Illinois Mutual Finds Computing's Cost-Effective Sweet Spot In T3's Mainframe-Compatible tServer

Illinois Mutual Life Insurance Company "thinks beyond", using an ultra cost-effective T3 Technologies-provided x/230 EFS (tServer) to host traditional IBM mainframe VM/ESA and VSE/ESA applications. Installing the tServer is saving $250,000 over three years, recovering system cost in nine months, and supporting current and anticipated application requirements with S/390 architecture — the gold standard for enterprise computing.

In 1910, in Danville, IL, Orin L. McCord and four associates organized a fraternal benefit society, Illinois Woodmen Accident Association. The company's early policyholder meeting minutes reveal aspects of a long-gone era: $8 weekly salaries and $100 death benefits. Today, Michael A. McCord, his great-grandson, is president of what is now Illinois Mutual Life (IML) Insurance Company with assets of 175 million dollars. Four generations of the McCord family led the company's evolution to the current name, reflecting its greatly expanded business objectives

Until 1958, operations consisted exclusively of writing accident-only health insurance policies. Expanding its portfolio, the company began writing monthly benefit plans for both accident and sickness. Illinois Mutual was a pioneer in the field of hospital-surgical insurance; today, it maintains a successful niche in the guaranteed renewable and non-cancelable disability insurance markets.

In 1958, the company entered the life insurance field. That current portfolio includes term insurance and permanent policies such as universal life, interest-sensitive life, and participating whole life plans, as well as retirement policies.

"It is thrifty to prepare today for the wants of tomorrow" — Aesop

The cover of Illinois Mutual's annual report features the words "Thinking Beyond". Inside text begins "Thinking beyond means seeking opportunity by looking past conventional wisdom", and notes that thinking beyond is the company's business model. Life insurance is described as the way customers think beyond life — covering spouses, children and mortgages while maintaining family lifestyle. Insurance provides other "thinking beyonds" — for example, looking and planning beyond the ability or desire to work.

A stand-alone mutual insurance company, IML is owned by its policyholders. A.M. Best (the oldest insurance company rating agency) rated IML as excellent; Standard Analytical Service reports that by key metrics — solvency, surplus funds, liquid assets, etc.— the company surpasses benchmarks such as the average figures of the 25 largest life insurance companies.

An example of thinking beyond the traditional is IML's use of Art Berg as spokesman for their disability insurance. Berg, a popular motivational speaker, is a quadriplegic as the result of an accident. President of Invictus Communications, Inc., and named Young Entrepreneur of the Year by the Small Business Administration, he is author of two books, *Some Miracles Take Time* and *Finding Peace in Troubled Waters*. Having conquered his circumstances, he now inspires readers and audiences.

Beyond Traditional Technology

Technology plays a key role in operation, helping the company exceed agent and policyholder expectations. The longstanding role of computers in IML's business is emphasized by its prominence in several company retrospectives. Today, custom software, an Internet presence, and tailored, agent-oriented CD-ROM tools make understanding and purchasing insurance simpler and faster for customers. Policyholders and agents use the Web site and email to access up-to-the-minute information and to deal with various Illinois Mutual departments. The commitment to continued service and quality improvements is supported by continual improvement of internal facilities.

Just as the company evolved from offering limited insurance protection, it has enthusiastically applied new data processing industry offerings to its operation. IML became an IBM customer in the mid-1960s with installation of a 1401 computer. While operating as a service bureau for local clients, handling payroll and similar applications, processing power progressed through multiple System/360, System/370, 4300, and subsequent generations.

Before a recent processor replacement, an IBM Multiprise 2000 was used with great success, especially after it was network-connected. It offered significant computing power, 256 megabytes memory, 90 gigabytes DASD storage, etc. But rising hardware and maintenance costs were burdensome. IML had evaluated the MP 3000 when it was announced, but found it to be more powerful — and too expensive — providing 60 MIPS entry-level compared to the in-place 16 MIPS. The x/230 EFS (tServer) gave IML a financial justification to remain on the S/390 gold standard for the forseeable future.

T3 Technologies, an IBM Premier Business Partner, evaluated the MP 2000 processor and peripherals, existing workload, anticipated future workload/growth, and proposed the largest system eligible for 1/3 GOLC software pricing: a FLEX-ES-based solution built on twin-Pentium gigahertz processors, providing about 18 S/390 MIPS, along with 2 gigabytes of storage and 180 gigabytes of DASD storage. T3 and IML collaborated on specifying and planning/installing the new system, using T3's detailed and step-by-step plan/procedure.

After installation, T3 provided continuous support during several weeks of testing, parallel operation, and performance tweaking. During this time, IML added virtual storage for VSE and CMS guests, to exploit the greatly expanded VM central storage. IML and T3 tuned FLEX-ES settings, such as instruction cache size, required to be larger for a VM system and native VSE. Disk cache was added to the FLEX-ES configuration to use remaining memory. After each adjustment, a full parallel test of second- and third-shift work compared POWER accounting data with MP 2000 experience. Although it was time consuming to do this (four hours just to restore data and another six to execute), the time was well spent, yielding a well-tuned system. When production was switched to the new system, operational results confirmed benefits of T3's checklist-based thoroughness and added-value services.

The impressive bottom-line result was saving $250,000 over three years, ($9,000/month), with the new system's $80,000 cost recovered in nine months. The savings came from combined reduced hardware lease cost, lower hardware maintenance, and reduced IBM software costs.

Applications and Customer Service Are the Reason for Computing

Major applications include commissions, premium collection, billings, accounting, underwriting, and claims processing. CICS runs the business: from opening policy applications to their final issuance, CICS transactions do it all. The company's computing operation, based on VM/ESA and VSE/ESA, consumes somewhat more than two shifts daily. Daytime processing includes about 100,000 CICS transactions; second shift batch work handles backups, reporting, database updating, new business processing, etc. And an unattended third shift produces database reports, extracts, and such. Some extracts are loaded into spreadsheets for further analysis or reporting, while others feed PC-based applications such as the actuarial systems for reserve calculations.

Applications support multiple on- and off-mainframe input sources. For example, the disbursement system takes feeds from direct CICS transactions, indirect CICS transactions (e.g., a check written to a doctor as a result of requesting information from them during underwriting), and PC-based systems sending mainframe transactions via the network.

. . . continuous support . . .

Applications and Customer Service Are the Reason for Computing . . .

VM's hypervisor capability allows operating multiple VSE guest systems in parallel on the same physical equipment, while completely isolating them from each other. The production VSE system, supporting three CICS partitions, (a main and two "mini-systems" for specific applications), is unaware of its nearly identical neighboring VSE development/test system. The latter system runs anywhere from two to twelve test CICS systems so that each lucky programmer can bring up a private system in which to test whatever users have requested. This can include enhancements to existing systems, new — usually reporting — systems, or data feeds to PC-based applications. And a technical support VSE is used to test major changes or software upgrades.

TCP/IP is used under both VM and VSE, with a 100 megabit Ethernet connection. VM handles inbound terminal traffic with the TN3270 protocol, outgoing email, and internal FTP (file transfer protocol) operation. VSE drives laser printers via PSF (Print Services Facility) and is planned to handle CICS-driven Web serving. The mainframe shares files with Windows NT, database extracts are produced and sent to the network, and files created on PCs trigger mainframe application execution.

Information systems staff uses VM for development, with ISPF/PDF hosting source and compiles and providing interactive dialogs to generate complicated JCL, perform source code scans, and route work to VSE. DB2 runs under VM with guest sharing providing VSE access to databases. Numerous locally developed native VM tools and applications, such as an SQL table browser, make programmers more productive. ISPF/PDF dialogs also control much of what programming and operations staffs do. They fill in variables and task JCL is generated. A DB2-based job scheduling system lets staff use ISPF screens to access and update scheduling tables, do job prerequisite checking, test runcodes to select particular job steps, etc. Assorted vendor software packages add system, operational, utility, and application capabilities: the CA-DYNAM family, tools from Macro 4 and MacKinney Systems, DR D from B I Moyle Associates, TCP/IP from Barnard Software, etc.

The ultimate payoff, of course, is what the hardware/software/staff accomplish to drive Illinois Mutual's business. With the Internet-connected mainframe, agents can elect to receive correspondence — such as underwriting notices of actions — via email. For example, underwriters (individuals responsible for evaluating insurance applications) needing blood profiles or financial statements make CICS requests by filling in fields in online forms. This generates an email so that an agent who is on-line knows the underwriting status moments later.

Agents can also visit IML's Website to view commission statements and request production reports. And if they use EFT (electronic funds transfer), they receive commissions and statements the day they are produced, instead of waiting for them to be printed, matched, and mailed.

CICS workload continues steady, slow growth, driven mostly by underlying business growth. Introduction of T3 Technologies' x/230 EFS (tServer) based on IBM's eServer xSeries and Fundamental Software's FLEX-ES technology made mainframe operation affordable again.

Ed Zell joined IML in 1986, serving as DBA and system programmer before becoming Manager of Operations and Technical Support. He notes that IML's thinking-beyond tradition hasn't tempted them to abandon the solid IBM mainframe architecture: their decades-long commitment to and investment in this gold standard for enterprise computing provide a flexible and modern platform which supports current and future business needs. Zell says that IML is "in the game, as we are using cost effective, commodity hardware with our S/390 applications".

For more information on Illinois Mutual, visit their Web site at **http://www.illinoismutual.com**.

t3 technologies

An IBM Premier Business Partner

T3 Technologies' Business Process Provides More Than Just a "Sale"

Rather than offering a one-size-fits-all solution or simply performing a quick-and-dirty requirements analysis, T3 Technologies collaborates with clients to specify, plan, and install new equipment. T3's proprietary, detailed, and step-by-step checklist ensures problem-free ordering of the proper hardware and software.

The process includes:

1. Detailed analysis of current client environment, requirements, and the new desired environment. This generates a proposed hardware/software/peripherals configuration. Based on analysis performed at Illinois Mutual Life, T3 guaranteed that the new x/230 EFS (tServer) system would meet or exceed all expectations as well as performance of the in-place Multiprise 2000-106.
2. Systems Assurance Meeting. Participants typically include T3 sales executive, systems specialist, and operations manager, along with client technical and management staff. Aimed at avoiding surprises, this meeting reviews the proposed configuration just before installation, and coordinates team activities:

- Review T3 installation process and plan
- Verify client tasks (e.g., ensure proper electrical service, check modem line operation);
- Satisfy miscellaneous logistical/checklist items (e.g., loading dock present, door frames wide enough)
- Schedule installation
- Provide after-sale telephone support information
- Identify upgrade options.

3. Installation, following T3's standard checklist, customized for each site. This list includes over six-dozen specific tasks.
4. System validation and tuning, closely collaborating with customer, to assure the best initial and ongoing results.
5. Post-installation client satisfaction phone call and post-installation client survey. Illinois Mutual Life's survey evaluation ratings of T3 averaged 4.5 out of 5.
6. One year post-sale telephone support.

T3's experience includes installing a wide variety of system types, and many more FLEX-ES based systems than any other IBM Business Partner. Learning from these diverse projects has allowed creating a standard system planning/installation checklist. Customizing the list for each site and system avoids a cookie-cutter approach and smoothly handles routine and unusual requirements. In fact, rather than committing to spending specific elapsed time on site, T3 targets and completes a mutually agreed-upon task list. Company expertise allows comprehensive what-if, contingency, operation, and upgrade planning, making T3 a valuable long-term partner making T3 a valuable long-term partner.

Fundamental Software, Inc. (FSI) develops, markets, and supports products that run mission critical applications cost-effectively on open systems, regardless of the hardware for which such systems were designed. FLEX-ES, a software-based computing platform, enables unmodified execution of IBM mainframe systems and applications on Intel-based servers.

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T3 Technologies is an IBM Premier Business Partner. Our business is dedicated to the sale and support of IBM S/390 products and services. In addition to FLEX-ES-based systems, T3 offerings include the IBM Multiprise 3000, IBM Enterprise Storage System, tape drives, printers, and other S/390 peripheral devices. Service offerings include VSE, VM, z/VM, OS/390, and z/OS systems programming services, TCP/IP, CICS Transaction Server, Linux for S/390, Websphere and other S/390 Web-enabling services. We provide training on various S/390 products, disaster recovery, and remote hosting options.

T3's unparalleled experience in the small MIPS systems arena, our status as the most experienced, most highly referenced, and most successful vendor of FLEX-ES technology, our outstanding reputation for services, and our strong financial standing, illustrate a professional and reliable vendor second to none!

Established in 1992, T3 is a privately held Florida-based corporation.

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