

IT Operation – Common Service

Service Description

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INFORMATION TECHNOLOGY

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1. Executive Summary

This Service Description document describes the common IT Operation Service as provided for all platforms and environments by Volvo Information Technology. Target groups for this document are Customers, Volvo IT Global Account Managers, Account Managers and Account Executives.

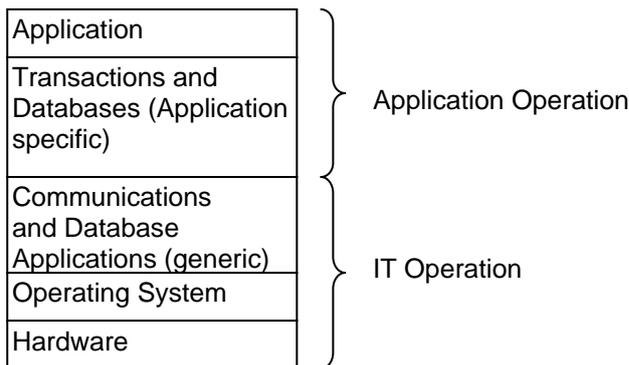
1.1. Executive Summary

IT Operation Services includes operational services to monitor and keep an existing environment up and running and includes supervision, facility management and security management.

This Service Description describes the service that is common to all technical platforms and environments. Each platform has a description that describes the specific deliverables of that particular platform.

1.2. Service Relations

IT Operation is related to Application Operation. The illustration below tries to clarify what is included in the different services.



Application Operation includes the operation of the applications and the application-specific middleware components and databases. IT Operation includes Hardware, Operating System and generic communications and database software. For example, keeping the database software (i.e SQL Server) up to date with patches etc is an IT Operation service component, but the administration of a specific database (related to an Application) is an Application Operation service component.

1.3. Platform-specific information

This service description describes the generic IT Operation Service that is common to all operations services provided by Volvo IT. To build a complete service package for the customer, platform- and environment-specific Service Descriptions are also needed.

These are published in the global or local service catalogues.

1.4. Managed Services by Volvo IT

Other Managed Services include operational services such as Application Maintenance & Support and IT Operation as well as Application Development and Integration. The illustration below shows how Volvo IT can offer a full range of Managed Services for Application Management and Operation and how the agreements and Service Description

together form a Service Level Agreement (SLA).

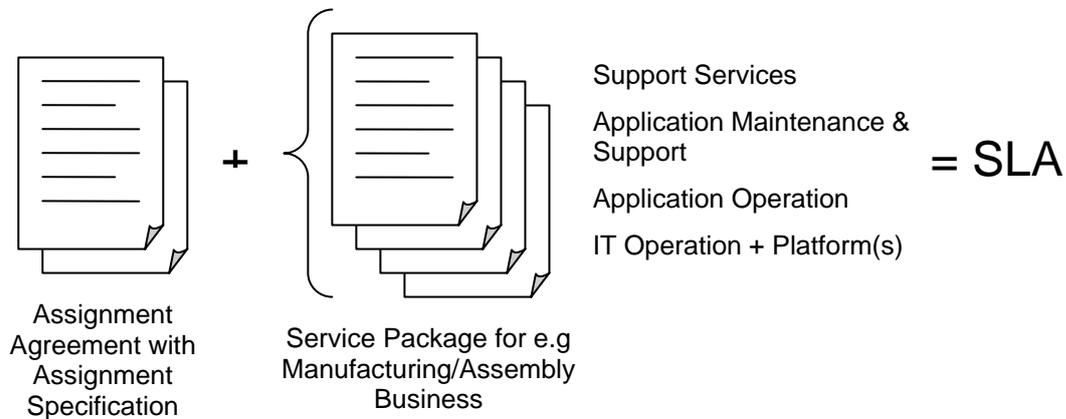


Figure: Managed Services from Volvo IT, with agreements.

Information about other Managed Services can be found in the Volvo IT Services and Solutions site on Violin (the Volvo Group intranet). Please visit <http://violinhotel.volvo.net/violin/vit/ssp/>. For customers without access to Violin, please contact your account manager for further information.

1.5. Customer Benefits

Increased productivity targets for operations, maintenance and support have resulted in a highly modern, cutting-edge infrastructure and competitive prices for managed services.

1.6. Volvo IT's position

Volvo IT provides a wide variety of operations services. Volvo IT operates approximately 1000 applications - standard applications from leading suppliers and applications developed in-house. Volvo IT operates and supports applications for the entire industrial process, including product development, manufacturing, aftersales, sales and administration.

Volvo IT is used to complex global IT environments. Volvo IT operates the majority of platforms used today, including support and IT solution development.

2. Service Delivery Packaging

Not applicable

3. Base Service

3.1. Service Management

Service Management includes activities to manage and optimise the service delivered. Representatives from the Customer organisation may be present for some of the activities described below.

3.1.1. Tactical Service Management

Monthly Activities in Tactical Service Management includes:

- Operational Plan
- Progress Reports
- Financial Follow-up
- Team Leader meetings

3.1.2. Task Management

Task management includes bi-weekly Service Management activities such as the Bug Correction Prioritization and weekly activities such as Task Management and Day-to-day Resource Planning

3.2. Systems Management

3.2.1. Standard Operating Environment

Each platform has a defined SOE, Standard Operating Environment. The SOE is a standardized environment for automation, operation and supervision, including the operating system and applications.

Volvo IT will manage the SOE and update twice per year.

3.2.2. Updates, Patches and Maintenance

Necessary updates of the customer's environment, such as installation of patches, will be performed by Volvo IT in accordance with the agreement. Volvo IT will also maintain the environment by eliminating problems, both correctively and proactively.

3.2.3. IT Service Continuity and Recovery Management

The goal of Continuity and Recovery management is to secure that the IT environment can be restored after an incident.

IT Operation Services from Volvo IT include Continuity and Recovery Management. For each platform or environment there is a Disaster Recovery plan describing how normal operations should be restored after a Disaster situation.

Time to recover from a Disaster may include time to restore a compromised infrastructure, all hardware and subsystems as well as recoverable data. The length of this period depends on the scale of the disaster and will be determined after a damage assessment.

3.2.4. Storage Management

Storage Management is about making sure that adequate storage is available in the Operation environment.

3.3. Supervision

Volvo IT is supervising operational and hardware alerts to offer a proactive approach to start a

corrective action or escalation of a problem according to system documentation.

By supervising the hardware and operating system, Volvo IT may also identify potential service interruptions before they occur.

- Through the supervision service, Volvo IT is monitoring events from hardware and system processes. Escalation and error reporting is part of the service.
- Supervision of alerts regarding hardware failures is set up with the manufacturer supplying monitoring tools. If necessary, escalation is made to the hardware manufacturer.
- Supervision of events is made via monitoring tools. All events must follow the Event Process.
- All events are automatically forwarded to centrally located consoles, which are manned 9 hours a day, 5 days a week, where they are monitored and logged.
- For customer owned hardware and software the customer is responsible to provide information concerning actions, contacts and priority to be followed.

3.4. Facilities

Volvo IT's operation services are based on the premise that customer's equipment will be placed within the suppliers premises. The physical environment is the foundation of a system or application.

Volvo IT hosting centres are facilities managed by Volvo IT. These facility services are designed to provide customers with a secure environment for installed servers or applications.

The computer facilities have their own computer room zones which only authorised personal have access to.

There are possibilities of hosting equipment in two physically separate hosting centres to achieve redundancy in facilities.

3.4.1. Power distribution and backup power supply

Hosting centres provide multiple levels of built-in power redundancy for the highest levels of availability.

3.4.2. Environmental controls

Heating, ventilation, and air conditioning systems provide appropriate and consistent airflow, temperature, and humidity levels. The environmental systems are monitored 24 hours a day, 7 days a week. Maintenance contracts with local vendors provide a four-hour-or-less response time in the event of emergency.

3.4.3. Fire suppression

Each Hosting Centre is equipped with highly sensitive fire and smoke detectors, alarms and automatic extinguishing systems.

3.5. Security

The supplier works with security within different areas in order to ensure a safe production environment for all operational commitments.

3.5.1. Entry policy

Entry to the computer facilities is limited to the co-workers who must enter in order to secure operations. There are a limited number of co-workers who are able to connect in and out of

the computers. These co-workers are the only personnel who can transport equipment in and out of the computer facilities.

Visitors to the computer facilities may gain entry only after approved authorisation. External technicians, who will perform services and maintenance, must sign a secrecy agreement, which states that they can not discuss any customer information that they have learnt during their work.

3.5.2. Physical Security Systems

All equipment in the computer facilities support system, are connected to a alarm and security system. All the alarms will be directed to the supplier's central security system 24 hours a day.

3.5.3. Break-in Protection

The supplier's facilities have an exterior protection system with burglar alarms. The burglar alarm is connected to a security company. The security company will carry out surveillance at the entire facility including computer facilities, day and night.

3.5.4. Authorisation Zones

The main facility at the central operations includes authorisation zones, fire zones and break-in alarm zones.

3.5.5. Security Cameras

Volvo IT facilities are guarded by security cameras where appropriate.

4. Service Extensions

4.1. Strategic Service Management

Strategic Service Management includes activities that in the long run optimise the service delivered. Activities included are Milestone Plan and Trend Analysis. These activities may require customer involvement.

4.2. Supervision – Extended Availability

The Availability of the Supervision service component may be extended, to provide either 5x12 or 7x24 supervision.

4.3. SOX Compliance

IT Operation Services may be delivered in full SOX compliance, for SOX-classed environments and applications. Services are delivered according to what is specified in the “SOX Compliance Manual” (for Volvo Group customers) or according to the customer’s SOX demands.

5. Service Add-ons

5.1. Information Centre

The Information Centre is a way to make sure that key persons within the customer organization or the customer's customer is made aware of any situation that might lead to a loss of production quality. What situations and who is to be informed is agreed with the customer in the agreement.

6. Measurements & Reporting

6.1. Availability

The operated IT environment shall be available without fault during operating hours measured over a period of rolling 13 weeks. The availability is measured at the server side, not at the end user side. The servers have scheduled maintenance hours on Sundays 09:00 until 21:00 (CET), which are accounted for in the availability calculations.

6.2. Mean time between failure

Mean Time Between Failure, MTBF, is measured based on the average time the IT environment in question works without failure, i.e. the number of failures divided by the hours under observation (see Supervision, measured over a period of 13 weeks rolling). **NOTE!** The failure KPI is based on incidents classed as Severe or Major resulting in unavailability of the environment.

6.3. Unplanned maintenance

The number of unplanned maintenance activities is followed up and reported to the Customer each quarter.

Appendix A: Example - Further Information**A1 Disclaimer**

The information in this document is of a general nature and may contain errors or inaccuracies and is provided by Volvo IT without any warranty of any kind, including but not limited to implied warranty of merchantability, fitness for a particular purpose or non-infringement. The services described in this document may be redesigned or improved at any time by Volvo IT and the information herein shall therefore only be relied on to the extent the information is repeated in writing by Volvo IT in the relevant service agreement.

A2 Trademarks

Trademarks mentioned not belonging to Volvo IT are the property of their respective owners.