PROGRAM GUIDE

THE RED HAT® ENTERPRISE LINUX® DEVELOPER PROGRAM

ACCESS ESSENTIAL RESOURCES AND AN ECOSYSTEM OF EXPERTS TO DEVELOP GREAT APPLICATIONS

KEY BENEFITS

- Collaborate with a passionate developer community and share questions and ideas
- Learn from Red Hat reference architectures, guides, videos, and training and improve productivity
- Access the software and tools needed to complete projects faster

APPLICATION DEVELOPMENT CHALLENGES

Today's application developers face many challenges. The ability to rapidly develop and enhance new and existing products is essential to generate new revenue and reduce operating costs. Developers are tasked with delivering continuous innovation while actively maintaining current and older releases, and quality must be monitored and improved as product lines evolve.

Applications must be designed to run on various operating systems and support a range of platform versions to ensure the broadest acceptance. Developers allocate significant amounts of time to ensure backward-compatibility while taking advantage of new development and production environment capabilities. In addition, demand for new functionality drives developers to look for tools that deliver constant innovation and provide access to essential operating system enhancements.

This pressure to do more with less puts continuous strain on developers to deliver high quality products while keeping up with the latest technologies and enhancing skill sets. Few organizations have sufficient time or staff to address all that the business requires. Many companies augment their workforce with third-party developers and integrators to meet customer demand. Such tactics only get them so far, especially when competing against larger companies with access to greater resources.

Having ready access to the right development tools is key to taking advantage of the latest Linux advancements. Red Hat delivers the resources and ecosystem of experts to help Linux programmers to be more productive as they build great applications.

Through the Red Hat Developer Program, subscribers can:

- **Access a wealth of resources.** Access development tools, reference architectures, guides, videos, training, and more to become more productive while developing great applications.
- **Collaborate with peers.** Ask questions, share ideas, and learn from Red Hat engineers and a passionate community of developers who work the same way. Augment existing resources through the developer forums in the Red Hat Customer Portal.
- **Compile with confidence.** Leverage best practices and the Red Hat Enterprise Linux Developer Suite to accelerate time to deployment while compiling for multiple versions of Red Hat Enterprise Linux.

THE RED HAT ENTERPRISE LINUX DEVELOPER PROGRAM

Widely adopted by organizations looking for stability and reliability as well as technical innovation, Red Hat Enterprise Linux is an open, standard platform for mission-critical IT infrastructure. Keenly aware of the challenges faced by application developers, Red Hat has designed a program to help developers derive maximum benefit from Red Hat Enterprise Linux. Intended for end-user developers building custom applications, ISVs and VARs building portable applications, and system integrators customizing applications for customers, the Red Hat Developer Program includes industry-leading developer tools, subscriptions, support, and training.

RED HAT ENTERPRISE LINUX DEVELOPER SUITE

The Red Hat Enterprise Linux Developer Suite provides developers with the latest versions of Red Hat Enterprise Linux, built-in languages and tools, and related Red Hat Add-On software for development use. Standard features of the suite include:

- **Red Hat Enterprise Linux Developer Toolset.** These tools work across Red Hat Enterprise Linux releases, are updated once a year, and contain the latest versions, making it easy to create and support applications. The toolset contains:
  - **Compilers.** GNU C and C++ compilers are provided, including gcc 4.76.x and g++ 4.76.x, and can be used to generate code for x86 and x86_64 processor architectures running Red Hat Enterprise Linux versions 5 and 6.
  - **Libraries.** A number of libraries are included with the toolkit. Developers can use the libgcc library to access arithmetic operations that are not supported natively by the processor.
  - **Debugging tools.** The toolkit includes gdb, the popular GNU Project Debugger. Developers can use the debugger to set breakpoints, examine the state of applications, make changes as the application runs, see the results, and more.
  - **Native tool chain support.** Native tool chains are supported. Applications built with newer tool chains run on an out-of-the-box Red Hat Enterprise Linux system without the need to install additional libraries.
  - **Multi-release support.** All tools in the Red Hat Enterprise Linux Developer Toolset are designed to work across operating system releases. For example, developers can use the tools to create applications that work across Red Hat Enterprise Linux 5.x and 6.x releases.
- **Languages.** Red Hat Enterprise Linux supports the development of custom applications in a wide variety of programming languages using proven, industrial-strength tools. Some of the languages incorporated in Red Hat Enterprise Linux include gcc, Java, PHP, Python, Perl, Ruby, Objective C, Fortran, and ADA.
- **Additional developer tools.** Linux developers use a wide range of tools to create, build, and test applications. The Red Hat Developer Program includes many of these popular tools:
  - **SystemTap.** Developers can use the SystemTap instrumentation platform to probe running processes and kernel activity on a Red Hat Enterprise Linux system. Using this tool, developers can trace and probe executing applications and identify performance bottlenecks.

- **OProfile.** A system-wide Linux profiler, OProfile enables developers to determine which areas of source code consume the most amount of CPU time, and why, without adding undue overhead or impacting system performance.
- **Valgrind.** An instrumentation framework for building dynamic analysis tools, Valgrind can be used to profile applications in detail. Many developers use the tools provided in Valgrind to automatically detect many memory management and threading problems.
- LAMP stack. The toolkit includes the open, integrated LAMP (Linux, Apache, MySQL, Perl) application stack. With these tools, organizations can deploy applications on open, scalable platforms with low total cost of ownership.
- **PostgreSQL – Red Hat Edition.** Tested and verified on Red Hat Enterprise Linux, this open source, object-relational database management system (ORDBMS) provides a scalable, ACID-compliant data management solution for mid-sized businesses and enterprise workgroups.
- **MySQL.** The world's most popular open source database software, MySQL offers superior speed, reliability, and ease of use. MySQL is a key component of the LAMP stack and has become the preferred choice for many of the world's largest and fastest-growing organizations.
- **Git.** Many developers utilize Git, a distributed version control system for Linux kernel development that supports a BitKeeper-like workflow. It contains strong safeguards against accidental or malicious corruption and provides very high performance.

- **Red Hat Add-Ons.** The suite enables developers to create and test applications using the following: Red Hat High-Availability Add-On, Red Hat Load Balancer Add-On, Red Hat Resilient Storage Add-On, Red Hat Scalable File System Add-On, Red Hat High-Performance Network Add-On, and Red Hat Extended Update Support Add-On.
- **Complementary resources.** Red Hat Enterprise MRG and Red Hat Enterprise Linux Smart Management Add-On.

Fedora Extra Packages for Enterprise Linux

Fedora Extra Packages for Enterprise Linux (EPEL) is a collection of unsupported developer tools that are separately packaged for Red Hat Enterprise Linux 5 and 6. Created, maintained, and managed by a Fedora Special Interest Group, EPEL consists of a high-quality set of additional packages that developers created for Fedora but want to use on Red Hat Enterprise Linux. More information on EPEL can be found at http://fedoraproject.org/wiki/EPEL.

HOW TO PARTICIPATE

Here are the ways to participate in Red Hat Enterprise Linux Developer Program Subscriptions:

- **Red Hat Enterprise Linux Developer Suite subscription.** See details in the table below.
- **Red Hat Developer Workstation subscription.** This subscription includes the software contained in the Red Hat Enterprise Linux Developer Suite and adds developer support service-level agreements (SLAs) of four-hour response time during business hours, or two business day response. Each subscriber is allowed an unlimited number of support incidents via email or telephone.

- **Red Hat Developer Support Subscription.** These are similar to Red Hat Developer Workstation subscriptions, but are packaged for teams of 25 developers, with service-level agreements (SLAs) of four-hour response during business hours, or two-business-day response. Developers provide Red Hat with a single designated point of contact for support calls. An unlimited number of incidents is supported. Each includes 25 of the Developer Suite Subscriptions above.
- **Red Hat Partner Program membership.** Red Hat Partner Program membership provides software and support to ISVs, VARs, system integrators, and solution providers developing Red Hat Enterprise Linux applications.

WAYS TO PARTICIPATE IN THE RED HAT ENTERPRISE LINUX DEVELOPER PROGRAM

Developer Suite (Self Support)		Red Hat Enterprise Linux Developer Support Subscriptions	
Red Hat Enterprise Linux Server (up to 8 sockets with unlimited virtual guests)	**Support Software**	Red Hat Enterprise Linux	
High Availability	**Hours of Coverage**	Standard business hours	
Load Balancer	**Support Channel**	Web and phone	
Resilient Storage	**Support Requests**	Unlimited	
Scalable File Systems	**Red Hat Services Contacts**	1 contact per subscription	
High-Performance Network	**Number of Developer Suite Subscriptions**	1 or 25	
Extended Update Support	**Online Support**	Each developer has access to software updates, Red Hat Knowledgebase, and Customer Portal Community pages	
Developer Toolset Smart Management MRG Real Time	**Response Guidelines**	2 business days for all issues (Professional Developer Subscription and Workstation)	4 business hours for all issues (Enterprise Developer Subscription and Workstation)

PROGRAM BENEFITS

Each of the options includes access to the award-winning Red Hat Customer Portal and the Red Hat Knowledgebase, a repository of published solutions from Red Hat Support, including technical hints, help files, and instructive articles, that can help throughout the full technology lifecycle. Developer guides, technical briefs, FAQs, reference architectures, best practices guidelines, training videos, webinars, tutorials, and more are available. A Support Essentials section lists security advisories, hardware compatibility notes, and customer service answers. Developers can rate content and leave comments for Red Hat experts in the feedback area.

Developer Online Forum

Understanding that collaboration breeds innovation, the Red Hat Developer Program includes access to a dedicated online user group within the award-winning Red Hat Customer Portal. Developers can participate in Web-based discussions for self-support, including posing questions and finding answers, interacting with other developers to learn tips, and suggesting ideas and alternative solutions.

The forums incorporate a number of different developer interest groups, such as Red Hat Enterprise Linux, JBoss Enterprise Middleware, and Red Hat Enterprise Virtualization. Developers new to Red Hat Enterprise Linux can join the "Getting Started with Red Hat Products" group. The Site Suggestions group is available for providing feedback to Red Hat.

DEVELOPER TRAINING COURSES

Red Hat Enterprise Linux courses for developers teach key concepts and skills essential to programming and software development for Linux-based tools and applications. Courses include hands-on training along with labs and programming exercises. Comprehensive five-day developer courses are available for:

- Red Hat Linux Programming
- Red Hat Enterprise Linux Kernel Internals
- Red Hat Enterprise Linux Kernel Device Drivers

For more information about developer training courses, see: http://www.redhat.com/training/paths/linux-development.html.

COMPLEMENTARY RED HAT PARTNER PROGRAMS

ISVs, VARs, systems integrators, and solution providers can become part of the Red Hat Enterprise Linux Developer Program by joining a Red Hat Partner Program. This enables partners to grow their open source practices and development efforts with access to software and developer support.

Depending on membership level — Premier, Advanced, and Ready — organizations gain real business benefit via access to a wide variety of marketing collateral, use partner program campaign templates, take part in sales and technical training programs, participate in the deal registration program, form relationships with Red Hat sales teams, work with Red Hat solution architects and technical pre-sales support staff, and gain a high level of visibility at Red Hat and in the marketplace.

OTHER RED HAT DEVELOPER PROGRAMS

Red Hat also has developer tools and offerings for cloud and application infrastructures. Visit redhat.com/developers to learn about JBoss, OpenShift, Red Hat Storage, and more.

SUMMARY

Developers throughout the Linux community can reduce development and maintenance costs and create applications for multiple versions of Red Hat Enterprise Linux and other operating system platforms, thanks to the Red Hat Developer Program. With up-to-date tools and support designed to assist developers in designing, coding, building, and debugging applications, developers can create and deploy their applications and services with greater ease on the industry-leading Red Hat Enterprise Linux platform.

FOR MORE INFORMATION

For more information on the Red Hat Developer Program, contact your local Red Hat sales or service representative, email RHELdevelop@redhat.com, or visit redhat.com/developers. Follow us on Twitter, Facebook, YouTube, LinkedIn, Identi.ca, and redhat.com.

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