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CVE-2021-22005: Critical File Upload Vulnerability in VMware vCenter Server

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an advisory addressing 19
ding one critical flaw in vCenter
tedly simple to exploit.



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Background

On September 21, VMware [published a security advisory](#) addressing 19 vulnerabilities in vCenter Server, its centralized management software for VMware vSphere systems. The full list of vulnerabilities patched includes:

CVE	Description	CVSSv3
CVE-2021-22005	vCenter Server file upload vulnerability	9.8
CVE-2021-21991	vCenter Server local privilege escalation vulnerability	8.8
CVE-2021-22006	vCenter Server reverse proxy bypass vulnerability	8.3
CVE-2021-	vCenter Server unauthenticated API endpoint vulnerability	8.1
	vCenter Server improper permission local privilege vulnerabilities	7.8
	vCenter Server unauthenticated API information disclosure	7.5
	vCenter Server file path traversal vulnerability	7.5
	vCenter Server reflected XSS vulnerability	7.5

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22014		
CVE-2021-22018	vCenter Server file deletion vulnerability	6.5
CVE-2021-21992	vCenter Server XML parsing denial-of-service vulnerability	6.5
CVE-2021-22007	vCenter Server local information disclosure vulnerability	5.5
CVE-2021-22019	vCenter Server denial of service vulnerability	5.3
CVE-2021-22009	vCenter Server VAPI multiple denial of service vulnerabilities	5.3
CVE-2021-22010	vCenter Server VPXD denial of service vulnerability	5.3
CVE-2021-22008	vCenter Server information disclosure vulnerability	5.3
CVE-2021-22020	vCenter Server Analytics service denial-of-service Vulnerability	5.0
	er SSRF vulnerability	4.3

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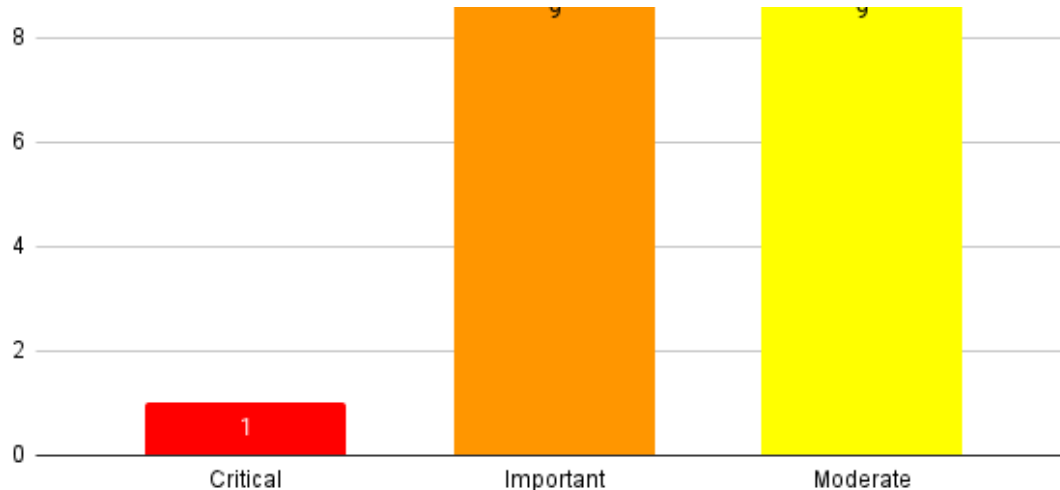
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2021

curity advisory, VMware published [a blog post](#) and a addressing some foundational questions about the s, only CVE-2021-22005 was assigned a severity of



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Source: Tenable, 2021

Analysis

[CVE-2021-22005](#) is a file upload vulnerability in the vCenter Server. An unauthenticated attacker capable of accessing port 443 over the same network or directly from the internet could exploit a vulnerable vCenter Server by uploading a file to the vCenter Server analytics service. Successful exploitation would result in remote code execution on the host. In [its blog post](#), VMware notes that this vulnerability exists in vCenter Server “regardless of the configuration settings,”

by default in affected vCenter Server installations.

Vulnerabilities patched in today’s release aren’t critical, important and Moderate severity flaws. The range of impacts from privilege escalation and denial of service to information traversal vulnerabilities. These flaws will likely be exploited by affiliates of ransomware groups, that have already exploited other means.

In the past four months that VMware issued a patch for a vulnerability in vSphere. In May, VMWare disclosed [CVE-2021-21985](#), a vulnerability in VMware’s vSphere Client.

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Allan "Ransomware Sommelier" Liska

@uallan



Ransomware, and other, groups are already exploiting CVE-2021-21985, this new vCenter RCE vulnerability, CVE-2021-22005, looks even worse. Please patch or enable compensating controls. via [@serghei](#)



VMware warns of critical bug in default vCenter Server installs
VMware warns customers to immediately patch a critical arbitrary file upload vulnerability in the Analytics service, impacting all appliances ...

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Link to Tweet

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to patch as the vulnerability is “trivial to execute”

by officer for Censys, [tweeted](#) that he discovered the vulnerability and that it “looks stunningly trivial to add that users should “Patch now.”



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IT LOOKS STUNNINGLY TRIVIAL TO EXECUTE. PATCH NOW.

— Derek Abdine (@dabdine) [September 22, 2021](#)

Proof of concept

At the time this blog post was published, there were no publicly available proof-of-concept (PoC) scripts for CVE-2021-22005. However, Abdine's warning implies that we may see PoC released shortly.

Solution

To address the 19 vulnerabilities disclosed in its advisory, VMware released patches for vCenter Server 7.0, 6.7 and 6.5. For a full breakdown of which CVEs are addressed in each release, please refer to the [VMware advisory page](#).

For CVE-2021-22005, the following is a breakdown of the vCenter Server version, associated fixed version as well as the installation addressed.

Version of vCenter Server	Fixed Version	Installation
7.0	7.0 U2c	Any
	6.7 U3o	Virtual Appliance

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er version 6.7 for Windows and version 6.5 for any CVE-2021-22005.

ouraged to apply these patches as soon as possible.

s time, VMware has provided [workaround instructions](#) the workaround should be considered a temporary placement for upgrading to a fixed version.

ected systems



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Get more information

[VMware Advisory VMSA-2021-0020](#)

[VMware VMSA-2021-0020 Blog Post: What You Need To Know](#)

[VMware VMSA-2021-0020: Questions & Answers](#)

[VMware Workaround Instructions for CVE-2021-22005](#)

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Satnam Narang

Satnam joined Tenable in 2018. He has over 15 years experience in the industry (M86 Security and Symantec). He contributed to the Anti-Phishing Working Group, helped develop a Social Networking Guide for the National Cyber Security Alliance, uncovered a huge

in Twitter and was the first to report on spam bots appeared on NBC Nightly News, Entertainment berg West, and the Why Oh Why podcast.

Side of work: Satnam writes poetry and makes hip-enjoys live music, spending time with his football and basketball, Bollywood movies and music (by Yoda).

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ADVISORY

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October 23, 2024

Frequently asked questions about a zero-day vulnerability in Fortinet's FortiManager that has reportedly been exploited



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October 22, 2024

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Tenable Security Response
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ORACLE
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Oracle October 2024 Critical Patch Update Addresses 198 CVEs

October 15, 2024

Oracle addresses 198 CVEs in its fourth quarterly update of 2024 with 334 patches, including 35 critical updates.



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