

Delivering standards-based solutions
for Network Equipment Providers
with Red Hat Enterprise Linux and HP



Customer challenges

The telecommunications industry is changing at a fast pace. Subscribers seek better and more innovative services as voice and data networks continue their rapid convergence and Communications Service Providers (CSPs) must focus on obtaining new customers. Today's network operators must have the agility to quickly and seamlessly create, deploy, and manage hundreds of personalized niche voice and data services to fit customer lifestyles—and do so within a short timeframe. To stay ahead of the competition, successful network equipment providers (NEPs) and service and content providers need a high-density platform that can gracefully support multiple demanding services. And these solutions must be tested and proven to be reliable while adhering to the highest standards. However, developing and deploying applications on proprietary legacy network platforms is cumbersome and makes it difficult to capitalize on opportunities.

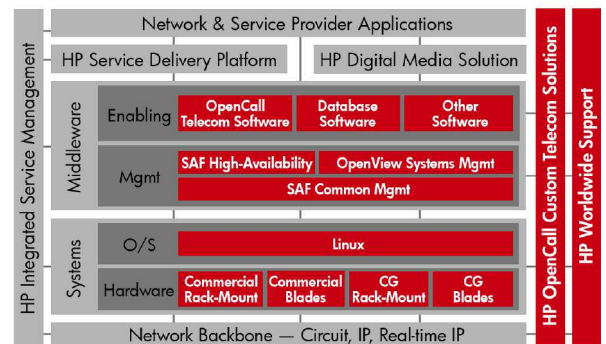
The partnership of Red Hat and HP is about helping NEPs take advantage of opportunities by bringing extensive experience to bear on developing telco solutions.

AOTP Solution

The HP Advanced Open Telecom Platform (AOTP) solution framework provides the industry's most complete ecosystem of standards-based commercial and carrier-blade platforms, including blade servers, rack-mount servers, and 32- and 64-bit architectures. AOTP uses commercial off-the-shelf (COTS) platform technologies—and HP is the only vendor that delivers

a complete solution framework. Open, standards-based COTS technologies are then hardened by HP to provide cost-effective reliability and agility for even the most demanding voice, data, and media network operating environment. This HP hardening encompasses carrier-grade Linux, telecom network software, SAF-compliant management software, platform testing and validation, consulting and integration services, and customer support.

HP, along with 500 valued solutions partners, assists the world's top 200 service and equipment providers, and meets the voice and data needs of hundreds of millions of wireless and wire line subscribers.



Solution components

- World-class, field-proven HP carrier-grade server family includes blades and rack-mount platforms
- Conforms to NEBS Level 3 certification and other national and international telecom standards
- Proven reliability and N+1 components for failover and redundancy

HP's ATCA/Linux strategy combines the leading Red Hat Enterprise Linux distribution with Linux R&D and support services.

- Red Hat Enterprise Linux—the preferred operating system for the HP AdvancedTCA Blade server
- Comprehensive suite of Service Availability Forum (SAF) carrier-grade software—from operating systems, to middleware (common services and telecom protocols), to system management
- HP OpenCall—for developing and deploying next-generation voice, data, and converged services

NEP benefits

- Next-generation, industry-standard telecom components in a high-density, highly reliable platform
- Full suite of ATCA hardware, telecom Linux, manageability tools, and global 24x7 services and support
- HP portfolio of enterprise and carrier-grade servers create a server product family that meets product deployment requirements and provides greater flexibility
- From a single vendor—HP—so there's only one contact point for all services, support and parts, allowing for enhanced focus on applications and services for next-generation networks
- Red Hat Enterprise Linux delivers world-class functionality with flexibility, scalability, and performance—minus the complexity, risk, and overbearing cost of proprietary systems
- Red Hat Enterprise Linux provides lower cost of purchase than proprietary systems and vast independent software vendor (ISV) support including specific solutions for telco

Red Hat Enterprise Linux

Red Hat Enterprise Linux is a carrier-grade operating system that meets the demanding availability, predictability and reliability requirements of NEPs and telco operators. Red Hat defines carrier-grade Linux requirements through collaboration with leading NEPs and telco operators and alignment with the Linux Profile of the Scope Alliance. Red Hat offers a single

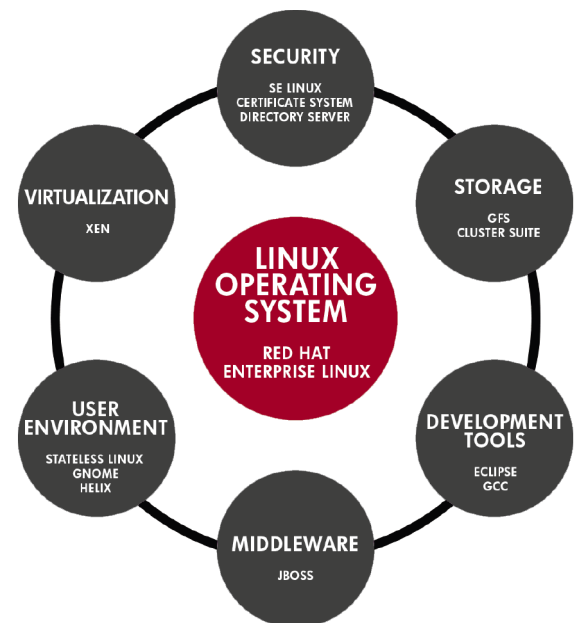
OS distribution that supports both enterprise and telecommunications customer requirements and includes an expanding ecosystem of certified hardware and software partners.

The Red Hat Enterprise Linux product family has been deployed in mission-critical applications for leading service providers worldwide. Service providers, equipment manufacturers and other vendors actively participate in the planning and definition of the feature roadmap for Red Hat Enterprise Linux to ensure that future releases have the high-priority features required by the telecommunications industry.

Red Hat Enterprise Linux provides enhanced stability, performance, and scalability, specifically:

- A leading platform for open source computing
- A stable and mature infrastructure based on the Linux 2.6 kernel
- Technologies to meet today's security and compliance demands
- Exceptional performance and scalability for both 32- and 64-bit workloads

The Telecommunications Partner Program deepens Red Hat's relationships with leading NEPs, OEMs, telecommunications ISVs and operators, and packages Red Hat's new and existing capabilities into an integrated platform that can be leveraged easily across the telecommunications ecosystem.



HP high-performance, high-density carrier-grade technologies

Based on the PICMG 3.x specification known as the Advanced Telecommunications Computing Architecture (AdvancedTCA or ATCA), HP ATCA blade servers are part of the HP Advanced Open Telecom Platform (AOTP) solution framework. The HP ATCA blade server platform is the logical way for NSPs to achieve the best price/performance in next-generation, carrier-grade telecom systems as they migrate to commercial off-the-shelf (COTS) carrier-grade products. HP offers a broad selection of 32-bit and 64-bit AdvancedTCA systems based on PCI Industrial Computer Manufacturers Group (PICMG) standards and the Linux operating system. The HP ATCA blade server platform features:

- ATCA chassis with redundant shelf management
- Highly available and extensible switching infrastructure
- Configurable advanced mezzanine cards (AMCs)
- Telecom I/O interfaces

Value-added services

HP and Red Hat offer a wide array of value-added services, so customers can focus on managing their business, not their infrastructure.

HP Services

- HP Consulting & Integration (HP C&I)—qualified to engage in any effort from conceptual studies to systems development and implementation.
- Quality assurance, testing, and certification—HP carrier-grade systems are tested and certified to leading international standards, including NEBS and ETSI.

- HP OpenCall Custom Telecom Solutions—HP Engineering Services include detailed system specifications, custom development, compliance testing and certification, lifecycle management, and migration management. Custom services include benchmark and infrastructure testing, proof of concept, and compatibility, conformity, and interoperability testing. Supply chain services include design, catalog management, procurement, factory integration, and delivery and logistics for both HP and non-HP equipment.

Red Hat Services

- Red Hat and HP Migration to Linux Services—ensures a successful Linux deployment, including complete, tested and proven platform configurations, solution stacks, and high-availability clustering software, and access to Red Hat and HP consulting, integration and support services.
- Red Hat Professional and Consulting Services—a full set of consulting services from design, configuration, deployment, management and implementation through upgrade planning as well as custom engineering and support services.

The Red Hat and HP advantage

Communications solutions are highly complex, and service providers must deliver even more innovative services to the market while keeping customers loyal and insulated from the complexities behind the services. In order to achieve this, service providers need strategic partners who can do more. Red Hat and HP capabilities provide the expertise to develop, integrate, test, install and support the most complex service launches. This approach lets service providers focus on their customers—not their suppliers.

To learn more, visit www.hp.com/go/linux
www.redhat.com/solutions/teleco

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