PERFORMANCE TECHNOLOGIES

NexusWare® Suite

Carrier Grade Linux OS and Development Environment

Highlights

>> A Full Linux® Distribution

>> Complete Suite of Development Tools, Including NexusWare Studio™ (Eclipse-Based IDE)

>> Carrier Grade Linux® Registered

>> IPV6 Support

>> Foundation for All NexusWare® Software Products

>> Linux® Kernel Specifically Tailored for Embedded Applications

>> Powerful APIs for All Onboard Hardware Resources

>> Application Development with Windows® or Linux® Operating Systems

>> Pre-Packaged Sample Applications and Protocols

>> Wide Range of Hardware Support:
   - SBC/Compute
   - I/O
   - Packet Processor
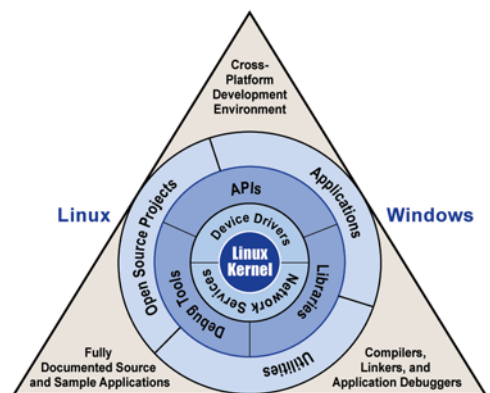   - Storage
   - Voice Processor

NexusWare® is a Carrier Grade Linux® (CGL) registered distribution that provides a full operating system on Performance Technologies' hardware platforms, as well as a robust application development environment that is tightly coupled to Performance Technologies' broad range of COTS embedded hardware solutions. This powerful combination allows system engineers, architects, and designers in the telecommunications, aerospace and defense, and commercial markets to create applications and bring to market solutions such as media gateways, managed WAN gateways, voice over IP (VoIP), lawful intercept, radar servers, wireless base station controllers, HA communications systems, monitoring solutions, TDM switches, and signaling gateways. Installable software packages, such as NexusWare C7 (MTP2), NexusWare WAN (HDLC, X.25, Frame Relay, and others), and NexusWare SIP, provide enhancements and add flexibility to NexusWare.

NexusWare® Core Development Environment

The philosophy behind NexusWare Core is to provide a common development platform and toolset that spans a broad range of hardware while raising the level at which system integration is performed. The Ethernet capabilities of Performance Technologies' hardware products, coupled with the strong Linux OS foundation of NexusWare Core, offer a simple and rapid path to IP-based PICMG® 2.16 systems, while giving developers a simplified way to design in current PCI-based systems.

NexusWare Core features an integrated suite of carrier grade device drivers for full access to onboard resources (H.110, Ethernet, PCI, T1/E1/J1, T3, CAS), as well as a powerful NexusWare Core API. In addition to a range of I/O and storage products supported by NexusWare Core, Performance Technologies also offers PowerPC® and x86-based single-board computers that are fully supported under NexusWare Core, which provides system integrators with a single look and feel across the entire system.

The powerful NexusWare Core API provides a common interface for application development and allows system integration using either the standard CompactPCI® bus or the PICMG 2.16 architecture. Additionally, NexusWare Core allows application development to occur across several different operating systems, including Linux and Windows®, which translates to greater flexibility for engineers.
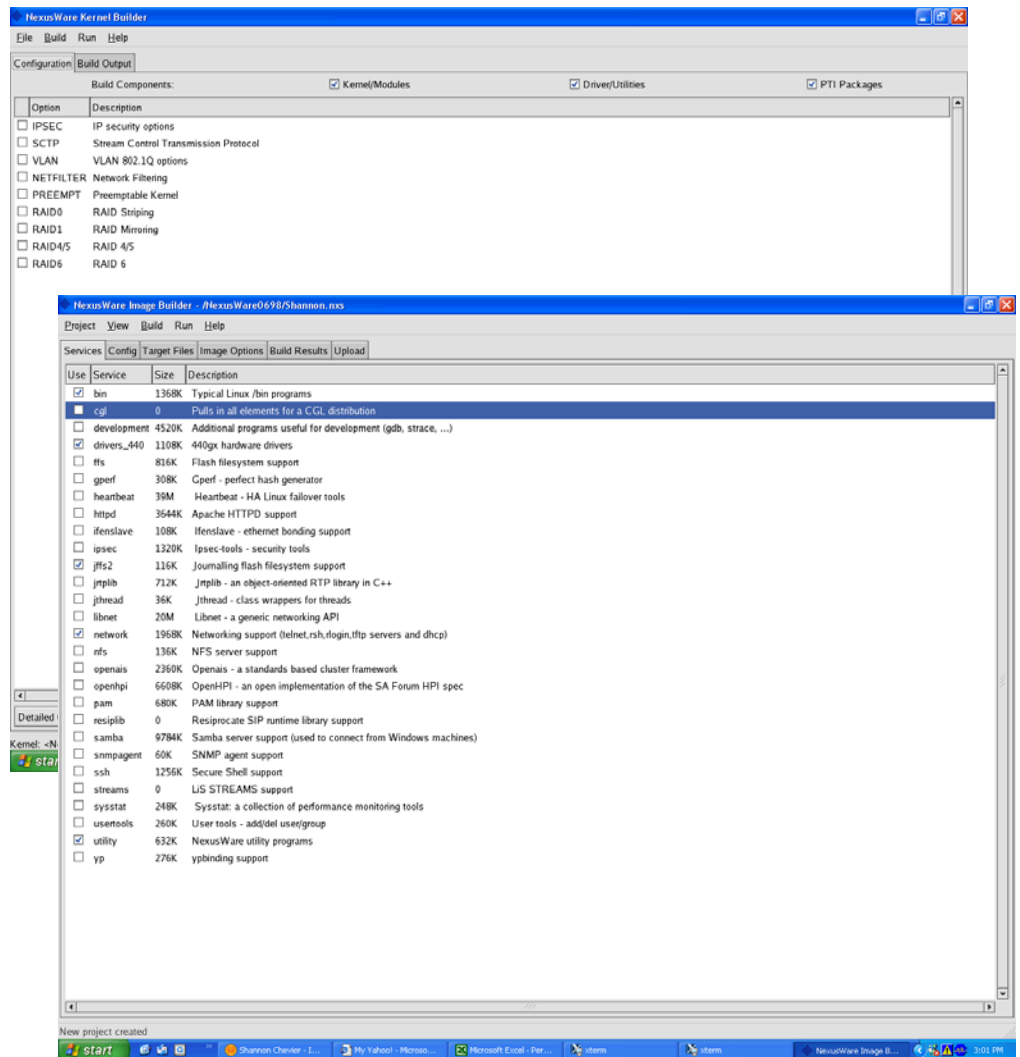
Cross Platform Support

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NexusWare Core's development environment includes a pre-ported Linux kernel, a complete suite of GNU/EGCS cross-development tools (CDT), compilers (C, C++), debuggers, profilers, libraries, and embedded tools that build software images for the embedded targets. A kernel debugger supports development of custom drivers on the target system. Utilities are included to make a bootable image in flash memory.

NexusWare Kernel Builder, included with NexusWare Core, provides a configuration tool that allows users to easily add or remove kernel elements to optimize the kernel per their requirements.

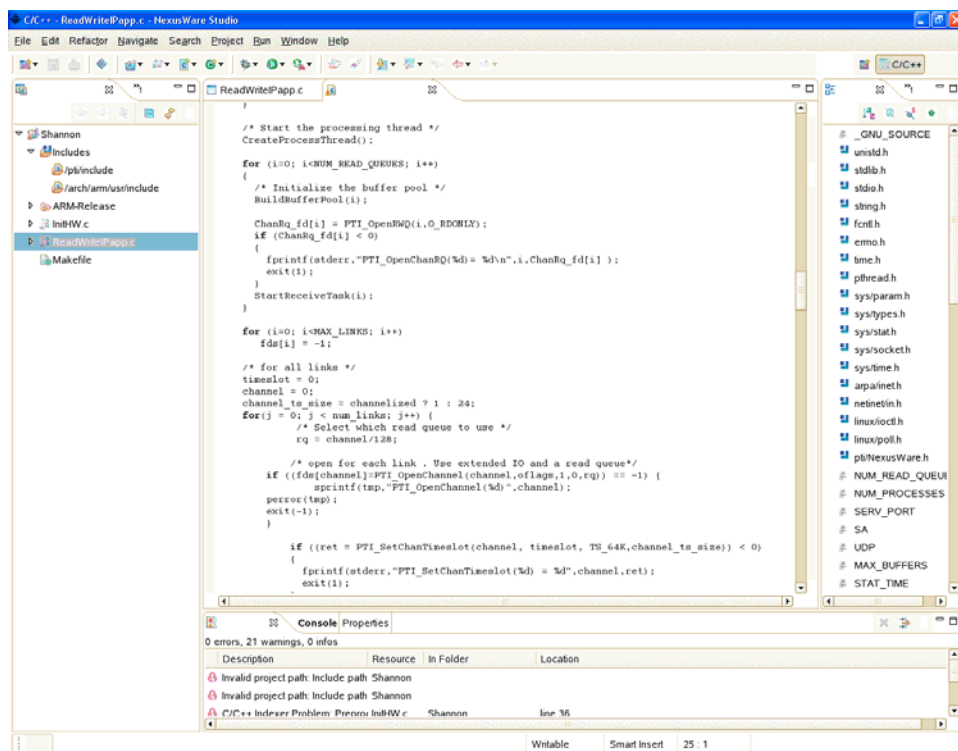NexusWare Kernel Builder

NexusWare Image Builder

NexusWare Image Builder, included with NexusWare Core, provides full customization of the target image. This allows developers to specify the services, configuration files, and application files to be included in the onboard file system.

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NexusWare Studio™ (Eclipse-based IDE), included with NexusWare Core, provides a powerful framework to graphically develop and debug a custom application.

NexusWare Studio™

With any Linux OS, general purpose software is open source and represents a lower cost solution for customers or, at minimum, a solid protocol baseline for the development of customer-specific systems. Characteristic of the Linux open source model is the ability to easily integrate in-house or third-party software that is needed for the development of telecom and IP telephony systems, such as Media Gateway Control Protocol (MGCP) or H.323.

NexusWare Core's rich Linux-based application development environment, complete with IP protocols and software tools, significantly speeds system integration and ultimately accelerates time-to-market.

VMware Player software is included, which enables NexusWare Core to be installed on Windows operating systems. VMware, the market leader in vitalization infrastructure software, provides Performance Technologies with the most robust and widely deployed vitalization software available. Millions of users and more than 20,000 enterprise customers, including 100 of the Fortune 100 companies, use VMware software to virtualize their data centers.

Hardware Compatibility

>> **SBC/Compute**
- CPC5505
- CPC5564
- AMC111
- AMC131

>> **TDM**
- CPC324
- CPC308
- CPC396
- PCI384
- PCE385

>> **SERIAL**
- CPC358
- PCE335

>> **STORAGE**
- CPC5900

>> **INTELLIGENT PTMC CARRIER**
- CPC300

>> **VOICE PROCESSORS**
- PMC531
- PMC532

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Ordering Information

>> **PT-NXSWARE-11359**
NexusWare® Core
Development Environment
and Associated Tools

Installable Packages

>> **PT-NWC7KIT-11943**
• MTP2 Installable
  Software Package

>> **PT-NHDLCKT-12050**
• HDLC Installable
  Software Package

>> **PT-NFRAMKT-12037**
• Frame Relay Installable
  Software Package

>> **PT-NX25KT-12052**
• X.25 Installable
  Software Package

>> **PT-NWSIP-12237**
• SIP Installable
  Software Package

>> **PT-NWCMANP-11820**
Annual NexusWare® Core
Maintenance Package

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NexusWare® Installable Software Packages

The NexusWare software suite offers a CGL Registered and POSIX-compliant Linux operating system and development environment. In addition, the suite includes an extensive array of installable protocols that can be leveraged to build robust solutions such as media gateways, lawful intercept platforms, SS7 monitoring equipment for line usage/billing applications, radar gateways, and converged serial gateways.

The NexusWare family of products includes:

NexusWare Core: At the very center of our NexusWare suite of software is NexusWare Core, which provides a comprehensive, highly integrated, Linux OS, development , integration, and management environment. It is intended for system engineers who use Performance Technologies' embedded products to build packet-based systems, including next-generation wireless and IP-based systems.

NexusWare C7: Comprehensive SS7 MTP-2 installable software package for NexusWare Core. NexusWare C7 provides a foundation for building SS7 applications, including next-generation wireless and IP telephony systems, to equipment manufacturers and application developers who use Performance Technologies' embedded products.

NexusWare WAN: Extensive offering of protocol packages that includes, but is not limited to, HDLC, X.25, Frame Relay, and Radar Receiver. Combined with Performance Technologies' embedded products, these enhance the creation of flexible and efficient radar gateways, converged serial gateways, and front-end I/O systems.

The WAN software products are offered either as installable software packages for NexusWare Core or as turnkey packages for those developers interested in the protocol package by itself. Whichever solution is chosen, a well-documented and powerful API will be provided to assist in the development process.

NexusWare Support and Maintenance

Performance Technologies understands every aspect of systems development – including hardware, software, integration, and deployment – and offers various aspects of technical, OEM, and end-user support to ensure a successful deployment or product launch.