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IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ALASKA

|                           |   |                                     |
|---------------------------|---|-------------------------------------|
| UNITED STATES OF AMERICA, | ) | No.                                 |
|                           | ) |                                     |
| Plaintiff,                | ) | <u>COUNT 1:</u>                     |
|                           | ) | CONSPIRACY TO COMMIT A              |
| vs.                       | ) | VIOLATION OF 18 U.S.C. § 1030(a)(5) |
|                           | ) | Vio. Of 18 U.S.C. § 371             |
| PARAS JHA                 | ) |                                     |
|                           | ) |                                     |
| Defendant.                | ) |                                     |

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INFORMATION

The United States Attorney charges that:

## INTRODUCTION

1. The “Internet” is a global network connecting millions of computers and computer networks to each other, allowing them to communicate and transfer information. Using, among other things, a system of wires, cables, routers and circuits, the Internet allows the communication and transfer of information in interstate and foreign commerce. Computers that are connected to the Internet may come in different forms, from personal computers, laptops and smartphones, to large scale servers that host websites and online services, to more minimal devices such as Internet-connected cameras, digital video recorders (“DVR”) and routers.

2. “Malware” is malicious software designed to damage or disable a computer, or provide control of the computer to a third party.

3. A “botnet” is a collection of computers infected with malware that are controlled as a group, typically without the owners’ knowledge. The individual computers within a botnet, known as “bots,” respond to commands from one or more master computers. These master computers are commonly known as “command and control” (“C2”) computers.

4. “DDOS attacks” occur when multiple computers acting in unison flood the Internet connection of a targeted computer or computers. The overwhelming amount of traffic generated by such an attack quickly overwhelms the capacity of the target computer, resulting in the target computer being unable to send, receive or respond to commands. DDOS attacks are often directed at servers that host websites, with the intent of rendering those websites unavailable to the public.

5. A “proxy” is an intermediary computer server that relays traffic from one computer to another. Proxies are used to obfuscate the Internet Protocol address of the originating computer, which makes online attribution more difficult.

6. Mirai is the name of a malware variant utilized to hijack computing devices to create botnets to facilitate further criminal activity. Unlike previous malware designed to create botnets, Mirai targets the “Internet of Things” (“IoT”) – non-traditional computing devices that have been connected to the Internet, including wireless cameras, routers and digital video recorders.

COUNT 1 (Conspiracy)

7. The allegations set forth in paragraphs one through six of this Information are re-alleged as if fully stated herein.

8. Between in or about July 2016, and continuing thereafter to on or about October 4, 2016, in the District of Alaska and elsewhere, defendant PARAS JHA, and other persons, did knowingly and intentionally conspire and agree with one another to knowingly cause the transmission of a program, information, code, and command, and, as a result of such conduct, intentionally cause damage without authorization to a protected computer, and to cause loss during a one-year period aggregating at least \$5,000 in value and to cause damage affecting 10 or more protected computers during a 1-year period in violation of 18 U.S.C. § 1030(a)(5)(A) and (c)(4)(A).

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## THE OBJECT OF THE CONSPIRACY

9. The object of the unlawful conspiracy was to infect computing devices with the Mirai malware developed by the conspirators for the purpose of enlisting those devices into a botnet that could be used to conduct powerful DDOS attacks and facilitate other criminal activity.

## MANNER AND MEANS OF THE CONSPIRACY

10. It was part of the conspiracy that the defendant PARAS JHA and his co-conspirators would attempt to discover both known and previously undisclosed vulnerabilities that would allow them to surreptitiously attain administrative or high-level access to victim devices for the purpose of forcing the devices to participate in the Mirai botnet. Utilizing undisclosed vulnerabilities meant that JHA and co-conspirators would not have to compete with other criminal actors seeking to develop illicit botnets for access to these devices. Devices with such vulnerabilities were compromised by JHA and his co-conspirators without authorization of the owner of the affected devices.

11. It was further a part of the conspiracy that the defendant PARAS JHA and his co-conspirators would scan the internet for vulnerable IoT devices and, without authorization, attempt to gain administrative access to those devices through the use of credentials that they were not authorized to employ.

12. It was further part of the conspiracy that the defendant PARAS JHA and his co-conspirators would, without authorization, infect with Mirai the IoT devices they were able to access, which afforded the defendant PARAS JHA and his co-conspirators complete control over the devices, and hijack them to create the Mirai botnet.