Fighting Censorship with TunnelBear
Mission driven development

We think the Internet is a much better place when everyone can browse privately, and browse the same Internet as everyone else.
TunnelBear Apps

TunnelBear

RememBear

TunnelBear for Teams
How VPN can be used to bypass censorship
An open and uncensored internet
Advocating for more security and transparency

- Third-party code audits every year
- Transparency report 2019
- Analytics: our own platform that respects privacy
- Stronger encryption
Four stages of censorship

- Distribution
- Reaching APIs
- Connecting to a VPN
- Maintaining a VPN connection
### Example censorship efforts

| Distribution | ASL19 (Paskoocheh)  
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Farsi localization</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Reach TunnelBear APIs</th>
<th>Domain fronting</th>
</tr>
</thead>
</table>

| Connect + maintain a secure VPN connection | obfs4  
<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>None PII telemetry</td>
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</table>
Connection failures

Localized prompts that show when a connection fails.
Censorship happens everywhere

What years of crisis response taught us...
Venezuela Social Media Blockage (2014)

TunnelBear @theTunnelBear

Have reports that TunnelBear.com is now blocked in #Venezuela, those who have the app are still able to connect #censura
9:55 a.m. · 11 mar. 2014

TunnelBear @theTunnelBear

Dear #Venezuela Bears, Download a “TunelOso” from tuneloso.com #censura #thepnformerlyknownastunnelbear
8:19 p.m. · 12 mar. 2014

Distribution & API blocking
Iran Protesters Evade Censorship With Internet Software

Written by Staff Writer 15th January 2018
Good morning. I hope voting is going well at your polling station? To access Twitter, Whatsapp and Facebook use Tunnelbear VPN.
Partners on the ground

- Better understand the nuances of censorship and on-the-ground roadblocks
- Context of how censorship is really being legislated
- Understanding of social, political, and economic dimensions of censorship
Social responsibility

This program is about investing in the human impact of our technical roadmap
Thanks for ‘Bear’ing with us

- We are prepared to learn
- We are prepared to collaborate
- We are prepared to move forward

If you’d like to get involved, please email community@tunnelbear.com
# More on Encryption

<table>
<thead>
<tr>
<th>Device type</th>
<th>Protocol</th>
<th>Data encryption</th>
<th>Data authentication</th>
<th>DH group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>OpenVPN/IKEv2</td>
<td>AES-256-CBC</td>
<td>SHA256</td>
<td>2048 bit DH group</td>
</tr>
<tr>
<td>Android</td>
<td>OpenVPN</td>
<td>AES-256-CBC</td>
<td>SHA256</td>
<td>4096 bit DH group</td>
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<tr>
<td>macOS</td>
<td>OpenVPN</td>
<td>AES-256-GCM</td>
<td>SHA256</td>
<td>3072 bit DH group</td>
</tr>
<tr>
<td>iOS 11+</td>
<td>OpenVPN/IKEv2</td>
<td>AES-256-CBC</td>
<td>SHA256</td>
<td>2048 bit DH group</td>
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