
HP Vantera Platform Software for Windows NT™

Platform Software Data Sheet



The HP Vantera measurement and control family is the foundation of open, adaptable solutions that connect decision makers at all levels of an enterprise to essential real-time operating information. When used with HP Vantera measurement and control devices, the communication services described here enable the creation of intelligent, distributed systems for applications such as energy cost management, building automation, and industrial automation.

Measure and Control via Advanced Messaging

These four products are built on a common software platform that is based on distributed computing concepts. This platform extends those concepts into Ethernet-based communication services that are optimized for measurement and control applications. At the core is the publish/subscribe messaging model, which is growing in popularity due to its

scalability, interoperability and efficiency. Unlike point-to-point or request-reply messaging, publish/subscribe enables simultaneous data sharing between a data source (publisher) and any system elements that need the data (subscribers). Whenever a specified event occurs, the publisher broadcasts a message on the network and each subscriber device reads and reacts depending on its application program.

Adapt to Fit Changing Needs

In dynamic applications, you may want to add or remove devices to adapt a system to a new situation. What is slow and difficult with conventional systems is fast and easy with the discovery function, which lets application programs detect all of the HP Vantera-compatible devices in the system. Application programs can keep track of device status through directories and reports that allow detection of changes in publica-

HP E2715AA

Vantera Communication Services

HP E2716AA

Vantera Communication and Subnet
Router Services

HP E2717AA

Vantera Communication and WAN
Router Services

HP E2720AA

Vantera Application Developer's Toolkit

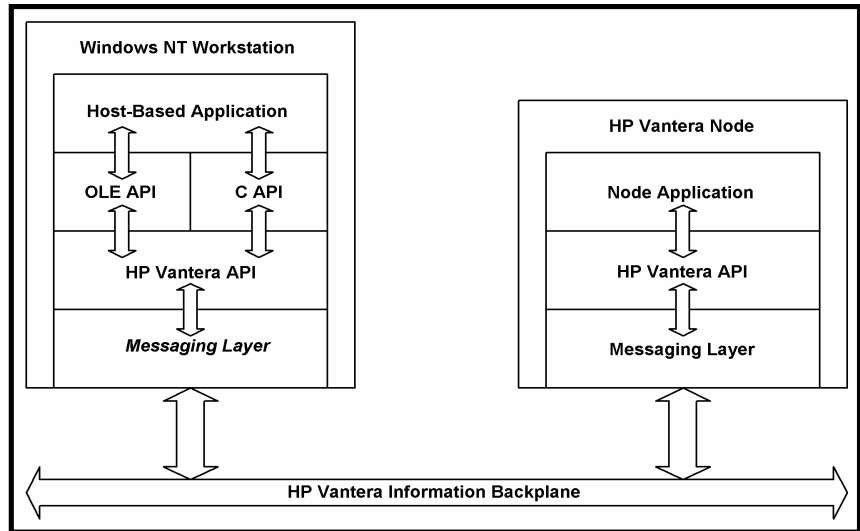
tion and subscription lists. And the underlying time synchronization protocol improves the precision of time-critical operations such as simultaneous launching of control functions in multiple devices.

Maintain Efficient Messaging at Any Scale

Publish/subscribe messaging reduces network overhead by eliminating bottlenecks such as central hosts and explicit addressing. The HP Vantera communication services further reduce network traffic with functions such as publish-on-demand and publish-on-subscription that limit extraneous messages. Efficient messaging means you can scale the system from a few nodes to thousands without compromising system performance.

Develop Host-Based Applications

As a starting point for application development, the HP E2720AA software includes the full suite of communication services (HP E2715AA) as well as documentation and examples for the application program interface (API). This product includes C and OLE APIs for HP Vantera communication services, device configuration and system administration. With the application developer's toolkit, your Windows NT application will be able to configure, manage and access an HP Vantera network.



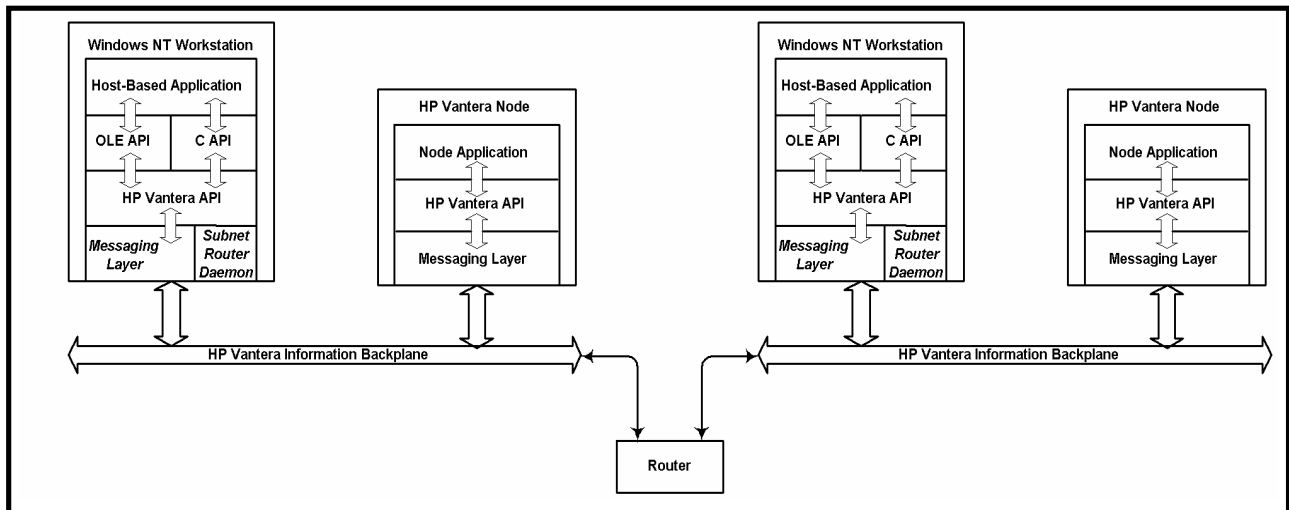
Software structure of host and node applications

Expand the Universe of Information

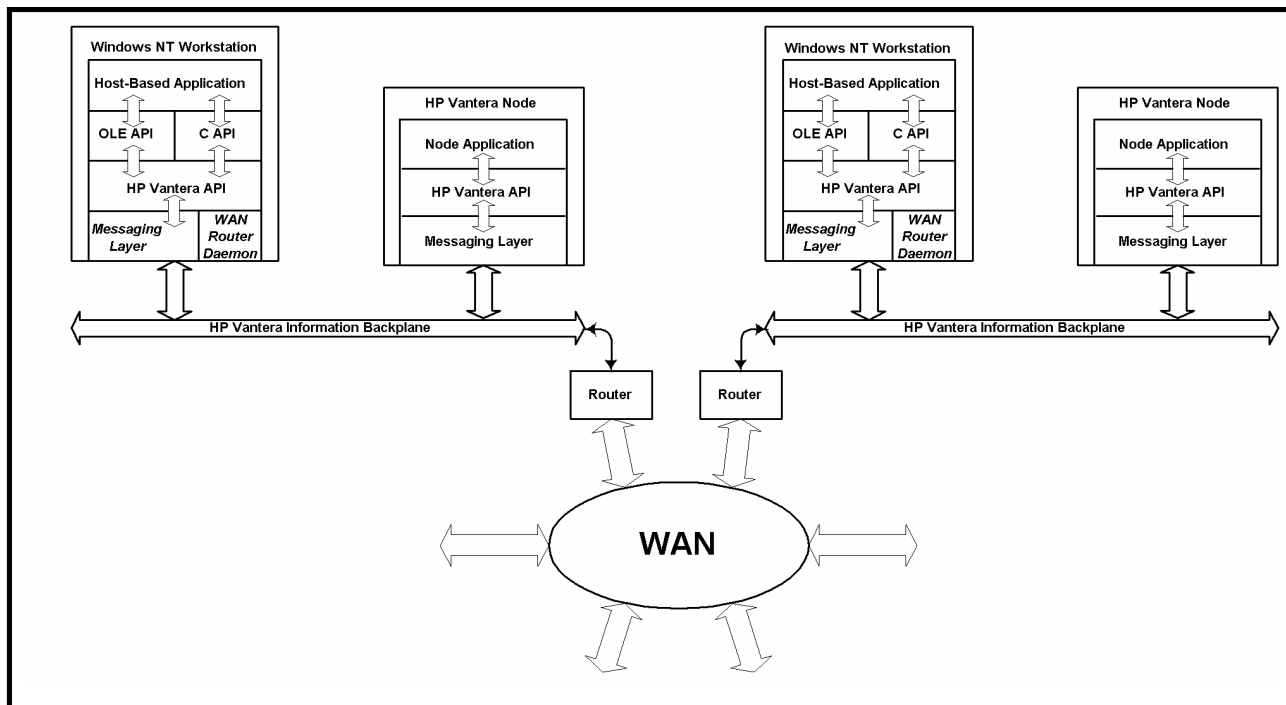
The HP Vantera subnet and WAN router services enable publish and subscribe capabilities between separate networks, expanding the universe of information available to devices on those subnets. Functionally, these software routers take a broadcast message

and convert it for point-to-point communication with another router. The receiving router converts the message back into publish/subscribe format and broadcasts it on its network. HP E2716AA includes the HP E2715AA communication services and a router daemon optimized for local, wideband

operation with adjacent subnets. For communication between geographically dispersed networks, HP E2717AA adds a WAN-optimized router daemon to the full set of HP E2715AA communication services.



HP Vantera Subnet Router Services (E2716AA) enable communication between adjacent subnets



HP Vantera WAN Router Services (E2717AA) enable messaging between widely dispersed networks

Messaging Technology Proven on Wall Street

The HP Vantera communication services are built on publish and subscribe technology developed by TIBCO, Inc. TIBCO's implementation of publish/subscribe messaging has proven its reliability in the financial services industry. This technology ensures seamless interoperation and data sharing between independently developed applications, objects and devices. Transparent communication can occur between mixed platforms that remain independent, separately maintained, and replaceable. New application components—software or hardware—can join or leave the system dynamically. One key advantage of publish/subscribe messaging in measurement systems is the ability to scale smoothly from tens of points to millions.

Summary of Major Communication Services

- Publish/subscribe messaging
- Directory services for publications, subscriptions and hosts
- Name space mapping between publishers and subscribers
- APIs for host- and node-based applications
- Management of node environment parameters

Ordering Information Platform Software

HP E2715AA

Vantera Communication Services

Publish/subscribe messaging with HP Vantera extensions for measurement and control applications. Single license to run the communication services. Order media and documentation separately.

HP E2716AA

Vantera Subnet Router Services

Includes HP E2715AA communication services and a router

daemon optimized for communication between adjacent subnetworks. Single license to run the communication services and one subnet router daemon. Order media and documentation separately.

HP E2717AA

Vantera WAN Router Services

Includes HP E2715AA communication services and a router daemon optimized for communication between geographically-dispersed networks. Single license to run the communication services and one WAN router daemon. Order media and documentation separately.

HP E2720AA

Vantera Application Developer's Toolkit

Includes HP E2715AA communication services plus libraries and documentation for APIs (C, OLE) that enable communication services, device configuration and system administration. Includes certificate, codeword and documentation. Order media separately.

Software Media & Documentation

HP E2725AA Vantera Software on CD-ROM

Contains all HP Vantera software and documentation files.

HP E2726AA Manual Set for Vantera Communication
Services and Routers

Printed manuals for HP Vantera Communications Services
(HP E2715AA, E2716AA and E2717AA).

Operating System and Minimum Hardware Requirements

Development Workstation: Microsoft Windows NT™ 4.0 ; 100 MHz
Pentium® processor, or equivalent; 20MB free disk space; 32MB RAM;
16- or 32-bit Ethernet 10Base-T LAN interface (refer to the Microsoft
Hardware Compatibility List for current information).

Application Workstation: Microsoft Windows NT 4.0; 100 MHz Pentium
processor, or equivalent; 20MB free disk space; 24MB RAM; 16- or 32-
bit Ethernet 10Base-T LAN interface (refer to the Microsoft Hardware
Compatibility List for current information).

Network Requirements

Ethernet 10Base-T with Internet Protocol (IP) stack.

Related Products and Publications

The following publications are available from HP.

HP E3231A Option 001 Load Profile Recorder Application	p/n 5965-6191E
HP E3231A Discrete I/O Node and E3232A Analog/Discrete I/O Node	p/n 5965-6188E
HP Vantera Product Family Brochure	p/n 5965-6190E
HP Vantera Solutions for Enhanced Energy Services	p/n 5965-6192E
HP Vantera Platform Configuration Guide	p/n 5965-6194E
HP Vantera Channel Partner Program Datasheet	p/n 5965-7077E

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If you do not have access to the Internet please contact one of the HP centers listed below and they will direct you to your nearest HP representative.

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