



Nature of Project

VAX OpenVMS to IBM xSeries Linux

Fortran: 1,400,000 lines **DCL:** 320,000 lines

RMS: 350 files **SMG:** 620 screens

Since BLOCKBUSTER opened its first store in 1985, the company has grown into the world's number one video chain with more than 52 million U.S. and Canadian member accounts active during 2001, plus several million additional member accounts worldwide. In 2001, an estimated average of more than 3 million customers walked into U.S. BLOCKBUSTER stores each day.

In 1999, Blockbuster was faced with growing cost for the VAX systems installed in 8,000 stores nationwide running their Point of Sale (POS) application. Sector7 was asked by BLOCKBUSTER and IBM to provide consulting services to provide a gap analysis between the existing POS system and a replacement POS system that was under development. Major gaps existed between the two applications. BLOCKBUSTER subsequently asked Sector7 for migration/reengineering solutions for the existing POS application that would significantly reduce BLOCKBUSTER's total cost of ownership (TCO) across its 8,000 stores.

Sector7 has a five-step blueprint process for moving applications from OpenVMS to Linux. The first step was an assessment. During the assessment Sector7 performed a situational analysis. The POS application was developed using DCL, SMG, RMS, and Fortran. DEC Command Language (DCL) is the control language for OpenVMS. DCL is very powerful and users can write simple programs in it. Screen Management (SMG) is a set of user callable functions that allow the user to display "windows" on a VT terminal. All screen painting is controlled directly from the users' program. Record Management System (RMS) is a file system manager integrated with the VMS operating system. RMS handles indexed, relative, and sequential files. Indexed and sequential files can have fixed and variable length records. Subsequent to the situational analysis Sector7 worked with BLOCKBUSTER to develop a migration approach to reduce TCO. Sector7 can provide solutions ranging from a low-risk migration to completely reengineered applications using Business Logic Extraction (BLE) methodologies. A migration requires making the minimum amount of changes necessary to make the code function on the new system. This is usually the fastest way to get the code up and running on the new system. Issues such as text translation, non-portable code, and hardware differences are addressed. This kind of port is very low risk and it is possible to have follow-on work to improve design and performance efficiencies. It is low risk as long as adequate time is spent planning the changes. Reengineering using BLE requires extracting the business logic from the code to take full advantage of the features of the new system, reusing code where possible, and rewriting it where necessary. This process makes better use of the system features and usually results in better code. Often BLE is selected when organizations have set specific product standards.

(more)

Sector7

BLOCKBUSTER (continued)



The solution selected by BLOCKBUSTER was migration. Fortran was ported to Linux using Sector7's VX/FPT product. VX/FPT can analyze and convert many flavors of Fortran. For RMS, BLOCKBUSTER selected the Sector7 product VX/RMS. VX/RMS is an implementation of DEC's VMS RMS system for UNIX. VX/RMS allows VMS programs, which access RMS directly to function without change. All VMS file types and access modes are supported. Support for relative, sequential and block mode files is supplied by direct access to the UNIX or NT file system. For DCL BLOCKBUSTER selected the Sector7 VX/DCL product. VX/DCL is an implementation of DEC's VMS Digital Command Language for UNIX. VX/DCL allows applications to use all of the VMS commands, which are so familiar on Windows NT or UNIX systems. All of the existing command scripts (.COM files) will run on the new platform. For SMG BLOCKBUSTER selected the Sector7 VX/SMG product. VX/SMG is an implementation of DEC's VMS Screen Management Service for UNIX. Written entirely in C, it provides OpenVMS SMG functionality for UNIX-based platforms. The project was completed in 9 months.

The successful project provided BLOCKBUSTER retention of this valuable software investment on corporate standard hardware and software technologies will significantly reduce TCO.