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INTERNET ANONYMOUS

Introduction. By most Internet users the concept of "anonymity" is perceived in its broad sense as a certain situation in which the actor is unknown. The adjective "anonymous" is used to describe situations when the name of the actor is unknown. The idea of anonymity is the inability to identify a person, while anonymity can be associated with the concepts of confidentiality and freedom.

Anonymity can reduce the level of responsibility for your actions and eliminate the impact that these actions have on your reputation. This may have different consequences for different parties to the situation. Thus, anonymity can be used to realize any goals, while people will support or deny any beliefs without compromising their own reputation. Anonymity allows people to overcome embarrassment, express their opinion or describe their emotions. Electronic means of communication, in addition to anonymity, ensure the physical isolation of a person. This can be useful when discussing very personal cases, forbidden topics or expressing views that may entail physical, financial or legal danger [1].

The use of anonymous connections with customers, including employees of the company, increases trust in the organization, and also affects the development of the organization.

Anonymity refers to the process of protecting the user's ID and location data. The ability to provide anonymous access to services that avoid tracking personal information about the user and user behavior, such as user location, service frequency, etc.

In other words, anonymity in the Internet means various ways to go unnoticed on the World Wide Web. The reasons for hiding their actions on Internet sites are diverse. They can be related both to the desire to protect themselves from possible unlawful actions of third parties, and to the commission of unlawful actions by the person seeking anonymity.

To achieve anonymity, anonymous networks running on top of the wide area network are used. The specifics of such networks are that developers are forced to compromise between the degree of protection and the ease of using the system, its "transparency" for the end user. The aspect of maintaining anonymity and confidentiality is also important, subject to the influence of social engineering methods or any pressure on the server operator. Multilevel encryption of the distributed nature of anonymous networks, eliminating a single point of failure and a single vector of attacks, make it possible to intercept traffic or even break into part of network nodes not a fatal event.

Articles 18, 28 and 40 of the Constitution of the Republic of Belarus directly concern the protection of human rights related to his private life, thoughts, views, etc. Anonymity on the Internet is in essence the ability of a user of the network to feel real freedom of expression without threatening to reveal an individual. This is the main argument of advocates of digital anonymity. This argument looks especially weighty against the background of the existence of the famous, "great Chinese firewall", which, in order to combat ideological opponents and protect party structures from criticism, limits Chinese citizens' access to the most popular sites [2].

In this article, the concept of "anonymity" will be considered as positive, and the phenomenon of anonymity will be considered on the example of the popular Telegram messenger. Telegram is a cross-platform instant messaging system. Telegram is not a commercial project and, from the privacy point of view, it is extremely important that it has an open API, source code and protocol.

Main part. Telegram positions itself as the most protected public messenger, and has every reason for this. To transmit messages, Pavel Durov's team developed its own MTP roto protocol. It is not only safer, but faster than analogues with other companies. By the way, so far Durov is offering $200 000 for hacking this protocol, that is, while the skillful hands of hackers could not break through the defense, although there were many attempts.

Anonymity in the Telegram is ensured by the ability to hide the display of the phone number in your profile, as well as use special secret chats using window encryption and protecte from attacks by third-party users. According to the rating of the EFF electronic frontier fund, Telegram's encryption of secret chats was assigned the highest security index — 7.

However, what if we want to run a public channel where we are going to publish various information, for example, novelties of any industry, news of recent days, the best jokes of the month? How in this case to ensure anonymity, because if you publish all the records yourself, then anyone can go to our profile and find out our username, which in no way can be hidden. Knowing the user name is easy, through bots, you can find out both the user id and again through bots, but for a small fee, you can also find out the phone number. How, then, can you protect yourself?

The solution to this problem will be a simple bot, directly to which we will send all that we want to publish in our group, and it, in turn, will forward ours to the group, where our bot will be displayed by their author. The bot also has its own user name, however, knowing it, it is impossible to go to its owner. The maximum information that an attacker can get is the date of registration of the bot. However, this will not help him get to the author.

To develop such a bot, we used the Python programming language and a secure server on the service hoster.by.

When the bot is started, a welcome message, as shown in Figure 1, appears.

Figure 1 — Hello message

You can send any information: text, pictures, stickers, audio and video files.

After the material has been sent, the bot will prompt you to wait and then display a successful receipt message (Figure 2).

The bot works on the principle of receiving files, no logs of the one who sent the message he does not collect. The recipient group receives the material without a username (Figure 3).

As you can see, the bot does not specify the sender's name, maintaining complete anonymity.

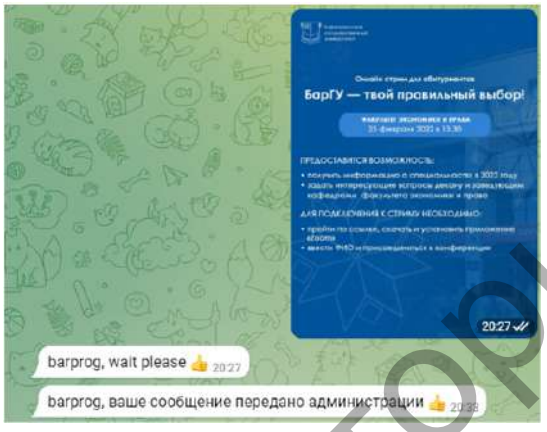

Figure 2 — Material dispatch result

Figure 3 — File retrieval result

Conclusion. Thus, it is seen that the use of bots telegrams to send messages to a public group is a sufficiently reliable means of concealing information about the author of the message and provides a high level of anonymity.

References

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USING THE CAPABILITIES OF THE C++ PROGRAMMING LANGUAGE TO CALCULATE HUMAN BIORHYTHMS

Introduction. The human body organism is subjected to various biological rhythms that affect various processes within the human body. Taking into account these rhythms and the right attitude to them allow maintaining man's health at the proper level, choosing the best time for various activities, selecting correctly people for joint activities. At the moment, the C++ programming language is relevant for this task.