**Roblox Security Scalability**

The Roblox platform lays claims to one of the largest player bases of over *200 million active* users per month. We have discussed the iterative nature in which security threats can be facilitated through various applications and links that content creators embed in their content. This is without mentioning the number of inappropriate links and content that are bypassed by Roblox's 13 and under restrictive mode filter. Given also, that Roblox is a global entity, it was discovered that third party security infrastructure is deployed by Roblox™ in order to meet their security needs. This desynchronization, and variation across different are of the globe creates more points of contact for cyber attackers to develop unique footholds in the system. This desynch is confirmed by page 14 of Roblox’s Privacy policy, (ROBLOX™ 2022).

Here we focus in on the nature in which Roblox leverages its own (or others) system capabilities to enact security protocols to store user information, there are also several shortcomings in the standard issue requirements that Roblox issues to its third-party security providers. Cybernews™ has conducted several investigative stories regarding endeavors that have revealed shortcomings of Roblox’s infrastructure (Mikalauskas, E. 2022). Part of this is simply because Roblox is seeking to deploy to as many platform markets as possible. We have seen examples of Xbox, PlayStation, Android and IOS applications all having varying elements of backend security requirements. Because of this, one instability was highlighted by Lapienytė, J. (2022, May 12). Within the android deployment of the Roblox platform, it was discovered that a trojan was installed within some source code. Legitimate source code, which was serviced by Synapse ™ in this case, was altered for a cheat engine to gain a foothold and enable end users some level of access for their instance of Roblox. The Cybernews team reached out to Roblox who said that the investigation was in error, yet they removed the piece of altered code that they claimed as “inactive” after they had time to investigate the Cybernews team’s claims.

<https://en.help.roblox.com/hc/en-us/articles/115004647846-Roblox-Terms-of-Use>

### **Welcome to the Roblox universe, where imagination and creativity rule!**

Roblox Corporation (“**Roblox**”) offers the Platform (the “**Platform**”) and various other features and services, like websites, applications and forums, in order to allow users to play, create and connect (the Platform and all of these various other features and services will collectively be referred to as the “**Services**”).

Roblox provides documentation in the form of “articles” that describe several elements of the community and content guidelines and security features. While they "disclaim" out of most advanced scenarios, they do provide some basic safeguards that can be enacted. One example that demonstrates Roblox’s most basic safeguard, “Restrictive Mode”, is documented <https://en.help.roblox.com/hc/en-us/articles/115004630823-Roblox-Privacy-and-Cookie-Policy-#parental-controls>

*“Children are entitled to added protections with regard to their Personal Information and privacy online. For this reason, when children register for the Service, their account is automatically set to a more restrictive mode This means that child users will not have access to certain features, such as social media plug-ins, some forms of third-party advertising, and certain types of notification alerts.*

*When a child creates an account on Roblox, we may collect a username, password, birthdate, and parent’s email address. This information is used to give the child access to the Service (with certain default settings) and, if a parent’s email is provided, to communicate with the parent about the child’s account. For example, we may use the parent’s email to send an email notification about the child’s account creation and an invitation for the parent to review, update settings, and approve of their child’s account.”*

However, what is there to stop a child from registering over the age of 13? Likely not having an email address, or not knowing enough to lie about their age to create an account.

Continued development of ROBLOX has allowed for game builders to implement a wider variety of features. Those features come in the form of items, game features, and platform features. As of now Roblox has expanded several of these domains without properly considering, or really being able to calculate the downstream effects of giving “game creators” access to a multitude of content creation and linking tools. This is mostly since experienced creators get access to a coding environment, as the game itself is an instance (or a few connected instances) of a virtual environment full of facets for the character to interact with.

Roblox cites on page 25 of the privacy policy (14.2): These providers may operate or support certain functions of the Service. Below is an illustrative list of functions for which we may use third party service providers and the names of the providers we may use to perform these functions:

Account Integrity and Security (e.g.,Veriff, Arkose Labs);

Analytics services (e.g., Google LLC);

User Acquisition services (e.g.,AppsFlyer);

Community filtering and moderation services (e.g., CommunitySift);

Customer support services (e.g.,Zendesk);

Surveys and promotions (e.g., Reach3);

The effect is essentially a permutation that has been cited in numerous current events across the globe as a cause for action. While Roblox offers the ability to “secure” accounts through an external email, and even a phone number, the desegregation of security services is touched on in the privacy policy. At the end of sections there are measures that only apply to countries. There is not a good solution for this, as ROBLOX came to popularity with relatively little oversight. An initial step would be to attempt to centralize the security resources and teams, however this is an effort that the ROBLOX team has had lots of difficulty with. Rightly so, because of the dramatic increase in popularity of the platform, the resources available at Roblox likely were not able to appraise the need for scaling.

**Citations**

Lapienytė, J. (2022, May 12). *Hackers exploit Roblox’s scripting engine to install trojan*. Retrieved November 10, 2022, from <https://cybernews.com/news/hackers-exploit-robloxs-scripting-engine-to-install-trojan/>

Mikalauskas, E. (2022, May 13). *Is Roblox Secure? static analysis reveals subpar security practices on ...* Retrieved November 10, 2022, from <https://cybernews.com/security/is-roblox-secure-static-analysis-reveals-subpar-security-practices-on-roblox-android-app/>

ROBLOX™. (2022, Oct. 10). *Roblox privacy and Cookie Policy – roblox support*. Retrieved November 10, 2022, from <https://en.help.roblox.com/hc/en-us/articles/115004630823-Roblox-Privacy-and-Cookie-Policy->

Carpenter, C. (2022, January)