

WHITEPAPER

RED HAT AND DELL: THE BEST CHOICE FOR EMBEDDED SYSTEMS

Red Hat® and Dell® bring together the elements you need to deliver successful embedded solutions: state-of-the-art technologies from solid business partners that offer strong global service and support. Now Red Hat and Dell have forged a joint alliance dedicated to addressing the unique challenges and requirements that manufacturers face:

- The need for deep technical resources and close collaboration with critical suppliers
- Best-of-breed technologies at competitive price points
- Product certification and regulatory compliance
- Long product roadmaps and extended lifecycles
- Product customization and branding

Here are five key reasons why you should choose Red Hat and Dell when designing your embedded solution.

#1: COMPANY PRESENCE AND STABILITY

Your embedded business needs stable suppliers so you can focus on adding strategic value rather than maintaining an underlying operating system or hardware platform. Both Red Hat and Dell share market leadership, with a joint presence that spans more than 40 vertical industry segments, including aerospace, healthcare, communications, industrial, and retail.

At a time when Linux overall is experiencing the highest growth rate compared to Windows and UNIX, Red Hat Enterprise Linux is the world's leading Linux solution.

Red Hat Enterprise Linux boasts nearly 9,000 applications from 1,400 ISVs and more than 3,000 hardware certifications to date. For the 12 months ending in February 2012, the number of Red Hat Enterprise Linux 6 certifications alone have multiplied five times. Beyond its proven Linux operating system, Red Hat features a full open source software portfolio that includes virtualization, middleware, and storage.

Red Hat and Dell share a global presence, so there are readily available resources to work with your product teams. Red Hat has more than 4,500 employees in 74 offices worldwide, while Dell employs more than 250 dedicated OEM sales and support engineers in 180 countries. Both companies feature 24x7 global support services that supply end-to-end coverage for your embedded solution.



#2: INNOVATIVE TECHNOLOGIES

Red Hat believes that open source nurtures innovation, promotes standards, and encourages interoperability, ultimately to the benefit of those who deploy it. Basing your embedded product on Red Hat Enterprise Linux makes your solution more portable and prevents lock-in, creating a distinct advantage for choosing Red Hat Enterprise Linux over a Microsoft-based platform. And Red Hat is clearly the Linux expert as well as the market leader. According to the Linux Foundation, Red Hat developers lead in Linux kernel contributions, making twice as many commits as Attachmate Novell engineers and six times that of Oracle Linux developers for the five kernel releases prior to August 2010.

As the tenth anniversary of Red Hat Enterprise Linux approaches, Red Hat's track record of innovation continues. Red Hat Enterprise Linux 6 includes compelling new features that leverage Dell systems: power management to reduce energy costs, scalability to support large memories and more cores, reliability features to increase uptime, and support for managing resources to help critical workloads get the resources they require.

Dell's model is to optimize the entire stack—from the chip to the operating system—so market-leading Red Hat Enterprise Linux is the clear choice for embedded Dell platforms. And as the software stack moves from physical to virtual to cloud deployment, Red Hat Enterprise Linux retains compatibility without the need for modifications, making it a strategic platform for protecting your software investment.

Benchmarks of Red Hat Enterprise Linux on Dell systems demonstrate the platform's performance and scalability. As Dell builds systems with new chipsets and more cores, tests show outstanding workload scalability on Red Hat Enterprise Linux. The best evidence of technology excellence, however, is the many successful deployments of Red Hat on Dell systems. Ron Pugh, executive director/GM Americas for OEM Solutions at Dell, said, "Red Hat Enterprise Linux on Dell platforms offers superior technology plus the exceptional value of working with market leaders that can consistently deliver stable, high-quality product."

#3: DEPENDABILITY AND RELIABILITY

Red Hat and Dell provide a robust platform for constructing turnkey systems. The open source model yields a strong code base, especially since the community extensively inspects and reviews contributed code. To deliver unmatched quality, Red Hat engineers perform exhaustive assurance testing, integrating and stabilizing thousand of open source packages to qualify each production release. This model yields the best of both worlds, combining rapid innovation with stable and fully tested software.

On Dell's Intel Xeon Series processor-based platforms, Red Hat Enterprise Linux 6 takes advantage of processor reliability features, supporting CPU hot swap, hot-add, and off-lining to minimize unplanned downtime. Proactive self-healing capabilities automatically diagnose and isolate defective CPUs or memory components, enabling quick recovery from certain hardware and application faults.

As proof of platform stability, consider the vast number of Red Hat and Dell platforms that power financial transactions and trades—including Euronet Services India, NYSE Euronext, and the Philippine Stock Exchange. There are also many others in the military and in healthcare, where not only money but lives are at risk.



#4: EXTENDED LIFECYCLES

Embedded products demand extended lifecycles and support models. The Red Hat Embedded Program naturally complements Dell's Extended Life (XL) program, boosting longevity and minimizing the need for ongoing re-certifications. To support long lifespans, Dell provides extended and managed product overlaps, locking both components and chassis designs—although other suppliers lock only the chassis. Dell maintains extended parts inventories, logistics, and support to help you meet product life and maintenance goals.

Red Hat delivers updates containing critical security fixes, defect repairs, and new features such as device drivers. To protect your software investments, these releases maintain strict API and ABI compliance. The Red Hat Embedded Program extends the availability of software updates and support, increasing platform life and giving you the flexibility to update products based on your schedules. Today Red Hat offers up to 10 years extended lifecycle support for Red Hat Enterprise Linux 5 and 6, providing synergy with Dell's ProSupport for OEM support services model.

#5: GREAT VALUE

With more than 2,000 OEM-specific customers and 12 years in the embedded market, Dell is known for building its platforms for efficiency. The combination of Red Hat software on Dell systems delivers low TCO, delivering high performance while minimizing operational costs, especially power and energy use compared to RISC platforms. Dell platforms undergo strict certification with Red Hat Enterprise Linux, resulting in a tested and fully functional deployment platform. Since Dell and Red Hat are recognized global suppliers, you can save time and money since platforms often comply with country-specific regulatory certifications.

Red Hat's subscription model increases software value, allowing you to recover subscription costs through extended lifecycle support, fast problem resolution, greater efficiencies, and less downtime. Software subscriptions give your team access to trusted binaries—upgrades, patches, and security updates—as well as documentation, help desk, and support escalations. Unlike smaller Linux providers that can't keep pace with new features and timely fixes, Red Hat can respond, escalate, and quickly resolve high priority problems.

The value of Red Hat software extends well beyond Linux operating systems into virtualization and middleware solutions. A 2010 IDC study showed that the JBoss® Enterprise Application Platform cut development time by 16 weeks (39%) on average. For applications requiring middleware, deploying JBoss over proprietary alternatives can result in significant savings.

SUMMARY

With expertise in delivering turnkey solutions, Red Hat and Dell can provide a proven, best-of-breed platform to shorten time-to-market. Experts from both companies will work collaboratively with your internal design teams, explaining roadmaps, exploring solutions, and clarifying elements of the extended lifecycle programs.

Dell can integrate Red Hat software and customize product to your needs, applying branding as necessary. Dell can also manage your end-to-end global supply chain, shipping final product to your dock or directly to end users.



FOR MORE INFORMATION

To learn more about how Red Hat and Dell can help to bring your embedded solution to market quickly, contact your local account representatives, or visit redhat.com or dell.com.

ABOUT RED HAT

Red Hat was founded in 1993 and is headquartered in Raleigh, NC. Today, with more than 70 offices around the world, Red Hat is the largest publicly traded technology company fully committed to open source. That commitment has paid off over time, for us and our customers, proving the value of open source software and establishing a viable business model built around the open source way.

SALES AND INQUIRIES

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