

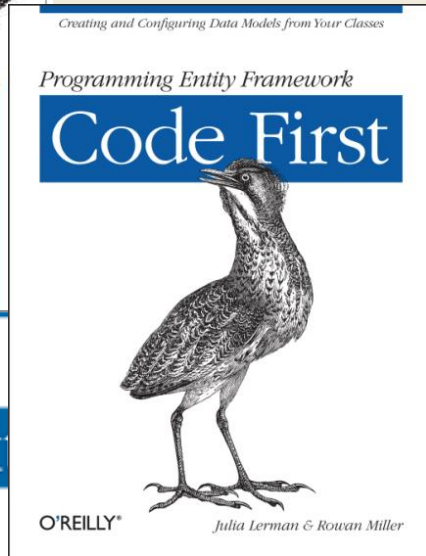
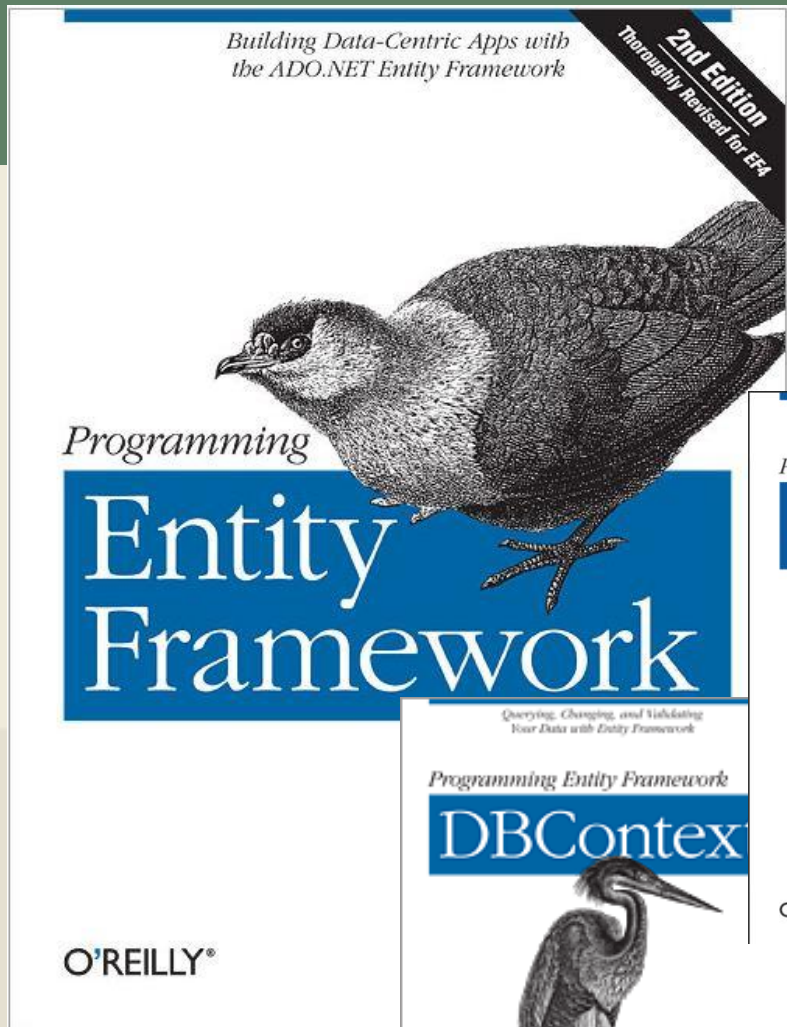
TECHODRAMA

— MAY 12-13 2015 —

Entity Framework 7

Who Are You & What Have You Done to my ORM?

Julie Lerman @julielerman thedatafarm.com



My Courses on pluralsight

- Domain-Driven Design Fundamentals
- Looking Ahead to Entity Framework 7
- EF6 Ninja Edition: What's New in EF6
- Automated Testing for Fraidy Cats Like Me
- Getting Started with Entity Framework 5
- Entity Framework in the Enterprise
- Entity Framework Code First Migrations
- Data Layer Validation with Entity Framework 4.1+
- Entity Framework 4.1 - DbContext Data Access
- Entity Framework 4.1 - Code First
- Querying the Entity Framework
- Designer Supported EDM Customization
- Entity Framework and Data Models
- Entity Framework 4.0 By Example



so much technical debt!



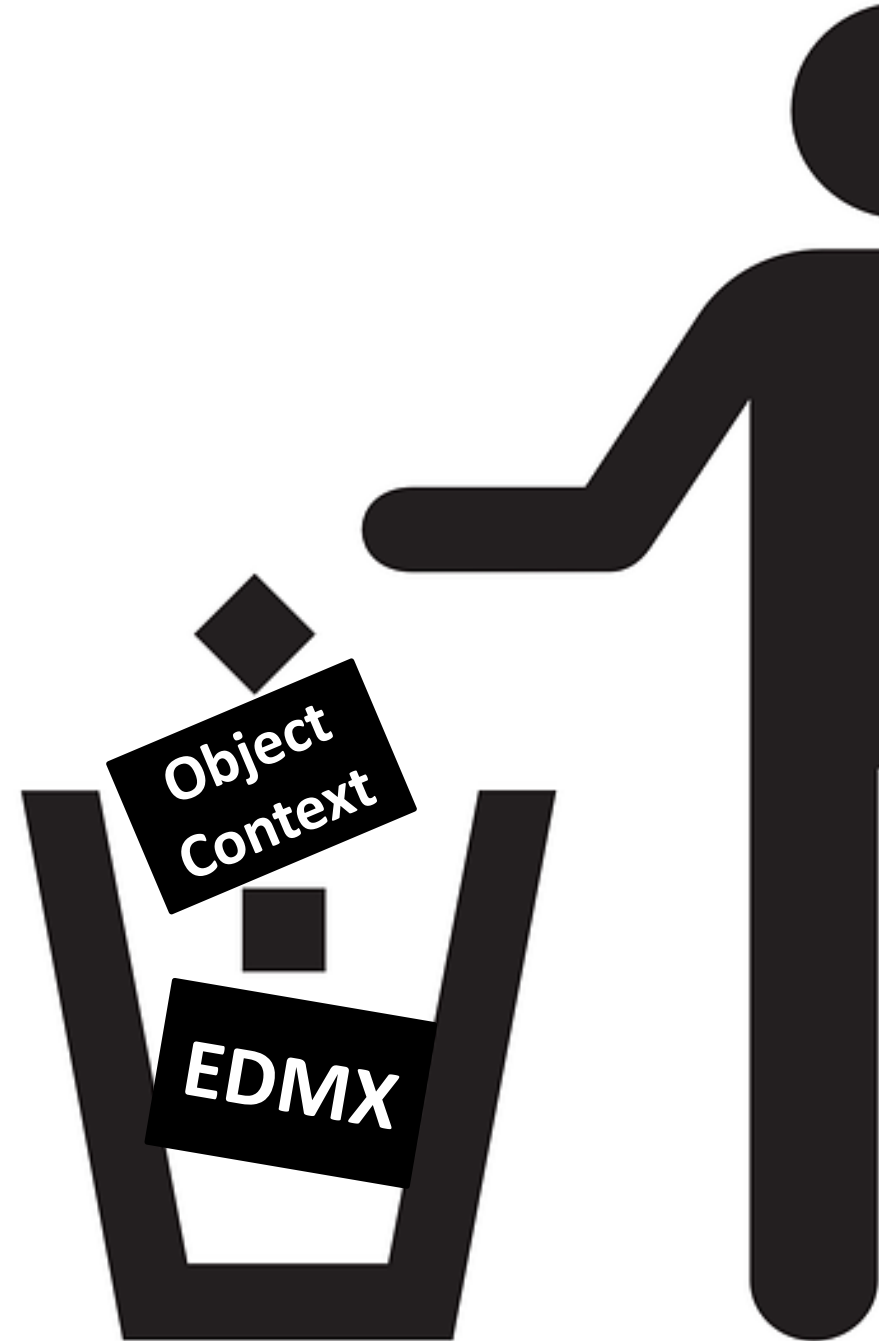
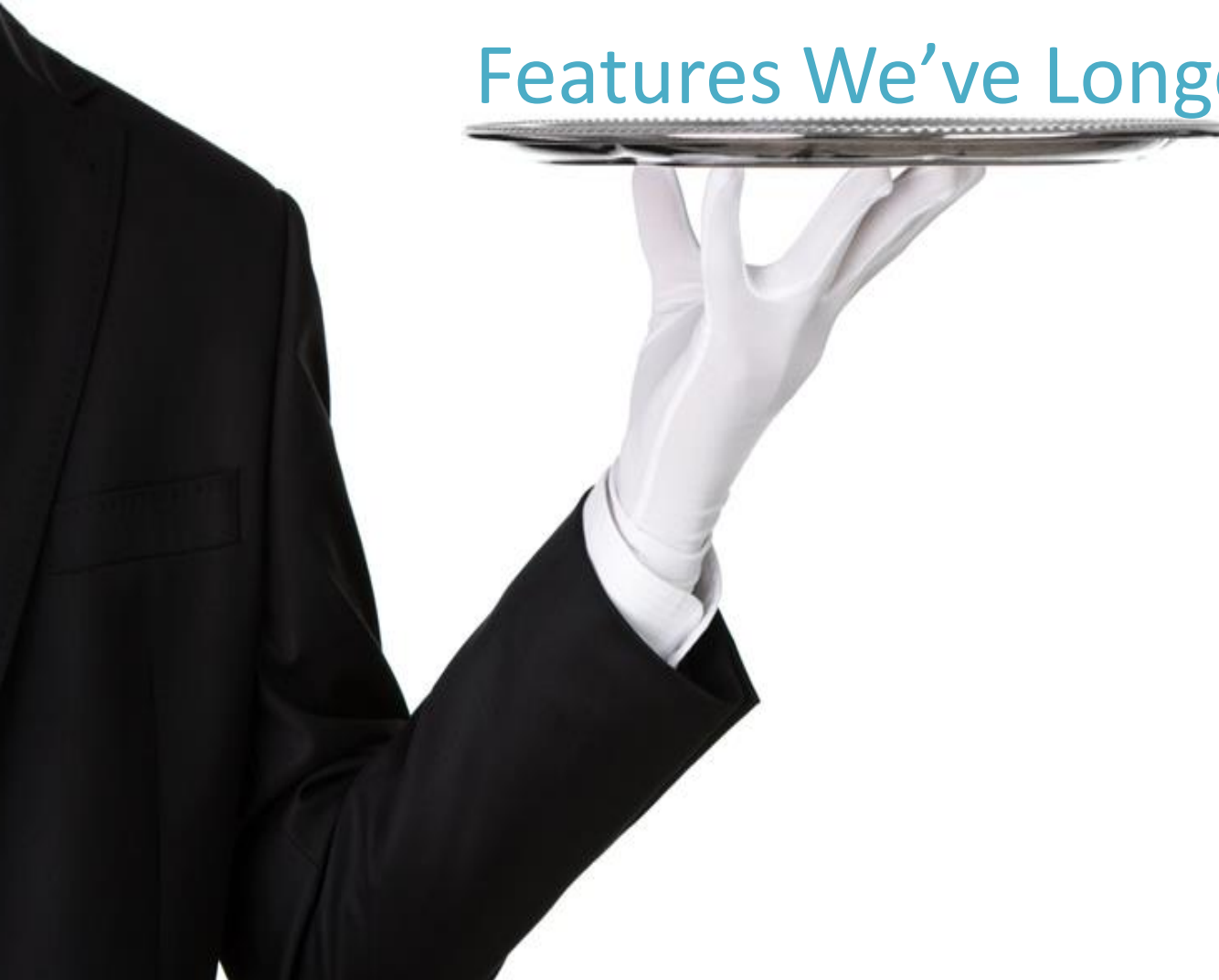
A complete rewrite

Familiar APIs

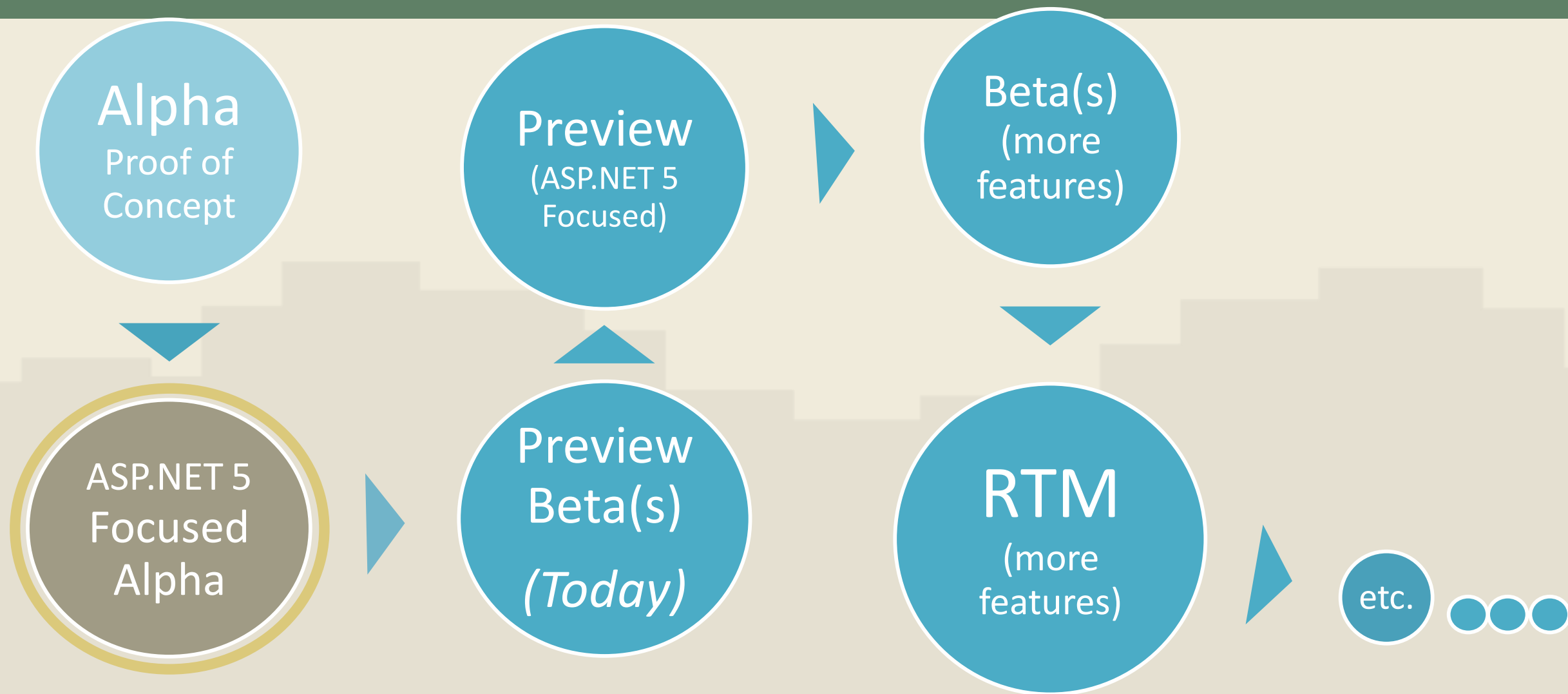
Better APIs

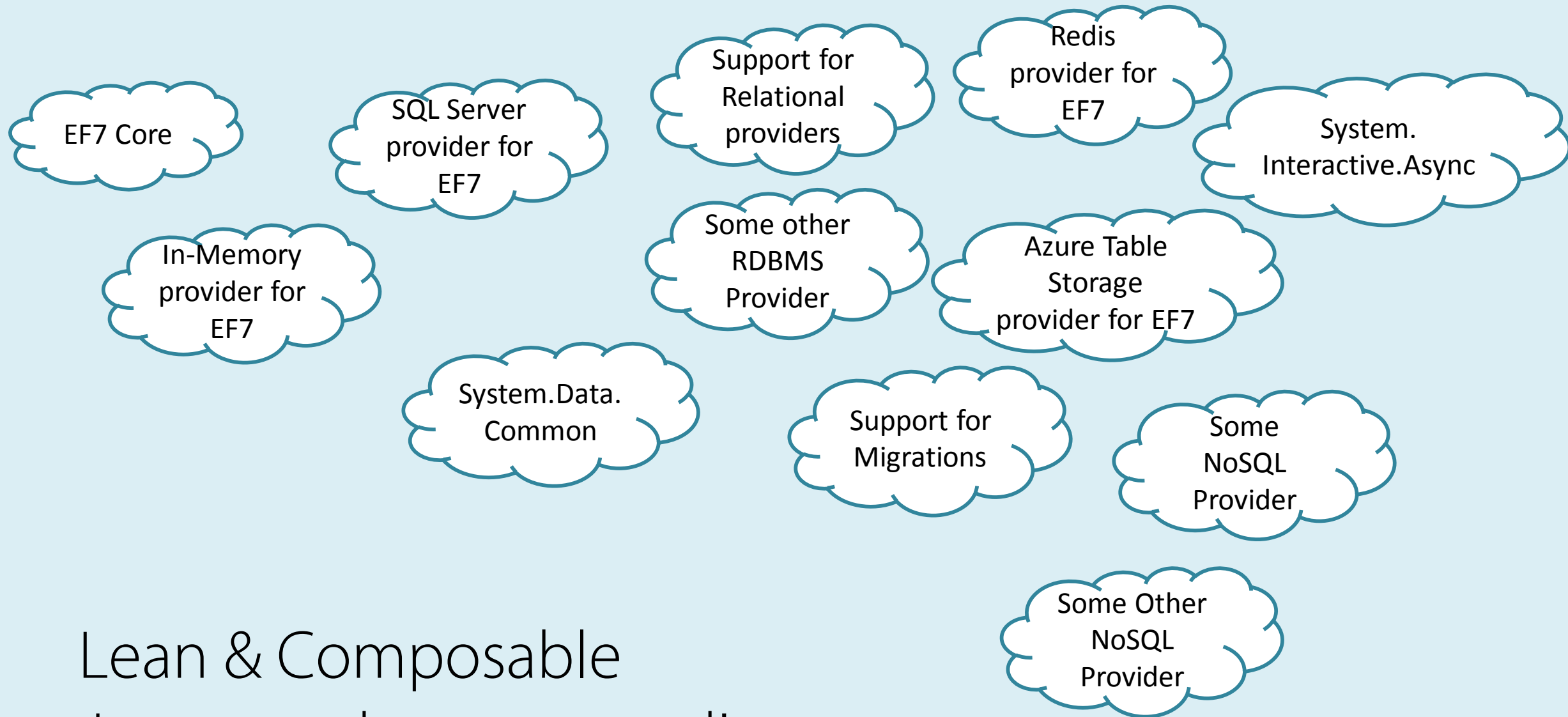
Not backwards compatible

“New Platforms
New Data Stores”
Features We’ve Longed For



Expected Progression of EF7





Lean & Composable
Just get what you need!

How We Got Here

Client Side

Console

WPF

Windows Form

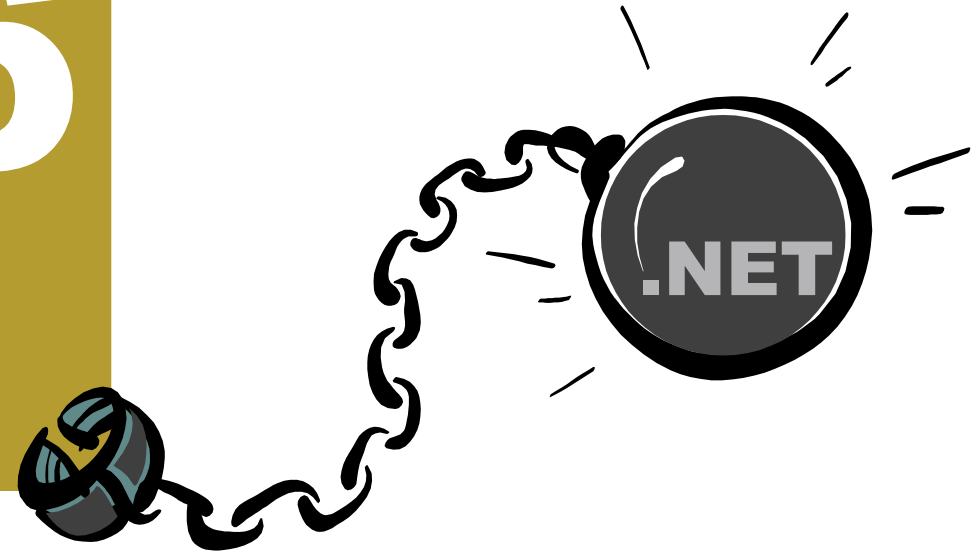
Server Side

ASP.NET Web Forms

ASP.NET MVC

ASP.NET WebAPI

WCF Data Services



EF7 Won't Require Full .NET Framework



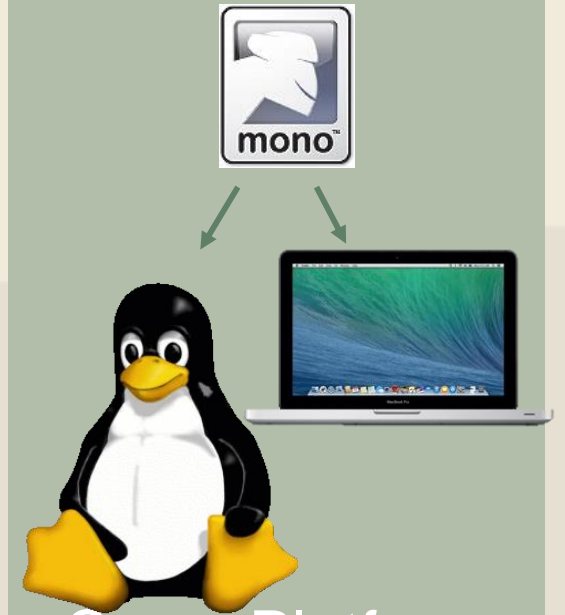
Windows Phone



Windows Store

ASP.NET 5
W10 UAP

Core CLR



Cross Platform
CLR

& .NET Framework

TECHORAMA

Relational Databases

Adding SQLite for Device Support

Adding PostgreSQL for Mac & Linux Support

Non-Relational Providers

NoSQL (proof of concept: Azure Table Storage)

In-Memory (for integration testing w EF, not DB)

Redis Cache (proof of concept)

More . . .

ORM → Non-Relational Data

WUT?



Familiar APIs

Entity Model

DbContext API

Migrations

LINQ to Entities

Change Tracking

SaveChanges

Familiar APIs & Behavior

Demo

Enable Long-Requested Features

Batch CUD

Unique
Constraints*

More Provider
Control of
Queries

Shadow State
for
Entities

In-Memory
Provider for
Fakes &
Test Doubles

IOC Friendly

Type
Conversions

Default
Database
Values

More @ data.uservice.com

EF7 Coding Enhancements

Demo

Disconnected Graphs in EF7

Affect Root Only

`DbContext.Add/Range, AddAsync, Attach, Update, Remove`

`DbSet.Add/Range, AddAsync, Attach, Remove, Update`

`DbContext.Entry(entity).SetState, SetStateAsync`

Affect Full Graph

`DbContext.ChangeTracker.AttachGraph(entity) /Async`

`DbContext.ChangeTracker.AttachGraph(entity, Action) /Async`

Biggest Planned Feature Cuts

EDMX Support

ObjectContext API

Entity SQL

Metadata Workspace API

Overly Complex Mappings

MEST (Multiple Entities for Single Type) Mapping

Automatic Migrations

Lighter Weight API

Code Based Modeling Only

Reverse engineer database still supported

DbContext API Only

Lower level functions fromObjectContext will be in DbContext

Simpler Metadata API

Losing some edge case mapping capabilities

[Github.com/aspnet/entityframework](https://github.com/aspnet/entityframework)

My Pluralsight course on EF7:
bit.ly/PS-EF7Alpha

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