

Tax

Brazil's tax reduction on M2M devices paves the way for the rise of the machines

Policy goal

The Internet of Things (IoT) is built on machine-to-machine (M2M) communication, where electronics devices, vehicles, sensors and a whole host of other items communicate with each other, providing information and automated services, via the internet over wireless connections. The GSMA forecasts that global M2M connections will hit a quarter of a billion this year, underscoring just how quickly M2M adoption is ramping up. The popularity of the technology is hardly surprising, as M2M has the potential to reduce healthcare costs, lower carbon emissions, improve transportation safety and much more. To reap the rewards of this burgeoning market, policymakers need to ensure the right policy and taxation frameworks are in place to encourage investment in the M2M ecosystem.

Action

Recognising that its existing taxation policy on M2M connections was stifling the growth of this potentially lucrative market, the Brazilian government decided to significantly cut the levies it imposed on M2M SIM cards. The move is providing a stimulus for operators to develop services, such as smart metering, car tracking and remote health monitoring. As a result, adoption of M2M technology in Brazil is now forecast to grow rapidly.

Enablers

- Forward-looking government policy designed to help a nascent market grow
- Strong communication between key MNOs and the Government on measures needed to boost the M2M market

Outcomes

- Brazil set to lead the way in M2M adoption in Latin America
- Increased investment in M2M technologies and services by Brazilian mobile operators
- M2M market in Brazil predicted to grow from its current level of 7.8million connections to 23.8million by 2016.

Strategic challenge

The mobile ecosystem has, until recently, concentrated on connecting people, but in the future its focus will widen to include connections between machines. Adding connectivity to machines will allow them to make smarter, autonomous decisions, and support new services such as remote health monitoring and intelligent heating control for buildings. These machines will rely on M2M SIM cards for their connectivity, and for the M2M market to grow these connection must be priced at appropriate and affordable levels.

Prior to the reduction in the tax rate on M2M connections, the Brazilian government's tax policy did not distinguish between M2M SIMs and traditional SIMs used by consumers for voice and data services. However, M2M connections produce a lower average revenue per unit (ARPU). Under certain circumstances, the high level of taxation meant operators would actually lose money on the provision of certain M2M connections. As a result, they had no incentive to support or invest in the market. Once the Brazilian government recognised the threat, it decided to take action by introducing a tax cut.

Changing taxation policy to incentivise investment

A quirk of the Brazilian communications market was acting as a choke on the development of the M2M technologies and services. Although M2M plans are often cheaper than full mobile phone plans, and also generate less revenue for mobile operators, they were being taxed at the same rate as standard mobile phone SIMs.

The upshot was that the growth of M2M services was being held back, as high taxes on M2M connections made the technology too expensive to use in many applications.

In Brazil there are two taxes levied on mobile SIM cards under the Telecommunications Inspection Fund (Fistel). The first is the Installation Inspection Tax (TFI). This is a one-off tax applied to all new connections. Before the tax cut, a TFI charge of BRL28.63 (\$11.56) was charged on all new SIMs, including M2M ones, but following the reduction this fell almost 80% to BRL5.68 (USD2.29).

The second tax is the Operation Inspection Fee (TFF). It is applied on an annual basis to all active SIM cards. This has now been reduced by over 80%, from a yearly fee of BRL8.94 (\$3.61) to an annual rate of BRL1.89 (\$0.76).

In a statement, Brazil's communications ministry announced that the new regulations wouldn't have an impact on the 2014 fiscal budget¹. In 2015, the government expects the loss of tax revenue will equate to around BRL110million (\$49.3million). Nonetheless, it also predicts the cut will hugely increase the take up of M2M devices and service. This M2M growth has the potential to open up new streams of taxation revenue for the government.

Making it happen — new laws, a pragmatic approach to regulation and forecasts of huge growth

Mobile phone operators, along with manufacturers and resellers of M2M devices, had long campaigned for a reduction in the M2M connection tax. They believed the combination of high levels of taxation and the low ARPU of M2M connections were putting the brakes on a market that otherwise had huge potential for growth.

However, due to the nature of the Brazilian legal system, the Fistel taxation rules could only be changed by a combination of a presidential decree and a new law. The Brazilian Minister of

“When we look at the Brazilian market, there are important indications of growth. Yet, there is room for investment, because only 3.1% of connections in the country are currently M2M.” Paulo Bernardo, Communications Minister, Brazil.

Communications recognised that a change was necessary, but the tax cuts weren't initially supported by the Minister of Finance.

Eventually, however, the Finance Ministry became convinced the move could have significant long-term economic advantages and so agreed to the changes, albeit with the proviso that mobile Point of Sale (PoS) connections would be excluded from the M2M tax breaks. The thinking behind this exemption was that PoS connections were already growing and, as such, didn't need tax reductions to stimulate their adoption.

The initial law authorising the M2M tax cut was passed in 2012, and the presidential decree, which stipulated the level of the tax break and the mechanics of how it would be implemented, followed two years later.

The presidential decree contained a clause stating that a monitoring body for M2M devices should be set up and include representatives from the Ministry of Communication, the telecom regulator Anatel, and a number of other key stakeholders. This body, known as the Chamber of Management and Development of M2M Communication Systems, was officially created on October 2014, and its role will be to promote cooperation between members of the ecosystem and support policies for the development of the M2M market.

The decree also included an initial definition of what constituted an M2M connection for taxation purposes, but there was an added clause stating that further regulation would be necessary to clarify this in the future. However, creating an extensive list of what is and isn't an M2M device would have been problematic for the Brazilian telecoms regulator, Anatel. In a market that is constantly evolving due to rapid innovation, the list would have quickly become outdated.

In the end, the regulator took a more pragmatic view. It decided to allow the market and mobile operators to decide what did and didn't constitute an M2M connection, with the understanding that it would perform an audit in the future to make sure there was no abuse of the system.

The final piece of the jigsaw was the need for Anatel to update the online system used by operators to declare SIM card usage for tax purposes. This change was necessary to allow operators to stipulate whether a SIM card was being used for an M2M connection (which qualifies for the tax break) or any other form of connection (excluded from the tax break). Once this system was updated, the new M2M tax measures went live on 12th September 2014.

The tax cut has already had a significant positive impact on the development of the Brazilian M2M market. For example, it has provided a positive stimulus for Brazil's mobile operators to develop M2M services and strategies. Shortly after the tax cut was put in place, the country's mobile operators announced plans to invest a total of BRL 13 billion (\$6 billion) in the development of M2M technologies over the next four yearsⁱⁱ.

According to data from Machina Research, there are approximately 7.8million cellular M2M connections currently active in Brazil, with this figure predicted to skyrocket to 23.8million by 2016ⁱⁱⁱ. Brazil's communications minister, Paulo Bernardo, has said that the ministry's own figures project the number of M2M devices in Brazil to leap to 23.3million by 2016 as a result of the tax cut.

The decision by the Brazilian government to reduce this tax is a significant move to stimulate the growth of M2M service, but the Brazilian administration is not resting on its laurels. It's continuing to take a lead in promoting IoT connected services by mandating the installation of vehicle tracking devices in new vehicles under the proposed SIMRAV scheme, and putting in place rules that are steering energy suppliers towards the use of smart meters to help with better grid management and to support more flexible, time-of-use tariffs for consumers^{iv}.

M2M is a new market that can be encouraged to grow by government through policies of low taxation and light-touch regulation. By introducing this tax cut, Brazil is not only encouraging the growth of M2M services, but ensuring that it will be the first to benefit from the social, environmental and economic opportunities of this important new sector.

Quote from:

<http://www.brasil.gov.br/infraestrutura/2014/05/paulo-bernardo-cobra-operadoras-por-investimentos-no-setor-de-comunicacoes>

ⁱ <http://m2mworldnews.com/2014/05/06/34989-brazil-cuts-taxes-on-m2m-services/>

ⁱⁱ TelecomEngine, May 7th 2014, "Brazilian operators invest \$6 billion in M2M", retrieved from <http://www.telecomengine.com/node/87301>

ⁱⁱⁱ Data extracted as of October 2014

^{iv} <https://blogs.siemens.com/smartgridwatch/stories/525/>