RServer:
Operationalizing R at Electronic Arts

Ben G. Weber

Senior Data Scientist, Electronic Arts

June 28, 2016

RServer

A framework for operationalizing data science and analytics tasks at EA

The core of R Server is a Java application that runs on our cloud infrastructure

R Server provides an environment for deploying models and analysis

Automated Tasks:

- Executing R Scripts
- Running ETL jobs written in R
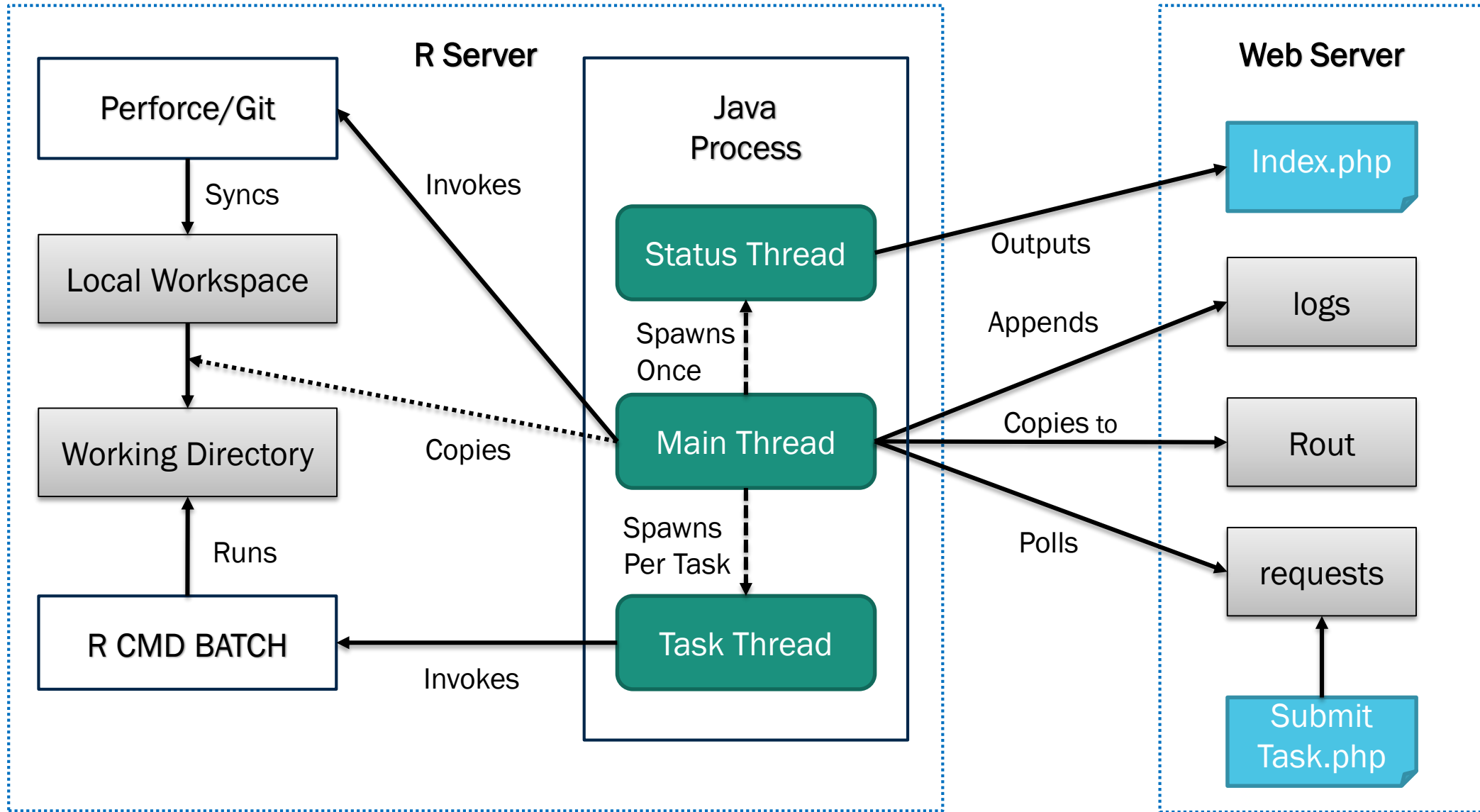- Generating R markdown reports
- Hosting Shiny Apps

RServer Workflow

1. R scripts are developed locally using R Studio

2. Jobs are deployed to the server by checking-in the script to Perforce/Git

3. Jobs can be executed using the web interface or updating a schedule file

4. Results are logged on the server and emailed to the job owner

Deployment
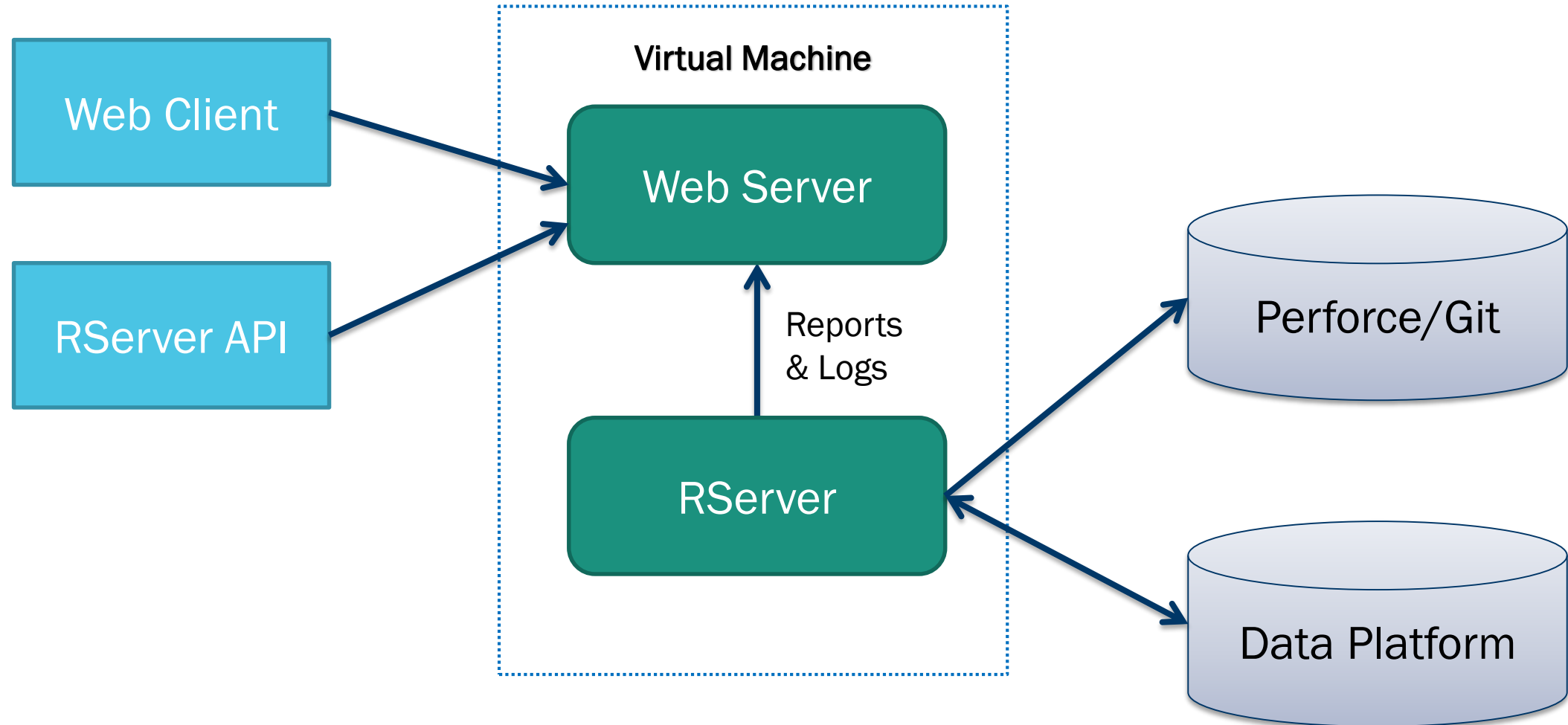
Architecture

Hello World for RServer

1. Create a new R file: HelloWorld.r

print(`"Hello World!"`)

2. Check the file into Perforce/Git:

//datascience/demo

3. Click **"Submit New Task"**
using the web interface

Run an ad-hoc R Script

Task Name

ExampleTask

Perforce Directory

//datascience/demo

R Script Name

HelloWorld.r

Email Address

beweber@ea.com
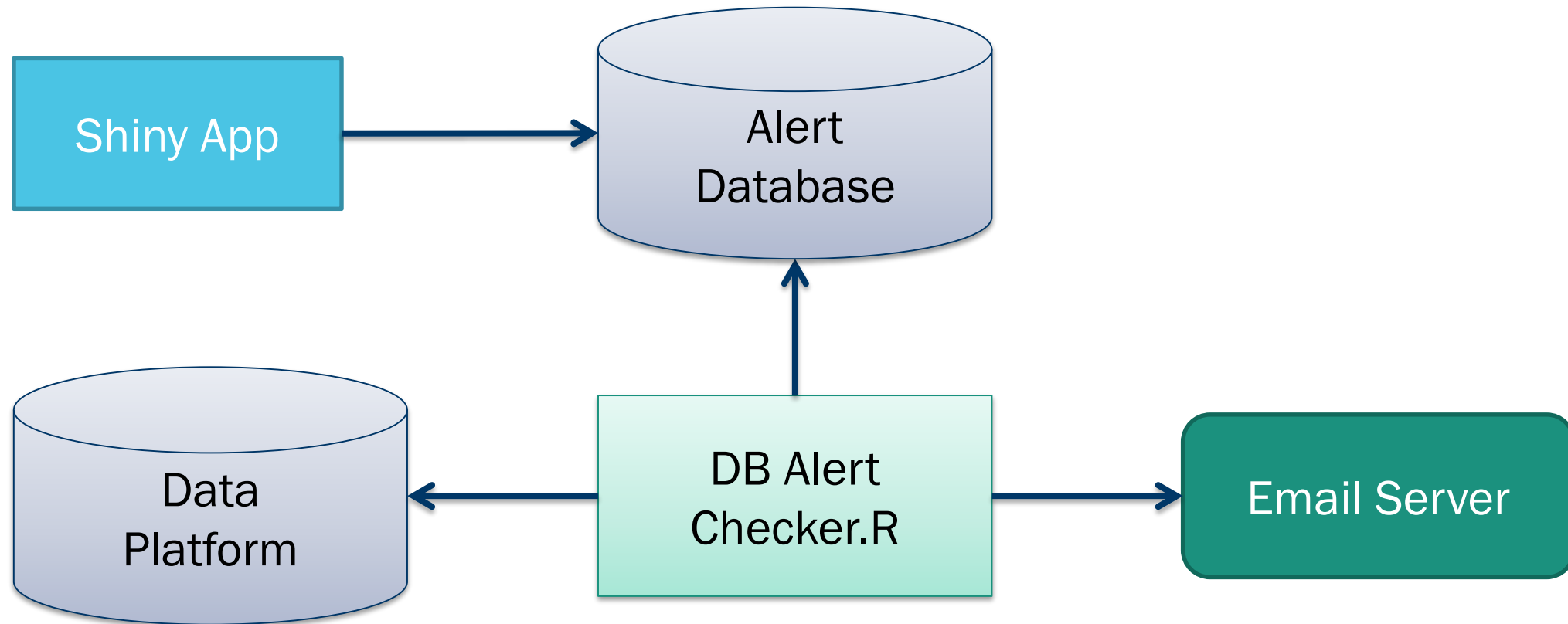
Send Email on Success?

true

Runtime parameters

Is Shiny App?

false

Submit

Use Case: Building Daily Reports
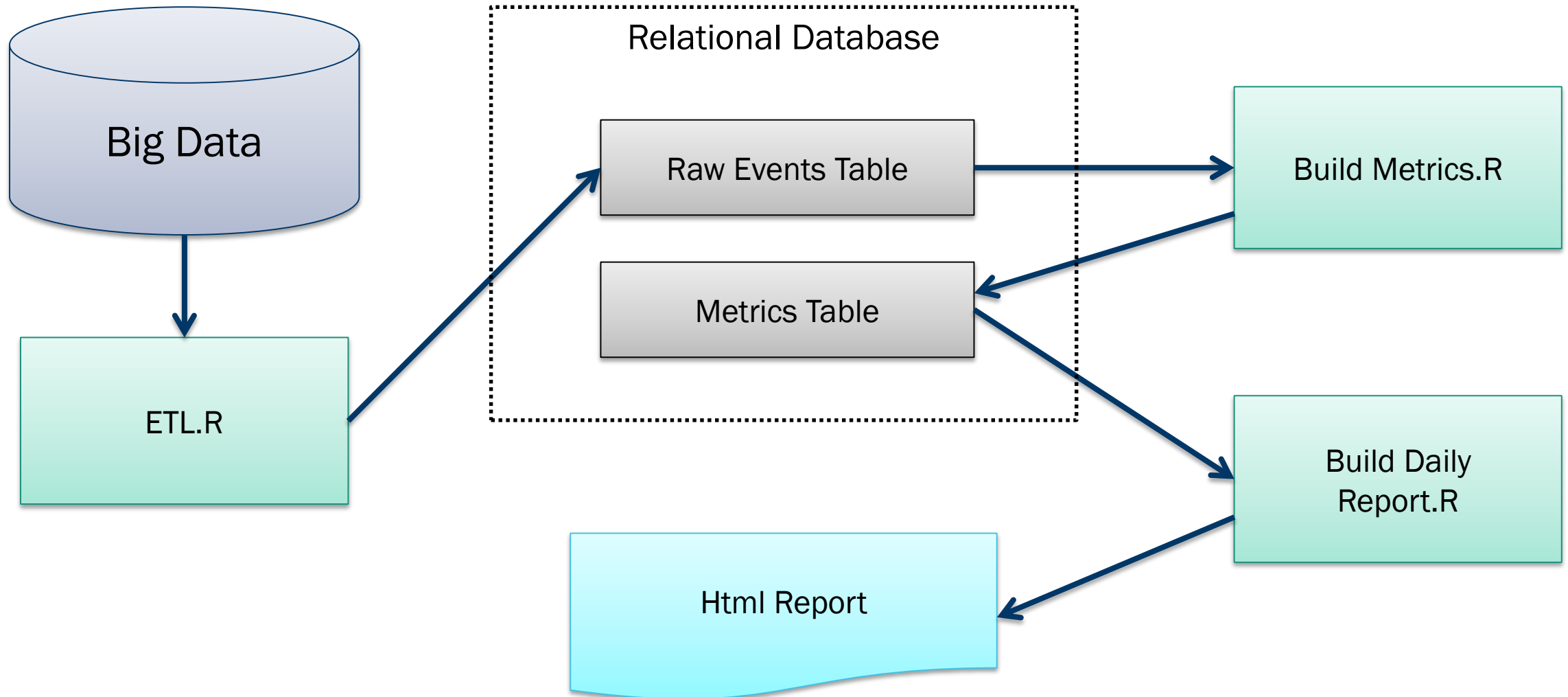
Use Case: Database Alerting Tool

Internal EA Packages

DBUtils

Database utilities package for data sources at EA

DPAPI

Password management package (uses Microsoft's Data Protection API)

EAUtils

Parent R package

RServer utility functions

Using RServer

RServer is Open Source

https://github.com/bgweber/RServer

RServer is Multiplatform

- Windows 7+
- Linux (CentOS, AMI, Ubuntu)

Demo on AWS:

http://tinyurl.com/RServerAWS

Documentation for installation is available on Github