

**THE FULLY NETWORKED CAR**



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Oracle EMEA-IASG

Geneva, 5-7 March 2008



- **Introduction to SOA**
- **Oracle Telematics Foundation**
- **The Oracle eCall Demonstrator**
- **Interoperability with Telematics Services**

# What is SOA?

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## *A Technical Perspective*

A Service Oriented Architecture is a collection of self-contained services (system functions) that can communicate with each other.

## *A Business Perspective*

A service-oriented architecture is a style of multitier computing that helps organizations share logic and data among multiple applications and usage modes.

## *The SOA Promise*

Defining services at a “business level” enables rapid composition of end-to-end business processes, delivering on the promise of greater IT flexibility and agility.

Lower Technology Costs, Smaller Business IT Gap

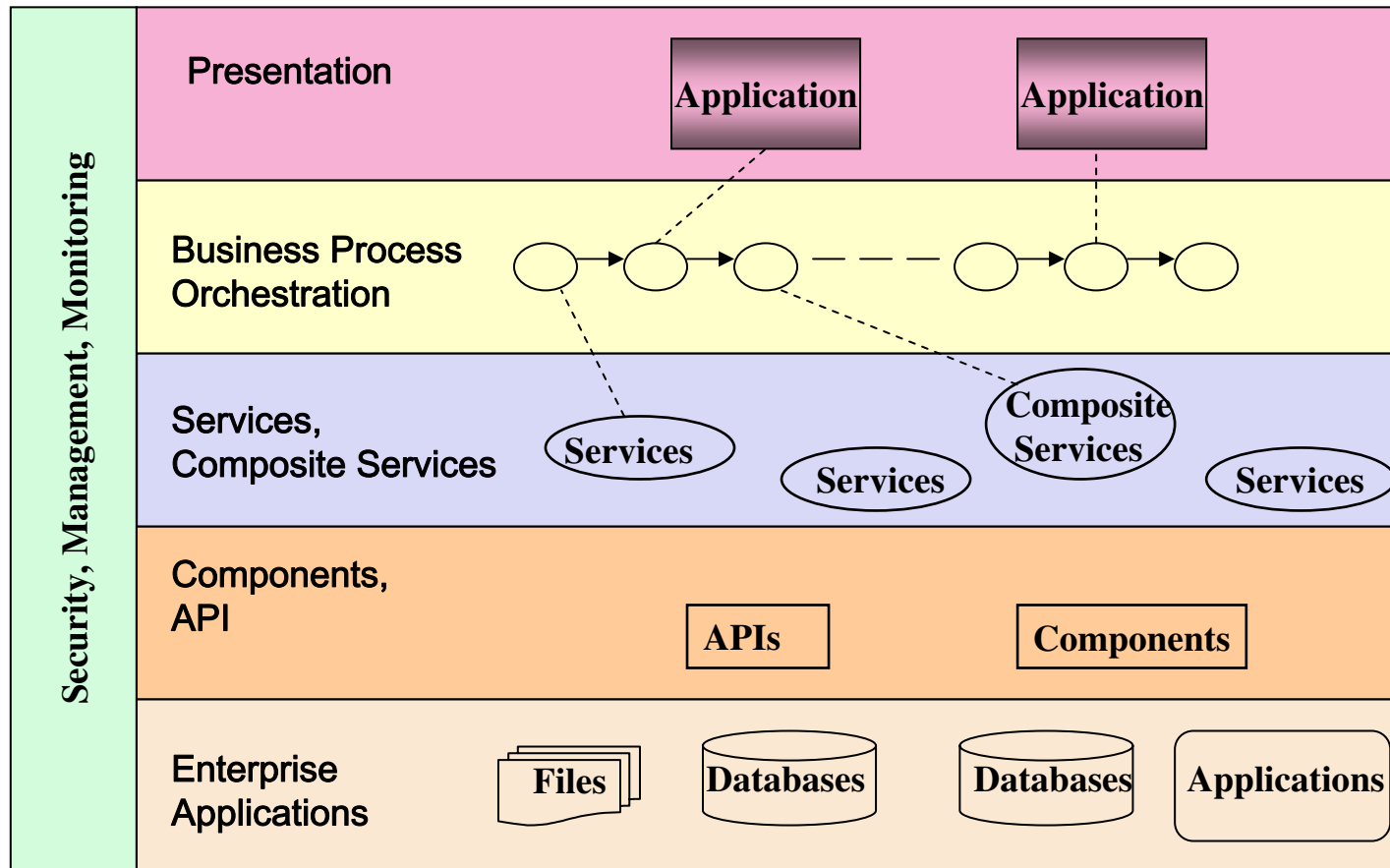
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# SOA: Flexible, Visible, Manageable

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# SOA: Key Terms

Service	A unit of business functionality that can be invoked over the network
Web service	A service that is called in a standard way, so anyone can use it without knowing its internals
“Loosely coupled”	When services are self-contained, and can be easily combined and disassembled, they are called loosely coupled.
Service-Oriented Architecture	A standards-based platform that lets you model, develop, find, and combine services into flexible business processes
Orchestration	Combining and assembling services into a coherent business process – also known as <i>business process management</i>

# SOA: What Products are needed?

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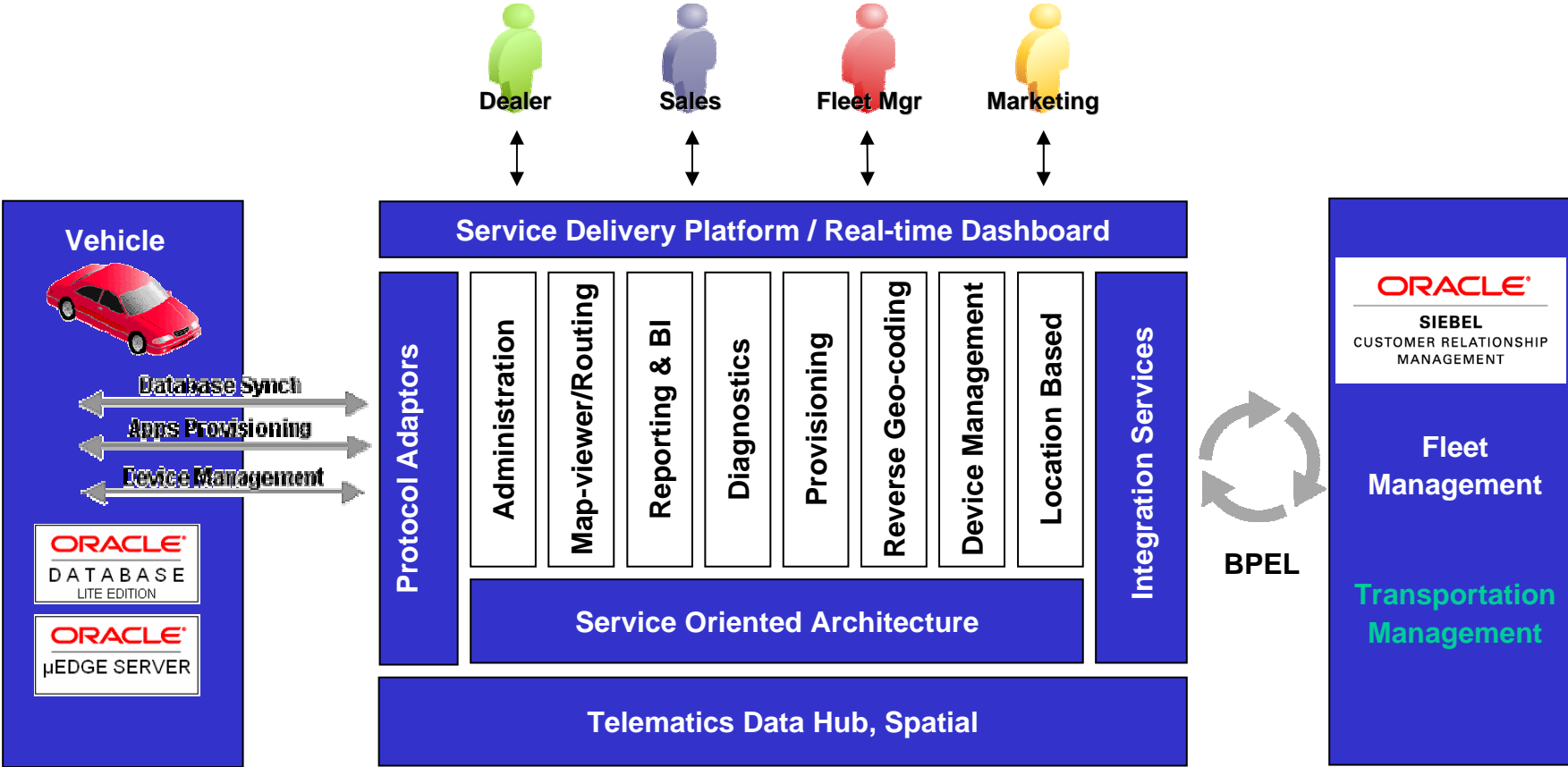
<b>Services</b>	Preferably one service to one business function
<b>Registry</b>	A place to store them so you can find them easily
<b>Process manager</b>	An orchestration tool so you can plug them together
<b>Message bus</b>	A way for them to communicate with each other
<b>Security</b>	Secure SOA, via WS Security & IDM
<b>Monitoring</b>	<i>*Bonus.</i> Real-time Activity Monitoring & Optimization

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# Oracle Telematics Foundation

## Backend based IT-Solutions

open telematics foundation



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# Oracle Telematics Foundation Vehicle based IT-Solutions

open embedded platform



MOST, FLEXRAY, CAN, LIN  
Reliable, >10yr Lifetime



Bluetooth, GPRS, HSDPA

Database Synch  
Apps Provisioning  
Device Management

ORACLE  
DATABASE  
LITE EDITION

VPN  
ROAMING

ORACLE  
μEDGE SERVER

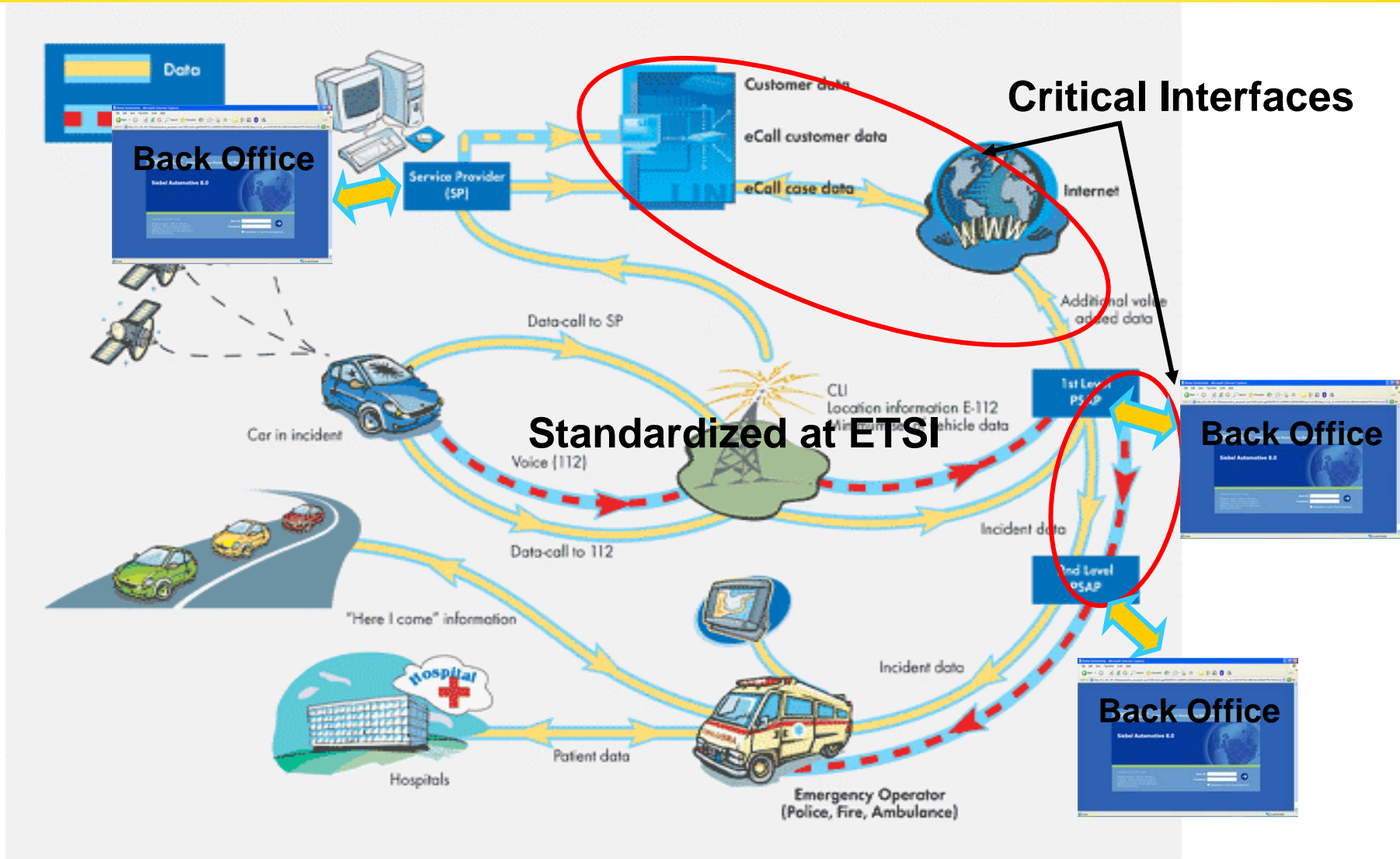
CONSUMER ELECTRONICS  
Secure, <2yr Lifetime

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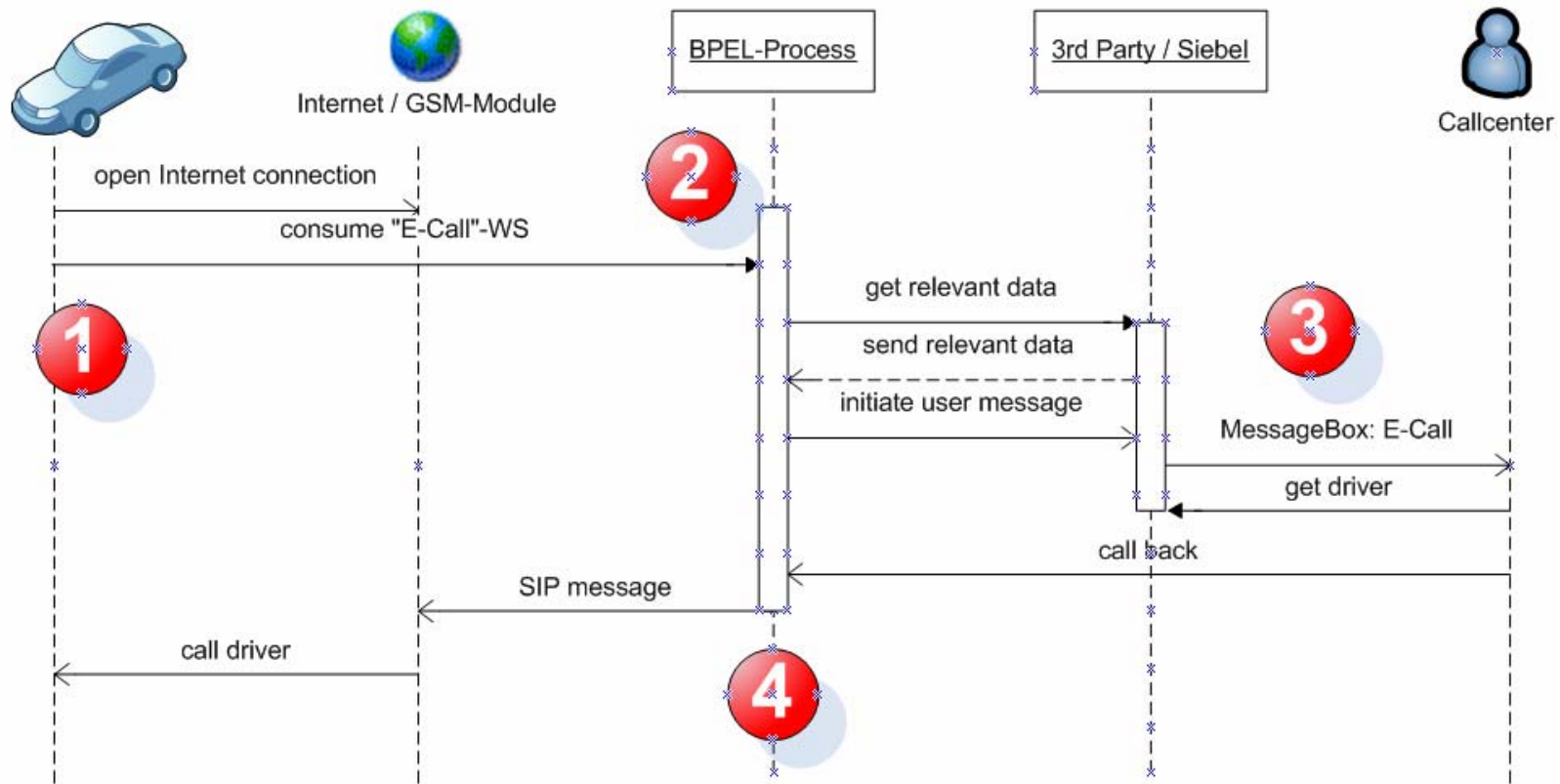
# eCall Service Set-up



- Interfaces based on open standards => interoperability
- Use of standard Service Level Agreement between parties
- Implementation independent from underlying communications system
- Seamless integration within legacy back-office systems like CRM, billing, etc.
- Integration with value-added services

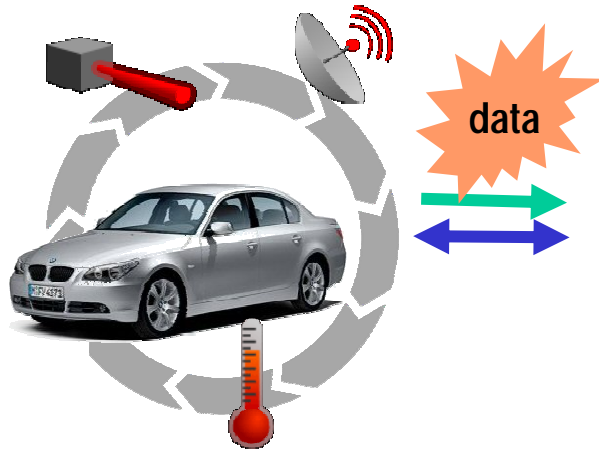
**Flexibility of standards-based integration and orchestration of business processes**

# Oracle Telematics Foundation BPEL based eCall Process



## SLA / Business Activity Monitoring

# Telematics eCall



The screenshot shows the Siebel Automotive web application in a Windows Internet Explorer browser. The browser title is 'Siebel Automotive - Windows Internet Explorer'. The application interface includes a navigation menu with options like Home, Accounts, Contacts, Dealers, Vehicles, Financial Accounts, Repossession, and Bankruptcy. The main content area displays vehicle information for a BMW 330 i, including VIN, Make, Model, Year, and various attributes. A Microsoft Internet Explorer alert box is overlaid on the screen, displaying a warning icon and the text 'Emergency Call from C067709812314' with an 'OK' button.



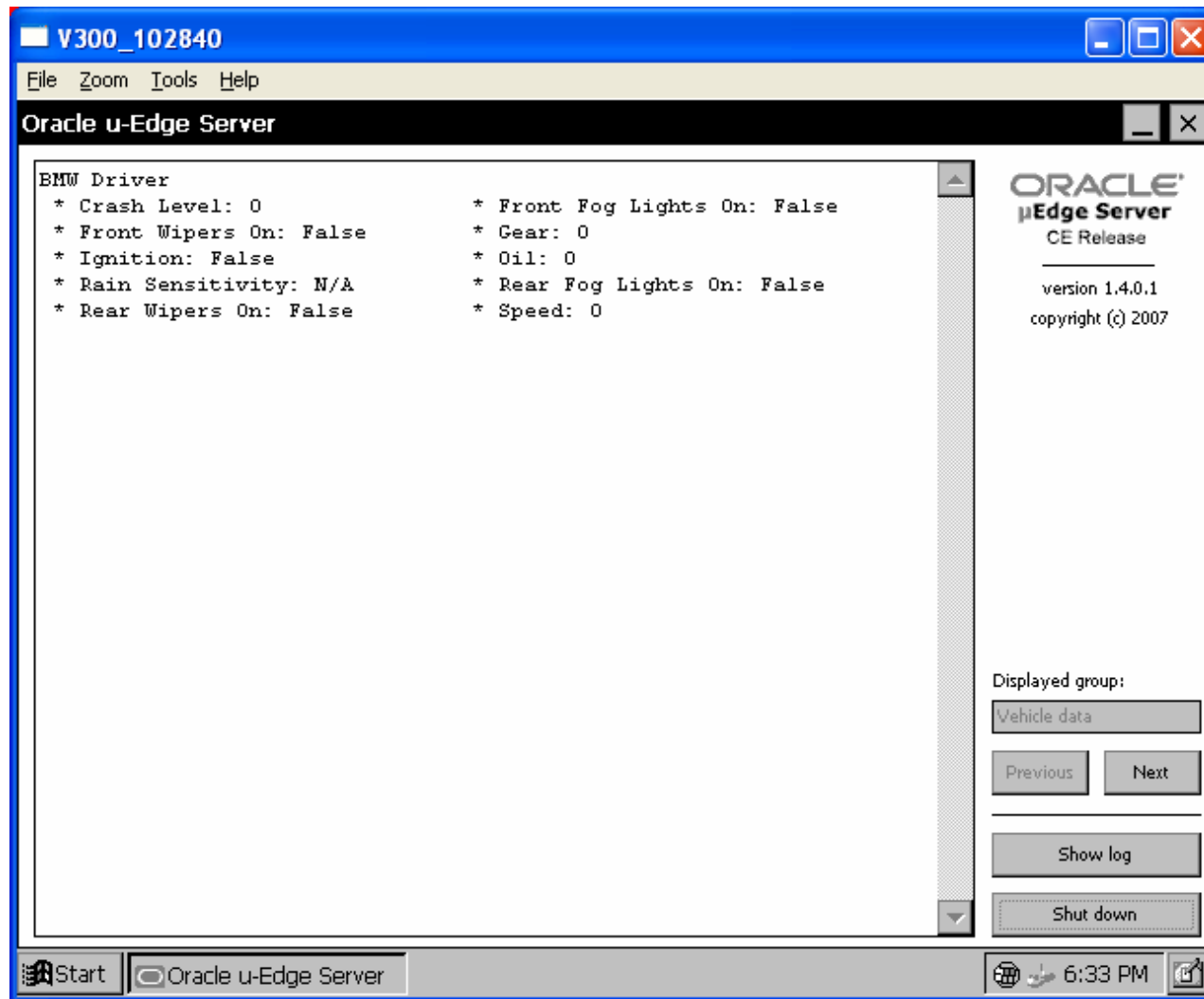
Demo

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# MicroEdge Server Connection to Vehicle Networks

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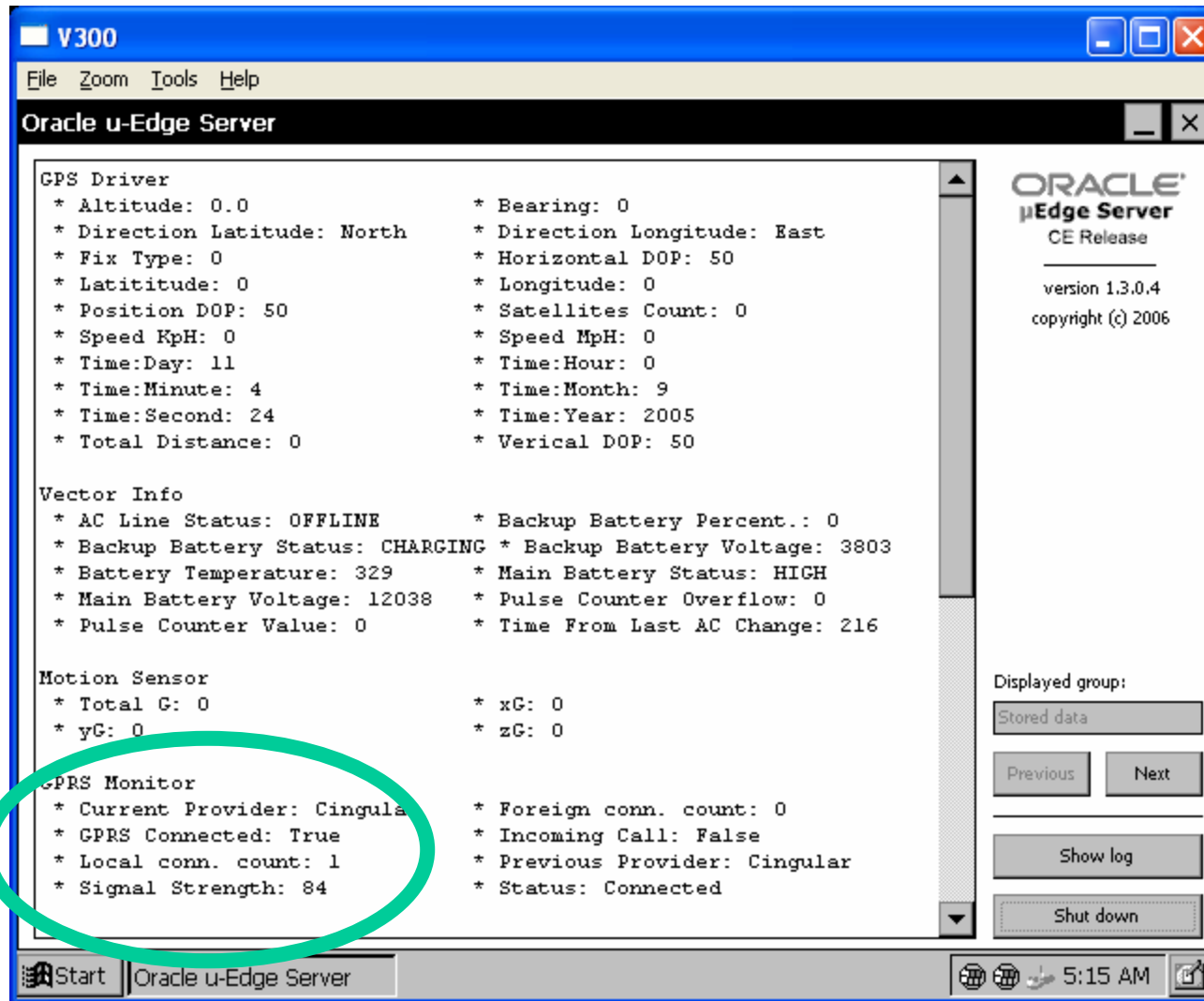


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# Embedding Oracle Lite Data Synchronization





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**ORACLE** Siebel Customer Relationship Management

# Siebel Automotive 8.0



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User ID:

Password:



Remember my User ID and Password

Service request created by telematics message

Customer Information

SR #:	316882-8909005	Type:	Automotive
Last Name:	Sandmann	Area:	Electronics
First Name:	Maik	Sub Area:	Gauges Out
Site:		Opened:	30/11/2007 01:02:13
CSN #:		Account:	
Contact Account:		Committed:	
Phone #:		Closed:	
Email:		<b>Customer Time Zone</b>	
Source:		Opened:	
Reproducible:		Committed:	
		Closed:	

Status and Ownership

Status:	Open
Sub Status:	Unassigned
Priority:	1-ASAP
Owner:	SADMIN
Creator:	SADMIN
Group:	
Organization:	Default Organiz
Severity:	4-Low

Other Information

Price List:	
Rate List:	
Odometer:	
UoM:	

Summary

--

Detailed Description

```
Vehicle Emergency Call
Information: <?xml
version="1.0"?>
<event>
<severity>0</severity>
<longitude></longitude>
```

Billable:

Documents Needed:

Supervisor Review:

Documents Received:

Follow Up Needed:

Vehicle & Financial Account Information

Serial #:		Make:	
License #:		Model:	



# Telematics Dashboard

My Dashboard Telematics

My Dashboard

Welcome, Administrator! Dashboards - Answers - More Products - Settings - Log Out

- Verbrauch und CO2
- Fahrtenbuch
- Service-Analysen
- Flottenmanagement
- Mapviewer
- Pay-per-Use

Page Options



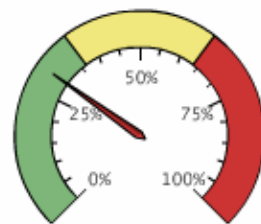
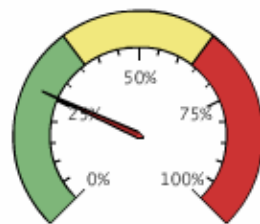
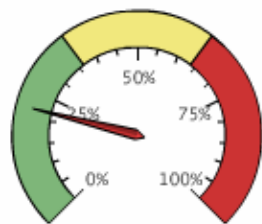
## Ökologische Kennzahlen der Modelle

Detaillieren auf Modelle je Kennzahl

Marke	Serie	Modell	Ø km/h	Ø Verbrauch	Ø CO2-Ausstoß
BMW	3er Serie	3er Serie Cabriolet	69,21	7,45	181,94
		3er Serie Limousine	68,78	7,84	193,83
		3er Serie Touring	68,89	8,28	204,37

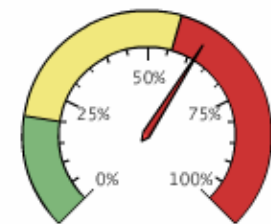
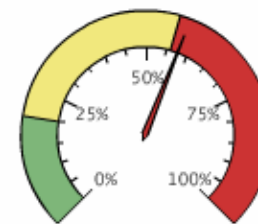
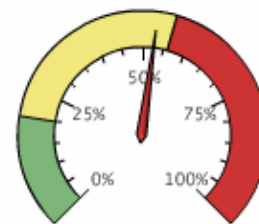
### Ø Verbrauch

- 5 - 9
- 9 - 12
- 12 - 16



### Ø CO2-Ausstoß

- 50 - 100
- 100 - 190
- 190 - 300



[Modify](#) - [Refresh](#) - [Print](#) - [Download](#) - [Copy](#)

Thank You

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# Back up Slides

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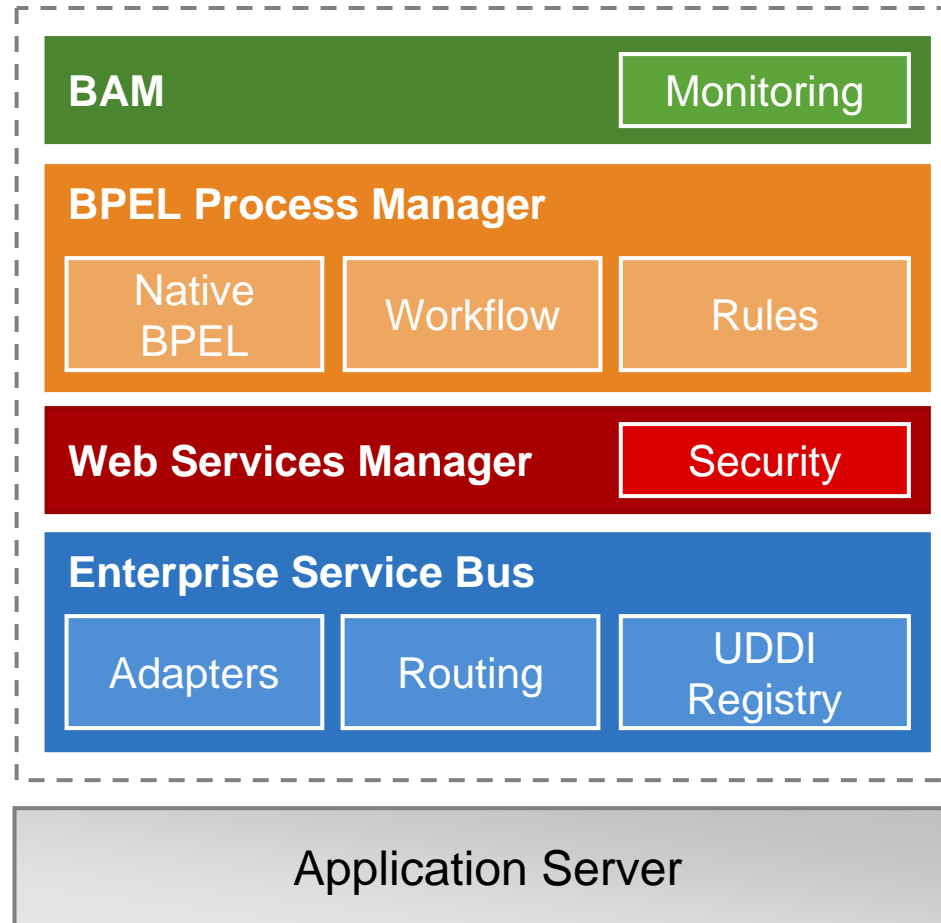
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# Oracle SOA Suite

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- ✓ Services
- ✓ Registry
- ✓ Process Manager
- ✓ Message Bus
- ✓ Security
- ✓ Monitoring

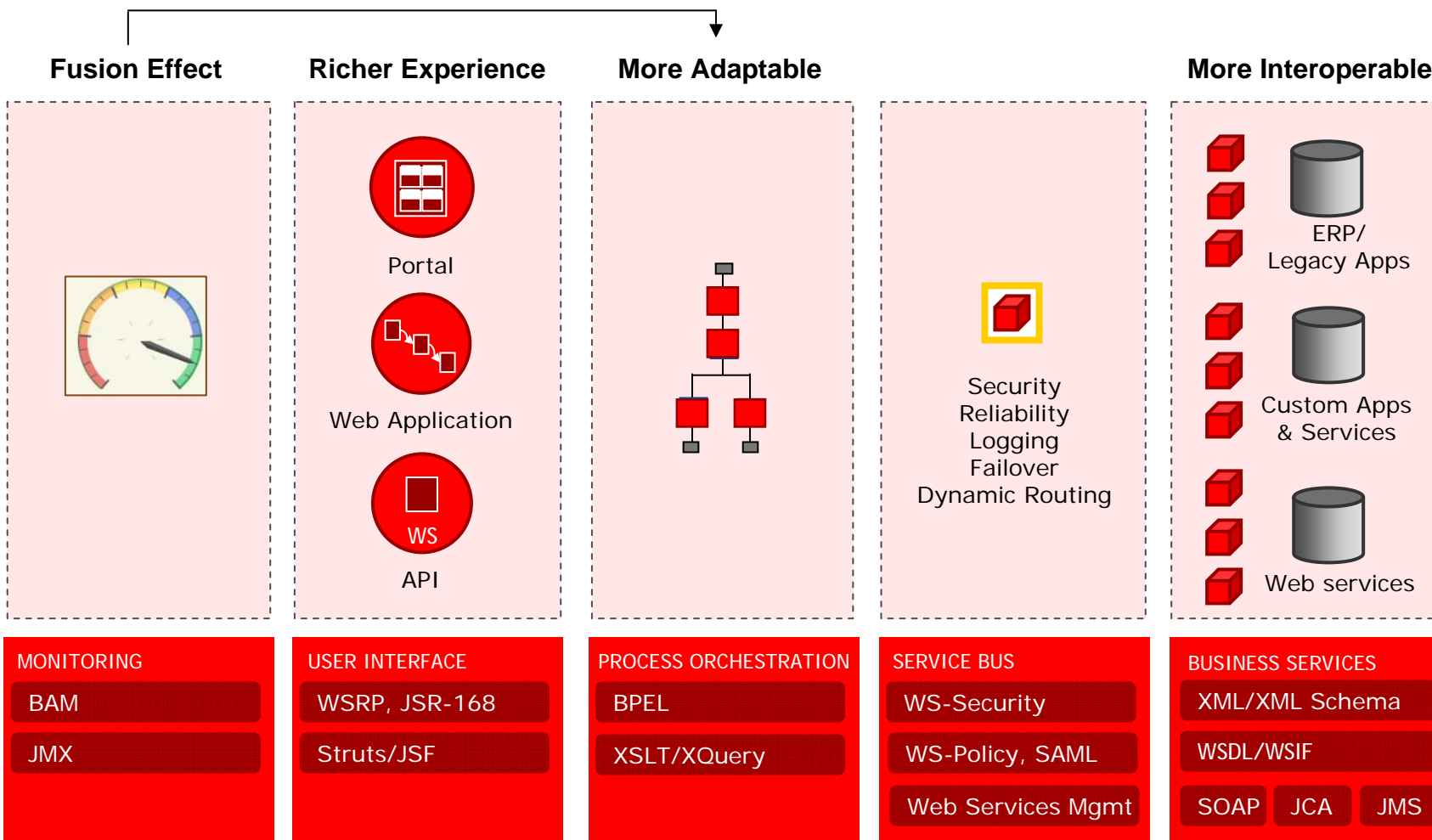


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# Key SOA Standards





# Analyst Quotations

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**“This is the first end-to-end vehicle ICT offering by a major IT provider.” – Gartner (December 2007)**

**Gartner**

“Oracle's new Telematics offering is a comprehensive solution for the automotive and vehicle information and communication technology (ICT) industries, and it will raise the bar for competing offerings”

“**Vehicle manufacturers**: Consider Oracle's solution approach for your vehicle ICT strategy.”

“**Auto suppliers**, device manufacturers, service providers, and content providers: Identify how your offering will complement Oracle's Telematics solution, and seek joint marketing or distribution opportunities that build on Oracle's product.”

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Vehicles

067709812314 1 of 1+

enu Cancel Query

Vehicle Information	Attributes	Other Attributes	Ownership Information
VIN: C067709812314	New/Used: New	Product Type: Vehicle	Owned By: Consumer
Make: BMW	Trim: i	Transmission: Manual	Contact: Maik Sandmann
Model: 525	Exterior Color: Diamond White	Drive Train: 2 Wheel	Account:
Model Year: 2004	Interior Color:	Engine: Option	Account Site:
Product Name: * BMW 525i	Door Style: 4 Door	Body Style: Sedan	Access Team: AUADMIN
Category:	Image:	Fleet Flag: <input type="checkbox"/>	Organization: World Motors Corpor.

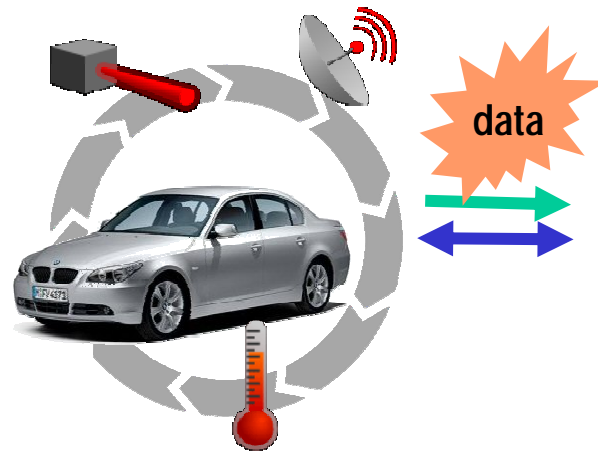
enu New Delete Query Call Driver 1 - 3 of 3

Primary	First Name	Last Name	Cell Phone
	GOYA	ABEGG	+4915114848070
	Bill	Atkins	+491634228866
✓	Maik	Sandmann	+491775941212

Integration of Voice call



# Telematics Analytics



The screenshot shows the Oracle BI Telematics Dashboard in a web browser. The dashboard is titled 'Telematics Dashboard' and includes a navigation menu with options like 'Verbrauch und CO2', 'Fahrtenbuch', 'Service-Analysen', and 'Flottenmanagement'. The main content area is divided into several sections:

- Restaufleistung:** A chart showing performance metrics with four colored circles (green, yellow, red, green) and a legend with ranges: 6500 - 6800, 6800 - 7100, 7100 - 7500. Below the chart are four categories: 1 (Vorstand/CP), 2 (Obere Führungskrä..., 3 (Mittlere Führungs..., 4 (Außendienst).
- Großkunden-Übersicht:** A table listing major customers and a bar chart below it. The table has columns for 'Händlerort', 'Händlername', 'Großkunde', 'Anzahl Fahrzeuge', 'Ø Vertragslaufleistung', and 'Ø akt. Laufleistung'. The bar chart shows the number of vehicles for different dealerships: BSH Bosch und Siemens, Fujitsu-Siemens, and Siemens AG.
- Flottenverträge vor Ablauf:** A table listing fleet contracts with columns for 'Kennzeichen', 'Modell', 'Ausführung', 'Vertragslaufleistung', 'akt. Laufleistung', and 'Restaufleistung'.



Demo



Demo

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