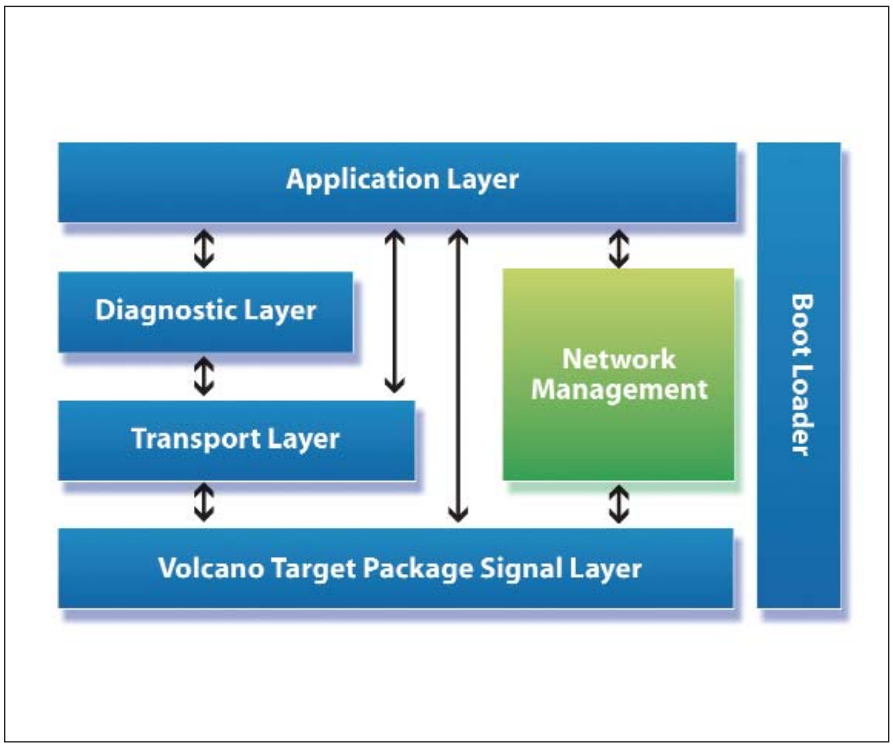
Volcano Network Management Solutions

Vehicle Network Design

D A T A S H E E T



Network Management Manual Configuration

Product features

- Easily integrated with hardware independent interface to the VTP
- Manages wakeup and sleep behavior of the network communication
- Manages the frame configuration control procedure
- Implements a node monitoring function
- Implements a communication error handling strategy
- Delivered as precompiled and tested object library
- Optimized microcontroller resource utilization

The Volcano Network Management (NM) solutions ensure the safety and the reliability of a CAN communication network. These software components provide network monitoring, state control for each node, network communication error handling, and an automatic network configuration control mechanism.

Volcano Network Management Strategy

The Volcano Network Management uses a master/slave concept to ensure that all electronic control units (ECUs) in the network are working properly. The master ECU (which is typically the instrument cluster or central body controller) sends a Master Configuration Identifier to all other ECUs in the network. Each slave ECU uses this ID to find if its network management configuration is compliant to the network. If a mismatch is detected by the ECU, it will immediately stop sending messages and will automatically change into a safe and steady state. This avoids issues when using an ECU in a non-compliant network environment.

Integration

The Volcano Network Management module uses the signal interface of the Volcano Target Package (VTP). The integration is done by linking the network management library to the software and calling the network management functions in the application layer. The small footprint and the well designed API allow a smooth integration with the application software.

Configuration

The network behavior of each ECU may be changed by loading the configuration parameter set directly into a designated ROM area post compilation. So, using Volcano Network Management will cause an improved reusability of any ECU in the network.

OSEK Compliance

Network Management solutions are also available compliant

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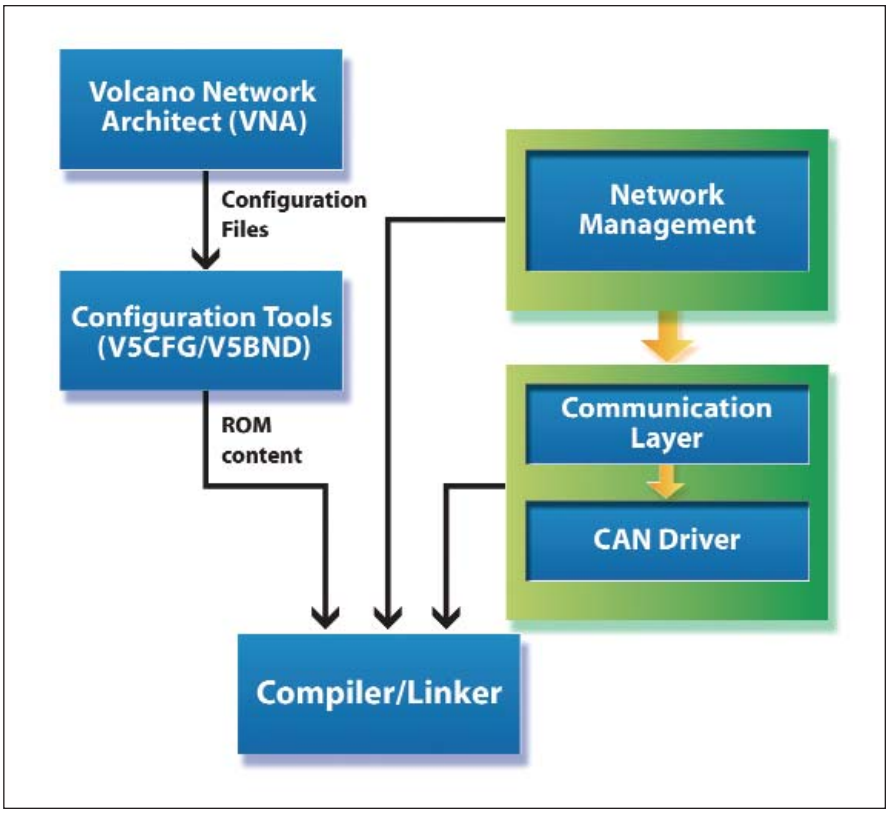
to the OSEK/VDX Network Management Concept. The scope of this concept is to provide standardized features which ensure the functionality of inter-networking by standardized interfaces.

The usage of this standardized interface guarantees a quick and safe integration of the Volcano Network Management module into every ECU.



Network Management Volcano Network Architect Configuration

Visit our website at www.mentor.com/automotive

Corporate Headquarters
Mentor Graphics Corporation
8005 SW Boeckman Road
Wilsonville, OR 97070-7777
Phone: 503.685.7000
Fax: 503.685.1204

Sales and Product Information
Phone: 800.547.3000

Silicon Valley
Mentor Graphics Corporation
1001 Ridder Park Drive
San Jose, California 95131 USA
Phone: 408.436.1500
Fax: 408.436.1501

North American Support Center
Phone: 800.547.4303

Europe
Mentor Graphics
Deutschland GmbH
Arnulfstrasse 201
80634 Munich
Germany
Phone: +49.89.57096.0
Fax: +49.89.57096.400

Pacific Rim
Mentor Graphics (Taiwan)
Room 1001, 10F
International Trade Building
No. 333, Section 1, Keelung Road
Taipei, Taiwan, ROC
Phone: 886.2.87252000
Fax: 886.2.27576027

Japan
Mentor Graphics Japan Co., Ltd.
Gotenyama Hills
7-35, Kita-Shinagawa 4-chome
Shinagawa-Ku, Tokyo 140
Japan
Phone: 81.3.5488.3033
Fax: 81.3.5488.3004

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