

# modernizing applications on HP NonStop servers

presented by:

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**CommitWork GmbH**

# overview

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- a house
- motivations
- options
- products



a house ...

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... in a quiet neighbourhood

... has a specific architecture





# a house - 20 years of renovation projects piling up



# a house – where to start with renewing?

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- leave everything as it is?
- only new wallpaper?
- 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

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tear it down & build a new house using standards



# motivations

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or stick to it, due to

- excellent service levels
- inexpensive operating cost
- excellent security in regards to external attacks
- unmatched scalability
- individual business applications



# motivations

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- expected cost reductions
- better maintenance & easier extensions
- generation problems / e.g. COBOL programmers
- user acceptance
- hard-/software discontinuation
- new functions
- simplification
- workflow optimization

# options

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- options
  - option 1: „pimp my screen“
  - option 2: „redesign“
  - option 3: „fully fledged modernizing“
- products:



# option 1 – “pimp my screen”

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## 1. the most simple method: “pimp my screen”

goal : better user acceptance, web functionality

other advantages : none

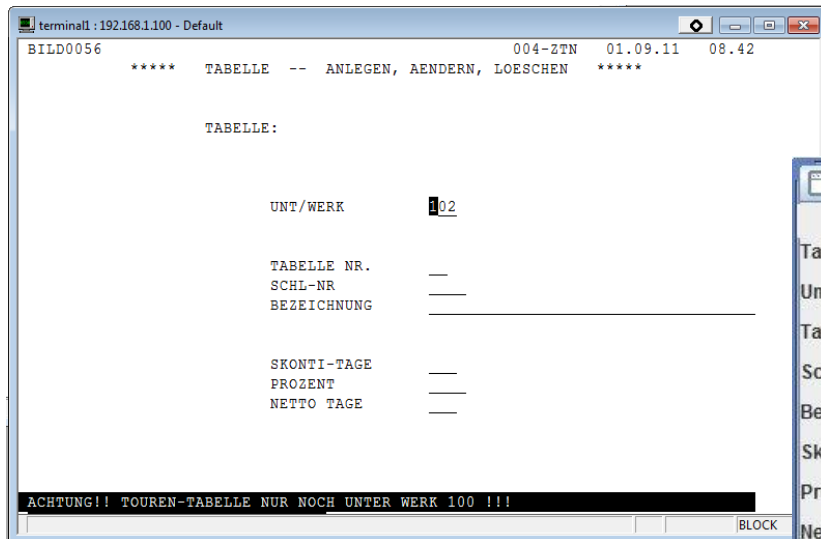
method : 1:1 client code migration to Java or to HTML





# “pimp my screen”

before



A terminal window titled 'terminal1 : 192.168.1.100 - Default' showing a text-based menu. The menu has a header with 'BILD0056', '004-ZTN', '01.09.11', and '08.42'. The main menu options are '\*\*\*\*\* TABELLE -- ANLEGEN, AENDERN, LOESCHEN \*\*\*\*\*'. Below this, there is a section 'TABELLE:' with a list of fields: 'UNT/WERK' (with value '102'), 'TABELLE NR.', 'SCHL-NR.', 'BEZEICHNUNG', 'SKONTI-TAGE', 'PROZENT', and 'NETTO TAGE'. At the bottom, a black bar contains the warning 'ACHTUNG!! TOUREN-TABELLE NUR NOCH UNTER WERK 100 !!!' and a 'BLOCK' button.

```
terminal1 : 192.168.1.100 - Default
BILD0056                                004-ZTN  01.09.11  08.42
*****  TABELLE  --  ANLEGEN, AENDERN, LOESCHEN  *****

TABELLE:

UNT/WERK      102

TABELLE NR.   _
SCHL-NR.      _
BEZEICHNUNG   _

SKONTI-TAGE   _
PROZENT       _
NETTO TAGE    _

ACHTUNG!! TOUREN-TABELLE NUR NOCH UNTER WERK 100 !!!
BLOCK
```

&

after



A modernized graphical user interface window titled 'Tabelle - Anlegen, Ändern, Löschen'. The header bar shows 'R. 0.0.1.20110831152839', 'Domäne 102', 'Benutzer 0317auf', and '01.09.2011 08:43:36'. The main area contains input fields for 'Tabelle:', 'Unt/Werk' (with value '102'), 'Tabelle Nr.', 'Schl-Nr.', 'Bezeichnung', 'Skonti-Tage', 'Prozent', 'Netto-Tage', and 'Lfd. Nr.'. At the bottom, there are five buttons: 'Anzeigen (F13)', 'Zugang (F1)', 'Ändern (F3)', 'Löschen (SF2)', and 'Schließen (F16)'.

Tabelle - Anlegen, Ändern, Löschen

R. 0.0.1.20110831152839 Domäne 102 Benutzer 0317auf 01.09.2011 08:43:36

Tabelle:

Unt/Werk

Tabelle Nr.

Schl-Nr

Bezeichnung

Skonti-Tage

Prozent

Netto-Tage

Lfd. Nr.

Anzeigen (F13) Zugang (F1) Ändern (F3) Löschen (SF2) Schließen (F16)

## option 2 - „redesign“

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

goal : better user acceptance  
other advantages : simplified user navigation  
method : implementing new client apps based on Java or .Net; using toolkits for faster implementation



# „redesign“

before: (example form ITUG 2003)

a logical transaction split up into 5 simple transactions ...

The image displays five overlapping screenshots of the SAP transaction 'Krupp1:px - Default', illustrating a sequence of data entry steps for a material defect report. The screenshots are as follows:

- Top-left screenshot:** Shows the initial data entry screen with fields for PS (UB), BED (1000), 163, AGGREGATEFOL. (KB), and SCH (2 28.04.03 10:01 FB). The main text is 'MATERIALFEHLER IN ZEILE 3 EINGEBEN'. Below, it shows 'KB-NR.: 1910512000' and 'AGG-FOLGE-WAP 4510600600200'.
- Second screenshot (top-right):** Similar to the first, but with 'BETA DG VR2' added to the left and 'AGG-FOLGE-KB 4510600600200' below.
- Third screenshot (middle-left):** Shows a list of defect types: 'DRESSIERGRAD', 'RAUH.EINSCHR.', 'RAUHEIT QP', 'STRECKUNGSGRAD', 'AMPLITUDE MITT', 'LAGE GUTSEITE', 'ADJUSTAGE BREI', and 'PROBEENTNAHME'. It also includes 'BETA DG VR2' and 'UWL1 V 0002 0'.
- Fourth screenshot (middle-right):** Shows a 'FUNKTIONSS' (Function) screen with a table of data. The table has columns for 'KZ/ WAP - NR.', 'KB - NR.', 'WB - NR.', 'AUS- FOLG LETZ DATUM', 'SPER END', and 'AUSF.SP'. The data includes '1910512000', '0000000000', '9999 DG', and 'BETA 170303 0546 UWL1 1'.
- Bottom-right screenshot:** Shows a summary screen with fields for 'GRP: WAP: KB: WB: AUSL: F-AGG:' and 'LET-AG: DAT-SP: SP-GRD: END-AG: AUSF-NR: SP-KZ:'. It also includes the text 'Auskunftsfunktion - Entsperren'.



# „redesign“

after: (example from ITUG 2003)

... are now converted into 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  
☐ 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

Aggregat: UWL

☒ UWL

☒ Aggregat UWL verwenden ☒ UWL 1 ☐ UWL 2 ☒ Mit Probennahme

|                     |    |                   |       |                 |   |
|---------------------|----|-------------------|-------|-----------------|---|
| Amplitude Mitte:    | 1  | Walzbreite:       | 13850 | Overrun-Breite: | 0 |
| Amplitude Rand:     | 4  | Walzdicke:        | 810   | Mehrfachbreit:  | 1 |
| 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  
Verwendungszweck 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  |
| Schweissnaechte Kalt |       |       |       | 00    |
| Warm                 |       |       |       | 00    |

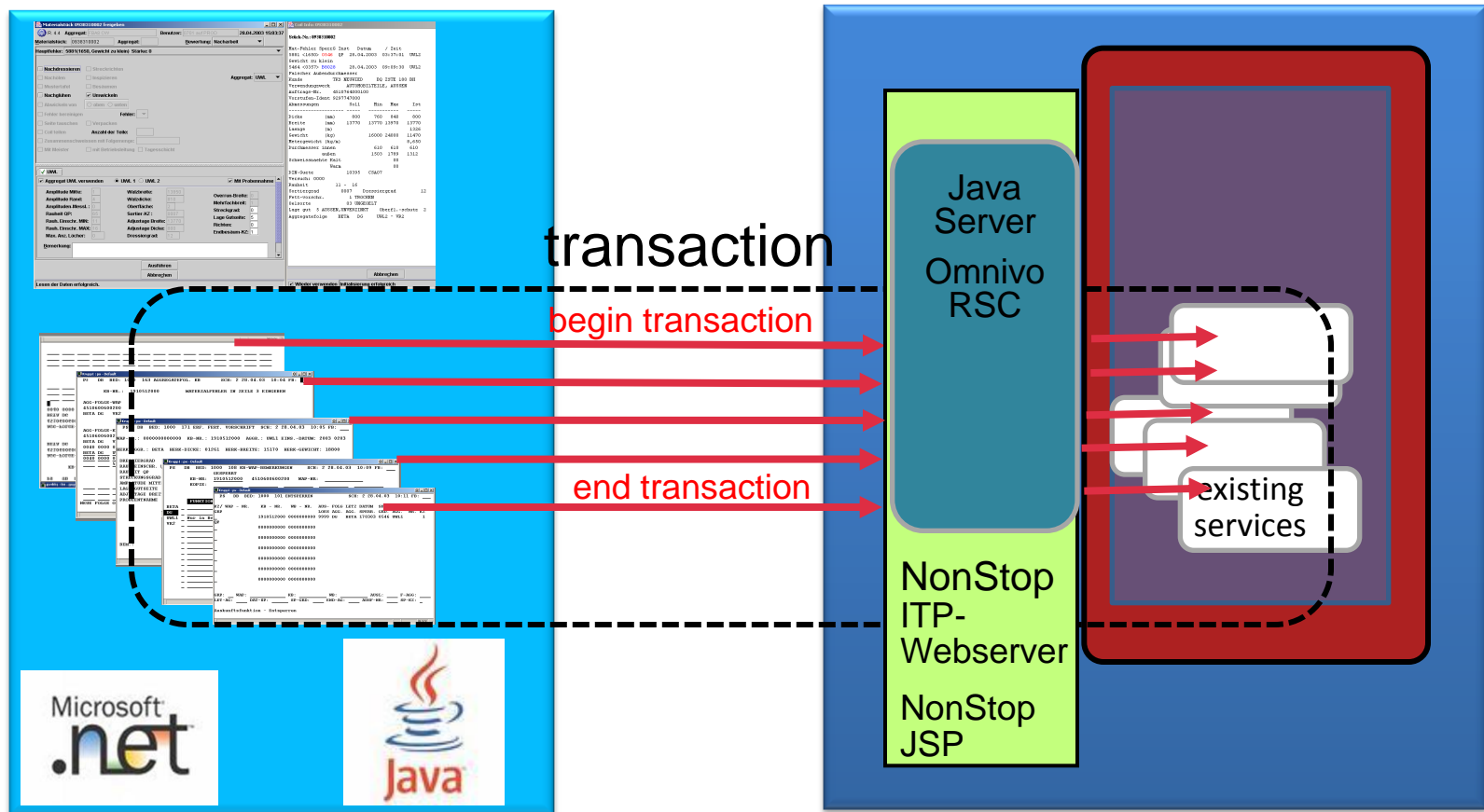
DIN-Guete 10395 CSA07  
Versuch: 0000  
Rauheit 11 - 16  
Sortiergrad 0007 Dressiergrad 12  
Fett-vorschr. 1 TROCKEN  
Oelsorte 03 UNGEOELT  
Lage gut 5 AUSSEN, UNVERZINKT Oberfl.-schutz 2  
Aggregatefolge BETA DG UWL2 ^ VR2

Abbrechen

☒ Wieder verwenden Initialisierung erfolgreich

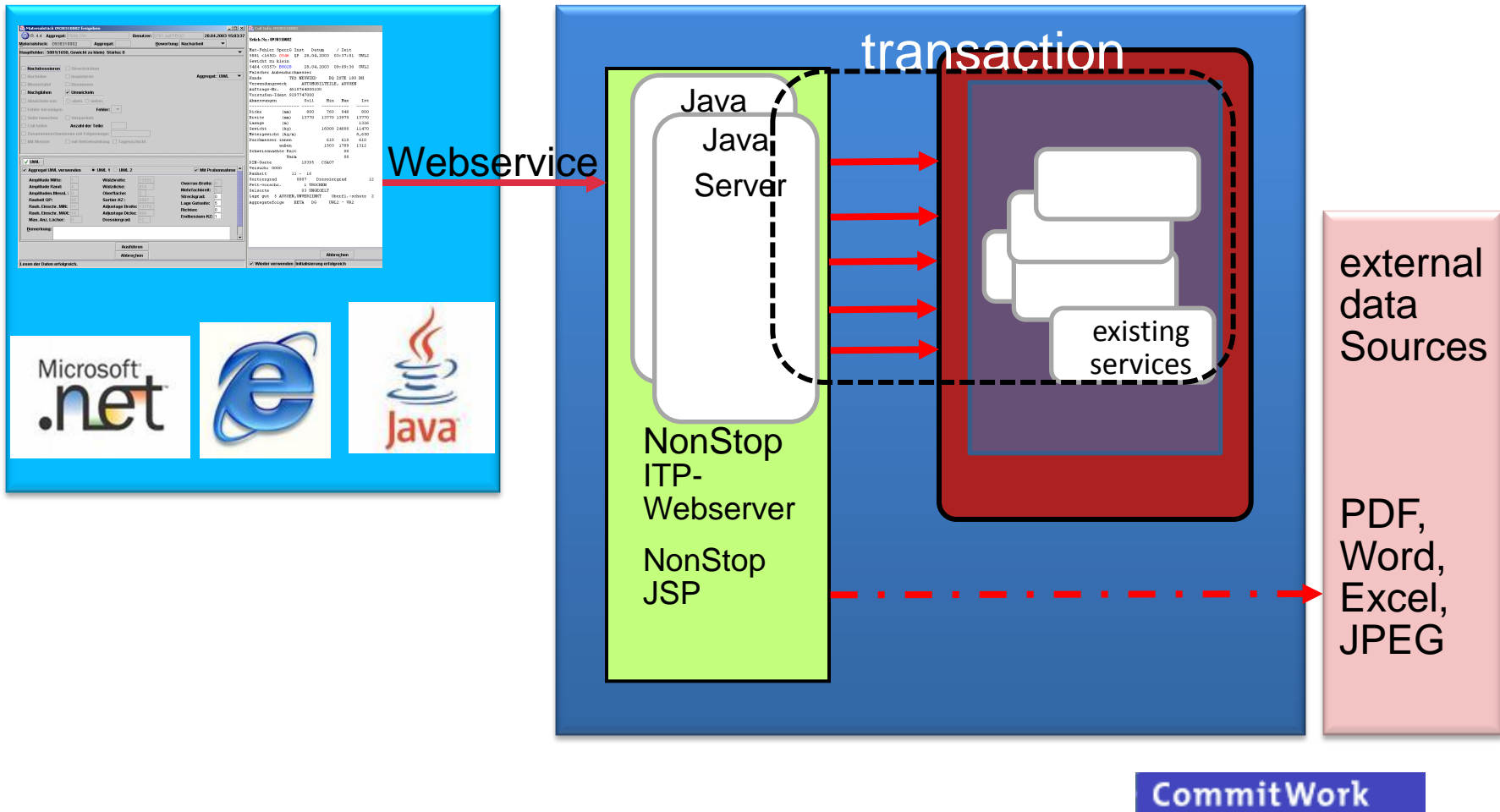
# „redesign“

combining functions within a client, using TomCat on NonStop, only one scaleable Java bean for everything



# „redesign“

combining functions within a server,  
individual Java beans





# „redesign“

mixed operation: ScreenCOBOL → Java dialogue:

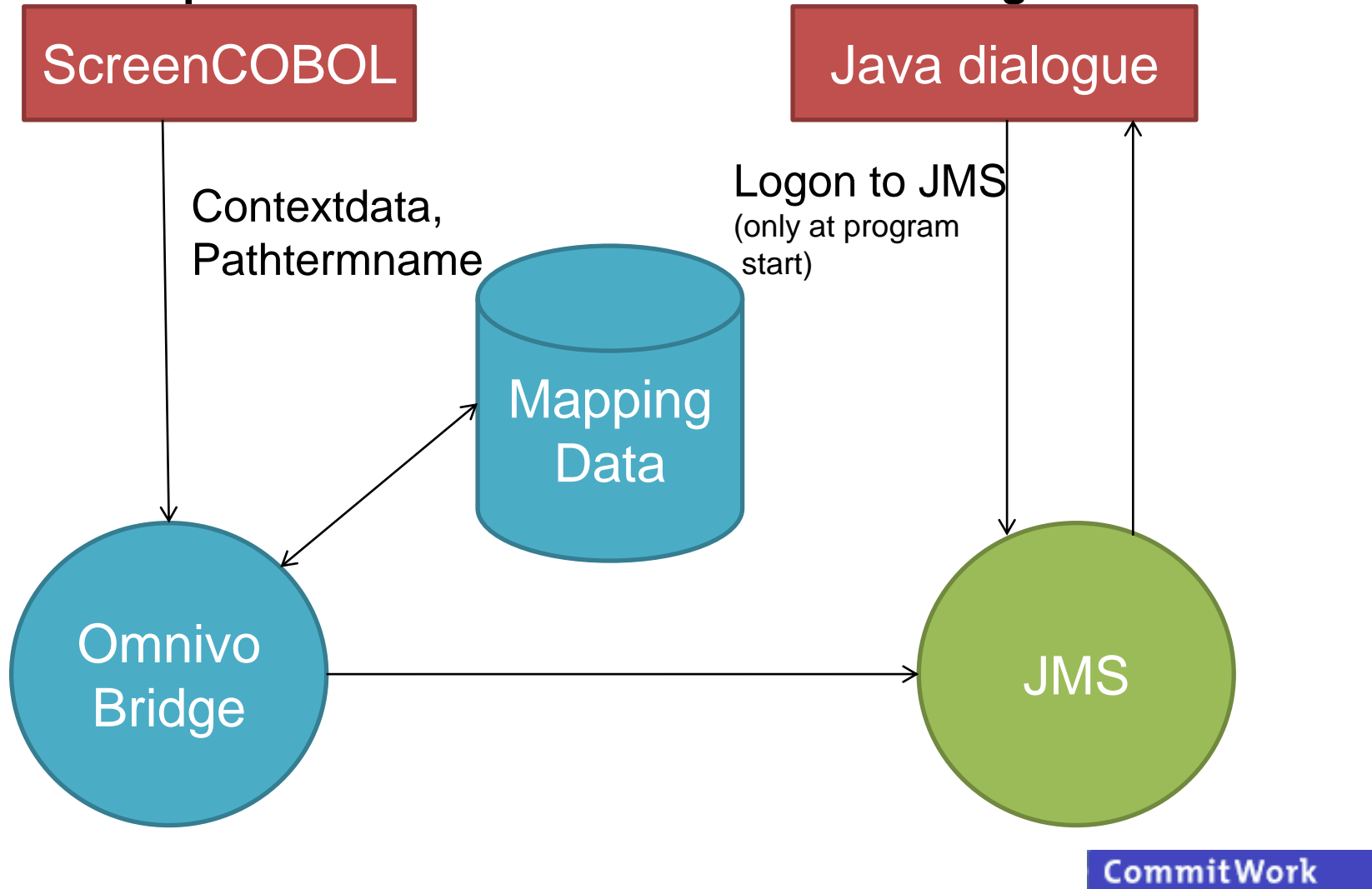
|   |   |                         |                     |
|---|---|-------------------------|---------------------|
| ThyssenKrupp Steel                                  | Betr: TDV I1                                      | Benutzer: 0701          | 13.11.2007 15:59    |
| Bochum STK10  | Bild: B12   | Information Stueckdaten | Folgebild:          |
| SF2/F15: WB-/KB-Nr. :                               | A428900000  | F2/F16: KS-Stueck-Nr:   | 7066168 00 C        |
| F3: Fremdmaterial-Nr:                               |   | Praeferenz: 01 DE 04 12 |                     |
| Auftrag/Pos Pt Kombi                                | Lief.term APL-Var                                 | Stueck-Merkmale         | Wff-Nr. LW Charge   |
| 207606 2  | 30.11.07 0  | 8685235                 | 1 330 55 12 118314  |
| Letztes Aggregat                                    | Aggregatefenster                                  | Mat-kl: 04 Wf1Bez       | HSZ220/30AB2/ISO220 |
| (Ist-Termin)  | (Soll-Termin)                                     | Brammen-Nr Kaltband-Nr  | Bestell/Verbrau     |
| - AGG520 X AGG530                                   | - AGG530  | A428900000              |                     |
| 11.11.07 23:11                                      | 17.11.07  | 21.11.07                |                     |
| Bearbeitungen (wenn Aggr. angekreuzt) OHNE US-PRUEF |   |                         |                     |
| ARB060  | ARB060  |                         |                     |
| Gewicht Dicke Breite Laenge                         | Materialart                                       | KZ-Loe ID Ph            |                     |
| 23960 0,70 1337,5 3259.997                          | GEB,TROCK.+ GEB,GEGL                              | 610 3                   |                     |
| WzB Walzbefund:                                     | kein Text vorhanden                               |                         |                     |
| BzB Beizbefund:                                     | kein Text vorhanden                               |                         |                     |
| PRL PRL-Info:                                       | kein Text vorhanden                               |                         |                     |
| TX3 Tx3-Text:                                       | kein Text vorhanden                               |                         |                     |
| Lager-platz datum uhrz.                             | Vorgabedaten Seq+ Status                          | Anz. Gue                |                     |
| ort 13.11.07 04:50                                  | AGG Prog.lfd. lfd 0                               | Datum Sper te           |                     |
| 321 Lpl: 1 1 11 1                                   | 530 54 14 14 1                                    | 12.11.07 0 1            |                     |
| F14: Bearb. F8: Texte                               | ETIKETTEN: F4: Odette- F6: Kleber- F9: KS- F10: K |                         |                     |
| F13: VP zu Ring                                     | NP/PP WB/KB-Nr. S-NP KS-Ident-Nr. SF4: Verzinkun  |                         |                     |



Calling a Java client from a ScreenCOBOL requestor

# „redesign“

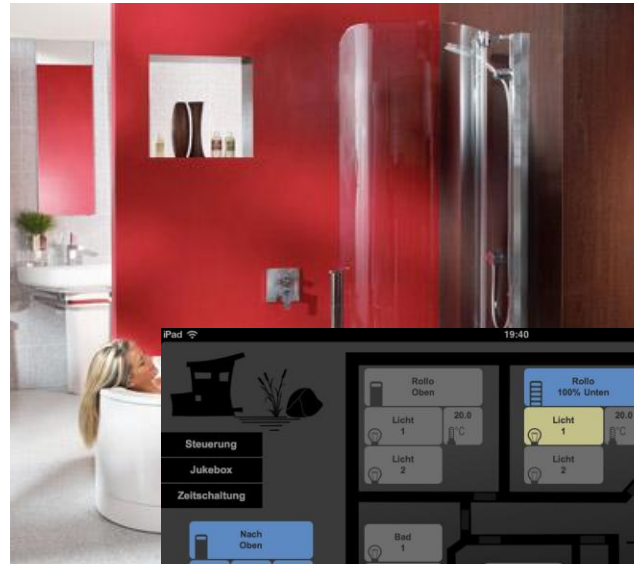
mixed operation: ScreenCOBOL → Java dialogue:



# option 3 – “fully fledged modernizing”

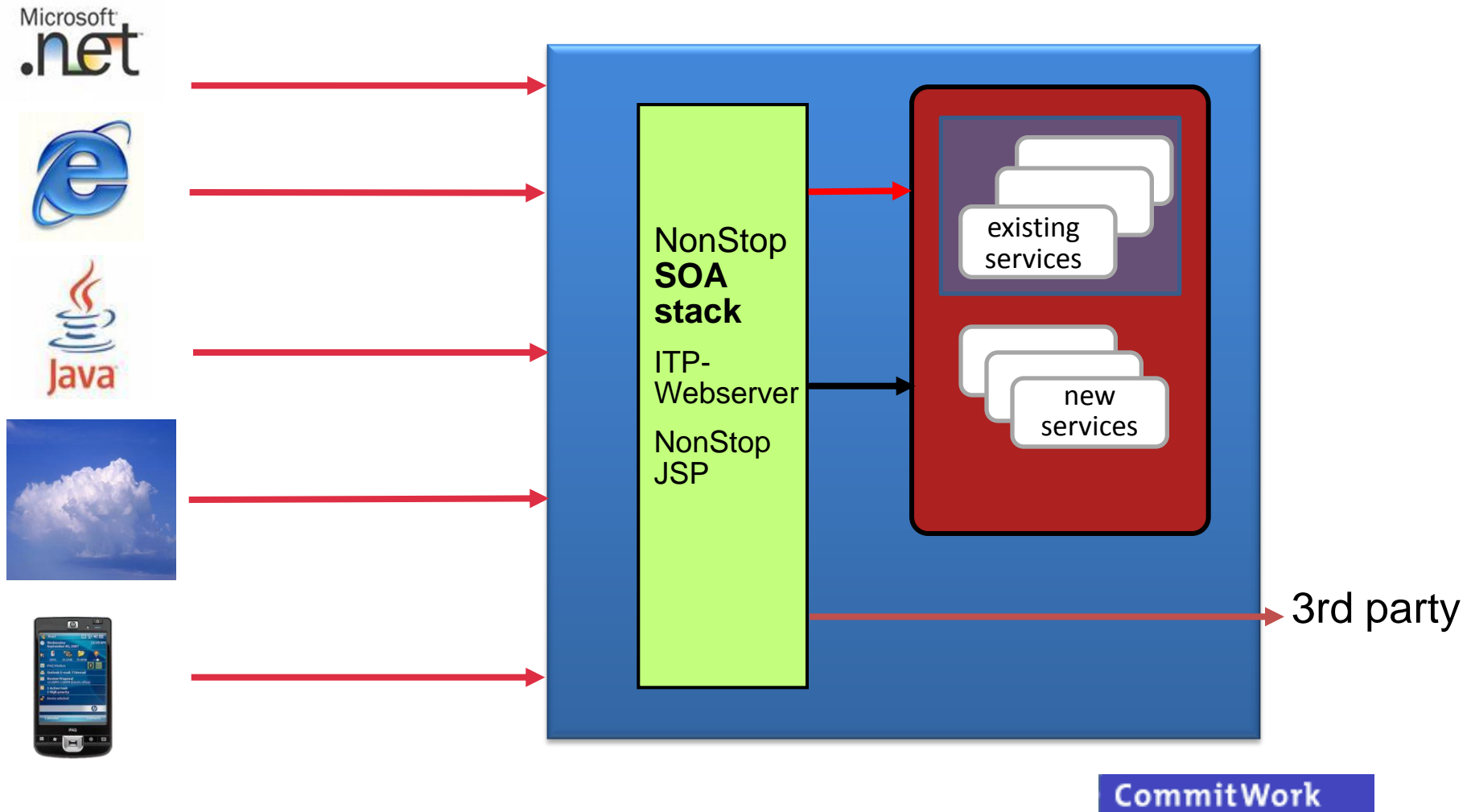
## 3. involving a SOA-stack layer on a NonStop Server

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



# “fully fledged modernizing”

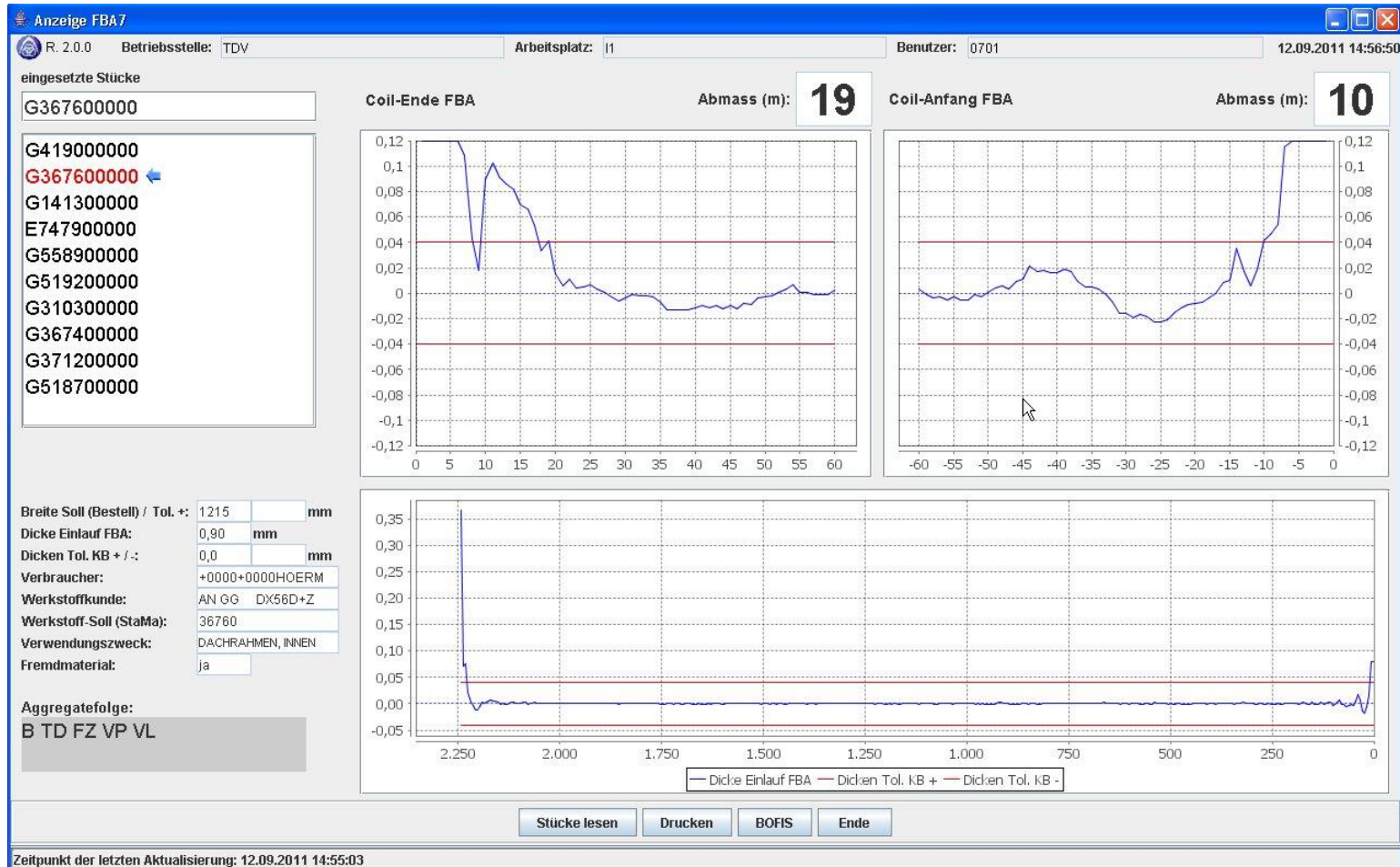
open for most everything



# “fully fledged modernizing”



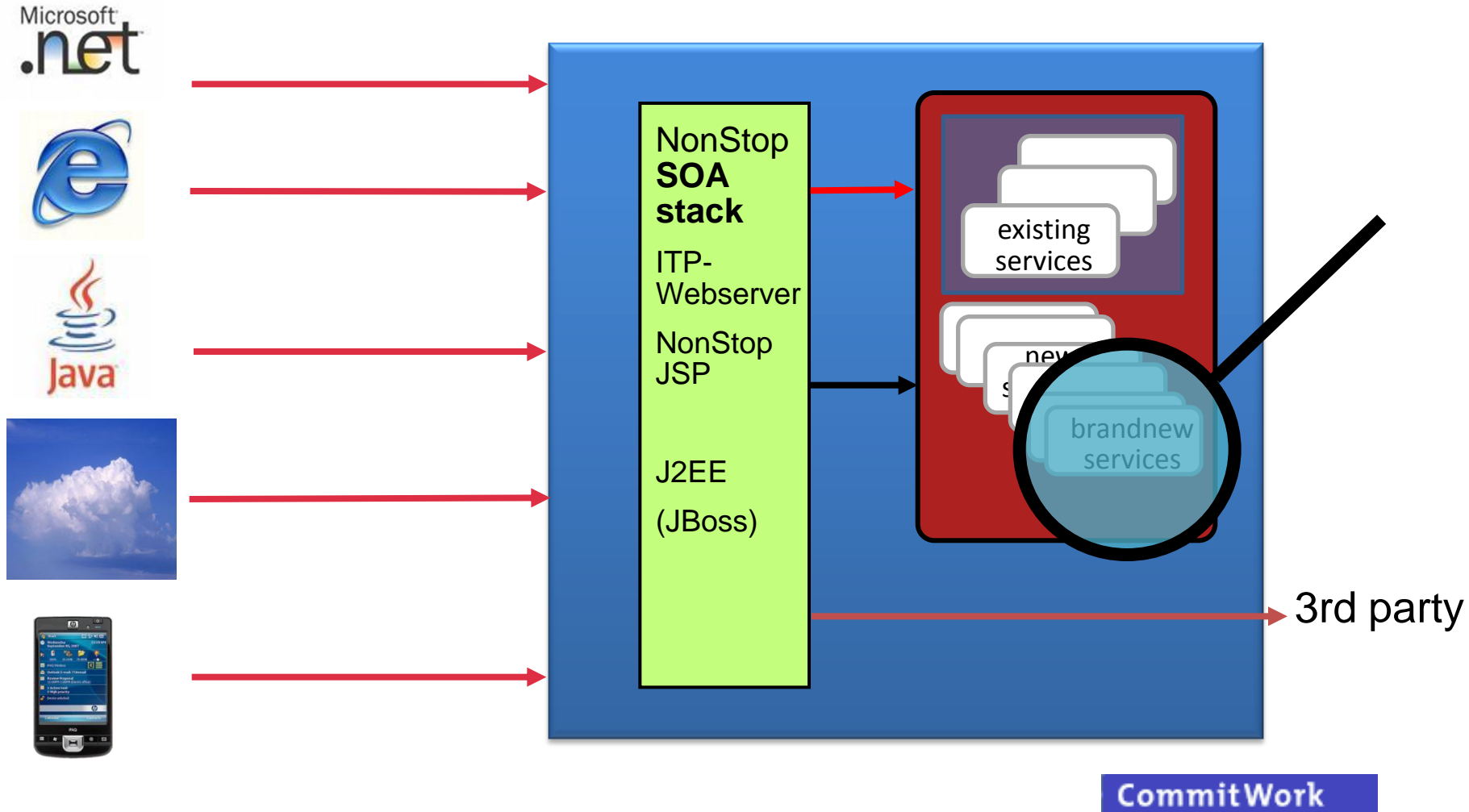
## one function – services provided by several servers





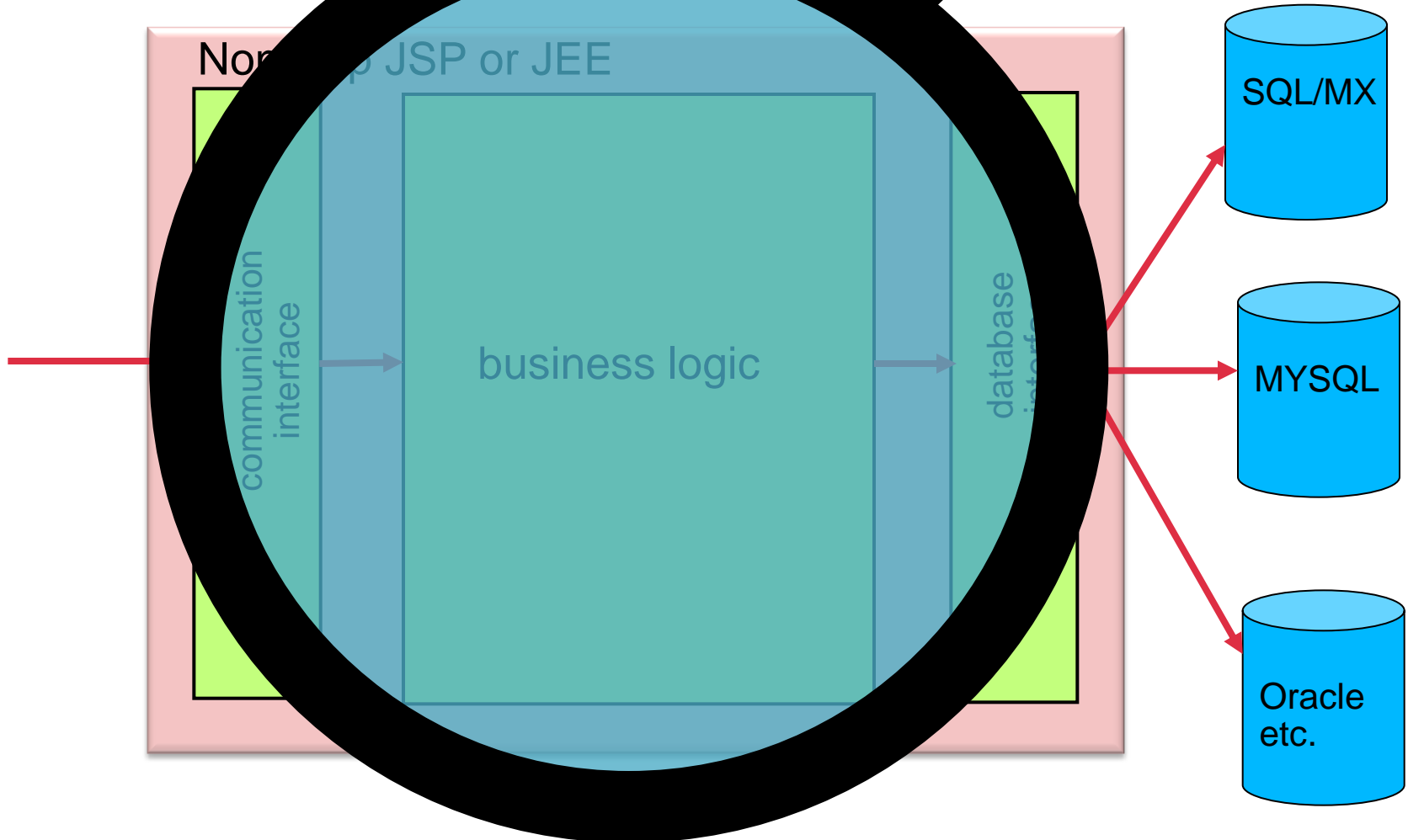
# “fully fledged modernizing”

## smooth migration



“fully fledged modernizing

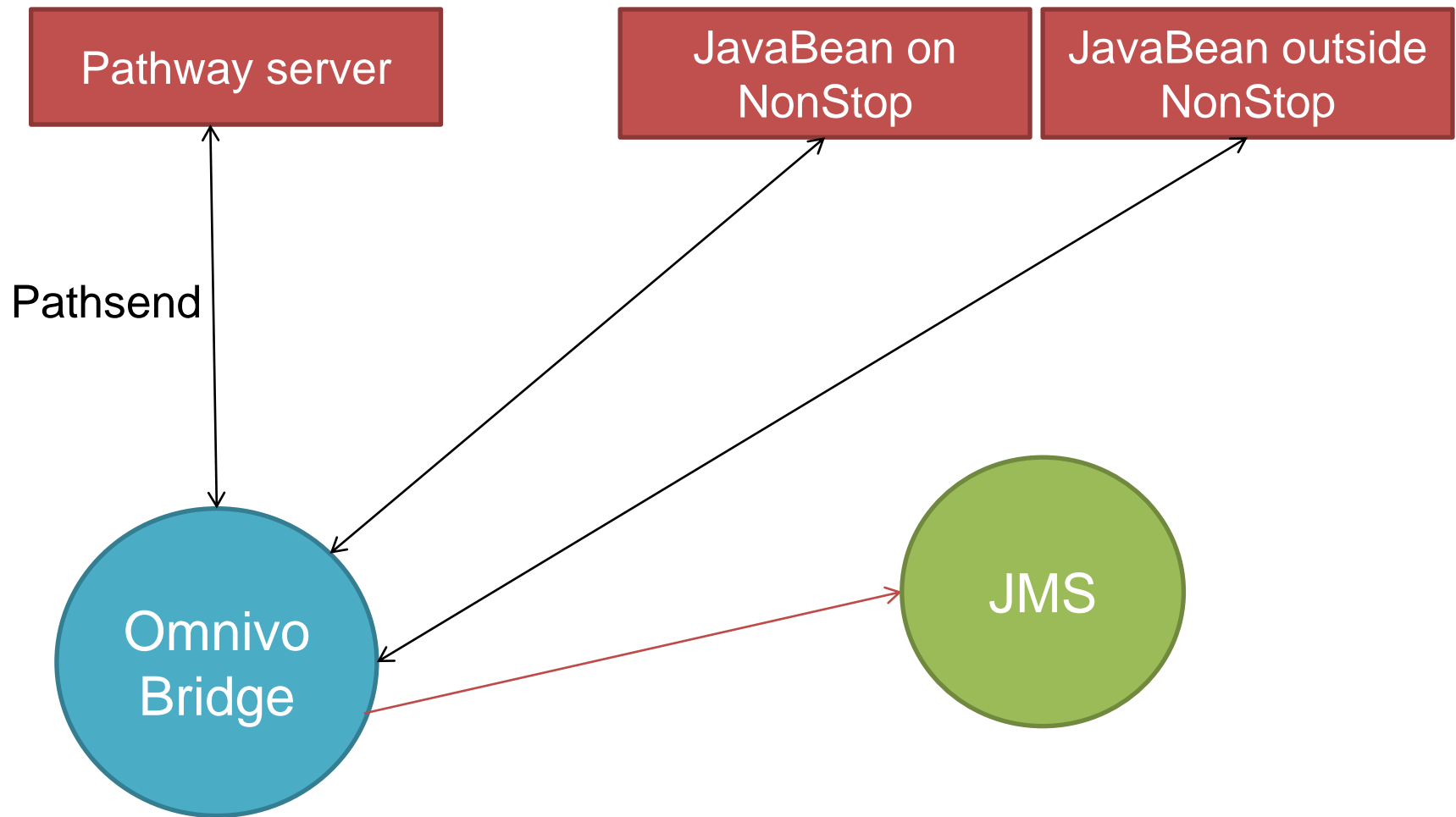
new services: **business logic**



# “fully fledged modernizing”

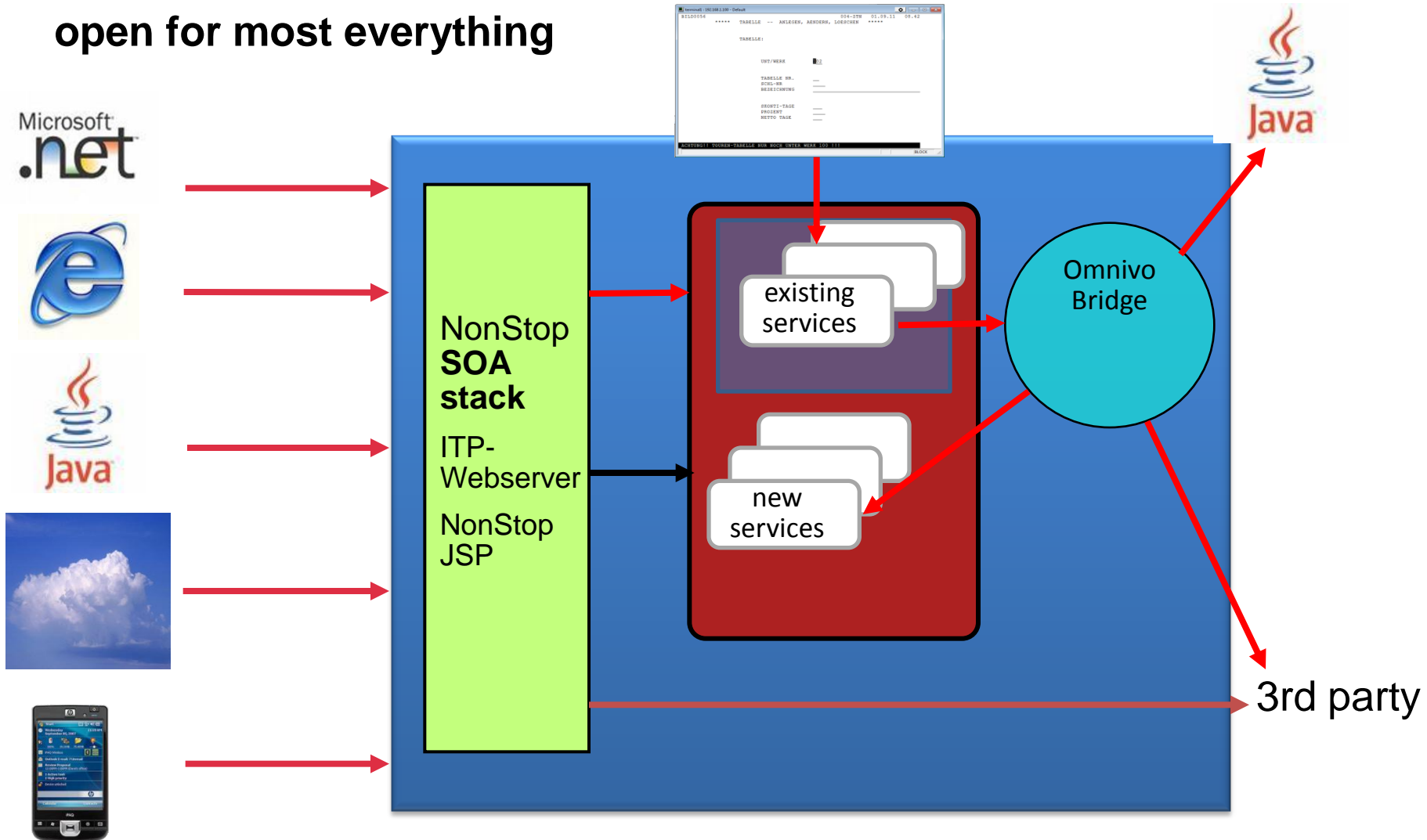


access to 3rd party applications: **OmnivoBridge** enables even more...

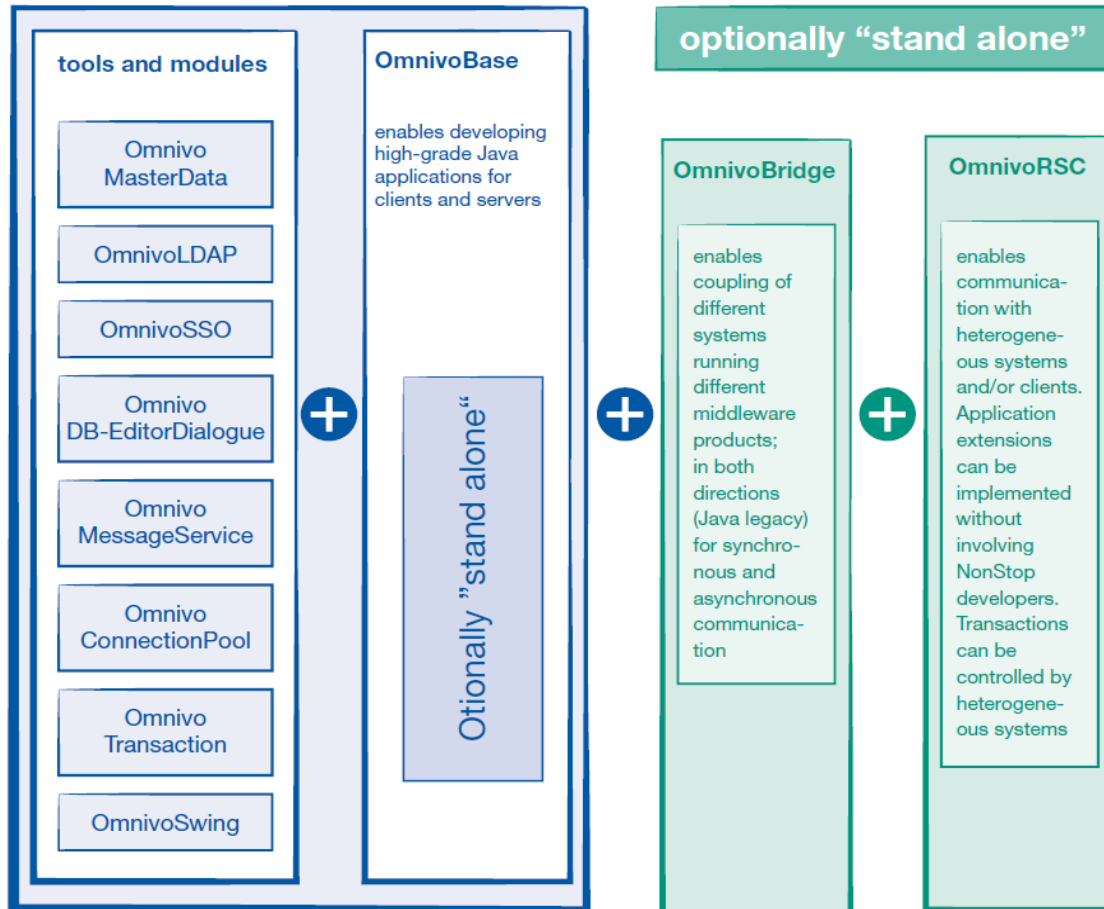


# “fully fledged modernizing”

open for most everything

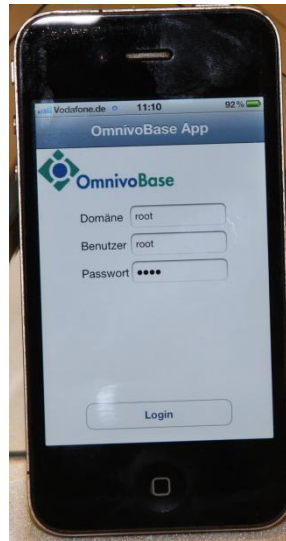


one family – unlimited possibilities



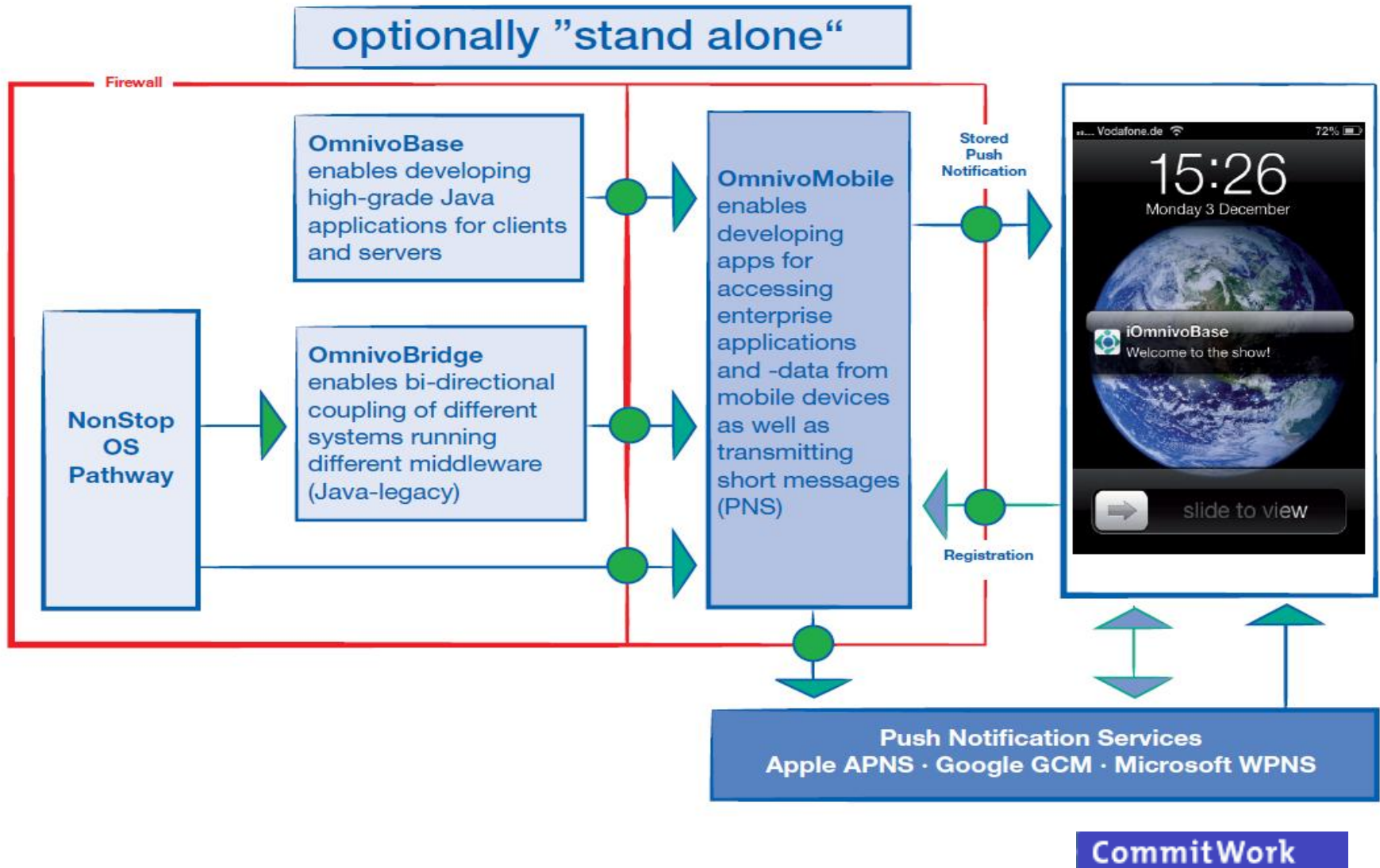
\* Developers supported by CommitWork's **Eclipse plug-ins**





and in the end, mobile access to the NonStop

# OmnivoMobile



# conclusion

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- modernizing is more than just colored screens
- HP NonStop servers should also carry new & modern software
- investment protection by encapsulating the business logic
- smooth migration  
final goal: eliminating any vendor lock-in
- utilizing new NonStop server resources for new functions
- customers can start with just one CommitWork product  
and later grow “function-wise” with additional products
- proven in practice, please ask for references

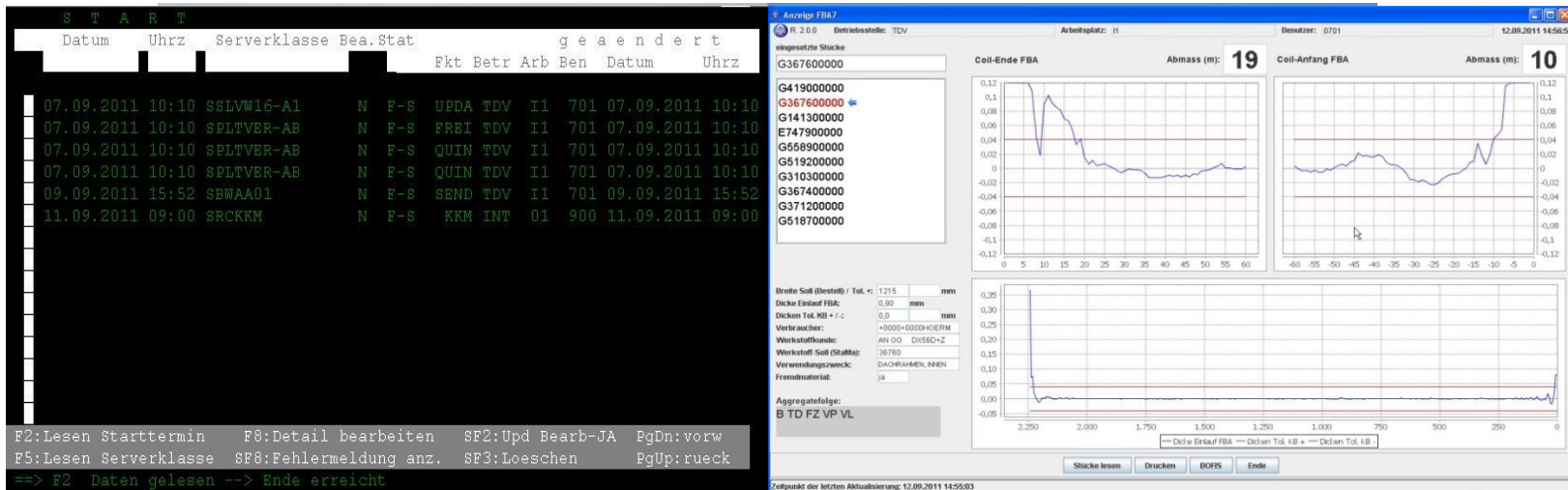
# you want to see more

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- Mobile access to the NonStop
- Eclipse plugin for Cobol85, ScreenCobol and Tal
- Please come to a demo

# conclusion

modernizing, but done properly!



more information? Visit us at: <http://www.commitwork.com>

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