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# A Hacker Was Selling a Cybersecurity Exploit as an NFT. Then OpenSea Stepped In

A dark twist on NFTs: a denial-of-service zero-day attack sold with full rights of ownership transferred to the successful bidder.

By Benjamin Powers · Mar 9, 2021 at 9:04 p.m. GMT

· Updated Sep 14, 2021 at 1:23 p.m. GMT

f in t e







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rently on non-fungible tokens (NFTs), there  
e emerging – the auctioning of

new Hickey of Hacker House introduced  
,” an “exclusive HackerFantastic authored  
part of our NFT proof-of-concept sale series.”

The first asset for sale in the collection is for Quake3, and  
Hickey termed it “highly collectable hacker artwork.”

**hackerfantastic.crypto**

@hackerfantastic



Introducing, the 0day collection, you can now own  
an exclusive HackerFantastic authored 0day exploit  
as part of our NFT proof-of-concept sale series. The  
first digital asset for sale in our collection is for  
Quake3. Highly collectible hacker artwork ;-)  
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ss, the idea of selling a cyber exploit  
hics and identity when in the wrong

NFTs are digital assets that **represent a wide range of unique tangible and intangible items**, from sports cards to virtual real estate. Unlike **bitcoin (BTC, -1.60%)** and other cryptocurrencies, whose units are meant to be interchangeable, each NFT contains distinguishing information that makes it distinct from any other NFT.

In this case, the token to be auctioned was for a cybersecurity exploit.

The listing, on the OpenSea NFT marketplace, advertised the token as a “post-authentication memory corruption vulnerability in ioquake3 engine. The issue can be exploited to cause a denial-of-service condition, code execution has been deemed unlikely. This issue has been tested on OpenArena, but should be present in all 28 games using the idTech3 (ioquake3) engine.”

“A proof-of-concept exploit is redeemed with this NFT, which contains an overview of the vulnerability and can be used to reliably trigger the issue on networked game servers. This is a single-sale item sold exclusively one time, no additional information will be provided publicly or resold by the discoverer of the issue,” the listing said.

OpenSea took down the auction and listing after it was posted

yesterday. Wicklow called that move “digital censorship of a content



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trial move digital censorship or a content

he wrong decision here in becoming intent, and I am speaking with the company fored,” said Hickey. “I would not recommend OpenSea in light of the circumstances.”

... token still exists in Hickey’s wallet, however. OpenSea has not responded to a request for comment by press time.

*Read more: [What Are NFTs and How Do They Work?](#)*

“When I learned about NFT’s and their uses for the transferring of digital assets such as collectibles, I immediately thought of digital markets such as the sale and distribution of exploits,” said Hickey in an email. “I believe it is something that may be adopted for the sale of not just exploits, but other computer code that digital content creators may wish to share in a collectible or limited edition fashion.”

“I decided to use this vulnerability to test the feasibility of NFTs to sell such exploit code as opposed to traditional sales to vulnerability acquisition programs. Everyone loves a good first-person shooter and this seemed like a good vulnerability to test a proof-of-concept sale system.

He may add more exploits to the collection in the future.

# What is a zero-day exploit?

A zero-day exploit is an exploit that takes advantage of a vulnerability that hasn’t previously been identified. But it must meet certain criteria, according to John Jackson, a security engineer.



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stem.

affecting a wide target audience and piece of hardware to be updated to a

exploit is revealed, it's basically a race between those who want to exploit it and those who want to patch the system.

"I believe hackers are a curious set of people, I'm sure NFTs will be used to deliver and trade zero-days or proof of concept exploits for existing vulnerabilities," said Jackson in a message. "If there's money to be made, hackers will be there – and not all hackers are going to operate ethically."

*Read more: [NFTs Are Here but Where Are They headed?](#)*

While Hickey's initial NFT is relatively low stakes for a zero-day, there is the question of whether using NFTs in this way could lead to ethical or legal issues down the line. The selling of a zero-day exploit like this can serve as a valuable commodity for hackers and is seemingly legal.

Zero-day exploits are valuable in the context of bug bounty programs (with one fetching [US\\$2 million](#)) but they're also valuable in [underground marketplaces](#). One report found that, on average, a zero-day exploit takes about [69 days to patch](#).

"It's a denial-of-service zero-day attack being sold with full rights of ownership being transferred to the successful bidder," said Hickey. "If someone wishes to buy it and disclose it to the project and claim credit for the finding, they can, or they may wish to keep it a secret and trade it with others in the future. Once sold, the item is theirs to do with as they see fit."



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# T?

own to NFTs as a content creator.

“...n that can be re-sold or redistributed and ... activity is undertaken. I am paid a commission for ...y efforts on all such future sales,” he said.

That could be a skinned customized version of a video game, a unique version of a remote access tool or even specially designed software for bypassing copyright protections.

On OpenSea, users can create secondary sales fees for their marketplaces.

*Read more: [NFT art sales reached all-time high of \\$8.2M in December](#)*

There may be risks involved for hackers going this route, according to Jackson.

“If anything, it's more dangerous to the hacker than society,” he said. “Before NFTs they would be shared and sold through brokers. As an NFT there's visibility on the existence of an exploit. It seems like a way to gamble away your zero-day.”

Stephen Palley, a partner at law firm Anderson Kill, said that if somebody were to use an NFT of an exploit to gain access to someone else's computer system in the United States, it would probably be a violation of the Computer Fraud and Abuse Act. However, the act of selling that NFT is more a question of ethics.

“Publishing an exploit without remuneration is probably protected



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" he said.

ner at Anderson Kill, had a slightly

The third count in the Ross Ulbricht trial on OpenSea is probably a really stupid thing to do, according to the Silk Road founder.

“Selling around with zero-days and leaked data is dangerous business, he said. It's fine to publish this information but it's very problematic were it to be used to intentionally facilitate the commission of a crime.”

“In a decentralized market context one also has to consider the likelihood that such a tool would be purchased by America's adversaries in relation to which export controls and Office of Foreign Assets Control (OFAC) regulations apply.”

The OFAC enforces things like economics and trade sanctions.

## The risk and reward

Hickey said he's not worried so much as intrigued to understand how NFT's could be used to change existing business models for the sale and distribution of exploits and security research overall.

NFT's offer an alternative to vulnerability acquisition programs in that a person can sell their research directly without the need for brokers or intermediaries.

“Whilst there will always be a risk that someone can take dual-use software and misuse it, exploits and related code are already highly collectible traded commodities, thus I don't see any elevation of risks through using new methods to engage in there digital



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*came Art, and Everything Became an NFT*

often publish the results of their findings for  
make use of bug bounty programs for rewards  
offer such researchers an alternative way to  
their research efforts, according to Hickey.

The vulnerability he is selling is of low-risk and more of an academic curiosity in one of his favorite video games to test the technology while simultaneously investigating how NFT's could be used in such instances.

“Whilst there will always be some who seek to misuse new technologies for nefarious means, it has yet to be seen if attackers will move from shadowy black markets and brokers to more public sales of their attacks,” he said. “As a market disruptive technology, I see NFT's as offering a new way for content creators to monetize their work and see no reason why exploits and cyber security research cannot be apart of that change.”

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**Benjamin Powers**

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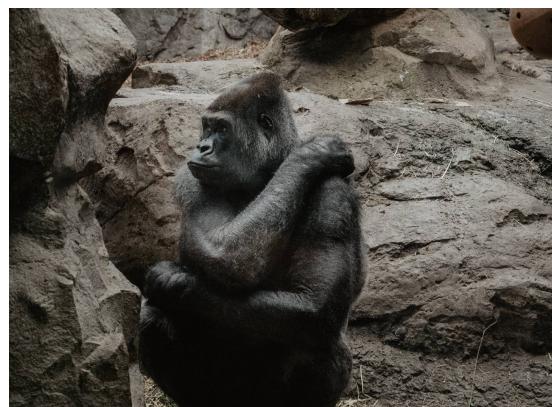
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