

The SIP Survey 2011

Wednesday, April 06, 2011



Survey and Thought Leadership:

SIP Trunking is what everyone is talking about but if we can't get the basics right will the talk be for all the wrong reasons?

Editorial and Research
Graham Francis
CEO The SIP School

Sponsored by
Techistan

Introduction

In February 2011, The SIP School™ carried out a survey that resulted in responses from over 400 industry professionals from around the world. The biggest response was from the USA with 58% of people originating from there. Unlike a lot of surveys this one was sent out to people who actually work in the Telecommunications industry and with this in mind they answered the questions in this survey with varying degrees of knowledge and consequently some level of interest already in SIP and SIP Trunking.

The survey did not make all questions mandatory and therefore not all people answered all questions.

Why this kind of Survey?

The survey's purpose is to take a look at SIP Trunking and specifically, to find what the most common issues during SIP Trunk deployment are and what can be done to make these issues occur less frequently if at all.

Understanding these issues will help companies focus their efforts on improving the failing elements and also ensure that its staff members understand what to do when things go wrong so that they are able to fix problems quickly. It's not ideal having the latest and greatest service that's feature packed if you can't count on it to not fail when least expected.

Let's be clear, SIP Trunking is one of the fastest moving and most talked about elements of VoIP in the world of Telecommunications and not without good reason. It offers benefits ranging from low cost calling, centralization of lines into a business, fast disaster recovery (or failover) along with being a platform for carrying Unified Communications across boundaries to create a working environment that could never have been dreamed of using older technologies.

However, as manufacturers, service providers and enterprise customers are finding out, SIP Trunking is not always an easy service to implement and certainly not an easy one to support if things go wrong.

As the survey has been carried out by The SIP School, all of the opinions in this report are our own unless clearly stated. We have been able to embellish this report with comments from people who work in the SIP Trunking space and believe that their insights can help people understand what is important and actually happening out in the real world.

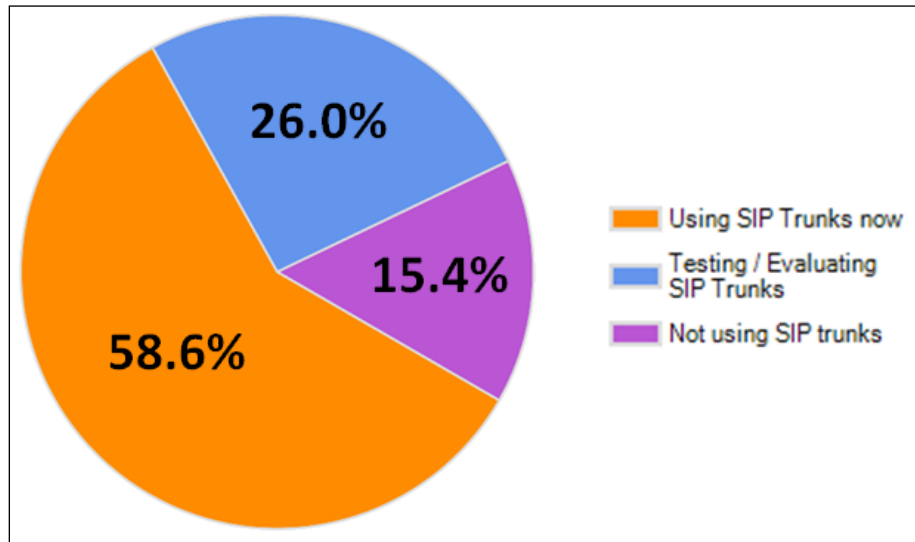
Note: The SIP School does not formally recommend any one provider or product as we are a friend and supporter of all who are involved in the world of SIP and VoIP.

Let's get down to business and onto the Survey.

The first question is probably the most obvious to ask but we asked it anyway.

Q1: SIP Trunks are becoming more and more popular, where do you and your organization fit?

Figure 1



“This is somewhat consistent with our understanding of the market. I think your respondents may have been a bit more SIP savvy than the general market. I do not believe that 58.6% of all businesses are using SIP Trunks in the US. ”

David Byrd, VP
Marketing and
Sales, Broadvox

As you can see in [figure 1], the results indicate that organizations are embracing SIP Trunking with only 15.4% of respondents saying that they are not even testing them. David Byrd did comment about the figure being a little high in relation to experiences in the US and this could be supported by the fact that respondents are from all over the globe.

Here is a breakdown of all respondent locations.

- 58% **USA**
- 12% **UK**
- 8% **Canada**

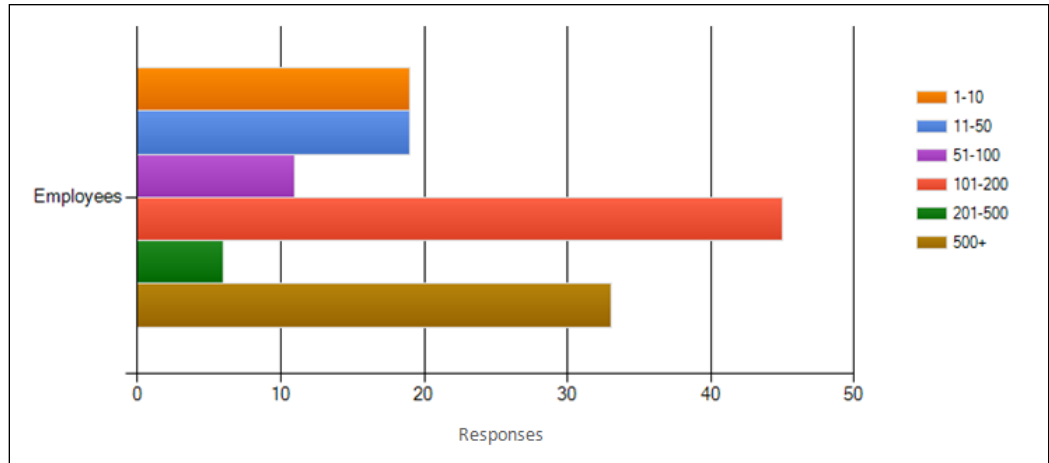
- 22% **Other**

There are many reasons for not jumping on board the ‘SIP Trunk train’ including being tied up in existing provider contracts but nevertheless, having almost 85% of respondents using or at least testing SIP Trunks gives the following answers real meaning and food for thought.

In order to understand more about the organizations who the respondents work for, we asked the following questions about employees and locations.

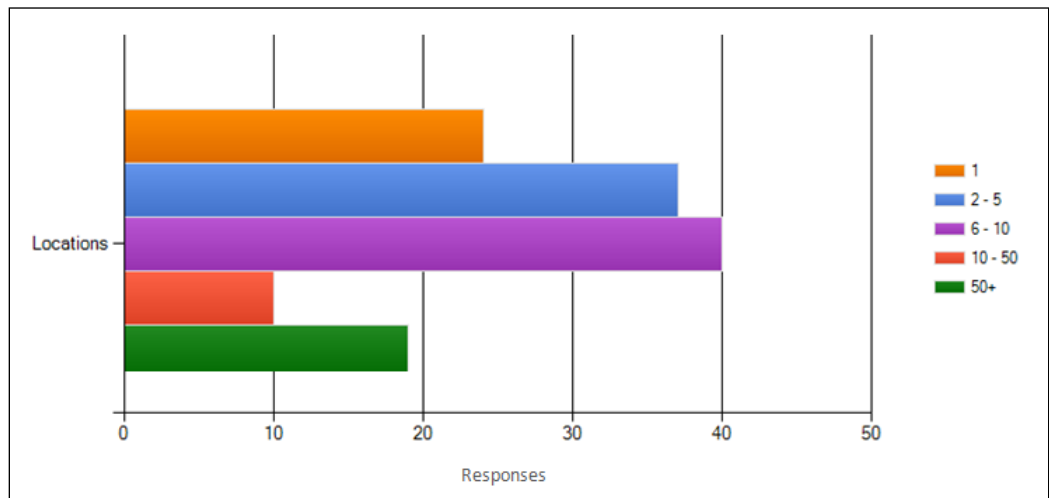
Q2: How many employees work at your organization?

Figure 2



Q3: How many sites do you have?

Figure 3



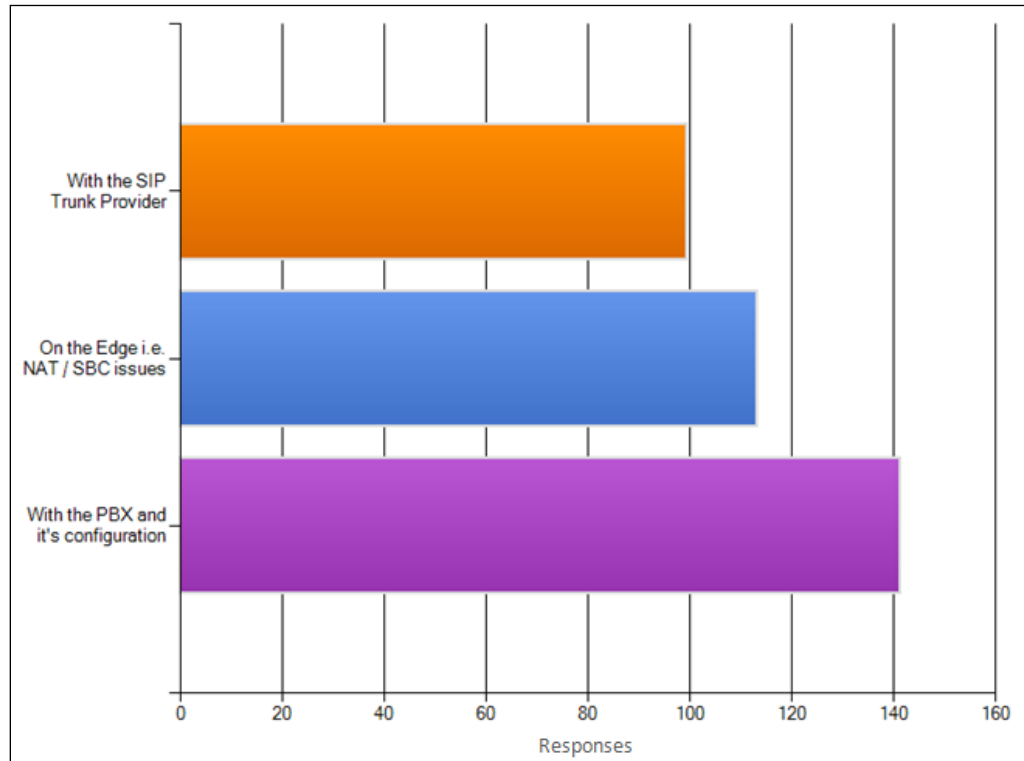
We can see that the majority of respondents are working with small to medium sized organizations. The numbers shown here are often published in relation to the perfect candidate organization for SIP Trunks and it's good to see the same values in this Survey.

Note: We did have a low number of respondents for these two questions and will make them mandatory next time around.

Now, if SIP Trunks are installed and all works fine, then that's great and your business is reaping all the rewards promised. But what if things go wrong?

Q4: If you've had problems, where have the issues been?

Figure 4



“Just because an end-user ‘says’ the problem is with the PBX or with the service provider doesn’t necessary mean that that is in fact the case – over the years I’ve seen lots of blame placed on one or the other by people that simply wasn’t merited when ‘due diligence’ was performed.”

Marc Robins,
President and
Managing
Director, SIP
Forum

Although the respondents indicated that the majority of issues were found on the PBX it's pretty clear that it is an even enough spread to show that the problems found cover the three elements that make up a SIP Trunking scenario. The PBX inside the enterprise, the ITSP and where it all meets; on the edge.

Uncertainty of where the actual problems lie can often cause a lot of ‘finger pointing’ as Marc’s comment backs up.

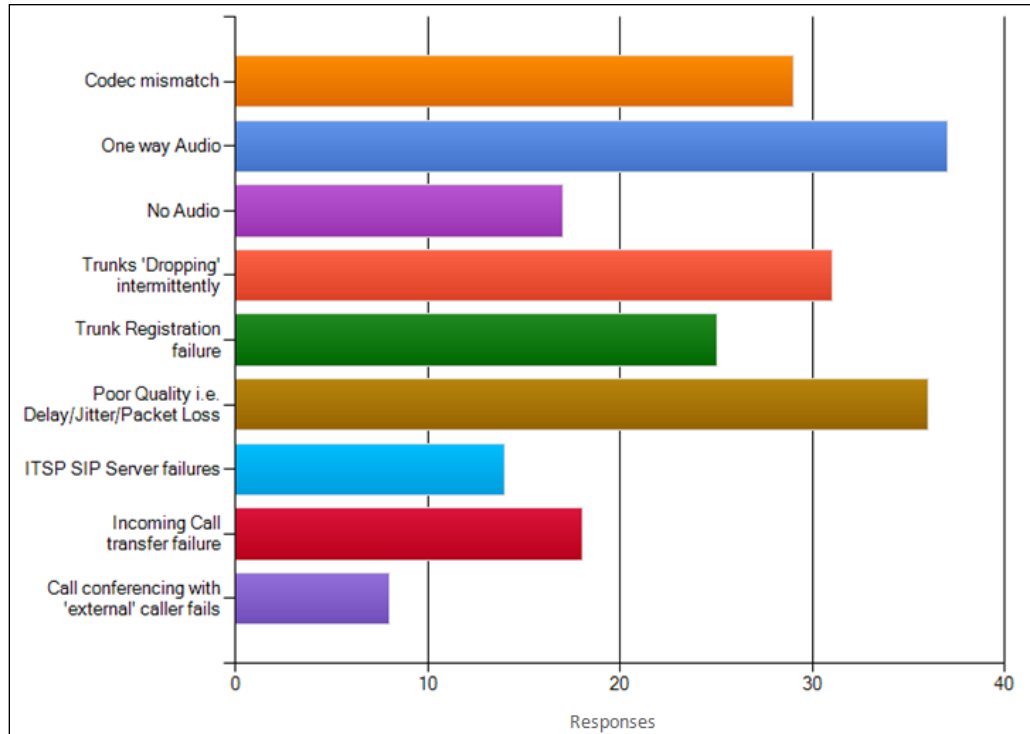
Please note that respondents were able to select multiple options and people who selected ‘Not using SIP trunks’ on Question 1, did not get the opportunity to answer this question.

Now, let’s look at the three elements in isolation.

We'll start with the SIP Trunks.

Q5: If the problems were found to be on the SIP Trunking provider side, what were they?

Figure 5



“We’ve seen similar results – basically “across the board” issues from Codecs to NAT traversal issues. Call transfer and fax are the two big “surprises” too. We even ran into an end-user that cut over to SIP Trunks and then when he had fax issues and called his carrier for help, they told him they don’t support fax. You can imagine what that call was like.”

Alan Percy
 Director, Business Development at
 AudioCodes, Inc.

Anyone who’s working in the VoIP industry today will recognise all of these issues but it’s disappointing that they still feature strongly in the issues people are facing today and it’s clear that these ‘basics’ are still not being tackled early on in installations so that they never become a problem. Looking at some of these issues;

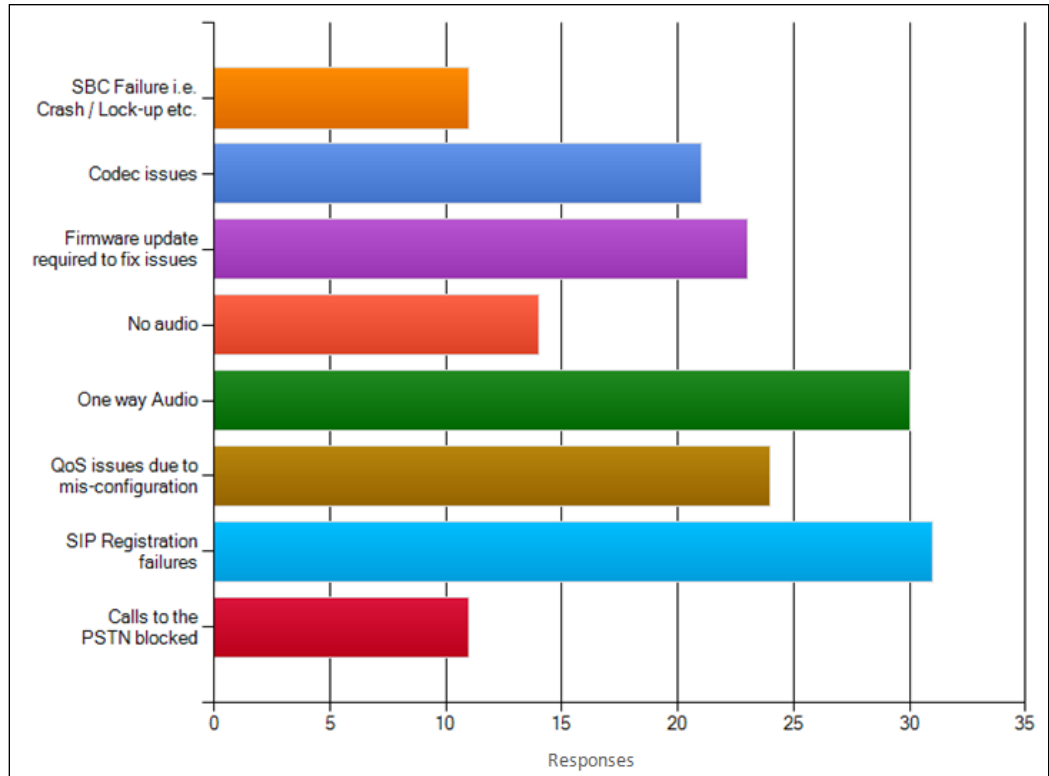
- Codec mismatch: Shouldn’t this be a setting that people select on installation when using well written documentation to follow?
- Registration failures: These are usually account issues such as mistyped passwords
- One way / No audio issues: These are common problems that anyone deploying SIP Trunks would have come across before and should know how to tackle quickly.

Seeing these issues today is not really a surprise, but I just hope that these common problems are not so common when we run the SIP survey again in 2012.

So, onto the ‘Edge’ with the next question.

Q6: If you had problems that were found to be on the Edge / SBC device, what were they?

Figure 6



“Codec issues I would agree with – I think the key here is make sure people choose an SBC that supports a variety of Codecs and has been in the field for a while to make sure all problems have been “shaken out”

Mykola Konrad,
 Director,
 Enterprise
 Product
 Management,
 Sonus Networks,
 Inc.

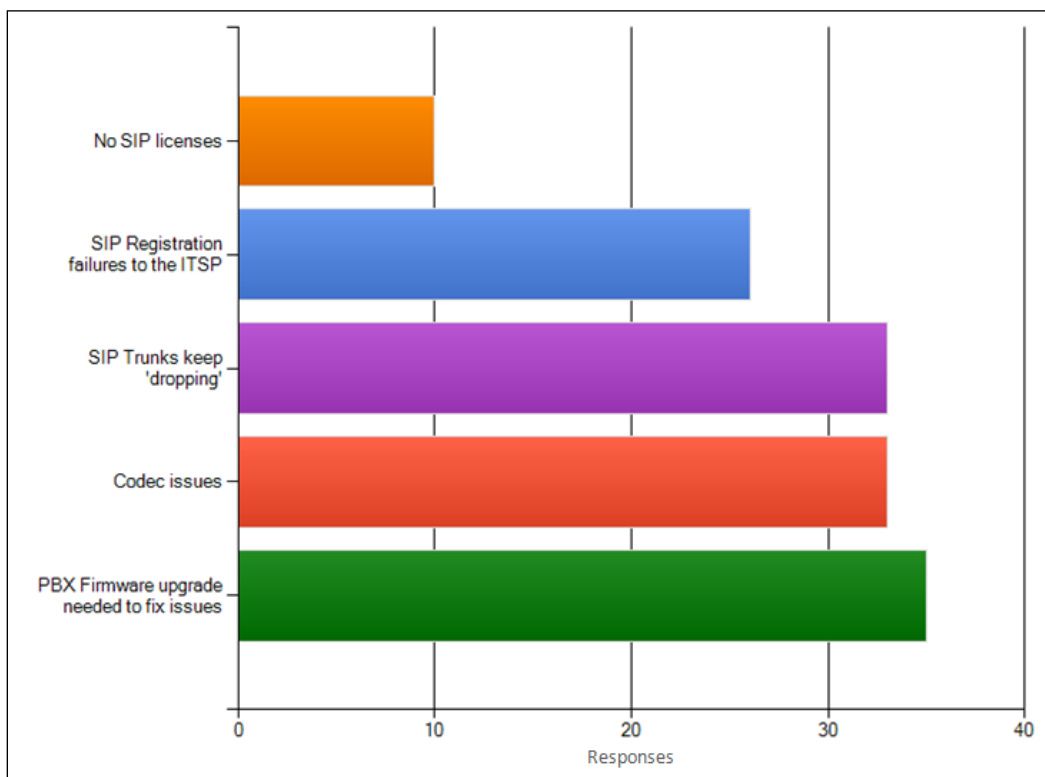
Registration issues feature highly here as does ‘Firmware update required’. It’s possible that the ‘Firmware’ issue could be connected to Crash / Lock-up issues. All can be easily resolved and maybe firmware should be applied before going live; it’s all about doing your homework.

Déjà vu strikes with the No Audio / One Way Audio again and as this is featuring strongly as a major issue it highlights the importance of testing the elements together before deploying. Results of such testing may even effect purchasing decisions of edge devices.

Let's move onto the PBX.

Q7: If the problems were found on the PBX what were they?

Figure 7



“Having the proper release of software is very important. In some instances, the PBX is a release behind, in others it is the service provider.”

David Byrd,
Broadvox

As ever, it's always frustrating to get problems but how easy to sort out the majority here?

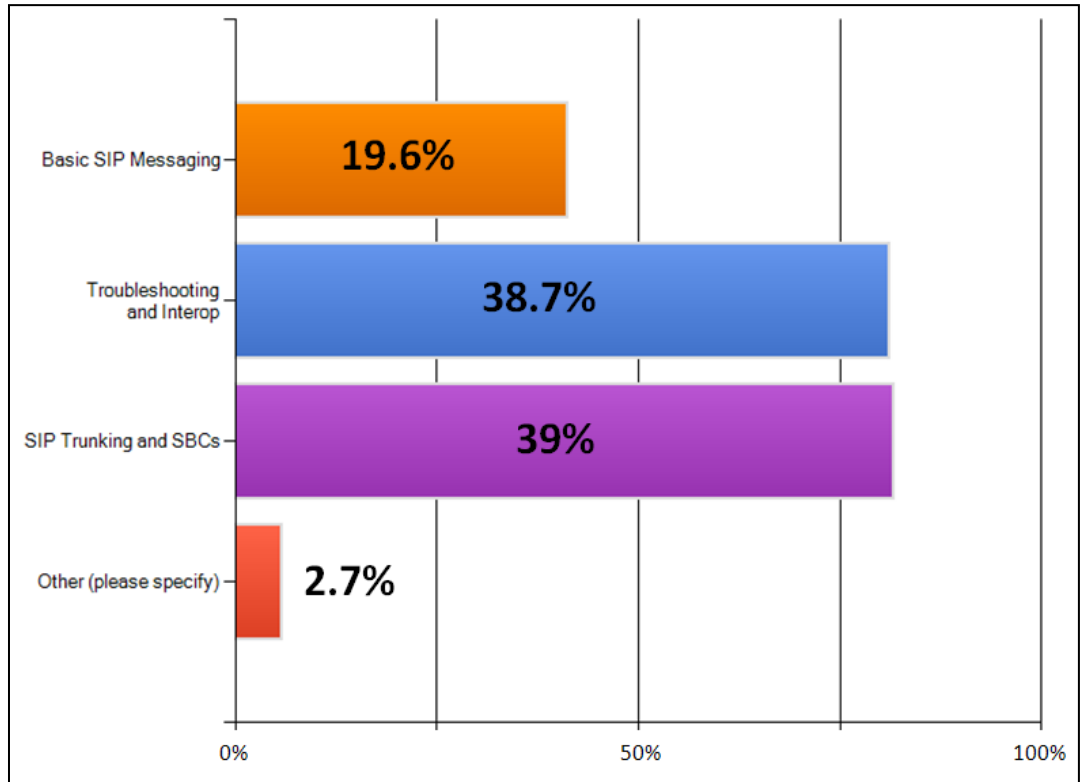
- Upgrading firmware: Why not check with manufacturers first to see if there are updates for any issues that may affect SIP Trunk deployment and operation?
- Codec issues: By checking what is supported by the PBX, SBC and ITSP you should be able to select the one supported by all and use that.
- Registration failures: Usually typos!
- No SIP licenses: Some PBXs need you to buy licenses and some don't. Again check this out with your vendor or supplier before moving forward and ordering the SIP Trunks.

A lot of these issues can be avoided by taking time, talking to the ITSP for correct configuration information and entering it into the PBX in the right places.

We can see the issues from all the responses so far but for this survey we wanted to throw the issues back to the audience with another question asking where they think more understanding is really needed.

Q8: Understanding SIP is important, which most interests you?

Figure 8



“Agreed 100% - however, we still see the PBX side as the big challenge. Many different PBXs, TDM PBXs, all need different configurations based on the customer installation.”

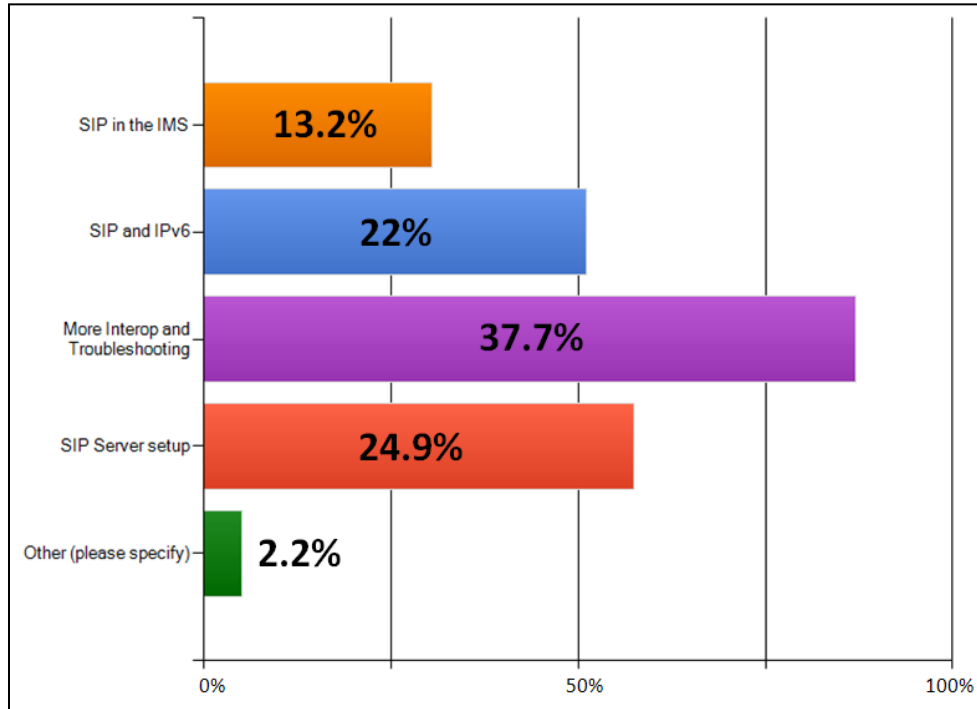
Alan Percy,
AudioCodes, Inc.

Well this surely shows that the areas that most interest people are the same areas that we need to work on to ensure that SIP Trunks get implemented right first time.

We even went a step further and asked about what people feel they need to see more of in The SIP School's own training program.

Q9: What would you like to see in our SIP training program?

Figure 9

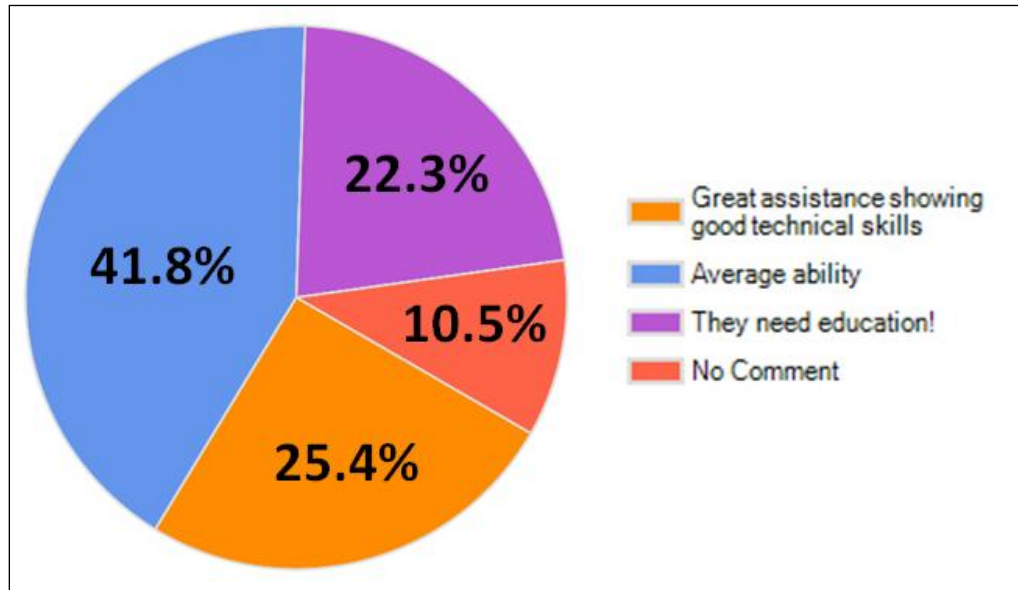


The answers show that even though it's always good to move forward and teach people about new areas such as the IMS and IPv6, it's still the areas that people find the most vexing that need even more focus on and these are the areas that we all must get right before we can move on. We will bear that in mind ourselves.

Let's move on a little here and focus on what happens when things do go wrong, your first port of call may be your ITSP so we asked:

Q10: When things go wrong with the SIP Trunk provider and you talk to support staff, how do you rate their ability to fix problems?

Figure 10



“Interesting, they don’t have degree programs at universities on SIP Trunking? No they have to learn on the job.”

Alan Percy,
AudioCodes, Inc.

“Why didn’t you also ask about support from the PBX vendor and the SBC vendor? And what about the System Integrator that sold and installed the system for them? “

Steven J. Johnson
Ingate Systems
Inc.

Now it's a tough job working in support and if people at both ends of the conversation have a good technical understanding of SIP then it bodes well for a satisfactory and quick resolution but this is not always the case. The answers here I think are promising as most respondents replied that over two thirds (67.2%) of support staff were at least 'average' for their assistance on specific issues and some, a lot better. The other percentage just shows that there is always room for improvement.

Of course we didn't ask for specific incidents that support people had to deal with, all we wanted to get from this question was the customer's view of their support experience in general.

Remember that it is customer experiences and perceptions that can win or lose business regardless of whether the fault was actually with the provider in the first place!

The point raised by Steve is a great one and means that we'll expand this element of the survey next year to look at support from all those involved in the 'total' SIP trunk solution.

“From my perspective a formal SIP certification is important and fits the standard Mitel paradigm requiring technicians to be certified on products they are installing, configuring, and/or maintaining”

Michael Craig,
Director, Quality and Education Services, Mitel

“Yes... We have mandated all our field Sales Engineers achieve SIP Certification.”

Mike Uttley
Senior SE Training Consultant
Level 3
Communications

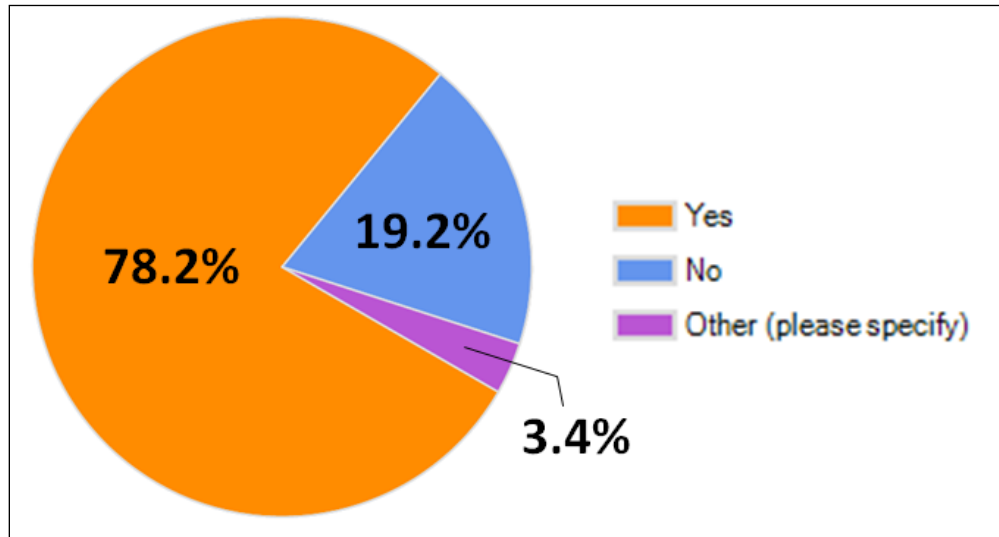
“Vendor’s and business partners who carry an industry recognized and supported SIP certification have strategic advantage over their competition.”

Mark Rawlyk, SE
Director, Avaya

The SIP School™ is the issuing authority for the SSCA® Certification and we thought that this survey may be a good time to see if people want or even need a SIP Certification. So we crossed our fingers and asked:

Q11: Is an ‘official’ SIP Certification important to you?

Figure 11



So, [figure 11] suggests that a certification is very important. One of the ‘other’ response statements was ‘it is important to our customers’. With this in mind, showing clients that your support personnel have achieved a recognizable level of skills will install a confidence in them and may even help get their business as they will have confidence that your staff have the skills to help them if issues arise. This is echoed in the comments on this page.

So, let's take a step back and see what we've found out and hopefully learned from this Survey.

Firstly, there are still significant issues that arise when implementing SIP Trunks and these issues must be faced head on in order to make installations go smoothly. They have to be as clean as existing Digital and Analogue installations as that's what the customer is used to and also expecting from all of the industry generated hype.

SIP Trunking is working in a lot of places where competent companies work together to ensure interoperability and continuity of service but looks like its hitting problems when it's installed quickly and without careful thought for Quality of Service and ongoing service management. Customers can get exasperated when they can't make or receive calls from their own clients and can resort to extreme measures.

Now here's a story that should make you stop and think and I'm sure it will drive home the reasons for getting things right first time.

Vocale Ltd (the holding company for The SIP School) knows a lot of Telecommunications installation companies in the UK and one particular conversation with a CEO really shook up the notion that all is well in the move to SIP Trunks. Here's his comment.

"I have a contact in a large service provider company that has told me, he's never been so busy taking SIP Trunks out of customer sites and replacing them with ISDN lines"

What on earth is that all about?

The conversation developed and it transpired that there are companies out there that don't understand the principle of getting things right by planning, testing and monitoring installations and they are simply putting systems in, getting SIP Trunks connected, testing for Dial tone and then moving onto the next client. Customers were experiencing poor quality, dropped calls and SIP Trunks simultaneously dropping then reconnecting which caused them so many problems when trying to communicate with their own clients they simply said "Enough is enough, let's rip everything out and go back to what works!" This frustration is mainly borne out of the lack of ownership when problems arose and installation companies pointed the finger at the ITSP who responded by blaming the installation people and guess who lost patience because they were in the middle and losing business? Yes, the client.

"Although, it rarely happens, it is common for a company that has had great difficulty getting a SIP Trunk to work to return to a TDM solution."

David Byrd,
Broadvox

Recommendations

This survey shows clearly that issues occur during the installation and configuration of SIP Trunks and in order to make things as painless as possible for all parties involved there are some simple things that can be done and most of these can be done relatively quickly.

Firstly, it's always wise to talk to all parties involved before moving forward. Get case studies from ITSPs and the manufacturers you are working with. Talk to their people about their installation experiences along with discussing the issues they have come across and how they overcame them. Talk to people about interoperability testing and conformance to standards and recommendations such as SIPconnect from the SIP Forum. In essence, good research and talking to people early on will help you decide which companies to work with.

If you are an enterprise looking for a SIP Trunking solution to suit your needs then ask ITSPs to respond to your business requests and see if they can cover everything you need from Service Level Agreements (SLAs) to support for the smallest of sites in the remotest of locations, even international locations. You need to ensure that everything can be covered by the ITSP and that they understand everything you need before things move closer to provisioning SIP Trunks. ITSPs should also be willing to let you trial SIP Trunking for free for a reasonable period of time. If so, then do it and test the Trunks using all the call scenarios you can think of such as call transfers, conferencing and so on. Also test the ITSP's support people at various times of the day, why not call them at 6pm on a Friday evening and see what the response time is and the level of knowledge of the support personnel available?

When it actually comes to installation of the SIP Trunks the one thing that really stands out is the need for correct documentation that supports the configuration of the PBX and the SBC/Edge device in order to get SIP Trunks to register and work. In our own experiences we've found that installations go way more smoothly if educated and experienced people use documentation that is clear and easy to understand and also based on settings that have been proven to work in the combinations of equipment being configured. For example, if you are installing SIP Trunks from Verizon, connecting to an Acme Packet SBC and then into a Mitel PBX it's important to check that these all interoperate and if so, get the configuration documentation into the hands of the installers. Again, make it easy for people to get it right the first time.

"It appears that many of the issues are human related and due to uneducated techies and probably a lack of good documentation by the vendors and providers."

Gary Audin,
Delphi Inc

“TIA has officially endorsed The SIP School as the training provider of choice for SIP. Along with the training program, you (or your personnel) can now become officially recognized as a SIP expert by passing the SSCA® certification test.”

From the TIA website at tiaonline.org

Once SIP Trunks are in and working it's not the end of the story. To ensure they continue to operate and function at their best it's wise to continually monitor their performance and also ensure that whenever any software upgrades are to be carried out on the PBX or SBC that these upgrades do not affect service. Again it's wise to talk to manufacturers first before making any changes that may affect operation of the SIP Trunks.

Conclusion

This survey has quite simply highlighted the need for all parties involved in providing a complete SIP Trunking solution to clients to work together and continually test their products and services for interoperability so that it's not the customer's premises that becomes the test bed.

It's a one way street for SIP and VoIP services as people will one day be using these services exclusively. How quick this happens is up to the people providing the services.

The SIP School would like to thank all those who contributed with their valuable comments and insights.

About The SIP School

The SIP School™ is owned by Vocale Ltd and was founded in April 2000. It's SSCA® SIP training and Certification program has become recognized as the globally accepted Certification for VoIP professionals to strive for. Organizations such as the Telecommunications Industry Association officially endorse the program and Bicsi value the program at 16 CEC credits towards their own certification. Details of more industry supporting companies can be found at <http://www.thesipschool.com/industry.html>

Contact: Graham Francis, CEO graham@thesipschool.com

About Techistan

Techistan was founded on December 29, 2009, as an online news source and community of reporters and bloggers from the East and West who passionately collaborate in profiling and reviewing new technology products, people, and companies. In addition to covering startups, entrepreneurs, and inventors, we profile existing powerhouse companies that are making a difference, commercially or socially, online and/or offline. Visit the Techistan website at <http://www.techistan.com/>

Contact: Suzanne Bowen, VP Marketing, Editor in Chief at Techistan suzanne@supertec.com