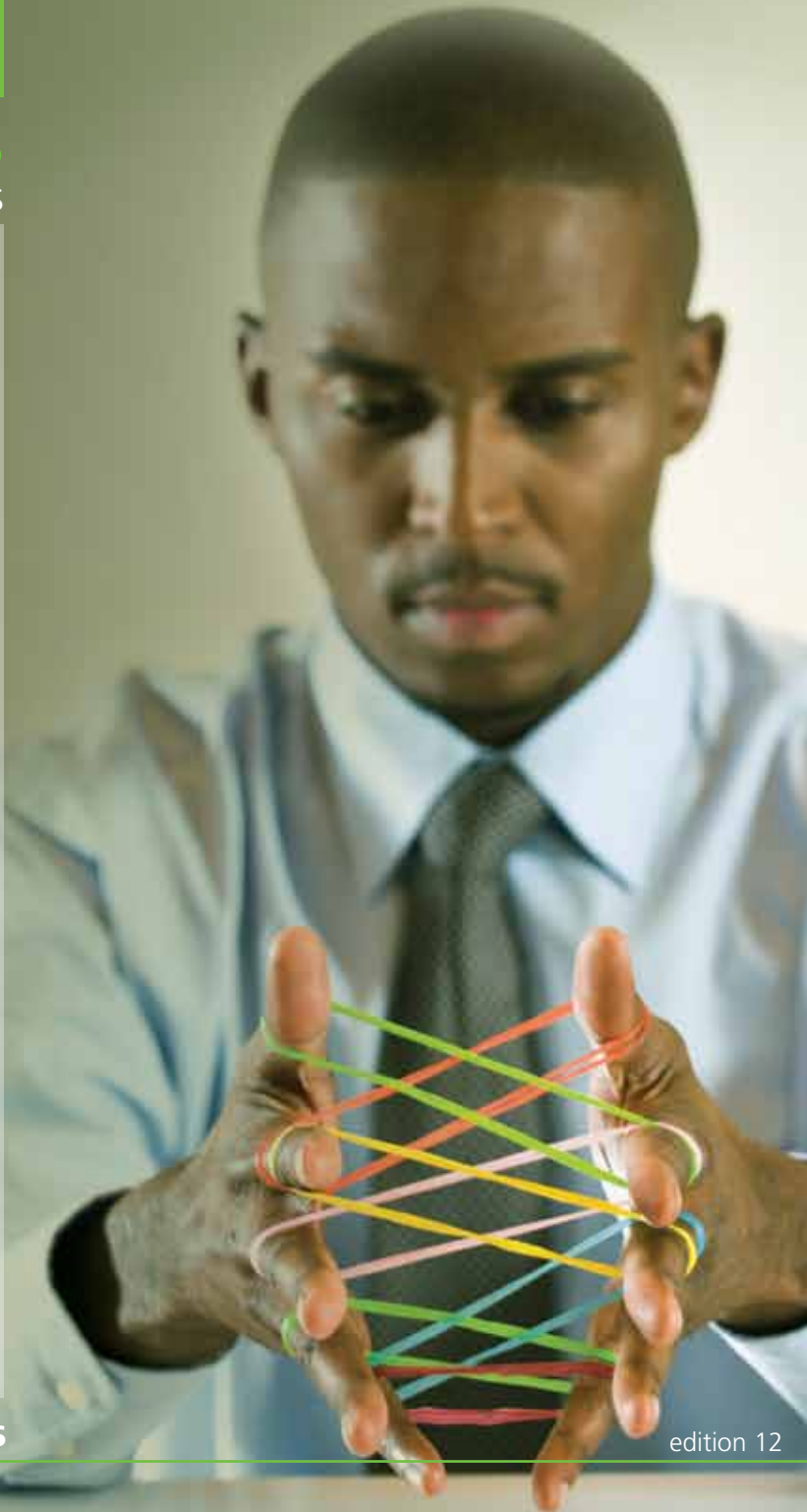


# ia

interactions  
talking with customers

## Interaction on Demand – (iOD) in a multi-tenant environment

Nicholas Clowes discusses  
Interaction on Demand and its  
innovative offering of customised  
solutions at an acceptable cost.



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We live in a world where identity theft is rife and losses to fraud amount to billions of dollars each year. Today voice biometrics – previously thought to be the stuff of science fiction – is leading the way in capturing identity thieves. Contact centres are getting help where they need it most in cracking criminal activity and catching known imposters.

## This Quarter: it's all about **value** through **innovation**

Organisations across the world recognise how important the customer experience is to their business. Facing stiff competition in a high pressure environment, companies are looking for new and innovative ways of differentiating themselves through great customer service. For businesses, this means striking a balance between the cost and value of service delivery. In this twelfth issue of Interactions, we look at how innovative approaches are helping businesses add value to the customer experience while driving costs down.

Our first article examines the value of Net Promoter Scores (NPS). By measuring customer satisfaction through a single question, companies are using NPS to boost brand loyalty, uncover new ways of driving revenue and predict future growth. By reaching out to the customer and asking them about their experiences, forward-thinking businesses are using NPS to stay in tune with customer needs as they evolve, making necessary changes to deliver consistently good service.

For businesses competing in a tough global marketplace, differentiation through service quality means companies have to be quick to respond to market needs. Our second article takes a look at Interaction on

Demand (IOD) and its innovative offering of customisable solutions on a pay-per-use basis. By removing the risk of managing the technology, companies can access the functionality and services they need, while being able to budget effectively.

For companies wanting to extend their reach, high communications costs have often prevented them from tapping into other markets. Our second article looks at Session Initiation Protocol (SIP) trunking and how simplified infrastructures based on IP are delivering lower costs and helping companies drive more business through their contact centres.

Our final article investigates how voice biometric technology is helping bolster security in contact centres. Voice biometrics verifies the identity of a person through their voice and is helping companies zero in on fraudsters who use social engineering and phishing to target call centre agents. Now widely regarded as a mature technology, it's also being used creatively for a host of other practical and social applications.

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Demand (IOD) and its innovative offering of customisable solutions on a pay-per-use basis. By removing the risk of managing the technology, companies can access the functionality and services they need, while being able to budget effectively.

I hope that you find this edition of Interactions informative and helpful in considering new ways of adding value to your business and your customers' experience. Please feel free to pass this on to any of your colleagues who might be interested.

Best wishes,



**Martin Dove**

**Managing Director,**  
Customer Interactive Solutions

## Understanding the client experience through **Net Promoter Scores**

It's a simple concept with a powerful effect for contact centres and businesses across the world. By measuring customer satisfaction through a single question, companies are using Net Promoter Score (NPS) to boost brand loyalty, uncover new ways of driving revenue and predict future growth.

Merchants Business Unit Manager for iiNet, George Todd, says organisations are looking to their customers for answers.

“By reaching out to the customer and asking them about their experiences, forward-thinking businesses are using NPS to stay in tune with customer needs as they evolve, making necessary changes to deliver consistently good service”.

NPS can be used as an innovative measure of service quality and delivers real value to businesses by tracking customer interactions and experiences. The customer is asked a simple question – “how likely is it that you would recommend our company to a friend or colleague?” Recommendations are rated on a scale of 0 – 10 and through this, organisations are able to predict how likely they are to retain existing customers and therefore the level of future growth they can expect.

As Todd explains, customers who rate highly are regarded as promoters or brand ambassadors and are extremely likely to recommend a business or product.

“At the other end of the spectrum is the detractor – someone who is unlikely to recommend you to a friend or colleague, or worse – discourage others from using your company. The object of NPS is to increase this ratio of promoters to detractors through improving service quality and ultimately helping to drive business growth”.

“Above all, if you want to use NPS well, you need to make exceeding customer expectations your culture. **To deliver an awesome customer experience, you should keep sight of the behaviours** that impact NPS scores and the effect of each on them.”



## Can it be that simple?

In short – yes. The question about whether or not the customer would recommend the company can either be asked alone or as part of a short customer satisfaction survey (which is the more common option). Asked via e-mail, online or telephone, it is simple for customers and employees to understand, says Todd.

“Now compare this to the plethora of customer satisfaction metrics, pored over every day by contact centre and business managers and you can see why NPS holds so much appeal. It’s something so simple, everyone can understand it”.

Apart from the question being easy to ask and understand, the potential for a rapid response rate means organisations can get a real-time picture of their service quality. While it may be useful in predicting the future growth of the business, a well implemented NPS programme adds its real value by providing a direct representation of the quality of each and every customer interaction. Thus for the contact centre industry, NPS is an invaluable measure of quality and service delivery.

If companies choose to ask one or two more follow-up questions – the reasons behind the ‘likeliness’ to recommend for instance – the information becomes even more valuable, explains Todd, who has worked within NPS-focused contact centres.

“Having learned the value and power of NPS firsthand, I believe its strength is that it offers businesses a

fabulous opportunity to really understand their customers, identify weak points and then work on them to build a really strong service profile.

In fact, most organisations using NPS have discovered that the best way to learn how to improve their business is simply by listening to their customers”.

## NPS at the heart of a business

Every contact centre is already aware of metrics such as first call resolution (FCR) or average handle time (AHT) and uses them to audit and monitor calls, as well as assess the quality of customer interactions. However, as Todd points out, these and other metrics tend to measure internal or external standards.

“The power of NPS over other metrics lies in the data it generates from customers about their experiences with the contact centre. It isn’t just another performance metric – it tells us what our customers think about our service quality”.

Todd suggests that NPS can be measured at different times, either directly after an interaction (Transactional NPS) or independent of any interaction (Relationship NPS). The important factor is to track NPS consistently.

“While it may be useful in measuring customer propensity to recommend, there is also great value in being able to measure how likely they are to stay with your company. There is a very strong correlation between NPS and churn.

Across the wider organisation, you can see that the NPS number tells you a lot about how profitable you can expect to be. The simple fact is an existing customer is always more profitable than a new one”.

Setting NPS as an organisational target for everyone, means recognising that every person has an influence over the quality of the customer experience. It can be used to fundamentally change the way an organisation behaves through linking everyone’s targets and objectives to NPS, irrespective of whether they work in a customer facing role or not.

Todd says that any changes in staff commitment to customer service are apparent almost immediately.

“On the days where we deliver only good service, we see passive scores. On the day we go the extra mile, the energy on the floor is high and staff members are motivated by the direct and instant connection between their efforts and the customers’ positive responses”.

## Embracing NPS

A successful NPS strategy can deliver numerous benefits to a business, over and above the improvement of customer service levels, says Todd.

“Having worked with organisations in the past, contact centres driven by NPS can help spot broken processes which negatively affect customers. This can be really powerful, since many of these will be negatively impacting the organisation too.

Above all, if you want to use NPS well, you need to make exceeding customer expectations your culture. To deliver an awesome customer experience, you should keep sight of the behaviours that impact NPS scores and the effect of each on them”.

Central to the successful implementation of an NPS strategy is a top down commitment to creating a culture that recognises the ‘customer is king’. The next step is working out how you deliver an outstanding customer experience and committing to doing whatever it takes to make it happen.

Todd explains that as a member of an organisation, if you are able to see why the profitability of the business, and thus bonuses, are linked to customer service, you’ll have a greater understanding of ‘the big picture’.

“The end result is the creation of a place people are happy to work in. Companies demonstrating quality world class customer service do so because they understand the link between this and profitability. Achievement, pride and financial benefit are all inextricably linked to the successful delivery of an NPS strategy”.

### A fresh approach to outsourcing

One of the key challenges for outsourcers today relates to influence over their clients’ businesses, explains Todd.

“For outsourcers to deliver against NPS strategies and add value to their client’s business, each individual must feel engaged with the client organisation and believe they have an influence over the way processes are run.

This demands a big move away from the traditional business model”.

Working with iiNet, a leading Australian ISP, Todd says the secret of their successful NPS strategy lies in its efforts to ensure that each individual feels connected to the client company.

“Individuals may be based on different continents, but effective training and empowerment has led to them feeling truly connected to the company they represent”.

To get it right, the outsourced centre had to be run as part of the same organisation.

Both Merchants and iiNet have changed their mindsets to ensure outsourced staff is treated the same way as any other staff. But it wasn’t always that way, says Todd.

“We started using the old approach based on SLA contracts and that didn’t work. Now we’re hitting our highest quality of customer service ever. Through a relationship based on great communication, transparency and trust, both sides work as partners to directly influence and drive the customer experience”.

From an outsourcer perspective, it has helped to brand the contact centre as a client site and do things like integrating HR systems to mirror the client’s processes and systems.

“While it might be a bit more complicated for you as an outsourcer, it makes the integration seamless and if staff are treated the same way, they behave the same and deliver the same high level of customer service”.



## Making NPS work for you

The most important thing about NPS is to understand what it means and using the information to solve problems as they arise. To truly make the most of NPS, Todd advises using regular NPS surveys and reviewing comments in real time.

“Don’t focus on the scores themselves, but read every single survey to instantly address concerns before they

mushroom. Customers can perceive staff commitment to great quality service and, quite simply, if your staff are living and breathing the brand, customers are happy and so are staff”.

While NPS may not be a perfect fit for every contact centre – especially those with high volume, short duration calls where efficiency is the most important factor – it is excellent for service-oriented call centres and technical help desks.

Across the globe, every company faces growing competition in a tough marketplace. Forward thinking businesses will be those that empower their agents to do their best for customers. By adopting a more fluid approach to process optimisation and being agile and quick to respond to their markets, organisations can ensure they impress their customers and boost their bottom line. For NPS to work, it means living service - pure and simple.

## About the author

**George Todd** is a Business Unit Manager for Merchants SA based in the Western Cape region. He has been involved in the Customer Service and Contact Centre industries since the mid 90’s. George’s passion is the development of skills and

performance within service oriented environments to create a world class customer experience – from developing innovative training programmes through to the set-up of operational performance systems and tools.

George has a history of developing innovations to harness operational creativity and produce business benefits. His coaching experience has given him an impressive record of success in facilitating real change within the companies he has worked with.

## **Interaction on demand** in a multi-tenant environment

It used to be that companies using cloud computing services were limited by what was on offer. In order to keep costs down, businesses would have to accept standardised applications and sacrifice on specific features to service their customers. Now, Interaction on Demand (iOD) is firmly in the spotlight with its innovative offering of customised solutions at an acceptable cost.

Facing tough conditions in today's global marketplace, companies are looking for ways to stay competitive through focusing on their core business, differentiating themselves through quality service and cutting costs. iOD provides organisations with access to best of breed technology, functionality and service on a pay-per-use basis.

Innovation is at the heart of iOD, explains Dimension Data's Customer Interactive Solutions (CIS) Commercial Manager Nic Clowes.

"By removing the headache of managing the technology, iOD absorbs client risk and places it squarely on the shoulders of systems integrators like Dimension Data. By focusing on their core business, companies can then hone in on quality customer service and budget effectively".

### Pay for what you use

iOD is a managed services based solution that gives contact centres the ability to rent the technology they need by agent, by function and by month. Facing increased pressure to improve their customer experience, businesses have recognised the pivotal role of the contact centre in gaining a competitive advantage.

"Speed and agility are key elements in meeting market requirements for improved service, but businesses often have to over-invest in technology to meet peak requirements instead of normal business loads",

"What sets iOD apart from other hosted solutions is the degree of customisation on offer – **contact centres can literally pick and choose the services they need.**"



says Clowes.

“Through usage based pricing, iOD ensures companies can save money through easy scaling for busy periods and growth and only paying for the functionality and agent seats used”.

By sharing the platform with other users in a secure multi-tenant environment, users are able to access carrier grade functionality at a lower cost per seat by benefiting from the related economies of scale. The feature-rich functionality of iOD means smaller businesses can offer their customers contact centre functionality only normally available to larger organisations. All these companies need is a broadband connection for agents to access these features over an IP network.

As well as being easy to use, the appeal of iOD for contact centres lies in its flexible offering of Dimension Data’s CIS solution sets, adds Clowes.

“iOD is all about how the different solutions are packaged to meet specific company requirements – using the solution sets Contact Centre Integration (CCI), Workforce Optimisation (WO), Interaction Management (IM) and Self-service”.

## Contact centre integration

In a contact centre customer communications occur through a variety of media. Customers may ‘call’ via telephone, web chat, fax, e-mail, SMS (text messaging) or emerging social networks, and

the centre must be equipped to efficiently process, respond to, and record all such contacts. Our Contact Centre Integration (CCI) solutions integrate disparate technologies and communication channels into a holistic solution to meet specific business objectives. CCI gives organisations a base from which to implement world-class customer management strategies, allowing for a strong return on investment as well as immediate cost savings.

## Workforce optimisation

Ensuring agents are effective and productive in interacting with customers can be enabled and enhanced through using the wide array of performance workforce management tools available. Making sure that these tools are utilised to their full functionality and are actively used in empowering agents to deliver good service is the challenge of workforce optimisation.

Dimension Data’s workforce optimisation solutions focus on ensuring agents are correctly allocated and provided with optimal support to provide consistently high levels of service to your customers. Our solutions include consulting, implementation and ongoing support across business processes, technology deployment and integration for:

- Competency management
- Workforce management
- Quality management
- Performance management, and
- Associated operational processes and procedures.

## Interaction management

Today’s customers contact organisations through any number of communication channels and ensuring that information and customer relationship strategies are effectively used to drive value across all these channels is essential – both as a source of competitive advantage and to drive down interaction costs.

Our Interaction Management solutions focus on developing and extending effective customer relationship management into the call and contact centre through:

- Desktop applications that manage contacts, transactions, service requests, etc.
- Campaign management to ensure effective outbound activities;
- Extending CRM applications to correctly target and provision self-service, and
- Interaction optimisation to ensure each interaction is optimised for cross- and upselling.

## Self-service

Self-service applications give organisations the chance to provide customers with good user experiences while at the same time achieving service consistency and reducing the cost of interactions.

Self-service solutions:

- Improve customer service levels and service availability
- Build greater customer loyalty and increase barriers to switching
- Reduce the cost of service per transaction and customer

- Increase agent productivity levels

Dimension Data's self-service solutions extend across multiple channels (web, e-mail, Interactive Voice Response (IVR), speech recognition, synthesis and verification, SMS or text messaging, and self-service terminals) and place the user experience at the centre of our design and development.

Our solutions include application development, technology integration and deployment as well as user interface design and persona development. We work closely with organisations' customer service, marketing and branding teams to ensure the right interaction is developed for the right customers, using interfaces, structures and language that they will understand and find easy to use.

"What sets iOD apart from other hosted solutions is the degree of customisation on offer – contact centres can literally pick and choose the services they need", explains Clowes.

"Then, it's a case of simply connecting to the platform and without having to own the technology, you can almost instantly access the benefits and features of the services on offer.

Speed to market is improved and organisations can buy what they need, without wasting money. Organisations can purchase single components of the iOD offering in a bureau type service thereby bolstering their existing contact centre infrastructure, and by only billing for services in arrears, iOD also helps companies budget effectively".

### To own or not to own?

For many organisations, unless they have a large environment with thousands of seats, contact centres are a very expensive venture. For smaller companies, this often means they are unable to access carrier grade contact centre functionality due to cost. iOD solves this problem by providing smaller contact centres with access to carrier-grade technology through economies of scale.

As Clowes points out, support costs can also be prohibitive.

"Ongoing maintenance and licensing costs can be very high. Many companies don't want to have to operate an IT environment and would prefer to stay focused on their core business. By running the contact centre on their behalf, iOD ensures the customer interaction remains the focal point".



As a managed service, iOD is linked to guaranteed business SLAs and delivers a cost effective solution for most companies. It also ensures businesses don't have to hire expensive technical staff and helps ensure costs are predictable and properly managed without any hidden surprises.

For very large companies or those wishing to own and maintain their own contact centres, iOD may be appealing for different reasons.

Companies with large centres can afford to run, support and maintain their own centres and may look to iOD to help them with their business by adding new functionality and solutions to existing ones. Examples of these would be seasonal campaigns or outsourcing of the quality adherence or workforce management functions.

## Moving into the future

Contact centres move through different stages of maturity in their lifecycle. Depending on where they are, their needs will be different, explains Clowes.

"Most centres will have some basic inbound and recording and depending on the information gained through reporting, different

behaviours may be indicated. It may be that there are services that could be delivered through self-service, for example, using less people and ultimately costing less money".

iOD recognises that contact centres will evolve over time. For companies, this means they are able to adapt their requirements and grow their contact centre in the right direction to add value to their customers while delivering cost savings.

"Reporting tools often indicate opportunities for such growth and by working with systems integrators, businesses can build a case for return on investment (ROI). The report may indicate a need for self-service applications or a WO platform – and with no risk to the business, if it doesn't work, it can simply be turned off",

adds Clowes.

By hosting, monitoring and managing the contact centre applications around the clock, risks and costs are kept under control. Contact centres are no longer about IT. They are integral to any business' strategy of delivering quality customer service and all money spent should directly benefit the customer.

Clowes hopes to see the concept of iOD grown internationally.

"With customisable, hosted platforms provided on a global basis, contact centre hubs of iOD may well be the future for companies needing to focus on their core business. With low risk access to the best technology, customers can look forward to excellent service and companies can enjoy the benefits and boost to their bottom line".

## About the author

**Nicholas Clowes** is Commercial Manager for Dimension Data's Customer Interactive Solutions in South Africa and has 11 years experience in the IT industry.

Nic is a Chartered Accountant who has concentrated on financial models to allow industry in South Africa access to the depth and breadth of contact centre functionality. He has adopted Dimension Data's Hosted contact centre offering (Interaction on Demand – iOD) and continues to deliver on-demand contact centre functionality to those who require service in a flexible environment.

## **The pragmatic benefits** of SIP trunking for contact centres

It's not new, but it is clever. Session Initiation Protocol (SIP) trunking has been around for over a decade and is already widely used for communication by companies across the world. Built on an IP backbone, SIP trunking allows companies to replace traditional fixed lines with connectivity from a Service Provider delivered as a data circuit over the Internet. Through simplifying complicated infrastructures and driving costs down, companies are looking at how SIP trunking can help drive further business through their contact centres.

Offering significant cost savings by eliminating the need for local gateways and costly interfaces, SIP trunking is an effective solution for companies wanting to use their traditional telephony networks and communicate over IP, both within and outside the enterprise. As heavy users of voice infrastructure, contact centres also enjoy the benefits of SIP trunking in uncomplicated communication infrastructures and reduced telecommunication costs.

Businesses are also under rising pressure to extend their reach beyond local markets to stay competitive. However, the stark reality of high communication costs means many companies are unable to tap into these markets. To access global customers, organisations have to be able to maintain contact centre phone lines and support calls. It is for this reason that SIP trunking is proving to be a valuable alternative.

### A business model shift

Traditional telephony has always involved the physical laying of copper lines that are carried into a business to support a call. Using SIP, these physical lines are being replaced by a new model using virtual IP to IP calls.

Dimension Data Solutions Architect Bob Zanett explains that over its 10+ year history, SIP has a long track record for its performance in the market.



“In addition to being **cheaper** and **simpler to manage** and **maintain**, SIP enables better collaboration...”

“Already in wide use on the internet, SIP is a flexible IP based protocol that controls the communication between two points. At a high level, SIP controls a contact (voice, video or other type session such as presence) and manages the set up, tear down and control of that contact”.

A Principal Consultant for Dimension Data in North America, Mike Reilly says SIP is moving into a new, more commercialised era.

“While it’s been around for a while, SIP is the main protocol used with instant messaging (IM) – Skype in particular - using video and voice. In fact, without realising it, we’re often using it in our everyday communication. Now we are seeing a serious shift for SIP into the business world”.

## A new era for business communication

Zanett points out that SIP is opening up a broad range of opportunities for businesses and contact centres alike.

“Carrier companies have been using it in the back end for a long time. Now, we’re evolving to a point where we can use one signalling protocol from end to end. While it’s typically being used for voice and video now, the future possibilities are endless. SIP is open and flexible and once companies have overcome the interoperability challenges between two different set ups, transfers will be seamless”.

For businesses, the fact that SIP is scalable helps keep costs down and improves their response to market conditions, adds Zanett.

“Because it’s a flexible solution for handling calls, instead of having to order more lines and pay for them all year round, companies can simply modify their bandwidth to cater for peak or seasonal call flows”.

For seasonal companies that do most of their business over particular periods in the year, SIP trunking delivers incredible savings. By being able to change their requirements ‘on the fly’ to cater for an increase or decrease in calls, companies can now only pay for what they use.

As Dimension Data CIS Practice Director Grant Sainsbury explains, this scalability is no longer tied to a number of cables or lines because IP is a function of bandwidth.

“Traditional telephony meant only being able to handle one call at a time. Prospective customers would get a busy tone if they called at a peak time – clearly a situation any company would like to avoid. With an IP-based solution, you could be licensed for a certain number of lines and then ‘burst’ to cope with more calls as and when you need to”.

SIP technology is a simple solution using Ethernet connections which delivers cost savings for heavy call volumes. As well as being able to handle multiple calls on one line, SIP is helping centralise multiple remote sites in businesses. By centralising them virtually and scaling back the physical lines to reduce wastage, a reduced infrastructure equals less cost. SIP technology can deliver this benefit without sacrificing on opportunities to reach a global market.

## Opening up the market

Some of the top geographical challenges for businesses in reaching wider markets include working out how to market directly to these customers and how to budget for it. Typical listings in the yellow pages will require hundreds of local numbers to distribute to all the areas, and the associated costs can be prohibitive for some companies. SIP trunking is different. With data connectivity, organisations can receive calls that originate anywhere for the cost of a local call or cheaper.

Sainsbury explains that in the past, many companies have offered local or toll free numbers to customers.

“For multinational companies reaching large markets, buying and supporting these lines may well be affordable. But it’s quite a different story for a smaller regional company wanting to go after a bigger market. Often the decision between providing local or toll free numbers depended on cost. And if you consider that numbers, once published, have a life of about 10 years, it’s a decision you want to get right”.

The next hurdle in managing many different contact numbers involves routing calls to call centres in other areas.

“Companies have to either get their customers to call another number (which is very hard to do) or forward the calls on to that centre. This translates into higher service costs and more reporting challenges as they are unable to track and trace who was dialling”.

Zanett agrees that the dial plan design offered through SIP trunking is more manageable for organisations.

“Companies may have multiple locations nationally with their own numbers. Possibly directing these numbers to one central location is infinitely easier to manage from a company perspective. SIP allows for the provision of local and toll free numbers that can be routed through one location to the business. It also enables more freedom in how numbers are routed and provides more detailed information on the history of the call. For businesses trying to expand their reach and profile their customers, this kind of marketing information can be invaluable”.

From a customer point of view, it makes it easier for them to reach you, adds Reilly.

“Companies can now manage calls simply while still giving a local feel but achieving a national reach. Using the principles of virtualisation, customer calls are picked up by new generation SIP carriers and, transferred to the business, saving money and delivering a simpler, slicker operation”.

For businesses and contact centres, it can help avoid trying to republish numbers or effect a change in behaviour. A more open market with the ability to dial a number from wherever you are ensures companies can receive calls for less and change their ‘go to market’ strategy.

## A host of benefits

In addition to being cheaper and simpler to manage and maintain, SIP enables better collaboration, explains Zanett.

“Not being tied to voice or video, it supports the transfer of other information and improves the quality of an interaction. For example, by being able to send presence information or vCards, it opens other channels of communication to flow freely”.

Limited only by the amount of available bandwidth, companies are supporting more remote teleworking and saving money by using SIP on the back end for phone calls. And with more people using their PCs and video for communication, more personal interactions can significantly improve collaboration between companies, their staff and their customers. Companies can realise another benefit in call recording, adds Zanett.

“In the past, recording had to be tied to physical lines and was a costly infrastructure to support. Because SIP rides on an IP data network, businesses can simply record and listen to inbound IP calls for less without being bound to phone lines”.

Reilly says the benefit of SIP trunking for carrier service providers is centred around their ability to offer next generation solutions to customers.

“Improved competition means new vendors are entering the market to offer more choice, while offering the same service for less”.

For businesses, this is excellent news. Improved choice means better leverage in contract negotiations, adds Zanett.

“Companies can use multiple vendors while only having to commit to limited connections. In being able to decide which carrier to use for what, organisations have better control over costs and where and how they route their calls”.

This flexibility and improved choice can be a critical success factor for some organisations, adds Reilly.

“For large companies with large sites and many lines, the decision to opt for SIP technology may not rest on cost savings alone. They may instead need more flexibility and scalability in, for example, centralising their phone numbers into one location. Another example may be internal calls within a company and getting internal customers to use SIP connections to call each other, amounting sometimes to a two-thirds cost reduction. For companies with many locations, improved control leads to significant savings”.

## Through the chasm

Zanett suggests there has been a huge shift through the chasm – a period between the early adopters and pessimists where the mass majority start using SIP trunking.

“While there will always be some companies that take a more conservative approach, the benefits offered by improved Business to Business (B2B) collaboration

and simpler technology are helping companies reach their customer base simply and effectively”.

Past interoperability issues between companies are being ironed out and quality of service continues to improve and is already very good with data and video. Working with a systems integrator like Dimension Data can ensure effective implementation of SIP and help realise specific objectives within the organisation's communications strategy. Reilly suggests that companies should do a return on investment exercise based on current telecommunications costs.

“You will probably find that you are not using your full peak capacity. A move to SIP means taking the leap to a new technology for a real cost benefit”.

We are entering a new era in communications through SIP trunking. Moving away from an old business model, companies can now be more flexible and responsive to their markets while enjoying a large business feel. By enhancing their ‘go to market’ strategy, organisations can increase their access to a wider market and with better communication infrastructures and slicker operations, can begin to reap the rewards of cheaper access to a global market.

## About the authors

**Bob Zanett** – Solutions Architect, Customer Interactive Solutions (Americas). Bob has been with Dimension Data for just over a year. With a strong background in route/switch and IP telephony, Bob designs and architects global enterprise contact centre solutions.

He is responsible for validating customer business goals and requirements and aligning solutions to meet those objectives. The solutions encompass the gamut from agent-based contact centres to email and chat, while utilising text-to-speech and automatic speech-recognition. Previously, Bob was engaged in guiding a global medical manufacturer's unified communications strategy with deep in-roads into SIP-based solutions, including turning up one of the first SIP trunks for a leading ISP.

**Mike Reilly** – Principal Consultant, Customer Interactive Solutions (Americas)

Mike has over 10 years' experience architecting, implementing and supporting enterprise convergence solutions in a variety of IT computing environments. Mike is tasked with

delivering Dimension Data's Contact Centre Integration Assessment to help customers align business objectives and operations with the appropriate technologies.

He also works with Enterprise customers to create a long term vision for their contact centres and has assisted in the design and implementation of the Cisco Converged Communications Manager solution and Unified Contact Centre.

**Grant Sainsbury** – Practice Director, Customer Interactive Solutions (Americas)

Grant Sainsbury is the Practice Director for Customer Interactive Solutions (CIS) in Dimension Data Americas. He is responsible for strategy, sales and services delivery across the CIS portfolio for contact centre clients.

Grant has been with the Dimension Data group since December 2001, joining Dimension Data, UK as a solution architect in the CIS business after working with Cisco Systems and GeoTel. He has been working in the contact centre space for over 15 years after starting work as a business analyst, systems engineer and developer for complex contact centre solutions in the mid-1990s.

## Voice Biometrics

Value through voice biometrics where you need it most

We live in a world where identity theft is rife and losses to fraud amount to billions of dollars each year. Today voice biometrics – previously thought to be the stuff of science fiction – is leading the way in capturing identity thieves. By verifying the identity of a person through their voice, contact centres are getting help where they need it most in cracking criminal activity and catching known imposters.

As Dimension Data's Regional General Manager for Customer Interactive Solutions (CIS), Simon Cranswick explains, the value for contact centres in using voice biometric technology includes reduced losses to fraud, slicker operations through automation and less risk at their weakest points.

“Fraudsters often use social engineering and phishing to target call centre agents to divulge information. By bolstering security at the point of interaction, the technology is also being used to tighten other security processes by working in tandem with various applications. It is now even being used creatively for a host of other practical and social applications”.

### It's all in the voice

Voice biometrics, now widely regarded as a mature technology, is used to confirm the identity of a person through their voice. Working on telephone and non-telephone systems, it's less about how the voice sounds and more about the mathematical representation of a voice. As unique as a fingerprint, each person's voice has specific and unique characteristics.

As Cranswick points out, the resultant voiceprint file is encrypted and is not the same as an audio file. It even works regardless of the language being spoken.

**“Add the value of better authentication to the convenience of not having to remember at least 10 different PINs and passwords,** and it becomes obvious why voice biometric technologies are winning favour across the globe.”



“Voice biometrics is quite similar to PINs (personal identification numbers) and fingerprints. In fact, it could even be argued that it is a more secure technology and has already been upheld as reasonable witness in court cases around the world”.

Voice biometrics verifies whether the speaker is an imposter or not and, as with any biometrics Cranswick explains, it uses statistical calculations to determine with confidence whether the person is who they say they are.

“Through careful implementation, testing and tuning, businesses are able to rest easy in the knowledge that the person’s identity is accurate. For companies, the value of reducing their losses to theft can be significant. If you consider that fraud through identity theft amounted to more than R1bn in 2008 in South Africa and costs US consumers and businesses

over US\$50 billion annually, the figures are staggering”.

### Part and parcel of security

However it has come about, the most important motivating factor for businesses in adopting voice biometrics technology is security and reduction of risk.

“If we look at financial transactions in the USA, we see voice biometrics used as part of a security arsenal for authentication”,

adds Cranswick.

“Using multi-factor authentication for all financial transactions, customers are asked about something they know, something they have and something they are”.

On the telephone channel, voice biometrics can support multi-factor authentication by first asking customers something they know and then confirming who they are through their unique voice print.

### Making the case for voice biometrics

Central to the business case for voice biometrics is the time saved by agents to authenticate. Cranswick explains that for every one million calls, if businesses use automated systems to save 30 seconds spent on questions, they could save up to half a million US dollars.

Cranswick says that consumers and businesses across the globe are more receptive to voice biometric technology than before.

“It has taken off over the past two years and, while it took some time initially to develop a trust and understanding of how it works, people are confident about its delivery of real cost savings”.

Recognising that nothing is 100% secure, voice biometrics, along with any other biometrics such as fingerprints, should form part of an overall security risk policy strategy in an organisation. For most banking customers, the additional layer of security provided by voice biometrics means they can feel more confident about the level of protection over their assets and personal information.

Cranswick observes that banking customers in voice biometric focus groups are excited about the technology.

“Perhaps most interesting is the fact that once customers understand how it works, they are keen to embrace this technology above any other biometrics”.



## Adding value to the contact centre

In considering security strategies for contact centres, agents are widely known to be the weakest line of defence against fraud. By using voice biometrics for authentication processes, the burden of responsibility is removed from agents, allowing them to focus on the interaction itself.

It can also be used to automate other processes like resetting passwords. For help desks, this can translate into a huge reduction in the time wasted on manually resetting network and internet passwords.

Cranswick adds that agents recognise that voice biometrics can help them to do their jobs.

“Agents know they are often the targets for fraud and already feel more secure knowing there is another authentication layer. So when a call reaches an agent, the caller has already been authenticated, saving time spent on handling the call. For agents who are always under pressure, this means they are better able to focus on the delivery of great service in less time”.

## Fit for purpose verification

Voice biometrics is used in many different ways in authentication processes. Going beyond financial transactions, it can be used within a host of different applications. Organisations should first consider where and why they want to use voice biometrics. Once the purpose is established, they

can choose between three core methods of verification,

1. **Text dependent verification** – often used in self-service where the caller has to say a pass phrase or a string of digits;
2. **Text independent verification** – used in the background while a caller is in a normal conversation with an agent;
3. **Voice mining** – often integrated with the other methods, the identity of a caller’s voiceprint is compared with a database of known prints and used to identify known fraudsters.

Cranswick explains that the choice of verification method really depends on the organisation and its customers and can be used to add value to the customer experience.

“For text dependent verification, used on IVRs or for access to self-service, companies may choose to ‘brand’ the phrase used as a voice password by customers.

On the other hand, where high profile customers don’t want to be bothered, companies may choose to verify the voice in the background, so as not to inconvenience their customers (for example, a banking environment serving high profile and very busy clients)”.

Voice mining is incredibly useful in the security environment and financial institutions. Through storing voice prints in offline and real-time databases, companies are able to identify known fraudsters almost immediately and proactively prevent criminal activity at their weakest points.

## Going beyond the obvious

Voice biometrics was first used and developed in a security environment, explains Cranswick.

“It was later developed and commercialised and early adopters of the technology included several large financial institutions and telecommunications companies. Because it offers more options than any other platforms, other smaller banks and kiosk businesses worldwide are integrating voice biometrics into their authentication processes and have begun testing to roll it out across their business”.

The value of voice biometrics is extending to other practical and social applications, explains Cranswick.

“By taking the fingerprints and voiceprints of detainees at the same time, criminal justice systems in countries such as Spain and Mexico are using voice biometrics as part of an integrated justice cluster to handle the management of detainees to court and within correctional services”.

Authorities are even using the technology for parole management and, in the case of the Netherlands, known football hooligans receive automated calls to their homes to manage their conditions of house arrest and ensure they are at home during games.

Governments can now clamp down on pension fraud through being able to identify and verify the people claiming their monthly pension payments. Retail stores can use speaker verification at kiosks or self-service checkouts

without having to use cards or PINs. Mines will be able to prevent illegal mining through more effective employee verification via voice access to sites and time clock systems.

Companies can verify the identity of callers automatically when requesting an account balance or a money transfer. Voice biometrics can even assist in the verification of web users of secure systems and credit card payments can be secured through an automated call to the user. And, as Cranswick points out, the costs are by no means prohibitively expensive. In fact, voice biometrics is much cheaper than fingerprint biometrics and adoption of the technology is growing in countries like the US, Europe, Middle East, Japan and South Africa.

Concern is growing over identity fraud and theft. For companies, it increases their risk and can be hugely detrimental to customer relationships. For customers, their choice of company or supplier may well depend on its commitment to providing robust security to protect their data.

Add the value of better authentication to the convenience of not having to remember at least 10 different PINs and passwords, and it becomes obvious why voice biometric technologies are winning favour across the globe. Voice biometric technology is

mature, well packaged and can be integrated with many diverse systems. Offering more flexibility and working alongside other security tools, forward-thinking companies are wasting no time in making sure they've covered all the angles in ensuring a strong defence against fraud.

### About the author

**Simon Cranswick** is the Regional General Manager for Dimension Data's Customer Interactive Solutions in South Africa's Western Cape region. He has 13 years experience in the Contact Centre industry with a strong vertical knowledge of the Telco Service provider space.

His experience covers virtual contact centres, outsourcing, knowledge management, self-service, MIS, customer satisfaction and quality solutions and development of sustainable Managed Services models. He is passionate about his team's

ability to deliver Remote Managed Services for Contact Centres in offshore markets – and believes strongly in understanding contact centre operational drivers and challenges. Doing this ensures they have a solid starting point for driving solutions into customers rather than pushing technologies to find business problems. Value propositions are led through business demand and more often than not enabled by key technologies, so his message is “make sure you are including the contact centre operations in your strategic planning.”

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