

2014  
Global Windows Azure  
**BOOTCAMP**

Willkommen beim #GWAB 2014!

## Systemintegration per Knopfdruck mit Azure BizTalk Service und Service Bus

Manfred Steyer | FH CAMPUS 02 | [www.IT-Visions.at](http://www.IT-Visions.at)

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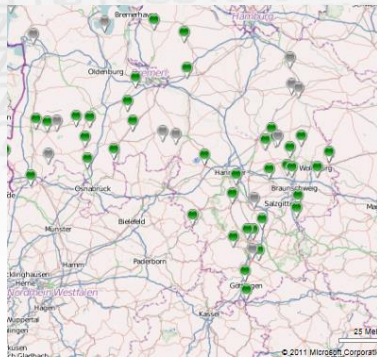
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Dr. Holger Schwichtenberg



ManfredSteyer

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## Ausgewählte Projekte



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### Kundenbeispiele



## Inhalt

- Azure BizTalk Services
- Azure Service Bus
- Demo

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# BIZTALK SERVICES

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## Überblick

- Tool für Systemintegration in Azure
- Hochverfügbar: 99.9 %
- Skalierbar
- „Pay-per-Use“

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## Features

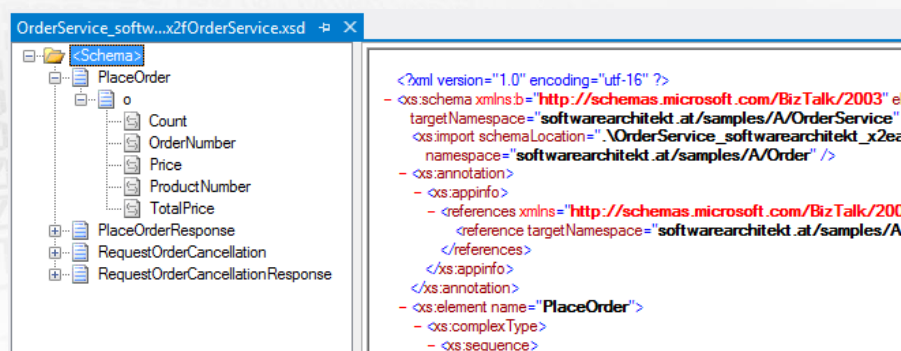
- Nachrichten transformieren
- Nachrichten erweitern
- Nachrichten routen
- Transportprotokolle überbrücken
- EDI (X12, EDIFACT, HIPPA)

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## Kommunikation

- Eingehende Nachrichten
  - HTTP, SOAP, FTP, Service Bus Queues/Topics
- Ausgehende Nachrichten
  - HTTP, SOAP, FTP
    - auch on-premise via Relaying
  - Service Bus Queues/ Topics
  - Azure Blobs
- Datenformate
  - XML, Flat-Files, weitere über MessageInspectoren
- BizTalk-LOB-Adapter
  - SQL-Server, SAP etc.

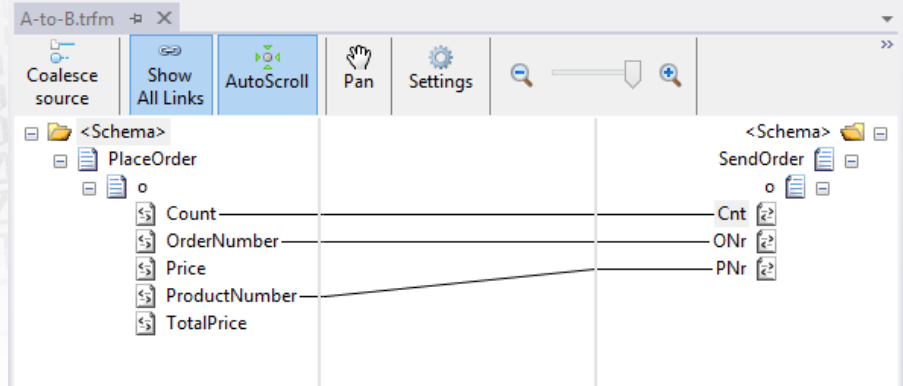
## Schema-Editor



The screenshot shows the Schema Editor interface. On the left, a tree view displays the structure of the XSD schema, including elements like `PlaceOrder`, `Count`, `OrderNumber`, `Price`, `ProductNumber`, `TotalPrice`, `PlaceOrderResponse`, `RequestOrderCancellation`, and `RequestOrderCancellationResponse`. On the right, the XML code for the schema is displayed, showing the root element `<?xml version="1.0" encoding="utf-16" ?>` and the `<xs:schema>` element with various attributes and child elements like `<xs:import>`, `<xs:annotation>`, `<xs:appinfo>`, `<xs:element name="PlaceOrder">`, `<xs:complexType>`, and `<xs:sequence>`.

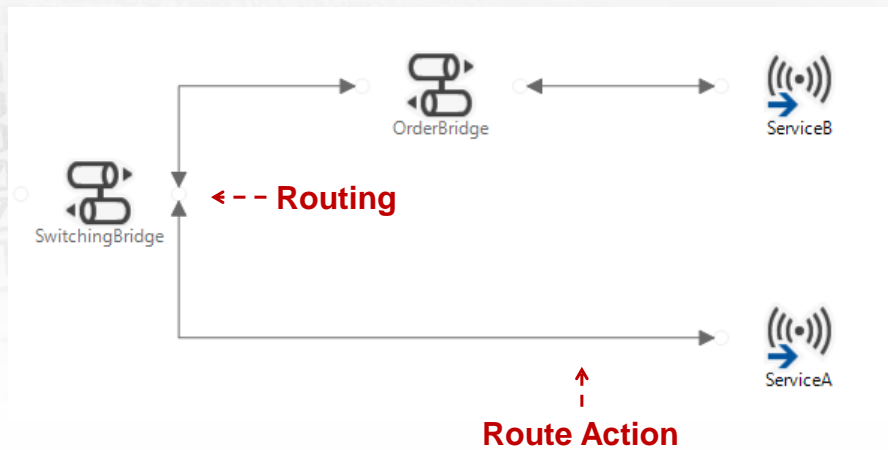
**Schema für XML und Flat-Files**

# Maps (Transformationen)



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# Itinerary

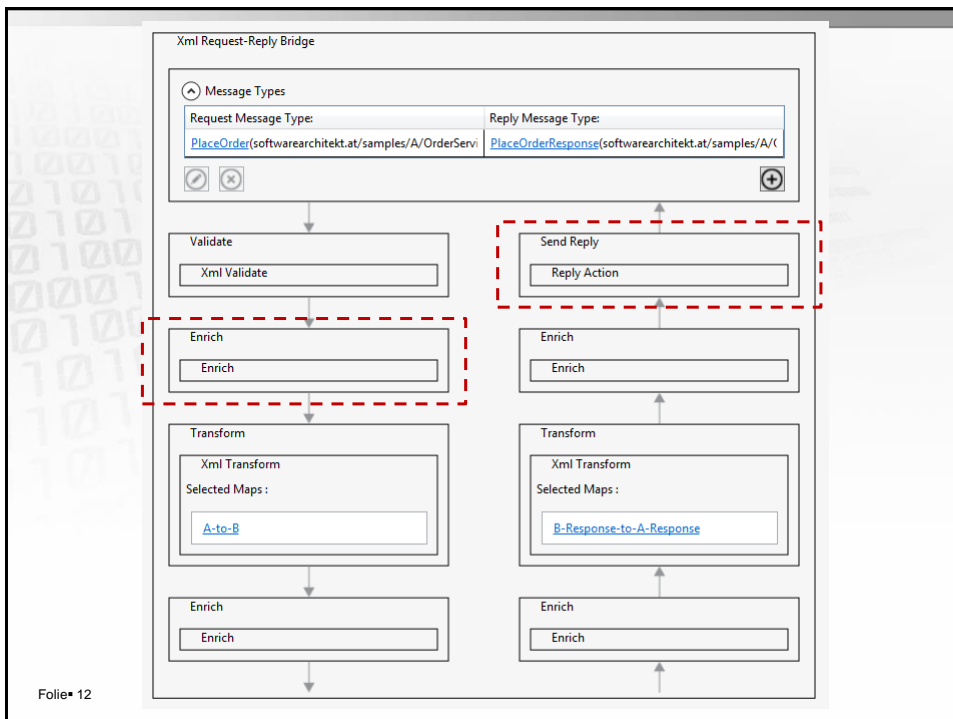


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## Bridges

- XML One-Way
- XML Request-Reply
- Pass-Through

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## Enrich-Phase

Source (Read From)

Type: XPath

SOAP Header Namespace:

Identifier: /\*/\*\*[local-name()='ProductNumber']/

Message Type: string (http://schemas.microsoft.com/2003/10/Serialization/#st

Lookup Property:

Property (Write To)

Property Name: ProductNumber

Data Type: string

OK Cancel

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**Auch: Daten aus Header entnehmen, Umschlüsseln**

## Reply-Action (=Route-Action)

Property (Read From)

Property Name:

Expression: /softwarearchitekt.at/samples/A/OrderService/IOrderService/PlaceC

Destination (Write To)

Type: Soap

SOAP Header Namespace:

Identifier: Action

OK Cancel

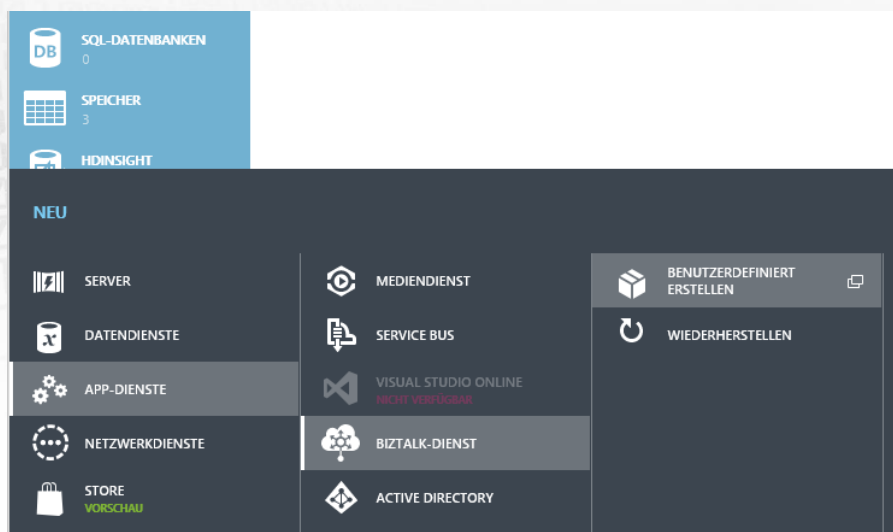
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## Message-Inspectoren

```
public class CustomMessageInspector: IMessageInspector {  
  
    [PipelineProperty(Name="Info")]  
    public string Info { get; set; }  
  
    public Task Execute(IMessage message,  
                        IMessageInspectorContext context)  
    {  
        var stream = message.Data;  
        var contentType = message.ContentType;  
        var promotedProperties = message.GetPromotedProperties();  
        message.Promote("MyVariable", "4711");  
  
        var requestId = context.RequestId;  
        var tracer = context.Tracer;  
        tracer.TraceEvent(TraceEventType.Information,  
                          "Manfred war hier ...");  
    }  
}
```

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## Installation und Verwaltung



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# EDI-Portal

GENERAL SETTINGS   RECEIVE SETTINGS   SEND SETTINGS

Transport → Protocol → Transform → Route

Basic Settings

Identifiers

ISA1 (Authorization Qualifier): 00 - No Authorizat   ISA3 (Security Qualifier): 00 - No Security I

ISA2:   ISA4:

Acknowledgements

TA1 expected    997 expected

Include AK2 loop

Route acks as flat file

Schemas

Choose or upload a valid X12 schema for parsing incoming X12 message based on Version, Transaction Type (ST1) and Sender Application (GS2).

VERSION	TRANSACTION TYPE (ST01)	SENDER APPLICATION (GS02)	SCHEMA
00503	850 - Purchase Order	111111111111111111	/X12_00503_850.XSD

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# AZURE SERVICE BUS

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## Features

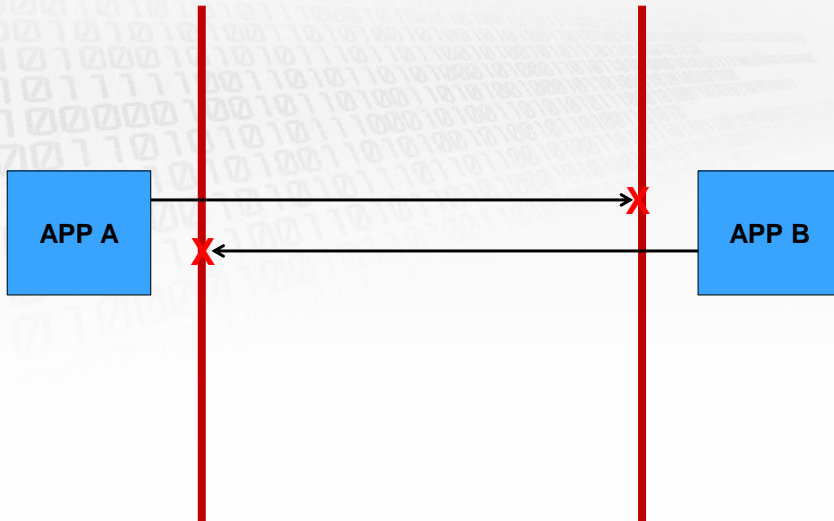
- Relaying
- Queuing + Topics

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## RELAYING (WCF ONLY)

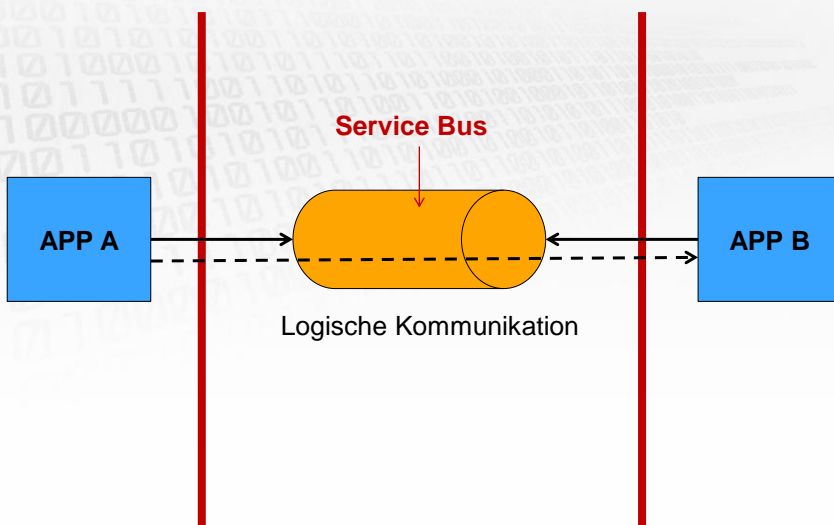
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## Szenario 1: Relaying



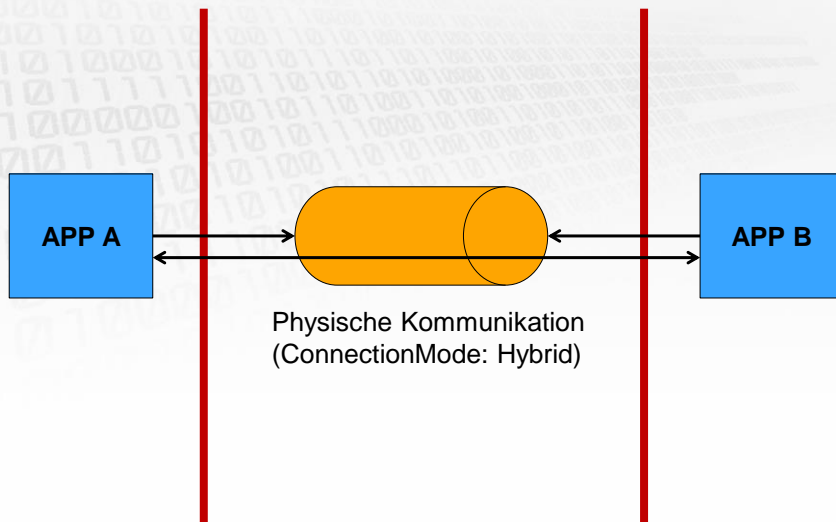
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## Szenario 1: Relaying



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## Szenario 1: Relaying

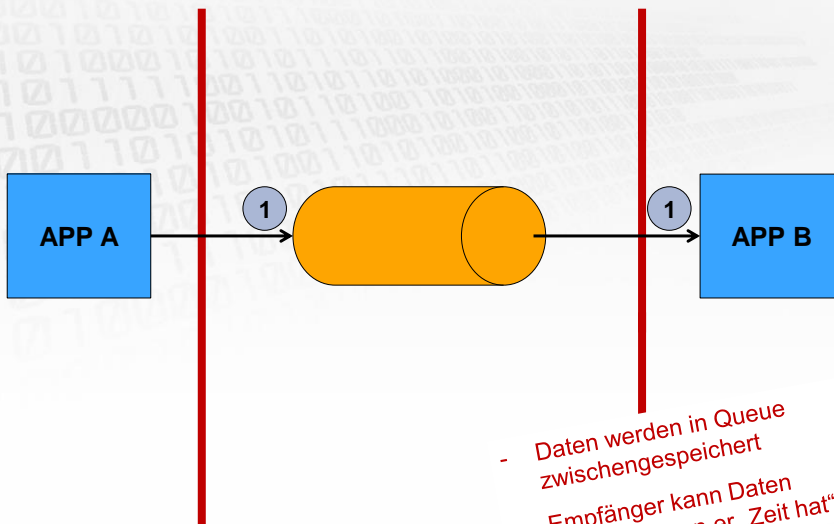


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## QUEUING (REST, .NET, ..., WCF)

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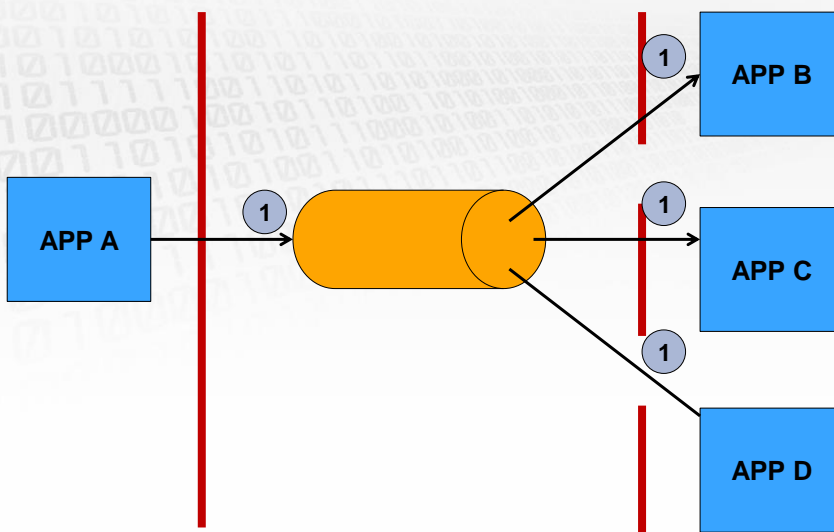
### Szenario 3: Message Queuing



- Daten werden in Queue zwischengespeichert
- Empfänger kann Daten abholen, wenn er „Zeit hat“

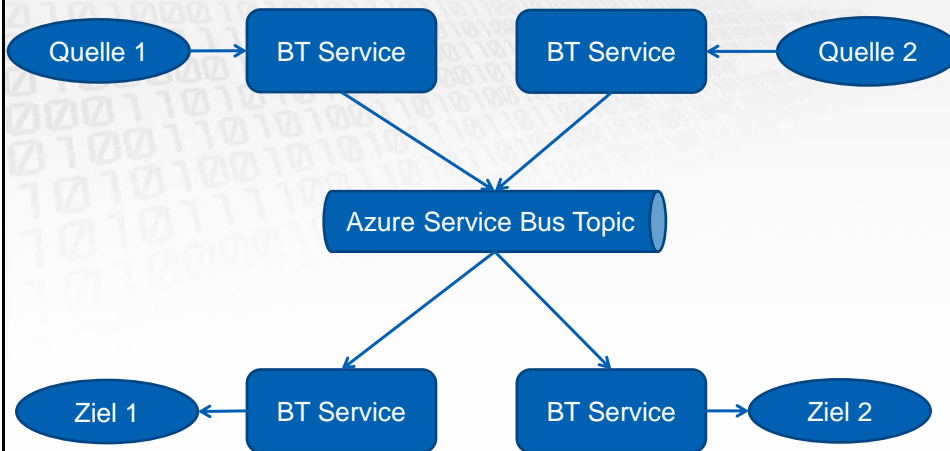
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### Szenario 5: Topics



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## „Bilderbuch SOA“



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# DEMO

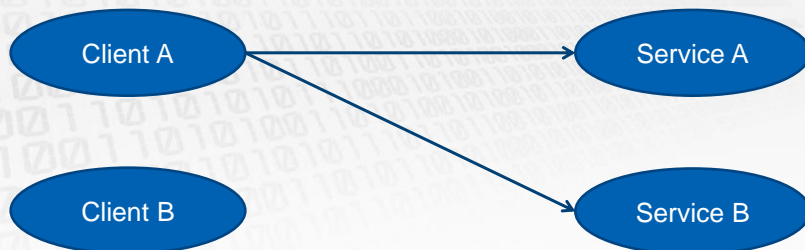
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## Überblick



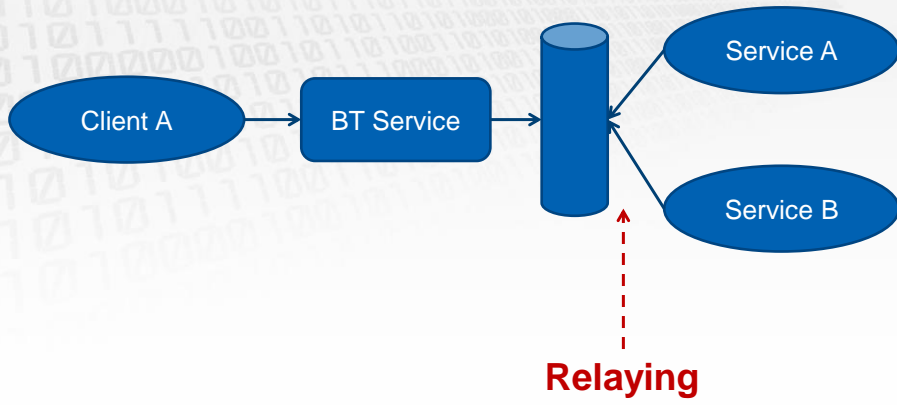
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## Überblick



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# Überblick



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# DEMO

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## Kontakt

[mail] [manfred.steyer@campus02.at](mailto:manfred.steyer@campus02.at)

[web] [www.campus02.at](http://www.campus02.at)

[mail] [m.steyer@it-visions.de](mailto:m.steyer@it-visions.de)

[web] [www.it-visions.de](http://www.it-visions.de)

[blog] [softwarearchitekt.at](http://softwarearchitekt.at)

[twitter] @ManfredSteyer



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