



THE VOICE OF 5G AND LTE FOR THE AMERICAS

MOBILE SIGNAL JAMMERS IN LATIN AMERICA

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EXECUTIVE SUMMARY

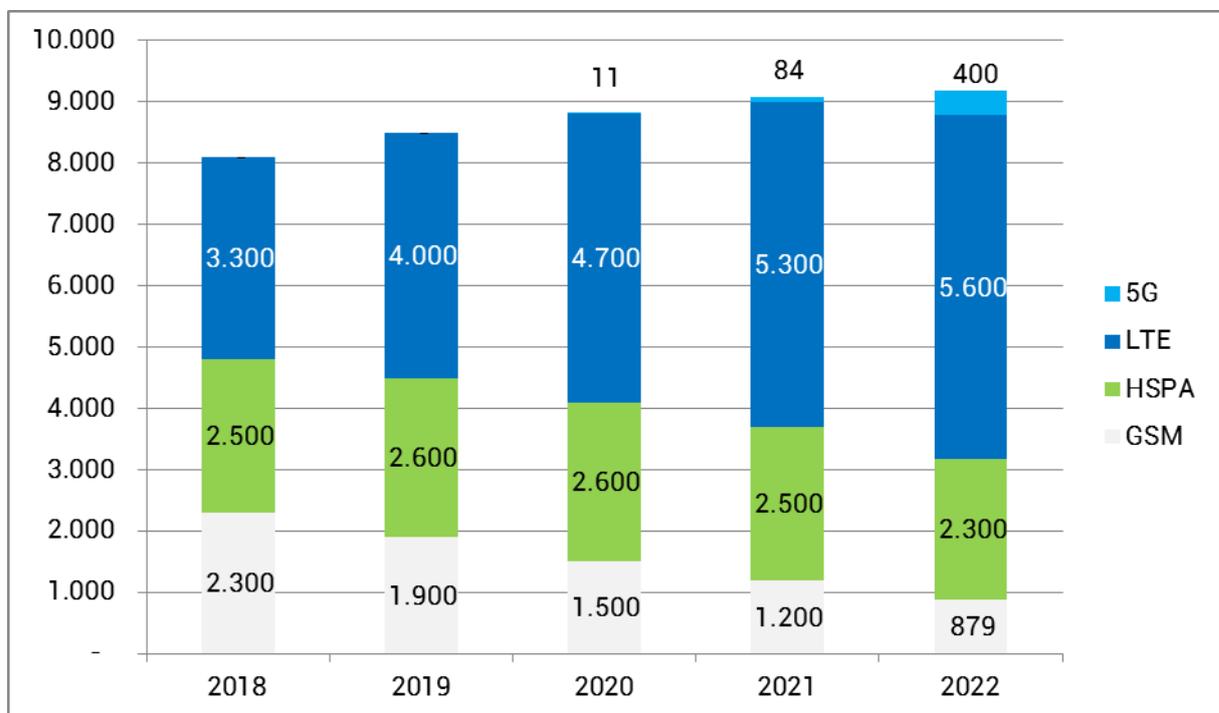
- The mobile industry has worked with governments to enable mobile communications for all social tiers. Thus, mobile is currently the ultimate means of communications, even for those who are connecting to the Internet for the first time.
- Mobile telephones facilitate communications and enable economic growth and progress in terms of labor, production, education and health, among other areas. However, they are also used to perpetrate crime and mobile devices per se are subject to theft in thousands of cases.
- Mobile terminals have increasingly been used for criminal purposes by placing calls from prisons to ask for ransom. Governments and the industry have taken steps to mitigate this activity, although the countries' authorities and mobile carriers have held different views on the ways of blocking communications from jails.
- There is a variety of technology solutions for blocking radio signals in a specific area. All the available solutions are effective to a greater or lesser extent. However, none is completely harmless. Communications in prisons can be blocked fully, although this implies the risk of blocking communications that should be routed at no interference.
- One of the most widely used methods for preventing mobile communications in prisons are jammers or blocking devices that emit a more powerful signal than mobile signals on the same frequency. Thus, all communications using radio frequencies can be blocked by the new emitted signal.
- Many prisons in Latin America are located in urban areas. Thus, using signal jammers affects tens of thousands of users who live in adjacent areas.
- Legislation differs among Latin American countries relative to the use of mobile signal jammers in prisons. Some laws indicate that the liability on the use of signal jammers lies with the State, while others provide that it is the mobile service operators who are liable.
- Several regulations on the use of jammers conflict with other duties imposed by the State on mobile carriers, such as expanding mobile service coverage and raising QoS standards.
- States often delegate some of their inherent functions on the operators. The responsibility over radio spectrum management and monitoring lies with the State. Carriers pay large amounts of money in auctions and tenders to use this vital resource for the mobile industry, in addition to the rate on the use of frequencies.
- Calls placed from jails with criminal purposes basically happen because cellular phones are illegally smuggled into these facilities.
- The mobile industry is willing to help the States in enhancing security for the society. To that end, it is imperative for each party to meet their own primary responsibilities.

INTRODUCTION

The right to communicate is an inalienable human right in the vast majority of countries. It is a known fact that communications have made technical progress. The earliest archaic systems have evolved to the telegraph and later fixed telephones. Undeniably, present day communications are ruled by mobile services, which have evolved from communications between human beings to Internet access and communication among things with no human intervention.

It is estimated that by 2022, there will be 9.1 billion mobile subscriptions globally, 8.3 billion of which will be mobile broadband accesses.

Evolution of global mobile subscriptions by technology - 2016-2022 (in Millions)

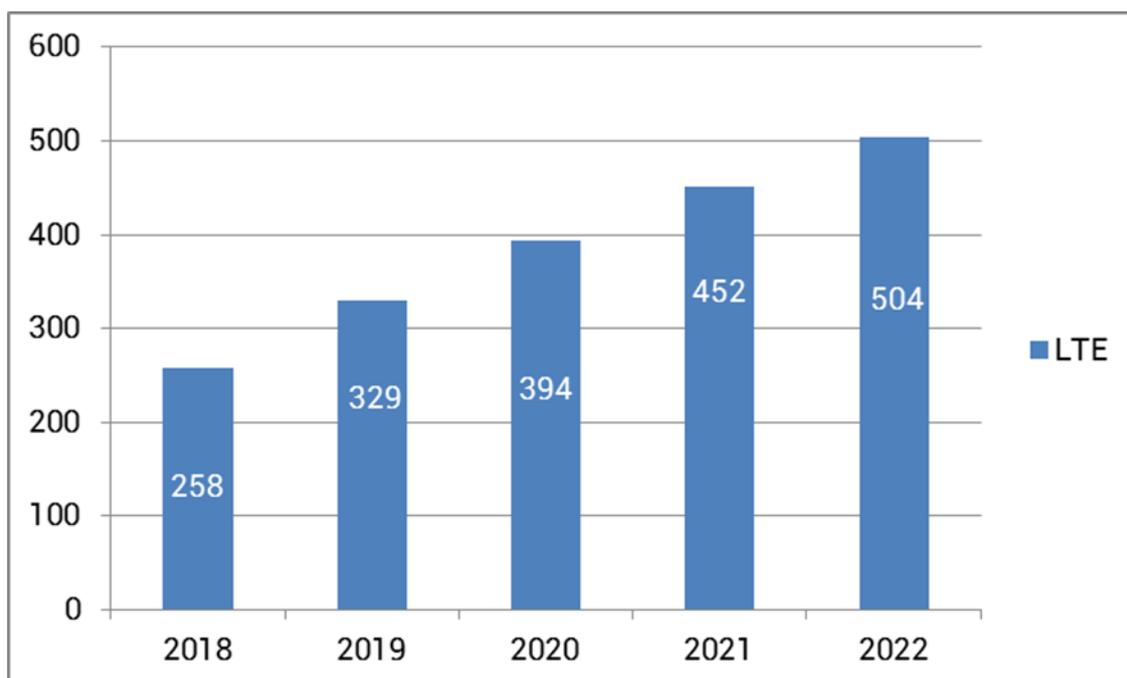


Source: 5G Americas¹

By year-end 2017, Latin American mobile subscriptions will reach 690 million, representing 7.52% of the world total.

¹ Statistics published by 5G Americas, December 2017, extracted on 2 May 2018 from http://www.5gamericas.org/files/cache/1afb0bbd8f7b6655d94d2287046427ac_f1977.png

Evolution of LTE subscriptions in Latin America by technology – 2018-2022 (In Millions)



Source: 5G Americas²

The mobile industry has worked with governments to enable mobile communications for all social tiers and these are currently the ultimate means of communications for those who wish to connect to the Internet for the first time.

The growth of mobile services has also brought about new challenges both for the industry and for the countries' authorities. Mobile phones facilitate communications and enable economic growth and progress in labor, production, education and health, among other areas. However, they are also used to perpetrate crime and mobile devices per se are subject to theft in thousands of cases.

The criminal use of mobile services taps into several aspects. One of these has been that mobile terminals have increasingly been used for criminal purposes by placing calls from jails to ask for ransom. Governments and the industry have taken steps to mitigate this activity. These range from implementing black lists containing IMEI numbers and their disablement aimed at reducing the number of stolen cellphones, to blocking cellphone signals inside prisons.

The latter measure triggered differences between the countries' authorities and mobile carriers regarding the methods for blocking communications from prisons.

This document analyzes different public policies and existing regulations on the matter, while describing the effects the different systems for signal jamming have had on mobile networks. It

² Statistics published by 5G Americas, December 2017, extracted on 2 May 2018 from http://www.5gamericas.org/files/cache/5387a1b27fdeea773af9ec9858c8cef0_f1973.png

further describes the available technology and proposes a few recommendations to the authorities.

As explained earlier, this document discusses the regulatory and technological complexities involved in jamming outgoing criminal communications from prisons. However, 5G Americas knows jammers are also being used illegally, in most cases by businesses or individuals. This type of interference jeopardizes the regular operation of the mobile services, private investment aimed at service expansion and citizens' right to communicate.

JAMMING MOBILE PHONES

Jamming mobile phones consists in preventing radio communications from being placed. There is a variety of technical processes that can be used to create a seamless situation.

There are many hazards surrounding illegal calls from prisons. These range from raising security risks within such institutions to enabling organized crime and the conduct of gang operations from within prison, with the resulting security risks to the public.

One thing is certain: This type of communications would not exist if mobile terminals were not illegally smuggled into prisons. In this regard, the main barrier for preventing such communications is limiting the entry of cellular phones in prisons to the extent possible. Although, undeniably, the issue cannot be resolved completely, various options can be used to minimize it.

Firstly, security should be stepped up in the perimeter. In other words, anyone entering prison premises as well as inmates with temporary permits to leave the prison, family members visiting inmates, dishonest officials involved in smuggling mobile terminals or placing calls from them should be checked thoroughly. Portable and fixed detection systems exist, such as those used in airports, for example. Another option is to enforce regular surveillance of the physical perimeters of jails. Cell phones are often hurled into the prison from the outside and picked up by inmates.

On the other hand, societies should be warned about fraudulent telephone calls from prisons. It is advisable for the authorities to develop massive outreach campaigns on how these crimes work, while issuing advice on the right steps to take upon receiving such phone calls.

Several countries have implemented steps against cell phone theft, such as the duty of customer registration or the creation of black lists of stolen terminals. For example, the wide adoption of pre-paid mobile services is often contrary to effective information about the identity of line holders. Authorities and the industry could also agree on the use of call registration systems from prisons with a view to subsequently cancelling the lines used illegally.

As explained in item 3 in this document, there is no reliable solution to eliminate all fraudulent calls without interfering with legitimate communications or those placed to and from adjacent prison areas.

JAMMING MOBILE PHONES IN PRISONS

Criminal calls placed from prisons are a usual occurrence in Latin America. Several national authorities have taken steps to mitigate such communications with varying results. Unfortunately, in some cases the mobile industry turns out to be responsible for inefficiencies created in other spheres or technologies that are currently less than one hundred percent efficient.

One of the most widely used methods are jammers, which emit a more powerful signal than cellular signals on the same frequency. Thus, all communications using radio frequencies can be blocked by the new emitted signal. Communications liable to cancellation include mobile voice services, mobile Internet access, WiFi and GPS.

The use of jammers by individuals is banned in most countries. The United States Communications Act prohibits their use, as does the Criminal Code. In addition, the Federal Communications Commission (FCC) of the United States issued an enforcement advisory warning where it stated, among other things, that:³

- It is illegal to operate radio frequency jammers in the United States.
- It is illegal to import radio frequency jammers into the United States.
- It is illegal to solicit or publicize radio frequency jammers on the Internet or at merchant stores.

The restrictions further imply economic sanctions of up to US\$ 112,500 per offense, in addition to seizure of the terminal and even imprisonment.

The prohibition to use jammers further encompasses public use by States and local Government Agencies, including local laws and Enforcement Agencies⁴.

Meanwhile, in the European Union, the sale and use of jammers are ruled by the Radio and Telecommunication Terminal Equipment (R&TTE) Directive⁵. For other European countries which are not part of the European Union (EU) and have not enforced the R&TTE, the European Conference of Postal and Telecommunications Administrations (CEPT) indicates that national authorities might prevent the sale and use of jammers⁶. Thus, the use of jammers of telecommunication signals is the responsibility of national authorities.

³ Public Notice. Enforcement Advisory # 2012-08. FCC. Extracted on 14 November 2016 from https://apps.fcc.gov/edocs_public/attachmatch/DA-12-1642A3.pdf

⁴ Public Notice. Enforcement Advisory # 2014-05. FCC. Extracted on 14 November 2016 from https://apps.fcc.gov/edocs_public/attachmatch/DA-14-1785A1.pdf

⁵ Guide to the R&TTE Directive 1999/5/EC. European Commission. Extracted on 14 November 2016 from <http://ec.europa.eu/DocsRoom/documents/9901/attachments/1/translations/en/renditions/native>

⁶ Recommendation (04)01. Amended in May 2016. CEPT – ECC. European Communications Office. Extracted on 14 November 2016 from <http://www.erodocdb.dk/docs/doc98/official/pdf/Rec0401.pdf>

The only exception to the above positions may be the deployment of jammers in the context of countries' national security, where the latter are free to regulate their use. EU member states retain absolute freedom regarding military radio facilities.

The status regarding cell phone jammers in Latin America differs from country to country. Some have regulated their operation while others have not.

Despite overall prohibitions, the use of radio frequency jammers by authorities may be necessary to restrict or limit communications at times such as terrorist threats, hostage situations or military movements. In these cases, communication jammers are used with a focus on buildings, restricted government areas, accurately defined geographical urban areas, among other cases.

In other situations, jammers are used when communications using mobile or WiFi networks are not wanted, such as in theatres, churches or government buildings. In many cases, such jamming is either irregular or illegal.

One of the most widespread uses of jammers is preventing communications inside prisons so that no criminal communications are placed to the outside.

In Latin America, the use of jammers or other technologies with a similar purpose, i.e. preventing RF signals in prisons, raises differing views among the authorities, regulators, operators and users.

TECHNOLOGY OPTIONS FOR MOBILE SIGNAL JAMMING

There are different technology solutions for blocking radio signals in specific areas. Each presents its own advantages and disadvantages. All the available solutions are effective to a greater or lesser extent. However, none is completely harmless. In other words, communications in prisons can be blocked fully, with the target being set by the authorities, although this implies the risk of blocking other communications that should be routed at no interference.

In selecting a technology solution to jam cellphone signals, the following factors applicable to all solutions should be taken into consideration. A major one is the geographical area to be blocked. Blocking a signal in an urban area implies different challenges from blocking radiocommunications in low density or rural areas.

From the technology perspective, blocking radio communications is not complex. Consideration should be given to the way a mobile telecommunication network operates. Each mobile telephone is manufactured under international standards. They contain signal transmitters and receivers and are configured to search for signal at all times.

On the other hand, a cell site basically consists of a base station (BS) and antennas using the radio frequencies allocated to the operator. Each site is divided into cells that can provide signal coverage in different geographical areas surrounding the site.

A mobile telephone can attract up to 32 cells simultaneously: the device selects the strongest signal. Should the cell selected by the terminal stop working or if the mobile moves away from it, it will choose the next strongest signal.

The technology principle underlying the jam is cancelling the frequencies of the communications routed between the terminal and the cell site or, conversely, for the RFs to reach the antenna without the antenna emitting.

There are other, less sophisticated, alternatives to prevent unauthorized communications from within prisons. One of them consists in shutting down sites or, in other words, leaving the geographical area where the prison was erected with no cellular signal. For prisons located in low density areas, this solution is 100% effective. Conversely, the homes surrounding the prisons and the security personnel working in the facilities are left with no communication. It is a drastic solution in that it also precludes emergency communications from mobile phones.

Another way of preventing communications is by lowering the power of antennas to reduce their coverage with the purpose of leaving prisons with no service. It is less effective than shutting down sites and entails the same risks of isolation from communication.

JAMMERS

Jammers block radio communications by creating deliberate interruptions in electronic devices. Jammers transmit on the same frequency as mobile telephones and base stations, interrupting the signal by causing interference between the device and the mobile network. In other words, this type of jammer renders all wireless devices operating on such frequencies useless.

Jammers cannot distinguish between communications, i.e. they block all types of communications, including those which should always be enabled, such as 911 calls.

The advantage of jammers is that they can block all calls from cellular phones, regardless of the handset technology. However, although some countries prohibit the use of these devices, as well as their publicity and sale, jammers are difficult to configure from the technology perspective so that they operate in a specific area only. In other words, if calls placed by inmates inside a prison are blocked by jammers, the interference created by the device may reach the civil population living in the surroundings of the prison. This is one of the main shortfalls of jammers.

Another negative aspect of jammers is that they are costly for operators because of the different adaptations and configurations required in the changes of the radio environment. Furthermore, depending on the type of configuration, text messages might escape blocking.

In several Latin American countries, the use of jammers is prohibited for individuals. However, it is widely known that they are offered for sale at electronic stores and the like.

Operators invest large amounts of money to expand the coverage of their networks, sell mobile phones and attract and retain users. It should also be stressed that operators are bound to meet stringent coverage targets set by the authorities. The indiscriminate use of jammers by individuals jeopardizes the normal flow of the mobile industry, service quality and availability and user satisfaction.

The authorities should be called upon to implement tighter controls on the legal and illegal operation of jammers by individuals.

BRIEFCASE JAMMERS

Solution implemented in Brazil

This year, upon request from the National Prison Department (DEPEN), the Superintendence for Planning and Regulation of Anatel called upon operators to prepare a study on the possible radio jamming solutions. Anatel suggested an analysis of the implementation of "dummy" base stations at prisons to serve as a dissipator of unauthorized traffic.

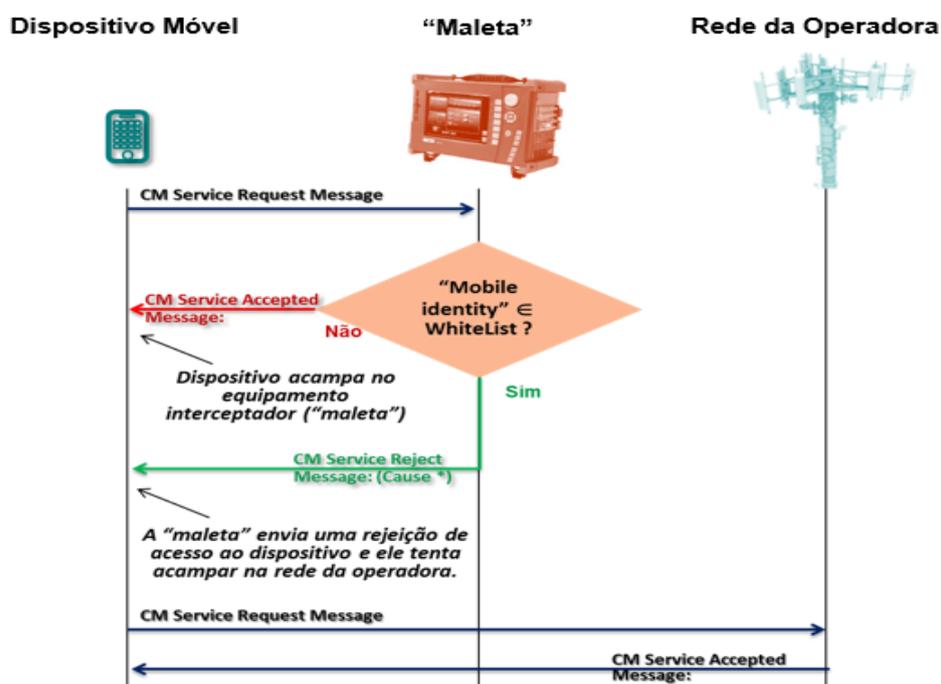
The operators have pointed out a few risks:

- There is no platform solution;
- An enabling platform should be developed, incurring operational risks and lengthening the implementation timeframe;
- There is a high cost to the prison service involving the dedicated access network, in addition to the cost of the enabling platform;
- The system has the potential to interfere with the service externally;
- There is no guarantee of efficiency, since under this assumption, the BS should encompass the entire communication spectrum rather than a given technology or spectrum band.

The study suggested the use of briefcase jammers. Its advantages include:

- Convenience afforded by mobility.
- The mobility of the solution does not incentivize the use of external jammers that interfere with radio communications.

Operation Diagram



Source: Telefónica Brazil

External view



Source: Telefónica Brazil

The system's major features include:

- Smart Cellular Blocking System: it uses a series of small (pico) base stations to block communications to and from two cellular phones.
- Cellular phones communicate with pico BSs, which lack communication with external networks.
- They enable the jamming of voice, data and SMS communications coming from GSM, WCDAM and 4G LTE.
- Jamming of other radio and WiFi signals.
- Selective Cellphone Jamming.
- Cellphone Access Monitoring.
- Storing the International Mobile Subscriber Identity (IMSI), the International Mobile Equipment Identity (IMEI) and the Mobile Station on the Integrated Service Digital Network).

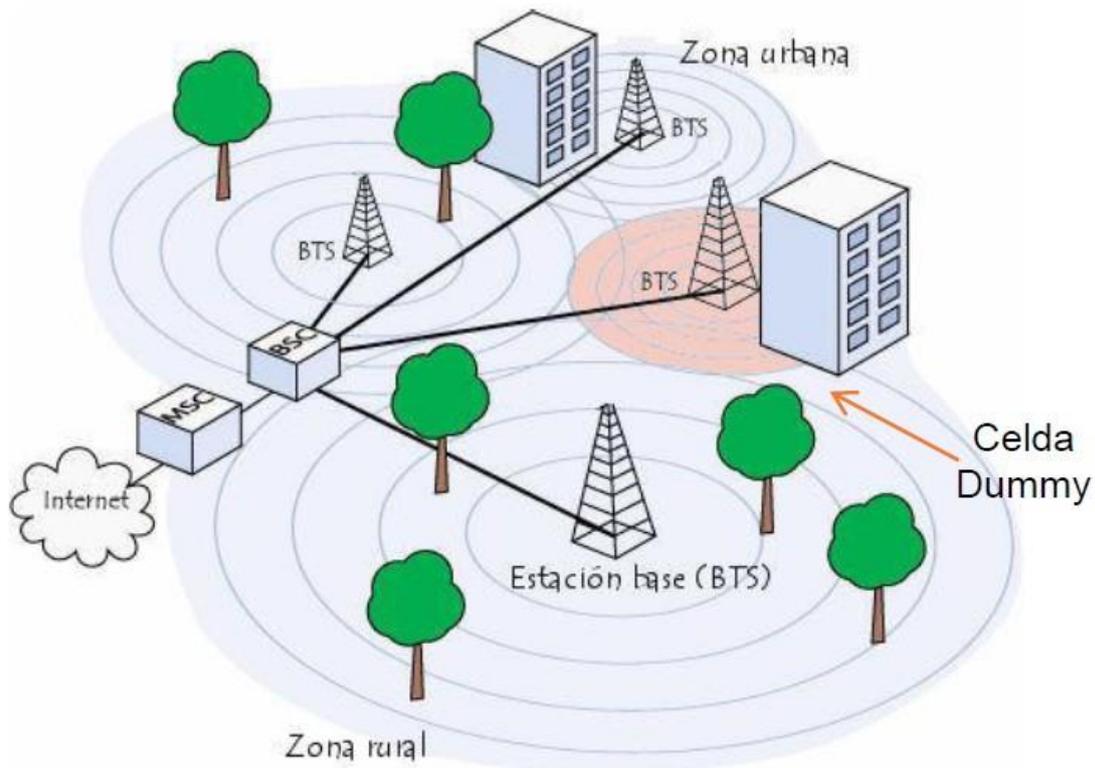
DUMMY ANTENNAS

A dummy antenna is a mobile telecommunications antenna with specific parameters and designs that restrict mobile services in a given area.

The blocking method by dummy antennas leverages the features whereby mobile phones connect to the cell site with the strongest signal. The dummy antenna creates an area of high signal intensity and, thus, the mobile phones under its coverage connect to this antenna.

However, this connection between cellular phones and the antenna does not place communications because the antenna prevents the use of the service for outgoing and incoming calls, SMS messages and mobile data services. If a mobile phone places a communication from an area that is not affected by the dummy antenna but moves into this antenna's coverage area, service is cut off.

Operation Diagram of Dummy Antennas or Cell sites



Source: Telefónica El Salvador

Dummy antennas are implemented by operators in areas adjacent to prisons so that they become the dominant signal and thus force mobile phones to connect to them instead of to remote sites.

One of the advantages of communication blocking solutions using dummy antennas is the rapid implementation of the system. The blocking affects the geographical areas at a smaller width than other solutions, such as site shutdown, and it prevents the operation of signal repeaters that might be located inside prisons given that the repeated signal will also be a dummy.

Another advantage is that operators may view and monitor antenna operation in real time. Furthermore, synergies may exist between operators in search of the best location for these antennas on existing sites, minimizing the need for building new sites.

This solution also affords a few advantages. Antennas may be subject to vandalism, in which case they would stop working. The solution of dummy antennas does not block WiFi or satellite telephone signals.

It might also raise wrong perceptions, since cellular telephones receive signal (whose strength is usually displayed on the device screen) even if there is no service.

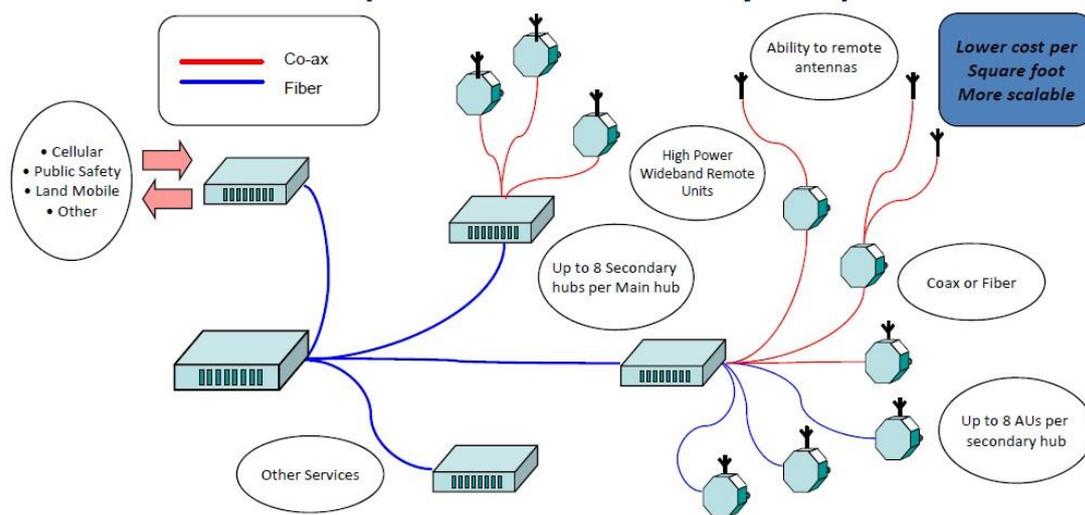
MANAGED ACCESS SYSTEMS

Managed access systems work based on a simple theory: they enable authorized communications to go through while restricting prohibited ones. An antenna similar to a femtocell is required, which will behave as a low consumption cell. This device relays calls to the operators.

The terminals that are authorized for communications are registered on a white system list, while those that do not appear on such list are blocked, or their communications re-routed. Emergency 911-type calls are allowed without prior approval of any kind.

The challenge with this solution is adjusting the system so that the mobile telephones inside the controlled facility connect to the managed cell instead of to the operator antennas that may be located in the surroundings, while preventing the signal from leaving the facilities and interfering with the legitimate use of the cellphone.

Operation Diagram of a Managed Access System



Source: Corrections Technology Association⁷

The system works with all kinds of mobile service (2G, 3G, 4G LTE). However, it calls for cooperation among operators, since the latter are required to use their available spectrum. In other words, such systems work on spectrum leased by operators.

⁷ Cellular detection & control. Corrections Technology Association. NTIA. Extracted on 17 November 2016 from https://www.ntia.doc.gov/files/ntia/comments/100504212-0212-01/attachments/SC-PW_C5_Presentation_Rev5%20Final.pdf

OBSTACLES FACED BY OPERATORS IN BLOCKING COMMUNICATION IN PRISONS

Technology solutions adopted to block criminal communications in prisons have shown that although they may be effective in preventing such communications, they seriously affect service to the users living in the surroundings of the prison locations.

Reality shows that in Latin America many prisons are located in urban areas. For this reason, it is extremely necessary to work on a collaborative solution between the authorities and the mobile industry regarding the blocking of communications in a manner that does not affect legitimate users of the service.

Aside from the technology to be adopted (or revised, in case one is already in place) to prevent criminal calls, it should be understood that safety and security are a major responsibility of countries' authorities. The industry may help mitigate the number of instances of this type of crime, but in no way can it be held liable for actual cases, as would seem to be suggested in certain legislation based on the economic and criminal sanctions they impose on operators.

Sectoral authorities demand that mobile operators meet stringent quality of service regulations. Similarly, the latest spectrum auctions in the region have included strict coverage targets that call for investment efforts by operators. In many cases, these coverage and quality targets cannot be met because the radio resource is not available or bureaucratic barriers exist for the installation of antennas, for example. It is worth stressing that managing radio spectrum - an essential resource for the mobile industry - is another responsibility of the States.

The use of RF signal jammers adversely affects the mobile networks of those who are entitled and pay for their use. It further implies substantial operator investments to re-route communications on new network configurations and re-locate base stations and antennas.

In this scenario, mobile operators are exposed to a contradictory position. They may face sanctions in case communications threatening security are placed but, on the other hand, if they block communications, they may be fined for affecting mobile service users.

Given this reality, new cooperation efforts are required among national authorities, different government agencies and the mobile industry to reach solutions that are satisfactory to all stakeholders in the search for enhanced safety and better mobile communication services.

RESPONSIBILITY FOR CELLPHONE SIGNAL JAMMING

Legislation differs among Latin American countries relative to the use of mobile signal jammers in prisons.⁸ Some laws indicate that the responsibility for the use of signal jammers lies with the State, while others provide that it is the mobile service operators who are liable. Some, like Argentina, lack legislation on the matter, although this is the position of a minority of countries in the region.

In addition to different laws, there are also different government agencies responsible for signal jamming, although it should be noted that they all report to some kind of security body.

As outlined in this document, fraudulent calls from prisons exist because cellular phones are illegally smuggled into these facilities. Although the smuggling of these cellular phones is difficult to prevent, there is no doubt that it is the responsibility of the State when this happens. Prisons have communication services such as public wireline telephones that can easily be monitored to prevent criminal calls.

Although preventing criminal communications to or from prisons using various techniques is a practice that seeks to protect citizens' security and safety and prevent offenses, such regulations contradict other duties imposed by the States on mobile carriers, such as expanding mobile service coverage and raising QoS standards.

The way in which RF communications work make it almost impossible to ensure that signals will only be blocked in a specific geographic area or within a given perimeter. The interferences created by signal jammers affect communications in adjacent areas, resulting in cutoffs and interruptions in user service for users located within the blocked perimeter although outside of the target site. Many prisons in Latin America are located in urban areas. Thus, this issue affects tens of thousands of users in the region. For these users, failures in the service are the responsibility of mobile operators, who receive complaints because cutoffs and see their reputation degrade. In addition to this situation relative to society at large, operators may face difficulties with telecommunication regulators on grounds of failure to meet coverage and quality targets. In other words, they can further receive either direct or indirect monetary sanctions. In the latter case, they should compensate affected users for service interruption.

It is worth clarifying that in some Latin American countries, service quality measurements demand specific thresholds of placed and dropped calls. A similar situation applies to mobile broadband service rates. The existence of jammers affects compliance with this type of measurements. One possible way to improve this situation would be to exclude quality measurements and the subsequent possible sanctions in the areas where cellphone jammers are used in prisons.

States often delegate some of their inherent functions on the operators. In this section, the example was the smuggling of cellphones into prisons. However, this is not the only such duty.

⁸ Item 5 in this document outlines the legislative status of the different countries.

The responsibility for radio spectrum management and monitoring lies with the State. Carriers pay large amounts of money to use this vital resource for the mobile industry in auctions and tenders, in addition to the rate on the use of frequencies. The situation contradicts current guidelines on telecommunications regulation for operators, i.e. the duty to provide service at high coverage and quality standards while carriers themselves should jam communications, degrade service near prisons, in many cases, measure spectrum interference rates facing potential economic and, in certain cases, even criminal sanctions upon failure to do so.

In some cases, in addition to the economic costs mentioned - fines, compensation to customers - there are other financial efforts borne by operators. Noteworthy among them are the maintenance and installation of radio signal jammers. There are further costs associated with reconfiguring the network and re-locating antennas to prevent illegal communications in prisons.

The mobile industry is certainly willing to cooperate with the States in raising safety and security standards for society. To that end, it is imperative for each party to meet their own primary responsibilities.

EXAMPLES

COLOMBIA

The ICT Ministry may authorize the National Prison Institute (INPEC, as per the Spanish acronym) to install equipment to jam or block mobile telecommunications in prisons. The regulation determines that the Ministry may require operators to eliminate or restrict cellular signals inside prisons.

The law does not cover technical aspects, although it establishes that jammers or blockers shall not affect the outside of prisons, and that operators shall adopt every technical measure possible to avoid affecting communications in areas surrounding prisons.

The government, in particular the surveillance and controlling agency, overlooks the initial costs and investments incurred by operators to meet the signal attenuation or mitigation requirements to avoid affecting outside areas because of the previous requirement and the interference caused by jammers.

The regulations do not establish how operators may exclude from quality indicator reports the geographical areas affected by prison jammers. Neither is there any consideration on the fact that tolerance margins should exist, given that the very nature of the radio spectrum and its use prevent accurate measurements of the extent of the jamming and where it stops affecting communication services.

In spite of this, during April 2017, the Constitutional Court of Colombia through sentence T-276/17 ordered INPEC and the ICT Ministry to take the appropriate and necessary measures to modify the current telephone system or equivalent communication technology, so that within a maximum period of six months, the required changes are implemented to ensure the service is more accessible (allowing, if possible, incoming calls), economically adjusted to market offers and the

economic condition of the inmates, that the efficiency of the service is guaranteed, and that it allows adequate control to prevent its use in illicit activities. These agencies were also ordered to take appropriate and necessary measures to prevent the spread of abuses and corruption facilitated by the current prepaid card system.

EI SALVADOR

The Special Law against the crime of extortion indicates that operators have the duty to adopt and apply the business procedures and technical solutions necessary to avoid the rendering of telecommunication traffic services inside prisons.

The regulation does not impose specific technologies. It allows operators to select the type of equipment and technology they will use to eliminate the traffic from inside prisons. However, the concern is not jammer operation per se, but rather the fact that the government shifts the entire responsibility over prison blocking, equipment maintenance, power supply and custody onto the operators.

MEXICO

Prison authorities are charged with the task of installing signal jammers in prisons. Although there are technical regulations for operating such devices, substandard devices are sometimes operated which alter power arbitrarily, affecting the quality of mobile telecommunication services provided in the surrounding areas of prisons.

Although operators are required to meet a strict quality of service regulation, such quality is compromised by the action of jammers, which make it impossible to meet the requirement of the regulator resulting in a negative perception by users.

PERU

The State has invested to install radio signal jammers in prisons, although it should ensure appropriate operation in addition to providing rules for the private businesses in charge of their installation to avoid interference with the cellular signal, especially in prisons located in urban areas.

The authorities have also requested operators to re-locate antennas or reduce the strength of the signals. However, this measure is insufficient if prisons are located in urban areas because it infringes the right to communication for neighboring areas.

GUATEMALA

There is no specific regulation on the use of cellular signal jammers. However, the State issued an executive order requiring mobile operators to implement technical solutions to stop mobile telecommunication traffic, but said order was ultimately declared unconstitutional.

STATUS IN LATIN AMERICA: SIGNAL JAMMERS IN PRISONS

The regulations on the use of telecommunication signal jammers differ among Latin American countries. Generally speaking, interrupting communications is prohibited under telecommunications laws and criminal codes.

The status of different Latin American countries relative to the use of jammers is detailed below:

ARGENTINA

The use of jammers is illegal. Article 197 of the Criminal Code⁹ rules sentences ranging from six months to two years for those who restrict or interrupt communications.

There is no regulation on the supply and use of jammers in prisons. However, there is a bill from 2014 promoting the use of jammers in prisons.¹⁰

In the province of Buenos Aires, after a case of public notoriety where a police officer was shot in an escape, the possibility of legislating the inclusion of blockers in prisons was reopened. The legislation of provincial scope deputy is promoted by a deputy of the ruling party Cambiemos. As of May 18, 2018, these were only statements in the press, without the formal presentation of the project.

Some prisons have provided for the use of jammers with the subsequent deterioration in the quality of mobile communications in the perimeter of such facilities. Cases have arisen in provinces where prisons are located in densely populated areas. As at May 2018, mobile operators were not legally required to install jammers.

BOLIVIA

The use of blockers in prison institutions is stipulated by the "National System of Citizen Security Act"¹¹, which was enacted July 31, 2012. Article 48 refers to communications in prisons.

⁹ Criminal Code of Argentina, L.E.Y 11.179 (2005). Infoleg. Extracted on 8 November 2016 from <http://servicios.infoleg.gob.ar/infolegInternet/anexos/15000-19999/16546/texact.htm>

¹⁰ Bill, House of Representatives (11 August 2014). House of Representatives, Argentina. Extracted on 8 November 2016 from <http://www.diputados.gov.ar/proyectos/proyecto.jsp?id=166187>

¹¹ In "National System of Citizen Security Act". http://www.comunicacion.gob.bo/sites/default/files/dale_vida_a_tus_derechos/archivos/Ley%20264%20Del%20Sistema%20Nacional%20de%20Seguridad%20Ciudadana%20para%20una%20Vida%20Segura.pdf

The legislation uses the safety of the citizens as an argument for the installation of blockers. The purpose of the law is to prevent the use of mobile services to make extortive calls to the population.

The first paragraph of this legislation states that “the National Government, through the Ministry of the Interior, shall design and implement administrative and operative mechanisms to install electronic systems for the blocking of telecommunications, which prevent communication between prison inmates and people who are lined to the alleged commission of crimes, in departmental capitals and provinces of the national territory”¹².

On the other hand, the second paragraph describes which would be the alternatives for the communication of the inmates. In particular, the law states that “the National Government through the Ministry of the Interior shall install public telephone booths in suitable places inside prison facilities in order to maintain family and social communication of inmates, besides helping their legal defense”¹³.

During 2013, the Penitentiary Regime of Bolivia began the installation of different blockers in the country's prisons. In the following years, the plan included the installation of such devices in all penitentiary centers with different levels of success.

BRAZIL

In March 2018, the Brazilian Chamber of Deputies approved the supplementary bill (PLP) 470/18 that modifies the 3º of the Complementary Law N° 79¹⁴, of January of 1994, that establishes the application of resources of the National Penitentiary Fund (FUNPEN). Thus, the modification establishes the immediate implementation of cell phone blockers in the prison service, given a service of 180 days from the moment of its enactment. The norm had been approved in February 2018 in the Senate.

The amendment to the norm emphasizes that FUNPEN resources must be applied in the installation, costing and maintenance of the blocking of telecommunication signals for mobile phones, radio transmitters, and other means, in penitentiary establishments. In this sense, it establishes that telecommunications will have to offer unrestricted access to all the information and technology necessary for the agencies in charge of establishing blockers to carry out their work, collaborating with efficient and effective technologies.

Looking ahead, it should be noted that the granting of new licenses for the provision of mobile telecommunications services for public use, as well as the renewal of existing concessions,

¹² In “National System of Citizen Security Act”

http://www.comunicacion.gob.bo/sites/default/files/dale_vida_a_tus_derechos/archivos/Ley%20264%20Del%20Sistema%20Nacional%20de%20Seguridad%20Ciudadana%20para%20una%20Vida%20Segura.pdf

¹³ In “National System of Citizen Security Act”

http://www.comunicacion.gob.bo/sites/default/files/dale_vida_a_tus_derechos/archivos/Ley%20264%20Del%20Sistema%20Nacional%20de%20Seguridad%20Ciudadana%20para%20una%20Vida%20Segura.pdf

¹⁴ In Chamber of Deputies In <http://www2.camara.leg.br/camaranoticias/noticias/SEGURANCA/554899-CAMARA-APROVA-URGENCIA-PARA-BLOQUEIO-DO-SINAL-DE-CELULAR-EM-PRESIDIOS.html>

should be conditional on the obligation to install, cost and maintain television and radio signal blockers in penitentiary establishments.

The resolution no. 306/2002 "Certification and Homologation of Radiocommunication Signal Blockers", which establishes the minimum technical requirements for certification and homologation of Radio Communication Signal Blockers (BSR) and Resolution No. 308/2002, " Use of Radiocommunication Signal Blocker ", which establishes the conditions of use of radio signal blocker.

These legislations understand by BSR the equipment destined to block the radio signals. While defining a BSR user as the entity, formally designated by the Ministry of Justice, responsible for operating the BSR in a certain prison establishment.

The texts provide a series of general characteristics for the use of BSRs, emphasizing that they should not interfere in radio frequency bands outside the established limits, and should be effective for any technology that is used to provide used radiocommunication services in the locality

With regard to the entity in charge of the BSR, these regulations emphasize that before installing these devices, it is necessary to contact the service providers to adjust the signal levels, so as to avoid interference outside the network the limits of the penitentiary. Likewise, Anatel must be notified 10 days in advance, accompanied by a document that proves its indication by the Ministry of Justice.

In addition, in case there are irregularities in the use of the BSR, the laws provide that Anatel intervenes demanding their regularization and even sanctions to the entity in charge of the blocker. Likewise, all the actors included in the standards must know the location of the BSR.

The texts also have a series of obligations for the entities where the blockers are placed. In the first place, they must have a technical project, which although it will remain in their possession, must be updated and available for when Anatel requires it. So you must also have a summary of that project to keep the regulator and operators, and inform when technical alterations are made.

In addition, the resolutions require entities that use blockers to use only equipment whose certification is issued by Anatel, you must also observe the municipal positions and relevant legal requirements regarding buildings and antennas. As well as maintain the BSR in operating conditions and within the confines of the prison building without causing interference to the operators of telecommunications services.

Meanwhile, among the obligations of the operators, the texts establish that it is necessary to inform Anatel and the entity in charge of operating the BSR, in advance, of changes in transmission power or realignment of the antennas of the radiobase stations (ERBs), or a change in your location. In the same way, it must inform in case a new ERBs is implemented, or that it is deactivated. As well as, in case the signal levels present in the blocking areas are modified.

For its part, the regulator has among its obligations to monitor the use of the blocker and, if requested, provide information to the Department of Penitentiary Nations (DEPEN), Ministry of Justice, on radio frequencies or radio frequency bands present in the area where a certain prison is located.

In addition to the current legislation, Anatel is involved in a series of debates within the sector on the implementation of blockers. In the initial meeting at the request of the DPEN (10/2015), the following objectives were considered: to identify, together with the providers and the market, the possibilities of technologies for the blocking of mobile terminals in the prisons, to try to establish a national reference model for the installation of blockers.

To this end, a series of meetings are held with the operators to carry out available technical solutions. In addition, it is planned to carry out a survey of interaction models of blockers adopted by the states, purchase of equipment and service contracts. It is also proposed to identify the possibilities for improving the dialogue between the operators and the entities that operate the blockers. The regulator proposes to consider itself as a catalyst and facilitator of dialogue between the parties, as well as acting on the basis of their legal competences.

It is worth mentioning that providers have always been successful in every sphere of justice when it became necessary to file an appeal. In general, prison managers deploy their own jamming systems.

Telecommunication service providers are not required to develop projects nor to install, operate or maintain jammers in prisons. Notwithstanding, there is government pressure for this to be the case. In some cases, operators have successfully resorted to the justice system.

In specific cases, operators have received requests to help the government to reduce the coverage of mobile services in prisons. Some operators helped by adjusting the power reduction in base stations to weaken the signal and avoid affecting neighboring areas.

Jammers installed in prisons by the government usually affect the quality of service of telecommunications in the proximity. Operators have requested the regulator to do away with the requirements to meet placed and dropped call targets.

CHILE

The Overall Telecommunications Act provides for sanctions on those who interrupt or interfere telecommunication signals. In different sections of Article 36 B, the language indicates that “b) Whoever interferes, intercepts or interrupts a telecommunications service willfully shall face prison sentence in any degree and the seizure of the equipment and infrastructure.¹⁵ c) Whoever intercepts or attracts either willfully or seriously without due authorization any type of signal emitted through a public telecommunications service shall face prison sentence in the middle degree and a fine of 50 to 5,000 UTM (monthly tax units)”.

¹⁵ Library of the National Congress, B.C.N. (20 August 2016). General Telecommunications Law. Extracted on 8 November 2016 from <https://www.leychile.cl/Navegar?idNorma=29591>

Likewise, there is a bill from ¹⁶¹⁷ 2016 amending the organic law of the Border Police (the body in charge of prison management) so that a system is deployed inside prisons to block mobile signals.

The draft bill consists of a single article: "Amending Executive Order #2859 in Chile's Border Police organic law, adding a new Article 16 bis to read as follows: When determining the features of criminal establishments and prisons, a system may be considered to block mobile telecommunication signals restricted to confinement galleries and open spaces in prisons, without affecting the communications in the administrative facilities of said prisons, or spaces surrounding the facilities where either buildings, roads or vehicle circulation may be found".

In 2012, the Ministry of Justice installed jammers in prisons, although the system was left behind because it blocked communications from neighbors.

COLOMBIA

Resolution 2774/2013¹⁸ of the Ministry of ICTs regulates the use of radio signal jammers and amplifiers. It is a comprehensive rule applicable to different situations in prisons, expressly stated in Paragraph Three of Article 4: "The installation of radio signal jammers by the National Prison Institute (INPEC) shall be subject to the provisions in Executive Order 4768 from 2011 and supplementary, additional or amending regulations."

Executive Order 4768 from 2011¹⁹ is based on the regulation of the country's prison code prohibiting private communication devices for inmates, including mobile phones and beepers (Law 65 from 1993²⁰). The amendments on this law established that the Ministry of ICTs has the power to authorize the National Prison Institute (INPEC) to install equipment to jam or block mobile communications in prisons.

According to paragraph 1 in Article 1, "the INPEC shall operate the equipment used to jam signals, adopting every technical measure to prevent affecting neighboring areas beyond the prisons". Paragraph 2 indicates that "The National Spectrum Agency - ANE - shall oversee and control

¹⁶ Senate of Chile. Bill. Official Gazette # 10874-07. Extracted on 8 November 2016 from https://www.google.com.ar/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwj2f-p8anQAhVD6SYKHecXDroQFqgbMAA&url=http%3A%2F%2Fwww.senado.cl%2Fapps Senado%2Findex.php%3Fmo%3Dtramitacion%26ac%3DgetDocto%26iddocto%3D11355%26tipodoc%3Dmensaje_mocion&usq=AFQjCNG6MoFS_bou7pp013zL0tIZVMeuNQ

¹⁷ Library of the National Congress, B.C.N. (2-JUL-2016). Organic Law of the Border Police. Extracted on 8 November 2016 from <https://www.leychile.cl/Navegar?idNorma=7015>

¹⁸ Ministry tic, M.T. (5 August 2013). Resolution 2774. Extracted on 8 November 2016 from http://www.mintic.gov.co/portal/604/articles-4287_documento.pdf

¹⁹ Presidential Office. (14 Dec 2011). Executive Order 4768. Extracted on 8 November 2016 from <http://wsp.presidencia.gov.co/Normativa/Decretos/2011/Documents/Diciembre/14/dec476814122011.pdf>

²⁰ Senate of Colombia (20 August 1993). Law 65/1993. Extracted on 8 November 2016 from http://www.secretariassenado.gov.co/senado/basedoc/ley_0065_1993.html

compliance with the duty set forth in paragraph 1, to which end it shall make regular visits to the respective prisons and their surrounding areas”.

The same regulation further establishes that an order may be included in the authorization from the Ministry of ICTs for Telecommunication Network and Service Providers to eliminate or restrict their signals inside the prisons.

“Article 2: Order to eliminate or restrict telecommunication signals in prisons. The Ministry of Information and Communication Technologies may be requested by the National Prison Institute - INPEC - to instruct the respective mobile telecommunication network and service providers to eliminate completely or to restrict their broadcasting, reception and control signals in the prisons defined by the institute under the terms determined by the Ministry of Information and Communication Technologies when grounded reasons exist to infer that threats, fraud, extortion or other criminal actions are being perpetrated from it by using telecommunication devices...”

The law does not cover technical aspects. However, it establishes that jammers shall not affect the outside of prisons, and that operators shall adopt every technical measure possible to avoid affecting communications in areas surrounding prisons.

In addition, with regard to quality, the regulation establishes vaguely that prisons shall not be bound by quality indicators, with no mention of the area where such exception is applicable. Similarly, it does not determine the way in which such exception may be implemented. In any case, in practice, the Directorate for Surveillance and Control in the Ministry has imposed sanctions on damage to quality indicators caused directly by faulty jammer operation, although these situations may cause interference from the equipment farther than one kilometer away.

Based on Executive Order 4768 from 2011, the Ministry of ICTs has authorized the installation and operation of jammers or signal interruption in 14 prisons of different districts countrywide as at October 2016. At least ten facilities have caused damage outside of the prisons to the detriment of operator service quality, which placed operators in the position of non-compliance with quality targets.

The solutions implemented in all cases consist in installing jammers inside prisons, together with orders to mitigate or weaken the signal for operators in geographies where prisons are located.

During April 2017, the Constitutional Court of Colombia through sentence T-276/17²¹ ordered INPEC and the ICT Ministry to take the appropriate and necessary measures to modify the current telephone system or equivalent communication technology, so that within a maximum period of six months, the required changes are implemented to ensure the service is more accessible (allowing, if possible, incoming calls), economically adjusted to market offers and the economic condition of the inmates, that the efficiency of the service is guaranteed, and that it allows adequate control to prevent its use in illicit activities. These agencies were also ordered to take appropriate and necessary measures to prevent the spread of abuses and corruption facilitated by the current prepaid card system.

In addition, the Court requests the INPEC and the ICT Ministry to “take the appropriate and necessary measures to implement a pilot model of access to the Internet or other means of

²¹ In Sentence T-276/17. In <http://www.corteconstitucional.gov.co/relatoria/2017/t-276-17.htm>

communication that will contribute to making communication between persons deprived of their liberty with their relatives more efficient, as well as their access to information on the outside world, to virtual education programs and to knowledge about the use of new technologies”²².

In view of this sentence, INEP complied with the judicial decision and, as a first step, revoked a bidding process it was carrying out to undertake technical, financial and legal studies on the telephone communication services that existed in their premises²³. Also, the agency initiated different technical, financial and legal studies to seek new alternatives to communicate to the prison population. By May 2018, despite continuing to work in the ruling, the agency had not solved how it would comply with the demands of the Supreme Court, that could affect the use of blockers in this type of institutions.

COSTA RICA

Although originally the Comprehensive Telecommunications Act and its regulations prohibit the use of equipment that interferes with telecommunication networks or operator service signals. According to Article 7 of the Regulations to the Comprehensive Telecommunications Act, "SUTEL shall perform the technical verification of radio electrical emissions, as well as the inspection, detection, identification and elimination of harmful interferences".^{24,25}

As at October 2016, there is no regulation on the use of jammers in prisons. Notwithstanding, the government has proposed a bill binding operators to adopt and apply the technical procedures and solutions needed to prevent the rendering of mobile telecommunication services available to the public inside prisons and juvenile detention centers.

Mobile operators are holding discussions with the Ministry of Justice to provide support in deploying a solution based on jammers in the country's main prison facility. Operators are willing to fund the initial implementation of the equipment, although not to upfront the daily operational and maintenance costs. Operators are concerned about possible intentions from the government to hold them responsible for the system's effectiveness.

By April 2018, the Legislative Assembly had a bill that sought to modify the LGT with the aim of forcing operators to install signal blockers in all prisons and penal centers in the country. The reform is being promoted by the Special Commission on Security and Drug Trafficking of the legislative body.

²² In Sentence T-276/17. In <http://www.corteconstitucional.gov.co/relatoria/2017/t-276-17.htm>

²³ In Resolution N 004580 of the INPEC. In

<http://cr00.epimg.net/descargables/2017/12/05/9754448e575f54e0ca77ac77f0ff8962.pdf?int=masinfo>

²⁴ Legislative Assembly (4 June 2008) General Telecommunications Law # 8642. Extracted on 8 November 2016 from https://sutel.go.cr/sites/default/files/normativas/ley_general_de_telecomunicaciones.pdf

²⁵ Presidential Office (22 September 2008) Regulations of the General Telecommunications Law # 34765-MINAET. Extracted on 8 November 2016 from

https://sutel.go.cr/sites/default/files/normativas/reglamento_a_la_ley_general_de_telecomunicaciones_de_creto_ejecutivo_34765-minaet_y_sus_reformas.pdf

In the text, the reform establishes adoption of paragraph 4 in article 49 of the LGT, which expresses the obligation of the operators to “4) adopt and apply the procedures and technical solutions that are necessary to prevent the benefit of the provision of wireless services of telecommunications available to the public inside the penitentiary centers, including the integral attention units, juvenile penal centers and any other institutional care center of the National Penitentiary System, in agreement with the provisions of the regulations”²⁶.

It also proposes to modify paragraph 5 of the article 67, that states very serious infractions, in the new proposal its text would be: “5) Failure to comply with the universal access and service obligations imposed in accordance with this Law. With the exception of areas that are within a radius of distance of the penitentiary centers, which will be defined by regulation”²⁷.

If the modification to the LGT is confirmed, the operators will have a term of six months to be able to regularize the situation. Nevertheless, it is important to highlight that the file that this reform proposes was presented seven times in motion in the Legislative Assembly, and it was rejected in the same number of opportunities. As of May 2018, its implementation was still under discussion.

ECUADOR

There is a general prohibition on the use of jammers, according to the Criminal Code, which imposes prison sentences on those restricting or disrupting communications.²⁸ Article 178 of the Code establishes the following: “Infringing privacy.-Any person lacking legal consent or authorization who accesses, intercepts, examines, retains, records, reproduces, broadcasts or publishes personal data, voice, audio and video messages, postal objects, information contained in IT media, other person's private or reserved communications by any means shall be sanctioned with imprisonment from one to three years”.

Furthermore, different articles in the Criminal Code (411 and 718) prohibit the entry of “telephones or communication equipment or any other instrument that may compromise the safety and peace of the prison” (art. 718).

Nevertheless, by Resolution 001-TEL-C-CONATEL-2011 of January 2011²⁹, the then regulatory body approved the use of cellular jammers in two types of institutions: financial sector entities

²⁶ In Legislative Assembly . In http://www.asamblea.go.cr/Centro_de_Informacion/Consultas_SIL/Pginas/Detalle%20Proyectos%20de%20Ley.aspx?Numero_Proyecto=19932

²⁷ In Legislative Assembly . In http://www.asamblea.go.cr/Centro_de_Informacion/Consultas_SIL/Pginas/Detalle%20Proyectos%20de%20Ley.aspx?Numero_Proyecto=19932

²⁸ Ministry of Justice, Human Rights and Worship (2014) Criminal Code. Extracted on 8 November 2016 from http://www.justicia.gob.ec/wp-content/uploads/2014/05/c%C3%B3digo_org%C3%A1nico_integral_penal_-_coip_ed._sdn-mjdhc.pdf

²⁹ National Telecommunications Council (18 January 2011). Resolution 001-TEL-C-CONATEL-2011. Extracted on 8 November 2016 from <http://www.arcotel.gob.ec/wp-content/uploads/2015/11/001-TEL-C-CONATEL-2011.pdf>

and social rehabilitation centers in the country. Article 1 in the resolution allows for "the installation and operation of antennas that block cellular signals in Social Rehabilitation Centers under the National Directorate of Social Rehabilitation, as well as in agencies or branches of public or private entities or the National Financial System".

The operation of jammers "shall not exceed the area of operation of Social Rehabilitation Centers, nor that designated for customer service or agencies or branches of public and private entities of the National Financial System" (Article 2) of the mentioned resolution.

Furthermore, the language of the resolution indicates that "in case of affecting other radiocommunication systems or the rendering of Advanced Mobile Service outside of the expressly authorized areas (...) for the operation of jammers, the Superintendence of Telecommunications (...) shall issue the corresponding corrective provisions..." (Article 3).

The current regulatory body, ARCOTEL, is in charge of certifying and approving the equipment, for they cannot be sold or used freely, in addition to publishing the procedures to be followed to obtain authorization on their digital channels.

There are no regulations binding operators to install jammers. This is the responsibility of the central body for prison control.

EL SALVADOR

The Special Law against the crime of extortion indicates that operators have the duty to adopt and apply the business procedures and technical solutions necessary to avoid the rendering of telecommunication traffic services inside prisons.³⁰

The law indicates that "Operators of Commercial Telecommunication Networks shall have the duty to adopt and apply the business procedures and technical solutions necessary to avoid the rendering of telecommunication traffic services inside prisons, prison farms or detention centers for minors. The General Superintendence for Electricity and Telecommunications shall be responsible for issuing the applicable technical regulations containing compliance parameters with this article, as well as the geographical perimeter that shall be affected by the implementation of said measures." (Article 12).

In turn, "Operators of Commercial Telecommunication Networks shall immediately interrupt the telecommunication services required by the General Prosecutor's Office of the Nation, since they are being used to perpetrate the crime of extortion (...) Failure by the Operators of Commercial Telecommunication Networks to comply with the present article shall be sanctioned with a fine equivalent to five hundred minimum monthly salaries current in the business and service sector per breach, without prejudice to the criminal liability that might be incurred by the managers or employees that were found liable for the non-compliance." (Article 13)

³⁰ Legislative Assembly of El Salvador (18 March 2015) Special Law against the Crime of Extortion.

Extracted on 8 November 2016 from <http://www.asamblea.gob.sv/eparlamento/indice-legislativo/buscador-de-documentos-legislativos/ley-especial-contra-el-delito-de-extorsion>

According to the text, operators are banned from rendering telecommunication service, except for fixed telephony, internet and data connection purchased by the management of prison facilities. "Unjustified non-compliance with the provisions in this article shall be sanctioned with a fine in the amount of three thousand minimum monthly salaries current in the business and service sector per each day in which one or more breaches are incurred. Should breaches be repeated or continued over more than one day, the calculation of the value of the fine shall in no case be greater than ninety days. Should five or more breaches be incurred in the term of one year, in addition to the fine, the Operator shall be sanctioned with revocation of the concession upon having completed the respective sanctioning procedure." (Article 14).

The Special Law against the crime of extortion has technical regulations. The regulations recognize the technical difficulty of not affecting communications in areas adjacent to the prisons:³¹

"Liability exclusion for impact on the service Art. 11.- Operators of Commercial Telecommunication Networks shall not be responsible for affecting service in areas of the proximity of set perimeters, called "affected areas", as per the instructions in these regulations. The SIGET shall report to the Consumer Protection Agency the areas where service has been degraded or no telecommunication service is available for the relevant legal purposes".

Notwithstanding the above, no regulation requires the installation of jammers. It is up to the operators to decide on the technical solution to be used in blocking prisons on the sole condition that the solution selected should be effective and affect the civil population to the lesser degree possible.

Some operators have selected the technology solution known as "dummy base stations". To reinforce this solution, consideration is also given to including jammers to provide a double security loop that will achieve more effective results in terms of blocking outgoing communications from prisons. Double blocking systems affect the populations located next to prisons. This concerns operators. However, the priority is for no communications to be placed, since the operator may be fined per call coming from inside a prison.

The main issue is the fact that the government shifts the entire responsibility of blocking prisons to the operators, including equipment installation and maintenance, whose features and technologies are decided by the operators.

GUATEMALA

There is currently no specific regulation on the use of signal jammers.

However, Executive Order 12-2014 "Law for the Control of Mobile Telecommunications in detention centers and strengthening of the data transmission infrastructure" charged mobile operators of local networks with implementing technical solutions so that no mobile

³¹ Superintendence of Electricity and Telecommunications (5 April 2016). Technical Regulations of the special law against the crime of extortion. Extracted on 8 November 2016 from <http://www.jurisprudencia.gob.sv/DocumentosBoveda/D/2/2010-2019/2016/04/B78E1.PDF>

telecommunication traffic can be initiated from pre-trial detention facilities, prisons and detention centers for minors.³² This body of regulations was declared unconstitutional.

Nevertheless, there is a new proposed bill whereby once again it is the operators that are made responsible for preventing traffic from prisons.

For the last quarter of 2017, Guatemala's executive branch had showed its intention to block mobile services signals in the penitentiary centers. To this end, it summoned Congress to address the issue through the press. However, according to what has been reported by the press, the intention of the Ministry of the Interior, which is leading the project, is not associated to blockers, but directly to the cancellation of the service³³.

HONDURAS

The "Law on the limitation of mobile wireless telecommunication services and personal communications in prisons nationwide" was published in January 2014³⁴. Article 1 sets forth that: "It is expressly prohibited for Mobile Wireless Telecommunication and Personal Communication Service (PCS) operators to provide service in the physical environments of prisons or prison farms across the country".

The regulation demands that operators and regulator Conatel remove the infrastructure that enabled service coverage in prisons. In case of non-compliance, the language provides for "a fine of 20 million lempiras for first time offenders, and the revocation of the concession contract in case of a repeated offense". (Article 4). Likewise, operators are responsible for installing jammers under the oversight of regulator National Telecommunications Commission.

A new Decree-Law from September 2015 reinforces and expands the scope of the previous one, by extending the prohibition to "Global Mobile Personal Communication Services³⁵ (GMPCS), Mobile Cellular Telephone Service, Personal Communication Service (PCS), Community Repeater Service, Land Mobile Service, Auto-Select Multi-Channel Mobile System (Radio Trunking), Telephony Service, Internet Service or Access to IT Networks, Videoconferencing Service, Radio Amateur Service, Data Transmission and Switching Service, Cable Television, Wireless Subscription Television, Interactive Subscription Television, Mobile Satellite Service, Value Added

³² Congress of the Republic of Guatemala (8 April 2014). Executive Order # 12-2014. Extracted on 8 November 2016 from https://www.plazapublica.com.gt/sites/default/files/decreto_numero_12-2014.pdf

³³ See: "The debate between the Mingob and the telephone companies by signal in the jails". In <http://www.prensalibre.com/guatemala/politica/el-debate-entre-el-mingob-y-las-telefonicas-por-seal-en-las-carceles>

³⁴ National Congress (31 January 2014). Executive Order #255-2013. Extracted on 8 November 2016 from <http://www.poderjudicial.gob.hn/CEDIJ/Leyes/Documents/Ley%20de%20Limitaci%C3%B3n%20de%20Servicios%20de%20Telefon%C3%ADa%20Movil%20Celular%20en%20Centros%20Penales%20a%20nivel%20nacional.pdf>

³⁵ National Congress (16 September 2015). Executive Order #43-2015. Extracted on 8 November 2016 from http://congresonacional.hn/transparencia/images/leyes/2015/septiembre/Decreto_43-2015_Ley_de_Limitaci%C3%B3n_de_Servicios_en_Telecomun._en_Centros_Penitenciarios.pdf

Services and other current telecommunication services, in addition to those that may be deployed in the future. Telecommunication services used by the Prison System and other government agencies exclusively while performing their functions are exempted...". (Article 1).

In Article 2, the language indicates that "the cost of installing and operating jammers as well as every necessary technical service is the responsibility of the companies providing such service".

Operators have implemented two kinds of solutions - jammers and dummy cell sites. Conatel is taking measurements every two or three months to ensure compliance with the prohibition to provide service.

MEXICO

There are several regulations in the country regarding the installation and operation of radiocommunication jammers in prisons. The primary one is the Executive Order "Cooperation Guidelines between Prison Authorities and Telecommunication Service Licensees and Technical Terms for the Installation and Operation of Jammers"³⁶, from September 2012, together with amendments to criminal legislation from the same year.

Article 3 sets forth that "Every social rehabilitation center, prison or detention center for minors, either from the federal level, from federal entities or from the Federal District, regardless of their name, shall hold equipment to enable the jamming or permanent cancellation of cellular, radio communications or data or image transmission within their perimeter".

The executive order determines that "federal, state and Federal District prison authorities may seek authorization and use budgetary funds to retain the systems or equipment for cellular signal, radio communications, data or image transmission so that they are installed within the perimeter of the relevant social rehabilitation centers". (Article 4).

The decree provides for a collaborative environment among those responsible for jamming communications, as stated in Article 5: "Federal, state and Federal District prison authorities in cooperation with telecommunication licensees shall establish the necessary mechanisms to prevent and, if need be, resolve any undue effect on telecommunication service users in accordance with their spheres of action".

The collaborative environment in turn applies to the Federal Law on Telecommunications and Broadcasting from July 2014 introducing a new chapter under Title Eight -"Cooperation with the Justice System". This is a single chapter called "Duties regarding Security, Safety and Justice".³⁷ This chapter indicates that operators shall "Cooperate with the authorities in charge of safety, security, enforcement and administration of justice in the real time geographical location of

³⁶ Guidelines for Cooperation between Prison Authorities and the Licensees of Telecommunication Services and Technical Terms for the Installation and Operation of Jammers. (4 June 2012). Extracted on 8 November 2016 http://www.dof.gob.mx/nota_detalle.php?codigo=5266201&fecha=03/09/2012

³⁷ National Congress (14 July 2014). Federal Telecommunications and Broadcasting Law Extracted on 8 November 2016 http://www.dof.gob.mx/nota_detalle.php?codigo=5352323&fecha=14/07/2014

mobile communication equipment as per the terms contained in the legislation.” (Article 190, subparagraph I).

In addition to telecommunication jamming, subparagraph II of the same article determines that operators "shall keep a record and control communications placed from any line using own or leased numbering under any modality, where the following can be accurately identified: 1. name, corporate name and subscriber address; 2. type of communication (voice transmission, voicemail, conference, data), supplementary services (including call forwarding or transfer) or messaging or multimedia services used (including short messaging services, multimedia and advanced services); 3. data necessary to track and identify the source and destination of mobile communications: destination number, contract or tariff plan, as well as pre-paid lines; 4. data necessary to determine the date, time and duration of the communication, as well as the messaging or multimedia service...", among other aspects. Operators may choose the way in which they will store such information.

In addition, the Federal Telecommunications Institute (IFT, as per the Spanish acronym) issued Technical Provision IFT-010-2016 this year³⁸ to provide clarity on the issue of maximum power of the jammers. Again, the regulations refer to a collaborative environment between the authorities and operators so that the latter cancel their network signals inside prisons, and within 20 meters from the premises on the outside.

Prison authorities have purchased, installed and put in place radio communication signal jammers. These authorities determine the number of prisons in the federal and local spheres that shall be equipped with jammers.

However, many of these facilities disregard the technical provision from the IFT and commission equipment that lack the required quality, in addition to altering power arbitrarily, which affects the quality of mobile telecommunication services provided in adjacent areas to prisons.

On the other hand, during June 2016 the General Law of the National Public Security System, was amended to regulate prisons and other dependencies with inmates, which in its Article 149 establishes that: "the National Council shall establish, for public security purposes, the cases, conditions and requirements necessary for the blocking cell telephony signals in strategic facilities and in federal and state penitentiary centers, whatever they may be called."³⁹

Although operators are required to meet a strict quality of service regulation, such quality is compromised by the action of jammers, which make it impossible to meet the requirement of the regulator resulting in a negative perception by users.

³⁸ IFT (1 August 2016) Technical Provision IFT-010-2016. Extracted on 8 November 2016 from http://dof.gob.mx/nota_detalle.php?codigo=5446400&fecha=01/08/2016

³⁹ In General Law of the National Public Security System. In <http://www.secretariadoejecutivo.gob.mx/docs/pdfs/normateca/Leyes/LGSNSP.pdf>

PANAMA

The National Authority for Public Service issued a resolution whereby it determines measures on the suppression of wireless signals within prisons⁴⁰. "One: Instruct the licensees of Mobile Cellular Services, Personal Communications and Wireless Internet for Public Use to undertake at their own risk and expense the interruption and restriction of emissions and/or signals of mobile cellular telephony and the connectivity to the internet over wireless networks, systems and terminals within fifteen business days from notification of this Resolution..."

The resolution instructs mobile and Internet operators to restrict and/or interrupt the signals from mobile phones and Internet in the main prisons in the cities of Panama and Colon. It does not indicate technical provisions, but rather that "...every necessary measure shall be taken to meet the signal restriction objectives..."

Point five warns "the licensees of Mobile Telephony and Personal Communication Services that the National Authority for Public Services shall assess whether the measures provided for in this resolution affect in any significant way the quality of service targets set in current legislation for the areas defined and their adjacent areas. To this end, the National Authority for Public Services may issue special measures or technical guidelines for the above-mentioned licensees to meet their Concession Contracts in said areas."

The measure could only be implemented in Panama City, for its implementation elsewhere would have removed coverage for such critical operations as the Duty-Free zone, one airport, two ports and part of the Panama Canal. In Panama City, the implementation of jammers has resulted in no service coverage being provided for many urban areas surrounding the prison.

The problem arises because prison facilities have become part of the cities because of urban growth. The Authorities are focusing on the issue of access to mobile and Internet service for inmates rather than in controlling and managing each prison. This overlooks the fact that many persons are deprived of access to these services and restricts the exercise of the rights granted to the operators by concession.

Nevertheless, the lack of specific regulation has allowed mobile operators and the regulator to provide technical guidance to overcome the issue.

PARAGUAY

The Telecommunications Law prohibits the interference of telecommunications under different articles⁴¹ where it states: "...the inviolability of the confidentiality of correspondence by telecommunication services and of documentary heritage, except under court order..." (Article 89). Inviolability of the confidentiality of correspondence applies to "the prohibition of opening,

⁴⁰ National Authority of Public Services (8 July 2013). Resolution AN #6295-Telco. Extracted on 8 November 2016 from http://www.asep.gob.pa/www/pdf/anno_6295_telco.pdf

⁴¹ National Congress (27 July 1995) Law 642 on Telecommunications. Extracted on 8 November 2016 from <http://digesto.senado.gov.py/ups/leyes/2769%20.pdf>

removing, interfering, altering text, transferring, publishing, using, inquiring into or facilitating knowledge of the existence or content of communications by third parties when such communications were entrusted to service providers as well as the prohibition of providing the opportunity for such acts to happen" (Article 90).

Furthermore, Resolution 6/99 of the General Directorate of Criminal Institutes⁴² determines the prohibition for inmates to use cellular phones. Under item 4, the resolution reads: "To remind the Directors of the National and Regional Prisons and Correctional Institutions about the prohibition for inmates to use cellular phones..." .

From the language in Resolution 6/99 it is inferred that the use of jammers is allowed.

PERU

Supreme Decree 12/2012 of the Ministry of Telecommunications and Transport regulates the installation of jammers in prisons⁴³. Although Article 2 does not mention telecommunication operators, it indicates that "Jammers to be installed and operated inside the prison premises of the National Prison System and Diagnostic and Rehabilitation Centers for Minors shall not affect the right for every person to use and provide telecommunication services outside of these establishments. It shall be the responsibility of the Ministry of Justice and Human Rights, the Judiciary and/or the entity in charge of the administration of prisons or prisons for minors to ensure that this right is not infringed, providing in procurement, service agreements or other mechanisms seeking the installation of jammers the technical and monetary guarantees, fines and other measures incentivizing compliance with the duties set forth herein".

The installation and operation of jammers shall be the responsibility of the "Ministry of Justice and Human Rights, the Judiciary or the entity in charge of the administration of Prisons or Diagnostic and Rehabilitation Centers for Minors, or the natural or legal person authorized by one of said entities..." (Article 3). In turn, the measures or tests to prove that outside of prison premises there is no interference of the services provided by public telecommunication service licensees and private service operators shall be carried out by the Ministry of Transport and Communications.

Ministerial Resolution 750/2016⁴⁴ provides for the draft protocol to establish the procedures applicable to the installation and operation of radio electrical signal jammers of telecommunication services in prisons. Item 5.3 of the draft provides that "the blocking of

⁴² General Directorate of Criminal Institutes (Resolution 6/99). Extracted on 8 November 2016 from http://www.pj.gov.py/ebook/libros_files/coleccion_de_derecho_penitenciario_3.pdf

⁴³ Ministry of Transport and Telecommunications (27 September 2012) Supreme Decree # 012-2012-MTC. Extracted on 8 November 2016 from <http://www.munizlaw.com/normas/2012/Setiembre/27-09-12/D.S.%20N%C2%BA%20012-2012-MTC.pdf>

⁴⁴ Ministry of Transport and Telecommunications (23 September 2016). Ministerial Resolution 750-2016 MTC/01.03. Extracted on 8 November 2016 from <http://busquedas.elperuano.com.pe/normaslegales/proyecto-de-protocolo-tecnico-que-regula-las-condiciones-de-resolucion-ministerial-no-750-2016-mtc0103-1433142-1/>

frequency emissions on the Operators' frequency bands shall be restricted to the perimeter of prisons and the inviolability zone, there being no interference in the Operators' frequencies or frequency bands beyond the inviolability zone”.

Different government initiatives have materialized investments to install radio communication jammers in prisons.

URUGUAY

Article 217 of the Criminal Code indicates that "Any person infringing in any way upon the regular provision of wireline or wireless telecommunications shall be sentenced to three months to three years of imprisonment. An aggravating circumstance of this crime is the theft, damage or destruction of facilities dedicated to telecommunication service rendering"⁴⁵.

The use of jammers is prohibited by virtue of the fact that "the use of harmful interference generation techniques is contrary to the telecommunications policy stated in national legislation, which seeks to favor the use of radio spectrum to serve public interests by promoting the development of efficient communication services and systems aimed at the community at large", as per Resolution 293/2000⁴⁶ of the National Communications Directorate.

Articles 1 and 2 of the resolution state as follows: "Not to issue the conformance certificate from this National Directorate for the import, not to validate nor authorize the installation or operation in the national territory of equipment serving as "Cellular Phone Neutralizers" and any other similar device, whose purpose is to create harmful interferences on 824-849 MHz. and 869-894 MHz". The same criterion is applicable to the 1710-1990 MHz frequency bands.

Another resolution of the Directorate waives the use of cellphone neutralizers by the Ministry of the Interior and any other company or body which for reasons of security and safety may need to resort to them. Users of such devices shall submit a technical recommendation based on issues of security, safety and prevention issued by a resolution of the Ministry of the Interior whereby such system is deemed essential.⁴⁷ Nevertheless, the language states that "in case of harmful interference beyond the geographical area designated for jamming, emissions should be stopped immediately until technical operating parameters are adjusted" (Item 5).

⁴⁵ Criminal Code (26 October 1967). Extracted on 8 November 2016 from <https://www.impo.com.uy/bases/codigo-penal/9155-1933>

⁴⁶ https://www.ursec.gub.uy/wps/wcm/connect/ursec/cbb91239-3879-45bd-b078-acff7b223d28/RES.+DNC+293_2000+Neutralizadores+de+Telefonos+celularres.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=cbb91239-3879-45bd-b078-acff7b223d28

⁴⁷ National Communications Directorate (25 April 2001). Resolution 120/2001. Extracted on 8 November 2016 from https://www.ursec.gub.uy/wps/wcm/connect/ursec/5164d18e-c68d-45ab-b6d0-2006a81d2bd2/RES+DNC+120_2001+Se+exonera+al+Ministerio+del+Interior+de+la+aplicacion+de+la+Resolucion+293_2000.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=5164d18e-c68d-45ab-b6d0-2006a81d2bd2

The Communication Service Regulatory Unit (URSEC) is responsible for granting the possession, use, activation, sale, distribution or transfer of all types of telecommunication signal jammers. (Art. 72 of Law 19,355)⁴⁸.

With support from the URSEC, the Ministry of the Interior has deployed jammers. During initial testing of these devices, operators conducted surveys in the environment upon adjusting the equipment. Although a higher number of dropped calls was identified at the level of the KPIs in the nearest base stations, the service remained unaffected in the adjacent populated areas. Basically, harmful interference levels for mobile communications were possible to control within a limited environment of 100 meters beyond the blocked area. It was inferred that the increase in dropped calls detected in the base stations of the surrounding environment was due to the calls that were dropped in attempts at calling from the prisons or transit calls from outside into the prison.

Nevertheless, several cases arose where it was determined that the signal in the city was affected by jammers. When looking into the cases, it was identified that several companies had purchased and smuggled jammers into the country by dodging controls. These were used to prevent workers or customers from using their mobiles in the facilities. Operators duly reported these instances to the regulator through the Telecommunications Chamber of Uruguay and the authorities worked jointly with the operators to withdraw all such devices from the marketplace, as well as to prohibit their sale.

VENEZUELA

The National Assembly passed law 6,240 from July 2016, regulating the use of cellular phones and Internet in prisons⁴⁹. The law establishes that "The Ministry of the People's Power for the Penitentiary Service shall purchase and install equipment aimed at limiting, blocking or permanently suppressing the cellular telecommunication signal and the Internet within the country's penitentiary institutions" (Article 3).

Article 4 sets forth that "equipment and actions aimed at limiting, blocking or suppressing the cellular communications and Internet signal within the prisons subject to this Law might in no way affect the adjacent communities".

The role of telecommunication operators is to cooperate "every time the Ministry of the People's Power for the Penitentiary Service calls for technical assistance aimed at meeting the objectives in this Law". (Article 12).

⁴⁸ National Budget of Expenditure and Investment Fiscal Year 2015-2019 (30 December 2015). Extracted on 8 November 2016 from <https://www.impo.com.uy/bases/leyes/19355-2015>

⁴⁹ National Assembly (15 July 2016). Extracted on 8 November 2016 from <http://www.notilogia.com/2016/07/gaceta-oficial-extraordinaria-n-6-240-an-promulga-ley-que-regula-uso-de-celulares-e-internet-en-las-carceles.html>

The regulation establishes that funding shall be provided by the Ministry of Penitentiary Affairs. Generally speaking, the technical solution is for equipment to issue a signal of greater strength that cancels the signal of the transmission source.

CONCLUSIONS

The mobile industry has shown willingness to contribute its perspectives whenever the authorities request their involvement to advance issues for this industry. The evolution of mobile networks, broader coverage, service provision to certain population and educational segments are strong evidence of the cooperation between mobile operators and national, state and municipal authorities.

Safety and security are matters of concern for all Latin American countries. As part of the society where it operates, the Latin American mobile industry is willing and able to cooperate with the authorities in different jurisdictions to raise safety and security standards for the countries in the region, as it has been doing for years now.

In this regard, there is no contrary position per se to the installation of cellular signal jammers in prisons or any other kind of technology to mitigate the scourge of criminal communications. Although there are different views among the parties, mobile operators have adopted the measures proposed by the authorities regarding the way in which communications should be blocked in prisons pursuant to the law.

However, in some cases the legislation itself would seem to equate operators with criminal accomplices by sanctioning them with monetary fines, and even criminal sentences, in case the jamming is anything less than one hundred percent successful. As explained in this document, there is no solution to block communications in prisons at one hundred percent effectiveness that does not harm mobile users in the vicinity of prison facilities.

On the other hand, other industry regulations apply to mobile operators demanding that they meet increasingly stringent service quality and coverage, failing which, they face sanctions. Thus, operators stand at a contradictory and inescapable situation resulting from current regulations.

The mobile industry cannot and must not be the only party responsible for redressing this. It is the State that must strive to ensure people's safety and security and define jointly with all stakeholders, including the mobile industry, the best and most reasonable options to prevent communications with criminal purposes from being placed from the prisons in the region.

ANNEX

Summary Chart of the Cellular Signal Jammer Status in Latin America⁵⁰

Country	Use of Jammers	Regulations on the Use of Jammers	Special Use by the Authorities
Argentina	The use of jammers is illegal. The Criminal Code establishes sentences ranging from six months to two years for those who restrict or interrupt communications.	There is a 2014 bill to promote the use of jammers in prisons.	Some prisons that provided for the use of jammers created lower quality mobile communications in the proximity of prisons.
Bolivia	The use of blockers in prison institutions is stipulated by the "National System of Citizen Security Act", which was enacted July 31, 2012.	Law 264 of 2012. "Law of the National System of Citizen Security"	The deployment of blockers is in charge of the penitentiary service. It is this unit that is responsible for carrying out the deployments.
Brazil	The use of blockers must not interfere in radio frequency bands outside the established limits and must be effective for any radiocommunication service technology used in the selected location. The entity that uses the blocker must contact the operators to measure their signal levels.	Resolution 308/2002 - Use of Radiocommunication Signal Blocker: To establish the conditions of use of the Radiocommunication Signal Blocker (BSR). Supplementary Act (PLP) 470/18 amending art. 3º of the Complementary Law N° 79, of January of 1994, that establishes the application of resources of the National Penitentiary Fund (FUNPEN). Thus, the modification establishes the immediate implementation of cell phone blockers in the prison service.	FUNPEN resources must be applied in the installation, costing and maintenance of the blocking of telecommunication signals for mobile phones, radio transmitters, and other means, in penitentiary establishments. In this sense, it establishes that telecommunications will have to offer unrestricted access to all the information and technology necessary for the agencies in charge of establishing blockers to carry out their work, collaborating with efficient and effective technologies.
Chile	The General Telecommunications Law determines sanctions for those who interrupt or interfere telecommunications	There is a bill from 2016 amending the organic law of the Border Police so that a system is deployed inside prisons to block mobile telephony signals.	In 2012, the Ministry of Justice installed jammers in prisons; the system was later dropped because it blocked communications from

⁵⁰ References to the regulations and legislation contained in this chart can be viewed in Item 5 of this White Paper.

	signals.		neighbors.
Colombia	Resolution 2774/2013 of the Ministry of ICTs regulates the use of mobile jammers.	Resolution 2774/13 sets the conditions for the installation and use of jammers and amplifiers of radio signals as per Executive Order 4768/11. In April 2017, the Constitutional Court of Colombia, through sentence T-276/17 ⁵¹ ordered INPEC and the ICT Ministry to allow inmates to receive calls within the penitentiary facilities.	Several prisons in the country use jammers, although their use affects mobile communications for the neighboring population. Nevertheless, during April 2017, the Court asked INPEC and the ICT Ministry to take the appropriate and necessary measures to implement a pilot model of access to Internet or other mass media that would contribute to make communication between people deprived of freedom and their relatives more efficient.
Costa Rica	The General Telecommunications Law and its regulations prohibit the use of equipment that interferes with telecommunication networks or operator service signals.	By April 2018, the Legislative Assembly had a bill that sought to modify the LGT with the aim of forcing operators to install signal blockers in all prisons and penal centers in the country. The reform is being promoted by the Special Commission on Security and Drug Trafficking of the legislative body.	No
Ecuador	Overall prohibition of signal jammers, as per the Criminal Code, which provides for prison sentence for those who restrict or interrupt communications.	The use of cellular signal jammers is allowed in prisons as per a resolution of Conatel (currently, Arcotel).	No regulations compel operators to install cellular jammers.
El Salvador	The Special Law against the crime of extortion indicates that operators have the duty to adopt and apply the business procedures and technical solutions necessary to	Regulator SIGET provided for technical regulations so that operators do not offer cellular service in prisons.	

⁵¹ In Sentence T-276/17. In <http://www.corteconstitucional.gov.co/relatoria/2017/t-276-17.htm>

	avoid the rendering of telecommunication traffic services inside prisons.		
Guatemala	The former Law for Mobile Telecommunications Control in Prisons and Infrastructure Strengthening for Data Transmission was declared unconstitutional.	The authorities evaluate the use of blockers in jails	
Honduras		Article One of Decree-law 255-2013, published in January 2014, determines the prohibition for mobile operators to offer service in prisons. In September 2015, a new decree-law (43-2015) expanded the prohibition to all telecommunication services.	Operators are fully responsible for bearing the cost of installation, maintenance and operation of jammers.
Mexico		The Federal Telecommunications and Broadcasting Law sets forth the duty for operators to cooperate with the authorities (Art. 44). There are different regulations regarding the installation and operation of jammers in prisons. One document is Guidelines for Cooperation between Prison Authorities and Telecommunications Service Licensees and Technical Terms for the Installation and Operation of Jammers. In June 2016, the General Law of the National Public Security System, was amended to regulate prisons and other dependencies with inmates, which in its Article 149 establishes the	The IFT issued technical regulations on cellular, broadcasting or data and image transmission jammers within social rehabilitation institutions, prisons or detention centers for minors, either from the federal level or from federal entities.

		implementation of blockers in jails.	
Panama	There is no regulation on the use of jammers for cellular phones.		The National Authority for Public Service issued a resolution establishing measures relative to suppressing wireless signals within prisons.
Paraguay	The Telecommunications Law prohibits interference on telecommunications.	Resolution 6/99 of the General Directorate of Criminal Institutes determines the prohibition for inmates to use cellular phones, from which it is inferred that the use of jammers is allowed.	
Peru	Allowed.	Supreme Decree 12/2012 of the Ministry of Telecommunications and Transport regulates the installation of jammers in prisons.	Ministerial Resolution 750/2016 provides for the protocol to establish the procedures applicable to the installation and operation of radio signal jammers of telecommunication services in prisons.
Uruguay	Article 217 of the Criminal Code establishes sentences ranging from three months to three years of prison to those who compromise the regularity of telecommunication services.	Resolution 293/2000 of the National Communications Directorate instructs not to issue a certificate of approval for the import, validation, installation or operation of jammers. Another resolution of the Directorate waives the use of cellphone neutralizers by the Ministry of the Interior and any other company or body which for reasons of security and safety may need to resort to them. Users of such devices shall submit a technical recommendation based on issues of security, safety and prevention issued by a resolution of the Ministry of the Interior whereby such system is	The URSEC is responsible for granting the possession, use, activation, sale, distribution or transfer of all types of telecommunication signal jammers. (Art. 72 of Law 19,355).

		deemed essential.	
Venezuela		The National Assembly enacted Law 6,240 regulating the use of cellular phones and Internet in prisons.	

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