

# INFORMATION TECHNOLOGY

**VOLVO**

Key elements of the embedded design and business concept were introduced to and adapted by Volvo Penta and its new SeaKey product.

## Frequently asked questions.

### 1. Why did Volvo Trucks NA choose to work with Volvo IT on Volvo Link?

Prior to Volvo Link's development, Volvo IT NA and Volvo Trucks NA had cooperated in developing systems to track leased trucks. Development of Volvo Link expanded from that original work to become the web-based system we have today.

### 2. How does Volvo Link solve any problems/potential problems for fleet administrators?

Volvo Link provides the three main (and basic) functions that fleets are looking for today. We provide Messaging between driver and the dispatcher, Location reports for the truck fleet, and Vehicle Data like truck utilization and fuel mileage reports.

### 3. What is the business value of the product?

The value to the customer is that Volvo Link can provide the functionalities described above and deliver the satellite system at a monthly cost that is very competitive with even cell based systems.

### 4. How do you pay for Volvo Link?

When signing up for Volvo Link service, the customer enters their payment information. In the US, customers can either have their bank account debited each month or sign up to use a credit card which is debited monthly. In Canada, we offer credit card debiting as the payment solution.

## Volvo Link press awards.

Heavy Duty Trucking's Nifty Fifty awards showcases the editors' picks of the best new product introductions of 2002, and Volvo Link has been named one of these. The 50 winners were selected from hundreds of new-product articles appearing in the magazine and at [www.truckinginfo.com](http://www.truckinginfo.com) during 2002.

And also, Roadstar Magazine named Volvo Link as one of its "Most Valuable Products of 2002".

## Facts about Volvo IT.

Volvo Information Technology AB is a wholly-owned subsidiary of AB Volvo. Volvo IT has annual sales of around SEK 5.9 billion and employs some 4,500 people worldwide.

Volvo IT provides solutions for all areas of the industrial process, and offers unique skills and expertise in Product Lifecycle Management, SAP solutions, and IT operations among other areas. Clients include Volvo Trucks, Renault Trucks, Mack Trucks, Nobel Biocare, ASSA ABLOY, Gambro, Kongsberg Automotive, Segerström Automotive, SchlumbergerSema, and the Ford-owned Volvo Car Corporation.

**VOLVO**

**Volvo Information Technology AB**

[www.volvoit.com](http://www.volvoit.com)

Volvo Information Technology provides the Volvo Group, Volvo Car Corporation and selected customers with specialised skill and cost-effective solutions for all areas of industrial IT, including superior data centre operations and infrastructure.

## AFTERMARKET SOLUTIONS **VOLVO LINK** REFERENCE CASE

### Drivers and fleet administrators communicating cost effectively.

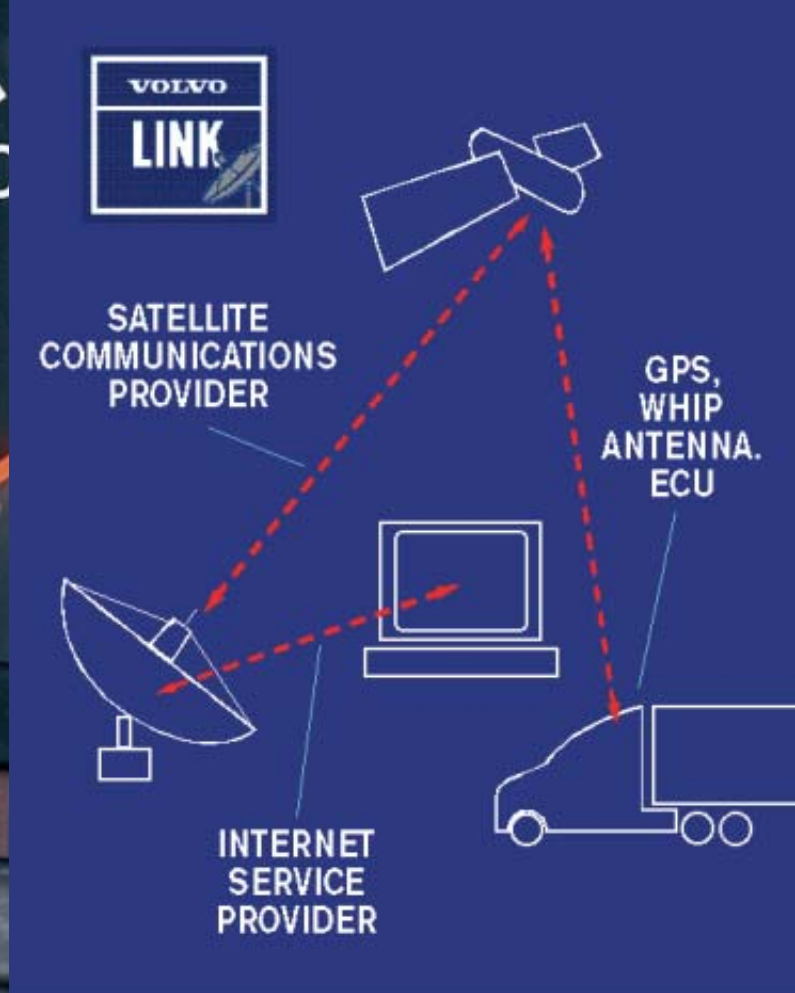
Volvo Information Technology's fleet management system, Volvo Link, enables flexible two-way satellite communication between drivers or their vehicles and fleet administrators, who get continuous updates on vehicle location, fuel economy, and idle time. Administrators can transmit text messages to drivers and set up schedules, which simplifies fleet management.

### Pioneering development in North America.

Volvo Link is the first fully-integrated vehicle communication solution to be developed and marketed by a heavy-duty truck manufacturer. Volvo 3P and Volvo IT North America designed

and developed a telematics solution that targets the needs of small to mid-sized truck fleet owners. The solution gives owners of smaller fleets an inexpensive option to higher priced telematics solutions. And the prerequisites are minimal: all that's needed is an internet connection and web browser.





### Three major benefits.

A Volvo Link system installation enables these benefits: lower cost; simple, total integration; and a flexible, multi-functional interface application.

Installation and operating costs are one-third the costs for competing systems in the US. After minor software modifications, Volvo Link can be integrated into a vehicle's existing human-machine interface. And the interface to the vehicle is web-based, not client-based (back office), which facilitates flexibility and enables easy application upgrades. For example, users need not ship physical media to customers or wait for lengthy downloads of software, installation updates for patches, or function upgrades.

### Customer reference.

Mike Ford is the Transportation Manager for the Steel and Pipe Supply company in Kansas, USA. The following are his comments about Volvo Link.

*"We've had a satellite tracking system tracking our trucks for years. We were interested in the Volvo system (Volvo Link) because of the cost. The cost is definitely the biggest benefit right now. We were paying USD 5,000*

*a month with our previous system. Volvo Link costs us about USD 1,100 a month, which is considerably cheaper."*

*"Volvo has also been responsive to figuring out solutions to our problems. We need the ability to determine where our trucks are at all times, and so Volvo is now evaluating adding new features to Volvo Link. Steel and*

*Pipe has been using Volvo Link since its infancy and in fact we were the third company to use Volvo Link and the first big fleet – we have 67 trucks. We have seen a lot of improvements since the initial implementation and feel this is positive. The business we are in is service-oriented. Those companies that provide the best services are going to get our business."*

### A unique satellite communications system.

- The first completely integrated commercial telematics solution in the trucking industry.
- The first real e-commerce product within AB Volvo, it will generate substantial e-commerce revenue.
- Transforms communication time into value-added services, such as vehicle position and remote diagnostics.
- A modular system, easily adapted to all other Volvo companies globally.
- The third generation of telematics.
- Horizontal scalability (extra functions can be added) and vertical scalability (new users can be added).
- Volvo product owners have a competitive advantage over owners of rival systems because Volvo Link offers worldwide geographical freedom of satellite communication with a cost level comparable with cellular technology.
- A backbone to enhance all other services within the Volvo Group (finance, maintenance, insurance, leasing, etc.).
- The system will make Volvo vehicles more appealing to customers, which enables closer, more long-term relations.

### Technical specifications.

Volvo 3P Product Development created the specifications for the on-board components to facilitate communication between the vehicle's electronic control unit and Orbcomm's low-earth orbit satellites (Orbcomm is a service provider).

Volvo IT developed the message BUS to manage messaging to and from a vehicle's satellite communications modem and the back-end business applications and the web's graphical user interface. All inbound and outbound messages from Volvo Link are processed via multi-threaded NT services that interact with remote Orbcomm ground station servers to read and write inbound or outbound satellite communications. All messages are encoded and decoded on the fly for character integrity and security.

3P Purchasing in Greensboro secured a global contract with Orbcomm to be able to deploy new soft offer business at a negotiated rate within any target market worldwide for the Volvo Group. Orbcomm's growing customer base includes other global vehicle and equipment manufacturers, such as Komatsu and Caterpillar.