

**dotNEXT St.Petersburg**

---

**Dino Esposito**  
*Jet*BRAINS

**Courage of Things**  
**Knowing Things vs. Just Being a Geek**



**Listen dear, in your life always  
manage to learn a trade and all of its  
tricks.**

**—My GrandMa**  
Farmer

# Internet of Things

The **Internet of Things** (IoT) is a scenario in which objects, animals or people are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

# Internet of Geeks

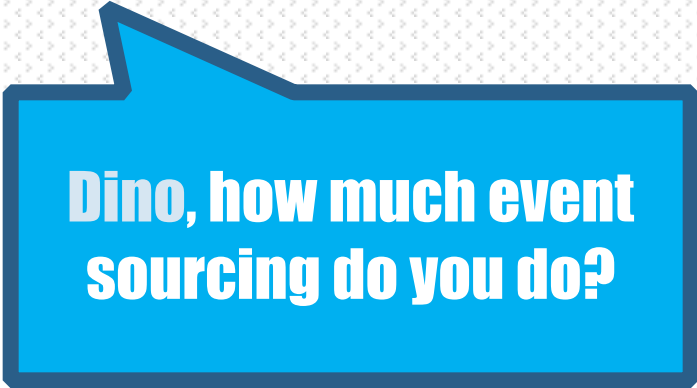
The **Internet of Geeks** (IoG) is a scenario in which **developers**, **fan-boys**, **experts** are provided with **early content** and the **ability to access builds** over a network without requiring human-to-human or human-to-computer interaction.

# Courage of Things


The **Courage of Things** (CoT) is a scenario in which developers learn to do things and don't commit to solve problems experts told they have or are going to have.

# EVENT SOURCING

The ideas of event sourcing are not new, systems were typically built this way in mainframes far before SQL databases came along. BTW, databases work with event sourcing internally. **They just call it differently or just don't name it.**



**Dino, how much event sourcing do you do?**



**Gosh! I've been doing event sourcing and I didn't know!**

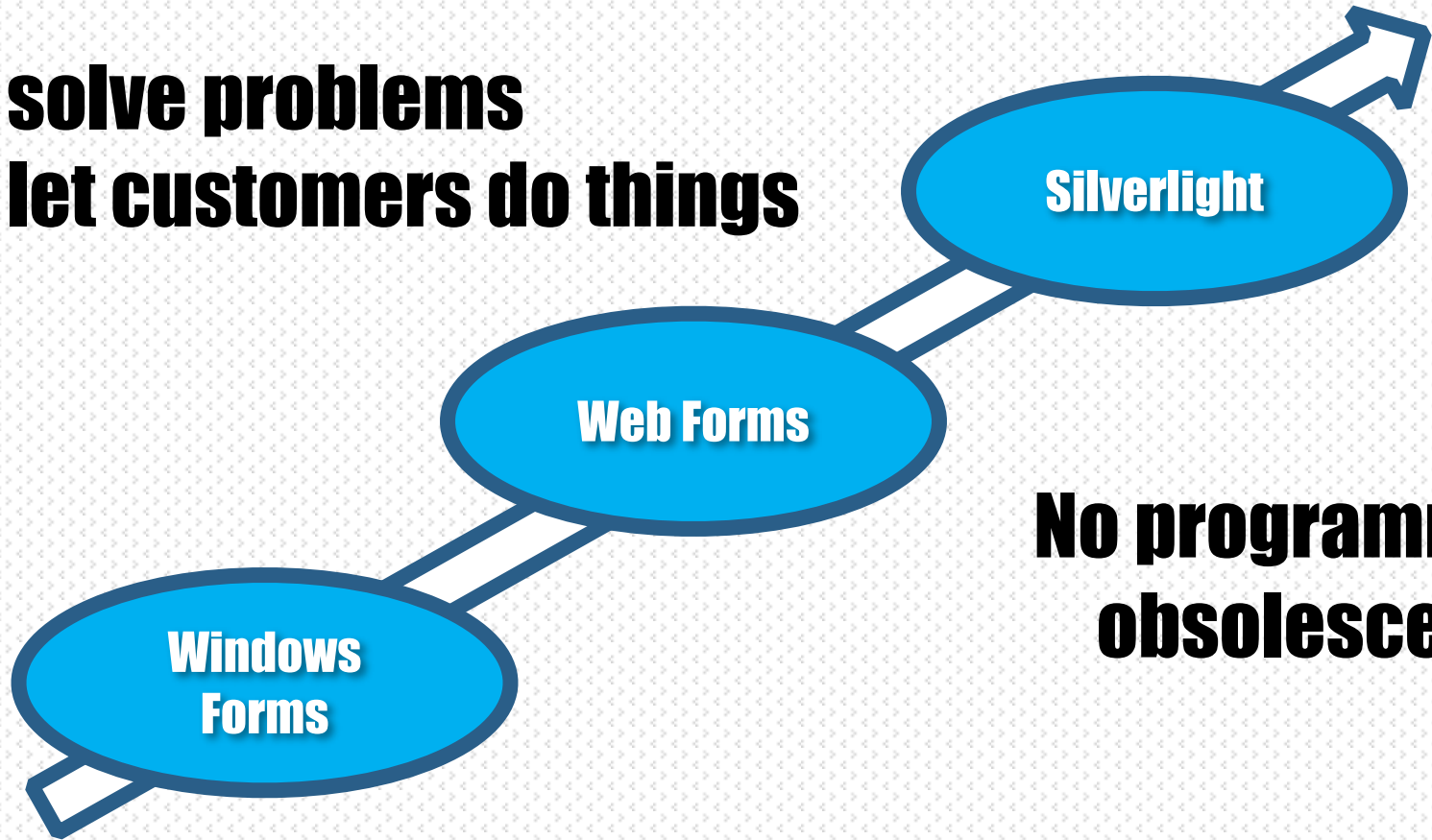


- 1. Open-source**
- 2. Fully testable**
- 3. Cross-platform**
- 4. Scalable and for the cloud**
- 5. Fast and small**

# Common**Sense** 2.0

**Also available for Mac/Linux**

**Still solve problems**  
**Still let customers do things**



**Windows  
Forms**

**Web Forms**

**Silverlight**

**No programmed  
obsolescence**





- 1. Open-source**
- 2. Fully testable**
- 3. Cross-platform**
- 4. Scalable and for the cloud**
- 5. Fast and small**

# Obsole**Science** 2.0

Also available for Mac/Linux

Wait to have a problem before you look for a solution

**Traveling show.** Popular especially in the 1800s, offered varied entertainment between the acts of which medicines and nostrums were peddled.

**For example:** elixir of life, natural remedies, fantastical oddities, exceptional contraptions, ...

# Courage of Things

**Not because something is touted as the next big thing it means that it will work for you.**

Java  
Script

Angular

Micro  
Services

Functional  
Languages

NoSQL

# Courage of Things

Not because something is touted as the next big thing it means that it will work for you.  
**With some exceptions.**

DDD

CQRS

UX

Messages

Cloud  
Design

**Design driven by the domain**

**Design driven by the UX**

**Behavior-driven implementation**

**Message-driven business logic**



## **At Work Defining the Ubiquitous Language**

**Delete the booking**



**Cancel the booking**

**Submit the order**



**Checkout**

**Update the job order**



**Extend the job order**

**Create the invoice**



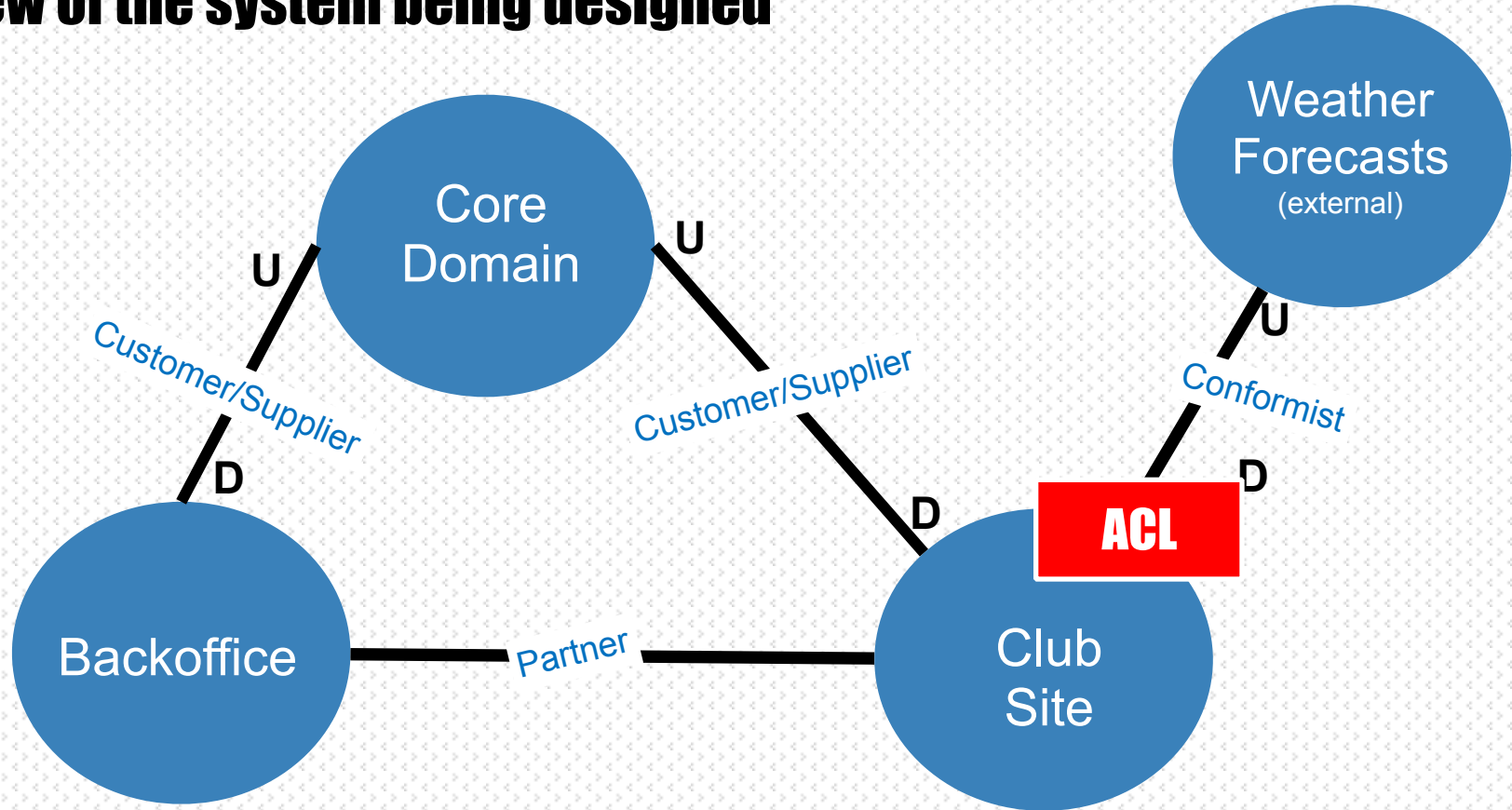
**Accept the invoice**

**Set state of the game**



**Start/Pause the game**

**Context map** is the diagram that provides a comprehensive view of the system being designed



# UX-DRIVEN DESIGN UX IS NOT LIKE UI

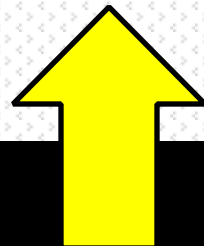
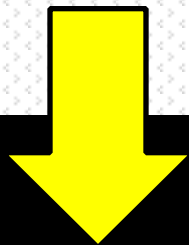
**NICE**  
**User Interface**



**My Mom's**  
**User Experience**

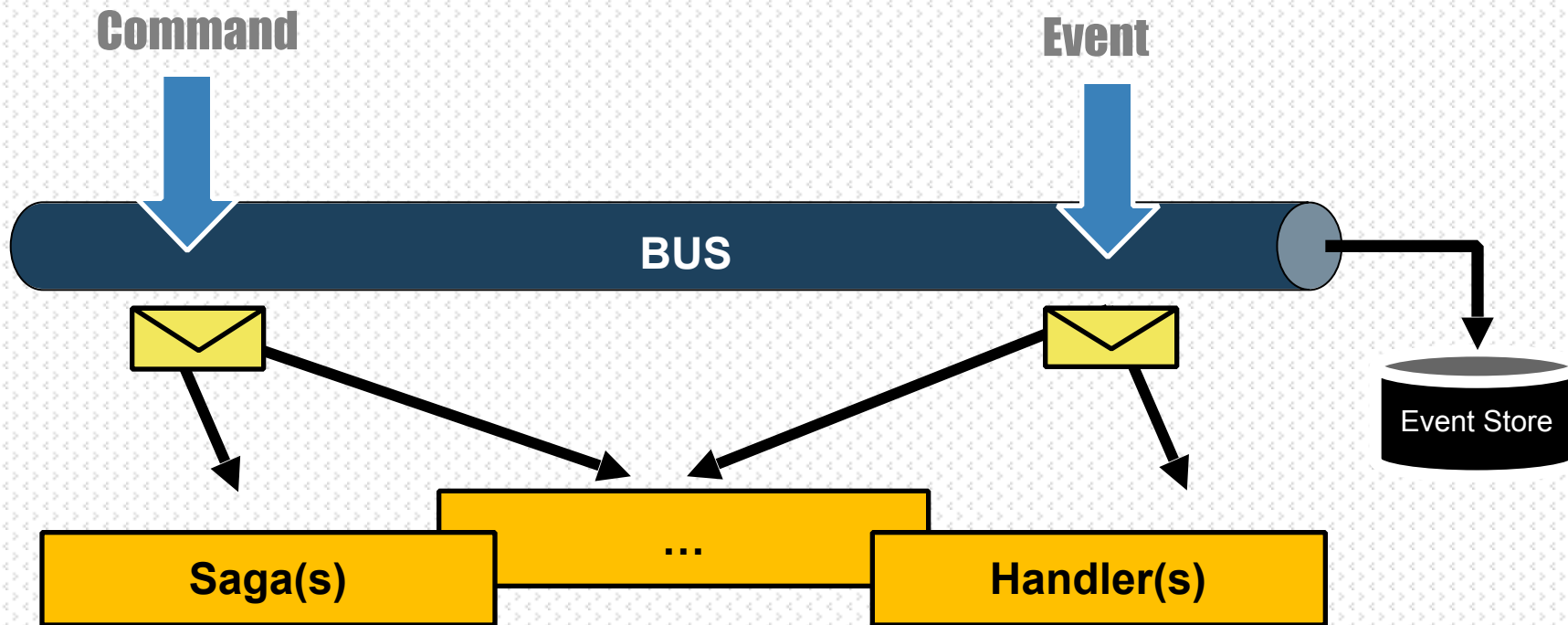






**BLACK BOX**

# MESSAGE-BASED BUSINESS LOGIC



**C Q R S**

**Responsibility**

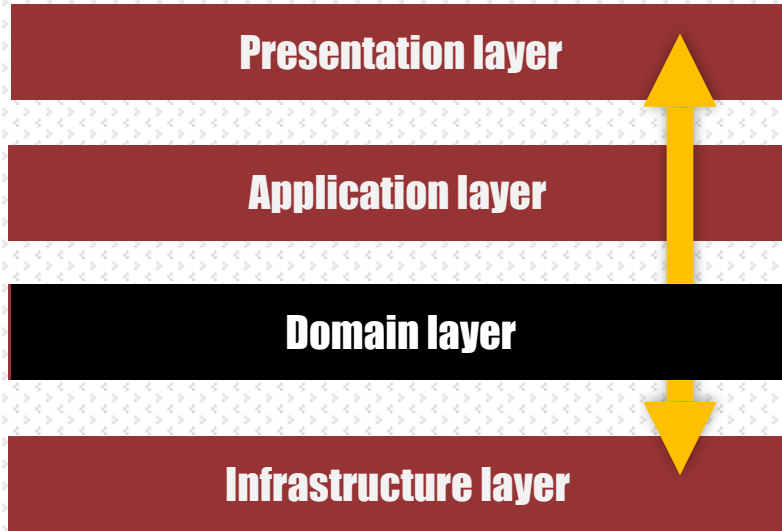
**Command**

**Query**

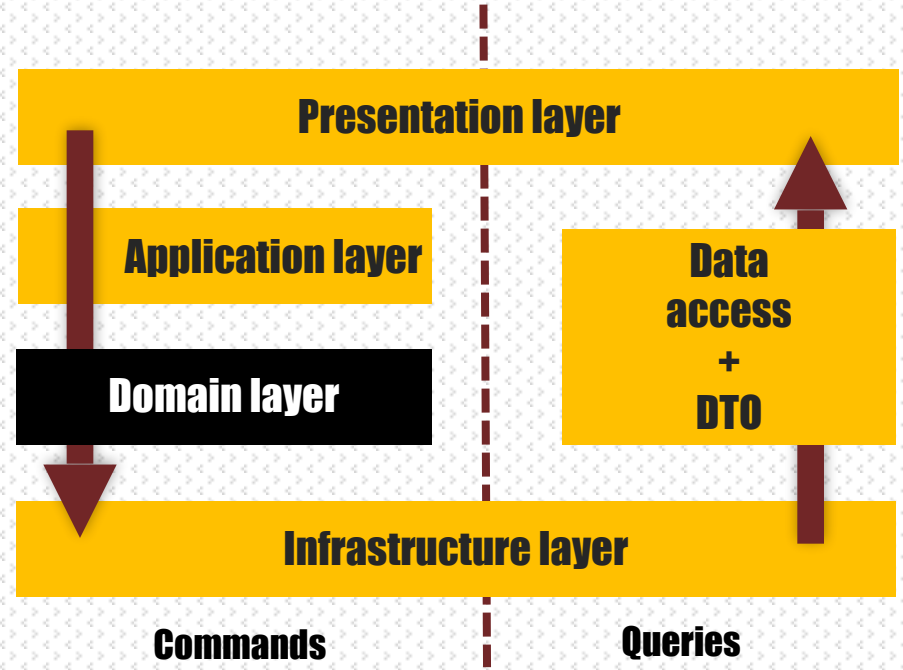
Bertrand Meyer called it  
**Command/Query Separation** back in the 1980s

**Separation**

# Canonical Layered Architecture



# CQRS





**PHP CEO**

@PHP\_CEO



 Follow

**WE SPENT 18 MONTHS MIGRATING  
FROM A MONOLITH TO  
MICROSERVICES**

**RESULT:**

**- GITHUB GETS PAID FOR MORE  
PRIVATE REPOS**

**- FIND/REPLACE IS HARDER**



RETWEETS

**854**

FAVORITES

**662**



5:16 AM - 30 May 2015

**OK. Let's talk ASP.NET5 now.**

## **system.web** is the root of all evil

Run cross-platform on Windows, Mac and Linux

Built on .NET Core, which supports true side-by-side app versioning

New tooling that simplifies modern Web development

Single aligned web stack for Web UI and Web APIs

Integrated support for creating and using NuGet packages

Built-in support for dependency injection

Ability to host on IIS or self-host in your own process




## Core web framework

- Much leaner and more modular
- Features implemented as NuGet modules



- Getting Started

- Installing ASP.NET 5 On Windows
- Installing ASP.NET 5 On Mac OS X
- Installing ASP.NET 5 On Linux
- Choosing the Right .NET For You on the Server














- Tutorials

- Your First ASP.NET 5 Application Using Visual Studio
- Your First ASP.NET 5 Application on a Mac
-  Create a New NuGet Package with DNX
- Publish to an Azure Web App using Visual Studio
-  ASP.NET 5 on Nano Server
-  ASP.NET 5 on Azure Service Fabric

- Conceptual Overview

- Introduction to ASP.NET 5
- Introducing .NET Core
- **DNX Overview**
-  Introduction to NuGet
-  Basics of Web Development
- Understanding ASP.NET 5 Web Apps

## Fundamentals

-  Application Startup
-  HTTP Abstractions
-  Middleware
-  Working with Static Files
-  File System
-  Routing
-  Configuration
-  Dependency Injection
-  Options Model
- Diagnostics
- Application Insights
-  Logging
-  Managing Application State
- Working with Multiple Environments
-  WebSockets
-  Caching

**and continues ...**



means no docs here yet

**system.web**

**ASP.NET as today**

**DNX**

**ASP.NET5  
on full .NET FX**

**ASP.NET5  
on .NET Core**

**ASP.NET5  
on .NET X-Platform**

**ASP.NET landscape**

**CSAAS**

**Common Sense As A Service**

# That's All Folks!



FOLLOW

@despos



facebook.com/**naa4e**



**dino.esposito**@jetbrains.com



**software2cents**.wordpress.com

