

Windows Azure Services

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Agenda

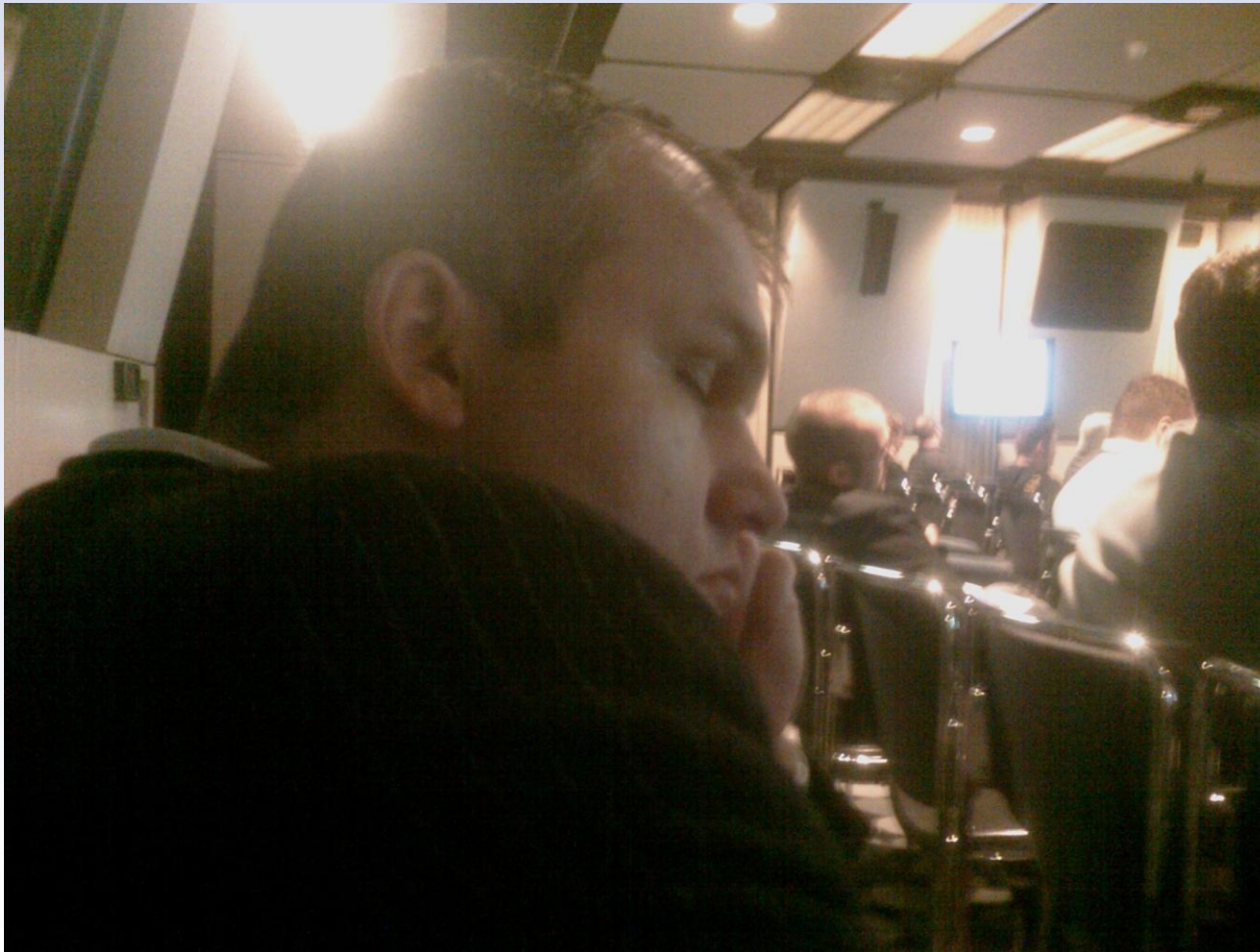
- Windows Azure im Überblick
- InConcert Experience
- .NET Services
- SQL Services

Zuerst, kurzer Rückblick

Demos die einem zum Wahnsinn treiben



Spannende Sessions



„Coole Teilnehmer“



Sprechen wir lieber nicht davon...



Zurück zum Thema...

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™

Azure im Überblick

Ihre Anwendung

 Microsoft®
.NET Services

Service
Bus

Workflow

Access
Control

...

 Microsoft®
SQL Services

Database

Analytics

Reporting

...

 Live Services

Identity

Contacts

Devices

...

...

Compute

Storage

Manage

...



Windows® Azure™

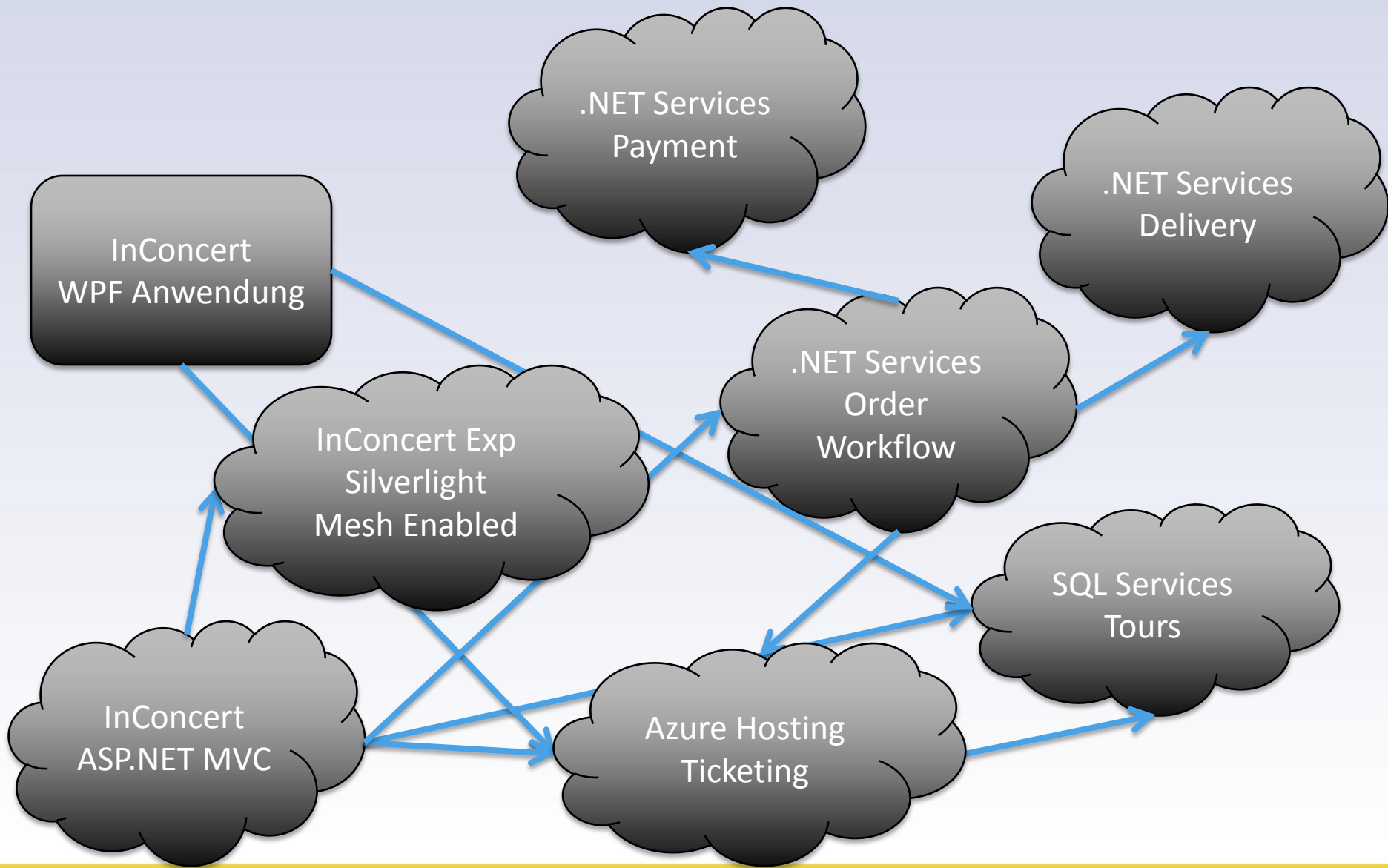
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Demo

InConcert Experience

InConcert Experience Architekturübersicht



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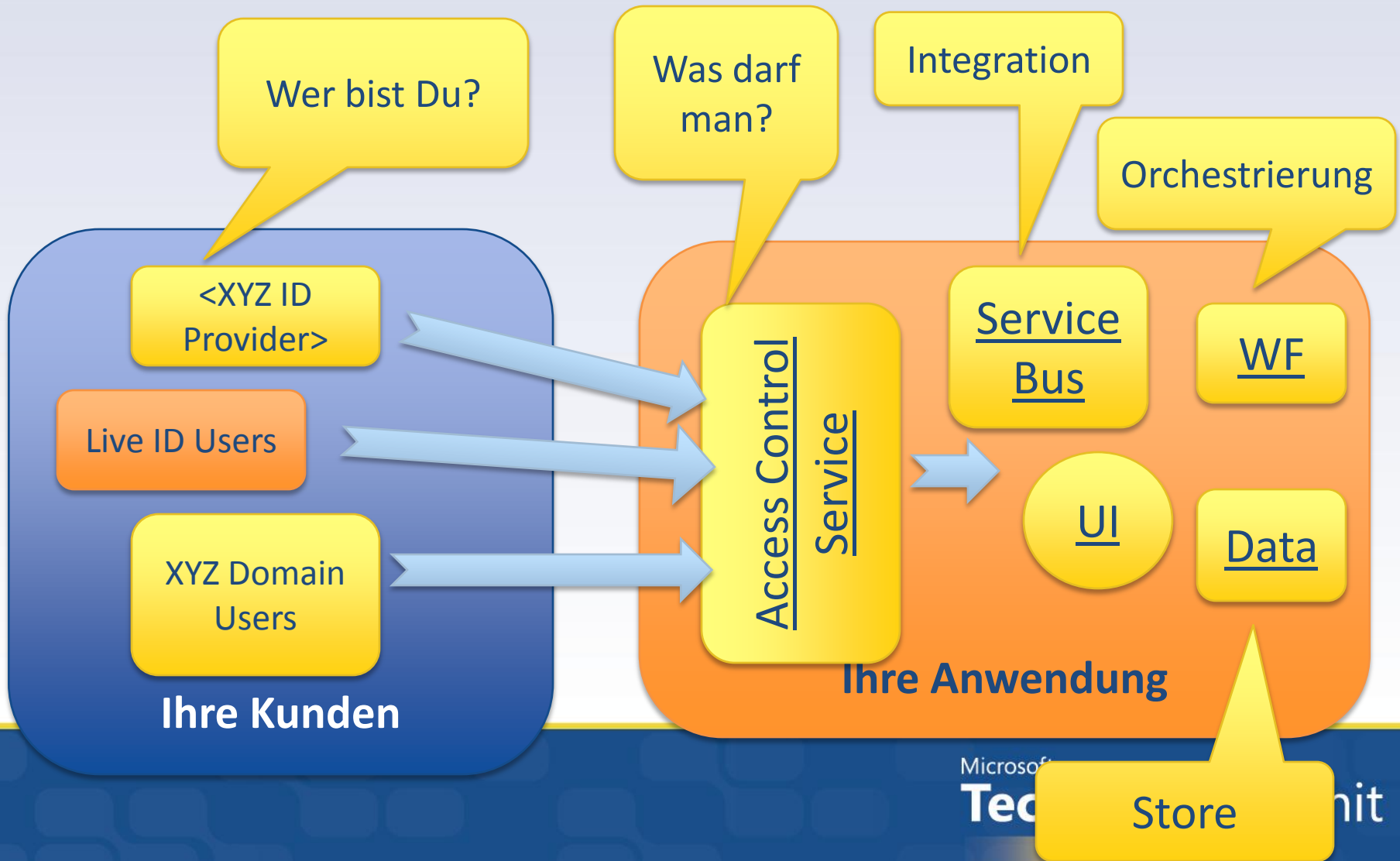
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Gemeinsames Zugriffsmodell

- Microsoft SQL Services
 - Username & Password
 - Token
- .NET Service Bus
- .NET Workflow Service
- Portal

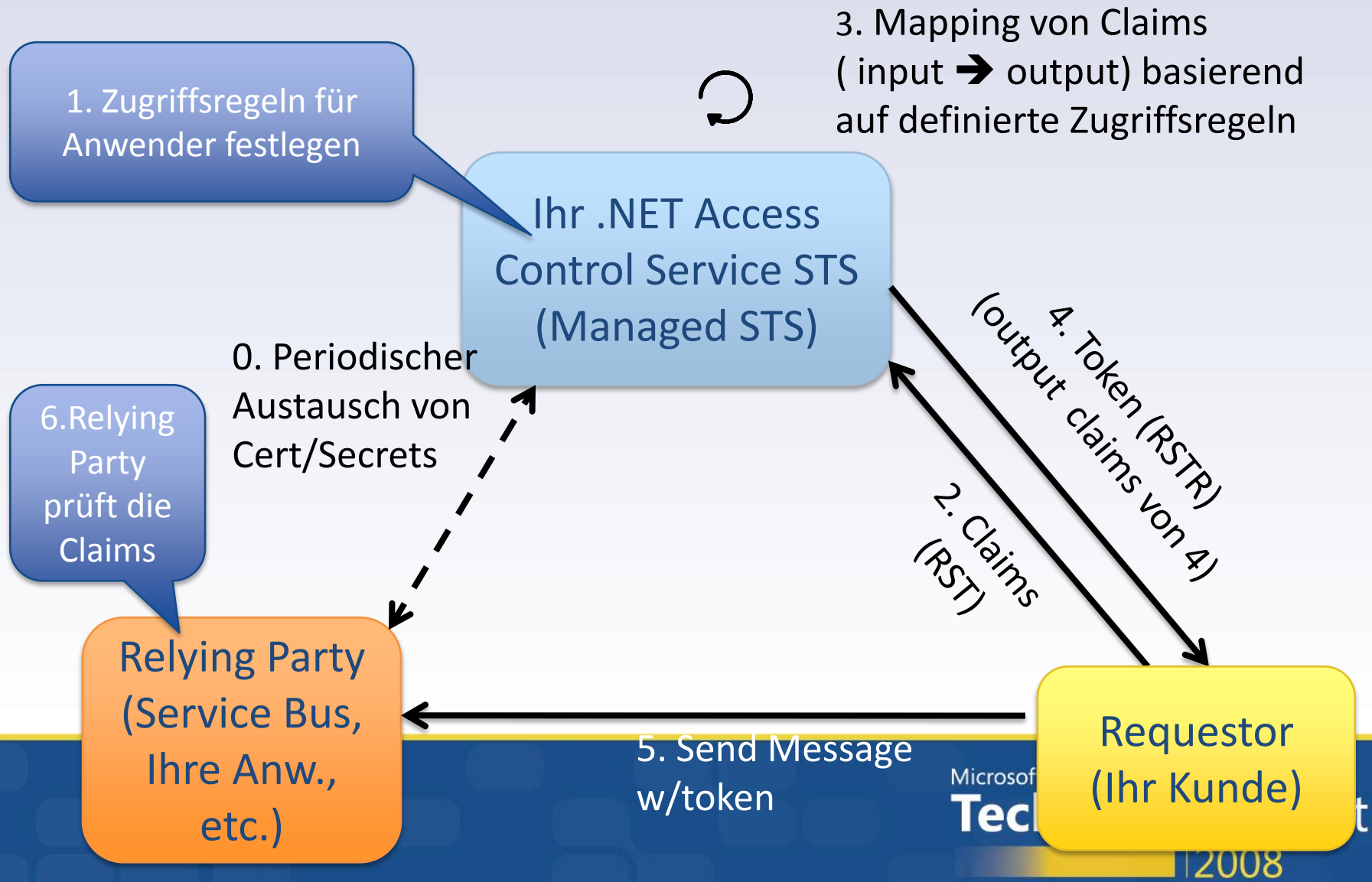
Ablaufübersicht



.NET Services Access Control

- Portal
 - Zum bearbeiten und anlegen von Zugriffsregeln und -rechten
- Client API
 - Objectmodell um auf Zugriffsregeln zuzugreifen
- Service (STS)
 - Dienst der Zugriffs-“Tokens” erteilt
 - “Geneva” Framework für Entwickler

Zugriffskontrolle in Aktion



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Service Bus

- **Internet Service Bus Pattern**
 - Service Registry
 - Connectivity (Relay & Direct Connect)
 - Publish/Subscribe
- **Zusätzlich**
 - Bindings
 - Sicherstellen der Verbindung
 - Integration mit .NET Services Access Control

Service Bus Application Pattern

Service Orchestration

Federated
Identity and
Access Control

Naming

Service Registry

Messaging Fabric

Your
Service

Clients

Desktop,
RIA, &
Web

On-Premises

ESB

Corp Service

Cloud Services

Storage

Compute

Billing

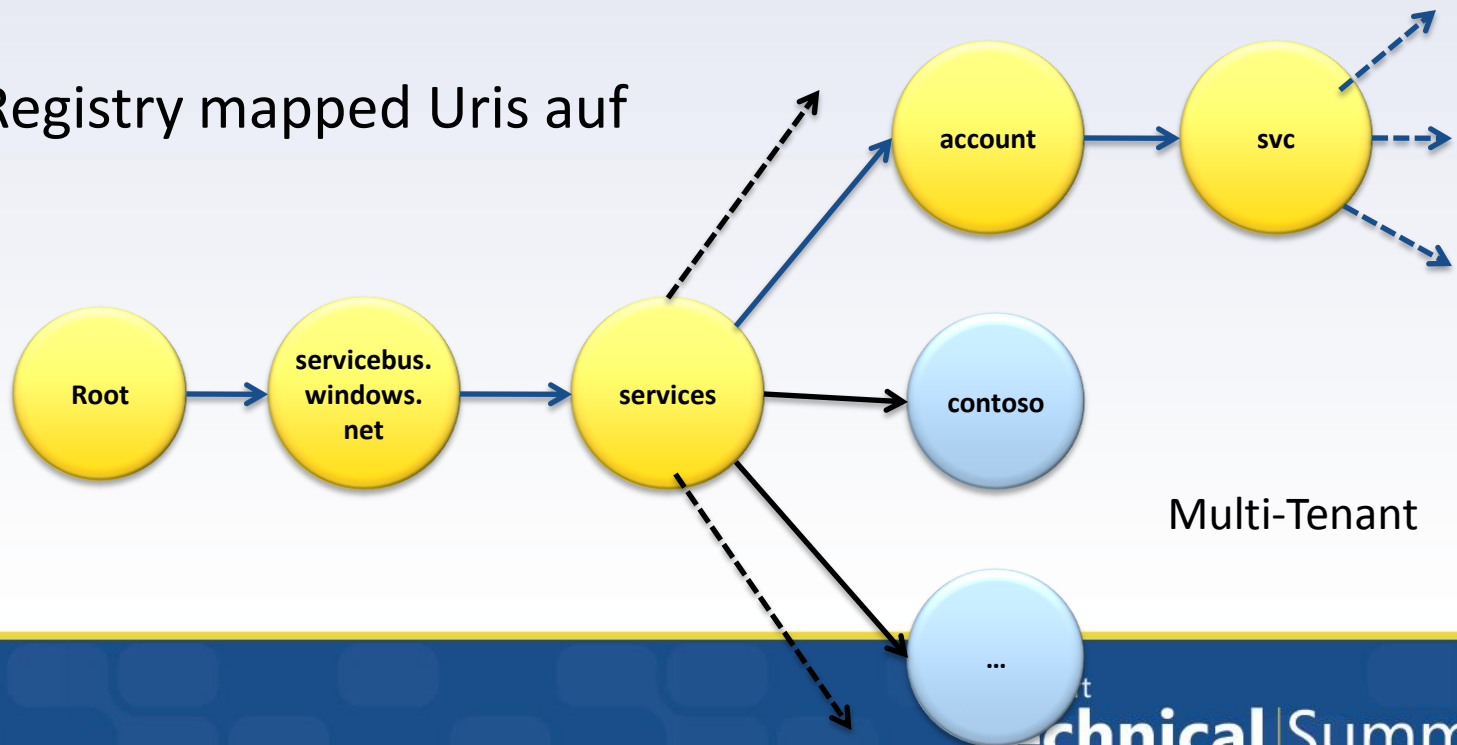
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Service Registry

[http|sb]://servicebus.windows.net/services/account/svc/...

Service Registry Root

Service Registry mapped Uris auf Dienste



Connectivity

- Zwei Möglichkeiten
 - Relay
 - Direkt
- Relay
 - Sicherstellen der Verbindung
 - Zugriffssichtbarkeit durch die Service Registry
- Direkt
 - Verbindung wird über das Relay aufgebaut
 - Danach direkte Kommunikation → Performance
- Zugriff über HTTP / REST / ATOM
- Zusätzliche WCF Bindings für .NET

One-Way Connection

sb://servicebus.windows.net/services/user/service/endpoint

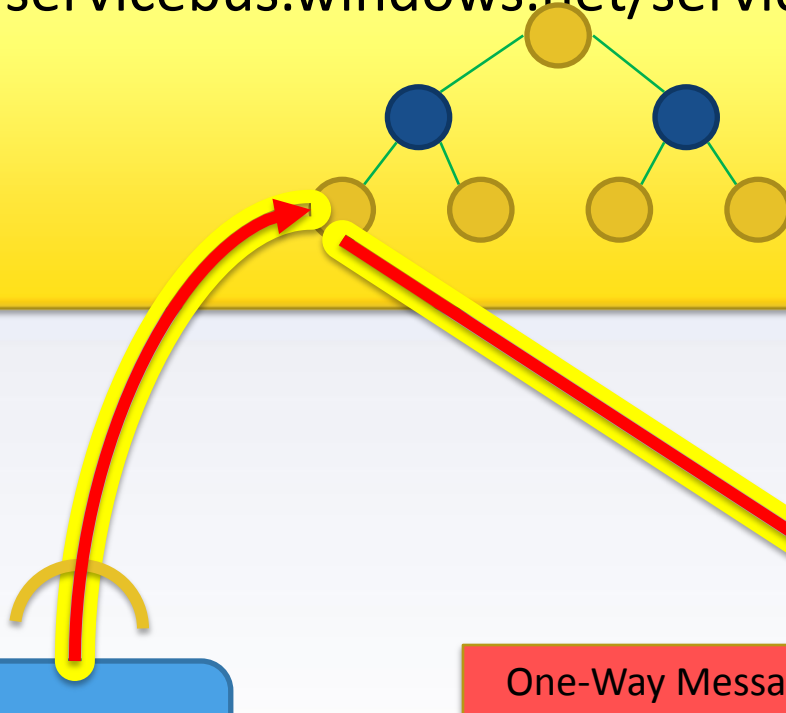
Relay

Outbound SSL-Secured TCP 828
Verbindung zum Relay Endpunkt

One-Way Messages
mittels TCP Tunnel

Sender

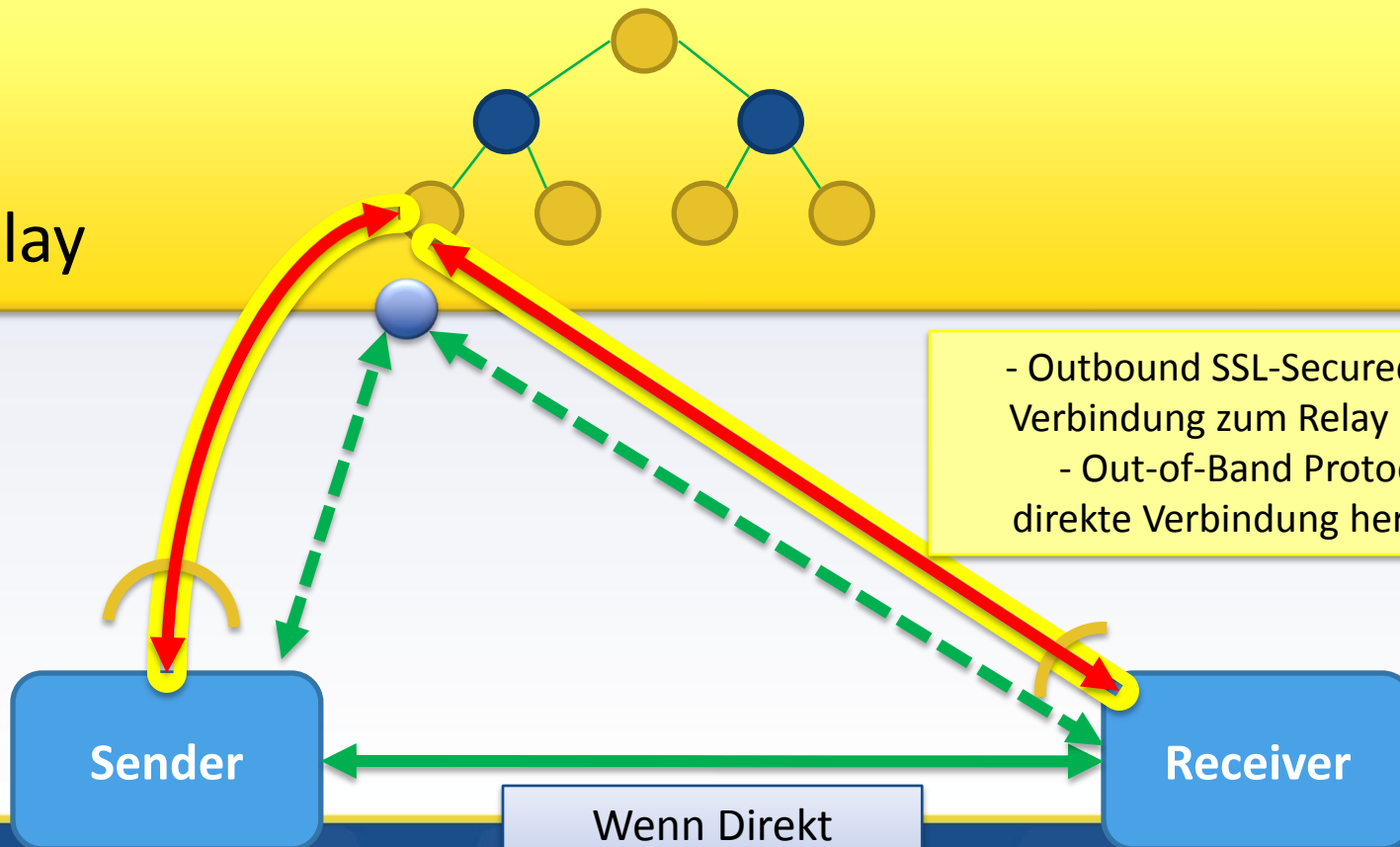
Receiver



Direkt Verbindung

sb://servicebus.windows.net/services/user/service/endpoint

Relay



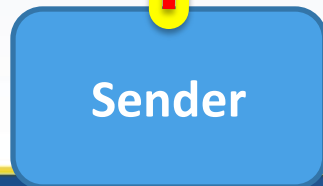
- Outbound SSL-Secured TCP 828 Verbindung zum Relay Endpunkt
- Out-of-Band Protocol um direkte Verbindung herzustellen

Wenn Direkt möglich!

Multicast Publish/Subscribe

sb://servicebus.windows.net/services/user/service/endpoint

Relay



One-Way Messages
mittels TCP Tunnel

Outbound SSL-Secured TCP 828
Verbindung zum Relay Endpunkt



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Workflow Service

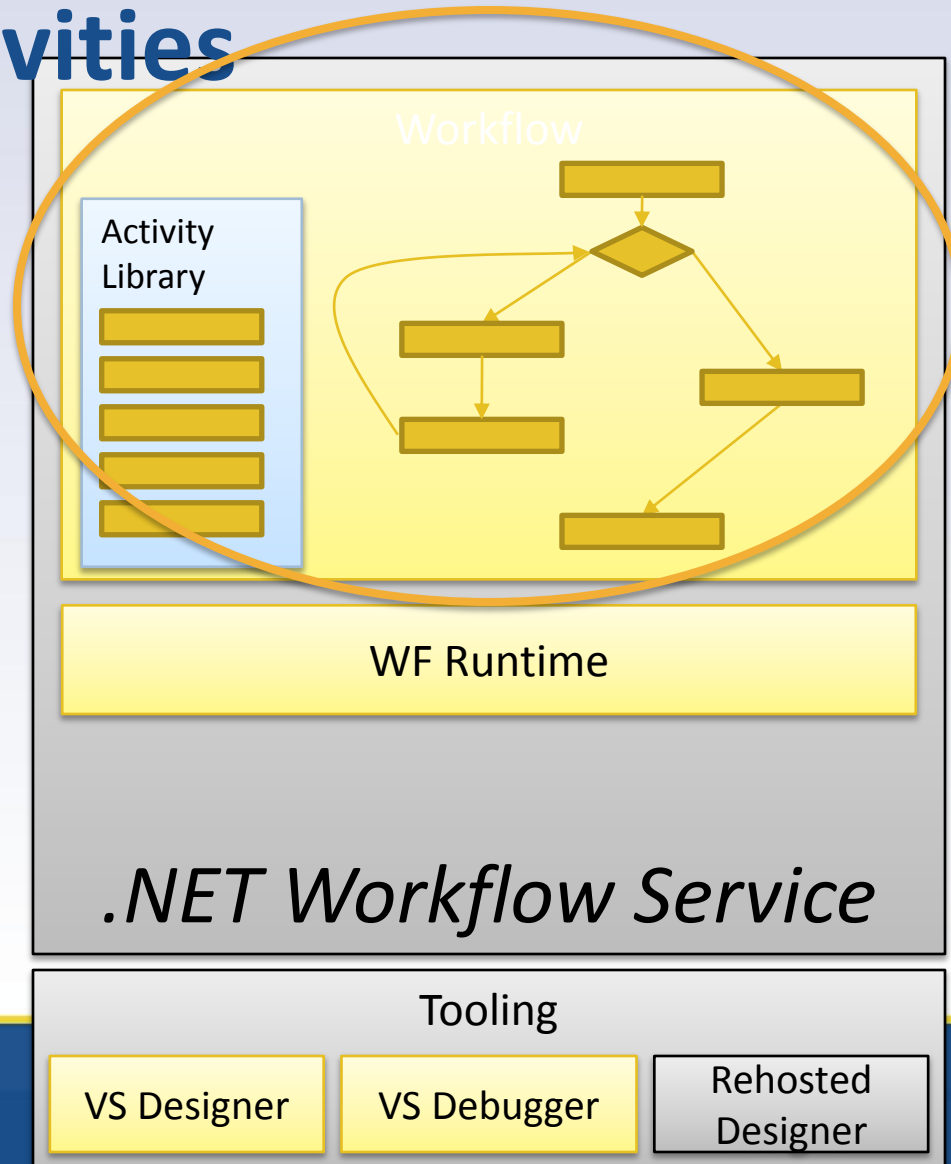
Overview

- Framework Support
 - Unterstützt WF 3.5
 - Zukünftig WF 4.0 und WF 4.0+
- Activities
 - Neue Aktivitäten für die Azure Plattform
 - Subset der WF out-of-box Aktivitäten
- Workflow Designer
 - Bestehender Designer
- Deploy, Run, Manage
 - Management Portal für einfachen Zugriff
 - Management APIs

Building Workflows

Activities

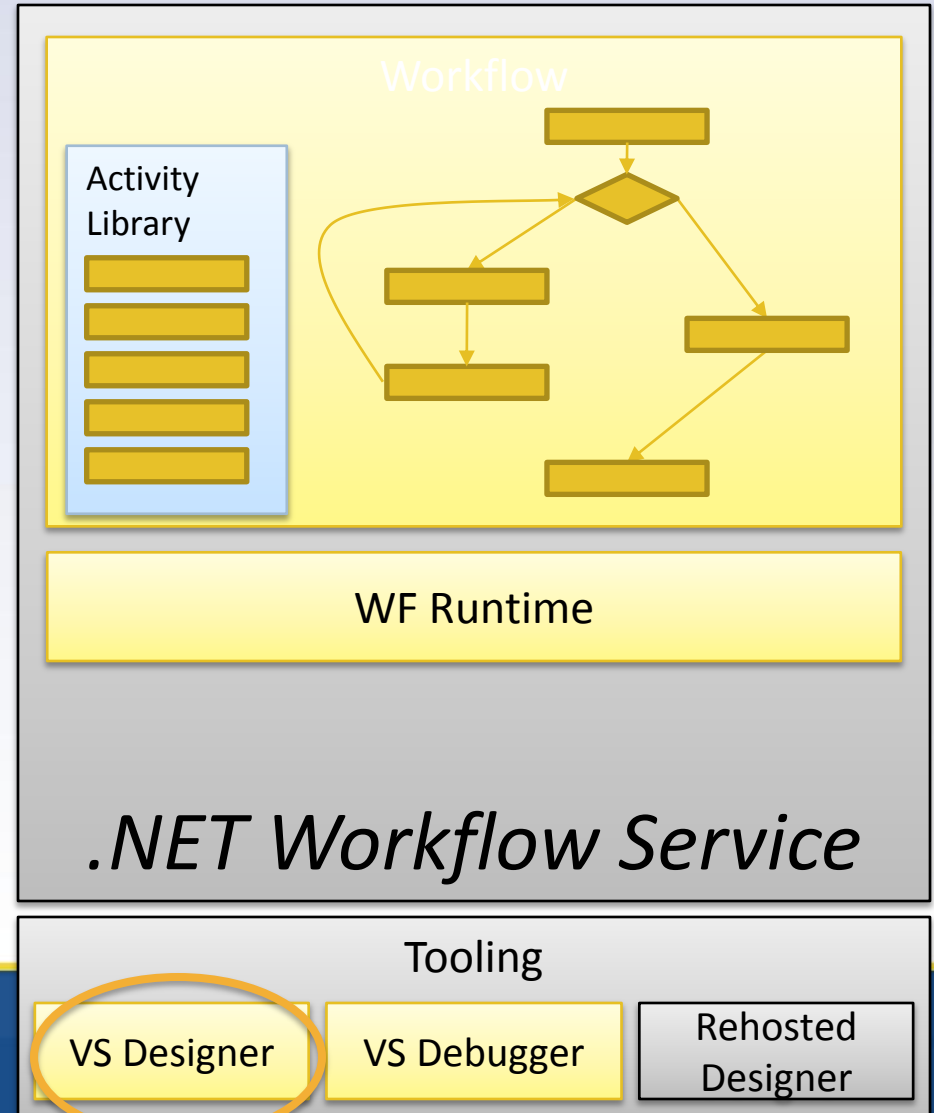
- OOB WF Activities
 - IfElse
 - Sequence
 - Suspend
 - Terminate
 - While
- .NET Workflow Service Activities
 - Delay
 - HttpSend
 - HttpReceive
 - ServiceBusSend
 - XPathRead
 - XPathUpdate



Building Workflows

Tools

- Visual Studio Templates
- Cloud Sequential Workflow Root Activity
- XAML Workflow and Rules



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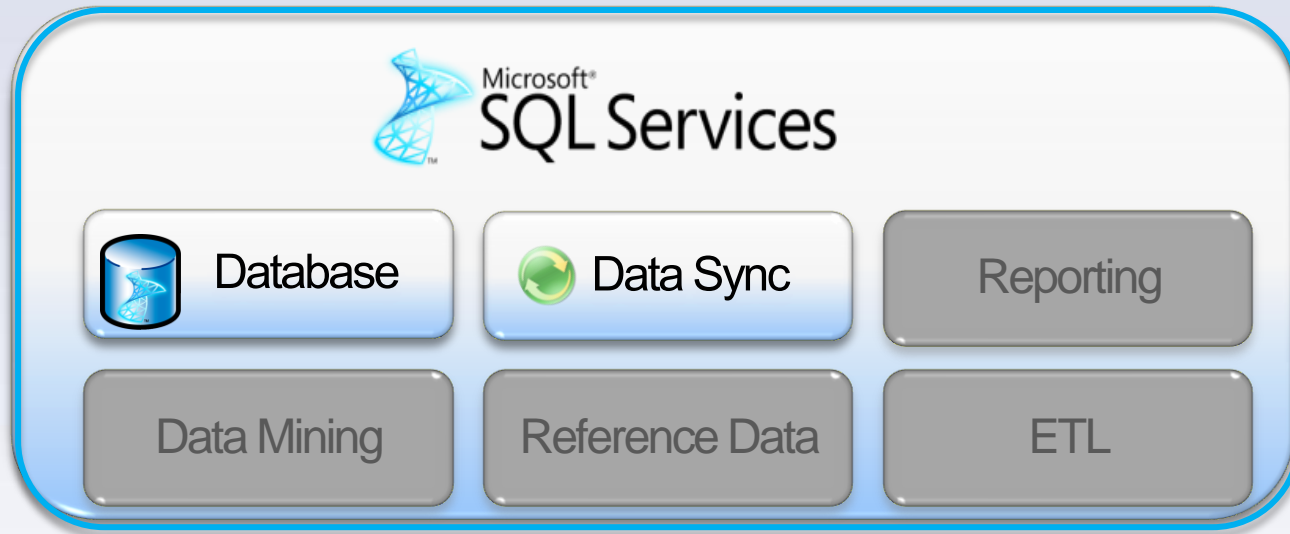
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Zukunft von SQL Services

SQL Plattform für das Internet



- Data services tier der Azure Service Plattform
- SQL Server als Basis

Azure Storage oder SQL Data Services?

Windows Azure Storage

- Mehrere Datenspeicher
 - Tabellen
 - Queues
 - Blobs
- “Essential” ~ Dateisystem in der Cloud

SQL Data Services

- Datenspeicher
 - Authorities
 - Container
 - Entities
- “Premium” ~ Datenbank in der Cloud

SQL Data Services (SDS)

“Datenbank als Dienst”

SDS

1. Speicherung aller Datenarten
2. Datenverarbeitungsmöglichkeiten
3. Verfügbarkeit



- Skalierung ohne Aufwand
- Bei Bedarf, mehr!
- Hochverfügbar
- Geo Replikation

Datenmodell und das ACE Konzept

Authority

- Unit of geo-location and billing
- An DNS Namen gebunden
- Collection von Containern

Container

- Unit of Consistency
- Scope für Abfragen und Updates
- Collection von Entities

Entity

- Unit of Storage
- Property Bag aus Key/Value Paaren
- Kein Schema notwendig

Konzepte

Entity

Entity Eigenschaften dürfen unterschiedlich sein!

Property		Type	Value
Metadata	ID	EntityId	VWGOLF-01
	Kind	EntityKind	Car
FlexProps	Description	String	Reliable, one owner, ...
	Price	Numeric	12000.00
	ListingDate	Datetime	01-01-2008
	LocationZip	String	98052

Property		Type	Value
Metadata	ID	EntityId	MINICOOPER-264
	Kind	EntityKind	FunCar
FlexProps	Description	String	Reliable, one owner, ...
	Price	Numeric	12000.00
	ListingDate	String	1 st January, 2008
	LocationZip	String	98052
	EngineSize	Numeric	1600

Unterschiedliche
Entities
Typ
Unterschiede

Meine Kontaktdaten

- Email
 - dparys@microsoft.com
- Blog
 - <http://blogs.msdn.com/dparys>
- IM
 - developerevangelist@live.com

Ihr Potenzial. Unser Antrieb.