

What's new: Windows Communication Foundation 4.0

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7
COACH LIGHTS
ENGINE BRAKE
HEAD LIGHTS
JAKE BRAKE



NO WEAPONS ALLOWED ON BUS

WATCH
SAFETY
EQUIPMENT

PULL TO OPEN DOOR
MANUALLY
DUMP AIR

PULL TO OPEN
RIGHT DOORS

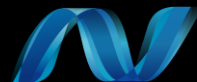
BAGGAGE DOOR
LOCK

PUSH TO OPEN
LEFT DOORS

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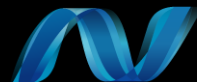
Agenda

- Introduction
- Key areas of improvement
- Demo time
- Q & A



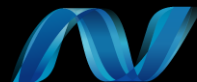
Key Areas of Improvement

- Bindings
- Channels
- REST
- WS-*
- Workflow Integration
- Windows Azure / .NET Services
 - Service Bus
- Hosting




Misc. improvements

- UDP Channel
 - Example UDP channel been around for ages
- MQ channel
 - First "cross vendor" channel from MS
- HTTP Polling Duplex
- HTTP Durable Duplex
- WS-Discovery
- WS-BP 1.2
- WS-BusinessActivity (= Compensation)



Windows Azure

 Windows Live™  Microsoft Office Live  Microsoft Exchange Online  Microsoft SharePoint Online  Microsoft Dynamics CRM Online

Azure™ Services Platform

 Live Services

 Microsoft .NET Services

 Microsoft SQL Services

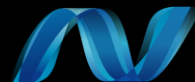
 Microsoft SharePoint Services

 Microsoft Dynamics CRM Services

 Windows® Azure™

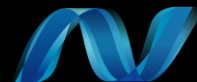
.NET Services: Bindings

- Relay bindings
 - BasicHttpRelayBinding
 - NetEventRelayBinding
 - NetOneWayRelayBinding
 - NetTcpRelayBinding
 - WebHttpRelayBinding
 - WS2007HttpRelayBinding
 - WSHttpRelayBinding



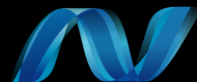
REST

- .NET 3.5: WebHttpBinding
 - Easy to develop RESTful HTTP/POX services
 - UriTemplate
- .NET 3.5SP1:
System.ServiceModel.Syndication
 - RSS/Atom feeds
 - Atom Publishing Protocol



REST cont.

- WCF Starter kit
 - Makes it easier to develop APP & feed-enabled applications / services
 - CTP out now on CodePlex
 - Will be incorporated in WCF 4.0



Live Framework

...is the uniform way for programming Live Services from a variety of platforms, programming languages, applications and devices.

Libraries

.NET FX APIs Silverlight™ APIs JavaScript APIs Client Controls Web Controls Other

Resource Model

Atom Pub FeedSync ATOM JSON POX RSS Binary XML

Operations

CRUD URI-LINQ Resource Scripts Triggers Auth/Z Introspection

Identity

Data

Profile Groups Folders
 Contacts Calendars Photos
 Custom Data Types
 User System
 Geospatial Search

Applications

Catalog
 Application Settings
 Application Management

Communications

Peer-to-Peer
 Notifications
 Presence
 News

Mesh

User Mesh

Device Mesh

Application Mesh

Synchronization

Tools & Services

Developer Portal

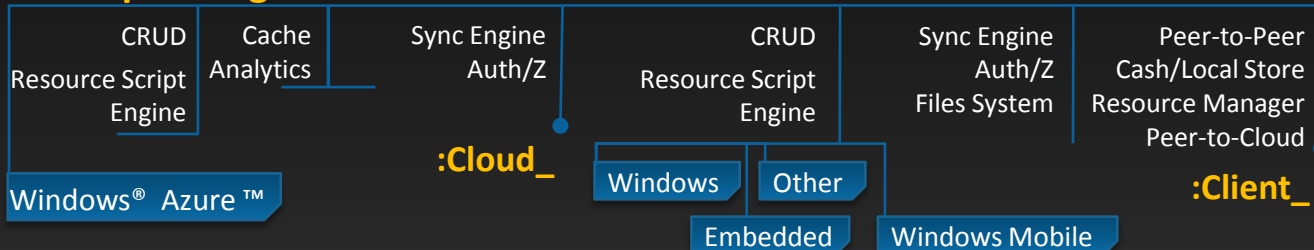
Developer Sandbox

Provisioning/
Account Management

Analytics

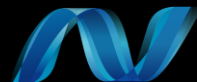
Visual Studio®
Tools/ Designers

Live Operating Environment



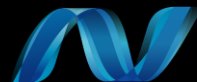
WF 4.0

- “WF 1.0” did anyone use it?
 - Hard to host the designer in custom applications
 - Designer hard to work with
 - Performance not good
- 4.0: Total rewrite
 - Designer & Runtime
 - Backward compability story
 - Much better performance
 - Better WCF integration



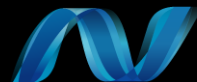
Declarative Services

- WCF+WF Services can be created w/ pure declarative programming
- XAML/BAML – or something transformed to that
- Codename "Oslo"; MService



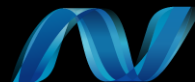
Correlation

- .NET 3.5SP1: *ContextBinding;
Extra header information for correlation
- .NET 4.0: Context & Content-based correlation
 - Headers & SOAP body elements
 - XPath
 - /s:Envelope/s:MyMessage/s:MyData...



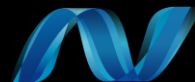
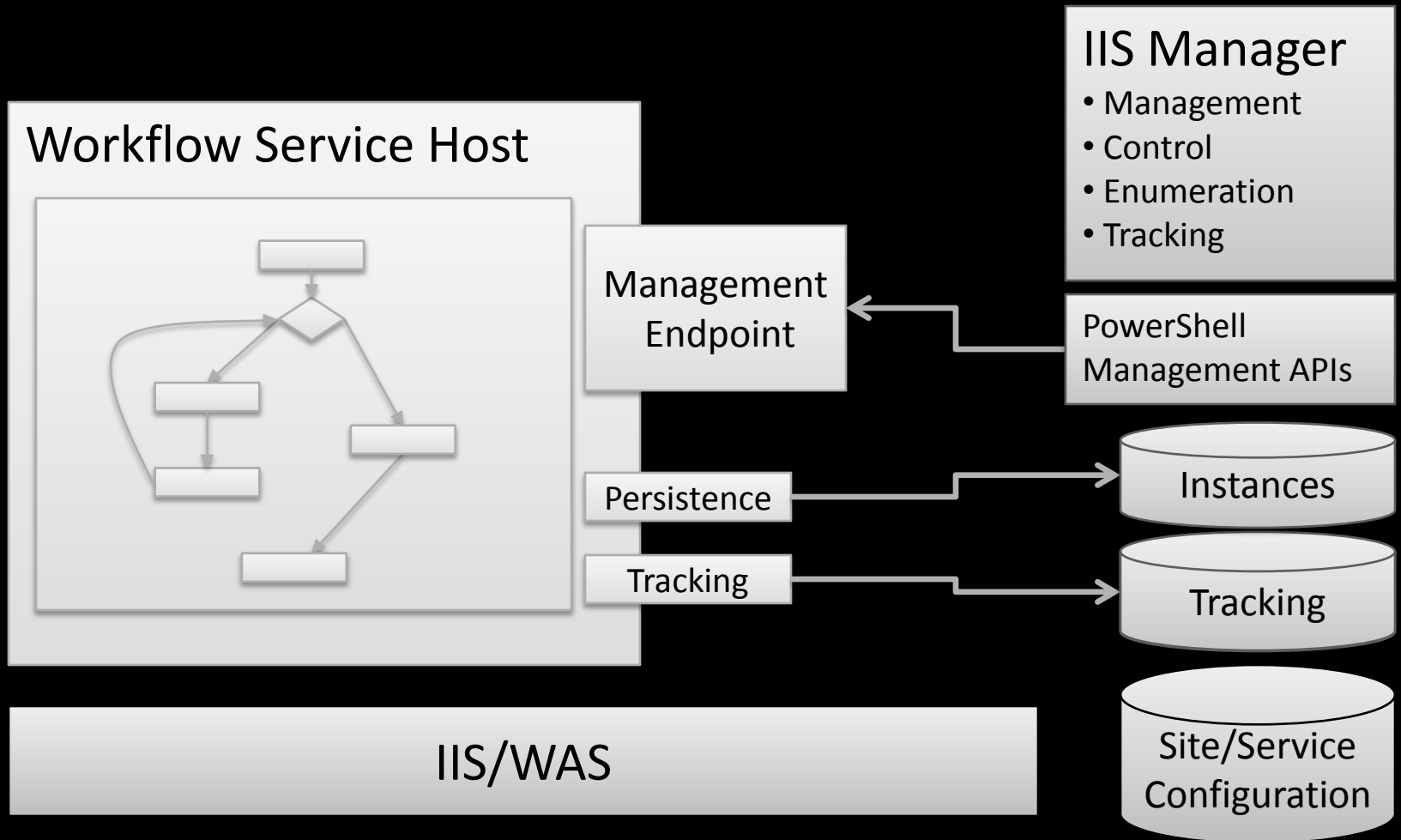
Codename "Dublin"

- Today: IIS7 + WAS
 - Cumbersome to maintain WCF/WF services
 - No service-focused diagnostics & hosting management tools
 - Non-HTTP endpoints are not straight forward to configure
- Tomorrow: IIS7 + WAS
 - Windows Application Server
 - Much better management of WCF/WF services in the IIS Management Console



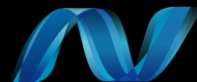
Hosting

WCF + WF + "Dublin"



Codename "Geneva"

- .NET 3.x: System.IdentityModel, wsFederatedHttpBinding
 - Hassle to implement STS infrastructure
- Zermatt: no more
- New Federated Identity platform
 - Server and Client technology
 - Makes claims-based security easier
- Server will run on Windows Server 2008
 - No additional cost
- Client SDK – works hand in hand with WCF



Thank you for your attention!

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