



FIRMS WITNESS DEMISE OF ISDN



Shock 'close to death' claim

Legacy phone tech - ISDN is going...going...nearly gone say industry insiders. The old-school system's sell-by date is up as the newer, better, cheaper SIP alternative corners the business market.

"The writing's been on the wall for years but the latest numbers prove it," says Stephen Ashley-Brian

■ by Willie Callback of SIP and ISDN provider Gamma. "Only **one in 10 new Gamma connections last month were ISDN, the rest were SIP.** We reckon that in a couple of years ISDN will be well and truly dead and buried."

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Ofcom stats agree

New figures from phone watchdog Ofcom support the terminal diagnosis for ISDN. The regulator says that while UK fixed/mobile telephony spending has remained almost static since 2007, the number of ISDN connections fell by 23% in the same period.

The stats also show that while fixed line call costs have fallen significantly in the last five years line rentals have hardly budged over the same period and now account for more than half of overall spend.

Further OFCOM says the number of ISDN30 channels has dwindled by more than half a million in the last two years, prompting industry pundits to suggest wholesale migration to SIP is on the cards much sooner than expected - probably in as little as two or three years.

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Microsoft Lync and Enterprise Voice

SIP Trunking turns it on!

It could be argued that Microsoft Lync, the latest and potentially most significant Unified Communications (UC) offering has the most to gain from the accelerated growth of SIP Trunking in the UK. More specifically, whereby traditional voice platforms (i.e. PBX's) have beefed up their own product with UC and see SIP Trunks as an economic alternative to ISDN, MS Lync was created as UC solution from day one with enterprise voice very much a later addition...at least from the user's perspective; connecting anything else other than SIP could therefore be considered a dilution of the solution.

It's probably too early to predict just how successful Lync is going to be as an alternative to the more traditional PBX (with or without UC), but access to a simple 'business as usual' SIP Trunk to the Public Switched Telephone Network (PSTN) is going to be an important first step.

For existing Microsoft partners, the appetite for Lync as both a UC solution and as a replacement for a traditional PBX's is going to prove an interesting ride.

The UK's appetite for SIP

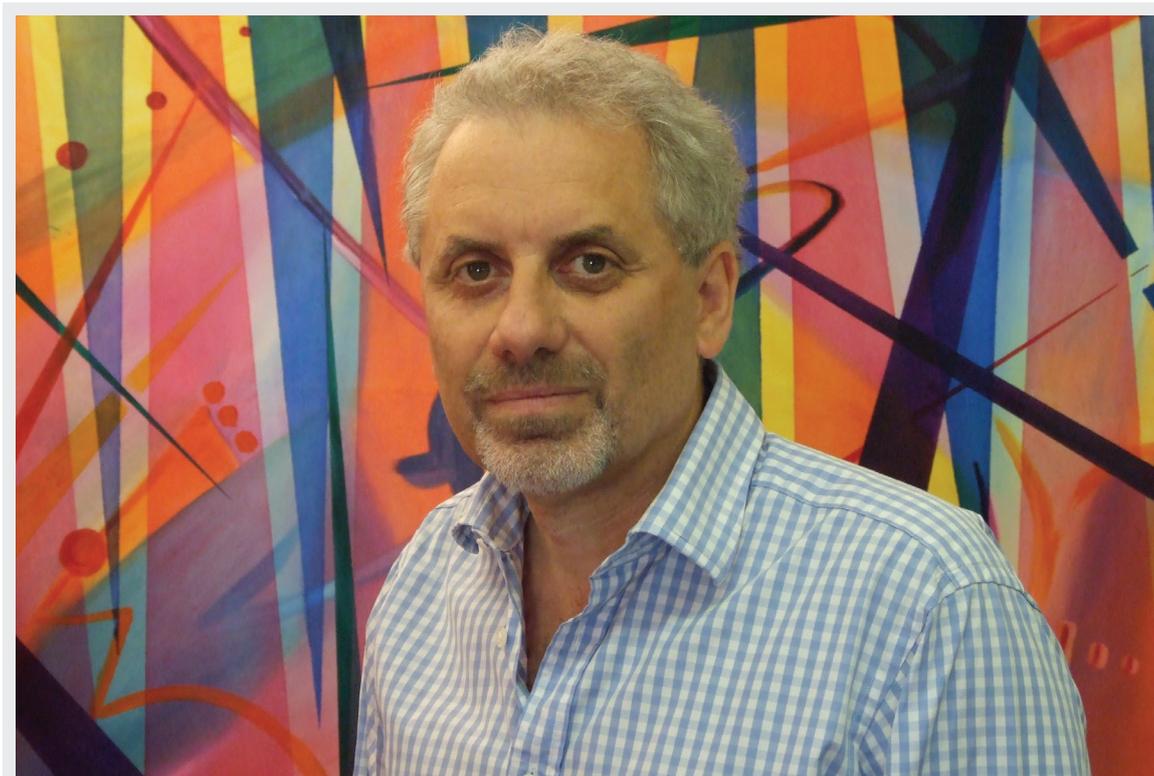
Traditional business telephone services are delivered in the main over ISDN connections between the public network and PBXs. A typical ISDN30 connection with 30 voice channels costs upwards

of £5,000 a year rental and usually comes with a minimum 12-month contractual commitment. SIP Trunking replaces costly ISDN circuits



with a standard IP connection typically costing around 50% less for channel rental, and generally offering a much shorter contract commitment.

Furthermore, the Ofcom Communications Report (2012) highlighted the decline in UK Businesses using ISDN by reporting the loss of over 1 million ISDN channels between 2008 and 2011, a fall of almost 22% in just 3 years, leaving just 3.6 million channels deployed. In contrast, (according to illum consulting), SIP Trunking has now grown to almost



A White Paper written by Stephen Ashley-Brian, Gamma's SIP Trunking Product Manager

600,000 channels reported as active by the middle of 2012, equating to over 14% of all business digital voice channels in the UK.

Other than the economic benefits, the flexibility, resilience and additional features supported are probably the most persuasive arguments for SIP Trunks.

It is true that some organisations may need to buy new telephone hardware or upgrade existing systems to realise the benefits of telephony based on SIP Trunking. However, in many cases the equipment they have now will already be compatible. Most PBX systems installed in the last 12 to 18 months will likely be ready now, while systems installed within the last five years may require

the addition of new hardware interfaces.

For Lync users wanting SIP, they're already there.

appear to add much value when pitching simple lines and minutes; with SIP, the conversations moves much



The SIP-Lync Combo Opportunity for Resellers

If Microsoft's ambitions are to be realised, then the MS Lync market is poised to make a significant impact within the UK's reseller community. Indications are that in 2013, such a market could be worth anywhere between £15M - £25M in SIP revenues alone. For resellers this should be considered as both incremental and more importantly, re-occurring revenue.

It is also agreed amongst existing SIP resellers that unlike ISDN, SIP sales are very 'sticky', meaning that these resellers enjoy a more intimate relationship with their customers; primarily because the technology is considered less a 'utility' and more of a 'solution' sale. In many cases, traditional voice resellers have struggled to

deeper into an organisations infrastructure where data services, firewalls, server performance and application features become far more relevant. For existing Microsoft resellers, this should play well into their comfort zone.

For typical Microsoft resellers, the inclusion of SIP Trunking as part of their over-all solution should be considered carefully, particularly regarding their ability to actually invoice the customer. When acting as a voice reseller, the ability to take the wholesale bill from the carrier and 'rate' accurately into multiple retail bills without 'specials' is a non-trivial task, borne out by the disproportionate amount of time and energy that billing queries can generate. It would also be true that very few Microsoft Lync resellers would want to invest in their

SIP - you can't afford to ignore it

Scalability

Capacity can be adjusted up or down as business needs dictate, usually without delay and without the contractual penalties of traditional services.

Number flexibility

SIP trunks allow organisations to move office and keep the same geographic number without any on-going call forwarding costs. Calling Line Identification (CLI) flexibility also allows users to populate their outbound calls with any number they have a right to use.

Resilience

SIP Trunking gives users the option to take their connectivity from multiple sources; leased line, DSL, Ethernet and even the Internet. Should one connection fail, another can be used in its place. Configurations allows for active and standby circuits, automatically failing over as and when required. This level of redundancy is prohibitively expensive with ISDN, but 'business as usual' with SIP.

own billing engine, particularly as they test the market. Fortunately there are a number of practical solutions that address billing.

First off, bureau services; these are effectively cloud based billing platforms that match and rate wholesale CDRs; the Customer Data Records that identify each and every call with the right end user. The reseller simply rents this service and inputs whatever retail rates are appropriate to their customers; in many cases having the branded invoice generated and automatically sent to the customer; though there is a cost involved.

Alternatively, some service providers will offer a minute's bundle package to the reseller, negating the need to consider rating the CDRs at all. Similar to a pre-pay service with a fair usage policy, the end user simply buys multiple minute bundles as their needs dictate.

The key point here though is that the very first practical consideration when thinking of providing voice as part of the overall Lync solution is... billing.

The next important area to consider is technical competency within the voice networking element itself. For most Lync resellers, this knowledge is assumed, particularly if existing deployments have used the WAN and/or federated deployments. For those that are adding Lync to their existing Microsoft portfolio, this knowledge should not be underestimated, particularly if the customer's solution is a hybrid, i.e. a combination of existing telephony infrastructure and SIP.

The question here are about roles, if the customer has an existing PBX maintainer relationship or an outsourced IT deal, then some clear responsibilities need to be established as internal/external dial plans will need to be catered for, together with any existing DR capabilities. The assumption here though is that the introduction of Lync would ultimately make it the dominant communications platform, either day one or as part of a managed migration process.

Once some of the more practical elements of adding SIP trunking to the customer's Lync environment have been considered, then what remains is to consider what makes doing so such an attractive proposition.

Specific reasons may exist for individual resellers, but in general incremental revenue, competitive advantage, improved relationships and the voice market will all impact the buying decision.

Microsoft Lync Deployment

In reality, there are a number of deployment configurations that will need to be considered by the reseller; notably based on the migration strategy agreed with the customer and the existing infrastructure that will need to accommodate it.

For many organisations, the move to a fully SIP enabled solution with Lync handling all calls, internal and external will remain the final destination but in the meantime, a number of iterations will exist. In fact many organisations may have already have deployed Lync for simple IM and presence, the move to add internal calls is an obvious one and is re-enforced every time they use their Lync client.

What needs to be considered as a trade-off between cost and efficiency is what to do with the legacy PBX. Operating Lync in tandem with the PBX is possible and for larger organisation pos-



sibly a pre-requisite. In a more conservative scenario, external communications can still be managed by the PBX with internal voice provided by Lync. Whilst low risk and having minimum impact on existing infrastructure, the net benefits are significantly reduced and the customer is effectively paying twice for the same thing. They could end up multiple numbers for the same individuals.

Despite this, a migration strategy can still make sense

Why should you add SIP to your Lync environment?

Incremental revenue

Once connectivity has been established, the margin generated by voice traffic can very quickly become a very lucrative addition to the bottom line – helping to off-set any additional support needs.

Competitive advantage

If the user has to choose between two solution providers, only one of which can integrate the SIP trunking connectivity, their choice suddenly becomes a whole lot easier.

Improved relationships

Enterprise Voice is an integral part of the Lync proposition; giving the customer a single point of contact for support and configuration changes makes for a far more attractive proposition.

The market

SIP is going to replace all other terrestrial voice protocols and it's going to happen more quickly in Lync style UC environments than in any other. Customers will expect their system integrators to have ready-made solutions.

for organisations that are particularly sensitive to change or that are looking at introducing Lync for the first time and feel the need to have their users get comfortable with the client as an internal collaborative tool before exposing the full unified solution.

In either scenario, the replacement of the existing ISDN and/or analogue phone lines should be considered as part of this migration and treated accordingly.

From a connectivity perspective, the Mediation Server is the face of SIP and

with other entities or provide access to remote clients.

Here too option exists depending on existing infrastructure and SIP trunking provider chosen:

In the simplest topology, the Mediation Server connects to the service provider via a premise router which means that the SIP signalling is flowing directly between the Mediation Server and the SIP trunking provider. This requires that the service provider can provide end to end support via Microsoft's Unified Communications Open Interoperability Program (UCOIP); in effect that their SIP stack has been tested against MS Lync and can interoperate successfully. Within the customer's DMZ, any Edge Servers can also take advantage of the on premise router to reach other federating users. WAN side communication is exclusively via TCP (Transmission Control protocol).

An additional configuration will often see the use of a customer premise SBC (Session Border Controller) terminating the Service Providers SIP trunks. The SBC will also need to be an approved device having undergone Microsoft's UCOIP.

This option does potentially give the customer more flexibility because it normalises the SIP between the two parties meaning the Service Provider can also use User Datagram Protocol (UDP) as an alternative to TCP. The on-premise SBC is also becoming a natural choice for organisations wanting the highest levels of network security as it completely hides the customer's topology from potential threats.

The final option is to use a gateway instead of an SBC, in this case whilst the gate-

way still needs to be UCOIP supported, the network side might still be ISDN based, reducing the concern of IP security.

Conclusion

The rise of SIP and decline in ISDN is inevitable; it's becoming increasingly obvious to industry commentators, equipment manufacturers and end users themselves. It's also true that the rate of conversion is affected by a number of factors, not least of which is the broad acceptance of integrated or unified communications as the basis for all future business communications.

As a consequence, MS Lync is arguably at the right place at the right time but without the historic voice pedigree of traditional PBX vendors; its success will depend largely on how quickly users learn to trust its enterprise voice capabilities.

More importantly, for this to happen at all, the successful deployment of SIP trunks will become a pre-requisite; an integral part of the planning process and in many cases, one of the justifications for the transition in the first place. For resellers and systems integrators, it would be a mistake to ignore this fact.

So for resellers, MS Lync does offer value outside of purely licensing and hardware; the integration of both WAN and public SIP services will present incremental revenue and margin opportunities, which if not taken by them, will be taken by someone else.

The advice is simple; choose your SIP trunking partner wisely; your customer is expecting it to work, you should too.

But it's not just connections that are plummeting. ISDN calls are declining too as users switch to SIP



or mobile phones. "Cost is a major factor," says Stephen Ashley-Brian. "ISDN line rentals have barely moved in five years while call costs to fixed lines have tumbled 9%. It just doesn't make any sense."

Experts say ISDN's outdated equipment, no development and no migration path all spell imminent doom. "All the R&D money's going into SIP. There's no place for ISDN in a world of universal, converged telephony. It's game over." adds Ashley-Brian.

SIP trunking is an IP connection that routes calls over a data connection to and from the PSTN which is the main UK telephone network.

Gamma's SIP trunks connect a PBX directly to its own network, securely delivering more flexibility and more resilience at lower cost than ISDN.

At typically half the cost of ISDN line rentals, and with a 25% saving in call costs, SIP trunking is becoming a no brainer for businesses large and small.

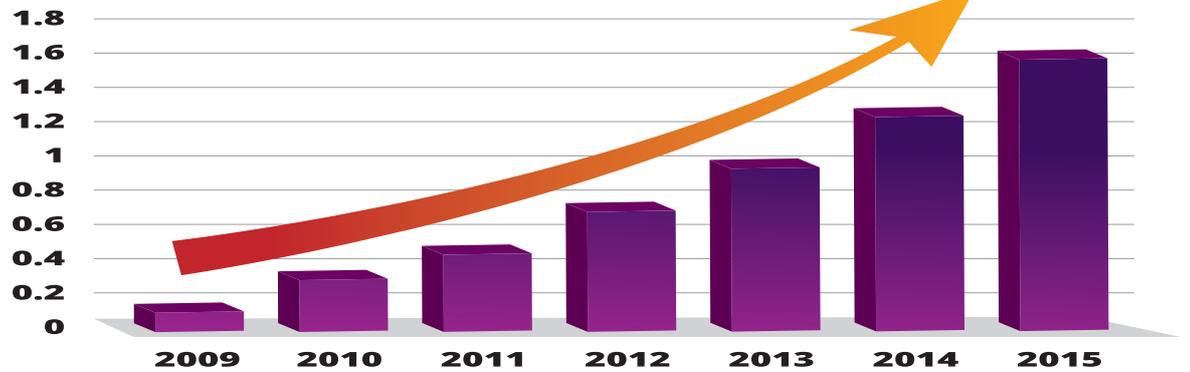
Resilience and business continuity are assured with instant relocation to alternate sites in the event of a disaster or fault. Phone numbers can move with businesses to wherever they choose to be. And standing costs can be reduced still further by rationalising lines and PBXs.

Better still many businesses will not need to buy new equipment to take advantage of SIP. Most systems installed in the last five years are fully compatible already.

A SIP SO SWEET

Look at the facts!

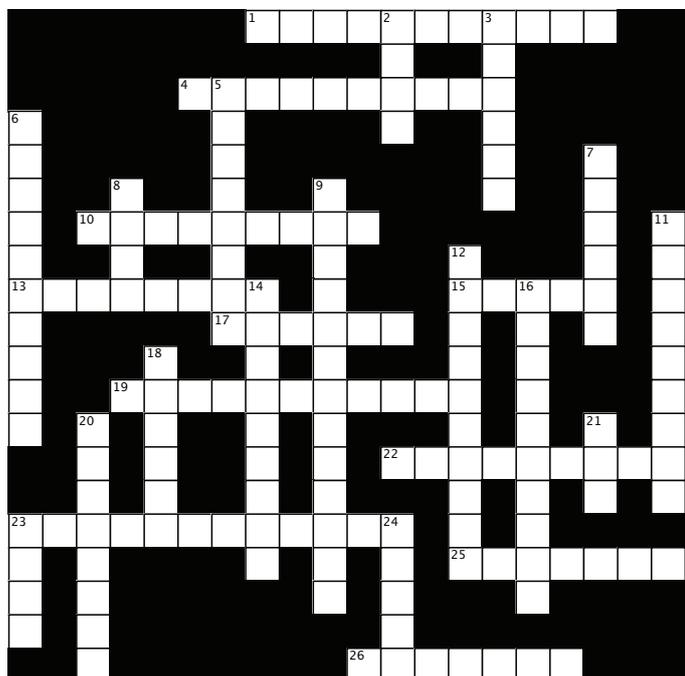
UK SIP Trunking Forecast (M) Channels



Source: Gamma

Here's what all the fuss is about. Take a look at our easy guide...

	SIP	ISDN
SAVINGS	✓ Saves up to 50% on line rentals and 25% on calls	✗ More costly
FLEXIBILITY	✓ You're in control. Add lines, take them away, split calls - it's up to you	✗ Sorry, can't do flexible
CONTROL	✓ Choose how and where you want calls delivered. Make changes instantly	✗ Changes take months. At the mercy of suppliers
FUTURE	✓ Well mapped out and ready for voice/data convergence	✗ Going nowhere fast
CONTINGENCY	✓ Handles emergencies with ease. Reroute calls to backup sites in seconds	✗ Hope nothing bad happens



TELECOM QUICK CROSSWORD

Across

- Adaptability to external change (11)
- Redirection to another destination (10)
- Moving from one system to another (9)
- Global system of interconnected networks (8)
- UK telecommunications watchdog (5)
- Transfer of authority sl. death (6)
- Merging of multiple elements (11)
- Line on telephone system (9)
- Involving multiple participants on one call (12)
- Collection of connected links and nodes (7)
- Income not spent (7)

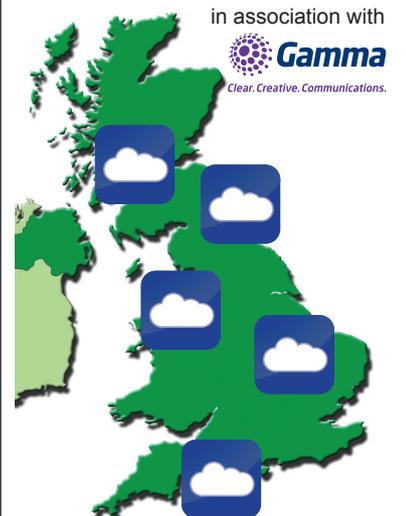
Down

- Legacy phone technology, on the way out (4)
- Out of date system still in use (6)
- Obsolete (8)
- Ability to maintain service during faults (10)
- Measure of system availability (7)
- Physical circuit (4)
- Outcomes other than those expected (12)
- Redirection to another caller (9)
- Path between two points (10)
- Voice communications over distance (9)
- Lack of interruption or disconnection (10)
- Movable, portable (6)
- Way of sharing one communications channel between many clients (8)
- Internet telephony standard (3)
- Attempt to set up telecommunications link (4)
- Greek letter. Communications provider (5)

Answers

Across: 1.Flexibility 4.Forwarding 10.Migration 13.Internet 15.Orcom 17.Demise 19.Convergence 22.Extension 23.Conferencing 25.Network 26.Savings Down: 2.ISDN 3.Legacy 5.Outdated 7.Uptime 8.Line 9.Contingencies 11.Diverting 12.Connection 14.Telephony 16.Continuity 18.Mobile 20.Trunking 21.SIP 23.Call 24.Gamma

TODAY'S WEATHER



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