



Communications technology

From desks to clouds

Laurence Gunn provides a rough guide to the past, present and future of electronic communications technology in reinsurance

(Re)insurance has some distinguished history when it comes to cutting-edge technology. Not many people know that US firm Golden United Life Insurance blazed a trail in 1969 by funding the establishment of CompuServe, one of the first truly successful commercial computer network providers.

That company helped to lay down some of the bedrock of today's internet and the worldwide web, a tool that is the pinnacle of quick and efficient communication and one responsible for a paradigm shift in business productivity. In an industry in which people need to exchange ideas and data worldwide at all hours, knowing how to make the most of what is available online is essential good practice.

Golden Life's brave decision in the late 1960s was perhaps not the start of a 40-year industry love affair with adopting all things new online. Consider this picture: before the ubiquitous information age, there were leather-bound desks at which sat underwriters and brokers with furrowed brows arguing, exchanging information and striking deals face to face. To take part, you had to be present, which meant an expensive-to-maintain office or personnel located near a trading hub such as Lloyd's.

This method relied on paper, post, telephones and a lot of manual effort, which inevitably meant data duplication and mistakes of error and omission, all of which were expensive to reconcile and a drain on profitability.

Gradually, dull-looking beige boxes appeared in offices, precipitating radical change. Maryann Fitzgerald, insurance sales director at industry software provider Eurobase, highlights: "The biggest changes in communications and technology have been the advent of personal computing and the internet, while specifically in the industry we've seen the introduction of electronic data interchange (EDI), accounting settlement and claims software, e-mail and electronic gateways [the support systems for message management tools (MMTs)]."

Support act

These evolutions and revolutions have been largely invisible yet are impossible to miss. In Lloyd's, it is probably the electronic communications standards that are most recognisable – they support trading and accountancy

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by being compatible with the diverse MMTs used by market players of all descriptions. Yet these would be largely useless without what underpins much of the electronic communications of the Lloyd's market.

The Lloyd's Exchange is a centralised, standardised electronic gateway developed by IBM. It operates essentially as a telephone

exchange, allowing trading parties to communicate trading information – such as validation data – using EDI and Acord standards. With the communications protocol among market players standardised, brokers and underwriters can then choose their preferred MMTs to work with. It is this area in which companies such as TriSystems, Yellowbox and Trace Isys compete with packages such as Universal Messaging Gateway, the eponymous Yellowbox and the OpenTwins suite respectively.

Atop The Lloyd's Exchange, EDI has been widely adopted across the London market. A worldwide business standard for information transmission, it has played a fundamental part in Lloyd's communications strategy for over a decade.

In combination with the Lloyd's Exchange, there is no doubt that it improved on the speed of paper-based message transmission, with business efficiency being similarly improved, though as a system it is perhaps now bound for the annals of history. Jeff Ward, director at industry software provider TriSystems, highlights: "EDI is now a legacy communications system. It has no real place in the push toward a brave new world."

The significant drawback of EDI is that it is not designed for human interaction other than error handling or auditing. Reading EDI means being able to decipher the coding around the message, making it difficult and, crucially, time consuming.

Acord-standard XML is now replacing EDI; at the moment, its takeup centres on two messaging data standards in the London market, those being reinsurance large commercial (RLC) and document repository interoperability (DRI). Its advantage over EDI is clear to Ward: "Acord XML gives an understandable representation of data as well as the content, so it conveys the same information as EDI but is much easier on the eye."

Likewise, accounts, premium payments, claims and other financial settlement communications are gradually moving away from EDI toward Acord XML standards. This move has required a similar hub to Lloyd's Exchange to be created for the market, a development called Swift that is being overseen by the Rüşchlikon Initiative.

Confirming EDI's popularity while pointing towards an XML-shaped future, Peter Arbenz, director of operations at Swiss Re and chairman of the Rüşchlikon Initiative, comments: "In reinsurance accounting and settlement, Swiss Re is performing one-quarter of its transactions through structured EDI with its business partners. We hope to increase this share [of transactions handled electronically] through the Rüşchlikon Initiative."

Acord XML has been around since the early 2000s and it is only now that real momentum is gathering behind its adoption in the London market. Julian Mancell Smith, chief executive officer at industry software provider Trace Isys,

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explains why he thinks this is so: "Integration is key to improving business processes, not just systems within an organisation but increasingly with those of other traders. Accord standards are widely used to achieve this, so systems need to communicate using XML and web-based services. Generally, it can be expensive to achieve this with legacy systems; the technology is not aligned with the new protocols and it can be difficult to commit sufficient resources with the right skill sets for the older technologies."

Ward believes that technology has needed to catch up with the industry's requirements: "Banking and securities deal in pure numerical data largely, while most primary lines are simple because they are commodities based. In personal motor, for instance, there are only 20 or so factors to consider, yet to insure a fleet of ships is much more complex. Reinsurance therefore starts from a different place: it is more textual, eye-to-eye and interpersonal."

"A plane crashes into an oil rig: how can you make that data fit a simple claims box? How do you define these risks simply? It's difficult to do. We can now take some business data and exchange it electronically not because we're now ready to as an industry but because the technology has now caught up. The banks' systems never had enough flexibility [for our needs]. We have to deal with a multimedia data set in reinsurance that includes transferring pictures and text."

Inertia

Human factors are also at play as a barrier to adopting new technology, though they are not simple to define. Richard Garnett, managing director at Yellowblox, says: "I believe at the core is the fear of change, that new technology might have an impact on jobs for people already working at a firm. This, clearly, is not the only reason and the employment issue can be argued either way: for example, many people feared that jobs would be lost by technology as a result of the Kinect project but this fell, unceremoniously, on its face only for a number of those feared job losses to occur anyway as a result of outsourcing to cheaper locations for administrative work."

"In a market whereby the compulsory end solution for many is likely to be a centralised market effort such as Lloyd's Exchange or electronic claims filing (ECF), the perception is that the concept of first-mover advantage becomes less important. Unfortunately, this is not the case because it will be the firms that have already embraced the electronic age that will be best placed to take advantage of new systems and technologies when they become the market standard."

"In the current market, many might think that expense is a factor but I'm not convinced: a number of firms have excess capital and would willingly invest in the right solution."

"There is also the basic fear of losing the tradition of the London market. Most



people in senior decision-making roles have grown up in a market where face-to-face is the defining element of their approach to business and they would not like to see this replaced with a keyboard and mouse. This is a viewpoint that I both understand and respect. That said, having less administration enables those people to spend more time face to face with their clients and prospects and working on developing the business while also drastically improving service times."

> Some business can be done completely electronically ... but for the complex risks this won't happen: Lloyd's will not become a department store. WARD

Garnett's point on new systems being a support and not a replacement for human interaction is one that Ward supports: "Trading parties will continue to meet face to face. It is this intellectual process that is a particular strength of the London Market."

"I think that some business can be done completely electronically – the commodity-based trading aspects – but for the complex risks this won't happen: Lloyd's will not become a department store."

"Intellectual brokers and underwriters come here to spar on behalf of their customers so that they get the best possible price. That won't turn electronic in the same way as the stock market. Simple business done electronically will give people more time to concentrate on the more interesting, complex risks."

Cloud ahead

If so much important business is still to be transacted in person, it is probable that the upcoming decision-making generations will make much greater use of smaller electronic devices such as smartphones: internet-enabled mobile phones that will provide a user interface capable of taking advantage of the next big step in computing and communications.

The latest buzz term in computing is the cloud, a term for a massive bank of remote computers owned by a service provider (such as Google, Microsoft or IBM among many other players large and small) that affords customers number-crunching capabilities, data storage and software remotely for use on any customer's computer, be that a desktop, laptop or smartphone. It is a system with significant benefits to users, though not without some equally serious drawbacks to be considered as well, namely data ownership and security.

Cloud-based trading applications for reinsurance do not exist yet. Garnett confirms that his company is engaged in board-level discussions regarding reinsurance applications, while Fitzgerald says: "Cloud computing has a future in reinsurance but it will be adopted slowly; this is more a psychological switch than a technological one. As a concept, software as a service (SaaS) and its pricing models have been around for many years."

"There is, however, a key limitation around data access and security that is reducing uptake: having access and running a system in-house improves security. What happens when a key external service goes down? Pay-as-you-go type services may have a place as well, though contract services are becoming increasingly price competitive."

The sheer size of the cloud makes it a cost-effective alternative to a purpose-bought supercomputer for large-scale raw data computations, while cloud software services such as Google Docs are also worth considering as a replacement to a productivity suite such as Office. If you think that the cloud is a fad then think again: Microsoft thinks it is the next big thing. The chief executive officer at the world's biggest software maker, Steve Ballmer, said in March that it was "betting the company" on the cloud in terms of its research and development, with 90% of its employees to be dedicated to research in the field over the next year. 