



Achieving Competitiveness with Security and Reliability

Open Source Solutions Reach New Levels of Maturity and Competitiveness

Transforming Societies and Strengthening Economies

Information and communication technology (ICT) plays an important role in the success of national economies in today's competitive global markets. Governments, corporations, small businesses and individuals rely on ICT solutions and infrastructure to do business worldwide, share and access information, and save time and money.

Government programs are being established worldwide to help ensure that computer literacy in their citizenry is as fundamental as a basic education. At the same time, governments are mandated to spend wisely and get the best possible value for their investments. Cost concerns about security and a need for customization lead many governments to look to Linux* and open source software. Intel® processor-based PC platforms running the Linux operating system deliver dependable, secure computing solutions that are adaptable to the range of uses that governments seek to address, from building infrastructure, to educating citizens, to enabling broader access to information and services.

Intel is working collaboratively with the industry, ecosystem, Linux and Open Source community and Intel® Channel Program members to devise the best possible technology solutions at the lowest cost, tailored to meet a country's specific policy goals and objectives.

The combination of Intel platforms and the Linux operating system creates a low-cost, high-performance solution that meets both basic and advanced needs, while providing a robust platform

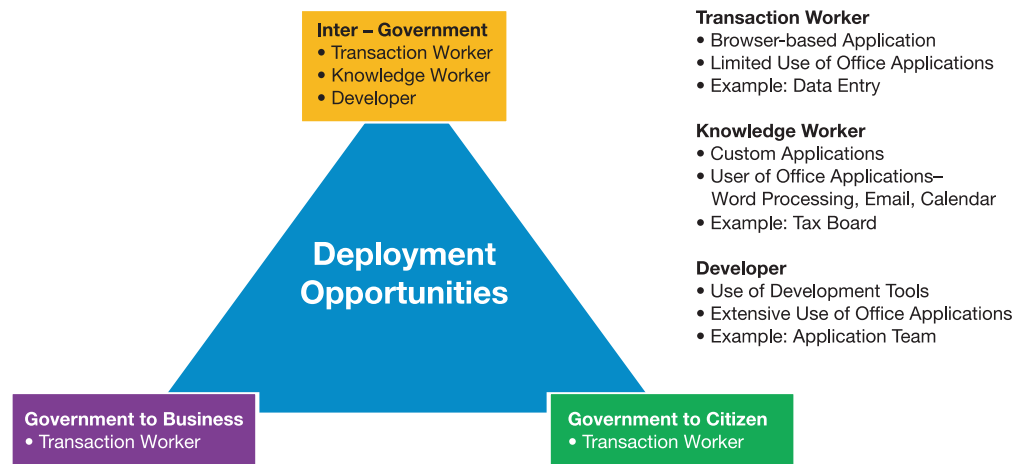


Figure 1. Open Source Software Deployment Options

for delivering governmental services. Intel processor-based PC platforms running Linux can:

- Extend the security features of Linux.
- Provide performance that increases the productivity of workers.
- Deliver adaptable platforms that can be tailored to meet a wide range of basic and advanced uses.

Intel processor-based PC platforms also provide a proven track record of quality, reliability and world-class design while delivering solid performance, affordability and choice.

Open Source Software on High-Performance Hardware

Intel and the computing ecosystem are working to unlock the benefits and potential of Linux on Intel hardware to meet government demand for stringent cost and benefit requirements. Commercial developers continue to fill in gaps with advanced, innovative solutions that extend the possibilities of the platform. The result today is that Intel PC platforms running Linux are maturing and affordable solutions.

Inter-Government Solution Stack

A *solution*, as referred to in this paper, consists of two or more hardware or software components that meet a business requirement and provide enhanced value when used together. When referring to a *solution framework*, this constitutes a collection of specific components—software applications—that address a market need at a baseline level. Intel encourages developers, system integrators, resellers, and system manufacturers to further extend the capabilities of each solution framework by building integrated solutions that complement and enhance it. The term *solution stack* describes a set of individual applications that work together to provide a complete solution. The Open Source community and vendors are invited to add value to the proposed solution stacks and contribute components to address broader market needs.

The key features of this solution stack (shown in Figure 2) are:

- **Enhanced Linux security.** Intel PC platform technologies extend the security features of Linux. LaGrande Technology creates a hardware foundation on Intel PC platforms that can help protect the confidentiality and integrity of data-stored or created-from software-based attacks.

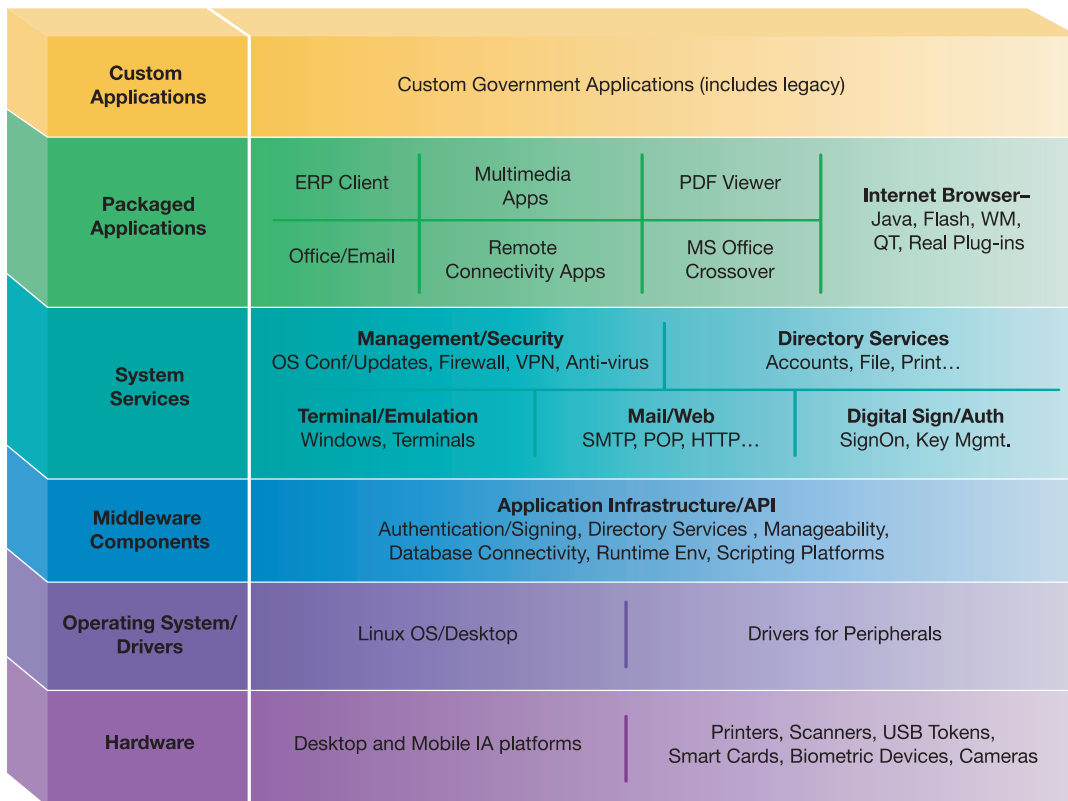


Figure 2. Inter-government Solution Stack

- Exceptional responsiveness and stability.** Intel PC platform innovations are designed to maximize a worker's productivity. With Intel multi-core processor architecture, the Intel® Pentium® D processor enables efficient multitasking for optimum productivity along with increased Linux operating system responsiveness and stability. By allowing applications to run seamlessly in the background, end-user disruption is minimized. Intel® Pentium® 4 processor based systems with Hyper-Threading Technology[†] provide advanced performance and multitasking capabilities for digital home and office applications. Intel® Centrino™ mobile technology with the Linux operating system also delivers improved productivity by enabling remote access and improved battery life.
- Extended manageability and reliability.** Innovations include Intel® Virtualization Technology (VT), which allows a single platform to run multiple operating systems and applications in independent partitions, and Intel Active Management Technology for remote management of networked platforms.

Government Solution Stack for End User Desktop Systems

The Government Solution Stack for end user desktop systems (shown in Figure 3) has these characteristics:

- Low cost of entry.** Intel platforms extend the advantages of the Linux operating-system platform by providing industry-leading platforms, allowing governments a low cost of entry, while providing citizens with a broad range of PC applications and capabilities.
- Skill building and e-learning environment.** The Linux operating system running on the Intel Pentium 4 processor with Hyper-Threading Technology can enable citizens with stable, basic computing access with powerful world-class performance to run front-line multimedia and interactive educational programs that turn data into knowledge.
- Wireless connectivity.** Powerful wireless mobile devices based on Intel Centrino mobile technology enable citizens to remotely access data to improve performance, broaden their knowledge base, and build skill sets to boost personal and national competitiveness.

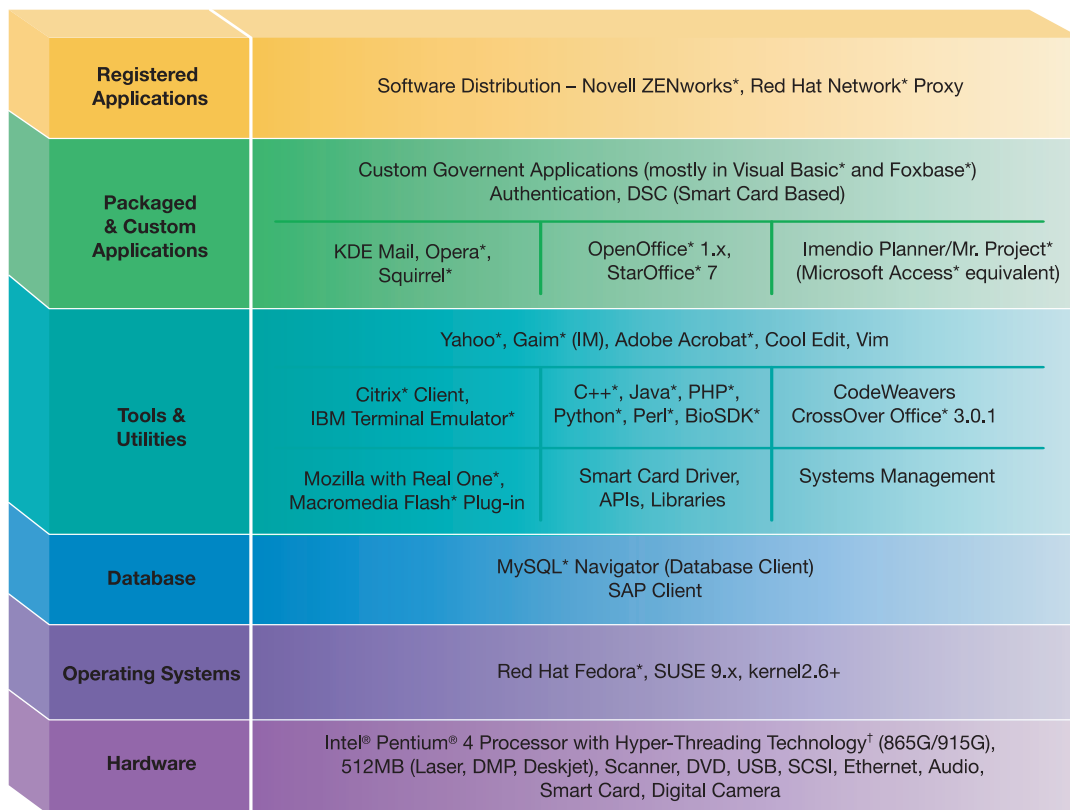


Figure 3. Government Solution Stack for End User Desktop Systems

Looking Forward

The open architecture model on which Linux and open source software are built fosters technological innovation and drives advances in open source computing. Intel is striving to create fully integrated, validated open source solutions that meet stringent requirements for stability, maturity and security. The solution stacks described in this document capture what Intel has observed happening in the open source development community. While these open source solutions are not created, supplied or directly supported by Intel, Intel has identified these applications and components from the Open Source Initiative community (www.opensource.org) to have reached a level of maturity after preliminary testing. Intel will update these solution stacks as more governments create programs, policies and investments in open source solutions. The latest information can be found at www.intel.com/opensource.

About Intel Corporation

Intel Corporation is the world's leading supplier of advanced microprocessors used inside PCs, servers and wireless devices, and a leading manufacturer of communication and networking products. The company is a driving force behind the PC and Internet revolutions that have transformed business and society. Founded in 1968, Intel created the first microprocessor in 1971 and today supplies the computing and communication industries with the chips, boards, systems and software building blocks that power computers, servers, communication systems and networks. Intel's mission is to be the preeminent building block supplier to the Internet economy.

For More Information

For more information about the Intel role in developing the Government Solution Stack and open source projects at Intel, visit www.intel.com/opensource.



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†Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor at 3.06 GHz or higher, a chipset and BIOS that utilize this technology, and an operating system that includes optimizations for this technology. Performance will vary depending on the specific hardware and software you use.

See <http://www.intel.com/info/hyperthreading/> for information.

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