Operating Level Specifications for S/390 Services
between Volvo IT Gothenburg and Volvo IT France/Spain

Specification No	
Assignment Agreement No	

(handwritten notes, top right:)
(DR) 1 timma 50%
24 tim 70%
3 dgr shipping 100%

1 Application

This agreement covers the S/390 services delivered by Volvo IT Gothenburg (VITG) to Volvo IT France-Spain (VIT F-S).

The service is covering:
- Hardware (CPU, Storage),
- Software (including licensing),
- Continuity (Disaster Recovery Plan), Availability, Performances, Security

The service does not cover cost for network services which are described in other documents.

This document agreement covers:
- What has to be performed by VITG
- What has to be performed by VIT F-S
- How the service will be defined
- How and when this document has to be reviewed
- How the two parties will control the level of service.

2 Background

VIT F-S OS/390 platform has been consolidated to Gothenburg as a result of the" Positiv" project in order to reduce the overall operating costs.

3 Hardware Services

3.1 CPU

1. VITG delivered service:
   The service includes Hardware delivery, operations, maintenance and support.

2. The service basis:
   The infrastructure will be 6 Logical Partitions preferably in the same physical "box"

	Total
Processor Storage (MB)	4096
Total Mips capacity	546

   HW must support non-disruptive repair and micro code update.

3. Definition of the service:
   Due to the change of CPU vendors, the exact total Mips capacity will be determined 3 months after the move.
   During this period, the LPARs won't be capped. After this period a status will be done on the peak hours for each LPAR and for all the LPARs. The maximum peak hour value of the last 3

months will be used to determine the base capacity increase and the global capacity for all the LPARs will be set to this value.

The methodology for calculating values for all indicators, both performance and volume, are decided by VIT F-S, in conjunction with VITG. VIT F-S will produce reports on all indicators, with volumes, showing the values in the current environment, for comparison purposes.

4. Control
   - The two parts will review the new service basis 3 months after the move using the new CPU.
   - VIT F-S will verify that the CPU capacity delivered by VITG fits its needs

5. Document review
   This document will be reviewed to take into account the new service basis.

3.2 Storage

1. VITG delivered service:
   The service includes Hardware delivery, operations, maintenance and support

2. VITG service concerns:
   - Direct Access Storage Device
   - Tape drive devices: 8 Storagetek 9840 + 4 Storagetek 9490
   - Automatic Tape Libraries: 1 for Backup + 1 for Production
   - Tape cartridges : 1000 * 9840 + 1000 * 3490

3. VITG service basis:
   HW must support non-disruptive repair and micro code update.
   The total DASD capacity will be 3.7 Terabytes and all the data will be mirrored, so 7.4 Terabytes will be requested.

   Day period: average activity: 2000 IO / sec and average response time: 4 ms
   Night period: average activity: 2100 IO / sec and average response time : 6.5 ms

4. VIT F-S service:
   The service includes responsibility for backups.

5. Control
   VIT F-S will verify that:
   - The equipment can support non-disruptive repair and micro code update.
   - The equipment capacity delivered by VITG fits its need

3.3 Miscellaneous

1. VITG delivered service:
   The service includes also delivery, operations, maintenance and support for all other hardware located in Gothenburg:
   - BARRs PC (remote printers solution)
   - DXE boxes (channel extension solution)
   - 2074 controller
   - HMC

2. VIT F-S delivered service:
   The service includes maintenance and support for all hardware located in Lyon:
   - BARRs PC (remote printers solution)
   - DXE boxes (channel extension solution)
   - XEROX & IBM Printers
   - IBM 3745
   - STK 3490 manual tape drives

4 Software Services

4.1 *VITG delivered service:*

VITG is responsible for:
- Licensing cost for standard SOE/390 Software, all VIT F-S specific Software and for SOE/390, installed at VIT Lyon-Spain by 2002-09-01 (see attached spreadsheet)
- Licensing costs for software evolutions
- Costs for SOE/390 development, support and maintenance,
- Costs for enhancement and R&D activities
- Providing keys and contracts numbers needed
- Cost for French sw support

4.2 *VIT F-S delivered service:*

VIT F-S will continue to maintain, develop and support the Software configuration and will have a direct access to the French support of all the SW vendors.

5 Availability

5.1 *VITG delivered service:*

The hardware is available 24 hours a day, seven days a week, except for maintenance.

Measured by VITG standard tool, target value for 13 weeks rolling is 100 % availability on the Hardware included and maximum 0 interrupts (excluded planned operations).
Available planned maintenance window is Sunday 17h-21h. Enlarged maintenance must be agreed by VIT F-S and communicated according to standard VIT F-S change procedures.

5.2 *VIT F-S delivered service:*

Individual LPAR and Software availability is the responsibility of VIT F-S.

5.3 *Control*

VIT F-S availability report will be used as a basis for a monthly review.

6 Performances

6.1 *VITG delivered service:*

VITG needs to meet the following performance indicators:
- FIMS: 98% transaction internal response time below 2 seconds
- VIMS: 99% transaction internal response time below 2 seconds.
- ICICS: 99% transaction internal response time below 2 seconds
- VMEMO: 98% transactions response time below 1 second
- Batch: the overnight productive batch must be finished before 5 am on SYSV (job J5J13TP2) and on SYSF (job J5N00END).
- TSO: 70% of SYSW transactions finished in period 1 within 0.02 second, period 2 within 0.2 second, period 3 within 0.3 second, 5% transactions finished in period 4 within 3 seconds.
- CAD: BDC objects recall: 693 seconds

In case of a degradation in service in one of the above Key Performances Indicators, VITG commits to change the necessary configuration to meet the above objectives without any increased charges to VIT F-S. This can only be true if the volumes stays the same. Otherwise this is normal capacity increase payable by VITF-S.

6.2   *Control*

VIT F-S performances reports will be used as a basis for a monthly review.

6.3   *Document review*

This document will be reviewed to take into account the performances 3 months after the Move

7   Security

7.1   *VITG delivered service:*

VITG is responsible for the Hardware continuity planning.
Within 1 hour, after a declared disaster, the CPU service will be up and running, with 50%
reduced Capacity. Within 24 hours 70% of the capacity will be back.
Full CPU capacity is guaranteed within 3 working days + shipping.

Storage service is backed for all LPARs within one hour.

VITG guarantees:
- o   The physical security
- o   The confidentiality and integrity of all VITF-S.

7.2   *VIT F-S delivered service:*

VIT F-S guarantees the logical security concerning the access to the data

7.3   *Control*

The two parties will perform a test of the Disaster Recovery Plan once a year.

8   Change management

8.1   *VITG delivered service:*

If VITG has to perform any HW maintenance, such as capacity upgrades or network changes,
VIT F-S has to be informed minimum 1 month in advance in order to give its agreement.
The log of all VITG configuration changes will be accessible by VIT F-S Operations team.

8.2   *VIT F-S delivered service:*

VIT F-S will have their own LPARs, serviced by VIT F-S personnel and normal VIT F-S
change procedures applied.

9   Support

VITF-S will have a direct phone and mail access to the VITG supervision 24 hours a day and 7
days a week.
VITG will be responsible for all the HW located in Gothenburg (supervision, maintenance,
support, contact with suppliers).

VIT F-S will be responsible for the OS/390 supervision (Master Console, Netview) and for the
IPL (HMC console).

10   Volumes

Capacity increases of less than 10% are to be available within 2 weeks.

10.1 CPU

546 MIPS
4 GB processor storage

10.2 DASD

3,7 Tera-byte mirrored
Raid-1 or Raid-5 protected with hot spare

10.3 Tape

1000 "9840" tapes
1000 "3490" tapes

10.4 Tape Mount

300 mounts/day

11 Start Date / Validity

Expected Delivery date: 16/09/02
Length of contract: 1 year

12 Agreed cost:

12.1 Annual cost

The total annual cost for the S/390 services, including HW, SW, WAN, development,
maintenance and support will be based on the CPU and DASD capacity.
It is described in a separate agreement.

12.2 Upgrade or Downgrade costs:

VIT F-S should ask each upgrade in writing. If not, the former capacity will be delivered and
used for costs calculation. In case of downgrade, the cost calculation reduction will be used
without notification. The upgrade and downgrade costs will be used for CPU (MIPS), DASD
(Giga byte).
Tape Mounts and Tape Cartridge slot are included in the DASD price.

13 Agreement review and responsibility

Making it possible to invoice the used resources, VIT F-S authorise VITG to extract utilization
information from the VIT F-S OS/390 environment.

14 Change of terms

If VIT F-S and VITG agree in changing the scope or content of this agreement, this change shall
be in writing and signed by both parties. Cost calculations and timeframes shall also be
reviewed and agreed upon.

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