

Securex Linux experience on mainframe



Securex

- Securex – what's our business
- Securex – IT
- Why DB2
- DB2/VSE capture & apply
- DB2/UDB on linux for zseries
- Evaluation & evolution
- Questions

Securex

- ▶ founded in 1905
- ▶ 1350 medewerkers
- ▶ 69.000 companies
- ▶ 100.000 self-employed
- ▶ 44.000 Private individual
- ▶ 4.500 partners
- ▶ 170 million € turnover
- ▶ 7,3% annual increase
- ▶ 23 offices in Belgium, 7 in France, 1 in Luxemburg

SECUREX IN EUROPE

23 offices in [Belgium](#)
7 in [France](#)
1 in [Luxemburg](#)



170 million € turnover

Securex in Belgium



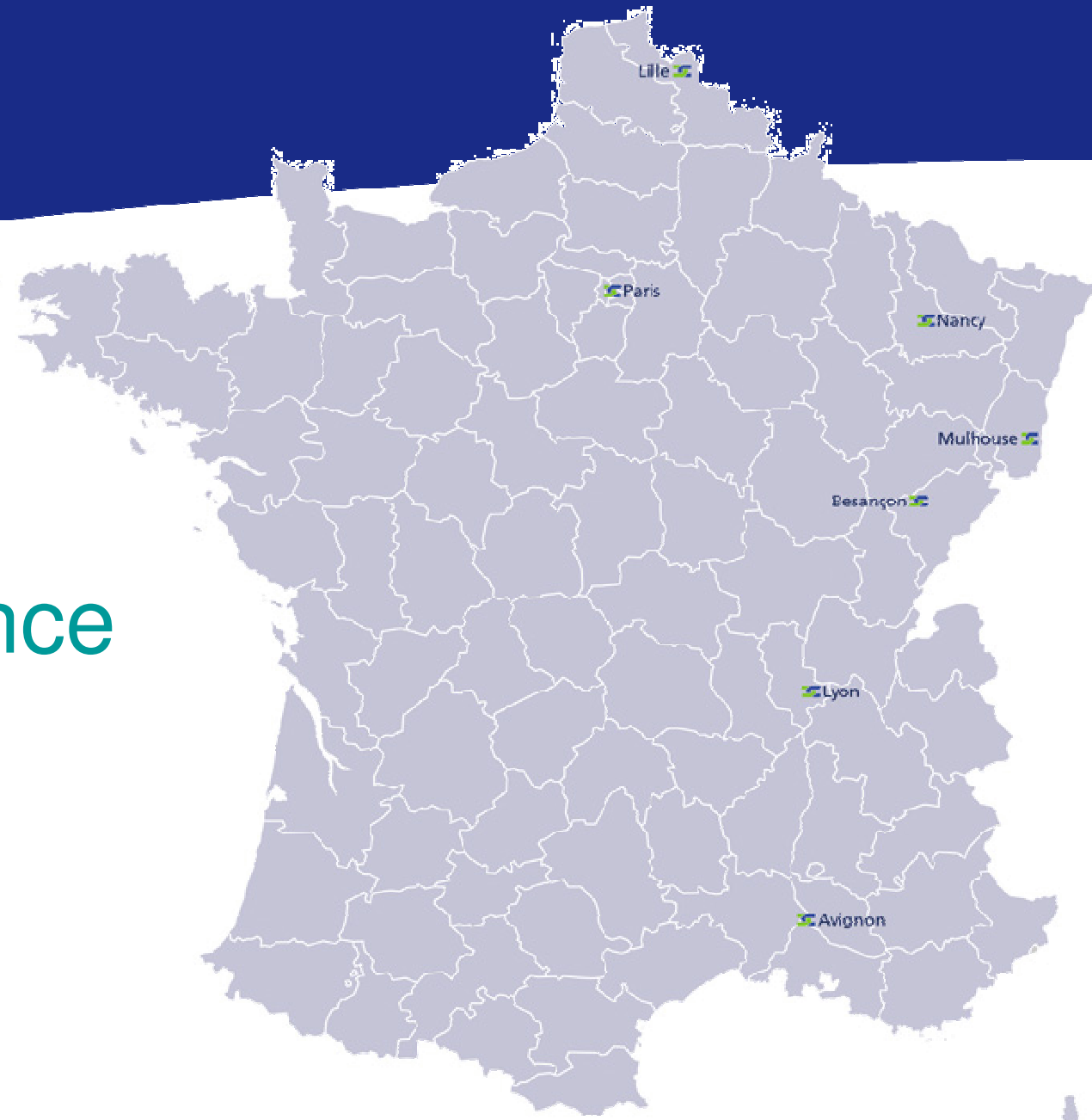
Maatschappelijke zetel

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Om ons overal in België te bereiken

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www.securex.be

Securex in France



Securex in Luxemburg



Securex Luxembourg

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www.securex.lu

Some customers



But also

- Bakers
- Hairdressers
- Butchers
- Doctors
-

What's our business

- **Companies**

Whether you are a small, medium-sized or large company, we offer you here solutions that best meet your requirements as the head of a company, your obligations as an employer and a large number of tools and services to manage and motivate your staff more effectively and make them more dynamic.

What's our business

Personeelsbeheer

Strijd tegen absenteïsme

Kinderbijslagfonds

Verzekeringen voor ondernemingen
en zelfstandigen

Juridisch advies en ondersteuning

HR-administratie

Ondernemingsloket go-Start

Gezondheid, veiligheid en welzijn op
het werk

Sociaal secretariaat

Informatica-oplossingen (Magistral,
HR Accent...)

HR Measurement (ZebraZone)

Beheer van uw onderneming

Opstart: ondernemingsloket go-Start

Ondernemingsbijdragen: Integrity

Creatie/sluiting van een filiaal

Internationalisering

Fusie/acquisitie/overname

Herstructurering

Beëindiging van activiteiten

Juridische bescherming

Juridisch advies en ondersteuning

Sociale audit

What's our business

- **Self-employed**

Whether you are just starting your business, wish to take on staff, want to be completely self-employed or as a sideline, with or without staff, here you find all the solutions to optimise your business and strengthen your social security status.

What's our business

- Ondernemingsloket [go-Start](#)
Sociaal verzekeringsfonds [Securex Integrity](#)
Verplichte ziekteverzekering [Onafhankelijk Ziekenfonds Securex](#)
- Aanvullende Verzekering Ziekenfonds [Securex "Comfort+!"](#)
Kleine Risico's Zelfstandigen [Securex Kleine Risico's](#)
Hospitalisatieverzekering [Hospitalia](#)
Verzekering Lichamelijke ongevallen [Securex 24u/24](#)
Verzekering Gewaarborgd Inkomen [Securex 25u/24](#)
RIZIV-contract voor med.vrije beroepen [Securex RIZIV](#)
Vrij Aanvullend Pensioen voor Zelfstand. [Securex VAPZ](#)
Verzekering Individueel Leven [Securex Individueel leven](#)
LevenPensioensparen [Securex Pensioensparen](#)
Individuele Pensioentoezegging [Personal Saving Plan](#)
Bedrijfsleidersverzekering [Manager Flexi Plan](#)
Pensioen- en afhankelijkheidsverzekering [Securex New Life](#)

What's our business

- Private individual

Whether you are a student, an apprentice, looking for work, selfemployed, wage earner, retired, here you will find ways to fulfil your legal obligations and to best strenghten your social security status by a number of benefits over and above the legal requirements.

What's our business

- Bruto-netto berekening
Kinderbijslag
Outplacement
Pensioensparen
Verzekering vanaf het pensioen: New Life
Ziekenfonds

Securex IT

- Z890 type 2086 – 270 - 1 IFL (10 G.storage)
VSE 2.7.1 – migration z/vse 3.1.2 in progress
native – 6 lpars
- DS8100
- AS/400
- Bladeservers/vmware/HP servers/windows xp workstations
- VSAM (sdbio)
DB2/udb 8.2 linux on zseries
oracle 9i
SQLserver 2000/2005
- Cobol batch & CICS/TS (some assembler)
java (weblogic)
powerbuilder
BEA portal
.NET
RPG mutual insurance & integrity
notes applications
SAP

Why DB2

- Batch + cics/applications use VSAM
growing demand to use relational databases
- 1999 start with DB2/VM
- 2000 start with DB2/VSE without VM
- Java applications need to access DB2/vse (sna)
with high-availability (24/24)
2001 start with replication towards DB2/udb on
windows & capture on vse

DB2/VSE & capture

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- - - Partition - - - - = = = = = = = Job S t a t u s = = = = = = =
X ID S Size Getvis Status Jobname Phase CPU-sec I/O Duration M
_ F3 3 16384 16152 I/O-wait G3VTAM ISTINCVT 457.36 10407606 48:42:37 V
_ F1 1 5056 4032 I/O-wait G3POWER POWERG3 23181.66 57876934 48:42:37 V
_ X1 X 2944 2912 I/O-wait G3EXPL EVSESBAT 370.46 12842845 48:40:45 V
_ X2 X 2944 2916 I/O-wait G3FAQS DCMTDRIV 156.06 13961 48:40:46 V
_ X3 X 2944 2744 I/O-wait G3LCDD FSMLCITM 91.00 394 322:36:52 V
_ X4 X 2944 2876 I/O-wait G3EXPCIC ECTIGEN 13.80 147015 238:50:41 V
_ Z1 Z 51072 51036 I/O-wait G3BSIIP BSTTINET 8442.56 44994 609:10:03 V
_ F4 4 102400 102396 Running G3PROD1 DFHSIP 1195.06 2147967 63:13:54 V
_ W1 W 112384 112380 Running G3TEST DFHSIP 841.98 1173786 58:21:48 V
_ W2 W 112384 112380 I/O-wait G3TRANS DFHSIP 255.40 348079 58:21:47 V
_ W3 W 112384 112380 I/O-wait G3DB2P0 ARISQLDS 255.40 348079 58:21:47 V
_ W4 W 112384 112380 I/O-wait G3CAPT ASNCCP 255.40 348079 58:21:47 V
_ BG 0 10240 128 PWR-wait Cls=0 V
_ F5 5 10240 128 PWR-wait Cls=5 V
_ F6 6 10240 128 PWR-wait Cls=6 V
_ F7 7 10240 128 PWR-wait Cls=7 V
_ F8 8 10240 128 PWR-wait Cls=8 V
_ F9 9 10240 8900 I/O-wait 442DOC XRAY 23.13 5189 0:02:38 V
_ FA A 10240 128 PWR-wait Cls=A V
_ FB B 10240 9956 I/O-wait G3SECSRV BSTPSTS 2.90 25556 48:42:37 V

```

DB2/VSE & capture

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----- Partition ----- Job Status -----
X ID S Size Getvis Status Jobname Phase CPU-sec I/O Duration M
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Z1 Z 51072 51036 I/O-wait G3SIIIP BSTTINET 8442.56 44984 609:10:03 V
F4 4 102400 102396 Running G3PROD1 DFHSIP 1195.06 2147967 63:13:54 V
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W3 W 112384 112380 I/O-wait G3DB2P0 ARISQLDS 255.40 348079 58:21:47 V
W4 W 112384 112380 I/O-wait G3CRPT ASNCCP 255.40 348079 58:21:47 V
BG 0 10240 128 PWR-wait C1s=0 V
F5 5 10240 128 PWR-wait C1s=5 V
F6 6 10240 128 PWR-wait C1s=6 V
F7 7 10240 128 PWR-wait C1s=7 V
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F9 9 10240 8900 I/O-wait 44200C XRAY 23.13 5189 0:02:38 V
FA A 10240 128 PWR-wait C1s=A V
FB B 10240 9956 I/O-wait G3SECSRV BSTPSTS 2.90 25556 48:42:37 V
    
```

1 DB2/ VSE-- CAPTURE for vse detects inserts, updates and deletes

5. mqseries triggers update on db2/ vse

WebSphere software

2. APPLY gets all changes from capture
 Changes are applied on db2/ udb windows



DB2/ UDB Windows

3. Java applications accesses db2/ udb



4. java uses mqseries to request updates

DB2 linux

- 2004 start study DB2/udb on linux for zseries – cpu usage increases in vse/partitions (x 3)
- 06/2005 start with DB2/udb on linux for zseries with ibm working on adapted DRDA-coding
- 11/2005 production : migration of DB2/VSE towards DB2/udb on linux
- today running db2 8.1 fixpack 13 (8.2 fp 6) 64bit test – acceptation – production – system environment with new drda-coding on vse

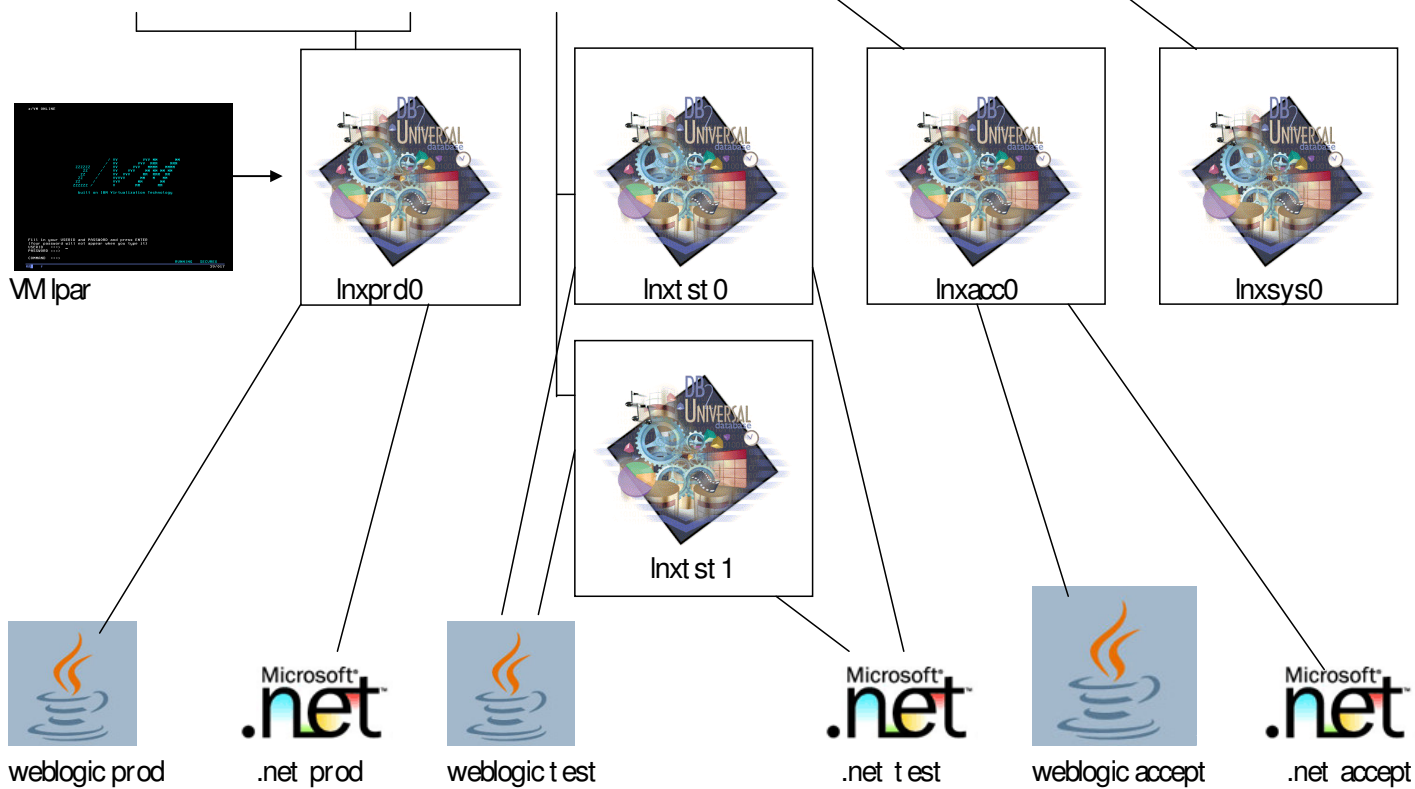
DB2 linux

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--Partitions--
--Partitions--
--Partitions--
--Partitions--
--Partitions--

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product ion lpar 1 product ion lpar 2 t est lpar accept lpar syst em lpar



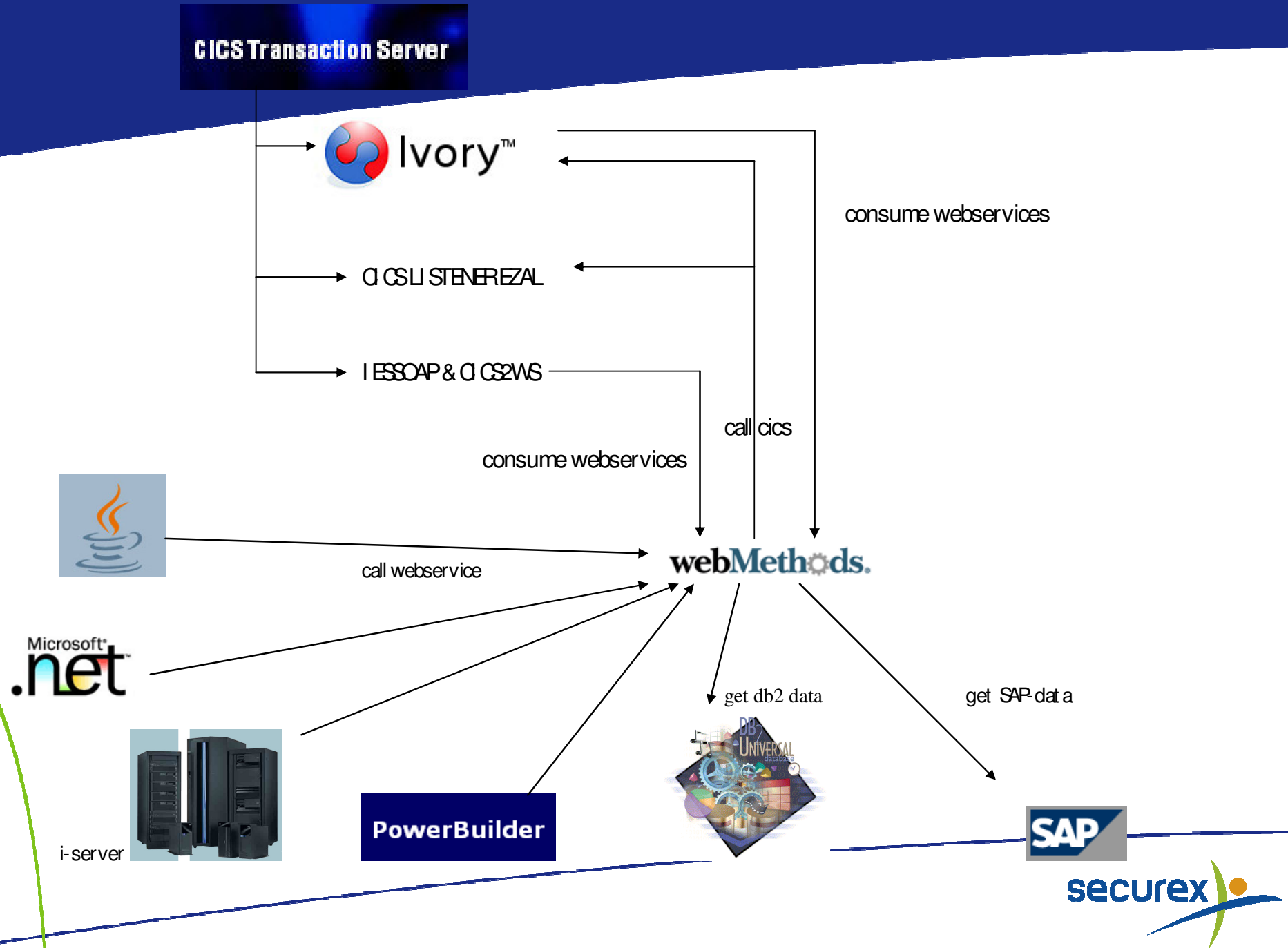
Evaluation

- DB2 on linux gives the possibility to work with an udb accessible from vse and other platforms (one db – no capture & apply)
- Administration on udb easier, adding columns, extending tablespaces, ... (quest central for DB2, health monitor)
- Many parameters, knowledge linux, DB2/udb
- New Drda coding (beta)
- Backup on 3592-tapes started from vse with existing vse-scheduler

Evolution

- Need for additional databases for testing and debugging
- Websphere MQ migration from windows to linux on zseries (test qmanager ready)
- Make use of stored procedures, migrating more vsam-data towards DB2. New applications will use DB2
- Use of webservices managed by webmethods to perform DB2-access

Evolution



QUESTIONS ?