**FEBRUARY 2016**

# Filterwatch

## Iranian Internet Infrastructure and Policy Report

A *Small Media* monthly report bringing you all the latest news on internet policy and online censorship direct from Iran.

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# Introduction

In this month's report, we take a look at Iran's Cyber Army. In particular, we'll focus on the ways state-sponsored hackers target activists, journalists, and civil society organisations. We'll start with a quick overview of Iran's offensive cyber activities, focusing specifically on phishing attacks aimed at information gathering. Then we'll look at some recent attacks and techniques in a bit more detail.

We have interviewed a number of activists who have been targeted, and will draw on the insights provided in these interviews to draw some tentative conclusions about the capacity, motives, and techniques of Iranian hackers. We will also make recommendations for how activists, civil society organisations, and tech companies can be prevent and respond to these attacks.

# Executive Summary

## Key Findings

- Iran's Cyber Army is not especially advanced technically, but is generally good at social engineering
- The Cyber Army tends to target civil society organisations with carefully crafted and personalised phishing emails
- Better coordination between civil society organisations and large tech companies is needed to address compromised social media accounts more promptly
- More information sharing among civil society groups about cyber security and emergency response to hacking incidents is also required

## Key Developments

Here are a few statements from politicians, policymakers, and civil society groups that we think are noteworthy this month.

**FEBRUARY 1**

According to Internet World Stats, the number of Iranian Internet users has increased from 250,000 in 2000 to 46,800,000 in 2015. The report also states that of Iran's population of 81,824,270, around 46,800,000 are Internet users, which places the Internet penetration rate at 57.2%. (Source)

**FEBRUARY 5**

Iran and Afghanistan signed an agreement for the development of fiber optic between the two countries. In addition, Afghanistan will buy telecommunication services from the TIC.

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Seyed Abolhasan Firouzabadi, Secretary of the Supreme Council of Cyberspace (SCC), said there is no point in blocking social networks like Telegram because people will find an alternative solution to filtering, as has happened previously. He noted that when Iran blocked Viber, users moved to Telegram. (Source)

**FEBRUARY 14**

Gholamhossein Karimi, President of the Telecommunication Devices Guild said three companies have been negotiating to get licenses from Apple to sell Apple products in the country. These companies include: Vagheaye Gostar Fars, Aryan, and Sam Service. Karimi went on to note that they still have not received any official license from Apple. (Source)

# 1

# Iran's Cyber Army: Phishing and malware campaigns against Civil Society Organisations (CSOs)

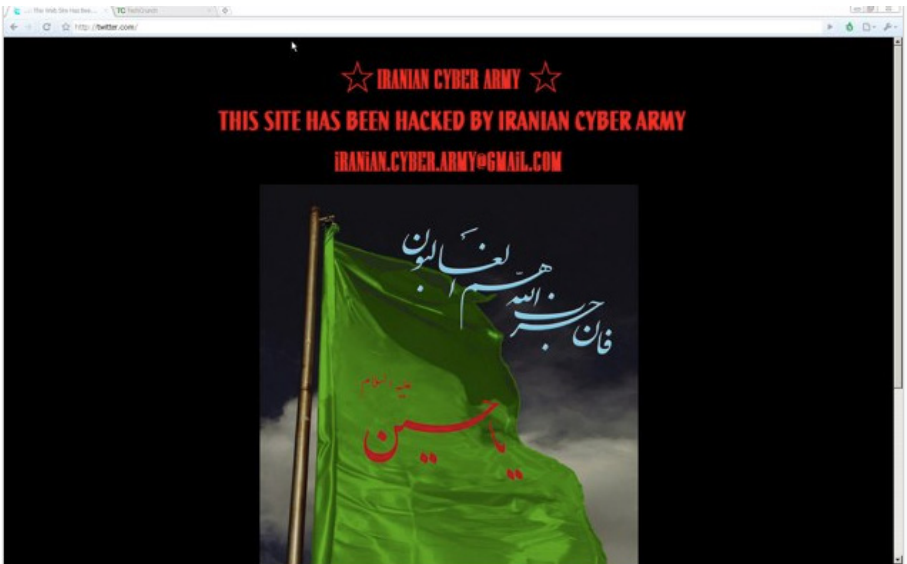
In this month's report, we take a look at Iran's Cyber Army. In particular, we'll focus on the ways state-sponsored hackers target activists, journalists, and civil society organisations. We'll start with a quick overview of Iran's offensive cyber activities, focusing specifically on phishing attacks aimed at information gathering. Then we'll look at some recent attacks and techniques in a bit more detail.

We have interviewed a number of activists who have been targeted, and will draw on the insights provided in these interviews to draw some tentative conclusions about the capacity, motives, and techniques of Iranian hackers. We will also make recommendations for how activists, civil society organisations, and tech companies can be prevent and respond to these attacks.

## BACKGROUND ON IRAN'S CYBER ARMY

While coordinated attacks on websites in Iran have been recorded as early as 2002, the 2009 post-election protests appear to have catalysed their efforts. One of the first major attacks that the group took credit for involved defacing the Twitter homepage and taking the popular microblogging site offline for a few hours in December 2009.

[screen shot from Techcrunch]



It was after the Stuxnet cyber attack on Iran's nuclear infrastructure, which came to light in the summer of 2010, that the cyber army began to ramp up its activities. The following summer, an attack on Dutch certificate authority DigiNotar allowed hackers to monitor Iranian users connecting to Google on what appeared to be secure connections. It's is difficult to definitively ascribe culpability for this attack, but available evidence strongly suggests the involvement of Iranian authorities.

For example, stealing a Google certificate does not allow hackers to gain access to much information unless they control a fair amount of internet infrastructure (such as an ISP), which the Iranian government does. As the New York Times explains, "Armed with certificates stolen from companies like these, someone with control over an Internet service provider, like the Iranian authorities, could trick Internet users into thinking they were safely connected to a familiar site, while eavesdropping on their online activity."

Moreover, as a report on the incident from Dutch IT security firm Fox-IT notes, "The list of domains and the fact that 99% of the users are in Iran suggest that the objective of the hackers is to intercept private communications in Iran."

In addition to the attacks related to censorship and surveillance, there have also been attacks targeting the financial and military infrastructure of foreign countries, including the United States and Saudi Arabia, as well as businesses based abroad. As a comprehensive overview and detailed discussion of these attacks is beyond the scope of this report, we will instead provide a partial timeline.

In December 2011, Iran claimed to have digitally hijacked an unmanned American drone flying along the border of Iran and Afghanistan (though this account is disputed by the US). In August 2012, Saudi Arabia's state-owned coil just Aramco was hit with a cyber attack that affected more than 30,000 computers (Iran's Cyber Army didn't claim credit, but circumstantial evidence points to Iranian hackers). During 2012 and 2013, the US accused Iran of launching cyber attacks against financial institutions, including Bank of America and PNC financial services group. And in 2014, Iranian hackers launched an attack on Sands, a Las Vegas casino owned by Sheldon Adelson.

## RECENT SPEAR-PHISHING ATTACKS

Over the past two years, Iranian hackers have ramped up social engineering attacks aimed at civil society organisations. As a recent report from technology firm Check Point explains, "Since early 2014, an attacker group of Iranian origin has been actively targeting persons of interest by means of malware infection, supported by persistent 'spear phishing' [i.e. specifically targeted phishing] campaigns. This cyber-espionage group was dubbed 'Rocket Kitten,' and remains active... with reported attacks as recent as October 2015."

An August 2015 report from Citizen Lab reached a similar conclusion, documenting a spear-phishing campaign targeting civil society groups which aimed to crack the two-step authentication process.

## INTERVIEWS

To gain some insight into these attacks, we conducted interviews with two people familiar with the situation: Amir Rashidi, an internet freedom researcher at the International Campaign For Human Rights in Iran (ICHRI) who has done a lot of work with victims of attacks, and an Iranian human rights activist based in Europe who has been targeted (due to the sensitivity of the topic, we have kept the activist anonymous).

## HISTORY AND TECHNIQUES

We asked Rashidi for his take on a range of topics related to Iran's cyber army, including its history, capacity, preferred methods, and how civil society groups can respond. The following is a condensed summary of his remarks.

Rashidi argues that Iran didn't invest many resources in cyber operations until after the 2009 protests. Since then however, the government has poured a significant amount of funding into developing cyber capabilities. And according to Rashidi, there has been some improvement in the Cyber Army's capacity in recent years.

The Cyber Army's hacking methods tend to not be particularly advanced. They often include social engineering techniques such as phishing, and targeted malware attacks aiming to deploy tools like keyloggers. These two approaches can be combined, as was the case in an attack described by Rashidi which aimed to deliver malware via email attachments designed to look like simple Microsoft Office (e.g. PowerPoint) files.

While these methods are not particularly advanced, Rashidi explains that they often serve their intended purpose of tricking activists or journalists into giving up sensitive information. He also pointed out that these attacks are rarely random. Instead, phishing emails are often crafted with an attentive eye towards the target's interests and personal background.

## CASE STUDY: TARGETING ACTIVISTS

This description of a careful crafted phishing email neatly fits the profile of the attack that targeted the activist we spoke to. As that activist told us, "The attackers seem to not only know me and my interests, but also constantly monitor my online activities and organise their attacks based on that." The activist goes on to provide more specific details about the attack:

> *"Recently, I received an email from someone who pretended to be an officer [at a prominent human rights organisation] right after I had mentioned [that organisation's] account in a few tweets. The sender—who impersonated a [member of that organisation's staff] —sent me malwares [sic] in an email which looked ... very genuine."*

Such highly personalised targeting can make these phishing attempts quite difficult to spot. So how can activists defend themselves against these types of attacks? And how should they respond if they do fall for one?

## WHAT CAN BE DONE

According to Rashidi, one of the best preventative measures activists can take is to familiarise themselves with basic cyber security practices, including topics like 2-step verification, avoiding attachments in emails from unknown senders, and encryption.

If an attack is successful, Rashidi stresses the importance of securing cooperation from tech companies like Facebook, Twitter, and Telegram in order to shut down a compromised account as soon as possible. This is an issue that Rashidi himself has been publicly involved with, when he recently lobbied Telegram to shutter the account of a BBC Persian journalist who had been arrested. This campaign ultimately succeeded in getting the account shut down, but it took nearly two weeks for Telegram to act, which was more than enough time for the attackers to download sensitive information and use the account for phishing attacks.

## CONCLUSION

Based on the interviews we conducted with Rashidi and the activist who was targeted, we can draw the following tentative conclusions about how Iran's Cyber Army operates, and how civil society organisations can best defend against this threat.

The preferred method of Iran's Cyber Army seems to be social engineering. In particular, Iranian hacking groups have become rather adept at crafting highly personalised and targeted phishing emails designed for various activists and civil society organisations.
In short, Iran's Cyber Army tends to use relatively unsophisticated techniques, but has become quite adept at specifically targeted social engineering attacks.

The best approach for civil society organisations defending against state-sponsored cyber threats is to combine preventative and reactive measures. In terms of prevention, basic cyber security training would prove very useful. In addition, a forum where Iranian activists and civil society organisations can share information about the threats they have faced might help raise community awareness about the common tactics, techniques and targets the Iran Cyber Army tends to pursue.

Reactive measures should include stronger collaboration between civil society organisations and tech companies like Facebook, Twitter, Google, and Telegram. When an account has been compromised, it is imperative that it is shut down as quickly as possible. In order for this to happen, coordination between activists and various tech companies needs to be streamlined, and set up in such a way that companies can quickly verify and carry out any takedown requests. As Iran's Cyber Army improves its capacity to target activists, it is crucial that activists have the knowledge and resources to fight back.

# 2

# Content Filtering and Blocked Sites

- **February 3:** An anonymous source at the ICT Ministry said a broker has been arrested in connection with an embezzlement investigation. The ICT Ministry has not mentioned his full name and exact role in the ICT industry. (Source)
- **February 8:** According to Fars News Agency, the website of the 2016 Beach Volleyball World Tour, held on Iran's Kish Island, has been blocked. Journalists inside the country who want to cover the competition must register for a press pass through the FIVB website, but are currently having a hard time doing so. (Source)
- **February 10:** A website belonging to Mohsen Ranani, an economist and lecturer at the University of Isfahan has been filtered. Ranani is reformist who has strongly criticised Ahmadinejad's economic policies. The alternative address of the website is renani.net. (Source)
- **February 10:** The download page for Gershad, a mobile application which notifies users about the location of morality police in Tehran's streets, was blocked a day after the app's launch. (Source)
- **February 28:** Ali Jannati, Minister of Culture and Islamic Guidance (MCIG) said his ministry opposes the blocking of Whatsapp and Telegram. (Source)

# 3

# Statements from Ministries and Politicians

- **February 1:** Ali Asghar Amidian, Director of the Communications Regulatory Authority of Iran (CRA) announced that ISPs will be required provide compensation to customers who have received poor internet service. He added that in the first six months of 1394 (March 2015 - September 2015), ISPs paid 2 billion IRR (66,000 USD) and gave away 7,400 Gb of Internet bandwidth to customers as compensation for poor service. (Source)
- **February 1:** The Central Bank Iran (CBI) announced that access to the Society for Worldwide Interbank Financial Telecommunication (SWIFT) system has been restored for Iranian banks. The nine banks which have connected to SWIFT are: CBI, Tejarat Bank, Bank Melli Iran, Bank Mellat, Bank of Industry and Mine, Post Bank, Export Development Bank and Bank Refah Kargaran. Iranian banks have been excluded from SWIFT since 2012, due to the UN Security Council sanctions relating to Iran's nuclear program. Sanctions on Iran's nuclear program were lifted in January 2016. (Source)
- **February 2:** In a meeting with ICT Minister Mahmoud Vaezi, Ayatollah Jafar Sobhani asked the ICT Minister to monitor and regulate mobile social networking app such as Telegram and WhatsApp. Ayatollah Sobhani added that satellite TV channels and Western countries are trying to ruin families in Iran. (Source)
- **February 2:** Vaezi said that over the last two years, the ICT Ministry spent 6 trillion IRR (198 million USD) to help villages in the country develop their ICT sectors, with a further 3 trillion IRR (99 million USD) planned for the near future. He added that all villages in Iran will be connected to high speed Internet by the end of current government in 2017. (Source)
- **February 2:** The Telecommunication Infrastructure Company of Iran (TIC) announced that Iran will launch a new gateway for telecommunication traffic exchange with Iraq. Currently, there are 5 gateways between Iran and Iraq. (Source)

- **February 3:** Jafar Roshanian, Deputy of the Iran Space Agency (ISA) announced that the ISA plans to register 13 points in the Earth's orbit for Iranian satellites. He additionally said the ISA is in the negotiating phase of a plan aiming to send Iran's national satellite into orbit. (Source)
- **February 3:** The Telecommunication Company of Iran (TCI) has launched a new cloud-based video call service. The new service is called SHAVAK and it is available in different provinces of Iran as a prepaid and postpaid service. According to the TCI, users will be able to choose their video quality depending on their Internet speed. (Source)
- **February 3:** Vaezi said that the Sixth Five-Year Plan (2016-2021) includes 8 major development plans related to Iran's space program. He mentioned that these plans include providing equal opportunity to those who are interested in getting involved with the program, and using domestic human resources to develop the aerospace industry over the next five years. Vaezi also said Iran aims to design and construct its national satellite and send it into orbit in the next 9 years. (Source)
- **February 5:** Iran and Afghanistan signed an agreement for the development of fiber optic between the two countries. In addition, Afghanistan will buy telecommunication services from the TIC. (Source)
- **February 5:** According to Iranian Students' News Agency (ISNA), 144 millions SIM cards have been sold in Iran as of September 2015, but only 72 million are active. Table [1] provides further details from ISNA's report. You can read more about number of SIM cards and mobile penetration in our January 2016 report. (Source)

| | MCI[1] | MTN Irancell | Rightel |
|---|---|---|---|
| Contract SIM cards | 17,700,000 | 785,000 | 135,000 |
| Pay as You Go SIM cards | 46,900,000 | 74,001,000 | 4,167,000 |
| Active SIM cards | 41,291,000 | 29,000,000 | 1,802,000 |
| Market share, based on active SIM cards | 53% | 36.8 | 2.29 |

Table [1] // Mobile Telecommunication Company of Iran (MCI)

- **February 6:** Davoud Zareian, Deputy Director of the TCI said that lifting sanctions has enabled the company to buy telecommunications equipment from international companies for 20-30% less than they had paid while sanctions were in place. According to Zareian, the reason for the discount is that the TCI can now contact sellers directly, instead of having to go through an intermediary. (Source)
- **February 6:** The Islamic Republic of Iran Customs Administration (IRICA) has released statistics on the importing of mobile phones into the country. According to these statistics, Iran has imported 469 tons of mobile phones over the last 10 months, at a total cost of 188 million USD. The report goes on to note that the number of imported mobile phones has increased by up to 56% in the last six months. Finally, the report found that only 15-20% of Iran's mobile phones are imported through official channels, while the rest are smuggled into the country. (Source)
- **February 6:** Seyed Mostafa Hashemi, Chairman of the TCI Board, said Rouhani's cabinet has included a proposal in the Sixth Five-Year Plan to nationalise the network of copper cables and telecommunication boxes currently owned by the TCI. Hashemi dismissed this suggestion as totally illegal. (Source)
- **February 6:** Vaezi stated there is no reason to block Telegram if the app does not break Iranian law. Additionally, he announced that the ICT Ministry has set aside 1.2 trillion IRR (39 million USD)to offer loans to startups. (Source)
- **February 7:** Vaezi announced that Iran's internet bandwidth supply will increase to 4 Terabytes from the 7th of February 2016, which is about six times the amount of bandwidth available before Rouhani took office (624 Gigabytes). Also, he said free access to information is part of Rouhani's policy regarding the Internet. (Source)
- **February 7:** Vaezi launched various telecommunication projects on the anniversary of the Islamic Revolution, and mentioned the following points in a press conference the same day:
  - ◊ In response to the arrest of a person in connection with fraud and embezzlement, he said that person had been part of the previous government's ICT Ministry and as soon as the Ministry found out about his alleged criminal activity, they removed him from his position.
  - ◊ The ICT Ministry will lower the cost of both broadband and mobile internet access in the upcoming year.
  - ◊ Iran is happy for the Chinese telecommunications company Huawei to build data centers in Iran. Vaezi said his ministry is keen to work with the private sector and provide them with bandwidth.

- ◊ Iran's telecommunication operators are keen to stop selling unlimited calling plans. According to Vaezi, there is not enough infrastructure to provide unlimited calling to users.
- ◊ Vaezi said Iran's network of copper cables belongs to the public and the TCI cannot retain its ownership because this unfairly prevents other private telecommunication companies from using it. (Source)

- **February 7:** Vaezi asked his Deputy Minister, Nasrollah Jahangard, to facilitate and push the launch of Iran's National Information Network (SHOMA) by September 2016. Delays over the launch of SHOMA has become a controversial issue for the ministry, and Vaezi has been under pressure from hardliners and conservatives to expedite the process. (Source)
- **February 7:** Iran's Judiciary Spokesman, Gholam-Hossein Mohseni-Eje'i, said the judiciary will monitor social networks and cyberspace in the upcoming election and will not let anyone break the law. Iran's Parliamentary and Assembly of Expert elections was held on 26 February. (Source)
- **February 8:** Mohammad Hassan Entezari, Director of Iran National Satellite Program said Iran will send the Mesbah Satellite into orbit with a foreign rocket. He mentioned the Mesbah Satellite Project is almost twenty years old. The project has been put on hold by the Italian government due to the UN sanctions on Iran's nuclear program. (Source)
- **February 8:** Vaezi launched 14th center for Awareness, Support and Response Media (APA) in Ahvaz, south west of Iran. The APA center will aim to provide service in cyberspace security and threats to the private and public sectors. He also noted that 460 cities of Iran are currently covered by 3G, while 16 cities are covered by 4G. (Source I, Source II)
- **February 8:** The TCI has released a report on the latest internet and mobile statistics. Some of the most important points are listed below:
  - ◊ The number of Internet broadband lines is 41 times greater than it was in 2009-10.
  - ◊ The TCI has invested 15 trillion IRR (497 million USD) in infrastructure during the current Iranian year (March 2015 - March 2016) and will invest 10 trillion IRR (330 million USD) in the next Iranian year.
  - ◊ The TCI has over 100 million customers in Iran, which includes landline subscribers (4.5 million), Internet broadband users (4 million) and SIM cards (36 million).

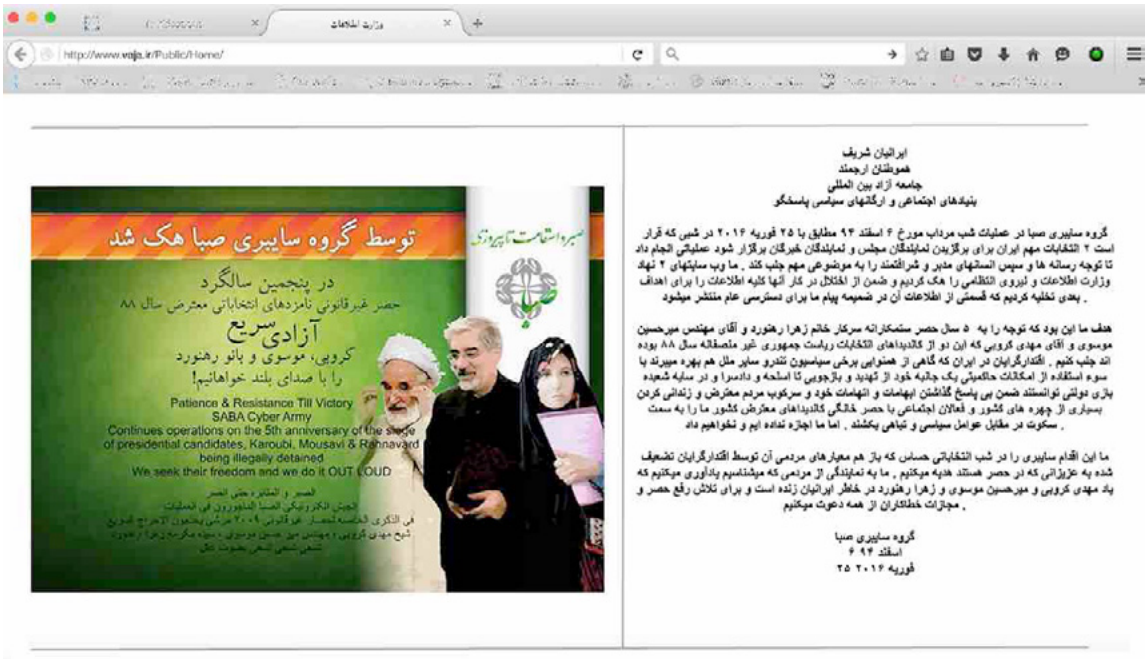
- ◊ The TCI has spent 70 trillion IRR (2 billion USD) on landline infrastructure and 80 trillion IRR (2.6 billion USD) on mobile network infrastructure. (Source)

- **February 8:** Jahangard admitted the ICT Ministry has only completed 15% of SHOMA so far. Also, Iran's Internet bandwidth capacity has increased to 4 Terabytes and the Ministry plans to increase it to 20 Terabytes. On February 7, 2016, Vaezi asked Jahangard to finish SHOMA by September 2016. (Source)
- **February 10:** Iran will launch a national navigation system in the near future. According to Mehr News Agency, the project, called IGNS, will launch in three phases beginning in the next Iranian year (March 2016 - March 2017). IGNS will be developed through a collaboration between Integrated Electronics Industries, which is a state-owned subsidiary of Iran's Defense Industries Organization, and ISA. IGNS will be used for transport, crisis management, social services, mapping, identification of stationary and moving targets and precision farming. The IGNS hardware is free of charge but users will need to pay a monthly subscription fee of 5-20 USD. (Source)
- **February 10:** Vaezi announced 160 cities in Iran would be covered by 4G by February 20, 2016. He also mentioned that 460 cities are currently covered by 3G. (Source)
- **February 10:** Valiollah Seif announced a new system to give users hourly updates about currency exchange rates. The system will notify users about rates in both the CBI and exchange shops. Also, he said 'illegal websites' cannot serve as reference points for exchange rates. (Source)
- **February 12:** Seyed Abolhasan Firouzabadi, Secretary of the Supreme Council of Cyberspace (SCC) said there is no point in block social networks such as Telegram because people will find an alternative solution as has happened previously. He mentioned that when Iran blocked Viber, users moved to Telegram. He additionally said 'Iran's enemies' target the country's economy and Iran should expand its domestic social networks to avoid it. (Source)
- **February 13:** Behzad Soltani, Director of the Innovation and Development Fund said Iranians who live outside the country can start a startup in Iran in collaboration with Iranian students inside the country. (Source)
- **February 13:** According to Mehr News Agency, the SCC should be meeting every three weeks, but it has not had any meetings in the past last two months. The SCC held its first meeting in 2 months on February 13, 2016. (Source I, Source II)

- **February 13:** In an interview with ILNA, Vaezi said the ICT Ministry plans to block only immoral and pronographic pages and channels on social networks, which means the social networks themselves will largely remain accessible. He also said there is no plan to block Telegram and Instagram. (Source)
- **February 13:** The SCC ordered the Interior Ministry to monitor social networks and cyberspace before Iran's 2016 parliamentary and Assembly of Experts elections in order to deal with rumors and destructive messages about candidates and the elections. (Source)
- **February 14:** Amidian announced that the ICT Ministry has spent 1.1 trillion IRR (36 million USD) on Intelligent Filtering. He added users can use any social networks in Iran after the launch of Intelligent Filtering, but any content which breaks the law will be blocked. (Source)
- **February 14:** The ICT Ministry released a list of its achievements over the last 30 months:
  - ◊ The Ministry has spent 101 trillion IRR (344 millions USD) for telecommunication and IT projects; 36 trillion came from the government and 65 trillion came from the private sector.
  - ◊ Iran's domestic Internet bandwidth has increased from 650 Gigabytes to 40 terabytes and Iran's international bandwidth has gone up from 72 Gigabytes to 276 Gigabytes.
  - ◊ Fiber optic cable coverage has increased from 51,000 km to 57,000 km.
  - ◊ International transit traffic increased from 116 Gigabytes to 364 Gigabytes.
  - ◊ The total number of Internet users connecting via mobile or broadband has increased from 3.5 million users to 30 million users.
  - ◊ Domestic content storage capacity has improved from 50% to 70%, meaning 70% of Iranian websites are now hosted inside the country.
  - ◊ 18,000 villages have been connected to high speed Internet.
  - ◊ 100 governmental organisations have been connected to e-Government.
  - ◊ The Ministry has also helped with the development of various domestic national search engine such as Parsijoo.
  - ◊ The Ministry also set aside a dedicated fund for startup companies especially in the tech sector. (Source)
- **February 14:** Amir Hossein Davaie, Deputy Minister of ICT announced a new plan for funding startups. He mentioned that the plan prioritises a corporate spin-off. (Source)

- **February 14:** The TIC announced Iran's international bandwidth has increased by 30 Gigabytes, bring the total capacity to 350 Gigabytes. (Source)
- **February 14:** Majid Tavakol, Director of the Technical and Economic Studies Office at the ICT Ministry said that the Ministry signed a 1.5 trillion IRR (49 million USD) contract to develop national search engines with domestic companies. (Source)
- **February 15:** SCC member Seyed Mohammad Reza Aghamiri said if Telegram does not move its servers to Iran, it will be blocked. Previously, Vaezi said there is no plan to filter Telegram so long as it does not break Iranian law. (Source)
- **February 15:** Mohseni-Eje'i confirmed the news that a member of the ICT Ministry's staff and former TIC board member has been arrested. According to Mohseni-Eje'i, he was arrested for embezzlement. (Source)
- **February 16:** Zareian said the TCI is going to renovate call centers, network infrastructure, and data centers in 16 provinces. He added that the first phase of renovation will cost 450 million USD. Zareian additionally said the renovation plans will take 4 years to complete and cost 72 trillion IRR (2 billion USD). (Source)
- **February 16:** Sadegh Shahkoo, Deputy of Technical Evaluation and Licensing at the TIC, said 6 companies have been granted Mobile Virtual Network Operator (MVNO) licences: Fanap, HiWeb, Shatell, Sabanet, Parsian and Saman. Shahkoo added that these companies will start providing MVNO services from Spring 2016. (Source)
- **February 20:** Vaezi said it is not a good idea to block some websites when they only have 10% immoral and pronogprahic content. In such cases, the ICT Ministry prefers to use Intelligent Filtering. He also said Telegram's policy does not allow people to share pronographic content on the platform. (Source)
- **February 20:** Dadashzadeh said the CRA will have 70 stations for measuring radiation beams & microwaves in Tehran. The CRA aim to collect measurements and ensure the amount of radiation is in compliance with national standards. (Source)
- **February 21:** Iran's ICT sector ranked 74th out of 140 countries in the Global Competitiveness Index (GCI). In the MENA region, Qatar finished on top with a score of 5.30, while Iran's score of 4.09 placed the Islamic Republic 13th out of 21. (Source)
- **February 21:** Seyed Mohammad Reza Aghamiri, a member of the Commission to Determine the Instances of Criminal Content (CDICC), said Iran managed to successfully use Intelligent Filtering on Instagram. However, since Instagram added SSL encryption (moving from HTTP to HTTPS), Intelligent Filtering no longer works on the platform. (Source)

- **February 21:** Abbas Asoushe, Deputy of the National Center of Cyberspace (NCC) said the revenue from India's and South Korea's IT sectors is more than Iran's oil revenues. (Source)
- **February 23:** Amidian said the ICT Ministry plans to increase Iran's Internet bandwidth capacity to 8 Gigabytes by the end of March 2017 and to 20 Terabytes by the end of Sixth Five-Year Plan in 2021. (Source)
- **February 24:** Esmaiel Ardakani, Deputy of Operations and Network Management at the TIC said the TIC has prepared communication facilities for Iran's upcoming Parliamentary and Assembly of Experts elections. (Source)
- **February 26:** Vaezi said the ICT Ministry has not received any reports of disruption on the Internet generally or Telegram specifically on election day. (Source)
- **February 27:** The Ministry of Intelligence announced that their website works fine. Previously, Saba Cyber Group claimed that they could hack the website and deface it with a pro-Green Movement message. (Source)




[The Intelligence Ministry's website, defaced with a pro-Green Movement message]

- **February 27:** Mohammad Reza Farnaghi Zad, Head of Public Relations and Information at the ICT Ministry said there were no issues with telecommunications connections at 98% of polling stations. He added that the Ministry completed preparations for the elections 3 months ago. (Source)

- **February 27:** Morteza Barari, a Deputy of the ICT Minister, announced that Iran has five main ICT projects to achieve during the Sixth Five-Year Plan: national search engines, Internet of Things (IoT), cloud computing, big data, and 5G. (Source)
- **February 28:** Vaezi said that during the brief campaign period ahead of the election, 200 million messages were sent on a daily basis. He also added that only 20% of Iran's internet bandwidth was used for the elections, while the rest was used for other purposes. (Source I, Source II)
- **February 28:** Mahmoud Khosravi, another Deputy of the ICT Minister, said the Ministry plans to decrease Internet bandwidth prices for users in the next Iranian year (March 2016- March 2017). (Source)

# 4

# Civil Society, Professional Organization Statements

- **February 1:** According to Internet World Stats, the number of Iranian Internet users has increased from 250,000 in 2000 to 46,800,000 in 2015. The report also states that of Iran's population of 81,824,270, around 46,800,000 are Internet users, which places the Internet penetration rate at 57.2%. (Source)
- **February 7:** Iran University of Science and Technology (IUST) has launched the first educational platform for the Internet of Things (IOT). According to Mehr News Agency, IUST is the 5th university in the world which teaches and researches IoT. (Source)
- **February 8:** According to Iranian Labour News Agency (ILNA), Mastercard will start its banking activities in Iran under the name Transforex in the near future. Currently, Iran's banking system does not accept Visa or Mastercard due to US sanctions. (Source)
- **February 9:** Alireza Saleh, Director of NIC.ir said Iranian users will be able to register domains in Farsi characters in the near future. According to Saleh, Iran has resolved the technical issues that previously prevented farsi characters in internet domains. (Source)
- **February 9:** Iran has launched a peice of software which can convert the voice of Ayatollah Ali Khamenei, Iran's Supreme Leader, to text. The project was undertaken by the Sharif University of Technology and Asr Gooyesh. (Source)
- **February 13:** Seyed Mehdi Mirmehdi, President of Tehran's Computer Technology Guild announced that the guild has received an official request to allow Apple Stores to open in various locations of Tehran, although he did not mentioned who made the request. Previously, The Wall Street Journal reported that Apple is in talks with Iranian distributors to start selling products there. (Source)
- **February 13:** Faramarz Rastegar, Head of Iran's Telecommunications Industry Syndicate (ITIS) announced that Iran has signed an agreement with Iraq regarding collaboration in the telecommunications sector. Rastegar said the ITIS will work with the Al Salam telecommunications company in Iraq. (Source)

- **February 14:** Gholamhossein Karimi, President of the Telecommunication Devices Guild said three companies have been negotiating to get licenses from Apple to sell Apple products in the country. These companies include: Vagheaye Gostar Fars, Aryan, and Sam Service. Karimi went on to note that they still have not received any official license from Apple. (Source)
- **February 15:** MTN Irancell became Iran's top operator for mobile data. Irancell has a total of 8,100 sites, providing 3G coverage to 458 cities and 4G/LTE coverage to 170 cities. This map shows Irancell's coverage in the country. (Source)