



```

189     *(&v08 *)&a1[2 * (v8 - sub_3000A477(&v14)) - 2] = 0;
190 }
191 else
192 {
193     sub_30007130(&v12, 0, 1000);
194     sub_3000A455(&v12, &v14);
195     if ( !sub_30007000(&v12, L"RyukReadMe.html")
196         && !sub_30007000(&v12, L"UNIQUE_ID_DO_NOT_REMOVE")
197         && !sub_30007000(&v12, L"boot")
198         && !sub_30007000(&v12, L"PUBLIC")
199         && !sub_30007000(&v12, L"PRIVATE")
200         && !sub_30007000(a1, L"\\Windows\\")
201         && !sub_30007000(a1, L"sysvol")
202         && !sub_30007000(a1, L"netlogon")
203         && !sub_30007000(a1, L"bin")
204         && !sub_30007000(a1, L"boot")
205         && !sub_30007000(a1, L"Boot")
206         && !sub_30007000(a1, L"dev")
207         && !sub_30007000(a1, L"etc")
208         && !sub_30007000(a1, L"lib")
209         && !sub_30007000(a1, L"initrd")
210         && !sub_30007000(a1, L"sbin")
211         && !sub_30007000(a1, L"sys")
212         && !sub_30007000(a1, L"vmlinuz")
213         && !sub_30007000(a1, L"run")
214         && !sub_30007000(a1, L"var") )
215     {
216         v15 = 0;
217         sub_30007130(&v16, 0, 48);
218         v17 = 7;

```



**2019-12-22: Ryuk  
Ransomware | Blacklist  
| + \*NIX Folders**

### Blacklist \*NIX Folders

The list of Ryuk blacklisted \*NIX folders are:

- bin
- boot
- Boot
- dev
- etc
- lib
- initrd
- sbin
- sys
- vmlinuz
- run
- var

At first glance, it seems strange that a Windows malware would blacklist \*NIX folders when encrypting files.

Even stranger, Kremez told us that he has been asked numerous times whether there was a Unix variant of Ryuk as data stored in these operating systems have been encrypted in Ryuk attacks.

A Linux/Unix variant of Ryuk does not exist, but Windows 10 does contain a feature called the Windows Subsystem for Linux (WSL) that allows you to install various Linux distributions directly in Windows. These installations utilize folders with the same blacklisted names as listed above.

With the rising popularity of WSL, the Ryuk actors likely encrypted a Windows machine at some point that also affected the \*NIX system folders used by WSL. This would have caused these WSL installations to no longer work.

"They definitely have cases affecting WSL environments, which likely led them to blacklist NIX folders as they similarly do with the Windows ones. It is new to me and might explain why Ryuk and how Ryuk affects NIX machines via WSL," Kremez told BleepingComputer.

As the goal of most successful ransomware is to encrypt a victim's data, but not affect the functionality of the operating system, this change makes sense

With these folders being blacklisted, Ryuk eliminates an additional headache that they would need to deal with for a paying customer whose WSL installations are ruined.

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