



THE FUTURE OF BUSINESS COMPUTING

By Garry Lowther, Chief Software Architect at TriSys Business Software

The electronic computing industry is less than 50 years old, and the PC industry perhaps only 30 years old. Yet silicon chips and software are at the heart of almost everything we use in the modern world, from microwave ovens, to DVD players, cars, planes, phones and of course complex computer systems.

With the advent of miniaturisation, faster processors, increased disk sizes and ubiquitous high-speed broadband telecommunications, the world is becoming increasingly flat, and reliant upon software for all business to business and business to consumer transactions. Stock markets, major financial institutions, electronic point of sale and even governments, now rely upon sophisticated computer systems to manage the increasing complexity of business in the 21st century.

The Internet has changed the world of both business and consumer software forever. In less than 15 years, billions of consumers have connected directly to commercial organisations to transact business at the speed of light. Organisations are struggling to meet demand. Established legacy enterprise software systems are proving deficient in coping with the need for increased sophistication and integration with partner systems.

Many organisations have outsourced some if not all of their software development activities to offshore centres of excellence to meet this demand, whilst keeping manpower costs to a minimum. Many of those that have outsourced their entire IT systems in order to focus upon their core business, have realised that their software has actually become so critical to their core business that they have taken ownership of IT back in-house.

Despite falling hardware prices and faster performance, the increasing sophistication and complexity of in-house computer systems is costing business heavily with regard to IT and maintenance costs. Witness the growing number of upgrades, patches, security alerts and service packs that need to be applied to an organisations IT servers and PC's.

Some commentators have likened the state of the current IT industry to that of the late nineteenth and early twentieth century electricity generation industry, where each factory would purchase, build, operate and maintain their own electricity generation substations. The introduction of large power stations and an electricity grid with reliable and affordable metered power, spelt the end of the factory specific substation.

The corporate IT department is heading the same way. Both Google, Microsoft, Amazon, eBay and others are spending billions of dollars building massively powerful data centres, close to cheap hydro-electric power sources in order to deliver not electricity, but software and information services over the biggest grid of all, the Internet.

Every type of information centric component can be delivered reliably and securely in this fashion, from documents to e-mails, from voice to video and from database to software application. By taking delivery of all information in this way, companies do not need to purchase servers, increase power consumption, procure additional air conditioning, deal with numerous suppliers, understand switches, routers, firewalls or protocols, and hire, train and manage a large IT department. Finally, larger organisations no longer need to purchase expensive enterprise software licenses which are never used or fail to return their investment.

The devices which will be used to access this software grid, will take all shapes and sizes, from phones to cameras, portable music players to personal digital assistants and PC's to TV's. Ultra high speed Wi-Fi telecommunications will enable remote workers to access their business' information systems at any time, from any place, using whatever device is convenient. This may result in positive benefits to the environment, where information workers are able to conduct virtual face to face meetings with colleagues and customers without needing to leave home or their local office.

All existing business software systems will be migrated to work on one or more of the major computing platforms, so whether a corporation uses SAP, Oracle, Microsoft or any other supplier of complex software, it will be delivered effectively 'on-demand' and paid for only on a subscription basis. The software will also be more stable and operate more efficiently as it will be maintained by qualified, dedicated and highly experienced systems and application software experts.

One major benefit of connecting all of the worlds business software systems to one integrated cloud computing platform, is the ability of all of these previously separate 'island of information' systems to talk to one another instantaneously over secure and reliable communications. This will free up workers from mundane and error-prone data processing tasks and allow them to express their creativity in designing innovative business processes and solutions to help their customers.

The current popularity of 'mashing' together social networking platforms is evidence that business workflow and collaboration is evolving beyond the corporate firewall. The next generation of business software will be fully integrated with both consumer and business oriented computing eco-systems, offering more standardised and seamless methods of business transactions.

Mr IBM himself, Thomas Watson was, as history has now proven, correct in his assertion that the world only requires about five computers. In the modern age, these are the massively powerful interconnected matrix style fault tolerant data centres currently being built and upgraded as you read this article. Welcome to the future.