

Designing and implementing technology in your family office



By Jon Carroll

Technology is playing an increasingly important role in the family office. The appropriately designed and managed technology can keep the family informed of up-to-the minute information, and also save them money and hours of labour

TODAY MORE THAN EVER, families need information about their personal financial affairs quickly and easily. Whether at home or away, family members need to stay in touch with each other in order to make decisions, provide counsel or just stay informed. Today's family office provides the framework for the collection, integration and communication of personal financial information to the family.

A systems model

Goals and objectives: Typically, the family office is a tactical, administrative office that oversees the family wealth by managing family cash flows, monitoring the performance of investment assets, planning for and anticipating future needs, reporting on financial performance and controlling the costs of execution. While maintaining privacy and confidentiality, a family is able to exert absolute control over its own affairs. The family office may also focus on strategic goals, including strengthening the family mission and its legacy, building competencies in the next generation through education and creating growth opportunities for family members within family enterprises.

To achieve its goals and objectives, the family office may perform the key functions of investment management, financial management and trusteeship. Systems enable each of these functions by replacing labour with technology, by reducing manual effort spent on transactions processing, and by increasing the time spent on creative thinking, problem solving and risk management.

The investment function: The chief investment officer (CIO) is responsible for portfolio monitoring and management, investment manager and security selection, due diligence, follow-up on issues, as well as investment implementation. The CIO also directs investment performance reporting,

timely investment philosophy elaboration by documentation of objectives, and asset allocation and rebalancing.

The financial function: The chief financial officer (CFO) is responsible for the implementation of asset allocation and rebalancing, including all related cash flow and liquidity management. The CFO also manages investment and partnership accounting, personal financial reporting, tax compliance and planning, family budgets, banking and credit, comprehensive financial planning and reporting, project management and other family financial services.

The trustee function: The family trustee (Trustee) is responsible for the administration and planning connected with trusts, the communication with beneficiaries, the education and mentoring of beneficiaries and settlers, as well as program development and the ongoing management of philanthropic giving. The Trustee has a fiduciary responsibility to carry out the directives of the trust. This can become more and more difficult as trust instruments and planning programs of attorneys become more complex.

The CIO, the CFO and the Trustee make extensive use of technology while working with investment advisors, prime brokers, custodians, the family and each other. Each uses technology to coordinate their functional activities, communicate and transact with business and professional contacts, maintain calendars, checklists and task lists, as well as provide reports to the family.

Understanding the desired flow of information in the family office is an important first step in the design process. An example of an information flow is given in Figure 1. In this example, the family office works with marketplace providers using systems to collect, integrate, monitor, analyse, manage and report family information. The CIO, CFO and Trustee are responsible for

interconnected components of the information flow.

One common technology tool that the family office can use is a data import from a custodian or prime broker. Most custodians and prime brokers have interfaces to the most widely held portfolio management software. Custodians and prime brokers can export data from their transaction systems via electronic data interface to any general ledger system that can take an import from spreadsheet software such as Microsoft Excel.

The technology platform should support the functions performed by the CIO, the CFO and the Trustee. With careful design, the infrastructure should permit the family office to speed up the delivery of financial information and reporting to the family. Each of the hand-offs shown in Figure 1 presents an opportunity to improve the information flow by increasing the speed of hand-off, by eliminating the possibility of error in the hand-off, or by reducing the cost of the hand-off.

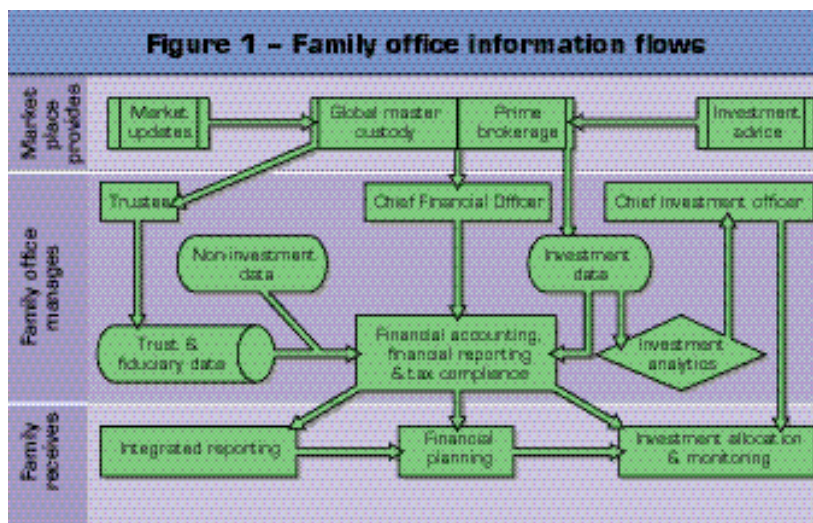
‘Technological systems reduce manual effort spent on transaction processing and increase time spent on creative thinking and problem-solving’

The more accurate and timely the information, the more useful it is. Technology improves accuracy and delivery speed by automating labour-intensive transaction processing activities. For example, one family office implemented an on-line cash management system that increased its earnings on strategic cash reserves by 50 basis points per annum while it decreased the amount of cash-on-hand held for liquidity purposes.

Selecting technology

Before selecting specific technology, the family office should consider certain key imperatives that drive the decision making process:

- Always specifically determine how the success of the technology project will be measured.



- Always create specific goals for the new technology, describing them in a project plan and budget, with time frames and deliverables. At the end of the project, compare outcomes to the original plans and tally the results in a customised ‘family satisfaction survey’ to get the best overall view of the project.
- Always consider the suitability of new technology through a process of needs analyses, requirements development and prioritisation. Also consider how well the technology integrates with technology already in place.
- Always determine how well each new technology component will connect to other new and existing components. Is the new technology based upon an open architecture standard? Does it support data imports from any source, the easy manipulation of data, the portability of data and, ultimately, user control over the data?
- Always consider the various costs in the technology selection process: the original purchase price; any costs of direct conversion; the opportunity costs of family office personnel spent on the project; any consulting or installation costs; the ongoing maintenance costs of the technology; and the estimate of lifetime costs of ownership.

Answering these basic questions about the technology, and its uses, benefits and costs, before beginning the technology project will eliminate confusion and frustration, and save money once the project has begun.

Family office network design

A family office network should be able to meet the needs of the family for communication, reporting, data feeds and storage, proprietary applications and any special requirements. An example of a family office network design is given in Figure 2. This network is always on – 24 hours a day, 7 days a week. It will support local and remote users, and is scalable as needs increase or change.

The family office communication methods supported are telephone, cell phone, voicemail, facsimile, e-mail, pager, web site and personal digital assistants. These devices need coordination in order to communicate effectively and efficiently with each other through the network. Voicemail software, for example, can be as simple as that provided by the telephone company or as complex as software specific to a telecommunications system requiring a dedicated server.

Reporting formats required by the family office can take many forms: black and white reports; colour charts and graphs; portable document format (pdf); Microsoft Office compatible files (xls, mdb, doc); hyper text mark up language (html) format for Internet presentations; and any of the extensible mark up language formats (xml) for data transmission. Reporting formats require different hardware solutions, for example, in the printing of black and white versus colour documents. Likewise, data formats require software solutions in the creation of different types of files, such as pdf, xls, mdb, doc, html and xml.

Data feeds into the family office network can come from analog modems,

the Internet, a CD-ROM or manual input. All of these methods require distinct hardware solutions. Data storage solutions range from hard disk, floppy and Zip disks, CD-ROM, CD-RW and magnetic tape to Compact Flash and Smart Media cards. Each of these data storage solutions requires specific hardware and software to connect the devices to the network.

A family office may create proprietary applications for specific purposes, such as onsite programming and support, import and export routines. A family office may have a database of investment manager performance returns and information on active managers gathered through due diligence questionnaires. Another example of a proprietary application used by a family office is one that keeps a tax calendar and calculates tax estimates to better identify and manage the cash flows connected with periodic tax payments. While these types of proprietary systems can be easily constructed using Microsoft applications such as Excel and Access, they require maintenance, editing and updating in order to remain current and function properly in a network environment.

A family office may also have special requirements, such as custom reporting, audio video production services, remote control or display software, video teleconferencing, full duplex speaker-phones or wireless data access. A family office may further have need of advance database management, wireless access to e-mail server data, dynamic web site portals, extended family intranet portal, and enhanced security and disaster recovery. These devices and sub-systems require careful management and continual evaluation as they are connected into the family office network.

Software selection

Most family offices perform portfolio management and performance reporting by transcribing printed reports from custodians, prime brokers and investment advisors into spreadsheet formats. Similarly, most family offices manage the financial accounting and reporting process without high-powered software. These simple but labour-intensive processes work well when the number of entities or the number of transactions are few. However, as the numbers of investments and investors grow, or the complexities of the investment programmes grow, then more extensive

technology is probably in order. There are both portfolio management and financial accounting software solutions that run the gamut in benefits and in price.

Portfolio management software: At the most basic level, portfolio management software permits the automated input of data into the software from outside providers, performs calculations on the data, and produces automated reports or data outputs. There are several key attributes of portfolio management software:

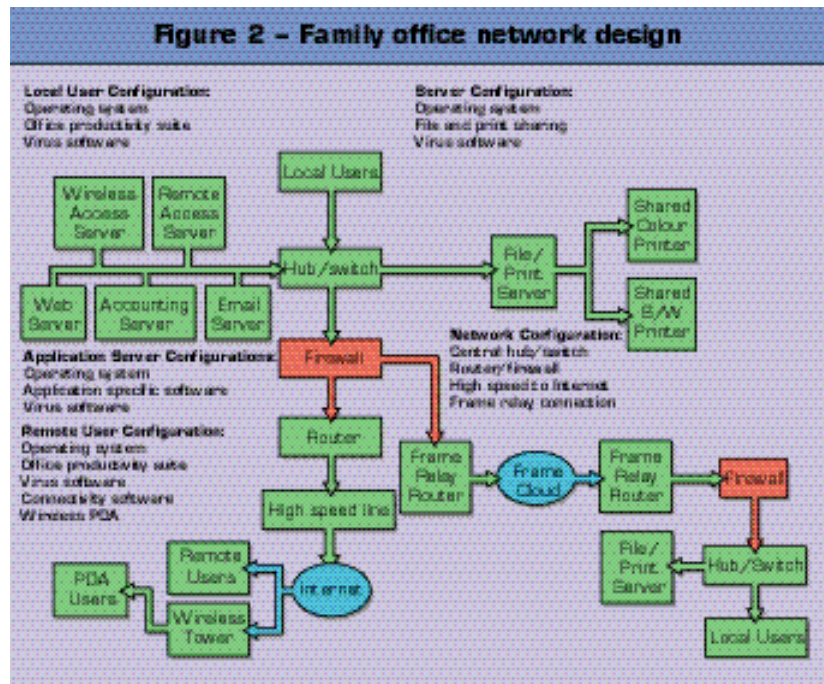
- Basic accounting for tax lots, current holdings valuation, trades and corporate actions.
- Active cross-reconciliation of trader, custodian and independent pricing service, producing daily and monthly balancing.
- Internal controls that allow account restriction monitoring and dual control mechanisms.
- Performance analysis of allocations versus benchmarks and other time series, and risk assessment.
- Flexible reporting tailored to specific needs.

Providers of portfolio management software include Intuit 'Quicken', Performance Technologies 'Centerpiece', FNI 'Financial Navigator', Advent 'Axys' and SS&C Technologies 'Total Return'. Both Advent and SS&C also provide partnership accounting modules that interface to their investment portfolio

accounting modules. Providers of private equity or venture capital accounting software include Relevant 'Equity Works' and AnalyX 'Venture Complete'. These software solutions track contacts, deal flow, financial portfolio characteristics, fund accounting and various other investment details.

General ledger accounting software: Corporate accounting, including general ledger, accounts payable, and fixed assets accounting is the core of any family office reporting and control system. When looking at the general ledger accounting software the family office should consider the following key attributes during the selection process:

- Product stability is very important. Upgrading or buying a software solution that may be discontinued by the manufacturer can be a costly mistake. Will the manufacturer be around to support the software three years from now?
- Always determine just how easy the software is to use. How many clicks does it take to get through the common everyday functions like posting a journal or cutting a cheque? How easy is it to set up and manipulate fonts, styles and formats?
- There are inexpensive general ledger software solutions that run entirely on the Internet such as Oracle 'Net Ledger' and Techfi 'AdvisorMart'. The



benefits of Internet based software are clear, including lower costs and faster implementation, always on back up, current application code and reduced annual maintenance and upgrade costs. The negatives also are clear: What do you do when the Internet is down? Who controls your data and where is it stored?

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Providers of general ledger accounting software include Best Software 'Peachtree' and 'MAS 90', Intuit 'QuickBooks', ACCPAC 'ACCPAC', Microsoft 'Great Plains' and 'Solomon', and Navision 'Financials'. Once installed, be sure to follow basic good practices of software management.

There are excellent tools available to the family office to review the design and implementation of general ledger software. Three of the best are:

- Computer Training Service, Guide to Accounting Software 2001.

- K2 Partners, 2001 Accounting Software Survey (www.eaccountingresearch.com).

- J Carlton Collins, The PPC Guide to Installing Microcomputer Accounting Systems (www.ppcnet.com).

The future of family office technology

In the next few years, several external forces will change the way that the family office uses technology. The competition for account aggregation by all financial services providers, the ability of the Internet to personalise information to users via custom portals and the introduction of T+1 in 2005 will change the way that the family office does its work. These externalities will drive down the cost of obtaining personal financial and investment data faster and more accurately. At the same time, these forces will provide data streams to the family office that exceed what is possible today.

Within the next few years, third party data collection entities will be able to integrate data from diverse investment sources. Likewise, electronic billing presentment and payment will be a matter of course rather than the exception. Tools of cash management formerly available only to institutional and corporate entities will be available to the family office.

In the future the family office will

integrate all investment data together with non-investment data into the comprehensive reporting required by the family. The need for absolute privacy, confidentiality and control over family information will continue. No single entity outside the family will know the 'whole story' and that creates a negotiating bias in favour of the family when the family office transacts in the marketplace. But this will only be available to families of wealth who value the added cost of a family office. Properly designed and managed, and given the correct scale of operations, technology in the family office can pay for itself.

Technology will play an increasing important role in the family office. At a reasonable cost, and with minimal effort over a short period of time, a family can revitalise, modernise or create a technology system that will allow it to collect, integrate and communicate while maintaining absolute control and confidentiality over its personal financial data. By considering the future when building in the present, a family office can prepare itself to take advantage of all that the marketplace offers at a most attractive price. ■

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Some rules for implementing technology in a family office

Business software purchases should be based on interoperability with family members and partners. Your office should strive to stay competitive and collaborative with the technology employed by your family members and partners.

The most recent software version may not necessarily be required for your office. It is always preferable to be just behind the curve in technology, so you can get accurate information on problems. Beta-testing software for software companies wastes time and resources better spent on other matters.

Never make illegal copies of software. Always purchase the legal number of licenses you need for your office, including licenses for those who access your office remotely. Always keep a record of license details in a database for audit purposes.

There are many software programmes available as freeware or shareware that may perform the business function you need. Be sure and test for compatibility within your production environment before using them.

Don't load software in your production environment without first testing its compatibility with existing software and hardware, unless of course you are willing to take the chance of losing data or crashing your network.

Don't skimp on security, disaster recovery, virus protection and regular data back-ups. Determine the worth of the data and spend whatever it takes to make you feel comfortable it is protected.

Make sure you test whatever software you buy – often. Most offices assume that regular data back-ups can be restored and that disaster recovery routines will work without testing. Don't wait until the system crashes to find out there is no data being recorded on your tape back-ups, or that your virus software isn't properly configured.

Your family business office owns the computers and software on office desktops. Establish policies and procedures for downloading software, email etiquette and personal Internet use. Review with users often. Make the policies and procedures part of a family business office handbook and refer to the handbook when a problem occurs.