

SMS FIREWALL

VENDOR BENCHMARKING REPORT



ROCCO

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WE KNOW THE PROFESSIONALS.



100+ Pages
featuring ranking
and insights on
all the best
vendors

“Knowledge is power.
Information is liberating.
Education is the premise of progress, in every society, in every family.”

Kofi Annan



SMS Firewall Vendor Performance Report 2020

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About the Authors

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Antonio is the Lead Researcher at ROCCO. A new recruit for ROCCO this is his first Vendor Performance report. Anton join us from Lund University where he was a research assistant where he had deep competencies in the area of economic research. Now entering into a new world of telecoms and bringing with him so many insights to merge with ROCCO's own data sources.

Jason Bryan

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Introduction

Background

The plethora of choices available in the SMS Firewall vendor community creates a challenge for MNOs to identify the right solution for their needs, and as SMS spam and phishing become increasingly more common, finding the right vendor is a crucial task — essential some would say. Nothing causes customer churn more than unsatisfactory service.

ROCCO has been called the Michelin of the telecoms Industry in that it facilitates the rating of Vendors to understand the quality of vendors and the market leaders. However, ROCCO does not judge the Vendors directly, but facilitates MNOs in rating them and giving opinions across the wider Vendor base, creating a community for information and advice exchange on specific important Vendor decisions.

Investing in Vendors always takes a great effort, MNOs need to make RFP, RFQ and selection processes which take time and energy away from monetisation of SMS. This report aims to offer advice from other MNOs which might help MNOs not yet decided on which Vendor to choose. If the MNO is not part of a group, or an independent MNO they hardly ever get the advice of other MNOs to help make decisions on the challenges they face, so the benefits of listening to a truly neutral 3rd party like ROCCO are clear.



Executive Summary

About the Executive Summary

This part of the report is given for free to MNOs taking part in this research. The Full Strategic Analysis version of this report contains detailed feedback from MNOs on all the Performance and Leadership KPIs including the leaderboard, whereas this version of the report is providing a general summary.

The Leading Vendors

This is the fourth time that ROCCO has studied SMS Firewall. The infographic above shows that this year we have 4 Tier One vendors. The goal is to understand what the Vendors say (Market Intelligence) and what the MNOs say about the vendors (Vendor Performance), as well as effectively record the vendors' progress from an MNO point of view.



Tier Table

Tier Table

Tiers	Vendors
<p>All ratings are out of 5 points. The Overall Score determines the Tier in which the Vendor is placed within our Table. The Overall Score is determined by the 4 sub-scores for the four rating sections:</p> <ul style="list-style-type: none"> • Performance KPIs, • Performance KPIS specific to this research, • Leadership • and their Overall Rating <p>All rating are combined to achieve an average Overall Score. E.g. $3.5 + 3 + 4 + 3.5 = 3.5$ Overall Score = Tier Two</p>	<p>Vendors are shown in Alphabetical Order with an overall ranking available in the Strategic Analysis Version of this report.</p>
<p>Tier One Vendors: Whose Overall Score is between 4-5 out of 5</p>	<p>ANAM Technologies</p>
	<p>Comviva</p>
	<p>Haud</p>
	<p>Infobip</p>
<p>Tier Two Vendors: Whose Overall Score is between 3.5-4 out of 5</p>	<p>AMD Telecom</p>
	<p>BICS</p>
	<p>Cellusys</p>



The Requirements of Mobile Operators to SMS Firewall Vendors is Changing

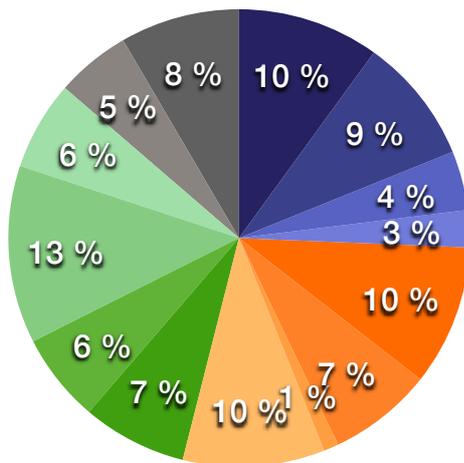
The top 3 requirements MNOs have for SMS Firewall

We asked MNOs what are the 3 most important criteria for them as an MNO when they consider the SMS Firewall service. Some MNOs chose more than 3 criteria!

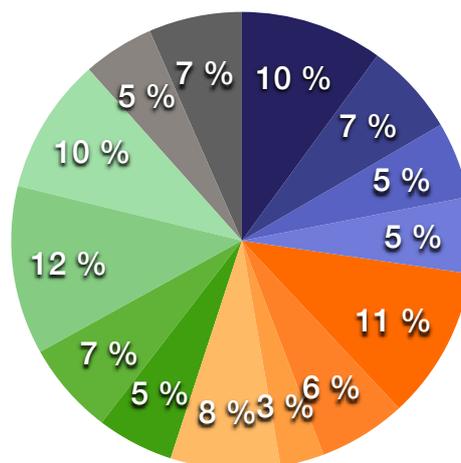
MNOs indicated to us that in 2020 the “SIM BOX / Farm detection capabilities were more important” was the that most important criteria for them. Followed by “Knowledge of A2P SMS market and trends” and “Ability to protect both inbound and outbound”.

Question: What are the top 3 requirements you have for SMS Firewall Vendors?

The top requirements 2018



The top requirements 2020

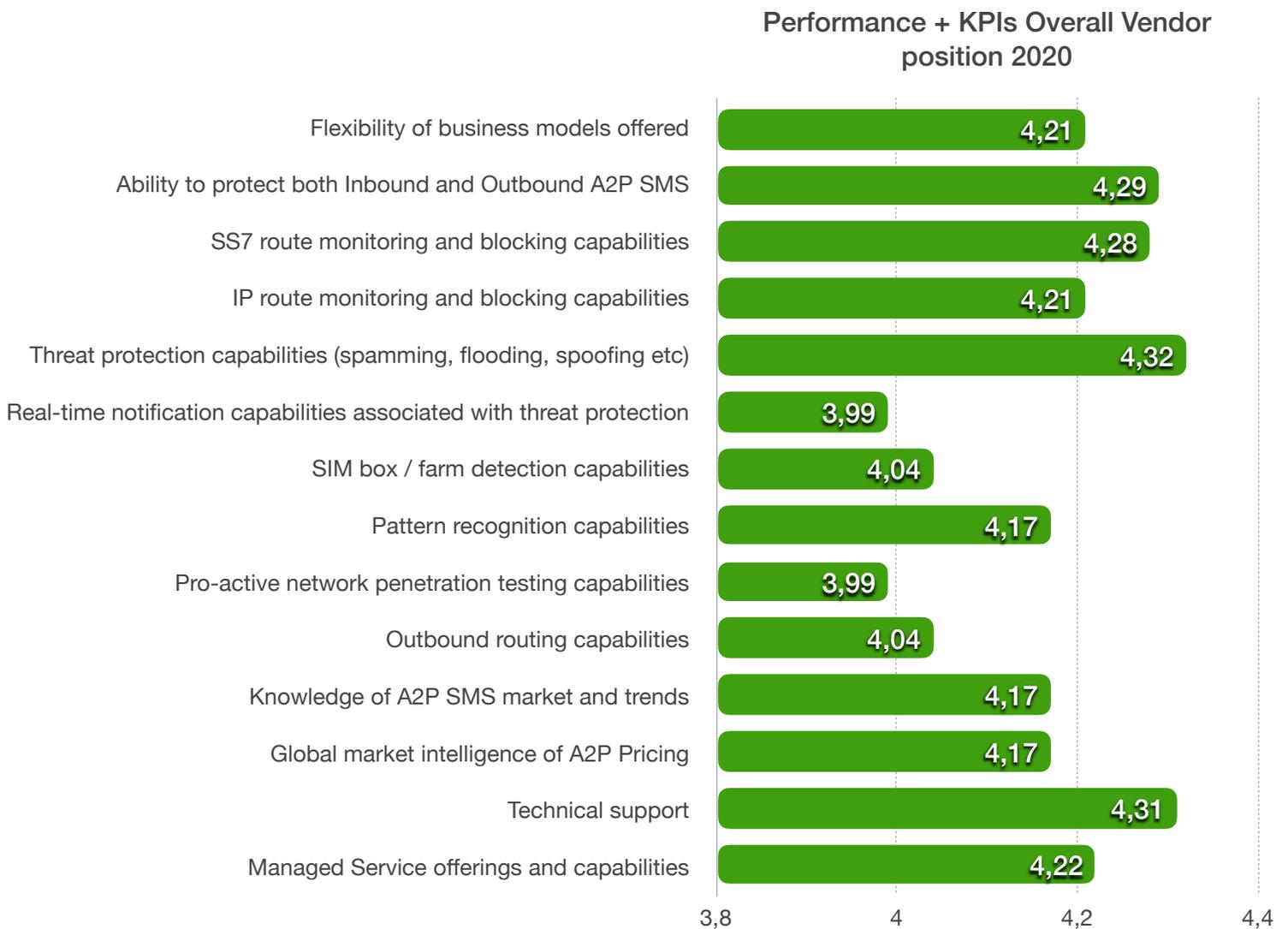


- Ability to protect both Inbound and Outbound A2P SMS
- Flexibility of business models offered
- Global market intelligence of A2P Pricing
- IP route monitoring and blocking capabilities
- Knowledge of A2P SMS market and trends
- Managed Service offerings and capabilities
- Outbound routing capabilities (to assist an MNO with growing their own A2P offerings)
- Pattern recognition capabilities (determination of what is A2P and what is P2P)
- Pro-active network penetration testing capabilities
- Real-time notification capabilities associated with threat protection
- SIM box / farm detection capabilities
- SS7 route monitoring and blocking capabilities
- Technical support
- Threat protection capabilities (spamming, flooding, spoofing etc.)



Overall Vendors Perform well on the Requirements

ROCCO wants to know how SMS Firewall providers are perceived also as far as the “Performance + criteria” are concerned. Those specific criteria which are fundamental to the delivery of SMS Firewall service. Below are some of the KPIs for Performance+ the position on all KPIs across all Vendors is shown in the Strategic Analysis version of this report. On all counts the overall performance by all industry vendors is rated as less than last year. This is typical as MNOs become more selective and start to judge performance more critically.



Most MNOs think SMS Firewall is the best way to monetise SMS but have some further suggestions

MNOs told us what were the key trends from their perspective.

“SMS Firewall” x 10	Contractual connections and make sure all traffic terminated is reported and billed.”
“In house system management”	
“Filtering on signalling links”	“Manage all interconnects better especially domestic, align rates to deter grey routing”
“Business analysis and dials behaviour”	
“Make local and int'l SMS termination rates the same”	“SMS hubbing”
“Surcharging model”	“Closing all none monetized routes (SS7 international, SS7 domestic, SMPP, SIM farms via own SMSC; price alignment on domestic and international A2P routes; managing not aggressive retail SMS pricing, to prevent SIM Farms bypass”
“SS7 Signaling protect”	
“Service restrictions / Route restrictions”	“Reduce international A2P rate to the level of local interconnection rate”
“Control pricing and connections with various hubs”	
“Working extensively to guarantee the authenticity of business messaging. Access from verified business is key”	“There are other way but non of them are good as firewall. MNO can do manual blocking or they can chose A2P SMS hub.”
“MNO shall have a full plan and strategies of their A2P SMS”	
“Monitor and regulate the connections on its network,	

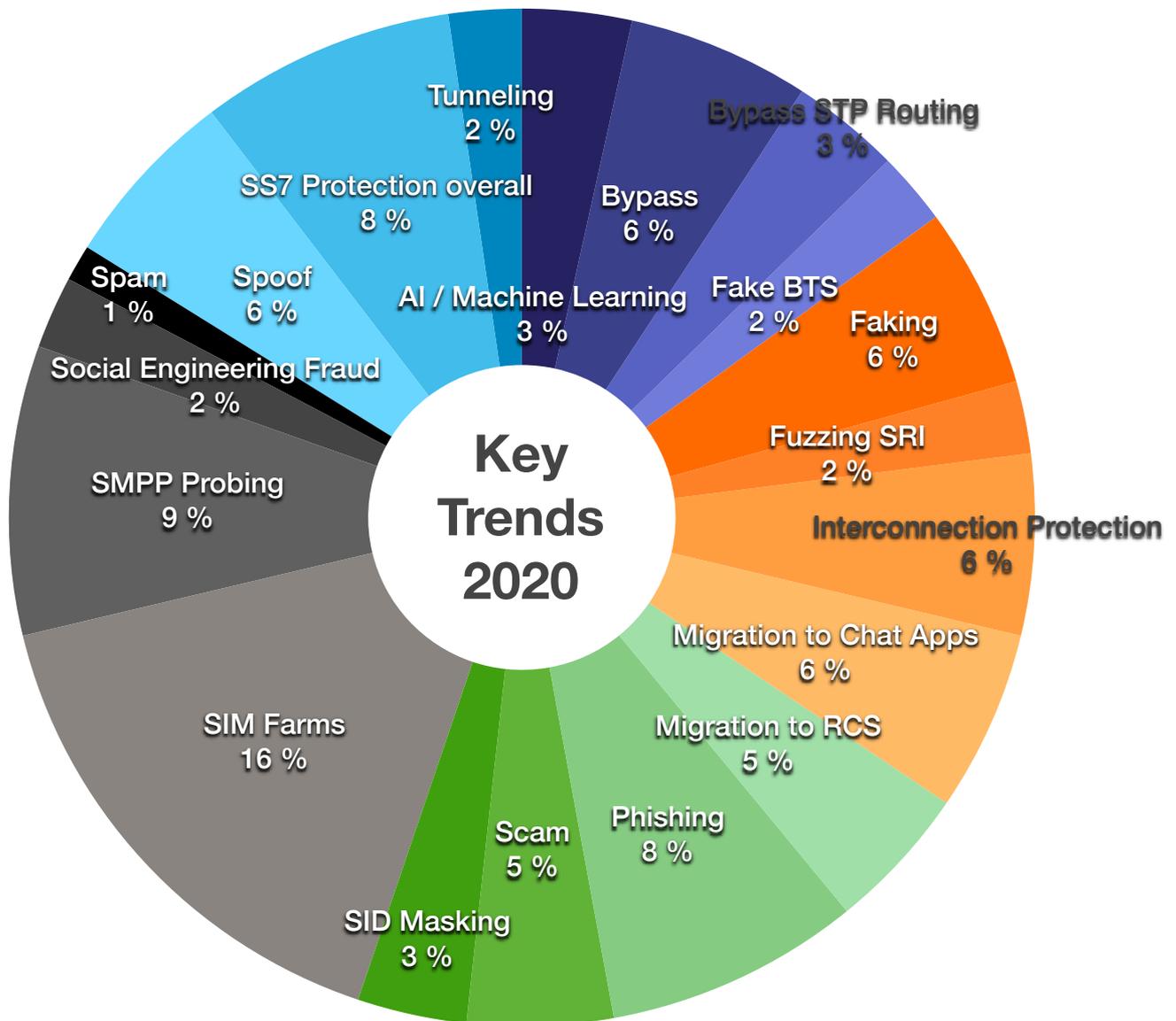
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- “Revise of roaming agreements and MT SMS price (level up and avoid e.g. cheap B2B pricing). Eliminate SIM box abuse by the termination of the underpriced prepaid and unlimited SMS postpaid price plans.”
- “Profiling & pattern learning, Regulation, MNO2MNO alignments”
- “SMS is the key to monetising SMS, gives control of grey route SMS traffic, otherwise enable sound agreement on trusted partners”
- “Block SS7 traffic”
- “Content filter”
- “SMS FW is best way to monetise SMS, it might cost operator to invest on, while there are ways to do that inhouse without further cost. we tried it before the FW deployment and it is effective”
- “Manual testings and blocking”
- “It’s the right time to get benefit of firewall and transfer this tool to money”
- “Commercial intelligence and rapid action of cutting grey routes”
- “FMS”
- “Higher SMS interconnection rate”
- “Is more than firewall and filtering but create more monetization”
- “Invest in A2P RBM, next step of SMS”
- “Commercial deal structure by prepayment commitment provided to MNO”
- “High interconnection rate for off-net SMS”
- “SMS HUB and Introduction of AI on Firewall and HUB and on the long run RCS”
- “In app monetisation as facebook and whatsapp are already working to skip A2P SMS authorization by switching to in app authentication”
- “Another layer non intrusive mechanism”
- “Channel management”



The Trends in SMS Firewall remain diverse

Since SMS Firewalls and the Vendors who provide them are always challenged with new fraud scenarios we are monitoring the key trends each year. This is what we have discovered for 2020. Clearly ‘SIM Farms’ is a huge trend with ‘SMPP Probing’ becoming more popular.



Further Comments

“Same as before but much refined, content pattern change several time a day. Spoofing faking growth in %. As internationalisation (high margin A2P) is declining but domestic (lower margin A2P) is raising aggregator that have no organic traffic nor B2B clients to generate local volume are forced to get "dodgy" to keep running”

“The A2P SMS (blended routes from grey) via SIM box is the threat for all MNOs. The threat can be minimized as long as the machine learning from FW is capable. This threat will always be there.”

How MNOs get Organisational Buy-In for SMS Firewall

We asked MNOs what was the best way for them to get Organisational buy-in or approval for SMS Firewall services. These gave us several pieces of advice.

“Revenue sharing” x6	“Conduct tests and find loop holes”
“A strong Business Case” x4	
“Piloting” x 3	
“No OPEX and No CAPEX model”	“The businesses working together”
“Evidence backed with strong business case”	“Demonstrate using existing clients”
“Increase of revenue”	“Performance ,and reliability”
“Collaboration”	“Manage revenue leakage on grey routes”
“Revenue incremental and customer experience enhancement”	“Calculating ROI and incremental revenue”

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“Realizing the volume of A2P that circumvents payment?”	“Argue with concrete figures - how much incremental revenue can be guaranteed”
“A network penetration testing exercise will demonstrate if an SMS firewall is required and what revenues are foregone. This information is key in order to help management in their decision making process.”	“RFI”
“Now most MNO have their own SMS FW. Providers shall have a good approach to persuade the MNO.”	“Explaining the incremental revenue potential to the bosses”
“Yes, to buy SMS FW”	“Comprehensive solution”
“Tell them the importance of the platform to offer quality of service to our clients and how we will obtain new revenues with it”	“Revenue share on incremental revenue”
“Penetration testing and commercial modelling”	“When grey routes are suspected”
“It is to build the right business rules and review them permanently and continuously”	“Control of SMS application traffic as financial benefit and to be able to provide trust in customer experience -SMS received can be trusted as reliable”
“Approach customer one-on-one”	“It must be reliable”
“Generated value for the organization to develop other services”	“Implement firewall”
“Depending on local policies”	“Exclusivity agreement”
“Good communication”	“A2P Pricing”
	“Revenue Commitment and other models avoiding revenue impact”
	“Get the most protective firewall system”
	“Tendering”
	“Business Case & pilot”



COMVIVA UD VERSION

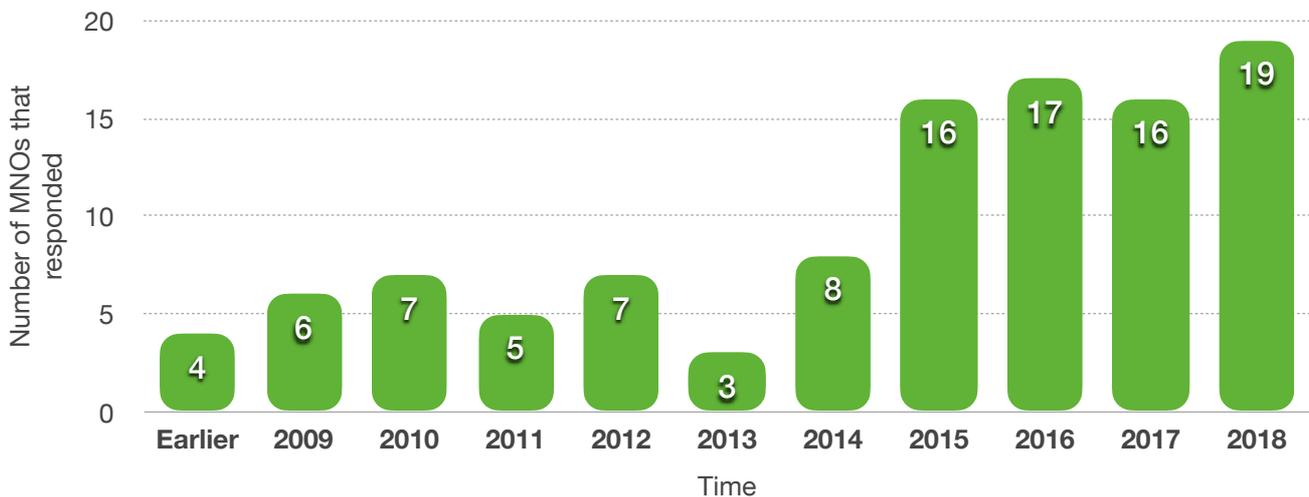
“FW capabilities , capacity & reporting”	“Performance of the firewall and successful story”
“Reliable service with revenue commitment”	“Revenue potential”
“Solution and understanding the market business”	“Virtualization”
“Flexible business models, communicate actual Use Cases and success stories from SMS Firewall service provider”	“Simple business cases”
“Deal structure MNO and FW provider”	“Able to forecast revenue based on operators subscriber base. Sharing insights on grey routes being used by OTs to used operators as a dump pipe”
	“Proven analytics”



More and more MNOs are signing up to Firewalls for SMS

We asked an optional question of MNOs which was for MNOs to tell us for how much time they had used SMS Firewall services, the answers were very mixed but we had the clear view that the majority of MNOs had only recently started using these services. The market looks to be rising.

For how much time have MNOs had SMS Firewall services

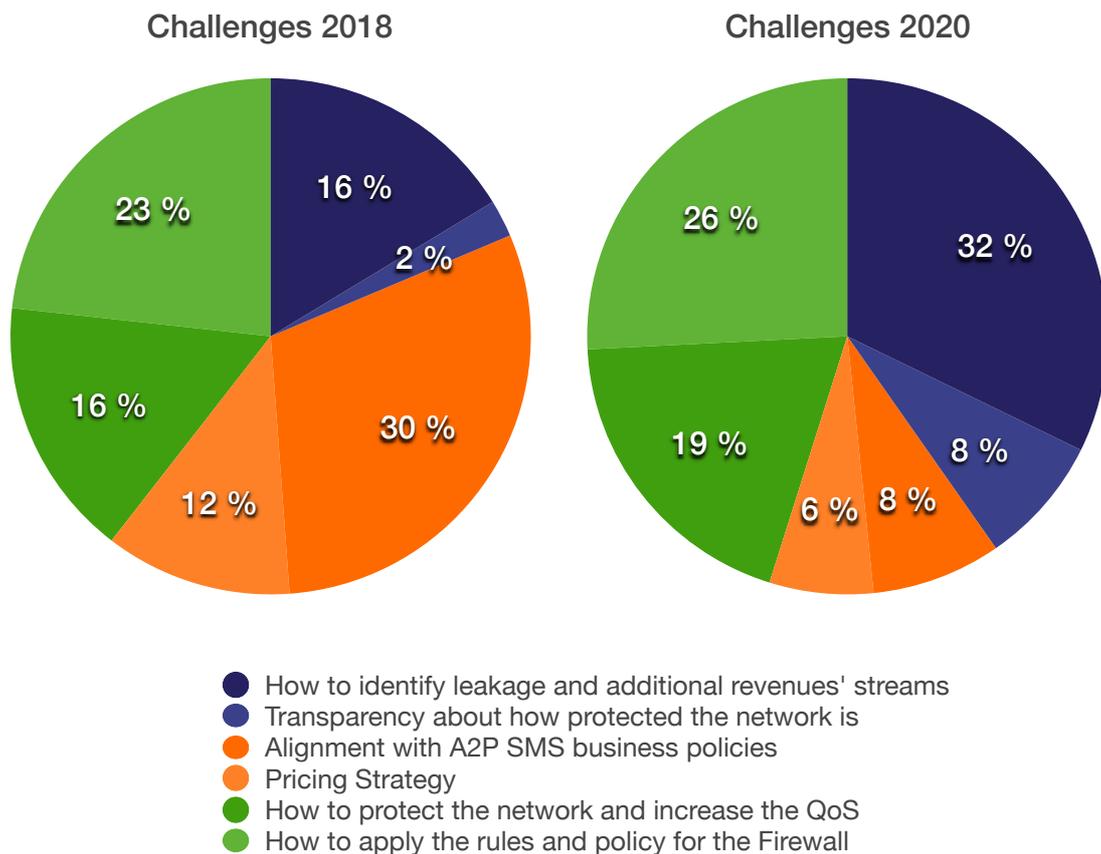




The Challenge of Identifying leakage and new Revenue Streams is key

Question: Which of the following do you consider the most challenging for SMS Firewall Solution?

We asked MNOs which areas do they consider the most challenging for their SMS Firewall Solution. Looking below at the differences between 2017 and 2018 its clear to see MNOs feel a lot more confident about “Identifying leakage and additional revenue streams” and “Transparency about how protected the network is” but less about “How to apply the rules and policy for the firewall”.



End of Executive Summary

Strategic Analysis

Performance

Introduction

ROCCO wants to know how SMS Firewall providers are perceived for performance criteria which are fundamental to the delivery of SMS Firewall service.

Several performance criteria are key “buzz words” used in our industry to denote a quality performance. For example... “X is good *Value for Money* but isn’t very *Flexible*”.

Brand messages often use performance criteria to advertise certain features of a product or service. However, sometimes we can’t quantify if the brand message is accurate or simply a marketing vision. For example, *Uptime Performance* is a performance indicator required of a SMS Firewall providers and may be advertised as a feature of a SMS Firewall Provider but not always delivered to the degree needed by the operator.

Our survey helps quantify performance criteria to assist Operators to get a wider perspective.

References to [Q4] are references to the question which Vendor would you like to share feedback on.

General Performance KPIs

- Reliability
- Customer Service
- Technical Expertise
- Reputation
- Value for Money
- Understanding of The Industry
- Offers Excellent Value Added Services (VAS)
- Quality of Service

- Transparency
- Flexibility

Performance+ (On important A2P SMS Messaging aspects):

- Flexibility of business models offered
- Ability to protect both Inbound and Outbound A2P SMS
- SS7 route monitoring and blocking capabilities
- IP route monitoring and blocking capabilities

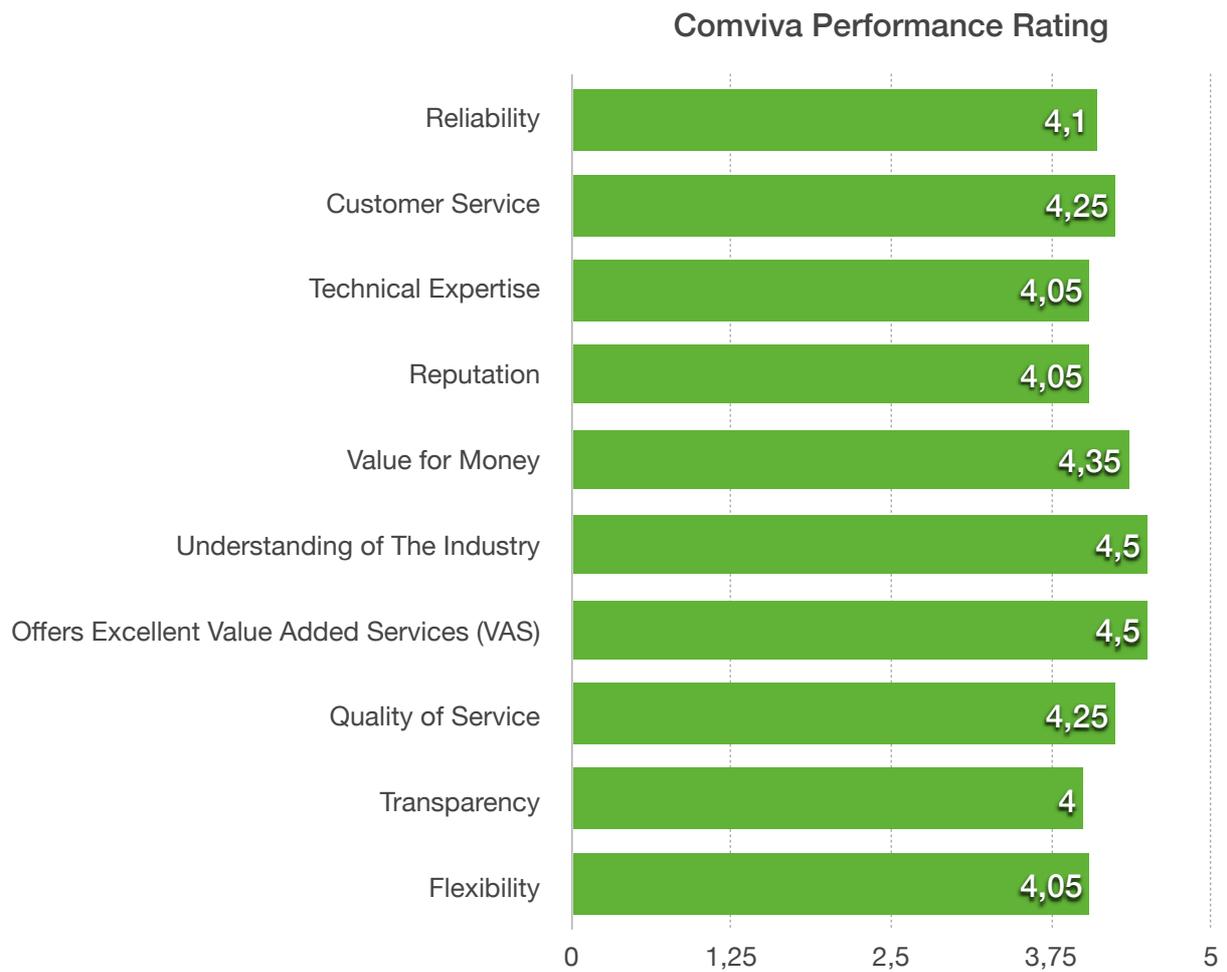


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- Threat protection capabilities (spamming, flooding, spoofing etc.)
- Real-time notification capabilities associated with threat protection
- SIM box / farm detection capabilities
- Pattern recognition capabilities (determination of what is A2P and what is P2P)
- Pro-active network penetration testing capabilities
- Outbound routing capabilities (to assist an MNO with growing their own A2P offerings)
- Knowledge of A2P SMS market and trends
- Global market intelligence of A2P Pricing
- Technical support
- Managed Service offerings and capabilities
- Report KPI: Frequency
- Report KPI: Detail
- Report KPI: Optimisation
- Report KPI: Customisation

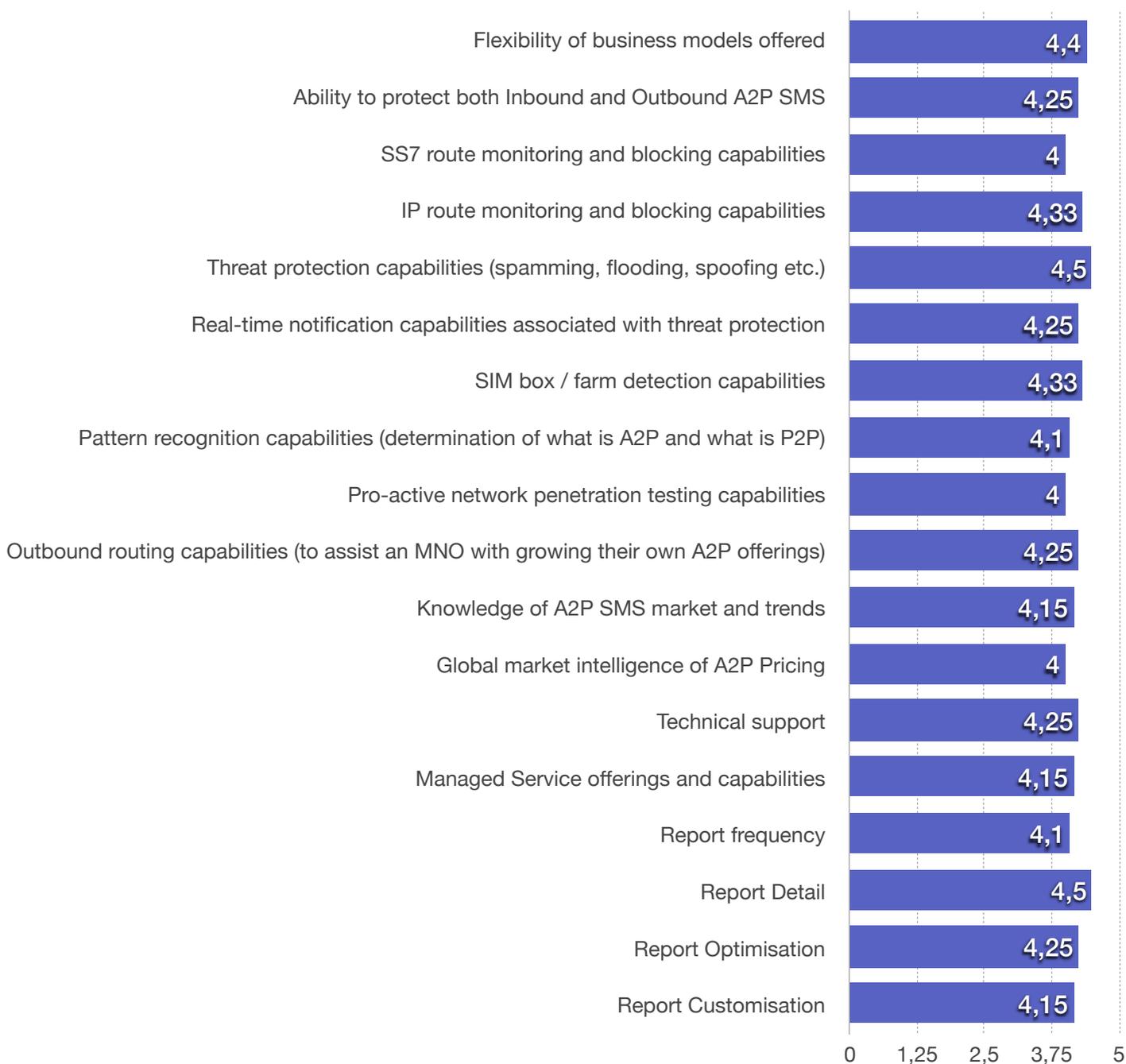


Comviva: Performance



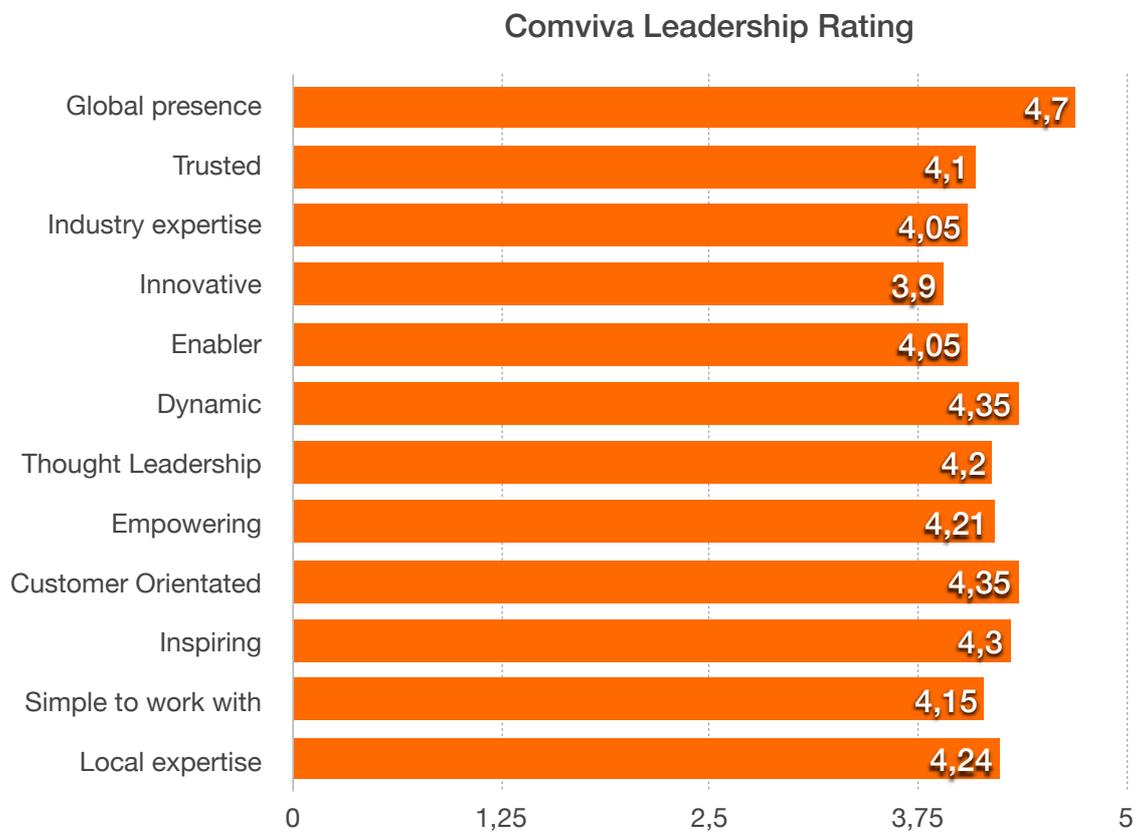
Comviva: Performance+

Comviva performance + Ratings





Comviva: Leadership



Comviva: MNO Feedback

“They are a rare and important vendor in the industry”

“Comviva has a very strong and useful firewall with the ability to find fraud easily”

“This is a 1 stop shop for all SMS Firewall needs”

“Comviva is global, cheap and they understand the industry better than any other vendor, they will go far”

“The solution is better than most”

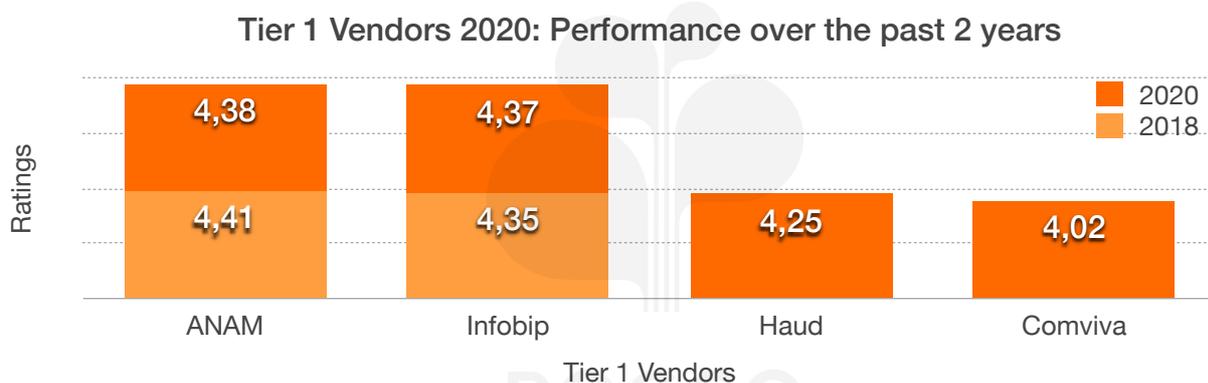
“Professional and good value for money”

“its good and you just have the feeling that they put continuous investment”

Overall Conclusions

There's no telling when A2P SMS messaging will start to decline in volumes, SMS remains while a somewhat archaic and historic solution, the world's favourite most global messaging option. Clearly, it's an easy and non evasive way for enterprises to communicate with clients in a format which as the world's need to abbreviate grows, keeps becoming more and more relevant.

The Vendors in tier one of this report are widely celebrated and admired. Companies like ANAM and Infobip year on year remain relevant and important to mobile operators. Despite the continuous hard work they put in however, the solution continues to evolve and develop along with the fraud developments of the moment.



At the forefront of SMS Firewall requirements this year is SIM Box / Farm Detection solutions. That's interesting because ROCCO conducts research into the vendors of those solutions and there's not much overlap with the vendors here. Should SIM Box detection vendors move into the SMS Firewall business or SMS Firewall vendors evolve themselves to cover also Sim Box detection solutions across a wider field than just SMS?

One other insight was that over the last 4 reports, we have noted that the requirement for the vendor to have knowledge of A2P SMS Business has slowly increased in importance. Clearly quality Aggregators have an amazing insight into the types of business using SMS so it would make sense that working with SMS Aggregators an SMS Firewall vendor may gain some insights. However, there was a time when Mobile Operators questioned using their aggregator as a firewall provider since they felt both solutions should not be under the same brand. Clearly Aggregators like Infobip and now Sinch, which recently brought the Symsoft brand under their aggregator brand don't see legitimate concerns.

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This years report also included for the second time the Net Promoter Score. It was interesting to note this year, how MNOs were willing to support vendors by promoting them to industry friends and colleagues. Clearly this important viral marketing is really the best sales tool of all for vendors who may not have the global presence, sales teams and marketing budget they might want.

Looking at this years 4 tier one Vendors, MNOs choices are widening. There are two vendors Comviva and Haud in the tier 1 ranked position who have not been in this position before. Then vendors from last year dropped position, but there's room for everyone as we saw from the timeline chart where more and more vendors are investing in solutions.

With 4 years of Vendor Performance in SMS Firewall, it seems clearer than ever that there is good competition and favourable vendors. This means our work is done. We will repeat this report again in 2022 to see how the market is evolving. In the mean time, look out for the SIM Box Detection Report for 2019 and A2P SMS Messaging reports for 2020 which promise to be exciting. We will be awarding all the tier one vendors in May 2020 at the Visionaries Gala, we hope to see you there and to celebrate the great work of these important industry vendors.

Notes on Our Report

Identifying Vendors

There is often no formal list of Vendors available to MNOs. Even Associations don't have all Vendors as members and often don't provide full lists for people to view. We found there are a number of sources to create a definite list. The Vendors that were included in this survey appeared because of one of several reasons:

- They are easy to find with search engines
- They are active in social media
- They were recommended to be included by MNOs from personal experience
- They attend Industry Events and are known in the Industry, because they have Exhibition stands, produce standards in Industry associations, or simply throw promotional events or parties
- They are known Vendors to ROCCO

Even after checking all these sources, sometimes we miss a certain Vendor. There is no intention behind this. We are happy to include all Vendors however long this makes our list of Vendors that are included. However looking at the list below we believe it to be definitive.

How the Ratings where Calculated

The Overall Score has been created by taking all applicable MNO ratings for more than 40 KPIs, in the category of Performance, Performance+ (performance on important SMS Firewall aspects) and Leadership:

Performance KPIs:

- Customer Service
- Flexibility
- Offers Excellent Value Added Services (VAS)
- Quality of Service
- Reliability
- Reputation
- Technical Expertise
- Transparency
- Understanding of The Industry
- Value for Money

Performance+ KPIs:

- Ability to protect both Inbound and Outbound A2P SMS
- Technical support
- Knowledge of A2P SMS market and trends
- Flexibility of business models offered
- SS7 route monitoring and blocking capabilities
- Threat protection capabilities (spamming, flooding, spoofing etc.)
- Pattern recognition capabilities (determination of what is A2P and what is P2P)
- Managed Service offerings and capabilities
- Real-time notification capabilities associated with threat protection
- Global market intelligence of A2P Pricing
- SIM box / farm detection capabilities
- IP route monitoring and blocking capabilities
- Pro-active network penetration testing capabilities
- Outbound routing capabilities (to assist an MNO with growing their own A2P offerings)
- The Implementation of the Vendor was easy from start to finish
- I was fully informed of the Pros and Cons of joining the Vendor's solution before I signed the contract
- The account management/ sales team of [Q4] are fully aligned with their Operational / Technical Teams
- The Vendor meets their deadlines
- Report KPI: Optimisation
- Report KPI: Frequency
- Report KPI: Customisation
- Report KPI: Detail

Leadership KPIs:

- Global presence
- Trusted
- Industry expertise
- Innovative
- Enabler
- Dynamic
- Courageous
- Empowering
- Customer Orientated
- Inspiring
- Simple to work with
- Local expertise

For every KPI above the MNO was invited to rate the Vendor out of 5. The Strategic Analysis version of this report contains the specific scores for each of the KPIs for each of the Vendors. For this Executive Summary we present the summary of the average ratings for categories using a stars system.

Eligibility for taking part in this report

Only MNOs were applicable to take part in this research. Feedback from Vendors, companies who were not MNOs was removed.

Your Feedback, Our Future Reports

This represents ROCCO's second SMS Firewall Vendor Performance Report.

As we progress with our research we intend to refine questions and results much more finely but we are also aware that our being able to capture this data depends purely on the MNOs and their willingness to participate.

There are 700+ MNOs within the GSMA Membership. ROCCO made more than 3000 individual e-mails and calls to reach the feedback within this document and reach respondees at their most available.

It should be noted that it is important to identify respondents who know who the Providers are and can actively comment.

We would welcome your feedback on our questions, research, interpretation of the results and our presentation of the results. Please contact HQ@rocco.group to give your view.

We have taken a lot of feedback on this survey which we intend to use in the revision of this survey for 2022. In 2022 we intend to repeat several questions we have created here and then understand how perceptions are changing with regard to SMS Firewall Vendors and how the performance has evolved.