White paper

Unlocking the potential of voice within applications

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computing

In association with

Star™
Your Business On-demand

Executive summary

Voice adds value and is still the most efficient and intuitive method of communication. Voice capabilities exist within many enterprise business applications, while IP telephony has many cost and management advantages.

However, enterprises are split over whether or not to voice-enable their applications and unlock the potential of voice – even some of the businesses that have already made the move into IP telephony.

In some cases internal skills and perceived product quality have held back proliferation of Unified Communications (UC) services. However, managed service providers can deal with both these issues as well as providing superior resilience and disaster recovery for the business.

Communicators rediscover their voice

When the first mobile phones to feature SMS, and then MMS, appeared, text became the killer app that differentiated the mobile phone from the land line and made the market. Since then, mobile phones have become application exchanges and computing platforms through which users access their email, surf the Internet, use location based services and share rich media content, such as video and music. The landline, meanwhile, remains a dedicated single media appliance: for some this has reduced in significance alongside their laptop and mobile device.

All of this multimedia exchange has happened for good reason: we have lived through the first decade of Internet-enabled business where we have seen the communication of ideas move to a richer (more powerful) level. The boundaries of what is possible when all forms of media and communication are delivered to multiple devices via an IP data stream are being constantly redefined.

However, what many are rediscovering is that voice is still the swiftest, most intuitive, direct and efficient method of communication we have; after all, the world's languages have evolved over millennia, which makes voice communication with all the subtleties of direct interaction the richest media we have. No instant messaging (IM) is faster than human speech, and voice conversations forge stronger links between people with less potential for misunderstanding.

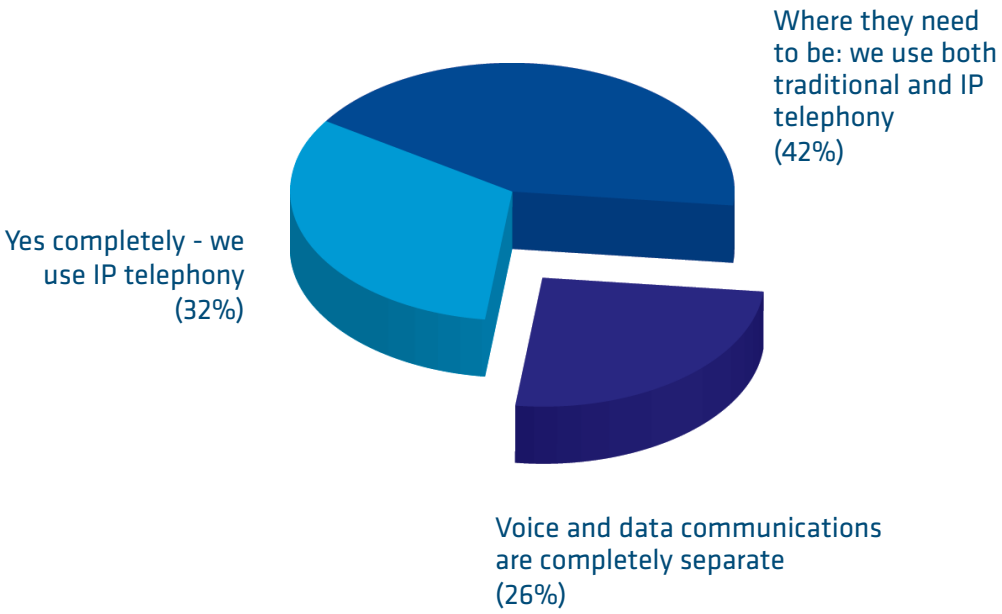
The personal connection

Put simply, text is cheap but voice adds value and establishes a personal connection, which is what most enterprises strive for. So while rich media applications have grown around voice on IP platforms, voice is re-emerging stronger, louder and with digital clarity on 21st century converged IP networks. Combine VoIP with unified communications technologies that forge a link between voice, text, presence, conferencing, relationship management, and networking: and you have some very powerful business tools.

An exclusive Computing survey of 200 senior IT decision makers reveals that three-quarters of businesses already use IP telephony. One third of all respondents said their enterprise voice and data communications were completely integrated around IP telephony, with a further 42% answering that they used both traditional and IP telephony (Fig. 1).

Fig 1 : The current picture of voice & data communications

"Are your voice and data communications integrated?"



"Is your business ready for converged voice & data?"

Yes we have an MPLS network	42%
We are a single site business with no wide area network	27%
We have point to point leased lines between offices	17%
We have a legacy Frame Relay network	6%
Other	8%

In terms of the underlying networking technologies, 42% of all respondents said their business used an MPLS network. By contrast, just under six percent of respondents said they still have a legacy frame relay network and 17% said they still use point-to-point leased lines between offices.

The emergence of voice

Ironically, VoIP has been something of a quiet revolution. Nevertheless, voice has emerged within tools such as CRM, document management and email as a core application. The reason for this is that voice users now have an enhanced engagement with computing platforms and applications. Voice can be integrated successfully with applications which encourage virtual communities and social networking because engagement is the key to these experiences. When it comes to tools that are focused on interaction, relationships (and management of both), such as CRM then the verbal engagement enriches the experience greatly.

A three-way split

That said, businesses seem split three ways on voice-enabling applications. Just over one-third of respondents to the Computing survey (33%) said they had considered unlocking the potential of voice in this way. Thirty-one percent said voice capability would be of "no benefit" to the business, with the remaining 36% of enterprises unsure of the benefits (Fig. 2).

Fig. 2 : Plans to voice-enable applications

"Have you considered voice-enabling some applications?"

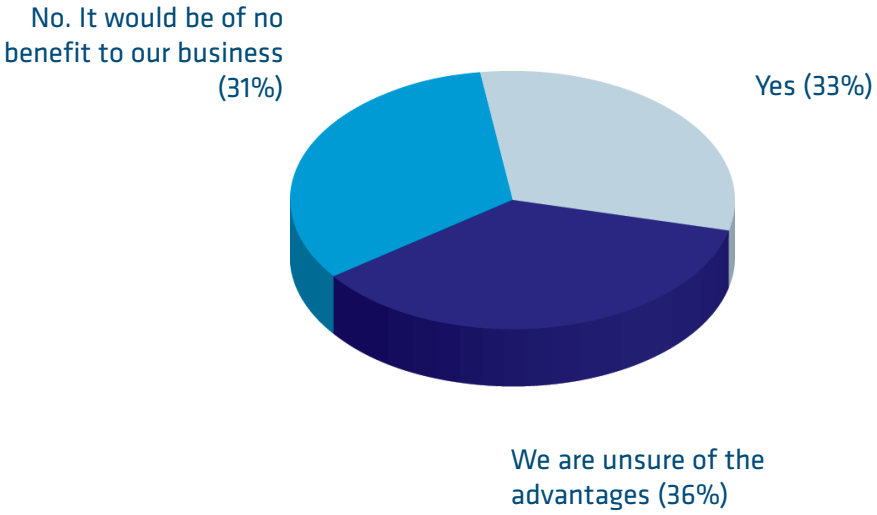
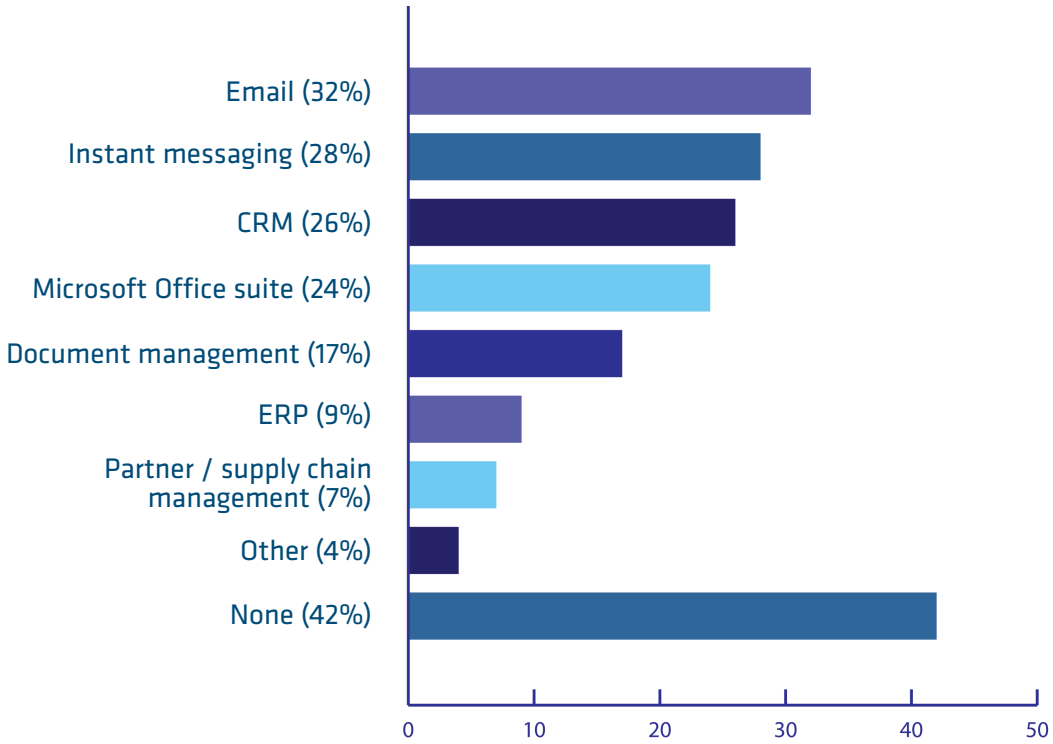


Fig. 2 : continued

"I am interested in unlocking voice and/or video capability in the following applications..."



*Respondents could select more than one answer

This suggests that, within some enterprises, adopting VoIP has been mainly driven by the perceived cost advantages of IP telephony over traditional telephony rather than the business benefits of voice enablement.

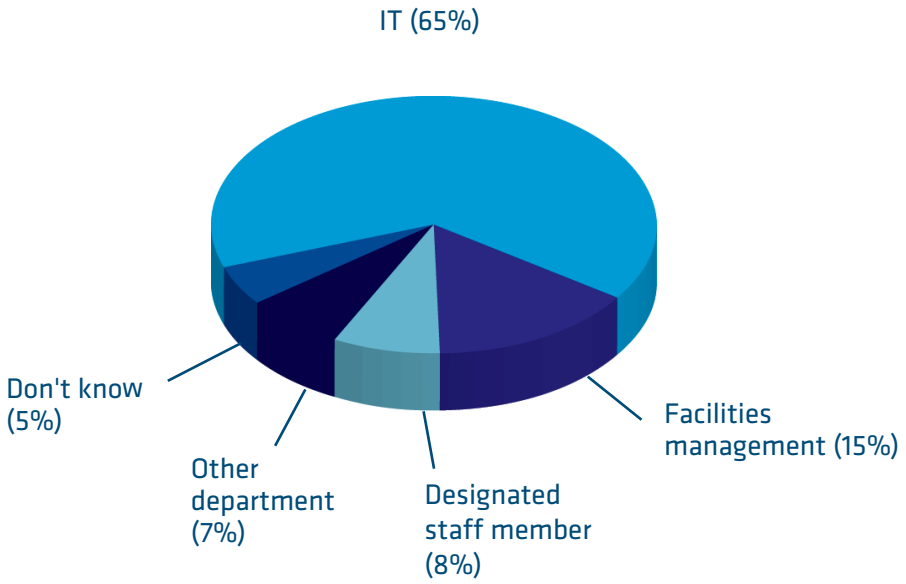
VoIP allows you to converge voice and data communications over one IP network, which can reduce infrastructure costs. In addition call costs can be reduced by 30-40% when businesses connect directly to carrier IP networks. There are IT management and technology rollout benefits of unlocking voice as a core component of mobile and desktop applications in the enterprise – and those benefits extend to the flexible or remote workforce.

The bandwidth efficiency and relatively low cost of VoIP technology is persuading many businesses to begin migrating from traditional telephony. And once that first step is taken, the logical follow-on is to explore unified communications (UC).

Organisational inconsistency

One underlying obstacle to the greater uptake of voice-enabled applications may be organisational. Within 65% of enterprises, the IT department manages telephony, which leaves the remaining third of enterprises in a more difficult position when it comes to making decisions; there is no consistency within the remainder of organisations in terms of where responsibility lies (Fig. 3).

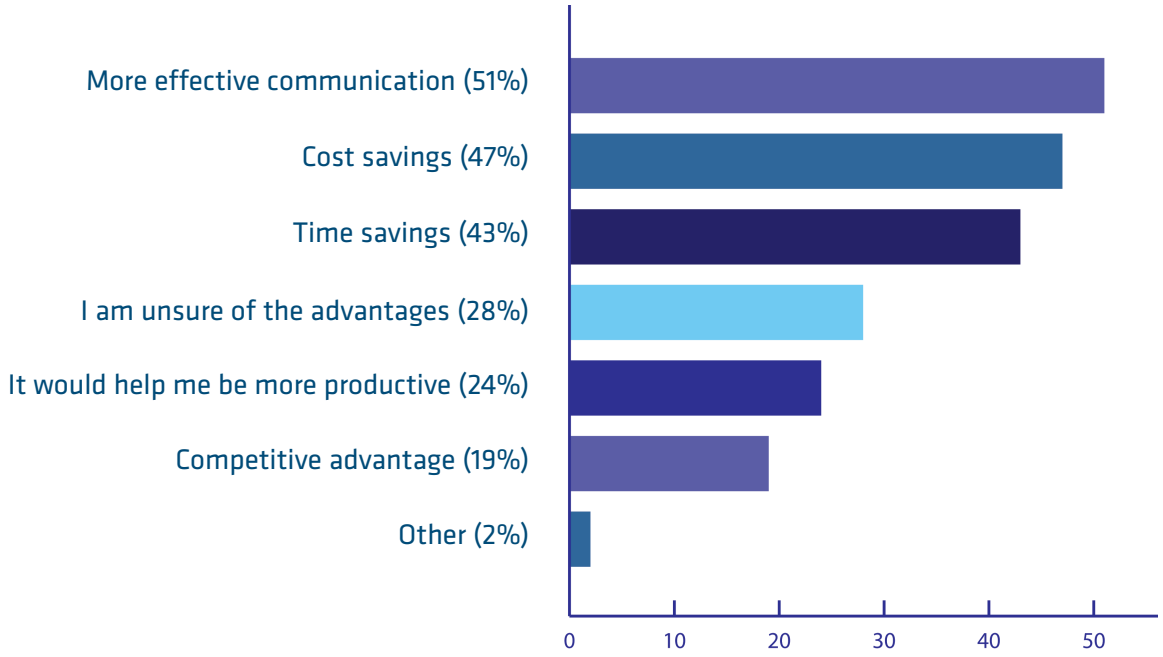
Fig. 3 : "Who manages your telephony?"



Facilities management are in charge of telephony in 15% of enterprises, found the survey, while in eight percent the task falls to a designated staff member – ranging from the MD to office administrators and, in one case, a company accountant. Other organisations employ dedicated telephony teams, while six percent of IT strategists responded that they did not know who was in charge of telephony.

The bandwidth efficiency and relatively low cost of VoIP technology is persuading many businesses to begin migrating from traditional telephony, but for just over half of businesses more effective communication was the key. For many decision-makers surveyed, competitive advantage (19% of all respondents), time savings (43%), and increased productivity (24%) are key considerations. Forty-seven percent of all respondents said cost savings were the main driver for voice-enabling applications (Fig. 4).

Fig. 4 : "I believe the main advantage of voice-enabling applications would be..."



*Respondents could select more than one answer

Unifying business communications

UC is the integration of real-time applications with collaboration and communications tools, with the aim of providing a consistent and seamless experience for the user across multiple devices and media. By integrating voice with other familiar applications users can realise real productivity savings that disparate applications struggle to deliver.

Once voice becomes IP based, it is another digital data stream, like text, metadata, images, or instruction sets. Therefore, unified communications applications enable the sending of messages from one medium and its receipt via another: for example, accessing voicemail messages via email or MMS, depending on the whereabouts and status of sender and recipient.

This crossing of data boundaries exists outside the strictures of real time as well. For example, if the sender is online, a response can be sent immediately through an IM conversation or video call. Otherwise, it may be sent as a non real-time message. In this way, technology choice is driven entirely by business and human resource needs at all times, which means right time communications that can enhance the quality of service delivered to a business's customers. Which is why VoIP packages aimed at the business have been integrated into unified applications that allow media and communication streams – phone calls, voicemail, email, IM, conferencing and so on - to be delivered to the user anywhere at any time.

Unified services

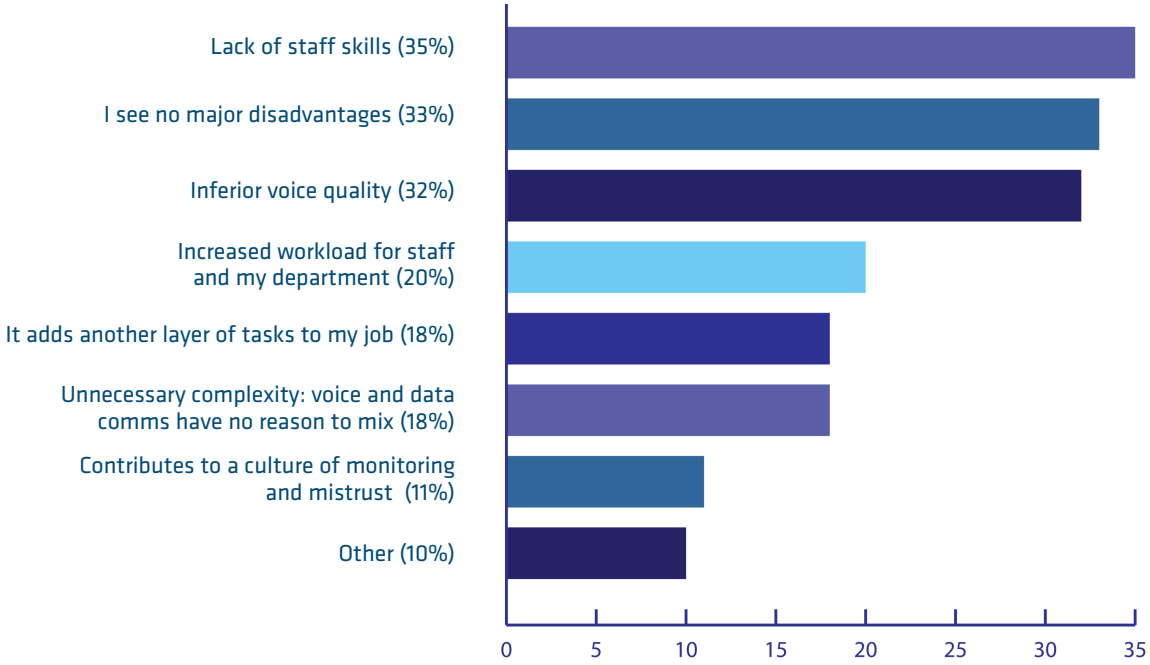
This opening up of traditional communication channels is one reason why VoIP packages aimed at the enterprise generally come with options for UC services that bring together multiple media and communication streams – phone calls, voicemail, email, conferencing, and so on –delivered anywhere at any time.

When it comes to VoIP provision, many enterprises turn to established voice technology experts to implement it. However, developers are just as well placed to integrate voice – as another digital data stream – into the existing deep functionality of their applications. Integration of voice with online services, including conferencing, address book and calendar management, messaging or file exchange during a conversation is another business benefit of unlocking the potential of voice within applications.

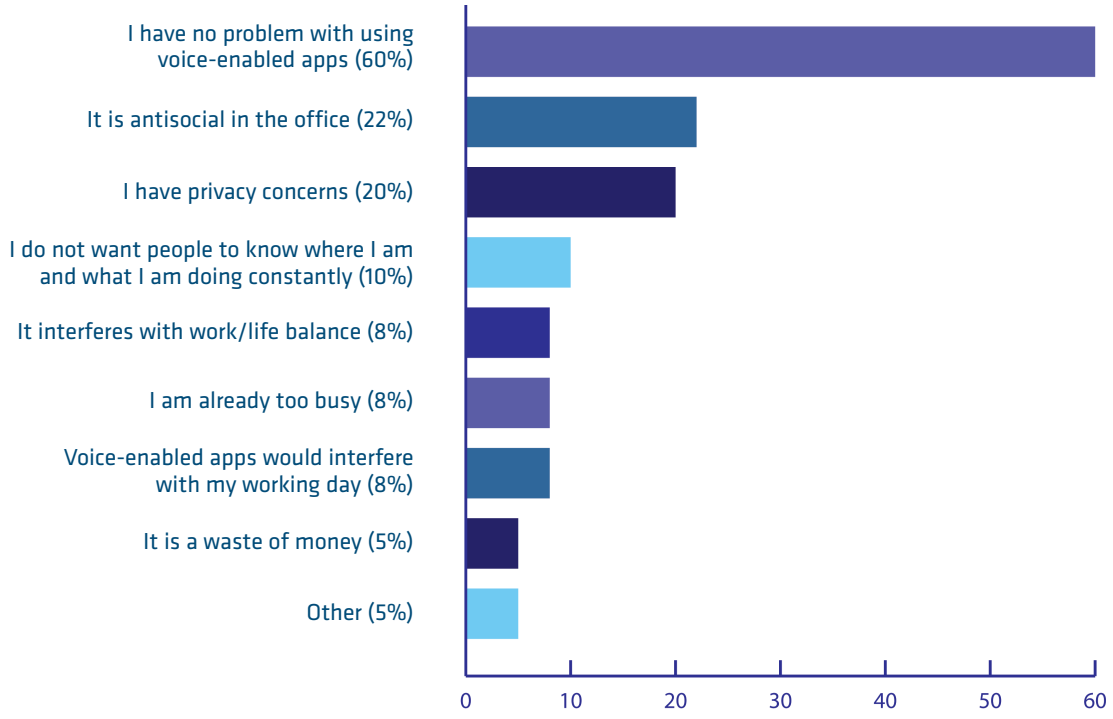
However, not all organisations are convinced. Asked what the main disadvantages might be of voice-enabled applications, just over 35% identified "lack of staff skills", while just under one third said "inferior voice quality". Among other mitigating factors described are a perception of "unnecessary complexity" (18%), "increased workloads" (20%) and "another layer of tasks" (18%). Eleven percent said they believed it contributed to a culture of monitoring and distrust (Fig. 5).

Fig 5 : Perceived disadvantages

"I believe the main disadvantages of voice-enabling applications might be..."



" I object to the idea of integrated voice & applications because..."



*Respondents could select more than one answer

One third of respondents, however, said they see no major disadvantages in voice-enabling applications, while 60% said, in spite of any perceived disadvantages, they have “no problem using voice-enabled applications”.

Perhaps the greatest benefit of unlocking voice is for the individual user within the enterprise as it presents the opportunity to better manage time and relationships with colleagues, customers, prospects and business partners on the desktop or within a corporate environment.

Unified communications services allow a richer voice-enabled or -enhanced engagement with personal networks of contacts. Clicking on each contact's details brings up presence status – online or offline – and the ability to make a voice call or conference call to them with a click without leaving the application you are using gives a quick seamless user experience.

The user can continue the conversation while clicking elsewhere, updating orders or the progress of a deal, organising deliveries, adding an audit trail of new information about the conversation, and so forth – all in real time.

Maximising value

By unlocking the potential of voice within applications, enterprises are really unlocking the potential of their existing resources, and by integrating voice and data on a single IP network, organisations can also better manage their networks of partners and customers.

The consensus among those surveyed is that there are benefits to be gained from UC when implemented in the right way. However, there are concerns around the delivery of the service in terms of the internal skills required to manage a UC deployment and the ability of a VoIP service to deliver sufficient call quality. The former can easily be mitigated as this functionality can be bought from providers who deliver managed software and services from the cloud, via either public or private networks.

Moving integrated voice communications, computing and data networking into the cloud via a cloud services partner means adding resilience and a source of expertise that can help all organisations, particularly the smaller enterprise, make significant productivity gains at lower cost and unlock their own potential without the need to bring in expensive integrators.

Hosted voice solutions reduce onsite infrastructure, which eliminates maintenance requirements. Like all cloud services, they also ease the financial burden into operational expenditure and away from costly and unpredictable spikes in capital expenditure caused by business growth or system upgrades.

In order to deliver a good service without any degradation of voice quality is more complicated as it relies on two key factors; the quality of the network connection you are using and the codecs[1] you employ to carry the voice over the network.

Managing a converged environment effectively requires an increasingly varied range of skills, round-the-clock resources and a core infrastructure. Using a service provider for your network and a cloud provider for your critical applications means that voice and data communications can be pre-integrated and fully managed, leaving you to concentrate on managing your business and maximising the value of your new found productivity.

- [1] A Codec is a coded digital data stream used to carry voice and other media

About the sponsor

Star provides on-demand computing and communication services to UK businesses. Utilising an advanced cloud computing platform, the company has redefined how business people use and pay for the technology that supports them. Star's On-Demand Business Services™ are easy to use and pay for and are available any time and from anywhere, removing unnecessary costs for hardware, software and ongoing maintenance.

Since 1995, when Star was founded, the company has been an internet technology innovator and pioneered the system for cloud-based spam and virus scanning for business email that became MessageLabs. In the last 14 years Star has established itself as a leading IT and communications service provider of the highest pedigree looking after 3,500 UK business customers and their 500,000 users.

Star has UK-based datacentres that sit within a network and communications capability that forms the basis of the Star Platform, from which a wide range of computing and communication services are delivered to customers. Star has more than 230 employees working from offices throughout the UK, providing the highest levels of customer service and support. Star's technology roadmap will deliver on-demand, cloud computing services to UK businesses who want immediate access to the latest enterprise technologies. For more information please go to **www.star.co.uk**.

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