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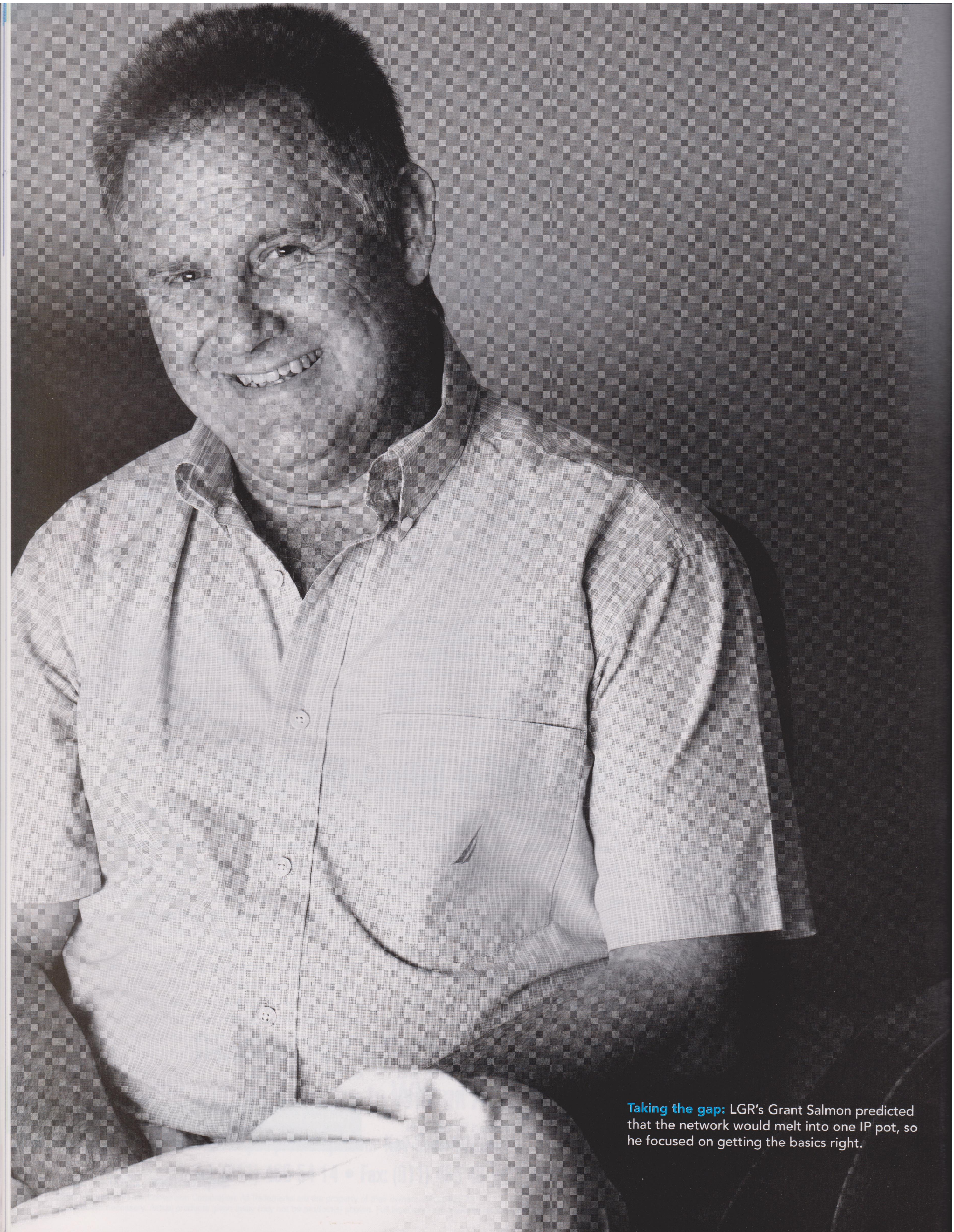
Grant Salmon,



Taking the gap: LGR's Grant Salmon predicted that the network would melt into one IP pot, so he focused on getting the basics right.

Not the usual suspects

written by **Pamela Weaver** photography by **Suzanne Cantale**

Centurion-based LGR Telecoms is up against the global big boys of telecommunications – and beating them.

Ask a random South African IT executive who they think runs the world's largest data warehouses, or who developed technology capable of processing billions of call and network data activity records daily and you're likely to hear the names of the usual American or European suspects. Apart from everyone's favourite space tourist, no one in this neck of the woods has ever really gone large in the international software space, right? After all, you don't go hunting for killer applications in Centurion...

Actually, you do, particularly if you're a big player in the cellular networking space. Because Centurion-based LGR Telecommunications has developed the sort of call data record (CDR) analysis and reporting software solution that leaves you thinking in terabytes, seeing anything with 'peta' in front of it as a real-world thing and wondering if the words 'holy' and 'grail' would make you sound hysterical. Maybe they would, but you'd be in good company. To date, LGR's client base reads like a list of who's who in the global cellular market. MTN? Check. Telstra? Check. AT&T? Check. So why haven't you heard of them?

Take three guys...

LGR Telecoms is owned and managed by its three founding members: Grant Salmon, Lucky Fatsilidis and Rory Mapstone. Over the past decade, the three have jointly designed, developed and marketed the CDRlive product, which they have grown from a relatively small base (albeit with MTN as its first customer) to contracts that see LGR systems tracking the call activity patterns of more than 100 million users around the world every day. If you like your numbers really big, that's the capture and retention of the data generated by three billion calls in every 24-hour period. The company's CDRlive product offers an enterprise CDR analysis and reporting database with a unique twist: not only was the product conceptualised and developed using local brainpower, but its ability to crunch, load and store massive volumes of records in real time (billions, rather than millions) using variable storage capability sets it apart significantly from its competitors.

"We saw early on that the whole network was going to melt into one IP pot, so we focused on getting the basics right and had the business acumen to make it work, and make it work quickly," says CEO Grant Salmon.

"The weak point for many telcos is their IT departments' complete focus on core operational systems like ERP and billing. They've got smart people running those systems, but they're not adding value to the data passing through their networks."

> **CDRlive has outlasted four CEOs at Telstra.**

Salmon says that in such an environment, a CDR is "fragile" rather than a source of valuable insight into new and existing markets. "Transforming data into strategic information is where the real business value lies; we believe we offer a distinct advantage in this area," he says.

With backgrounds including switch design at Siemens, programming at MTN and early days in the aerospace industry, Salmon, Fatsilidis and Mapstone felt uniquely placed to follow cellular networks into the boom time.

"We saw the gap in the market and went for it," says Salmon. "Rory [Mapstone] has an excellent eye for technology and understanding how to extract business value from it. Lucky [Fatsilidis] is a world-class programmer. Between us, we know not only how the technology works, but also how it adds business value – that's why we're successful."

Garbage in, garbage out

You've heard it all before, but it's worth repeating: the most valuable asset sitting in most companies is data. Insight into that data is golden; nowhere more so than in the cut-throat world of cellular providers, where players look to get an edge in a saturated market or take an early lead in the developing world. The global explosion, not only in cellphone usage, but in the availability and uptake of converged services and applications, has caused a lot of headaches for network providers but also offers unique opportunities for real insight into customer behaviour.

It all depends on the technology choices you make, says Salmon.

> "When you're looking to do business, it's really something to be able to say you have AT&T on board. That does tend to stifle arguments."
>
> Grant Salmon, LGR

"Telcos are no different than a lot of other companies. Most of them have data in silos, where its value is diminished. Like the financial institutions, the trend has been towards very delineated departments; IT and the network are often a part of that; they're kept separate."

With the data explosion fed by converging services and technologies, many organisations have been fire-fighting, flinging any technology they could get their hands on in an effort to control that information.

"The result has been that many providers were focusing too heavily on the operational side of the business – billing, pre-paid management and retail networks – to the detriment of the strategic side of things," says Salmon.

Your competitors could well be more profitable than you are, but you're too busy looking at operations to see that there might be more value in different strategic areas.

"That's where we come in," says Salmon. "Take AT&T as an example. LGR's technology was a key part in ensuring the ongoing success of their iPhone launch. "Without the real-time, complete insight into every aspect of the data generated by customers using that product line, or, indeed, the lessons learned from the testing phase, any edge they could gain over the competition would be negligible."

Salmon says that a key part of LGR's success with AT&T was their insistence that all the data generated be put into the CDRlive system.

"Sometimes you have to work hard to change the silo mind-set, but when the business side sees the financial value to be gained, it usually doesn't take long to pull everyone into line," he says.

"Everyone used to think that the engineering side of things was everything. When we developed our software and saw the applications, it didn't take us long to realise that we had the kind of data that no one else had."

According to Salmon, anyone can store CDR data. It's extracting the information that causes many projects to fail.

"People are so focused on gathering the data, they often forget to design for extracting information and getting the value from it," he says.

Pulse of the network

LGR is tapping into the pulse of the network. A key aspect of the company's success has been its ability to show businesses what that means in financial and strategic terms. Since partnering with LGR, Salmon claims that AT&T has been able to move into completely new directions and has also posted the lowest dropped-call rate in the American market.

Over in Australia, CDRlive has outlasted four CEOs at Telstra, disrupting the tradition that new bosses will inevitably rip out every last bit of technology installed by their predecessor.

"I think simplicity is one of our big strengths here," says Salmon. "A lot of the time, we install the solution in a low-key fashion and, as people see it performing, it slowly gravitates towards the core of the business as more and more departments see and get value from it. It's not rocket science, but it is a tough industrial product, which is probably why it survives in such a dynamic environment."

Salmon says that the business model operates around 60 percent development, 30 percent support and ten percent administration.

"As part of the process, we always involve our analysts who understand the data. In the end, we melt into the everyday life of the network and become part of the decision-making process," he adds.

It's interesting to note that, for a solution that's generating serious excitement in the international networking space, CDRlive is built on relatively humble ingredients.

"Lucky wrote most of the base code using assembler, while a lot of the applications are in Delphi," says Salmon.

"There's success in simplicity," which Salmon says can foster disbelief: "We get a lot of resistance initially. People don't believe this will work because it's on Windows and, depending on your requirements, will run on a laptop if that's what you need. But it also runs one of the biggest Oracle databases in the world and, of all our clients, only AT&T is on Unix."

With Fatsilidis behind the bulk of the original development, LGR now operates an engineering lab in Pretoria. Salmon points to the South African work ethic and the availability of "a lot of very clever guys" as one of the reasons for this. The company is, however, very much international in both outlook and focus.

"It would have been very short-sighted of us to aspire only to local success," says Salmon, "when we believe that our technology is cutting-edge everywhere. That's why, in some ways, we did things backwards. We went after the big global clients before we turned to extend our reach in Africa. When you're looking to do business, it's really something to be able to say you have AT&T on board. That does tend to stifle arguments," he chuckles.

LGR has offices in Centurion, Melbourne and Atlanta, with CEO Salmon recently having re-located to Atlanta.

"We have a world-beater under our belts. There's nothing like face-time with the customer – you've got to be where the business is," he says.

Even so, the company's commitment to the local market is underlined by a BEE deal that will see ownership of the South African operations transfer to LGR Africa. This part of the business will continue to service MTN as well as existing clients in Angola, Botswana, Uganda, Swaziland and Mozambique, while also seeking to expand into an ever-growing market.

Into the future

With some big contracts under their belts and more than a few irons in the fire, Salmon, Fatsilidis and Mapstone aren't thinking about selling up and buying an island in the Caribbean.

"We've had some great offers, but we're not ready yet. We're still enjoying it all too much," says Salmon.

Part of the continued interest is Salmon's firm belief in an IP future.

"Everything is converging onto one piece of hardware in a guy's pocket," he says, pointing out that AT&T is already offering IP television (IPTV) in the United States, placing the remote control at the centre of more than just a gender war in the home.

"You've got to keep monitoring that data. Yes, the volumes are huge, but we're already there. We can scale to ten billion records daily in a single instance of the software right now if the hardware can keep up with us. We understand where the network will need to go and we're proactive in our development process. We've proven very good at anticipating what clients will need, often before they realise it themselves."

By way of example, he says that AT&T's system can scale to 4.5 billion events per day, three times its current requirements, serviced by software with design roots that are a decade old.

"You can't have slow-thinking processes in such a fast-moving, dynamic environment," says Salmon. "This industry has a very sensitive rudder – it could turn a battleship on a penny. And we enjoy being in the middle of it all.

"In the States, it's practically a war; the networks will fight it out for the last subscriber. AT&T has 62 million subscribers in America. When we started out in South Africa with five million, we thought we owned the world. Now, we're in against the big boys and we're beating them," says Salmon.

If interesting times call for interesting, innovative measures, it's fair to say that this is one area in which South Africa is leading the pack. B

LGR's Rory Mapstone (left), Grant Salmon and Lucky Fatsilidis.

CDR analysis

The Amazon.com of network intelligence

Call data record (CDR) analysis has been around for some time but, as LGR chief marketing officer Paul Hartley says, convergence is adding the electronic data record to the mix.

"Analysis involves looking at any kind of communication that travels over the network, whether it's downloading music, watching mobile TV or a simple SMS. Increasingly, it's also about behaviour such as what the user does while they're waiting for that track to download," he says.

Hartley says that CDR reporting and analysis is to network intelligence what Amazon is to online selling.

"Every time a call is made, every piece of data it generates on the network, from handset performance to dropped calls or individual user profiles, CDRlive is able to extract that data and deliver it in a format that allows network operators to get real-time insight into the data generated on their networks," he explains.

Just as Amazon.com is able to use customer usage data to tailor everything from special offers to e-mails tempting you with the sort of stuff they know you like, CDR analysis allows network providers to figure out what they think they need to know about you.