

Web Services Monitoring

Foliensatz zum Vortrag von der OIO Hauskonferenz
am 17. Dezember 2009

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Schwerpunkte
SOA
Web Services

- Kritische Anwendungen/Prozesse basieren zunehmend auf WS
- Erhöhte Komplexität durch große Anzahl von Systemen/Services
- Lose Kopplung
- Erst Monitoring erlaubt große Flexibilität

- Verfügbarkeit
- Performance
- Policy Management
- Alerting
- Root Cause Analysis

Unterschiede zwischen Web Application und Web Services Monitoring



- Komponenten einer SOA sind auf einer Vielzahl von heterogenen Systemen verteilt.
- Berücksichtigung des SOAP Protokolls
- WSDL Inhalt unberücksichtigt
- Endpoints Modell
- Abhängigkeiten
- Nicht HTTP Transporte

Monitoring der Verfügbarkeit

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Reality

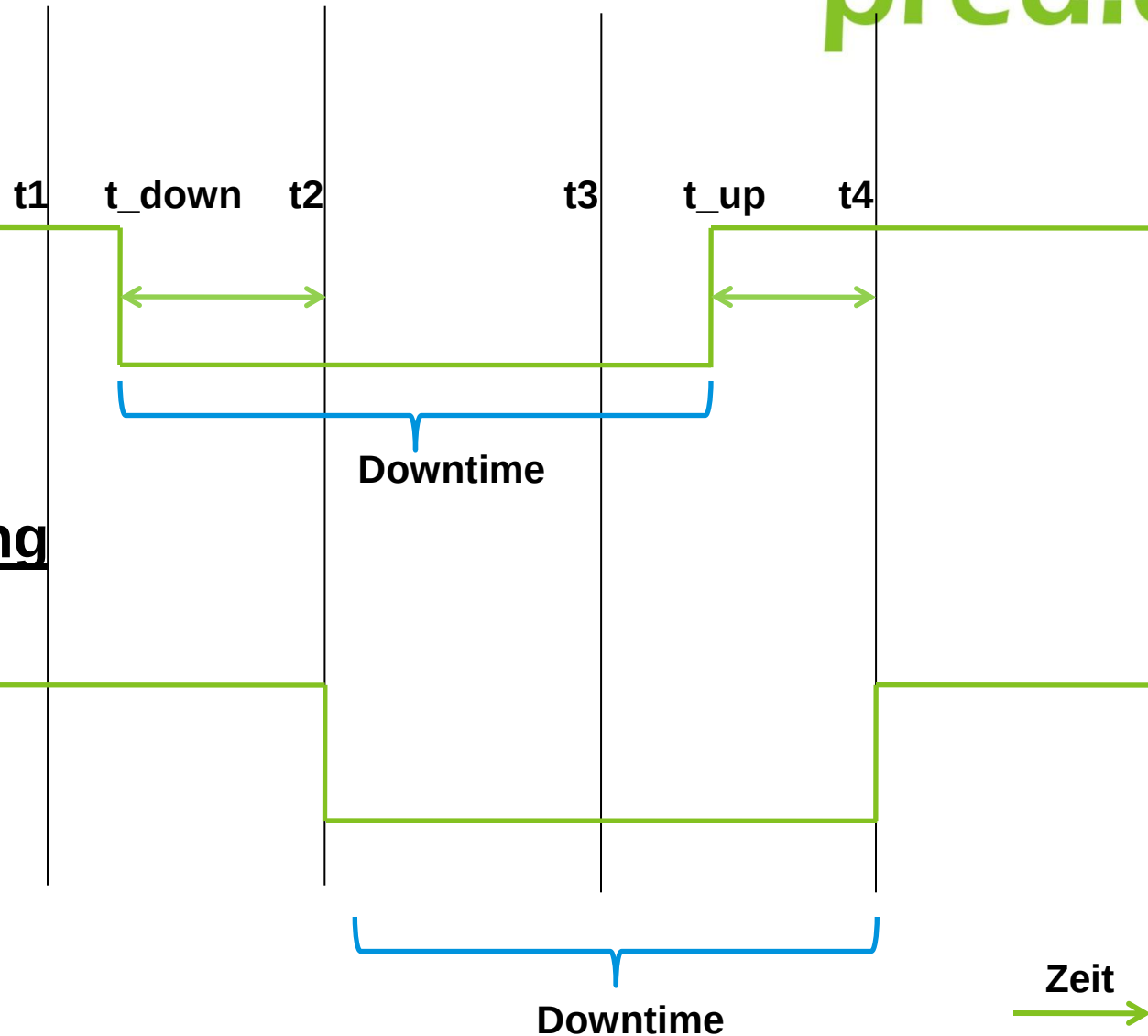
Up

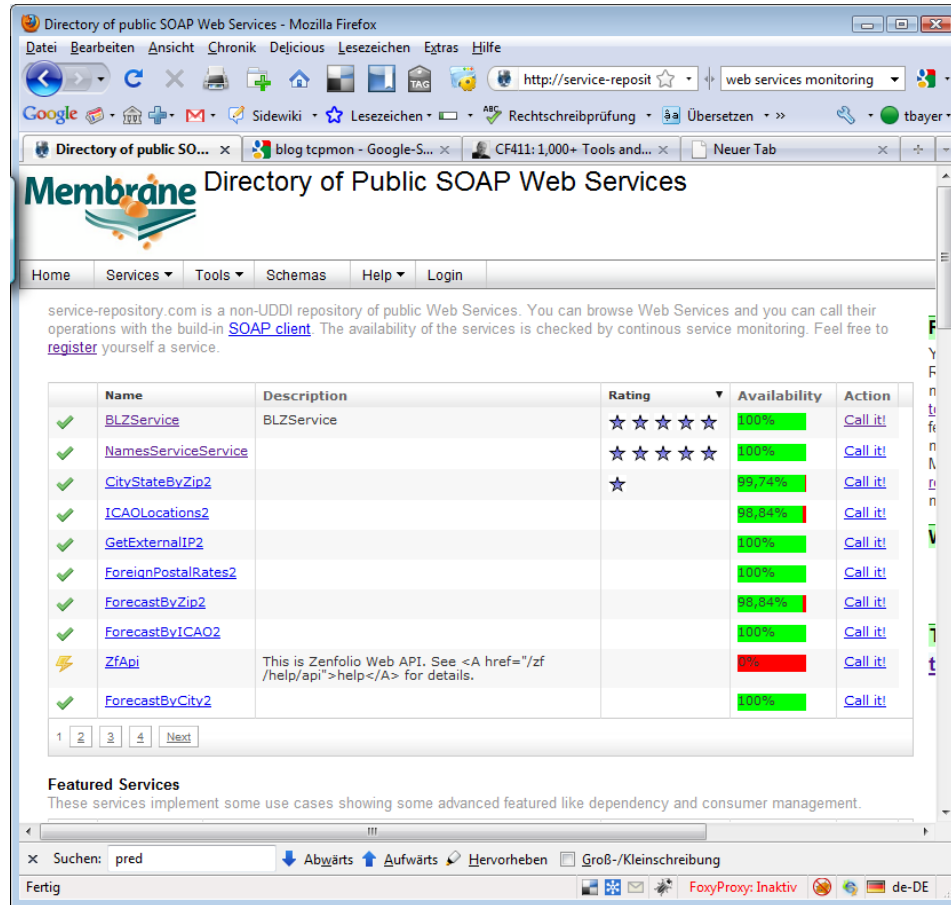
Down

Monitoring

Up

Down





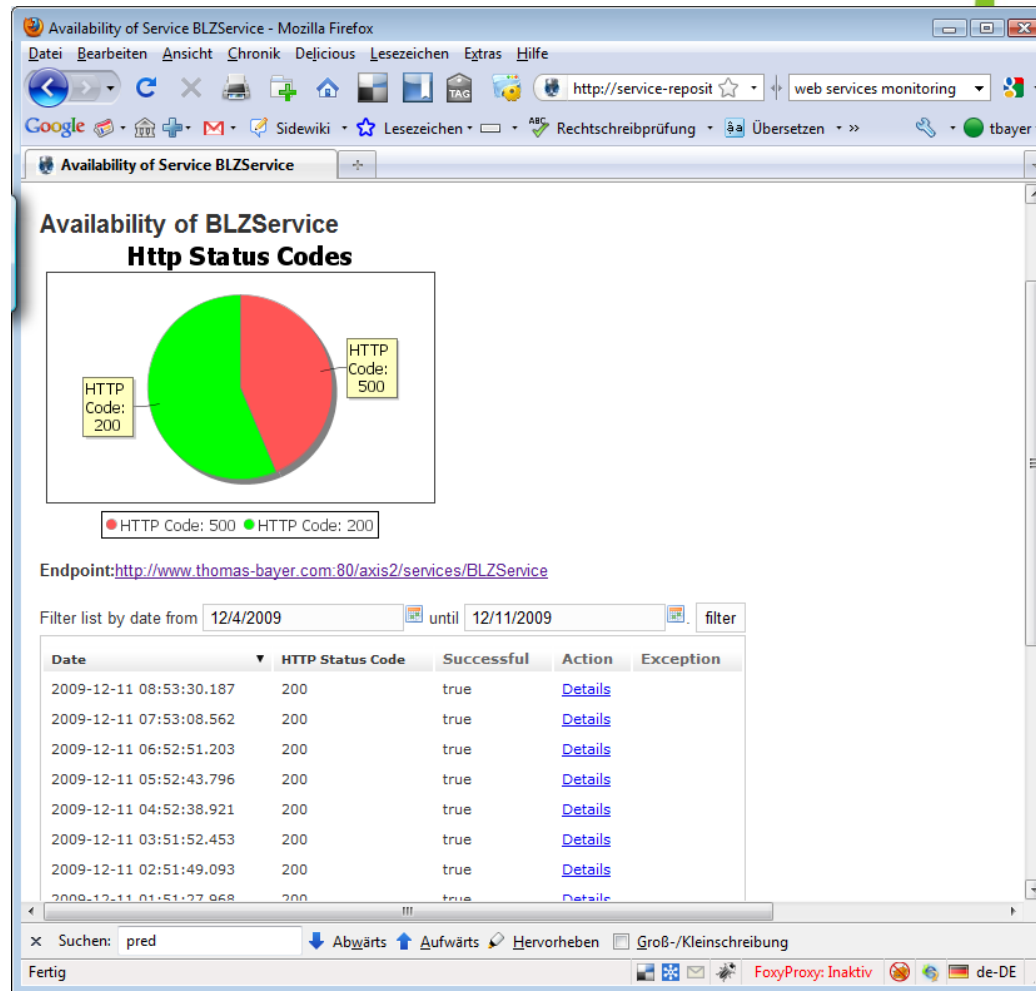
The screenshot shows a web browser window titled "Directory of public SOAP Web Services - Mozilla Firefox". The address bar shows "http://service-reposit...". The page header includes the Membrane logo and the title "Directory of Public SOAP Web Services". Below the header is a navigation bar with links: Home, Services, Tools, Schemas, Help, and Login. A paragraph of text describes the service repository as a non-UDDI repository of public Web Services, mentioning a built-in SOAP client and service monitoring. Below this is a table listing various services with their names, descriptions, ratings, availability percentages, and "Call it!" links. The table includes services like BLZService, NamesServiceService, CityStateByZip2, ICAOLocations2, GetExternalIP2, ForeignPostalRates2, ForecastByZip2, ForecastByICAO2, ZfApi, and ForecastByCity2. At the bottom, there is a "Featured Services" section and a search bar with the text "Suchen: pred".

Name	Description	Rating	Availability	Action
✓ BLZService	BLZService	★★★★★	100%	Call it!
✓ NamesServiceService		★★★★★	100%	Call it!
✓ CityStateByZip2		★	99,74%	Call it!
✓ ICAOLocations2			98,84%	Call it!
✓ GetExternalIP2			100%	Call it!
✓ ForeignPostalRates2			100%	Call it!
✓ ForecastByZip2			98,84%	Call it!
✓ ForecastByICAO2			100%	Call it!
⚡ ZfApi	This is Zenfolio Web API. See help for details.		0%	Call it!
✓ ForecastByCity2			100%	Call it!

1 2 3 4 Next

Featured Services
These services implement some use cases showing some advanced featured like dependency and consumer management.

Suchen: pred Abwärts Aufwärts Hervorheben Groß-/Kleinschreibung Fertig FoxyProxy: Inaktiv de-DE

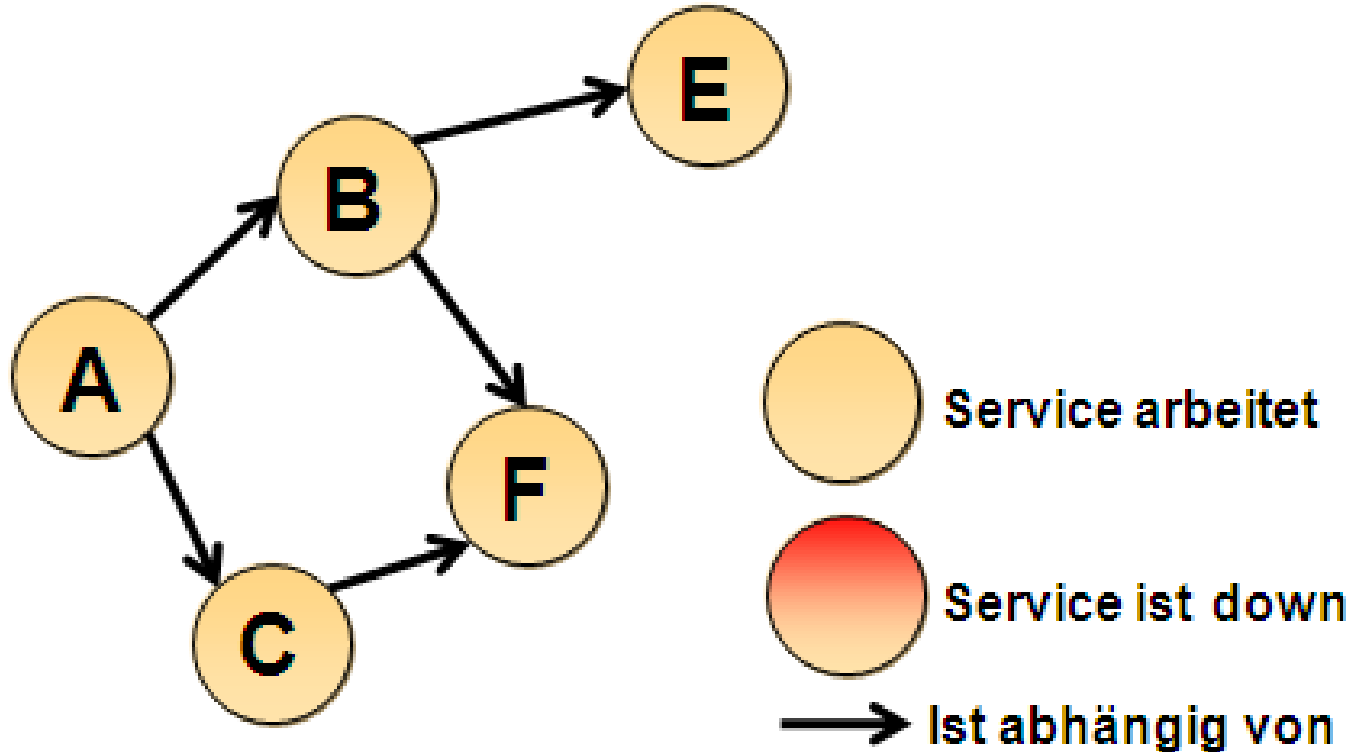


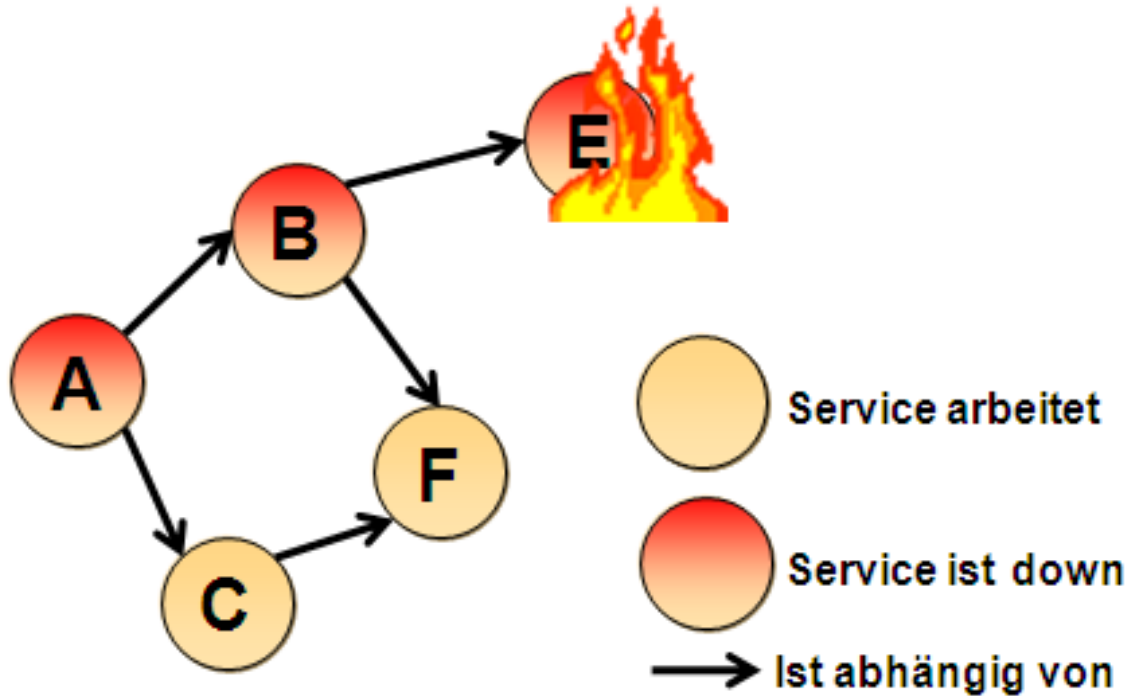
Überwachen von Abhängigkeiten

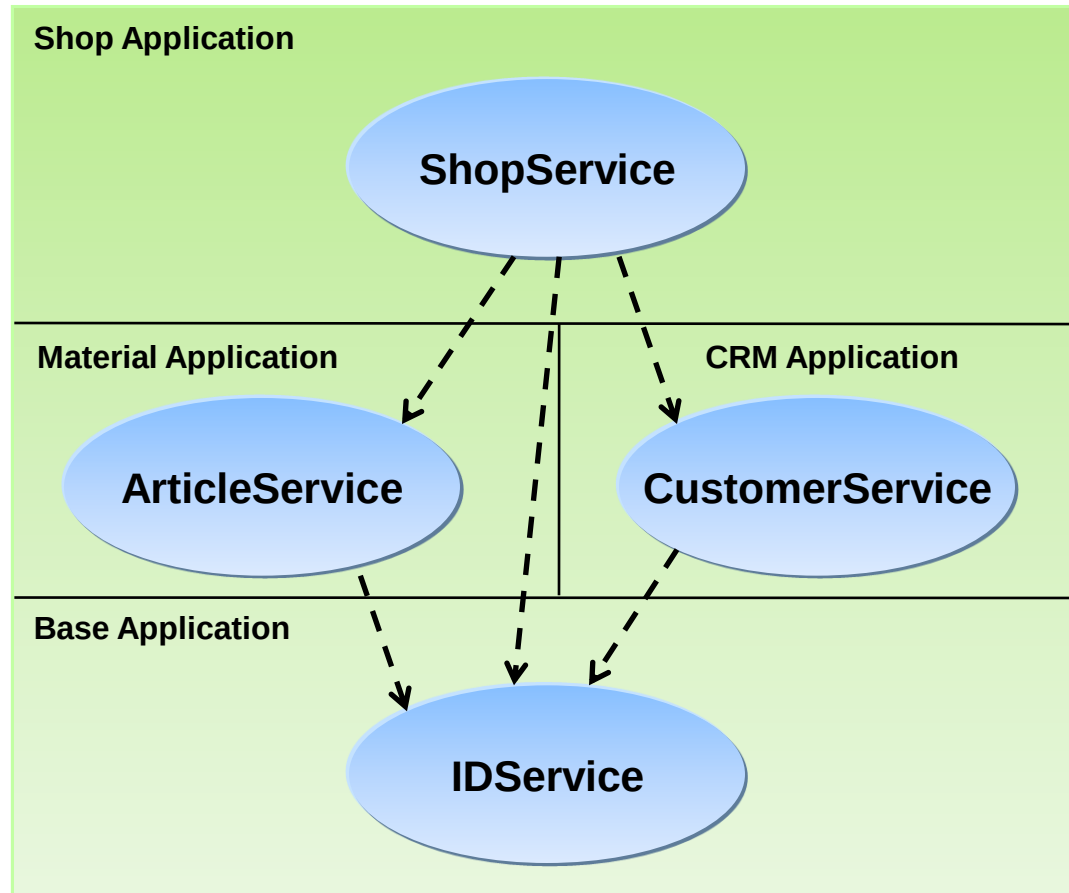
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- - - - - ➔ Is dependent from

The screenshot shows a web browser window titled "Service-Repository: ShopService - Mozilla Firefox". The address bar shows "web services". The page content is divided into two main sections:

Dependency Graph

- CRMService
 - IDService
- ArticleService
 - IDService
 - BlzService
 - IDService

Direct Dependencies

Dependency	Availability	Action
CRMService	45,37%	
ArticleService	45,37%	
BlzService	99,92%	
IDService	45,37%	

[add dependency](#)

At the bottom, there is a search bar with "Suchen: pred", navigation buttons (Abwärts, Aufwärts), and a status bar showing "Fertig" and "FoxyProxy: Inaktiv".

Service-Repository: ShopService - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Delicious Lesezeichen Extras Hilfe

web services monitoring

Service-Repository: ShopService

Service: ShopService

Overview Interface Endpoints **Events** Statistics Dependencies

	Date	Description	Action
✓	2009-12-11 09:53:49 MEZ	Service: ShopService available again	
✓	2009-12-11 09:53:48 MEZ	Dependencies for Service ShopService satisfied	
📄	2009-12-11 09:39:54 MEZ	WsdL of Service: ShopService has changed!	Show Change
✖	2009-12-09 16:46:01 MEZ	Service: ShopService went down	
✖	2009-12-09 16:45:59 MEZ	Dependencies for Service ShopService not satisfied	
✓	2009-12-09 13:42:41 MEZ	Service: ShopService available again	
✓	2009-12-09 13:42:40 MEZ	Dependencies for Service ShopService satisfied	
✖	2009-11-26 03:32:56 MEZ	Service: ShopService went down	
✖	2009-11-26 03:32:55 MEZ	Dependencies for Service ShopService not satisfied	

Suchen: pred Abwärts Aufwärts Hervorheben Groß-/Kleinschreibung

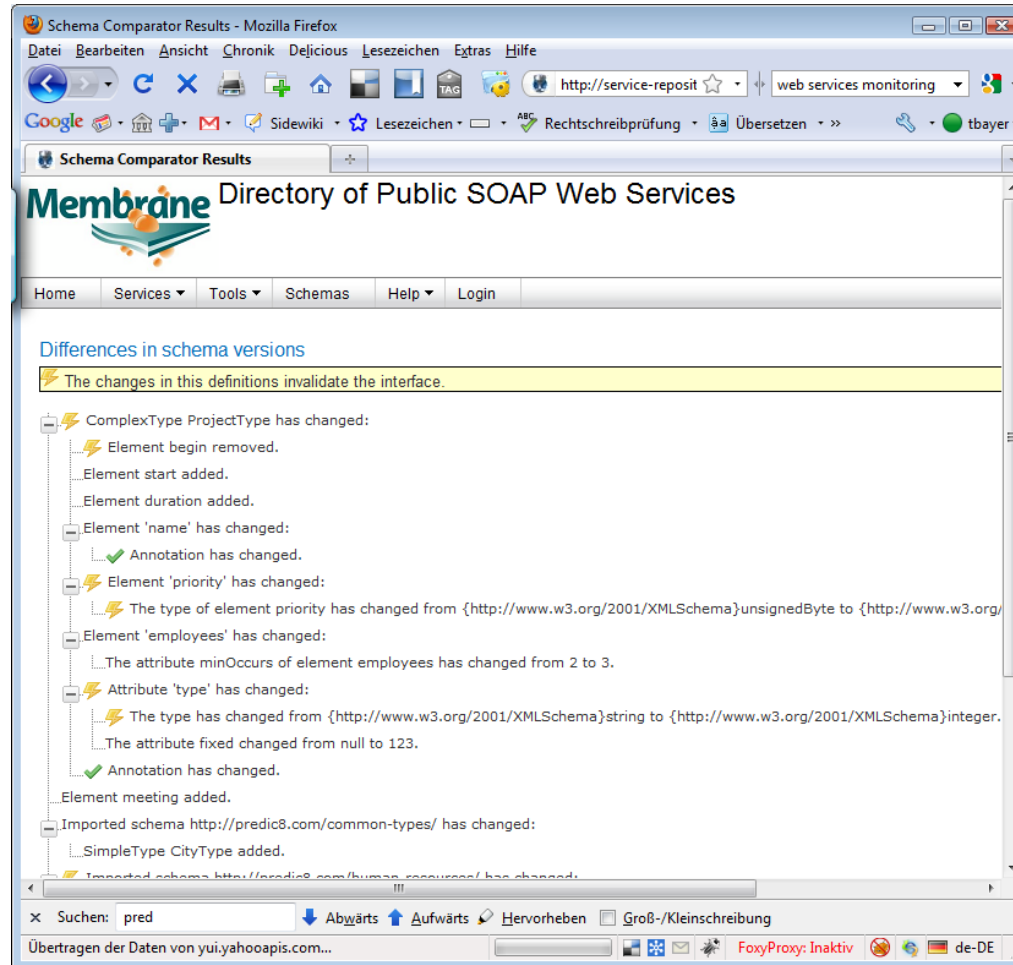
Fertig FoxyProxy: Inaktiv de-DE

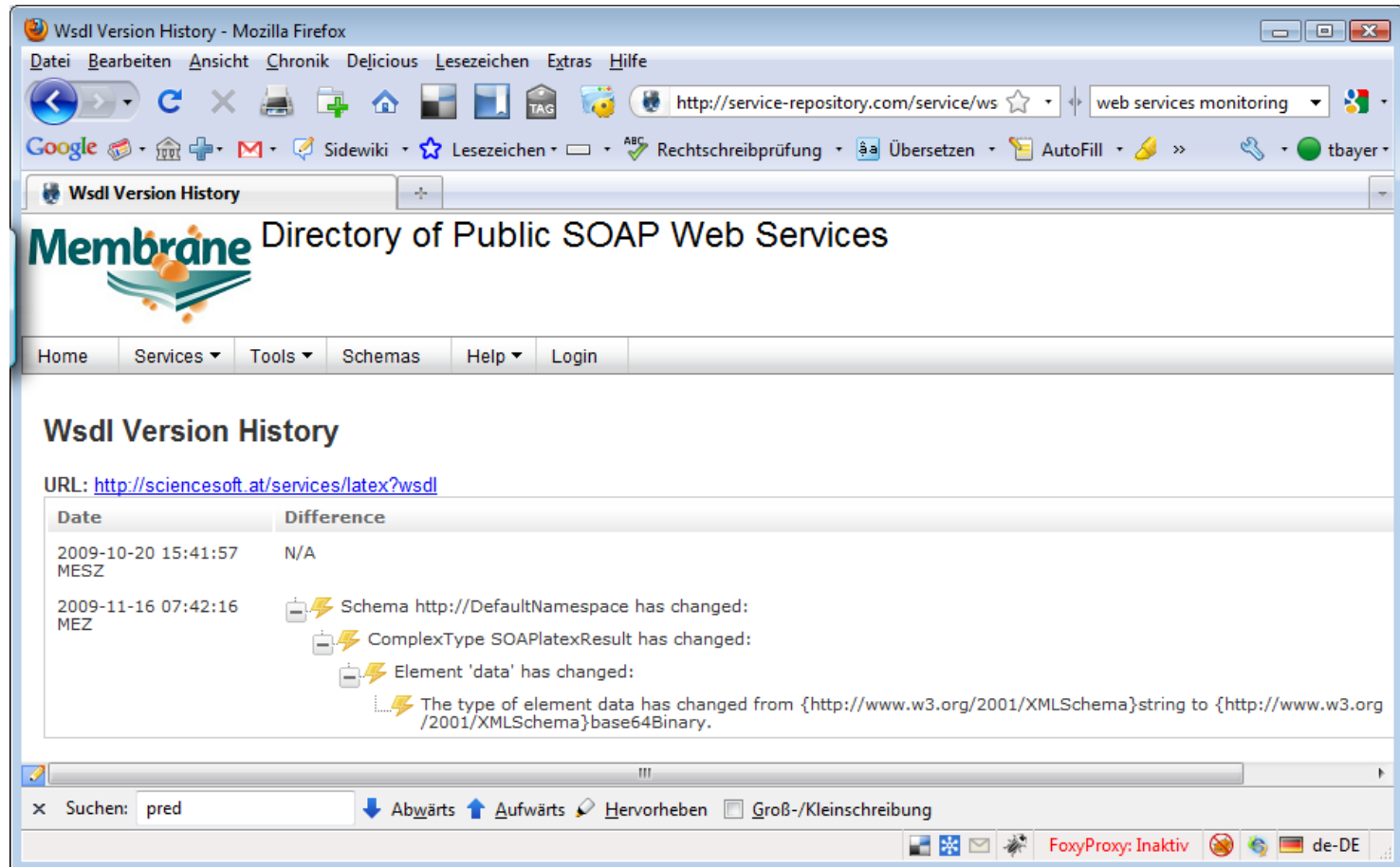
Service Contract Monitoring

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WSDL Version History - Mozilla Firefox

http://service-repository.com/service/ws

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Google Sidewiki Lesezeichen Rechtschreibprüfung Übersetzen AutoFill tbayer

WSDL Version History

Membrane Directory of Public SOAP Web Services

Home Services Tools Schemas Help Login

WSDL Version History

URL: <http://sciencesoft.at/services/latex?wsdl>

Date	Difference
2009-10-20 15:41:57 MESZ	N/A
2009-11-16 07:42:16 MEZ	- Schema http://DefaultNamespace has changed: - ComplexType SOAPlatexResult has changed: - Element 'data' has changed: - The type of element data has changed from {http://www.w3.org/2001/XMLSchema}string to {http://www.w3.org/2001/XMLSchema}base64Binary.

Suchen: pred

Abwärts Aufwärts Hervorheben Groß-/Kleinschreibung

FoxyProxy: Inaktiv de-DE

The screenshot shows a Mozilla Firefox browser window displaying the 'WSDL and Endpoint Ping Details of latex' page on the Membrane website. The URL in the address bar is <http://service-repository.com/availability/ping?id=3966018>. The page title is 'WSDL and Endpoint Ping Details of latex - Mozilla Firefox'. The Membrane logo and navigation menu are visible at the top. The main content area shows 'Ping Details' and 'WSDL Retrieval' information. A table displays the ping results for the service.

Date	Status	Successful
2009-12-11 08:43:21.562	200	true

Error: none

Service Availability

A ping message was sent to the service to get some information regarding its health. The ping message has no side effects on the server side.

Endpoint: <http://sciencesoft.at/services/latex>

Ping

Response:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Client</faultcode>
      <faultstring>Invalid operation: {http://thomas-bayer.com/blz/}getBank</faultstring>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```

Suchen: pred

- Wird durch ein Ereignis ausgelöst z. B.
 - ▶ Fehlermeldung
 - ▶ Überschreitung eines Threshold
- Web 2.0 Stil: RSS Feeds

- Open Source
- JEE Web App
- Lightweight
- SOA Runtime Governance
- Monitoring
- Basiert auf Groovy und Grails
- Installation in einer Minute

Download: <http://www.membrane-soa.org/soa-registry/>

- In depth WSDL und Schema Analyse
- Availability Monitoring
- Dependency Management
- WSDL Contract Monitoring
- Alerting
- Multiple Endpoints
- Dynamic SOAP Client
- XML Schema Browsing

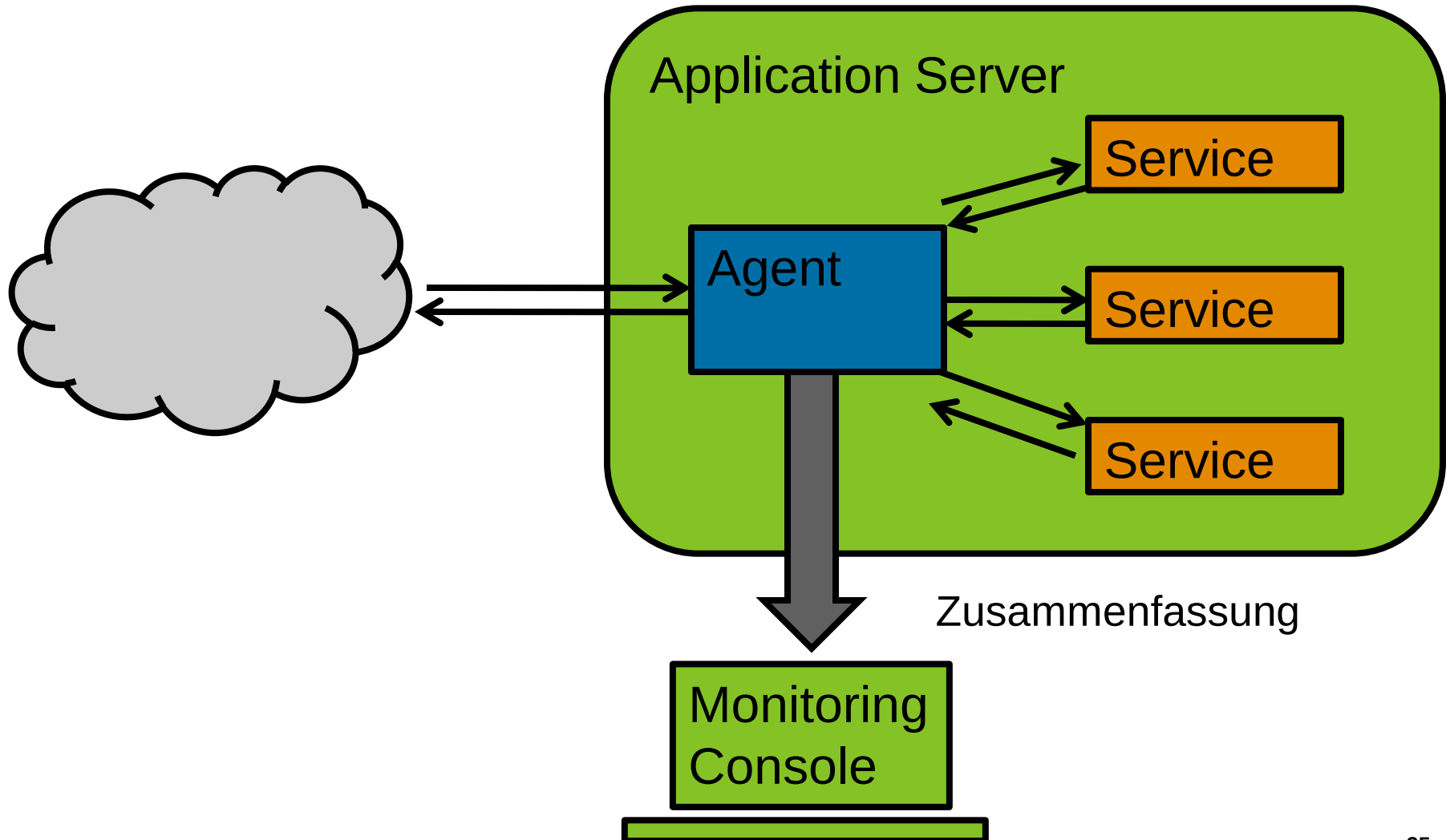
SOA Realtime Monitoring

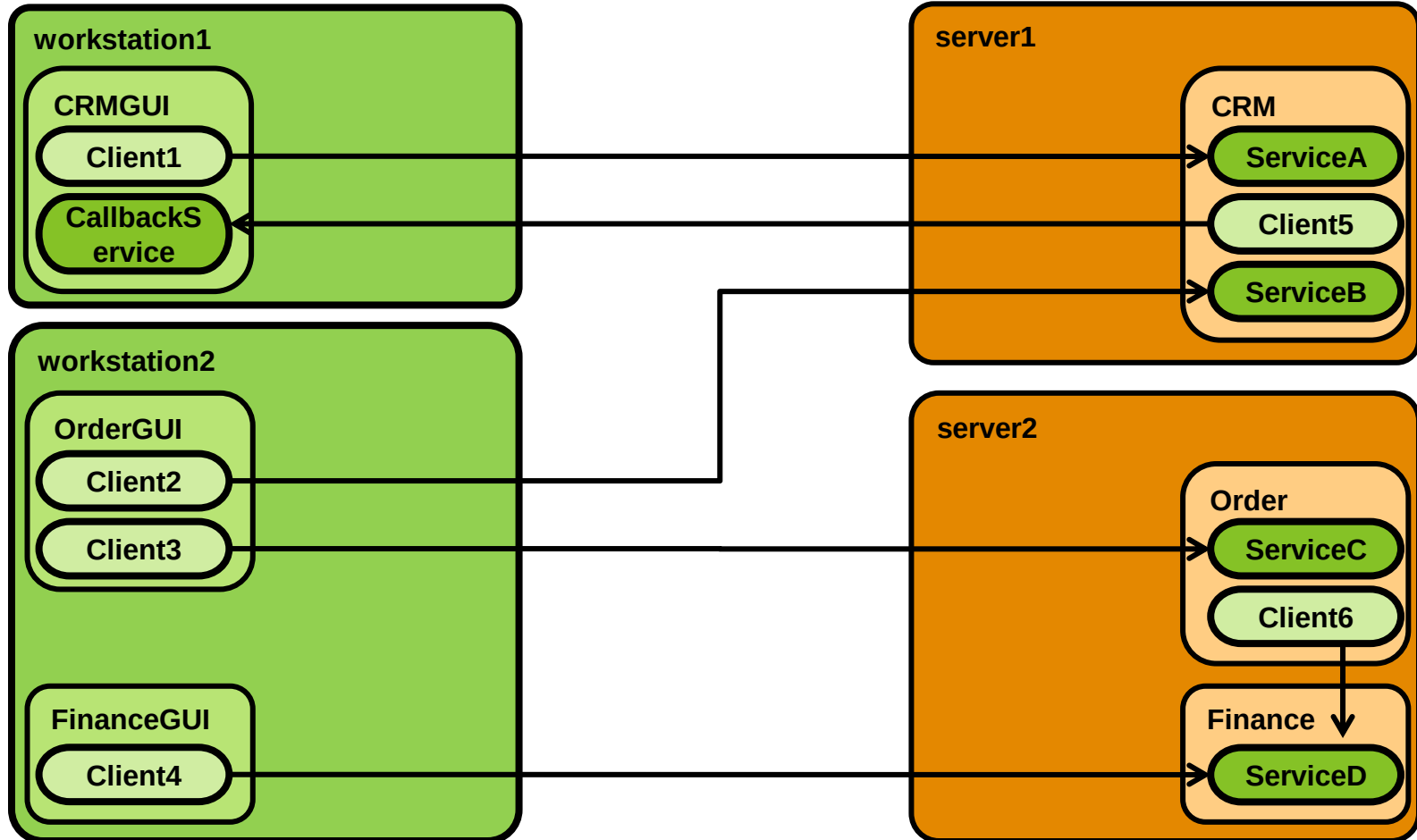
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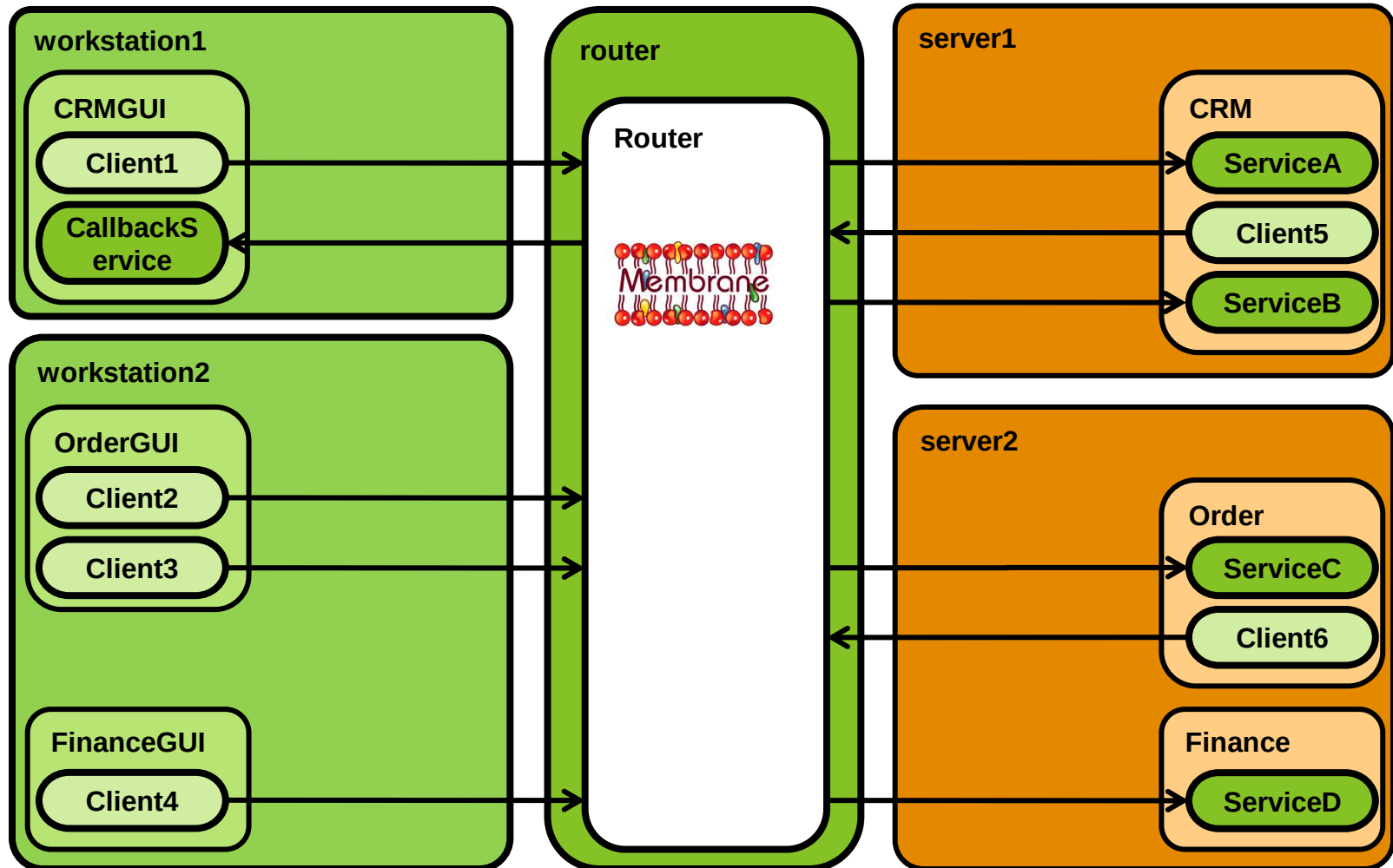
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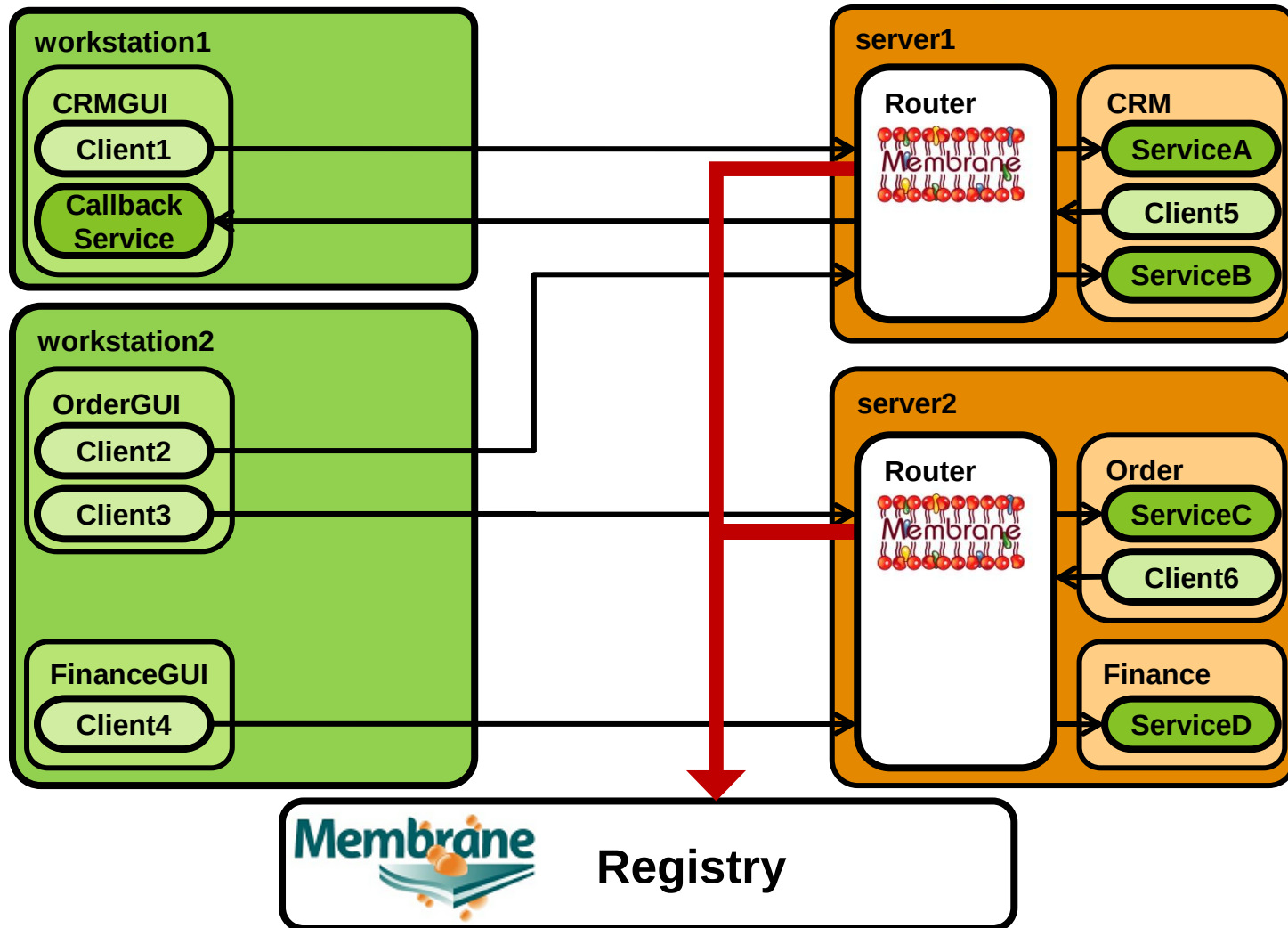
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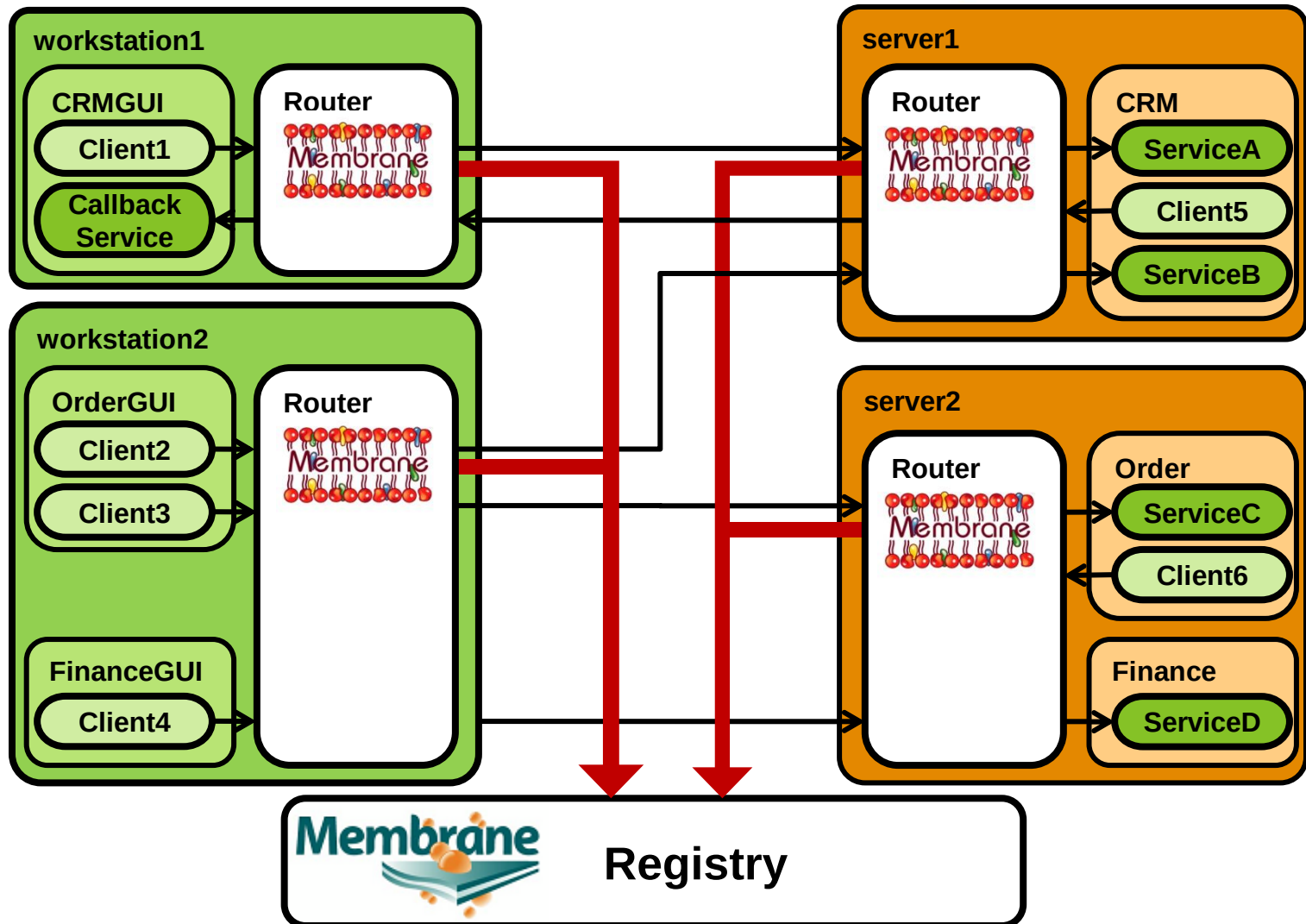
- Protokollieren aller Nachrichten
- Erfassen aller Fehler
- Ermitteln der tatsächlichen Performance
- Unmittelbarer Blick auf eine SOA









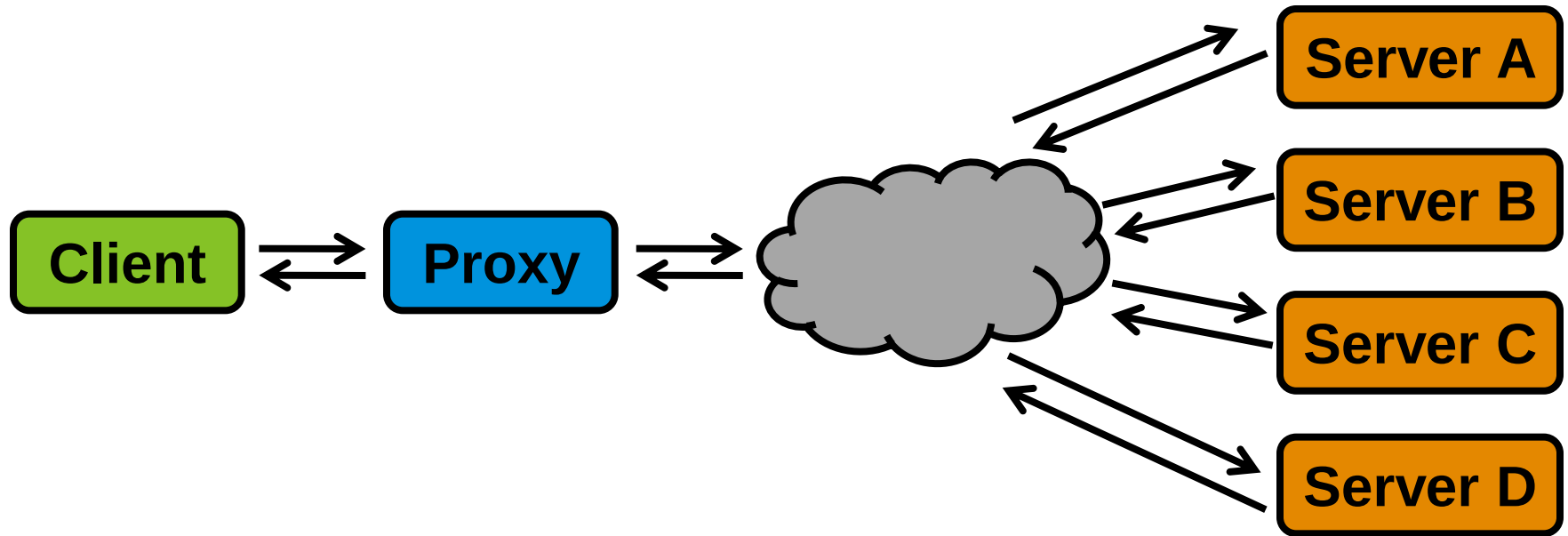


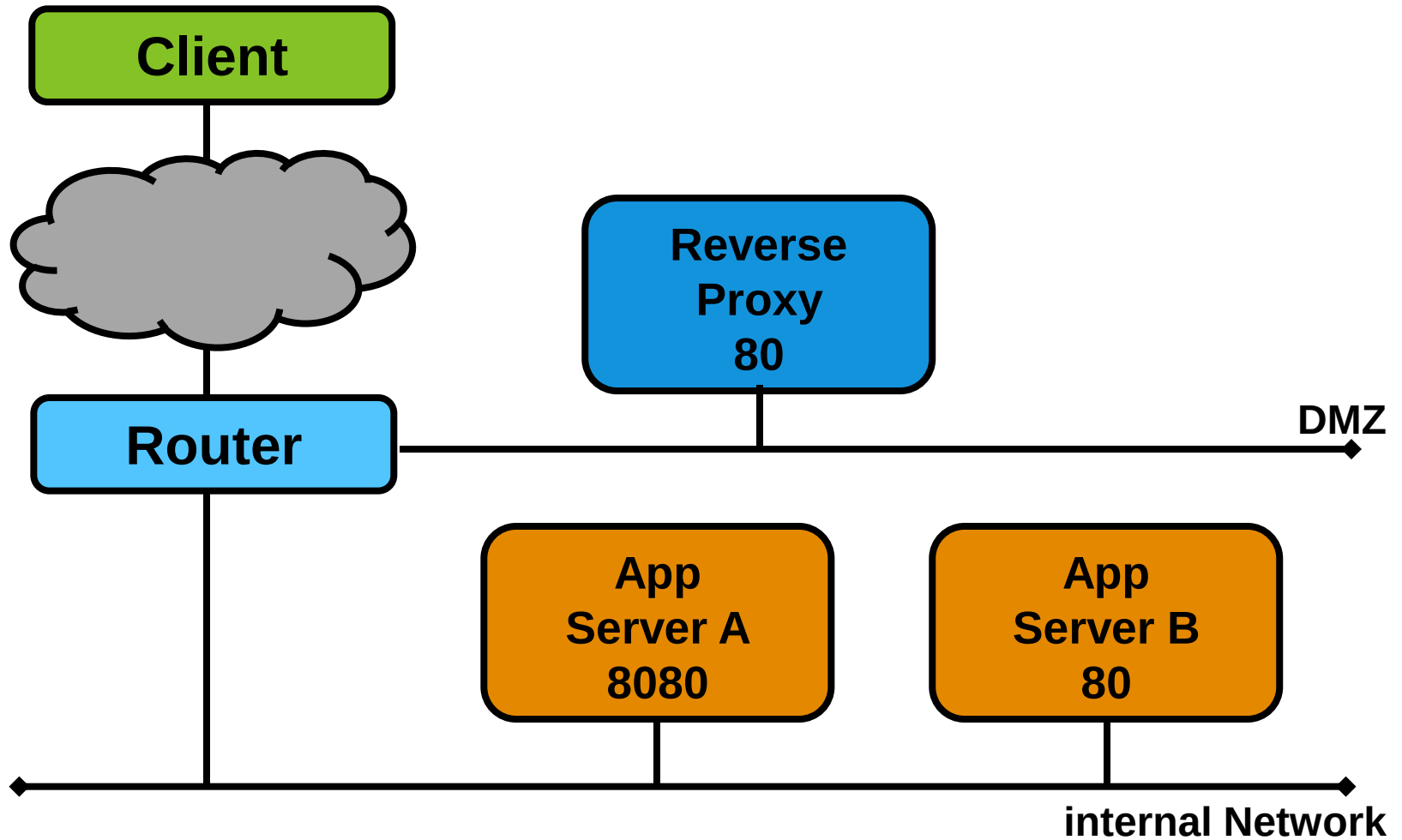
Reverse Proxy für SOAP

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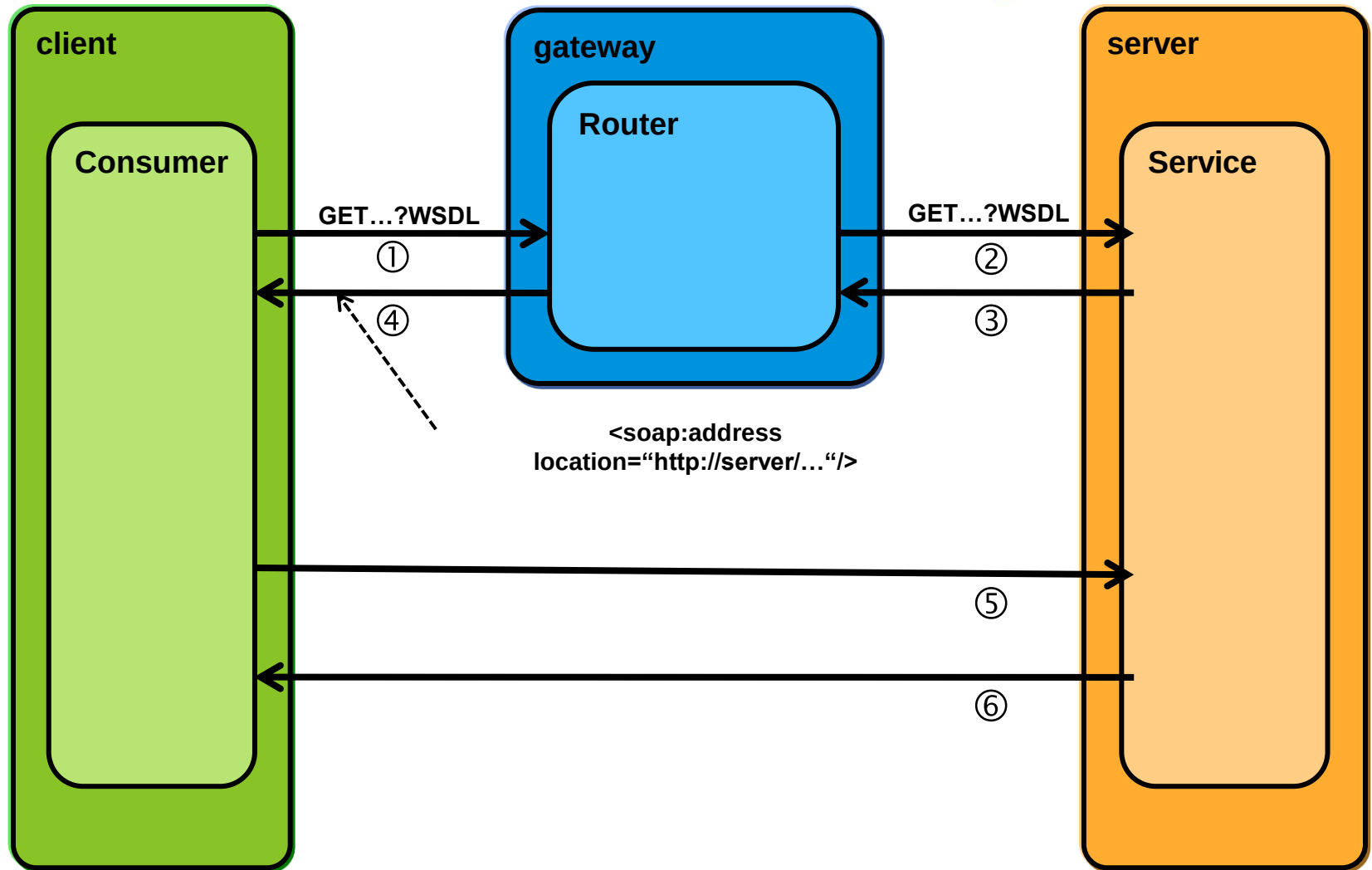
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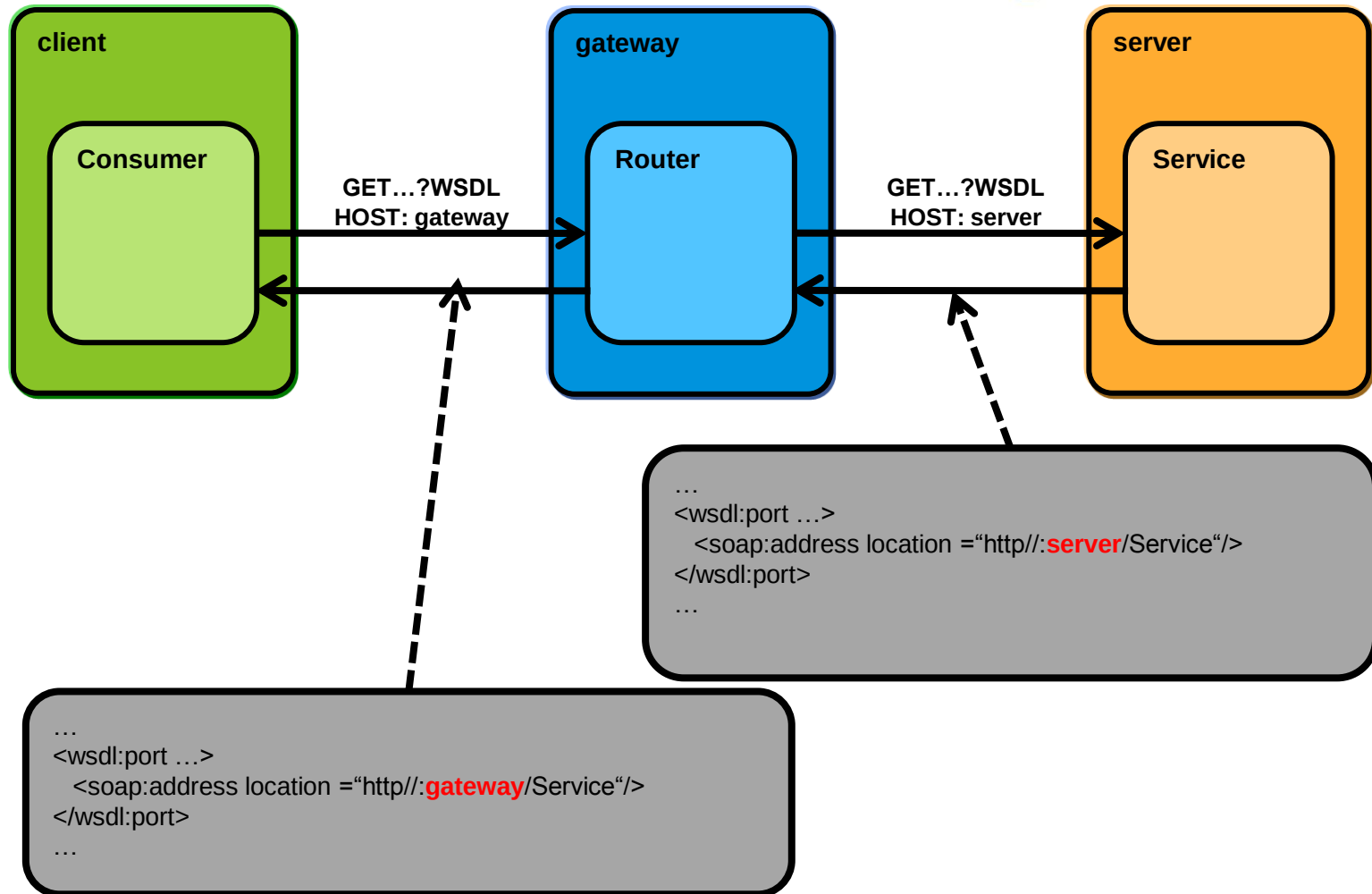
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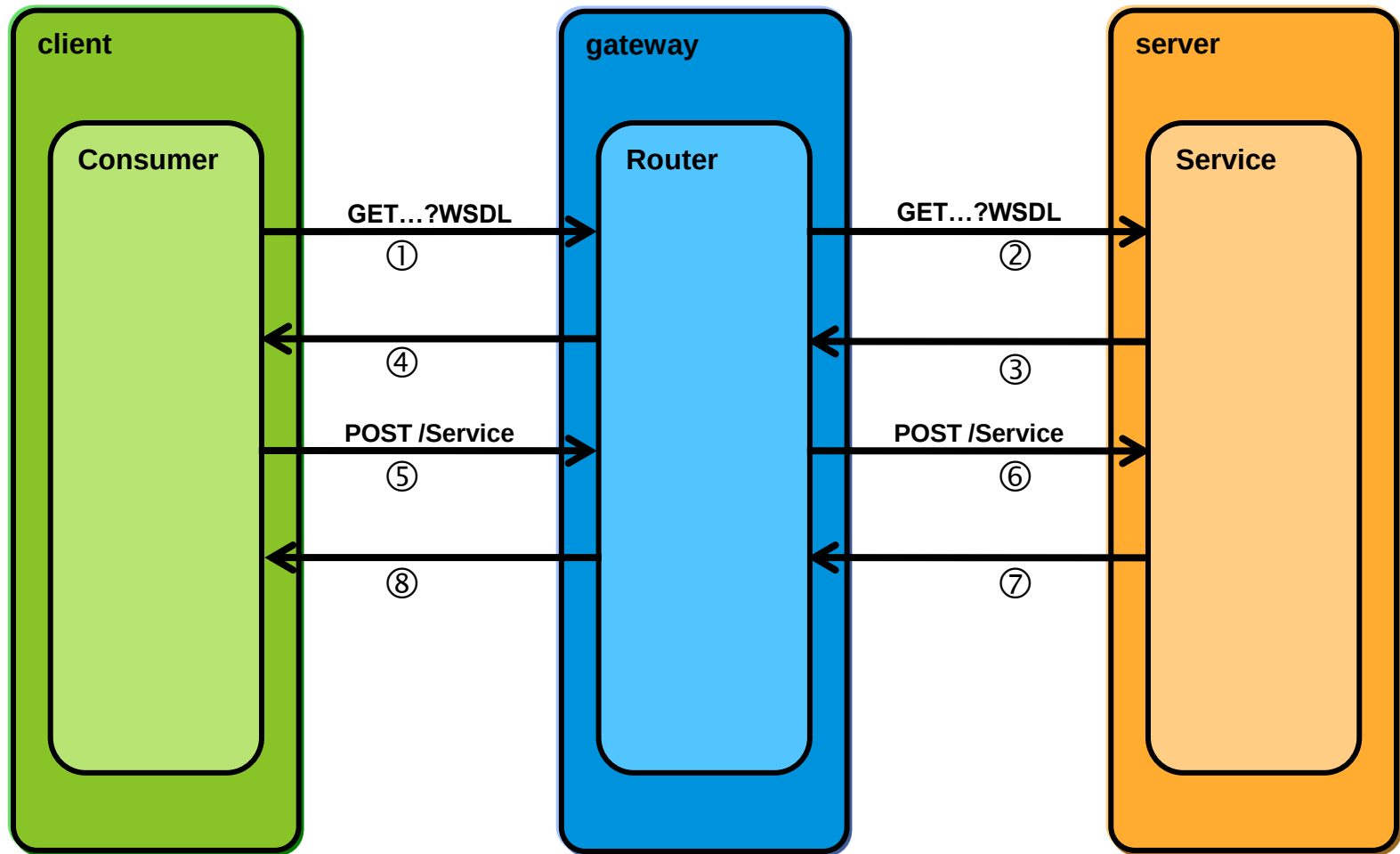


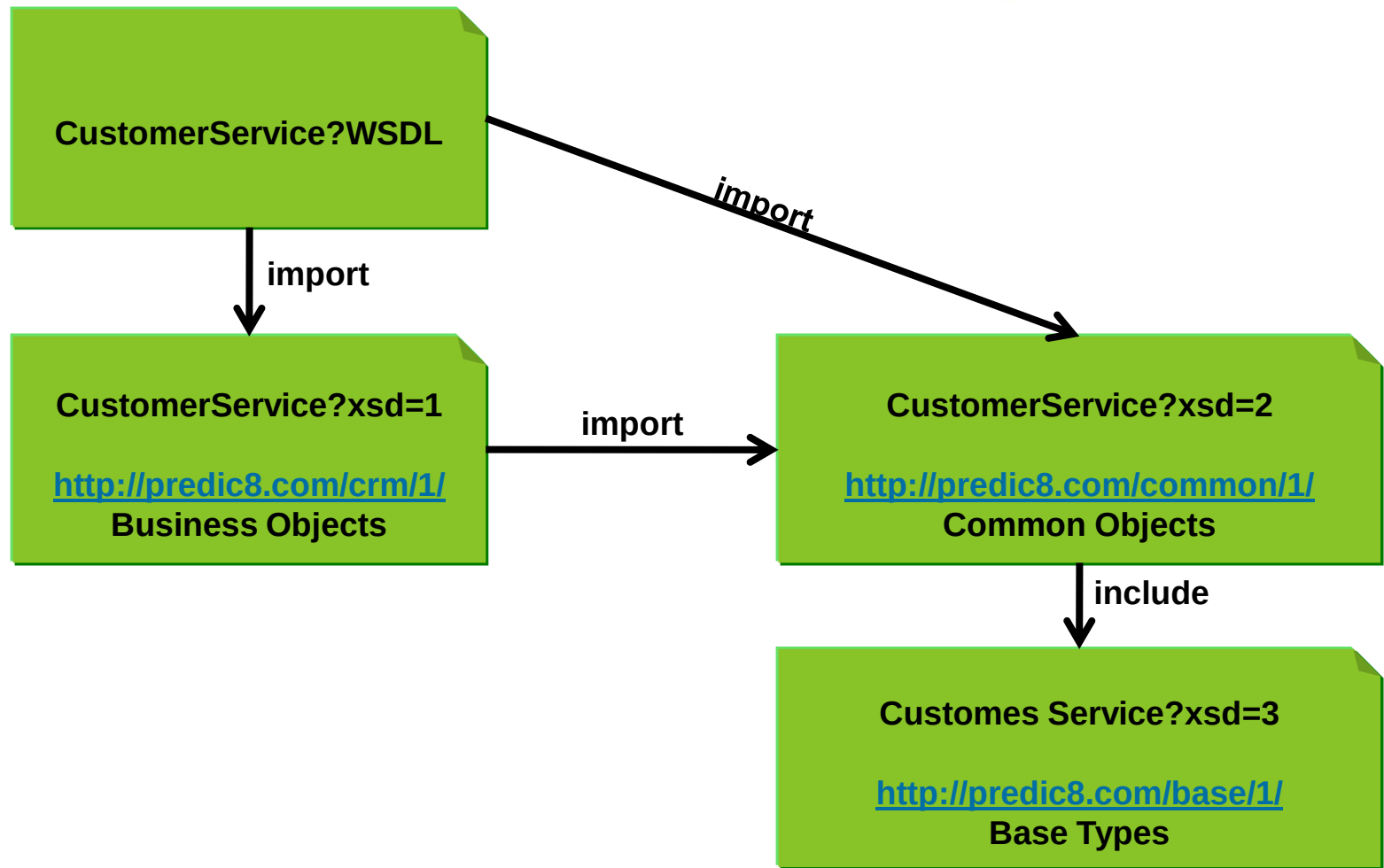


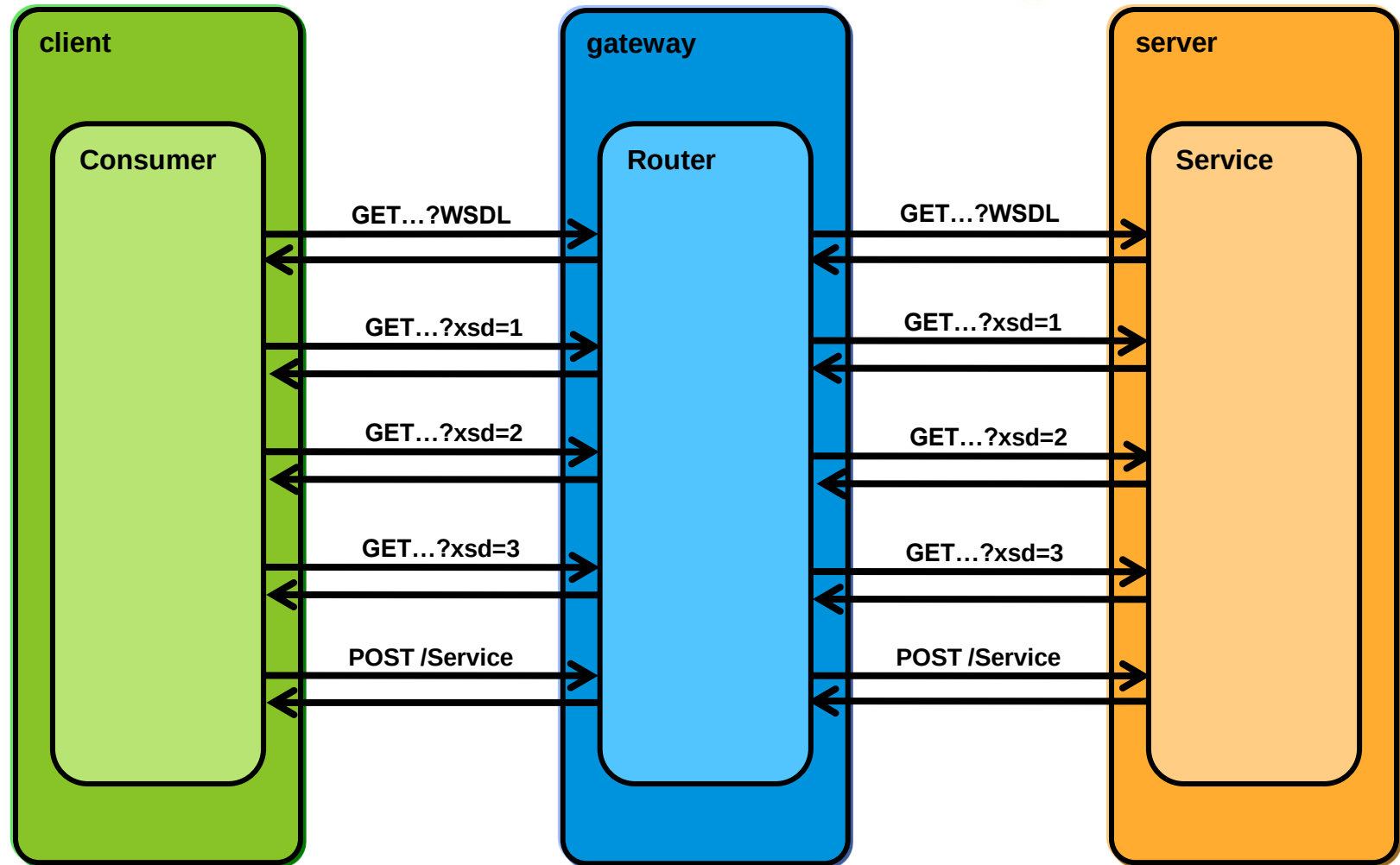
Warum ein HTTP Reverse Proxy nicht genügt





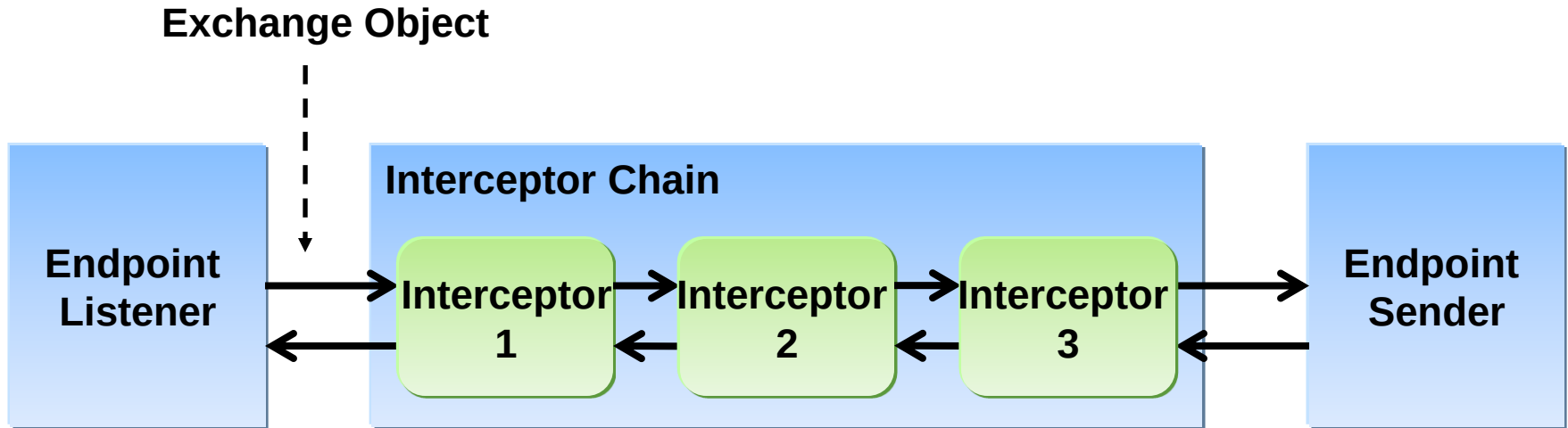






- Open Source
- GUI auf RPC Eclipse Basis
- HTTP Forwarding und Reverse Proxy
- Basiert auf Membrane SOA Router
- Regelbasiertes Routing
- Über Spring beliebig erweiterbar

Download: <http://www.membrane-soa.org/soap-monitor/>



- Klein < 2 MB
- Schnell
- SOAP Router Daemon
- Kann Membrane SOAP Monitor Konfiguration lesen
- Spring basiert → flexibel
- Über Interceptoren erweiterbar



Fragen ?

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Vielen Dank für ihre Aufmerksamkeit !

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