THE *Open* GROUP

In today's diverse computing environments, a strong operating system (OS) foundation is needed to drive business continuity and scalability. UNIX®, an open standard owned and managed by The Open Group, is an enabler of key technologies and delivers reduced total cost of ownership, increased IT agility, stability, and interoperability in heterogeneous environments enabling business and market innovation across the globe. This OS has an interesting history while showcasing a robust modern market momentum.

## UNIX: An Innovative History

The history of computing would not be complete without the vision of Ken Thompson and Dennis Ritchie. Both men couldn't have anticipated the impact of their contribution to the IT industry in 1969. Thompson, Ritchie, and others at Bell Labs created a collaborative programming environment that would promote what is now commonly called "open development".

The UNIX OS is "now considered one of the most inspiring and influential pieces of software ever written," said Warren Toomey, Networking Teacher, at TAFE Queensland Gold Coast. The academic and commercial uptake of UNIX systems would help germinate and grow many existing and new technologies. An example of that innovation is bioinformatics, where UNIX based computing power was critical to advances in genetic engineering including the human genome project. Investigations of the physical world – whether high-energy physics, modeling proteins, designing Callaway's Big Bertha Club, or simulating car crashes to improve passenger safety – were part of the overall innovation enablement of UNIX systems. Additionally, UNIX systems contributed to more ethereal innovation being a driving force in the growth of ARPANET, which evolved to become the World Wide Web.

The success of the UNIX approach led to a large number of "look-alike" operating systems, often divergent in compatibility and interoperability. To address this, vendors and users joined together in the 1980s to create the POSIX® standard and later the Single UNIX Specification. Formal UNIX certification started in 1995, with all the major UNIX vendors certifying their products. Most recently, a Linux® distribution has become UNIX certified continuing the trend and value of basing operating systems on the UNIX standard.

## UNIX: Driving Innovation Today

The UNIX OS plays a big role in the current market landscape and is an enabler of technologies such as cloud computing, security, virtualization, mobility, and more. It has a proven track record of adoption by Global 100 and Fortune 100 companies. The UNIX OS is a strong choice for verticals such as telecommunications, manufacturing, pharmaceuticals, financial services, government, healthcare, defense, and more.

For these end-user enterprises, procuring certified UNIX systems and software ensures the highest level of availability, scalability, and maintainability for those who want to focus on their business with confidence and peace of mind without the worry of disruption in their global IT environments.

## The Single UNIX Specification – "The Standard"

UNIX®
An Open Group Standard

The Single UNIX Specification is the standard in which the core interfaces of a UNIX OS are measured. The UNIX standard includes a rich feature set, and its core volumes are simultaneously the IEEE Portable Operating System Interface (POSIX) standard and the ISO/IEC 9945 standard.

The specification encompasses the base operating system environment, networking services, windowing system services, and internationalization aspects and programming languages. The latest version of the certification standard is UNIX V7, aligned with the Single UNIX Specification Version 4, 2013 Edition.

System vendors and ISVs supporting the Single UNIX Specification enjoy a substantial market following of loyal customers and benefit from lower development costs through trusted shared knowledge and the most stable, portable, and cost-effective applications development environment for a wide range of platforms from mobile devices to mainframes.

> The Single UNIX Specification:
> - Provides a trusted guarantee of application portability
> - Enables buyers to specify UNIX conformance in procurements and vendors to certify their products as conforming
> - Facilitates Boundaryless Information Flow™ for efficient access to integrated information

## UNIX Open Standards Development

The Open Group Governing Board UNIX Systems Work Group sets the strategy and influences the direction for the evolution of the Single UNIX Specification. The Work Group is comprised of The Open Group Platinum Members, all industry leaders each with a representative on The Open Group Governing Board. A few examples of UNIX based operating systems are IBM® AIX®, HPE™ HP-UX®, Oracle® Solaris®, and Inspur® K-UX.

## Certification of Conformance to the Standard

The Open Group grants licenses through the UNIX Certification Program. Suppliers are granted a license to use the UNIX trademark in connection with a product when:

- The product has demonstrated passing the applicable certification test suites.
- The supplier has formally agreed to the terms of the Certification Program.

An Open Brand Certificate is issued for each Registered Product that has been certified against the standard. An entry is made in the Directory of Registered Products, which can be found on The Open Group website at www.opengroup.org/openbrand/register.

## Resources

Get more tools, resources, and information about the UNIX OS and the Single UNIX Specification at www.opengroup.org/UNIX.

## About The Open Group

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information within and between enterprises based on open standards and global interoperability. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and Open Source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service.

Further information on The Open Group can be found at www.opengroup.org.