Enhancing Application Communication with gRPC

INTRODUCTION

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Introduction

Options for Interservice Communication

Background and Motivation for gRPC

Hello World Demo

Course Demo

Course Outline

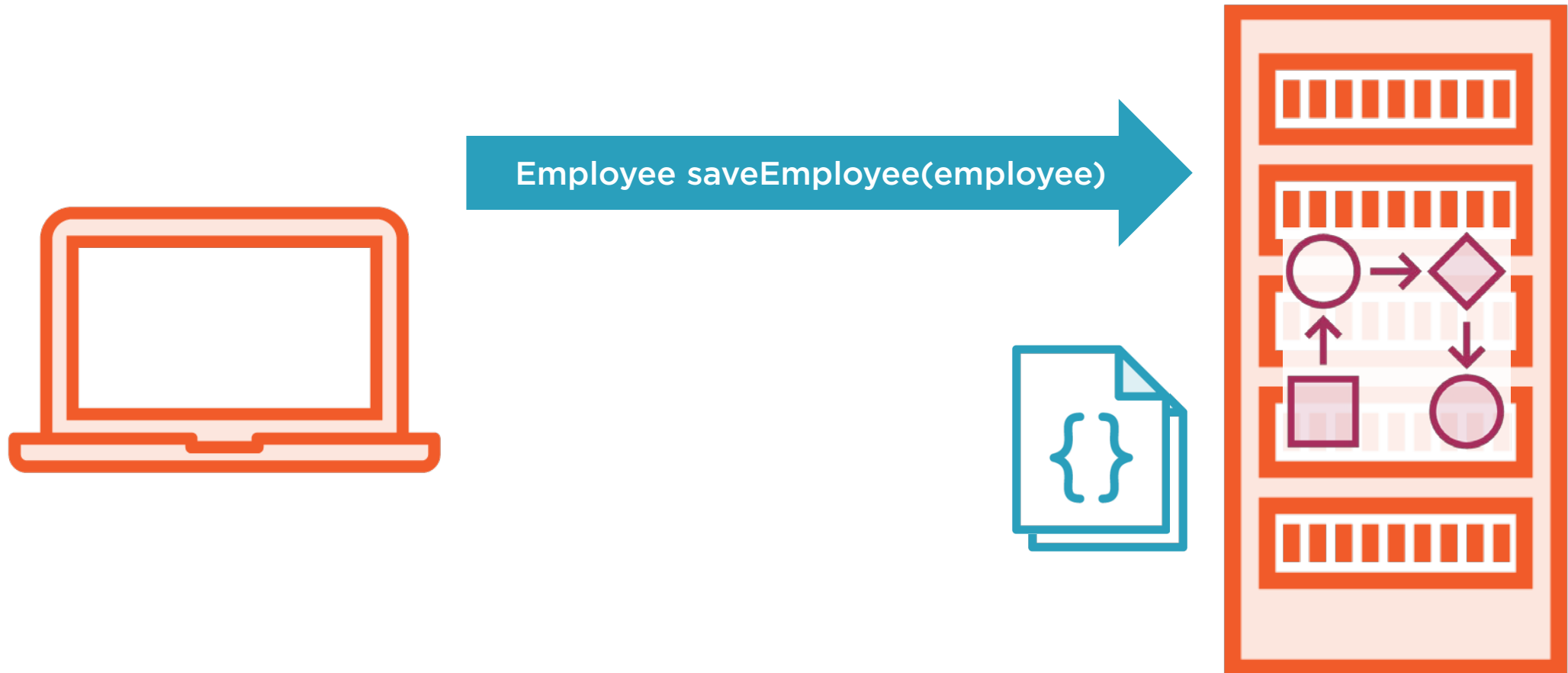# Options for Interservice Communication

REST

REpresentational State Transfer

RPC

Remote Procedure Call

RESTful Communication

GET /employees/42

RPC Communication

Employee saveEmployee(employee)

Options for Interservice Communication

REST	RPC
Resource Focus	Action Focus
Embrace HTTP Semantics	Embrace Programming Semantics
Loose Coupling	Tighter Coupling
Messaging Often Text Based	Messaging Often Binary Based

Background

Stubby

Google

Microservice Based

Cross-Platform

Scalable

Tied to Infrastructure

Background

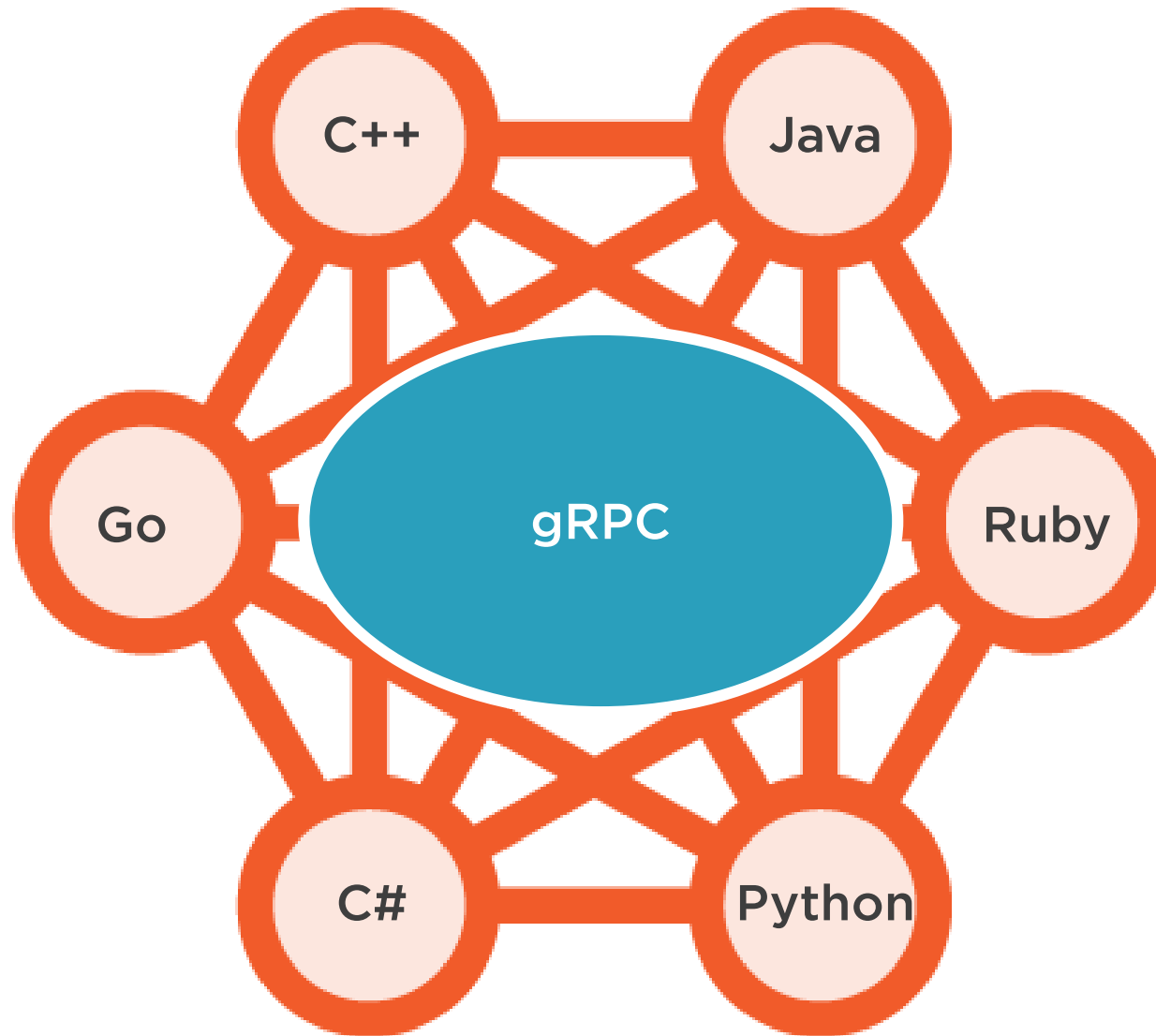## gRPC

Cross-platform

Scalable

Streaming

Free and Open

Strongly Typed Messaging

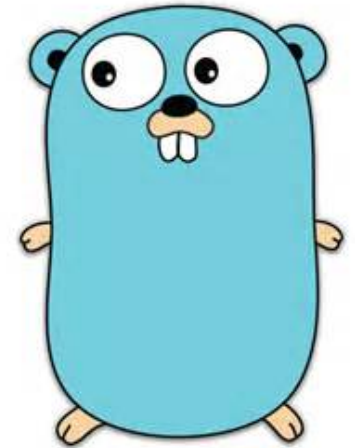Fast and Efficient

Pluggable

Layered

What Is gRPC?

Framework

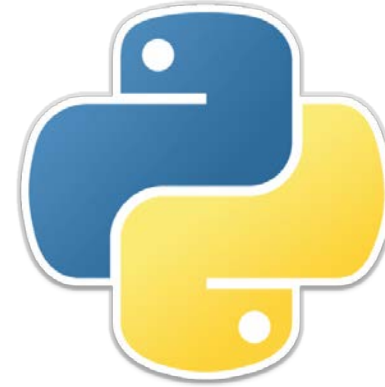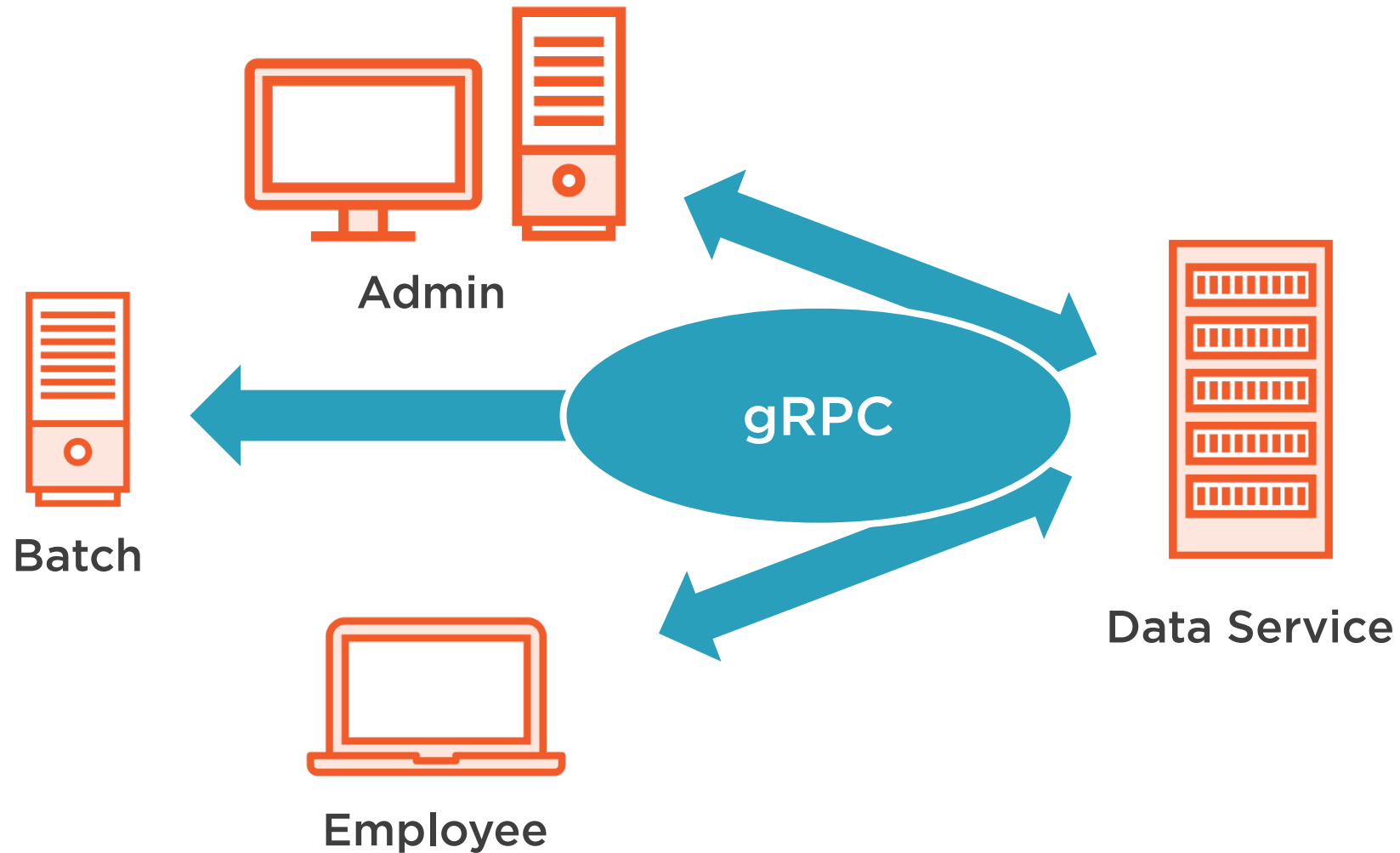API

Generated Code

Languages

Vacation Tracking System Architecture

Development Environment

Visual Studio 2015 Community Edition

ASP.NET Core /C#

Visual Studio Code

Go

JavaScript

NetBeans 8.2

Java

Summary

Introduction

gRPC Concepts

Preparing for gRPC

Creating Servers and Clients with gRPC
- Go
- C#
- Node.js
- Java