goto; conference aarhus

USING ODATA TO CREATE YOUR WEB-API

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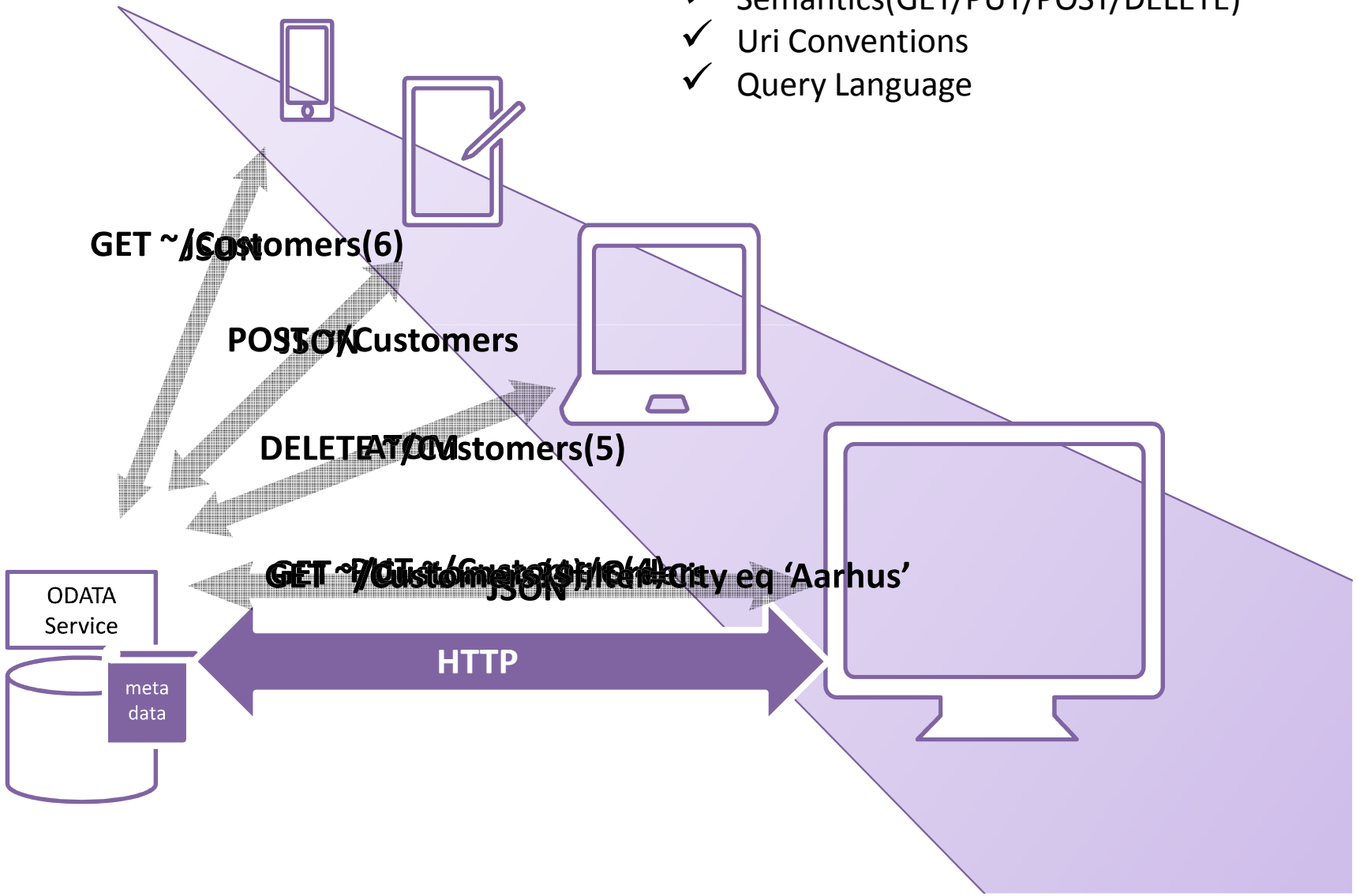
gotocon.com

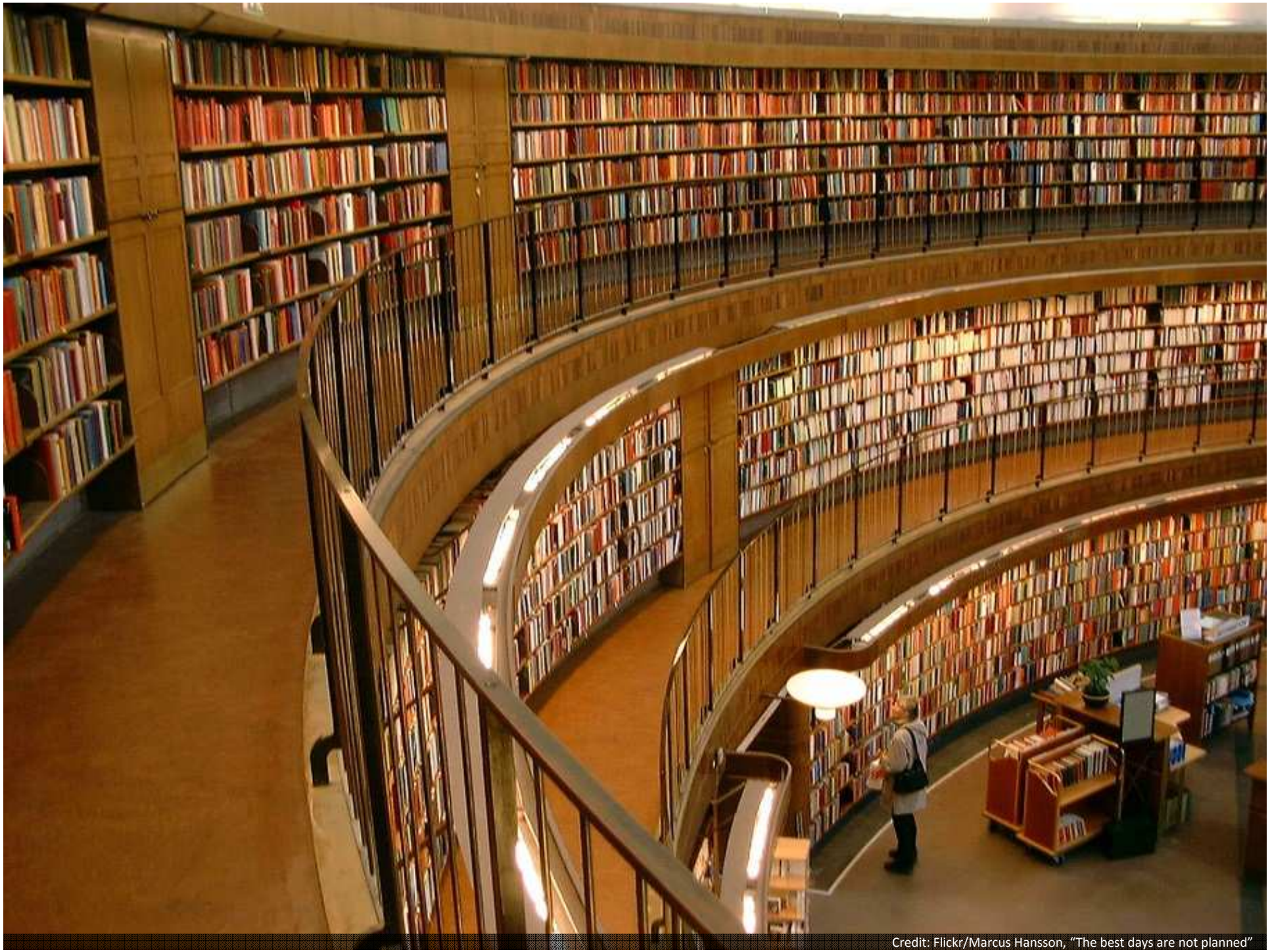
What is OData?

- ✓ HTTP
- ✓ Reach (devices and platforms)
- ✓ Metadata
- ✓ Formats (ATOM & JSON)
- ✓ Semantics(GET/PUT/POST/DELETE)
- ✓ Uri Conventions
- ✓ Query Language



OData…

- Builds upon
  - Standard HTTP verbs
  - Standard HTTP status codes
  - Standard HTTP headers
  - Standard Formats
  - Standard Interactions
- Adds
  - Flexible Query
  - Metadata



Credit: Flickr/Marcus Hansson, “The best days are not planned”

Credit: Flickr/katerha, modified from “Seeing My World Through a Keyhole”

Credit: Flickr/Orin Zebest, "Peep"; tinyfroglet, "Unlocking Secrets"; Robbie1, "Keyhole"; katerha, “Seeing My World Through a Keyhole”

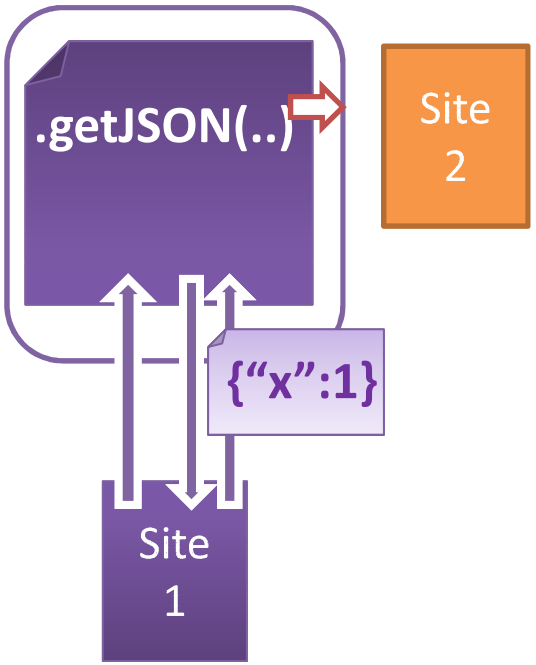
Why OData?

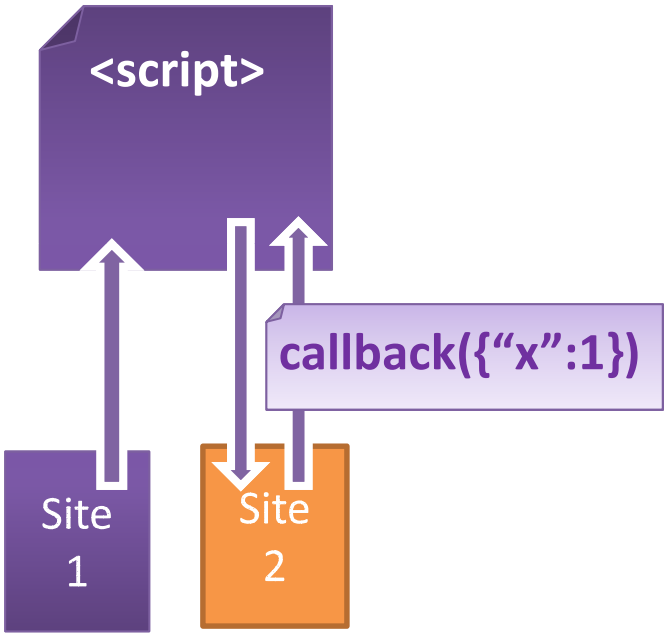
- Modeling
  - Triples vs Types vs Rows vs Blobs
- Formats
  - Json or Atom
- Platforms
  - iOS or Android or .NET or Javascript or PHP…
- Momentum
  - Excel
  - SharePoint
  - SAP

Demo

Intro and Best Practices

What is JSONP?





Best Practices - Recap

- Lock it down
  - EntitySet Access Rights
  - Server Driven Paging
  - AuthN – Basic, OAuth 2.0, Windows etc.
  - AuthZ – Query & Change interceptors
- Reach
  - Browser friendly feeds
  - Silverlight
  - JSONP

Challenges

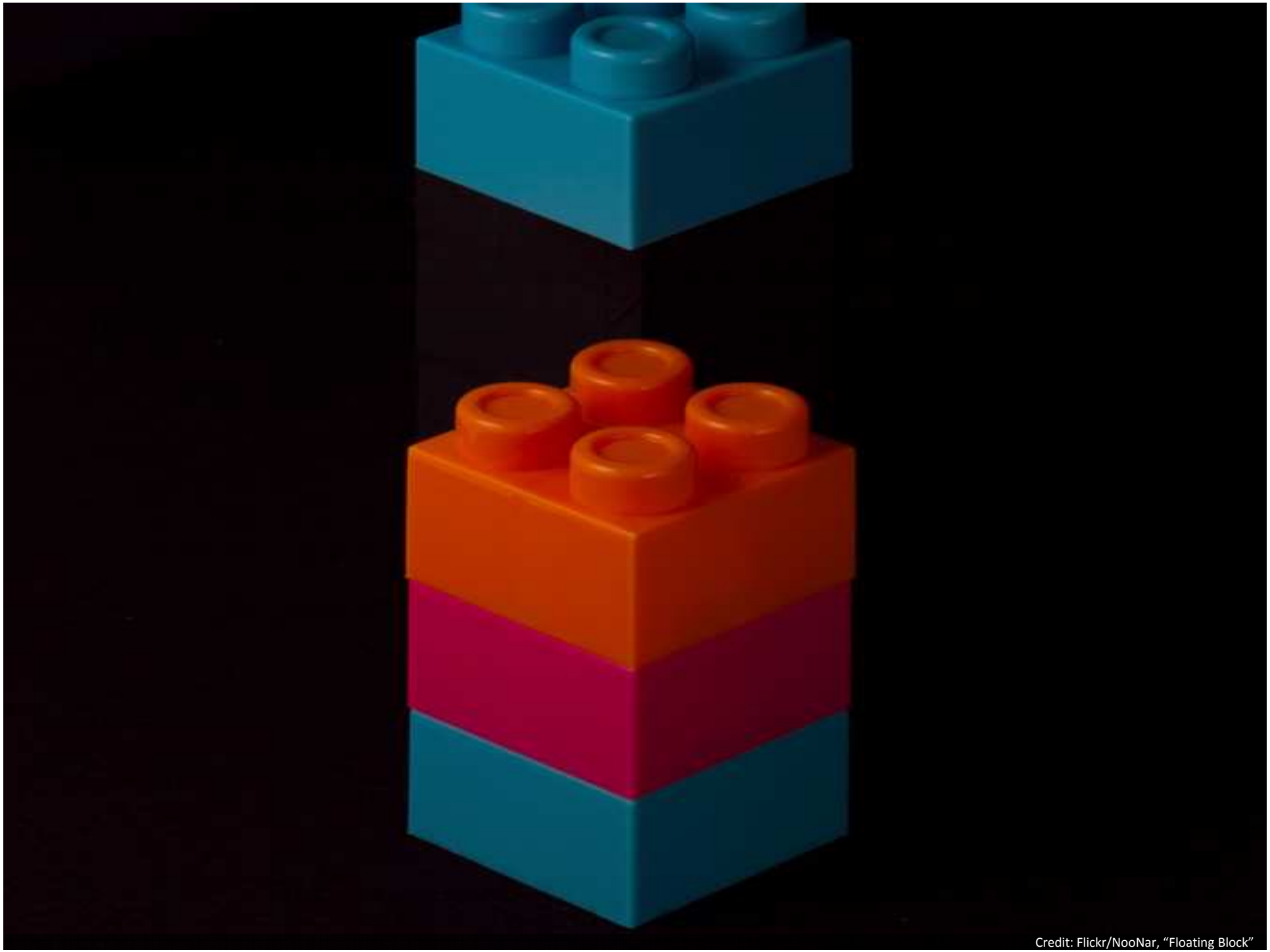
Credit: Flickr/The Planet, “The Planet Data Centre”

Credit: Flickr/Brenda Star, "Keys 1"

Credit: Flickr/WithAssociates, “Little Box”

Credit: Flickr/ecmorgan “Screech”

Constraints



Credit: Flickr/NooNar, “Floating Block”

Credit: Flickr/BarnyardBBS

Start
BehemorthHz
Internet Explorer
Store
Weather
Windows Explorer
Control Panel
Stocks
News
htc
quietly brilliant
REUTERS
Attack on Kabul ends after 20 hours: government spokesman http://t.co/wNJF4sL
//build/
windows
Tile Puzzle
NearMe
Piano
picstream
Check M8
paintplay
Zero Gravity
MeasureIt
LABYRINTH
mopod
Alarms
MICROSOFT WINDOWS
Version 3.1
Calculator
Paint
XPS Viewer
Windows Fax and Scan
Magnifier
All Programs
Search programs and files
Computer
Control Panel
Devices and Printers
Default Programs
Help and Support
Shut down
COURC.FON
EMM.PC
Page 1
RUNNING BATCH (.BAT) FILES
Microsoft Windows 95
Upgrade
for users of Windows
6:15 AM
3/27/2011

v

Credit: Flickr/ Gideon Burton "Metadata has Wings" & Flickr/Tnarik "letters never sent"

How is OData improving?

- Better Query – Any/All & Inheritance
- Better Models – MultiValue & Spatial Types
  - /Stores$filter=Category/Name eq "coffee" and distanceto(Location, POINT(-127.8973457834545.234534534)) lt 900.0
- Better Efficiency
- Better Behaviors - Actions

Demo

Summary

- OData is good for sharing data to many platforms.
- OData is becoming even better:
  - Any/All & Casts & Embedded Collections
  - Spatial
  - Efficient Format
- OData can now handle behaviors without compromise

Resources

- OData.org - In particular the Blog and Mailing List
- WCF Data Services - http://msdn.microsoft.com/en-us/data/bb931106
- blogs.msdn.com/astoriateam
- blogs.msdn.com/alexj