- Performance Audit
- Custom Sidebar
- Header And Footer
- Mobile Edition
- Translation
- Attach String Tokens
- View Installation Log

- Application composition is described in an XML document (Application tree)
- Install and upgrade Applications by installing the provided XML
- Supports fine-grained control for sub-components (Locked, Partially Locked, Unlocked)
- Applications are versioned and can be rolled back if necessary

Advanced Topics

Article ID: JavaScript Event Handlers

JavaScript Event Handlers

You can use integration names of other Knowledge Article fields to reference them in event handling code for your Article ID field. Note that these other fields may or may not be present on a particular page.

Event Handlers Helper

Article ID

onchange = "

onclick = "

onfocus = "

onblur = "

onkeypress = "

Workflow Actions

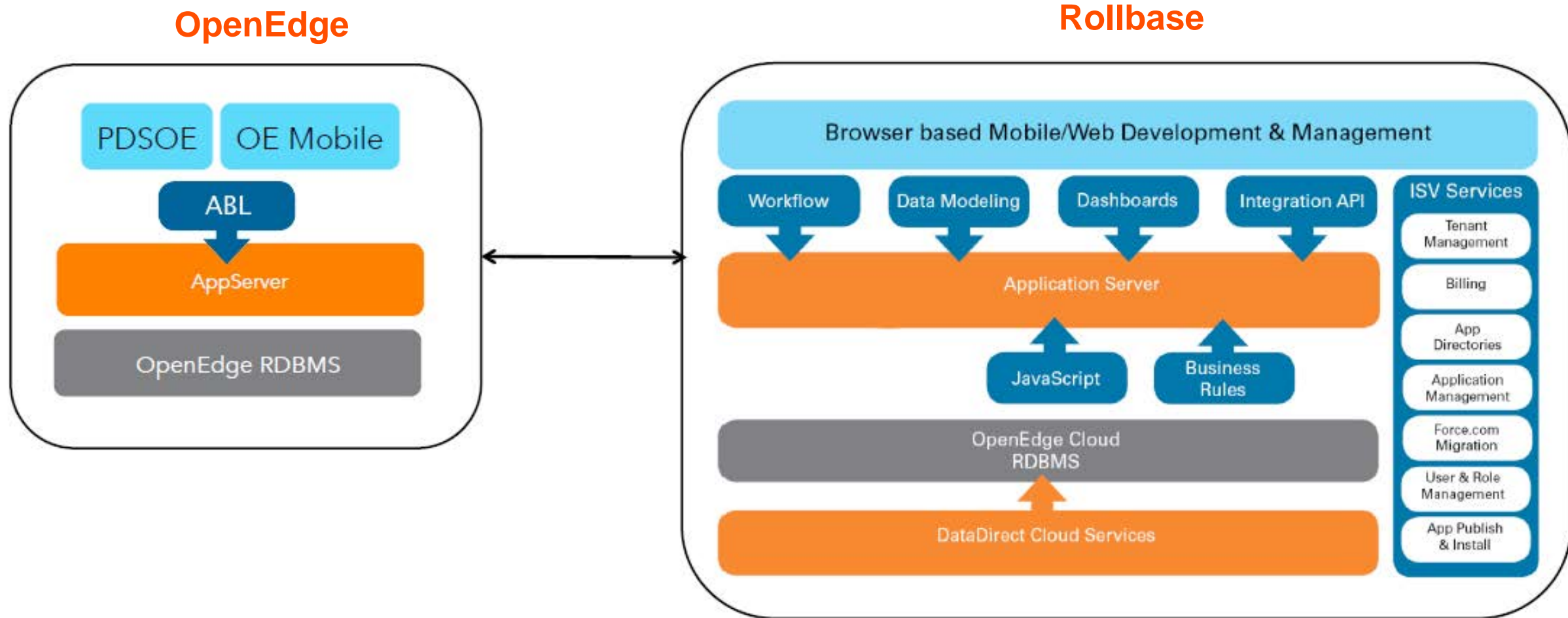
Action	Order No ▲	Action Name
Edit Clone Del Permissions	1	Internal
Edit Clone Del Permissions	2	External
Edit Clone Del Permissions	3	Archived

- Powerful AJAX API for Applications demanding a rich, interactive browser experience
- On-premise Rollbase supports the integration of external databases (e.g. OpenEdge DB)
- Rollbase has powerful facilities:
 - Triggers
 - Workflow
 - Server-side JavaScript logic

Progress Rollbase with OpenEdge

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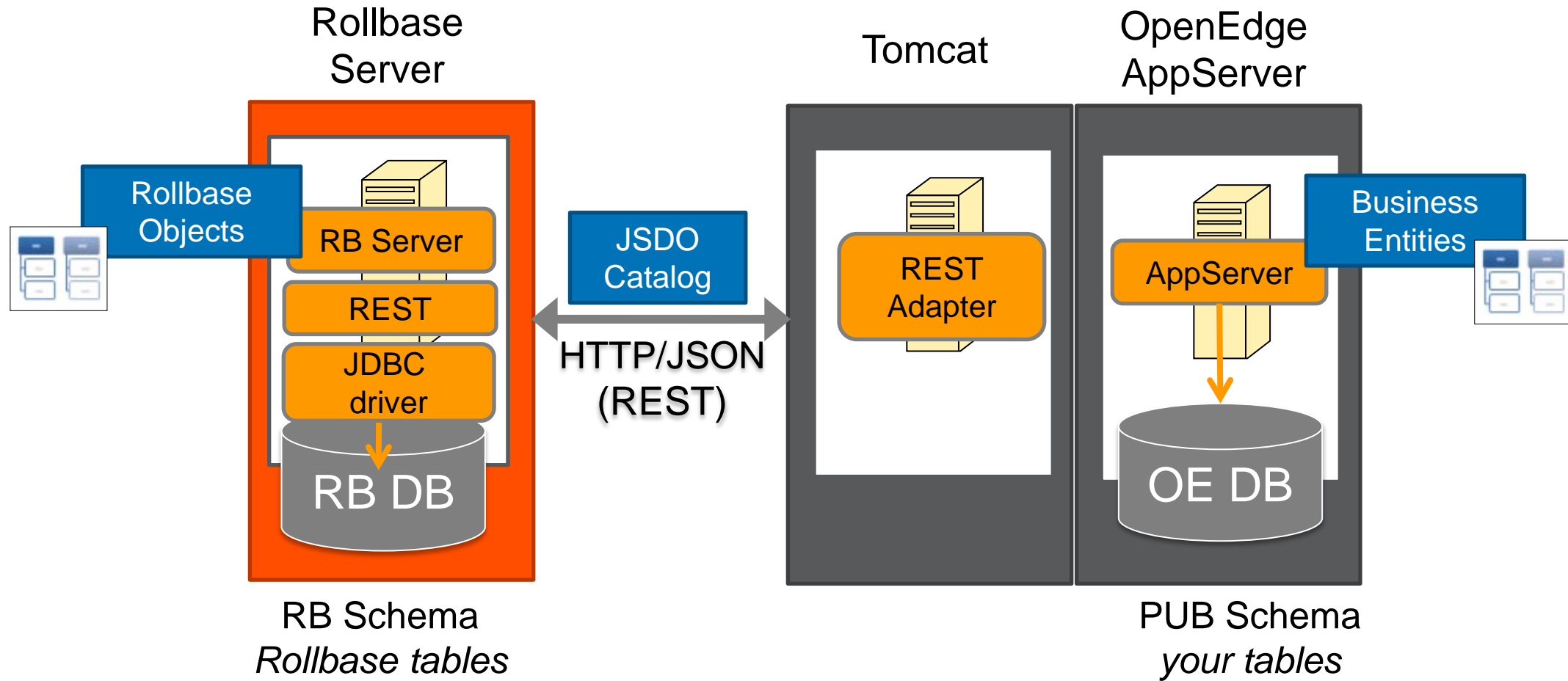
Adding Business Productivity to OpenEdge with Rollbase



Rollbase and OpenEdge Integration: 6 Options (OpenEdge 11.3.2+)

1. OpenEdge Service Objects
2. Progress DataDirect Cloud
3. External Tables
4. External tables with auxiliary databases
5. Web Services / SOAP
6. Java Open Client

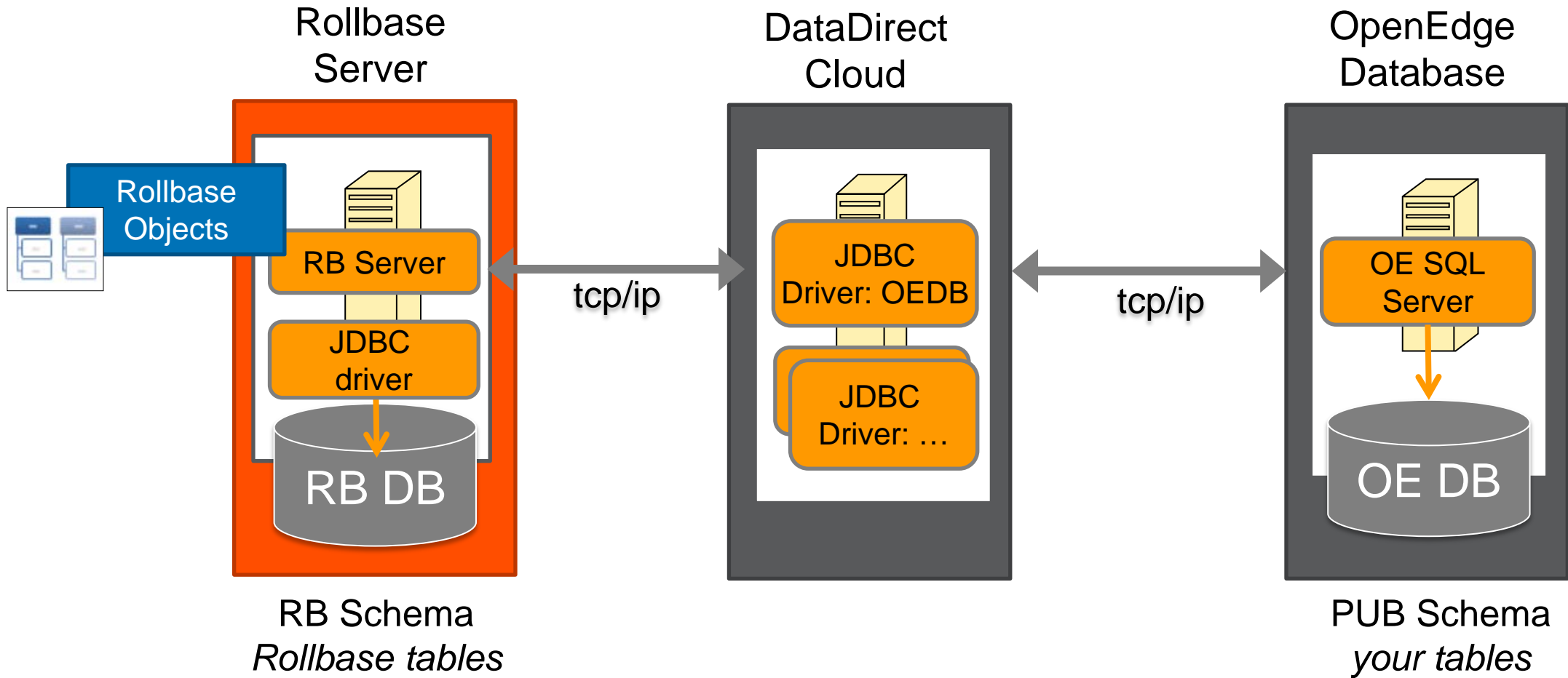
Option 1: OpenEdge Service Objects – The Preferred Approach



Option 1: OpenEdge Service Objects: The “Preferred” Approach

- **Rollbase Business Entities (i.e. Objects) based on OpenEdge “Business Entities”**
 - ✓ OERA-certified
 - ✓ Builds on JavaScript Data Object (JSDO) Catalog in OpenEdge Mobile
 - ✓ First priority for Rollbase work: “Parity with native objects”
- **Phased implementation – current functionality:**
 - Tenant-based identity
 - Single Table ProDataSet
 - Direct CRUD support - INVOKE done in ObjectScript

Option 2: DataDirect Cloud + OpenEdge RDBMS



Option 2: DataDirect Cloud + OpenEdge RDBMS

- **DataDirect Cloud Server runs in Amazon cloud**

- ✓ Served by OpenEdge RDBMS
- ✓ Your application's data are on *your* server
- ✓ Enables building new, hosted, customized Web Applications on Partner and DEU platforms
- ✓ 10.2B onward

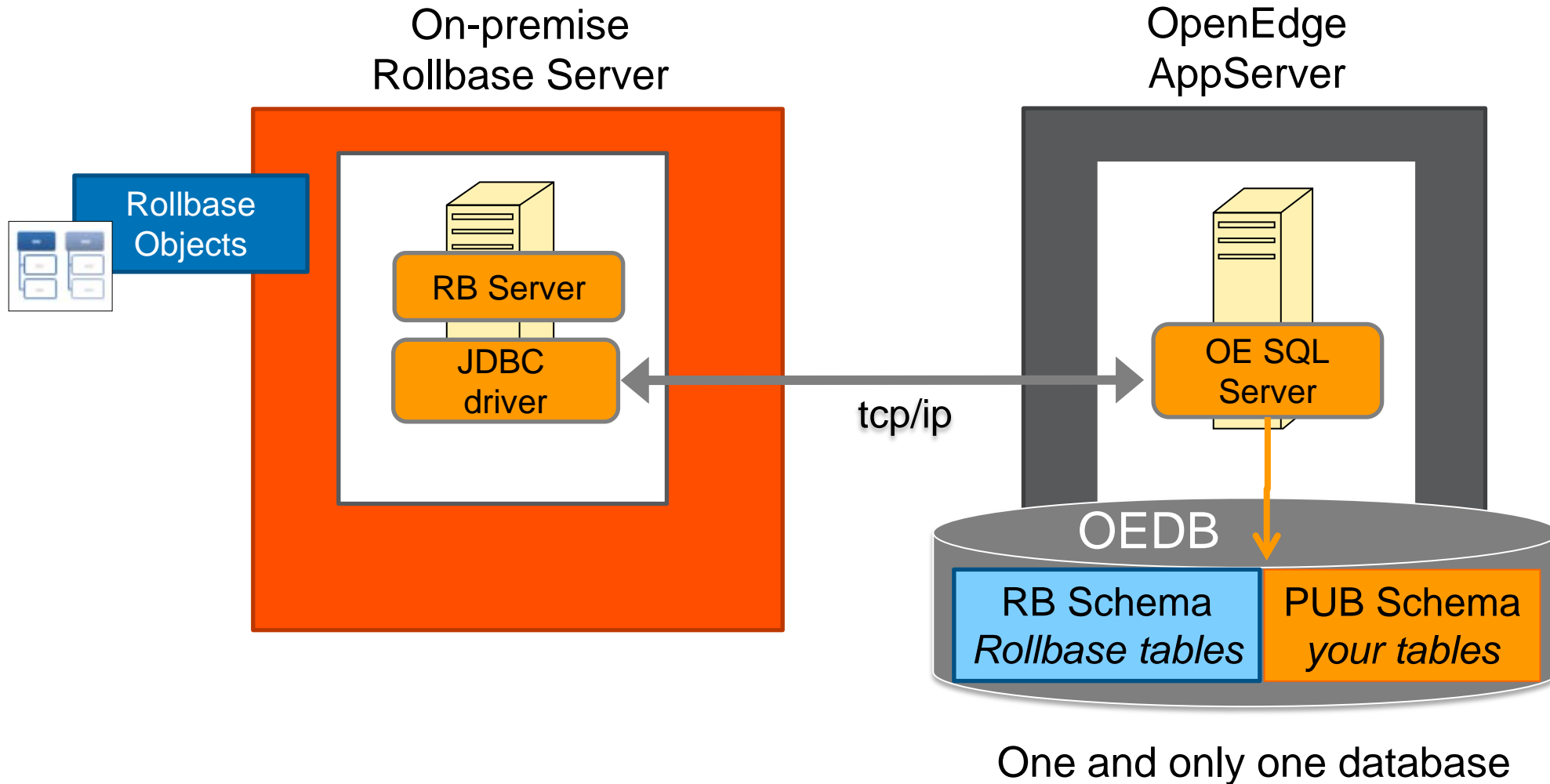
- **Rollbase runs either hosted or on-premise**

- Rollbase talks to D2C
- D2C talks to your server

- **Limitations:**

- Latency can be high
- Access to Database, not Business Logic
- Requires detailed knowledge of data

Option 3: External Tables in OpenEdge RDBMS



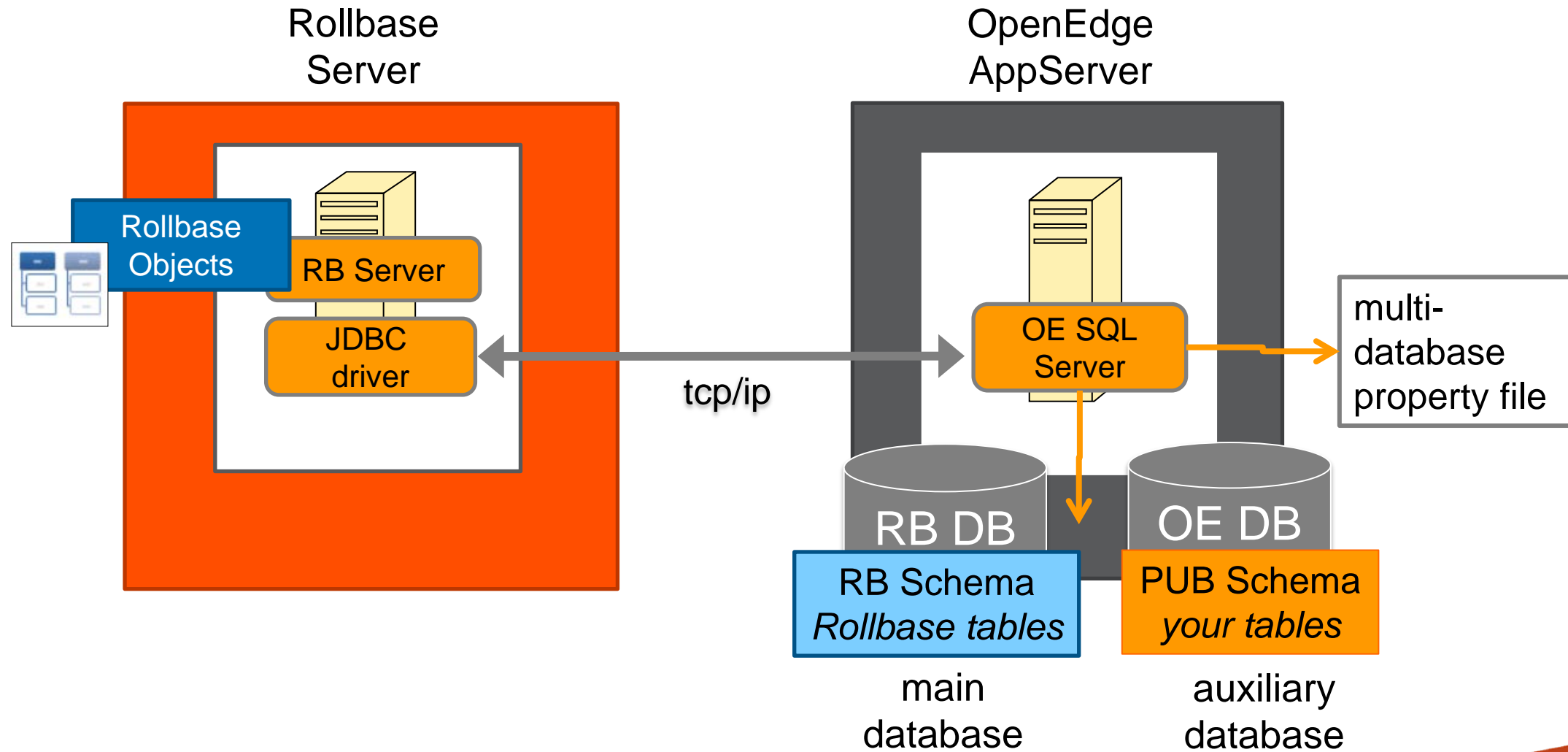
Option 3: "External" Tables – On Premise Only

- **Rollbase on-premise has a database**
 - Rollbase has about 25 tables
 - Tables used by Rollbase are in the RB schema
 - Do not touch these tables
- **The "external" tables **must** be in the SAME database**
 - In a different schema, e.g. PUB

Limitations:

- Cannot modify schema in Rollbase
- Requires detailed knowledge of data
- Must be in shared namespace and single database
- Must have a unique numeric column or text column

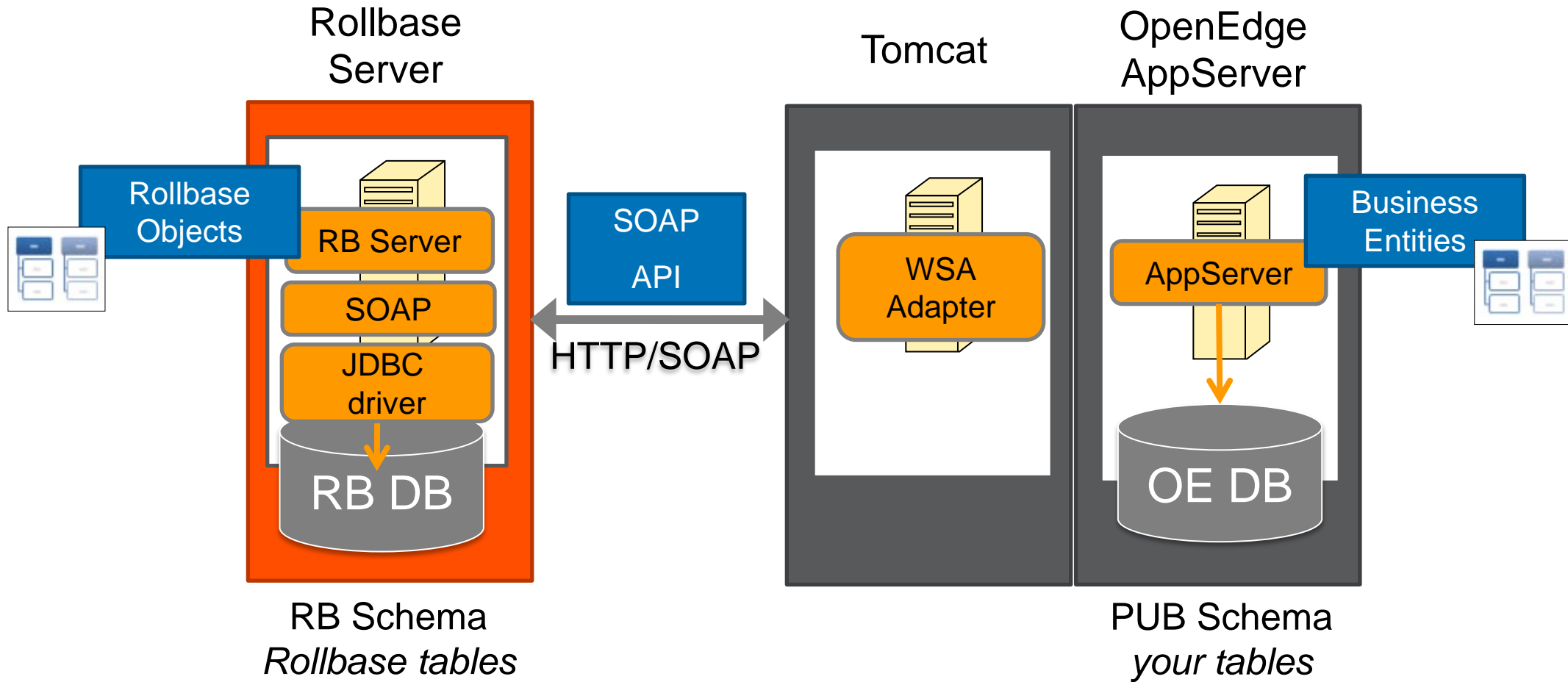
Option 4: External Tables in External OpenEdge RDBMS



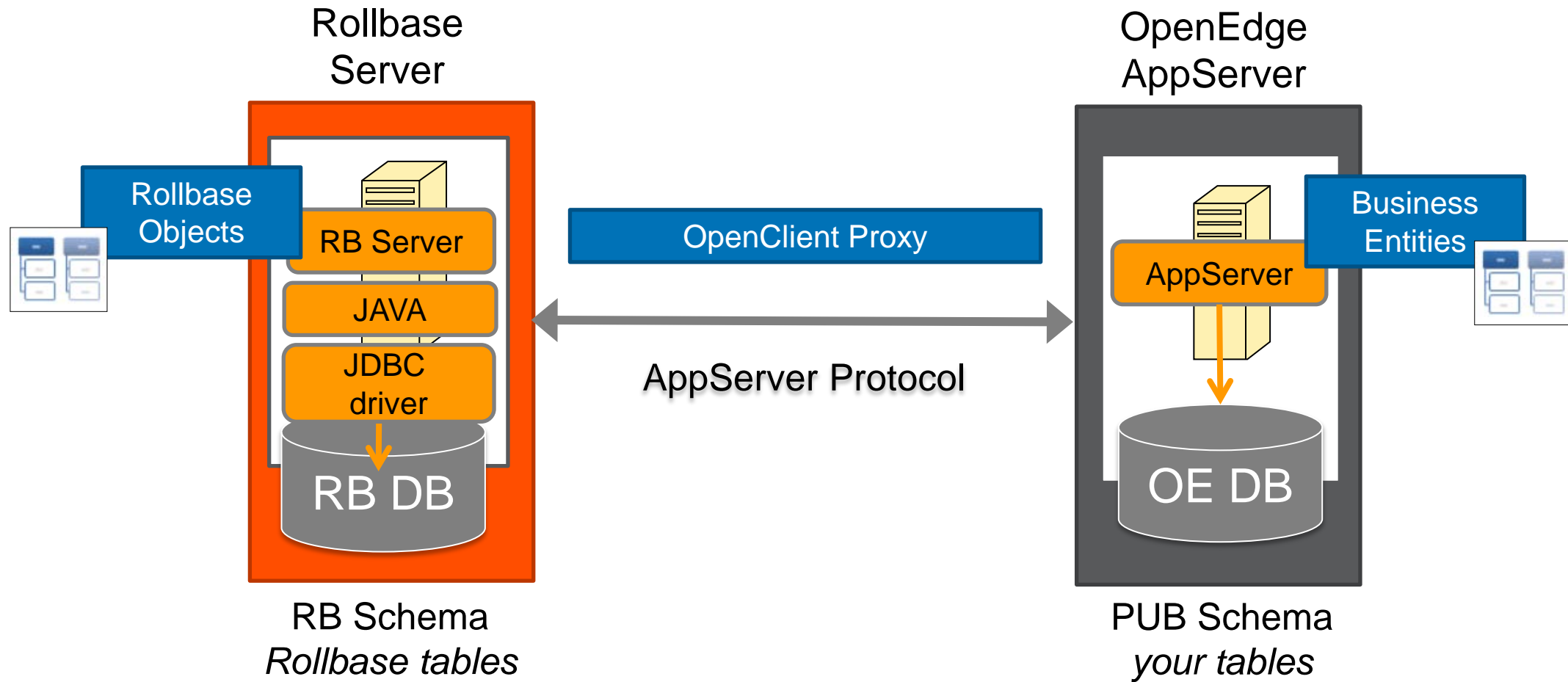
Option 4: External Tables with Auxiliary Databases

- **OpenEdge SQL Server process serves data from *multiple* databases**
- **Main database is read-write**
 - Contains Rollbase tables only
- **Auxiliary databases are *read-only* to Rollbase**
 - Auxiliary db contains your application's tables
 - Must be on same system as main database
 - Property file describes auxiliary database and names the tables therein
 - User id for main and auxiliary db must be the same
 - Rollbase thinks there is just *one* database

Option 5: Web Services / SOAP



Option 6: Java Open Client



OpenEdge Service Objects – The Preferred Approach

■ Requirements

- Application Server
- Progress Developer's Studio

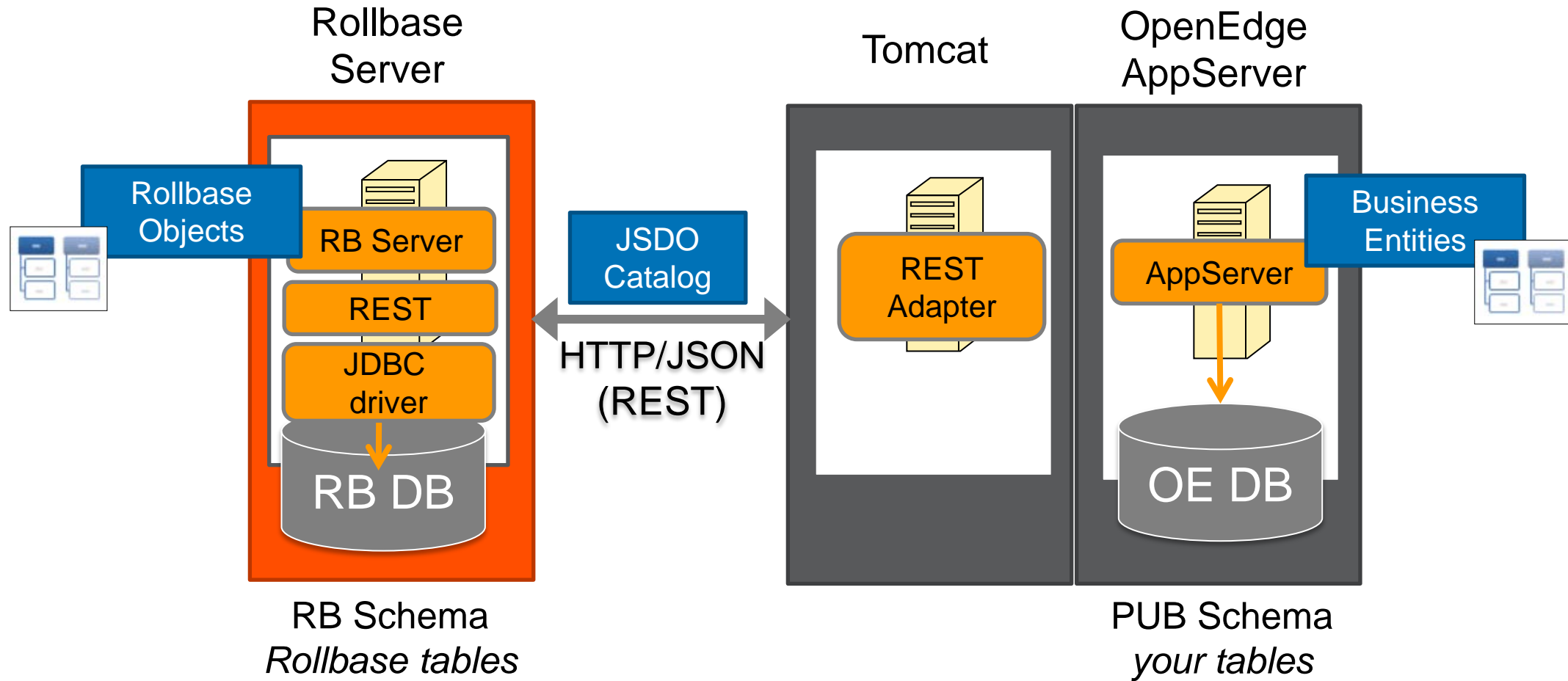
■ Steps

- Create a Mobile Application using the ExpressMobile process in PDSOE
- Create a new object in Rollbase using the JSON file from the ExpressMobile project

■ Result

- Access to your AppServer logic and data

DEMO: OpenEdge Service Objects – The Preferred Approach



But What If I Don't Use an AppServer?

Preferred Approach Is External Tables + OpenEdge RDBMS

■ Requirements

- OpenEdge RDBMS
- Private Rollbase

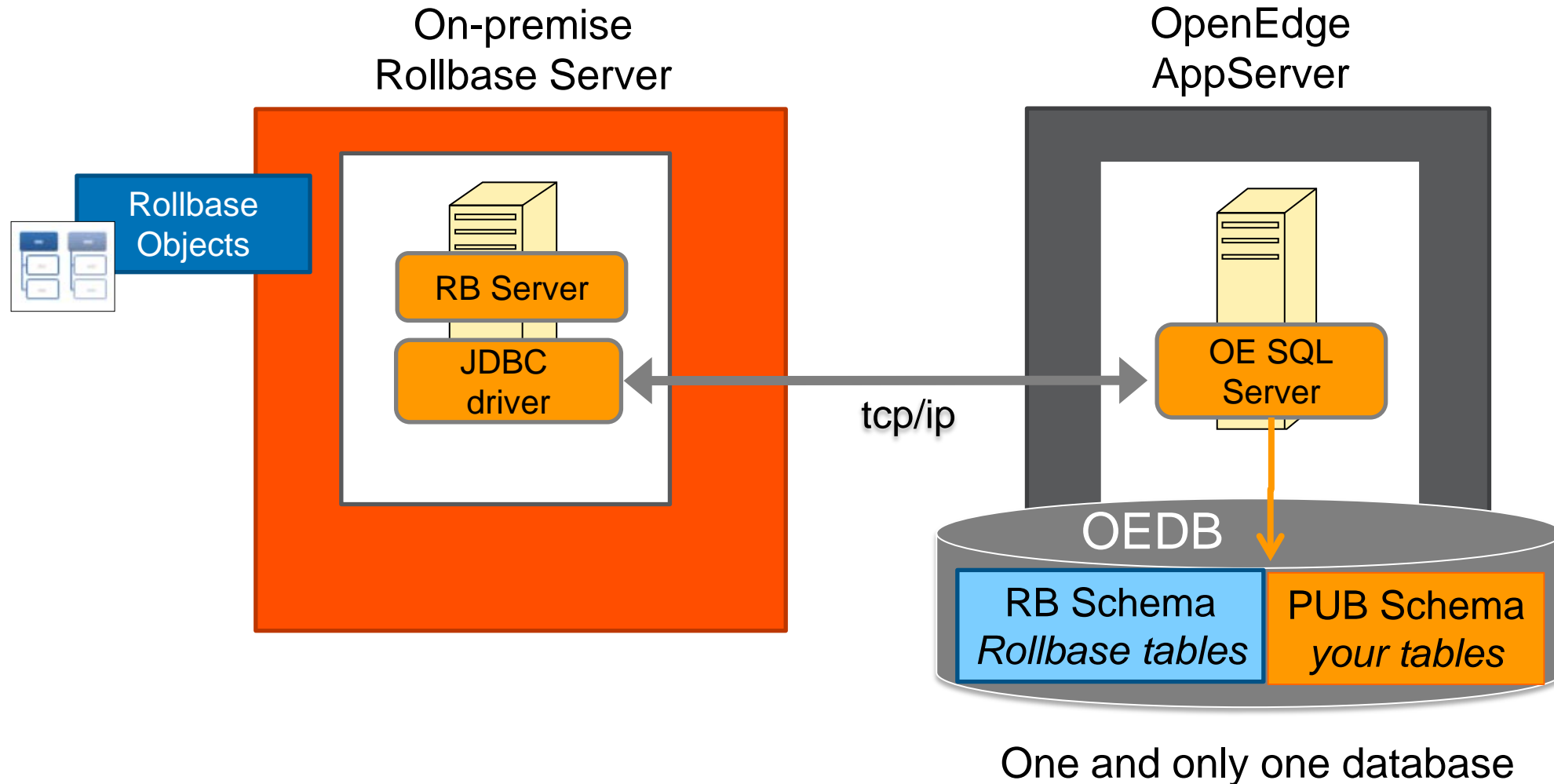
■ Steps

- Add the Rollbase schema to an existing OpenEdge RDBMS
- Modify Rollbase to use the existing OE DB with new schema
- Create a new object using External tables

■ Result

- Access to your data

DEMO: External Tables + OpenEdge RDBMS



Documentation References

Topic	Where
Rollbase	Rollbase in Action
OpenEdge Service Objects	Rollbase In Action, Appendix C, Using External Tables as Rollbase Objects
OpenEdge Service Objects	Rollbase In Action, Appendix E, Creating Rollbase Objects From OpenEdge Services
DataDirect Cloud	Rollbase In Action, Using Rollbase With DataDirect Cloud
JSDO	White Paper: Accessing the Progress OpenEdge AppServer from Progress Rollbase using JSDO Code
OpenClient	White Paper: Rollbase access to ABL Business Logic via OpenClient

In Summary...

■ **Rollbase is:**

- A drag & drop, point & click, object based, WYSIWYG, browser based development tool
- That also allows publishing of multi-tenant (through Portals) applications
- Updating of applications, monitoring and metering support
- Cloud hosted or On-Premise

■ **Rollbase can access your OpenEdge Application or Database**

- Preferred method is using the OpenEdge Services Object (11.3.2)
- Hosted Rollbase can access OpenEdge DB using DataDirect (10.2B+)
- Fully On-Premise can access the OpenEdge DB directly with External Tables
- And there are more ways...

■ **Help is available**

- See the document resources
- We will continue to improve and add functionality

Questions

Question 1: Is Pacific the Same as Arcade?

Yes or No

Question 1: Is Pacific the Same as Arcade?

No

Arcade is **a self-service** hosting environment for OpenEdge Business applications, however it does not provide any services or management features.

- No application architecture rules
- Good first-step the Cloud and SaaS

Rollbase is a cloud development and **fully managed** hosting environment for Rollbase Business applications. It includes platform services and management features

- Apps must be n-tier
- Full Cloud/SaaS environment

Question 2: Can I Use WebSpeed with Rollbase

Yes or No

Question 2: Can I Use WebSpeed with Rollbase

Yes but...

Progress is moving towards a universal architecture based on Tomcat

- If starting today, we suggest to use Rollbase (Web UI) and OpenEdge AppServer
- Announcing Pacific WebSpeed in 2015

WebSpeed is a server-side technology and will continue to be fully supported.

- Based on older-style JSP where Server does “all” the work”
- Can integrate WebSpeed pages using iFrame in Rollbase

Now Your Questions



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In Summary...

- You can support separate OpenEdge and Rollbase Applications
 - OpenEdge application is Client/Server
 - Can be used to provide existing app on web and mobile devices
- You can create new module in Rollbase for existing OpenEdge Application
 - OpenEdge application in n-tier
 - Can be launched from existing OpenEdge app

If On-Premise , use...

OpenEdge Service Objects

- On-Premise/Private Cloud
- HTTPS (moving to native)
- Basic-Auth/HTTPS
- OpenEdge 11.3.2+

If Rollbase is hosted, use...

DataDirect Cloud

- OE On-premise
- Database Security/SSL
- OpenEdge 10.2B+

Limited use for External tables

- mostly read-only
- don't rely on OE triggers
- one database/PUB schema
- latest OE is best