Metrics report:

Average number of users connected to the Tor Network directly, via Bridges or Pluggable Transports (measured daily):

Number of civil society actors trained in circumvention or digital safety techniques:

Number of USG-supported online tools developed or improved to maintain an open Internet:

Number of connections gained during Internet censorship events:

USG-assisted campaigns and programs to enhance public understanding, NGO support and media coverage of digital threats and promotion of an open Internet:

Censorship cases:

Average number of users connected to the Tor Network directly, via Bridges or Pluggable Transports (measured daily):

Over the course of this project we had a decrease on average user directly connected to the Tor network. As our collection mechanism don’t really get information of what these connections are, is hard for us to say that they were users or botnets that are not running anymore on our network¹.

Users connected daily to Tor via Bridges

In contrast we saw an increase of connections via Bridges to the Tor network, specially during the year of 2016\(^2\).

\(^2\)https://metrics.torproject.org/userstats-bridge-country.html?start=2014-07-10&end=2016-11-30&country=all
Users connecting to Tor via Pluggable Transports

Below you can see the overall Pluggable Transports usage during the period of this project. You can see the big spike of obfs4 in 2016 which is when we deployed it on Tor Browser⁹.

Number of civil society actors trained in circumvention or digital safety techniques:

**Total**: 4216 civil society actors trained in circumvention or digital safety techniques:

Number of USG-supported online tools developed or improved to maintain an open Internet:

- Stem - tool for testing Tor network
- Chutney - tool for configuring and testing Tor network
- Tor Browser desktop - worked on deployment of new transports bridges as well as fixed bugs related to censorship circumvention tools.
- Core Tor - improved testing of deployed code to ensure a better quality for new releases and security to our users.
- Pluggable Transports - development of new transports and maintenance of current deployed ones.
Number of connections gained during Internet censorship events:

During the period covered by this grant we highlighted many censorship events that our Metrics tools detected, and provided other third party information such as news articles to help build correlation between that and what we were seeing on our graphics. This gave us an idea of how many people Tor helped during these events, this number is on the tens of thousands.

For our final report we will concentrate on the top-10 countries by possible censorship events during the period covered by this grant:

<table>
<thead>
<tr>
<th>Country</th>
<th>Downturns</th>
<th>Upturns</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>110</td>
<td>108</td>
</tr>
<tr>
<td>Iran</td>
<td>95</td>
<td>108</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>68</td>
<td>88</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>63</td>
<td>65</td>
</tr>
<tr>
<td>Republic of Moldova</td>
<td>43</td>
<td>59</td>
</tr>
<tr>
<td>South Africa</td>
<td>39</td>
<td>51</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>32</td>
<td>46</td>
</tr>
<tr>
<td>Liberia</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>Chad</td>
<td>28</td>
<td>43</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>22</td>
<td>43</td>
</tr>
</tbody>
</table>

Here is a depth analysis of some of these countries for the same time period:

China - estimation of connections:

This graphic shows average number of directed connected users from China on Tor network and possible censorship events:


Since we know that China blocks Tor, this graphic is not a big surprise. Below you can see graphics for users using pluggable transports to connect to the Tor network.

Pluggable Transports:

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Iran - estimation of connections:

This incredible graphic shows us how many possible censorship events Iran have done against the Tor network during the period of time covered by this grant:

In contrast you can see strong activity of Iran pluggable transports users:

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Kazakhstan - estimation of connections

In the graphic below you can see a big drop towards the middle of 2016, caused by possible censorship events in Kazakhstan:

And one more time you can see the contrast on connections via pluggable transport, showing that, as soon as the censorship of Tor network started, users migrated to use a pt (obfs4) to connect to Tor:

[Bridge users by transport from Kazakhstan graph]

**Bangladesh - estimation of connections**

We can see a similar behavior with users from Bangladesh, here is a graph with possible censorship events that blocked users from directly connecting to the Tor network:


And here is our pluggable transport usage during the same period for it:12

South Africa - estimation of connections

Although we see more censorship events towards the beginning of this grant period:\(^\text{13}\):

We register a big jump on pluggable transports during the year of 2016 - one possible correlation event to this is that in the African continent in general, we saw a trend of Internet censorship in general, not necessary blocking the Tor network but blocking social media and news sites:\(^\text{14}\):

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\(^\text{13}\)https://metrics.torproject.org/userstats-relay-country.html?start=2014-07-10&end=2016-11-30&country=za&events=points
Chad - estimation of connections

You can see the same trend we saw for South Africa, for Chad as well. The graphic below shows strong censorship of the Tor network going on in 2014/2015:

[Graph showing Bridge users by transport from South Africa]

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And then an increase of pluggable transports usage for 2016\textsuperscript{16}:

\textbf{Ethiopia - estimation connections}

Ethiopia was another country that had a big increase of censorship events in 2016. OONI (Open Observatory of Network Interference) published a report in collaboration with Amnesty International about it that gives us more information on censorship events in that country.\footnote{https://ooni.torproject.org/post/ethiopia-report/}

And we saw a reflection of these censorship events in numbers of connections to the Tor network, both, directly\footnote{https://metrics.torproject.org/userstats-relay-country.html?start=2014-07-10&end=2016-11-30&country=et&events=points} or indirectly (via pluggable transports):
USG-assisted campaigns and programs to enhance public understanding, NGO support and media coverage of digital threats and promotion of an open Internet:

All the media coverage reported during the period of this grant, has been published on our website at our press page:


Total number of NGOs that we worked with to enhance their understanding of digital threats and the importance of defending Internet Freedom: **25**

Total number of news outlets that we worked with to enhance their understanding of digital threats and the importance of defending Internet Freedom: **47**

Total number of campaigns to enhance general public understanding of Tor: **2 end of the year campaigns**

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