



Software Title Evaluation

Valorant

SUMMARY

Valorant is a five-player team based tactical fantasy shooter game, popular with teens in North America. It is one of the fastest rising esports titles today. Players must use strong critical thinking, fast decision making, and tightly coordinated teamwork to succeed. The game runs only on PC, has strong yet controversial anti-cheat software, and tones the violence with fantasy elements and cartoon-ish graphics. When installed and configured using WSSEA's configuration guidelines, Valorant is a good fit for upper class high school esports teams.

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EVALUATION

Game Description / Overview

Valorant is a free-to-play first person team-based shooter game that combines specific hero-based combat role styles with fantasy style magic abilities. To be successful, a team of 5 players must use tight coordination to overcome the other team. The game divides a match into multiple rounds of capture-the-flag gameplay, with the first team to score 13 rounds wins.

The game is rated **T for Teen** in North America, and suitable for ages 16 and up by PEGI in the EU. The rating warning includes blood, language, and violence.

Valorant is only available on PC, and is developed and published by Riot Games.

Anti-cheat system

Vanguard

The developer has implemented a highly-privileged anti-cheat mechanism in Valorant. Players are unable to run the game without this driver, VKG.SYS, running and active.



Vanguard runs when Windows starts, and accesses kernel mode. While there are rarely conflicts with antivirus / endpoint protection software, kernel mode applications themselves must be kept patched or risk a potential security vulnerability.

Data Categorization

Riot Games Terms of Service

The terms of service (TOS) require players to be an adult or have permission from a parent or legal guardian. While the TOS don't define adult, we take it to mean any individual 18 or older. It has other elements as are standard in modern games - they can terminate their services or your account at any time, if you purchase virtual goods you cannot resell them, no refunds on virtual goods, and you can't sue them for failing to provide services if the games have bugs or glitches.

They do mention a bit about behavior online - no trolling or harassment. There's more details in the Community Code, however.

The TOS are available at <https://www.riotgames.com/en/terms-of-service>.

VALORANT Community Code, aka Code of Conduct

The Community Code for Valorant emphasizes teamwork as an implied mechanic of the game, which is uncommon for conduct codes. Otherwise, it contains important expectations consistent with other online gaming conduct codes, including keeping matches and player chat free from threats, hatred, abuse, and harassment. It requires players to exercise empathy and respect.

You can read the full Community Code at

<https://playvalorant.com/en-us/news/announcements/valorant-community-code/>.

Privacy policy

The Riot Games privacy notice is similar to the privacy policy for Epic Games and other publishers. They do share with third parties, although not for third party advertising. They do not share contact info with third parties.

The personally identifiable information (PII) collected when players create an account is minimal, although it optionally allows more information to be collected if players consent to give that information. It does state that it permits data collection from third parties in addition to the data it collects for creating an account.



There is a Riot Games API that is publicly available, and statistics (wins, losses, etc) data is available associated with the player gamer tag. There is no PII associated with this API.

Riot Games also logs and reviews text and voice chat. Specifically, they reserve the right to record voice chat when a player harassment or behavior report is filed. Riot Games captures voice chat recordings associated with that event. You can read more about this at

<https://techcrunch.com/2021/04/30/riot-games-updates-its-privacy-notice-to-start-developing-voice-comms-moderation>.

Data Storage

Use of Encryption

Riot appears to be using TLS encryption for data in transit, but WSSEA was unable to find any documentation to verify. With the bulk of data being category 1 or 2 (operational) data, there is no strong requirement for encryption at rest.

Locations

It's unclear what storage used locally is replicated to the cloud. Player ranking, stats, and virtual goods are stored purely in the cloud.

Client Software Footprint and System Requirements

Valorant is most commonly launched from the Riot Games Launcher on PC, although it can also be launched from the Epic Store.

Valorant is **not** available to play on Xbox, Playstation, or Nintendo Switch.

The recommended requirements for playing on PC are:

Windows 7+

2 GHz multi-core CPU (Intel i3, Ryzen 3 or better)

4 GBs RAM

Nvidia Geforce 730 or higher

Compensating Controls

For WSSEA recommended configuration and logical / technical, administrative, and physical controls, please see the WSSEA Valorant Configuration Guidelines document at <https://wssea.games>.



Schools and districts running Valorant with these controls creates an optimal environment for students.

Developer Disclosure Policies

Published vulnerabilities

No published vulnerabilities on Valorant or Vanguard Anti-Cheat on MITRE or the NIST NVD.

Exploits and glitches found in the community are logic-based, and focused on exploiting game win conditions or XP and items. WSSEA was unable to find any documented security vulnerabilities for malware. See more at <https://gamingexploits.com/category/valorant/>.

Valorant patch notes and change log are available at <https://playvalorant.com/en-us/news/tags/patch-notes/>.

Disclosure program or policies

Riot Games maintains a bounty program at HackerOne.

Reputation in the industry

Riot Games has a spotted reputation, largely due to their corporate track record of sexual harassment cases. From a technology standpoint, the use of kernel mode anti-cheat drivers for Valorant has earned them some controversy among security professionals. WSSEA supports the technology as a strong effort to mitigate cheating in online gaming, and falls on the side of recommending Riot Games technology.



ABOUT THE EVALUATORS

<p>Ralph Hogaboom</p> <p>Ralph is the senior cybersecurity architect at the Washington Department of Natural Resources and received his CISSP certification in 2022. He previously built the competitive esports program at Grays Harbor College, and hosted the NJCAAE's fall championships in 2021.</p>	<p>Owen Craig</p> <p>Owen is the Director of Technology for the Nooksack Valley School District and sitting Board of Directors member for WSSEA. He is focused on providing strategies to overcome technical obstacles school districts may face when implementing an eSports program.</p>
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REVISION HISTORY

2022 OCT 16	Ralph Hogaboom	Initial version
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