CASE STUDY

1 | Fuji Xerox, Japan

BACKGROUND

Fuji Xerox Company, Limited is a joint venture partnership between the Japanese photographic firm Fuji Photo Film Co. (75%) and the American document management company Xerox (25%) to develop, produce and sell xerographic and document-related products and services in the Asia-Pacific region. Its headquarters is in Tokyo, Japan. Fuji Xerox is the world's longest running joint venture between a Japanese and an American company.

Fuji Xerox, Japan was exploring alternatives to port their Multifunction Printer product-line, with a code base of over 10 million lines of code, away from the VxWorks operating system. Fuji wanted to move the code from VxWorks to a Linux platform in order to take advantage Linux's powerful networking features and also eliminate the run-time royalty cost associated with VxWorks. In addition to migrating the code, Fuji Xerox must retain the ability to do considerable new software development work.

PROJECT

Port their Multi-function Printer/Scanner embedded software code base from VxWorks to the Linux operating system. Harden Linux to behave and perform like a Real-Time Operating System (RTOS) so that new application development using Linux/POSIX API would provide stability and performance.

PRODUCT

VxWorks OS Changer Porting Kit and Linux Optimization Kit for a Linux Target

SOLUTION

By using OS Changer, Fuji Xerox was able to successfully migrate their VxWorks legacy code to the Linux platform, within budget and schedule. Linux OK optimization features provided enhanced performance of the Linux application that was integrated with the existing legacy application. Utilizing a product solution also allowed Fuji Xerox to assign its engineers to enhancing their code rather than spending time on unnecessary manual porting effort.

OS Changer & Linux OK were chose because they made the project financially and practically feasible. The potential cost of manual porting the code, the number of developers needed and the time required to complete this project were all prohibited. In addition, OS Changer does not require changing the VxWorks code base. Linux OK offers VxWorks real-time threading and memory management features over Linux to ensure product performance on the Linux platform.