modernizing an application on HP NonStop servers

Author: Hans-Fried Kirschbaum
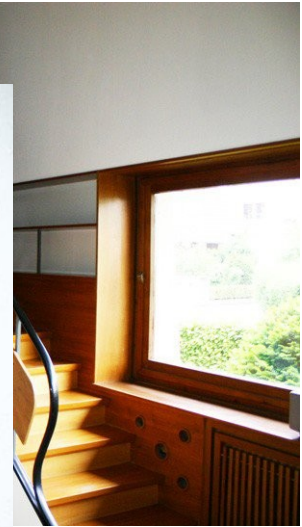Presenter: Jürgen Depping

CommitWork GmbH

overview

- a house

- motivations

- options

a house

in a quiet neighbourhood

a house – specific architecture

a house – 20 years of piled up renovation projects

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a house – where to start with renewing?

- leave everything as it is?

- only new wallpapers?

- new windows?

- reface with thermal insulation?

- new central heating?

- new centralized water supply system?

- change floor plans?

- or just move out?

- it just depends, how long you want to stay in this house

motivations

tear it down & build it
newly using standards

or stick with it due to

- excellent service levels

- cheap operating cost

- excellent security regarding external attacks

- unmatched scalability

- individual business applications

motivations

- expected savings

- better maintenance & easier extensions

- generation problem / e.g. Cobol programmers

- user acceptance

- hard-/software discontinuation

- new functions

- simplification

- workflow optimization

Option 1

„pimp my screen"

pimp my screen

1. the simpliest method: "pimp my screen"

Goal: better user acceptance, web functionality

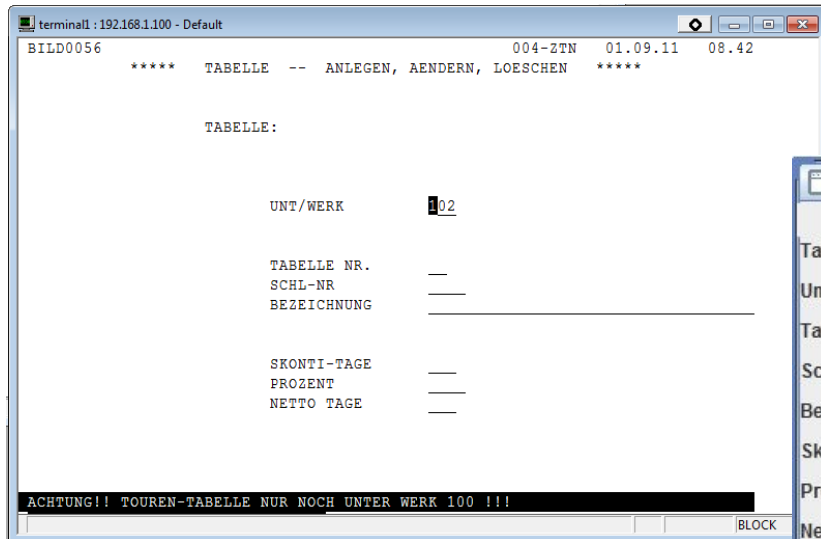other advantages :   none

Method: 1:1 client code conversion into Java or HTML

pimp my screen

before   &

                                              after

Option 2

„combining basic dialogues and
creating new & more complex dialogues"

combining & creating new dialogues

**2. combining basic dialogues and
   creating new & more complex dialogues**

Goal :   more user acceptance

other advantages : simplified user navigation

Method :   implemetation of new client apps based on Java
                     or .Net; using toolkits for faster implementation

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combining & creating new dialogues

before: (example from ITUG 2003)

a logical transaction split up into 5 simple transactions

combining & creating new dialogues

after: (example from ITUG 2003)

just one transaction

Materialstück 0938310002 freigeben

R. 4.4 **Aggregat:** FBA8 CW **Benutzer:** 0701 auf PROD 28.04.2003 15:03:37

Materialstück: 0938310002 **Aggregat:** **Bewertung:** Nacharbeit ▼

Hauptfehler: 5881(1650, Gewicht zu klein) Stärke: 0 ▼

☐ **Nachdressieren** ☐ Streckrichten
☐ Nachölen ☐ Inspizieren **Aggregat:** UWL ▼
☐ Mustertafel ☐ Besäumen
☐ **Nachglühen** ☑ **Umwickeln**
☐ Abwickeln von ○ oben ○ unten
☐ Fehler bereinigen **Fehler:** ▼
☐ Seite tauschen ☐ Verpacken
☐ Coil teilen **Anzahl der Teile:**
☐ Zusammenschweissen mit Folgemenge:
☐ Mit Meister ☐ mit Betriebsleitung ☐ Tagesschicht

✓ **UWL**

☑ **Aggregat UWL verwenden** ● UWL 1 ○ UWL 2 ☑ **Mit Probennahme**

Amplitude Mitte: 1	**Walzbreite:** 13850	**Overrun-Breite:** 0
Amplitude Rand: 4	**Walzdicke:** 810	**Mehrfachbreit:**
Amplituden-Messl.: 0	**Oberfläche:** 2	**Streckgrad:** 0
Rauheit QP: 65	**Sortier-KZ:** 0007	**Lage Gutseite:** 5
Rauh. Einschr. MIN: 11	**Adjustage Breite:** 13770	**Richten:** 0
Rauh. Einschr. MAX: 16	**Adjustage Dicke:** 800	**Endbesäum-KZ:** 1
Max. Anz. Löcher: 0	**Dressiergrad:** 12	

Bemerkung:

Ausführen

Abbrechen

Lesen der Daten erfolgreich.

Coil Info: 0938310002

Stück-Nr.: 0938310002

```
Mat-Fehler SperrG Inst   Datum      / Zeit
5881 <1650>  0546   QP  28.04.2003  03:37:01  UWL2
Gewicht zu klein
5464 <0357>  B8028       28.04.2003  09:09:30  UWL2
Falscher Außendurchmesser
Kunde           TKS NEUWIED     BQ ZSTE 180 BH
Verwendungzweck      AUTOMOBILTEILE, AUSSEN
Auftrags-Nr.    4510764000100
Vorstufen-Ident 9297747000
Abmessungen          Soll    Min   Max     Ist
-------------------- -----   ----------    -----
Dicke       (mm)      800    760   840     800
Breite      (mm)    13770  13770 13970   13770
Laenge      (m)                            1326
Gewicht     (kg)           16000 24000   11470
Metergewicht (kg/m)                       8,650
Durchmesser innen          610   610     610
            außen         1503  1789    1312
Schweissnaehte Kalt              00
            Warm                 00
DIN-Guete         10395   CSA07
Versuch: 0000
Rauheit           11 - 16
Sortiergrad       0007   Dressiergrad       12
Fett-vorschr.      1 TROCKEN
Oelsorte          03 UNGEOELT
Lage gut  5 AUSSEN,UNVERZINKT    Oberfl.-schutz  2
Aggregatefolge    BETA   DG    UWL2 ^ VR2
```
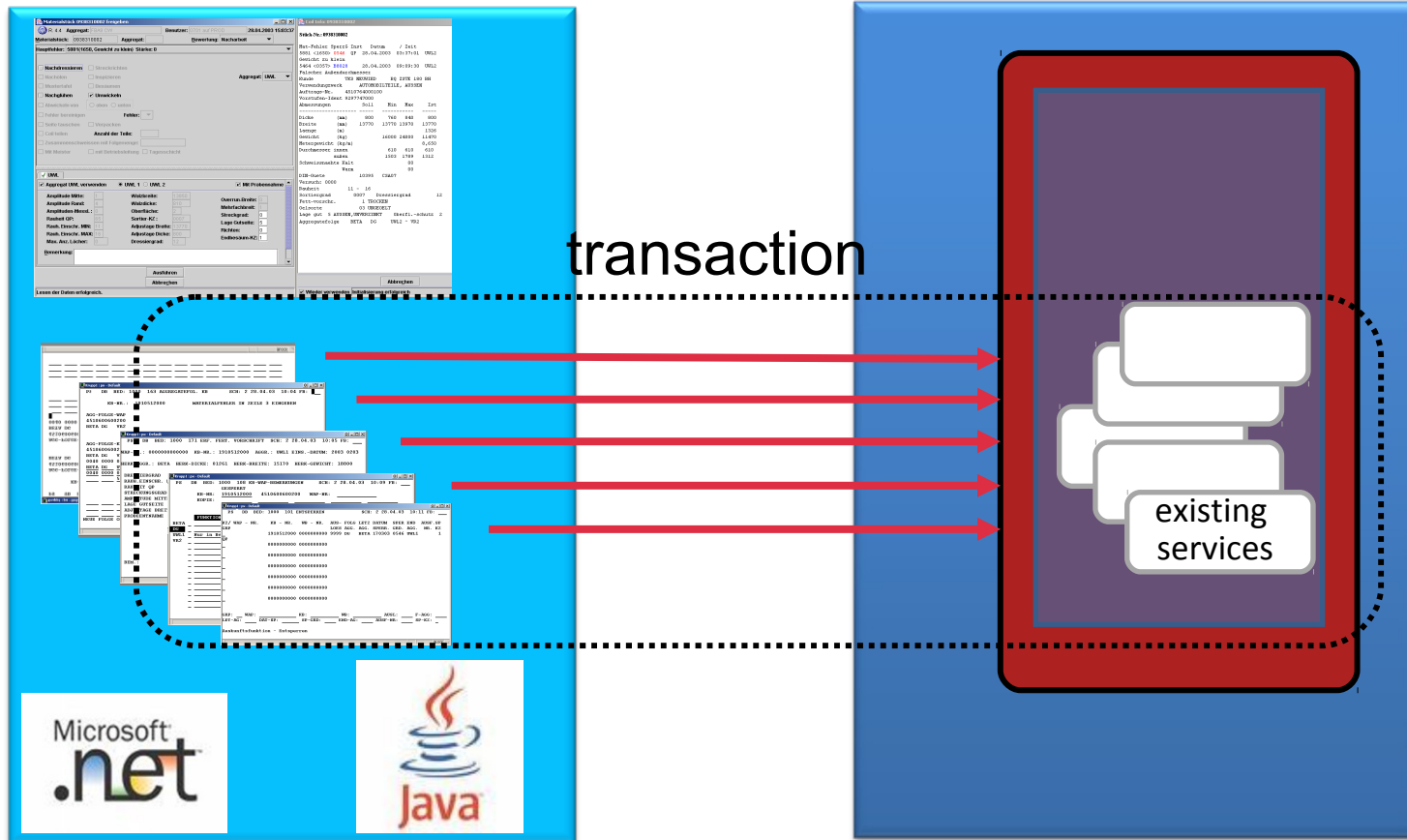
Abbrechen

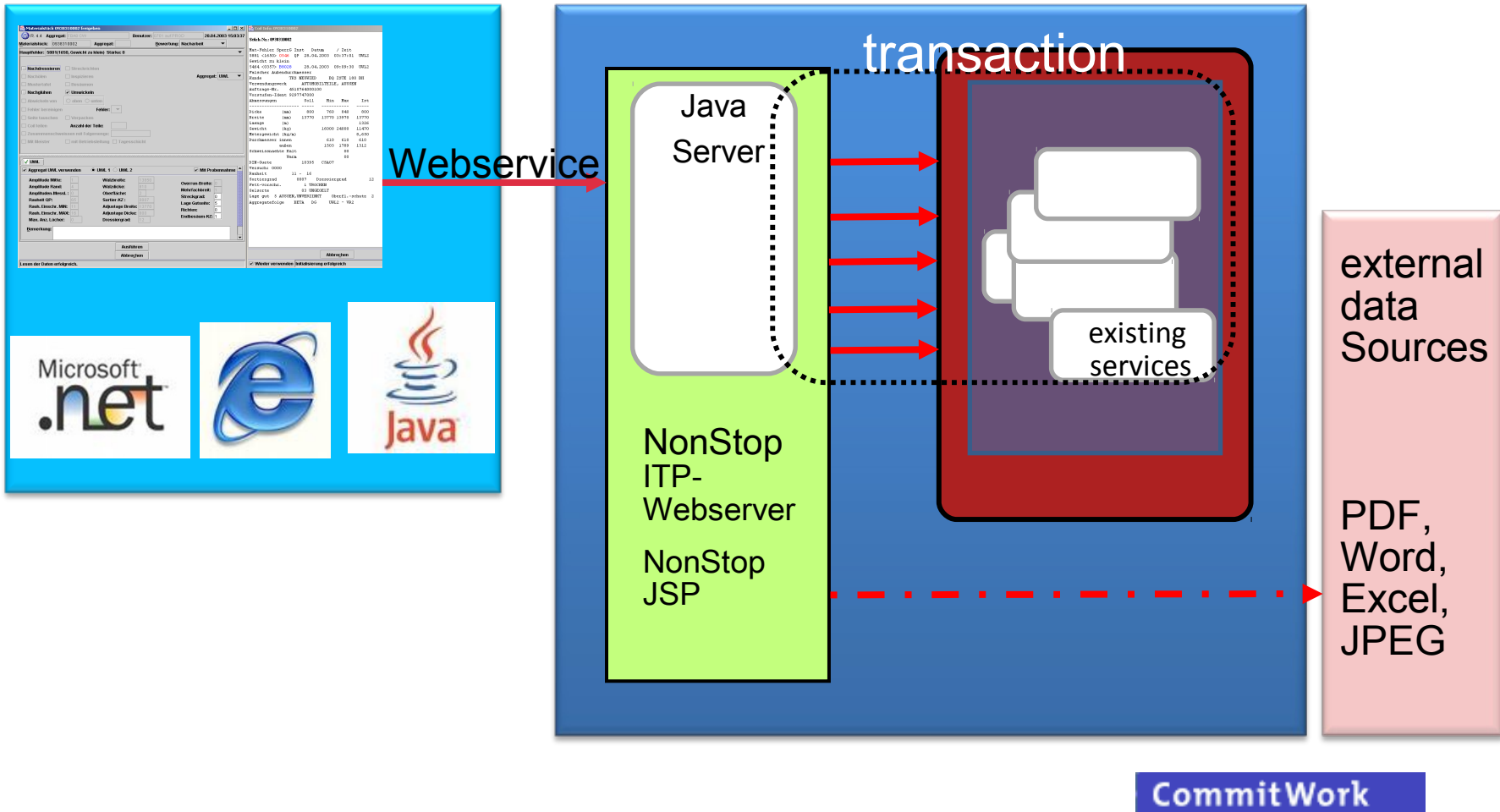☑ Wieder verwenden Initialisierung erfolgreich

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combining & creating new dialogues

combining functions within a client

transcription

existing services

combining & creating new dialogues

combining functions within a server

Webservice

transaction

Java Server

NonStop
ITP-
Webserver

NonStop
JSP

existing
services

external
data
Sources

PDF,
Word,
Excel,
JPEG

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combining & creating new dialogues

scrolling in huge tables

combining & creating new dialogues

scrolling in big tables within a client

read loop
until EOF

message size = Max Msglen Server

existing
services

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combining & creating new dialogues
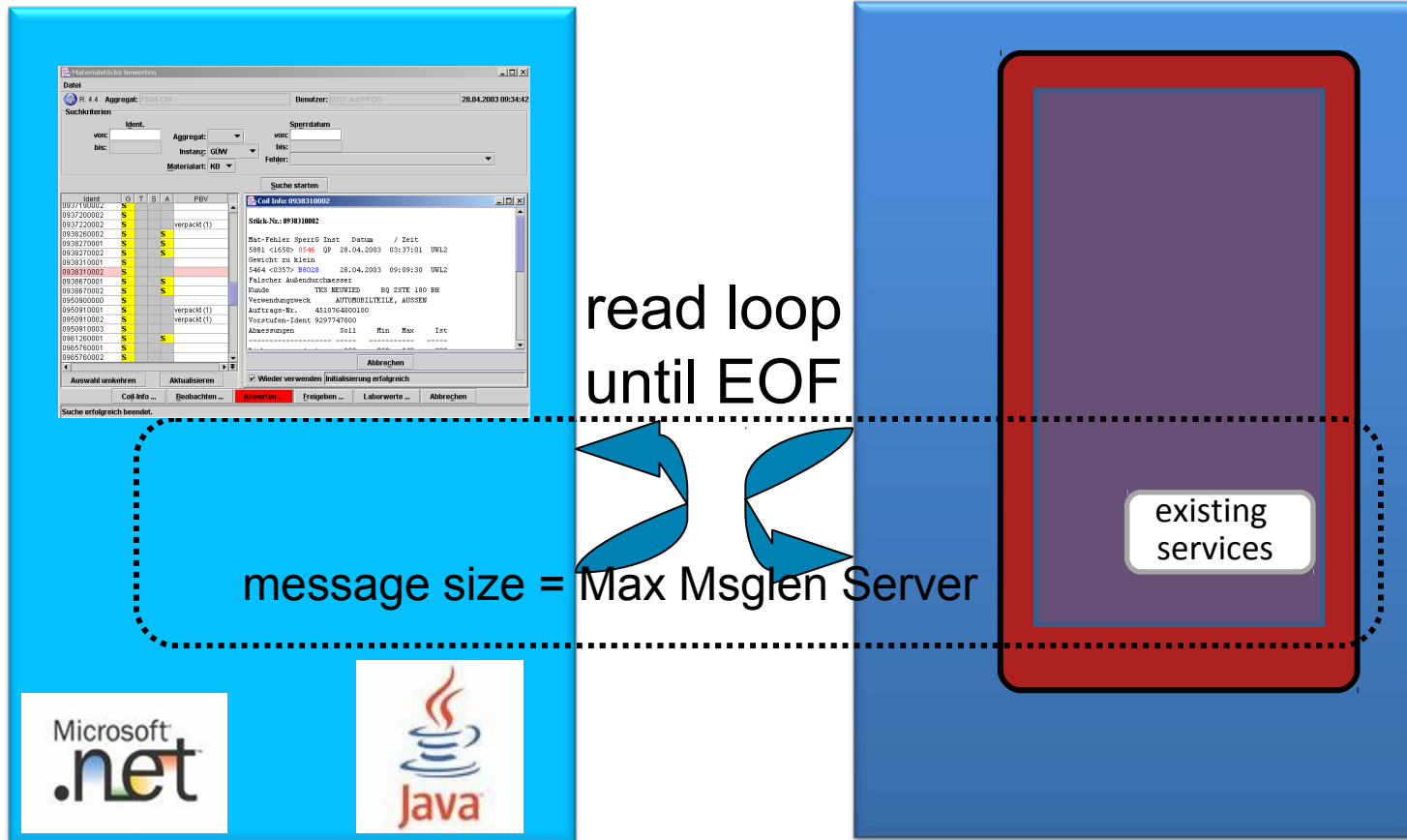
scrolling in big tables within a server

read loop until EOF

Web service

Java Server

existing services

NonStop ITP-Webserver

NonStop JSP

external data sources

PDF, Word, Excel, JPEG

CommitWork
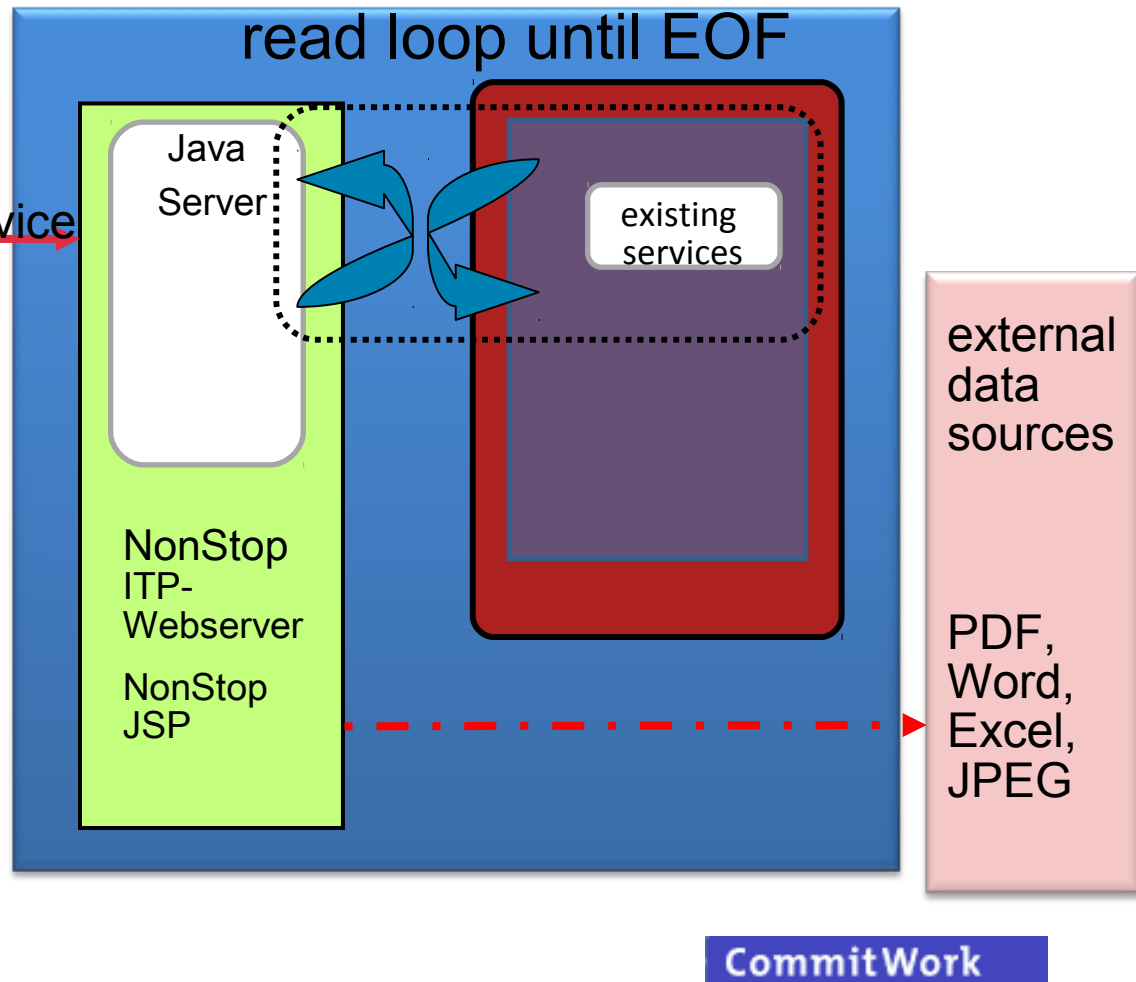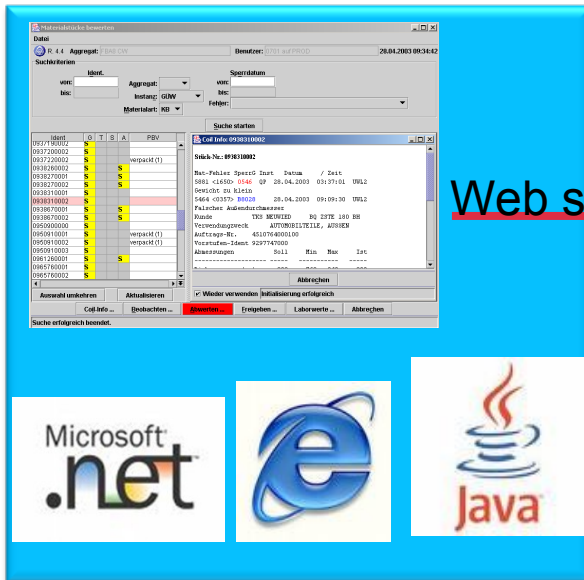
combining & creating new dialogues

using toolkits:

Screensection:

```
05 BS-BREITE-ERZ              AT 06, 66 PIC Z(4),Z
      FROM BREITE-ERZ OF S-AD-A52-TMPMEM-I-O
      DIM
          OCCURS ON 9 LINES.
```

```
Prog: 5058    1 EinsBreite:
                 Dicke :

   Einsatz     Gew   K SollBr
E  S429700000 13060  M   726,0
                     _  _____
                     _  _____
```

DDL

Swing

transport object

Java components

new dialogue = Java components + logic

combining & creating new dialogues
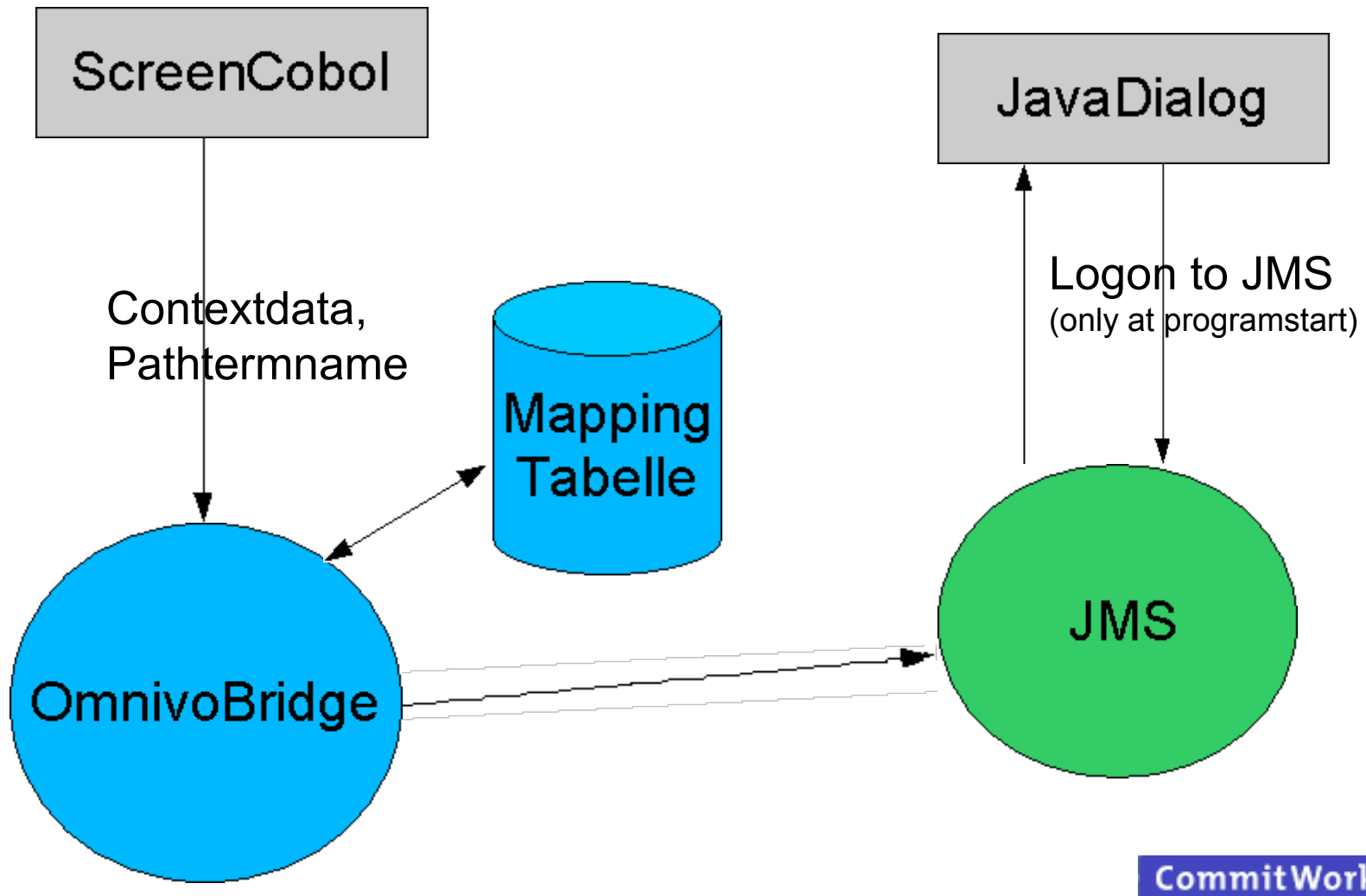
mixed operation: ScreenCobol → Java Client:

Calling a Java Client out of a ScreenCobol requestor

combining & creating new dialogues

mixed operation: ScreenCobol → Java Client:

ScreenCobol

JavaDialog

Contextdata,
Pathtermname

Logon to JMS
(only at programstart)

Mapping
Tabelle

JMS

OmnivoBridge

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combining & creating new dialogues

mixed operation: JavaClient → ScreenCobol
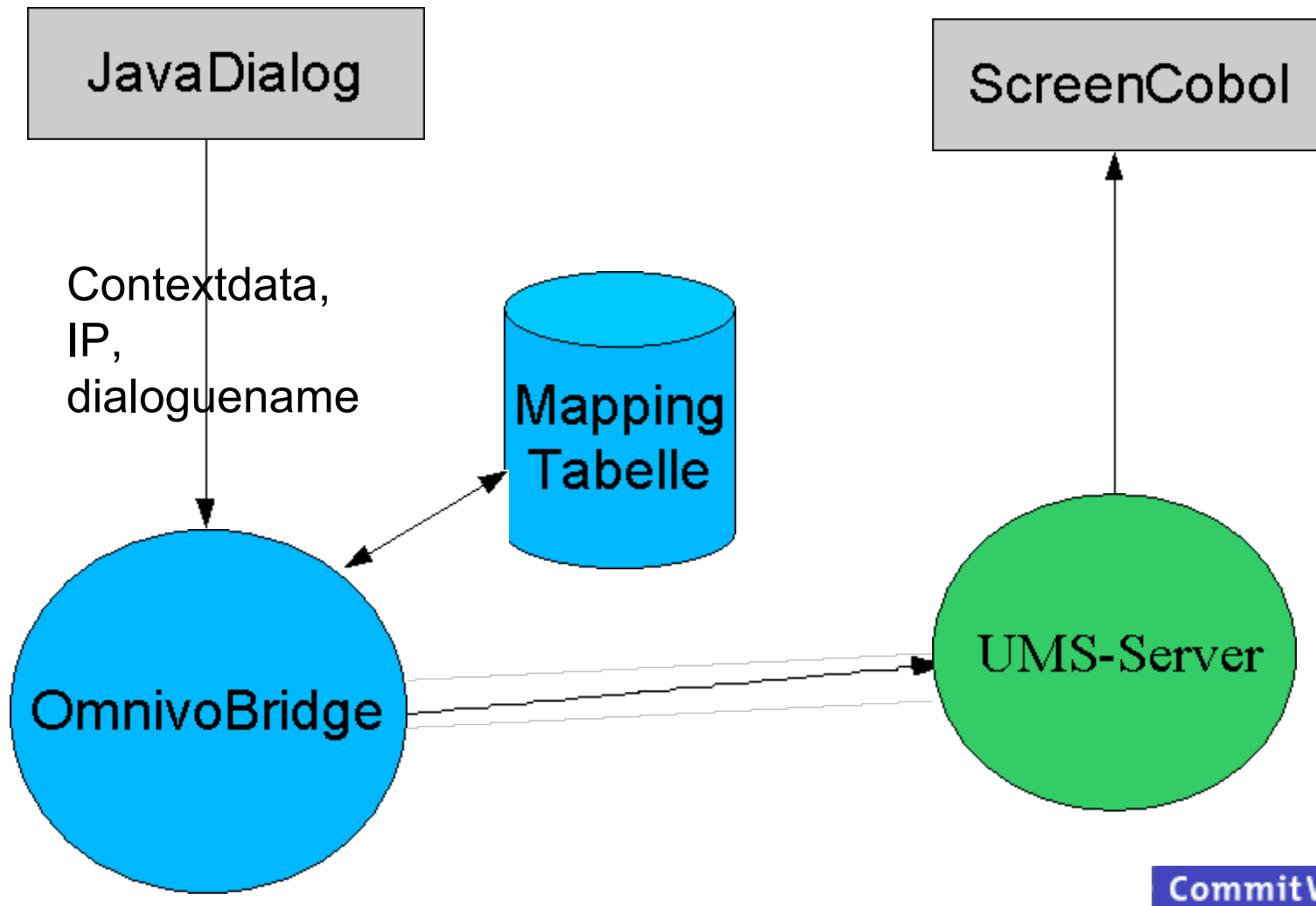
Option 3

„using a SOA-stack layer"
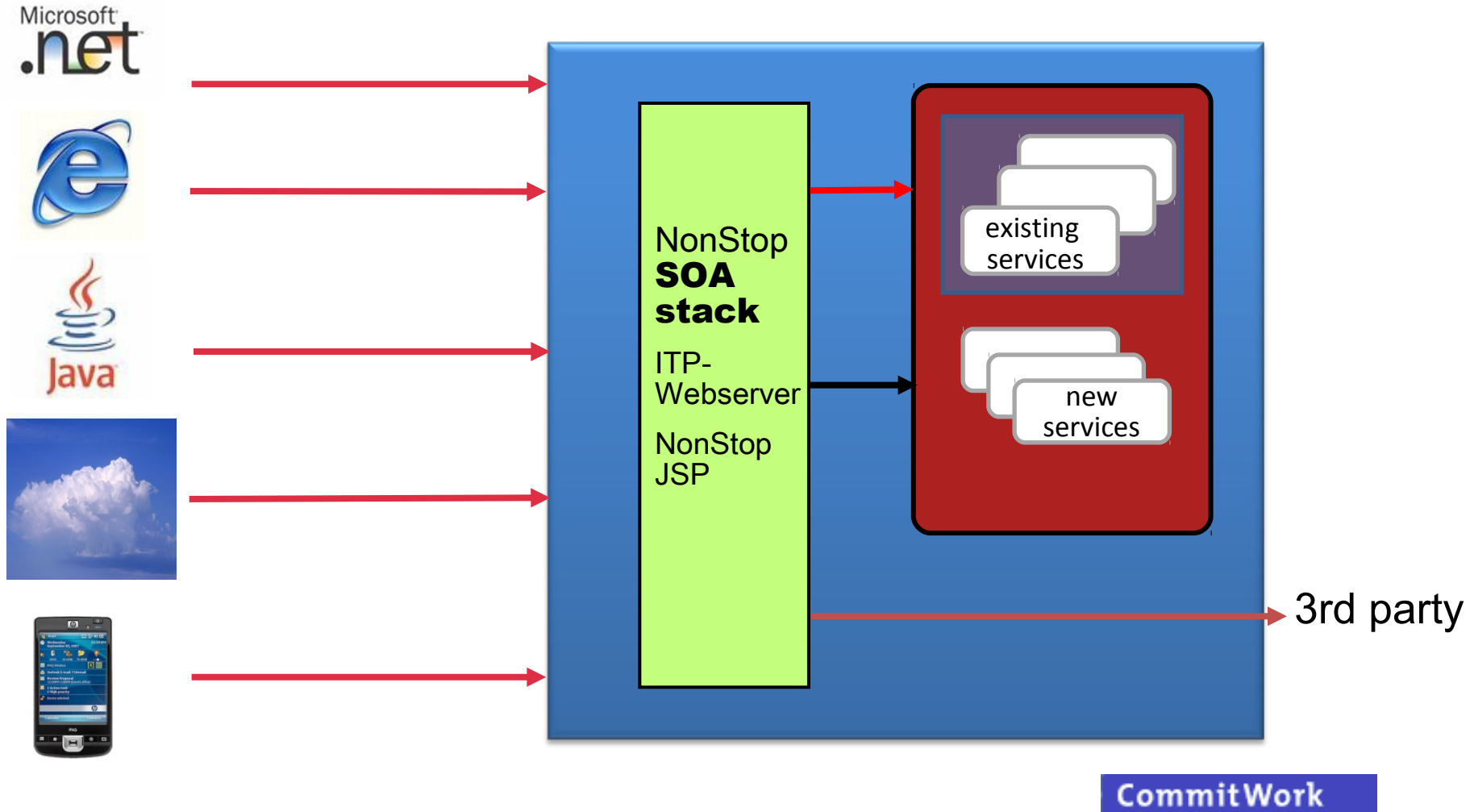
using a SOA-stack layer

3. pulling in a SOA-stack layer on a NonStop Server

goal: highest flexibility for all requirements on client- and server side

using a SOA-stack layer

open for most everything

NonStop **SOA stack**

ITP-Webserver

NonStop JSP

existing services

new services

3rd party

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using a SOA-stack layer

open for most everything

transaction

NonStop **SOA stack**

ITP-Webserver

NonStop JSP

Pathway

Java-Beans

Java-PW-Server

Third Party

external data sources

PDF, Word, Excel, JPEG, Oracle, MySQL
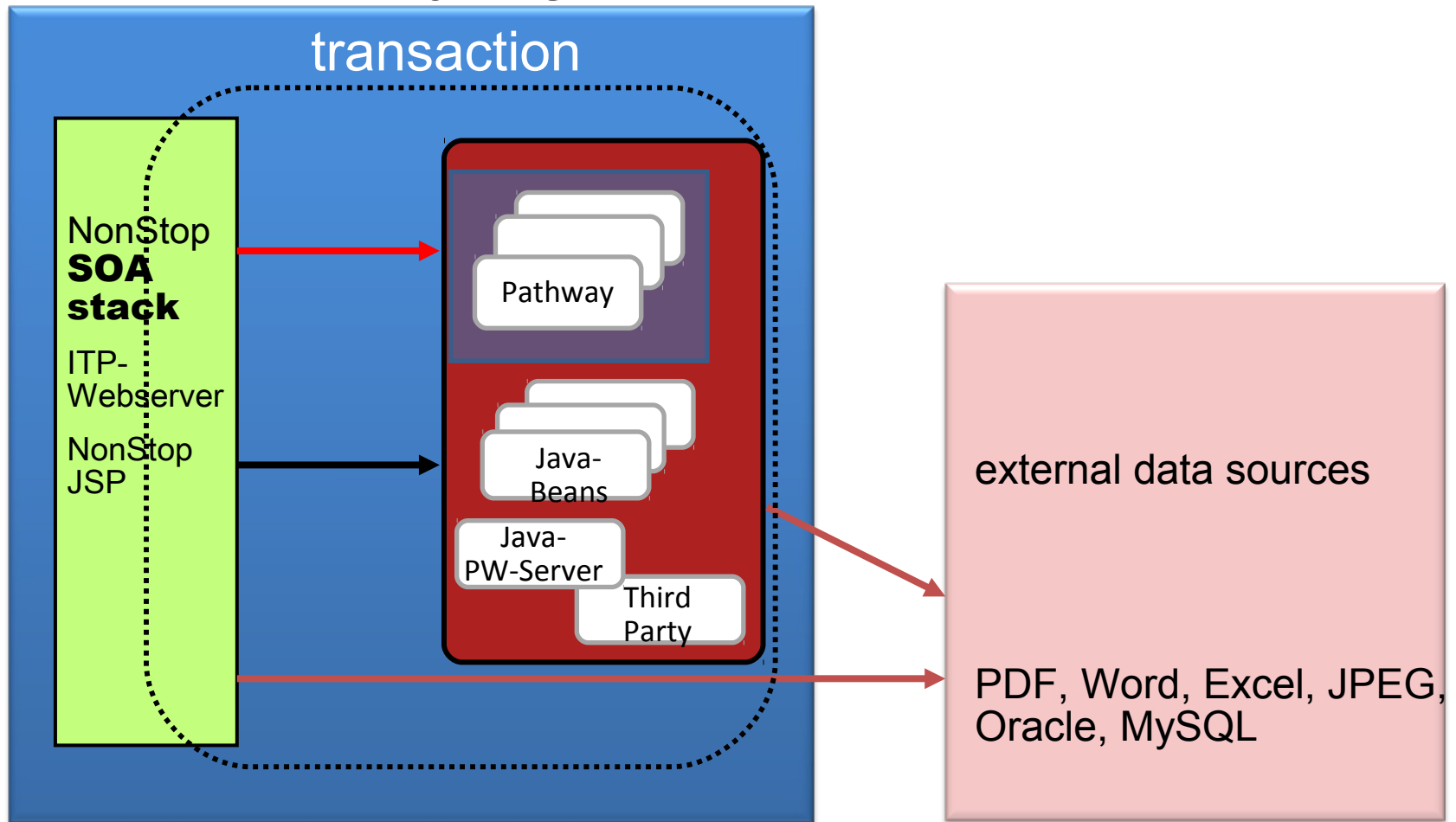
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using a SOA-stack layer

one function – services coming from several servers

using a SOA-stack layer

smooth migration

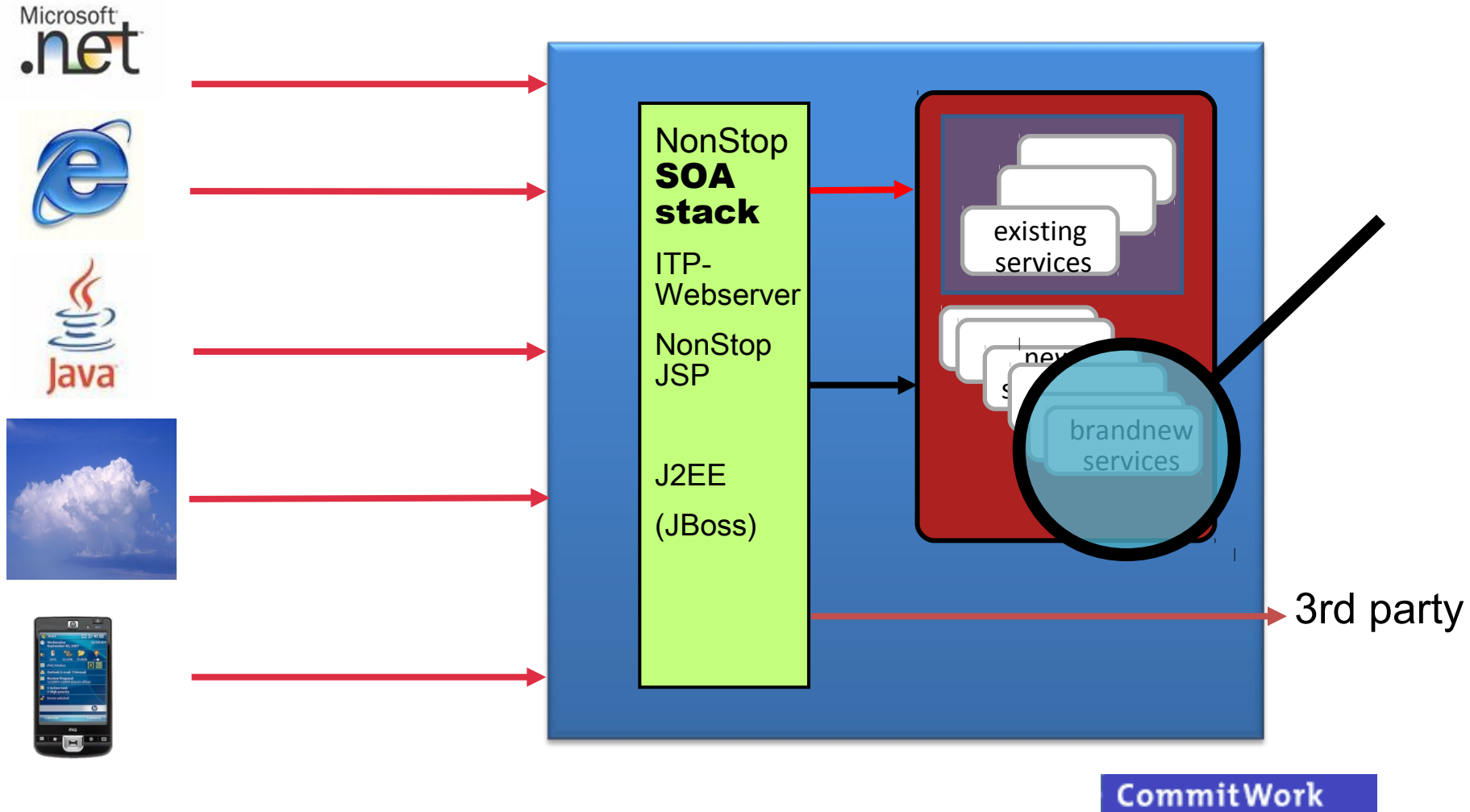
NonStop **SOA stack**

ITP-Webserver

NonStop JSP

J2EE

(JBoss)

existing services

new services

brandnew services

3rd party

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Using a SOA-stack layer

new services **encapsulate** **business logic**

NonStop
JSP

J2EE

communication
interface

business logic

database

SQL/MX

MYSQL

Oracle
etc.
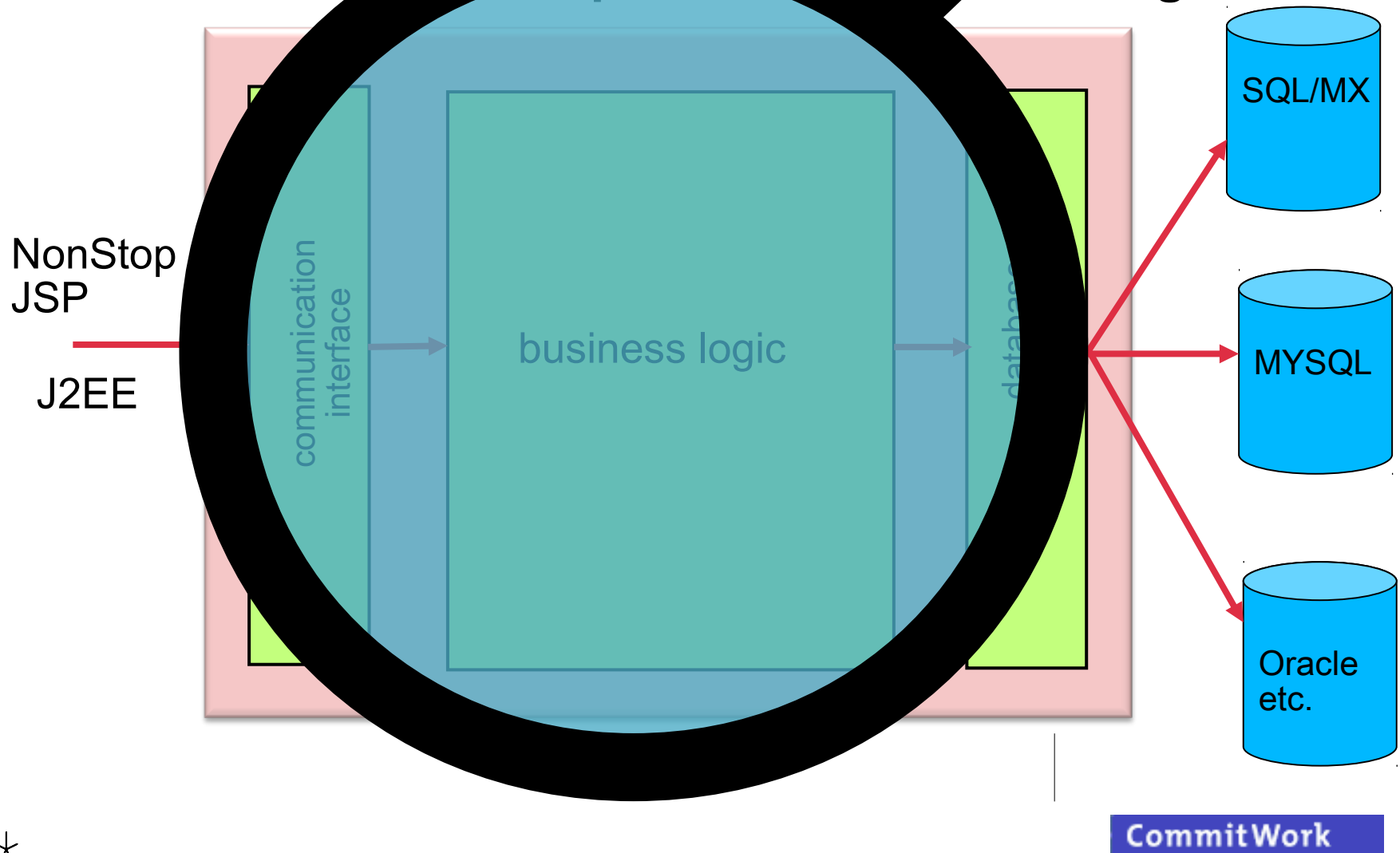
CommitWork Developer Suite (CDS)
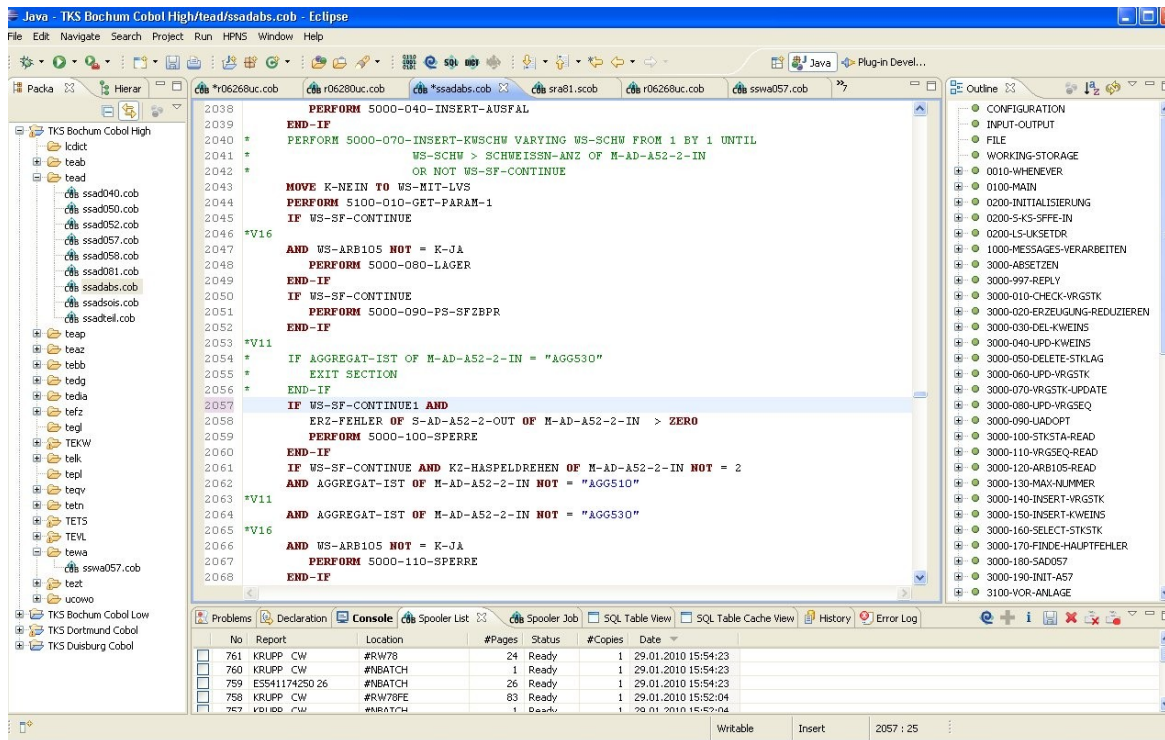
Modernizing your existing development environment

CDS for code 100, cobol, tal, screencobol,...

You want to see more -

    please visit me in showroom,
have a live demo
and ask for a free trial version

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CDS Features

- Integration into your existing development environment
    - Utilization of your existing compile macros
    - Spooler view
    - DDL

- Powerfull editors for Cobol (Cobol85 and Screen Cobol), Tal, C.
  Showing the compile errors within the editors

- Generation of SQL statements

- Register yourself at www.commitwork.de to get a demo.
  Please, contact us for the demo license key.

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CommitWork Software

What is OmivoBase? An Application Environment – Desktop view
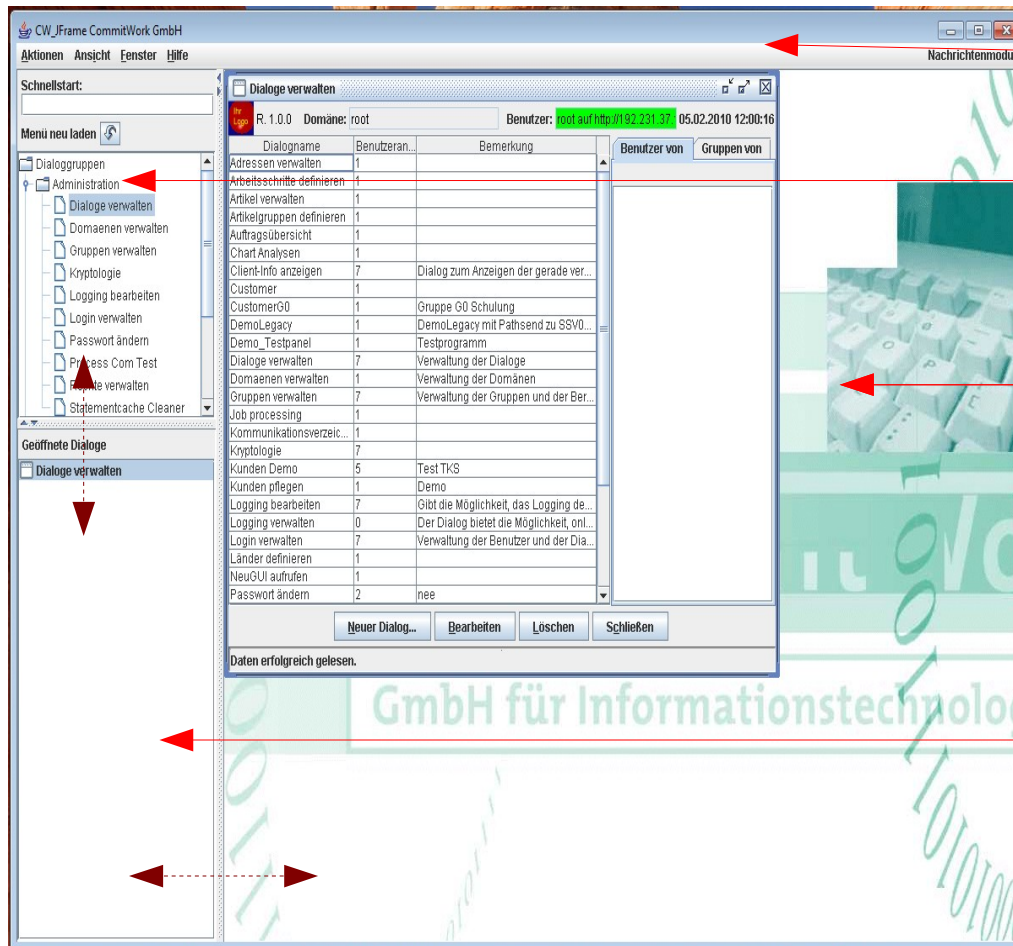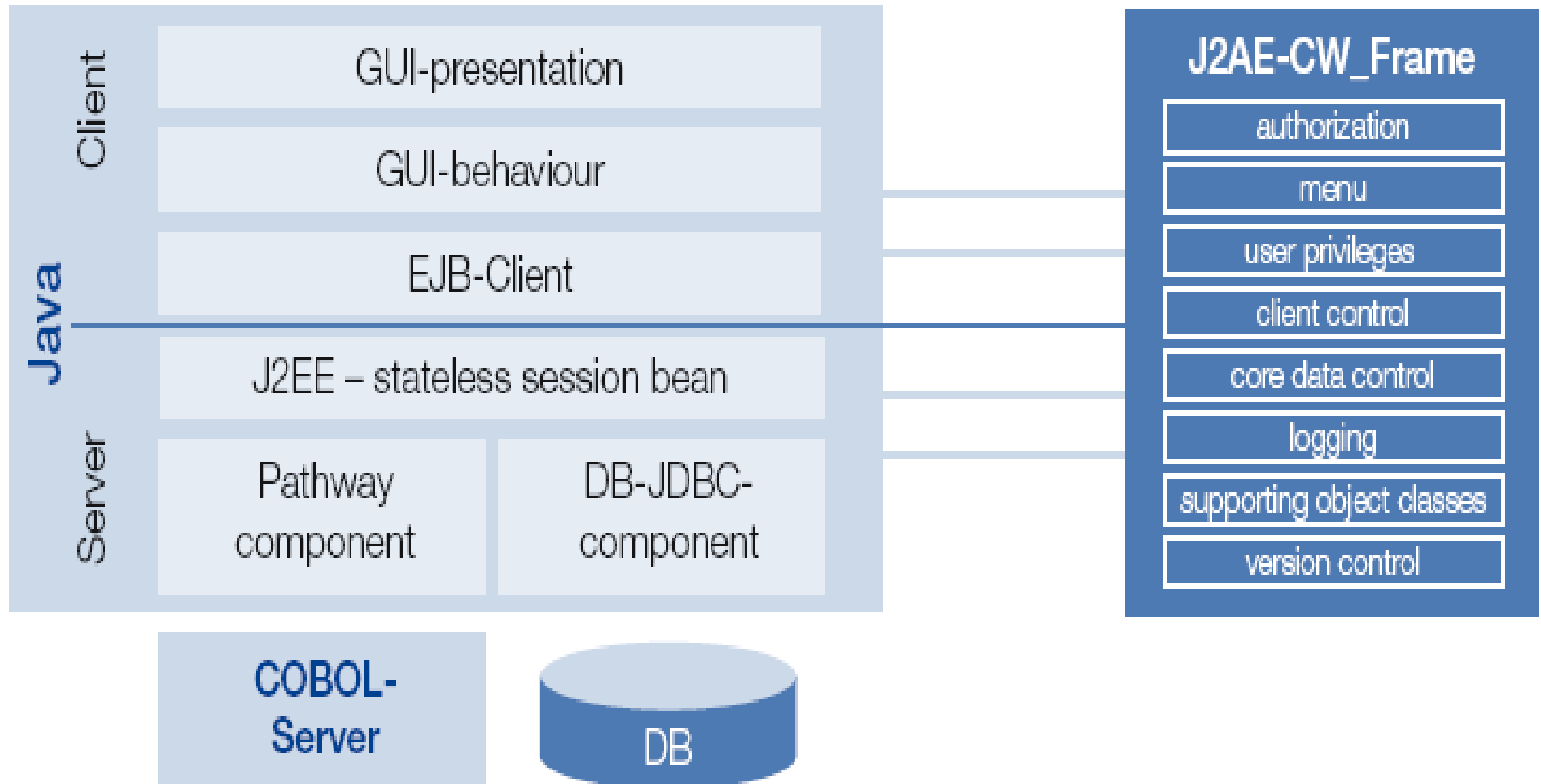

Dynamic menues

Dialogchooser

Panel for dialogs

List of open dialogs

◄----► = *resizable Panels*

You can select the desktop or single window view

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OmnivoBase - Architecture

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OmnivoBase

- more than 500 Java Classes for your use

- only some modules:
  - Menusystem
  - authorization
  - user privileges

    …

- CommitWork Eclipse plugin developer tools like
  - OmnivoDDL2Java
  - OmnivoProject
  - OmnivoDialog
 - OmnivoScobol (Demo)

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conclusion

conclusion

- modernizing is more than just colored screens
- NonStop Servers should also carry new & modern software
- protection of investment by encapsulating the business logic
- smooth migration
  final goal: eliminating any hardware lock-in
- use the new NonStop Server resources for new functions
- proven in practice, please ask for references

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conclusion

modernizing, but done properly!
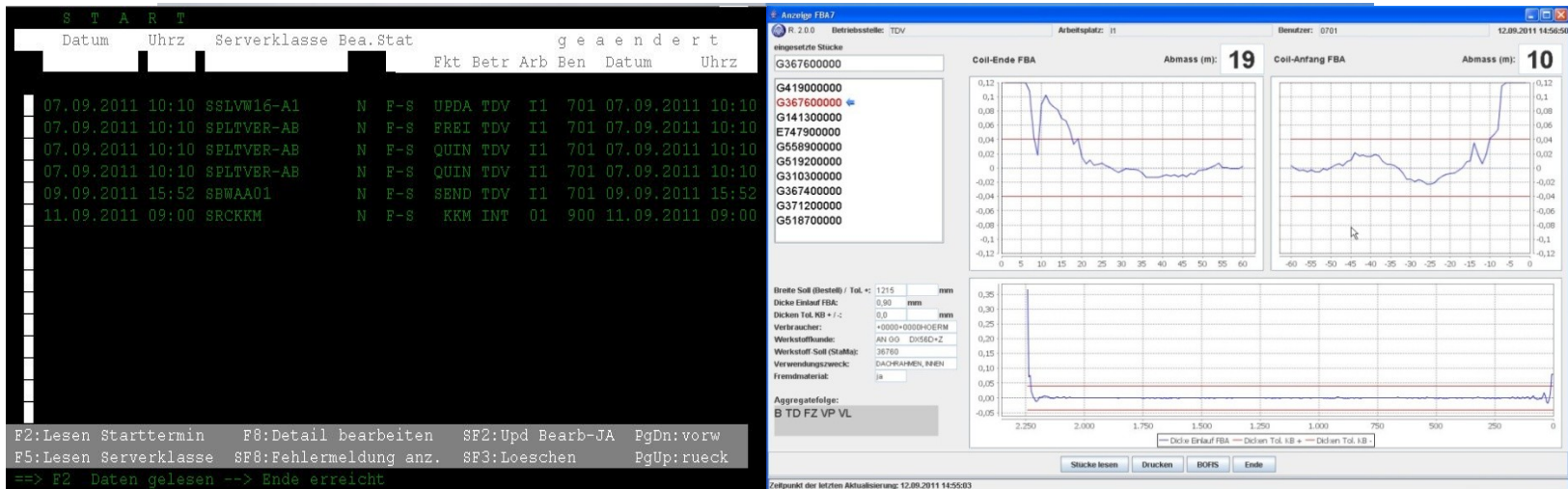
more information? please ask HP or CommitWork.

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