Sun Mainframe Rehosting at Transamerica Life Canada

Part 3 — The Testing

An IDC White Paper
Sponsored by Sun Microsystems

Analyst: Vernon Turner

INTRODUCTION

This white paper is the third of three snapshots of the migration of a key business system from a mainframe computing environment to a Sun environment. The first snapshot captured the planning and decision-making process. The second snapshot focused on the migration process. This snapshot explores system testing and user acceptance of the newly migrated applications.

A successful migration depends on durable technology, accurate project planning, and skilled, committed people. The server operating environment and software tools to automate migration of application software and enterprise data are put to the test. Extra time is rarely available for completing a migration. And, in the end, the members of the professional staff for the enterprise and its suppliers and consultants have to solve problems and get the job done.

This study is based on conversations with a customer identified by Sun Microsystems. IDC interviewed the customer just after the new system was put into daily use.

TRANSAMERICA LIFE CANADA

Transamerica Life Canada (Transamerica) is a market leader in the sale of life insurance and investment products in Canada.

Transamerica Life Canada is a member of the AEGON Group, a leading international financial services group. The Group's businesses offer a diverse portfolio of products: principally life insurance, pensions, and related savings and investment products but also accident, health, and general insurance. With approximately 1,000 employees across the country, AEGON Canada Inc. is headquartered in Toronto, Ontario, and provides Canadians with wealth management solutions through its companies: Transamerica Life Canada, AEGON Capital Management Inc., AEGON Dealer Services Canada Inc., Money Concepts (Canada) Ltd., and AEGON Fund Management Inc. Through its holdings, AEGON Canada has over $10 billion in assets under management.

In December 2000, Transamerica and NN Life Insurance Company of Canada (NN) amalgamated and continued to operate as Transamerica Life Canada (Transamerica). NN's IT systems, hosted in a mainframe computing environment, are now under the direction of Naj Hirani, vice president, information technology and chief information officer.

The Task at Hand

An IT system that supports one of NN's life insurance and investment products is outsourced and runs in a mainframe environment. Transamerica analyzed the options for migration, including help from Sun Microsystems, which provided an audit of the existing application, and decided to undertake a migration to a Sun server primarily to reduce expensive mainframe outsourcing costs.

The software that administers the investment products comprises administrative functions. Part of the administrative function is an interactive system used about 12 hours each business day in support of a back-office operations and call center business unit. A collection of daily, weekly, monthly, quarterly, and annual batch operations serves other administrative functions.

From a technical perspective, the administrative system is a series of COBOL programs and associated utilities. Some COBOL programs run under Customer Information Control System (CICS) to provide the interactive online transaction processing (OLTP) functions. All the applications use data stored in a VSAM database. In addition, Transamerica must migrate the functionality expressed in job control language (JCL), a 4GL called FOCUS, a report writer called EASYTRIEVE, and sort utility called CoSORT.

THE SYSTEM TEST PROCESS

In early August 2002, IDC spoke with Naj Hirani and his colleague Grace Kennedy, who is assistant vice president, investment products systems. Hirani and Kennedy were pleased to report that the new system was in production and that while testing did identify some problems to solve, the migration as a whole continued smoothly as the new system went into daily use.

According to Hirani, communication remained a critical success factor for the migration effort. "In the testing phase," Hirani explained, "our focus shifted. Rather than communication among IT professionals and suppliers that dominated during the migration effort, we shifted attention to our stakeholders within Transamerica. Our executives and users needed to trust that the mainframe rehosting was robust and reliable.

"When we first brought up the interactive applications, we demonstrated them to Transamerica's senior executives and that was a very important milestone for our project," Hirani reflected. "Their first

reaction was, 'Wow, these screens look just the same!' Our executives were delighted to see that in a short time frame we had actually migrated the system and its data. No changes in screens means that staff that depend on this system can use it without training.

"We had verified a key assumption in our business case, which was that no training would be required. And we brought in a lot of new computing technology at the same time," Hirani went on. "Typically, when systems are refurbished, extensive user training is necessary. In our case, all we had to do was tell users to click a new icon on their electronic desktop."

System Test Planning and Execution

"Testing followed the same strategy that we used when migrating the applications. We tested online and batch programs that would be used on a daily basis first, and then moved on to programs run weekly and monthly," Kennedy said. "Our mainframe system was still running during the testing period, and we brought up our new Sun-hosted system in parallel. The primary criterion for a successful test was that the new system behaved identically with the old system."

Transamerica took primary responsibility for system testing. Mainframe rehosting consultants from Sun Professional Services remained available and continued to participate in twice-weekly status meetings. Transamerica developed a system to track all problems emerging during the testing process, to set priorities and identify resources needed to repair each problem, and to retest and certify that problems were solved.

"We had prearranged with our business colleagues that two business analysts and 10 users of the system be freed of everyday responsibilities," Kennedy explained, "so that they could focus their attention on testing the new system. These people worked steadily and patiently for a month to make sure that everything was ready for Day One."

Typical Issues and the Problem Resolution Process

"The majority of our testing raised 'technical' issues, not 'functional' issues," Kennedy reported. "A functional issue would appear as a problem where the results of an interactive query or a batch report were different between the old and new systems, and this type of problem did not occur. A technical issue would be the challenge we faced when integrating the new system with other systems at Transamerica and discovered data formatting variances that needed to be reconciled."

"Interfaces to other systems provided most of our technical challenges," Hirani summarized. "And some of the satellite systems were very important to us. For example, we provide Web browser access to our agents and brokers so that they can obtain information on their clients' accounts. Since that interface is 'customer-facing,' from our point of view, it was a critical interface. Our call centers also use this interface, and so it was a 'must have' for Day One."

"Testing showed that some reports were not being generated." Kennedy reported. "In retrospect, this was not a testing problem

but was attributed to scope and definition of our system versus user-generated reporting. While we systematically indexed the recurring system-generated daily and weekly reports, we were not able to index all of the user-generated ad hoc reports — reports that are triggered by particular events and that are not run on a regular basis." Transamerica anticipated such issues and made provisions within the project to have resources available to address and resolve such items during the testing period and, in some cases, postimplementation if they were deemed to be a low priority.

Going Live

"On August 6 the rehosted system went into production on schedule," Hirani recalled. "We watched the error logs for any sign of problems and monitored calls to the help desk. There were no major issues reported. Day One for the newly rehosted system was an ordinary day.

"From an enterprise point of view, a critical milestone was achieved with the systems operations function successfully shifted from an outsource provider using mainframe technologies to an in-house system hosted on a partition of a Sun server."

Lessons Learned

IDC asked Transamerica's IT leaders to share one of the lessons that each had learned when bringing this migration through testing to a successful Day One.

"Testing expanded the scope of cooperation at Transamerica," Hirani observed. Prior to testing, we coordinated activities for the migration teams from Transamerica and Sun. Testing brought in two new communities — business users and our IT infrastructure staff. While we have worked hard throughout the project to keep channels of communication open and effective, we redoubled those efforts during testing to make sure that everyone, including these new stakeholders, was well informed and committed to the task at hand."

"As we focused on the Solaris environment, we faced one final technical challenge," Kennedy added. "We came to realize that when vendors provide a product for the mainframe and a product for the Unix environment, these products are not the same. While our users were able to engage these applications without training, our technicians needed to master the variances between the same products when offered in two different operating environments."

Schedule, Budget, Operating Costs, and ROI

According to Transamerica staff, the migration project was a success on all metrics. The effort was on schedule and on budget. Tactical changes occurred along the way, but the overall plan remained sound throughout the migration process.

Transamerica estimates upwards of 50% reduction in day-to-day operating costs, compared with the cost of hosting the application with an outsource provider. The focus of the savings is on hardware,

software, and system maintenance expenses. Other costs, such as printing and storage, remain the same regardless of the migration.

"We expect to recover the cost of migration in approximately six months," Hirani reported. "This is a success story for us on every dimension. The audit process performed by Sun led to an accurate

---

Sun's Mainframe Migration Project Management

"Transamerica took primary responsibility for system testing," said Paula Wood, Sun's project manager for the Transamerica migration since its onset. "But we still stayed close at hand. Our twice-weekly status meetings continued, for example, and we remained ready to assist when Transamerica encountered problems.

"My objective was to be the focal point for Transamerica's communications with Sun," Wood explained. "When issues arose, it was my job to find the right Sun resources and make sure that our people and the Transamerica staff worked together to solve the problem.

"Since I've seen a number of migrations, the patterns are familiar," Wood added. "For example, Transamerica discovered during the testing period that some ad hoc reports had not been migrated. This was an understandable occurrence, given the scope of the reduction in the application inventory. It's important to realize that when companies migrate legacy applications, there are ordinarily a lot of batch programs that are left behind."

Obsolete programs accumulate as modifications and enhancements produce new versions over the years. For Transamerica, approximately 4,500 programs were inventoried during the audit process and only about 800 programs were migrated. As a side effect of the migration process, Transamerica has a smaller portfolio of programs to maintain.

"Transamerica's strong sense of urgency was an unusual factor in this migration," observed Wood. "While our customers are always interested in moving through the migration process as quickly as possible, Transamerica's need to end its outsourcing relationship on August 6 presented a harder-than-usual stopping point."

Transamerica contracted some migration tasks to Sun engineers, and this approach is midway on a spectrum of service offerings available from Sun. "Sometimes we take primary responsibility for migrating all programs and data, if that strategy is the best fit to our customer's need," Wood explained. "We also provide technology transfer programs that train our customers, who then take primary responsibility for the migration themselves.

"I enjoyed our intense work with Transamerica," Wood concluded. "We at Sun quickly came to respect their commitment to this project, their careful organizational planning, and their positive problem-solving attitude."

---

estimate of what needed to be done; Sun technologies accelerated the migration process; testing affirmed the quality of the results; and the project is a financial success as well."

SUMMING UP

This white paper concludes our investigation of what has turned out to be a successful mainframe migration project. IDC has appreciated the opportunity to look in on Transamerica's efforts as the project unfolded, to learn directly from Hirani and Kennedy what challenges they faced and how they addressed them.

IDC Worldwide Offices

CORPORATE HEADQUARTERS

IDC
5 Speen Street
Framingham, MA 01701
United States
508.872.8200

NORTH AMERICA

IDC Canada
36 Toronto Street, Suite 950
Toronto, Ontario M5C 2C5 Canada
416.369.0033

IDC California (Irvine)
18831 Von Karmen Avenue
Suite 200
Irvine, CA 92612
949.250.1960

IDC California (Mountain View)
2131 Landings Drive
Mountain View, CA 94043
650.691.0500

IDC New Jersey
75 Broad Street, 2nd Floor
Red Bank, NJ 07701
732.842.0791

IDC New York
2 Park Avenue
Suite 1505
New York, NY 10016
212.726.0900

IDC Texas
100 Congress Avenue
Suite 2000
Austin, TX 78701
512.469.6333

IDC Virginia
8304 Professional Hill Drive
Fairfax, VA 22031
703.280.5161

EUROPE

IDC Austria
c/o Loisel, Spiel, Zach Consulting
Mayerhofgasse 6
Vienna A-1040, Austria
43.1.50.50.900

IDC Benelux (Belgium)
Boulevard Saint Michel 47
1040 Brussels, Belgium
32.2.737.76.02

IDC Denmark
Omøgade 8
Postbox 2609
2100 Copenhagen, Denmark
45.39.16.2222

IDC Finland
Jarrumiehenkatu2
FIN- 00520 Helsinki
Finland
358.9.8770.466

IDC France
Immeuble La Fayette 2
Place des Vosges Cedex 65
92051 Paris la Defense 5, France
33.1.49.04.8000

IDC Germany
Nibelungenplatz 3, 11th Floor
60318 Frankfurt, Germany
49.69.90.50.20

IDC Italy
Viale Monza, 14
20127 Milan, Italy
39.02.28457.1

IDC Netherlands
A. Fokkerweg 1
Amsterdam1059 CM, Netherlands
31.20.6692.721

IDC Portugal
c/o Ponto de Convergancia SA
Av. Antonio Serpa 36 - 9th Floor
1050-027 Lisbon, Portugal
351.21.796.5487

IDC Spain
Fortuny 18, Planta 5
28010 — Madrid
Spain
34.91.787.2150

IDC Sweden
Box 1096
Kistagangen 21
S-164 25 Kista, Sweden
46.8.751.0415

IDC U.K.
British Standards House
389 Chiswick High Road
London W4 4AE United Kingdom
44.208.987.7100

LATIN AMERICA

IDC Latin America
Regional Headquarters
8200 NW 41 Street, Suite 300
Miami, FL 33166
305.267.2616

IDC Argentina
Trends Consulting
Rivadavia 413, Piso 4, Oficina 6
C1002AAC, Buenos Aires, Argentina
54.11.4343.8899

IDC Brazil
Alameda Ribeirao Preto, 130
Conjunto 41
Sao Paulo, SP CEP: 01331-000 Brazil
55.11. 3371.0000

International Data Corp. Chile
Luis Thayer Ojeda 166 Piso 13
Providencia
Santiago, 9, Chile
56.2.334.1826

IDC Colombia
Carerra 40 105A-12
Bogota, Colombia
571.533.2326

IDC Mexico
Select-IDC
Av. Nuevo Leon No. 54 Desp. 501
Col. Hipodromo Condesa
C.P. 06100, Mexico
525.256.1426

IDC Venezuela
Calle Guaicaipuro
Torre Alianza, 6 Piso, 6D
El Rosal
Caracas, Venezuela
58.2.951.1109

CENTRAL AND EASTERN EUROPE

IDC CEMA
Central and Eastern
European Headquarters
Male Namesti 13
110 00 Praha 1
Czech Republic
420.2.2142.3140

IDC Croatia
Srednjaci 8
1000 Zagreb
Croatia
385.1.3040050

IDC Hungary
Nador utca 23
5th Floor
H-1051 Budapest. Hungary
36.1.473.2370

IDC Poland
Czapli 31A
02-781 Warszawa, Poland
48.22.7540518

IDC Russia
Suites 341-342
Orlikov Pereulok 5
Moscow, Russia 107996
7.095.975.0042

MIDDLE EAST AND AFRICA

IDC Middle East
1001 Al Ettihad Building
Port Saeed
P.O. Box 41856
Dubai, United Arab Emirates
971.4.295.2668

IDC Israel
4 Gershon Street
Tel Aviv 67017, Israel
972.3.561.1660

IDC South Africa
Building 9, Pebble Beach
Fourways Golf Park
Roos Street
Fourways, Gauteng
South Africa
27.11.540.8000

IDC Turkey
Tevfik Erdonmez Sok. 2/1 Gul
Apt. Kat 9D
46 Esentepe 80280
Istanbul, Turkey
90.212.275.0995

ASIA/PACIFIC

IDC Singapore
Asia/Pacific Headquarters
80 Anson Road
#38-00 IBM Towers
Singapore 079907
65.6226.0330

IDC Australia
Level 3, 157 Walker Street
North Sydney, NSW 2060
Australia
61.2.9922.5300

IDC China
Room 611, Beijing Times Square
88 West Chang'an Avenue
Beijing 100031
People's Republic of China
86.10.8391.3610

IDC Hong Kong
12/F, St. John's Building
33 Garden Road
Central, Hong Kong
852.2530.3831

IDC India Limited
Cyber House
B-35, Sector 32, Institutional
Gurgaon 122002
Haryana India
91.124.6381673

IDC Indonesia
Suite 40, 17th Floor
Jakarta Stock Exchange
Tower 2, Jl. Jend. Sudirman Kav. 52-53
Jakarta 12190
6.221.515.7676

IDC Market Research (M) Sdn Bhd
Jakarta Stock Exchange Tower II
17th Floor
Jl. Jend. Sudirman Kav. 52-53
Jakarta 12190
62.21.515.7676

IDC Japan
The Itoyama Tower 10F
3-7-18 Mita, Minato-ku
Tokyo 108-0073, Japan
81.3.5440.3400

IDC Korea Ltd.
Suite 704, Korea Trade Center
159-1, Samsung-Dong
Kangnam-Ku, Seoul, Korea, 135-729
822.551.4380

IDC Market Research (M) Sdn Bhd
Suite 13-03, Level 13
Menara HLA
3, Jalan Kia Peng
50450 Kuala Lumpur, Malaysia
60.3.2163.3715

IDC New Zealand
Level 7, 246 Queen Street
Auckland, New Zealand
64.9.309.8252

IDC Philippines
703-705 SEDCCO I Bldg.
120 Rada cor. Legaspi Streets
Legaspi Village, Makati City
Philippines 1200
632. 867.2288

IDC Taiwan Ltd.
10F, 31 Jen-Ai Road, Sec. 4
Taipei 106
Taiwan, R.O.C.
886.2.2731.7288

IDC Thailand
27 AR building
Soi Charoen Nakorn 14,
Charoen Nakorn Rd., Klongtonsai
Klongsan, Bangkok 10600
Thailand
66.02.439.4591.2

IDC Vietnam
Saigon Trade Centre
37 Ton Duc Thang Street
Unit 1606, District-1
Hochiminh City, Vietnam
84.8.910.1233; 5

IDC is the foremost global market intelligence and advisory firm helping clients gain insight into technology and ebusiness trends to develop sound business strategies. Using a combination of rigorous primary research, in-depth analysis, and client interaction, IDC forecasts worldwide markets and trends to deliver dependable service and client advice. More than 700 analysts in 43 countries provide global research with local content. IDC's customers comprise the world's leading IT suppliers, IT organizations, ebusiness companies and the financial community. Additional information can be found at www.idc.com.

IDC is a division of IDG, the world's leading IT media, research and exposition company.

IDC
Analyze the Future

www.idc.com