Global Information Assurance Certification Paper

Controversial Carnivore, A Threat to Privacy?
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In the past few months the news media has thoroughly covered the new wiretapping device implemented by the Federal Bureau of Investigation (FBI). The moniker Carnivore denotes a laptop device which is connected to an Internet Service Provider (ISP) system to gather packets of data in hopes of finding incriminating evidence of a suspected terrorist, drug cartel, or other high level criminals. The device has been used twenty five times in the last eighteen months including ten national security and six domestic criminal cases this year. FBI officials will not comment on the success of Carnivore's use since all cases are pending trial.

The specifics of Carnivore remain at large a mystery. Industry and privacy advocates have requested the source code and documentation be revealed. Bureau officials now regret the device's name which has inflamed the issue more. Carnivore was derived from and earlier version of the packet sniffing system by the name Omnivore since it sniffed all the data it was connected to. Later the filtering was streamlined to a more manageable level thus becoming the pickier eater Carnivore.

Carnivore when attached to an ISP's network runs a packet sniffing program to select the data specified by a required federal court order from the ISP's data stream where the system is attached. The Bureau claims that Carnivore only looks at the to and from Internet Protocol (IP) addresses of the packets being scanned and then only the ones specified by the court order are retrieved. The agency claims no other data is recorded or examined. The FBI has declined to comment on whether Carnivore evolved from commercial packet sniffing software EtherPeek sold by AG Group of Walnut Creek, CA.

"According to the AG Group Web site, EtherPeek is a 32-bit Ethernet packet-level network traffic protocol analyzer and debugging tool designed to capture packets on an Ethernet network or a switched network such as the Internet. EtherPeek includes an application called EtherHelp that appears to have the same capabilities as those the FBI claims for Carnivore. EtherHelp captures all network traffic or a specific portion of that traffic in the form of packets according to the product data. Packets captured are not displayed in EhterHelp but can be saved in a file, which can then be forwarded to support personnel for analysis by EtherPeek, which can then display the saved packets."

Both Electronic Privacy Information Center (EPIC) and the American Civil Liberties Union (ACLU) have filed actions under the Freedom Of Information Act (FOIA) requesting documents disclosing the methods which describe the operating details of CARNIVORE. Initially the FBI refused stating there are over 3,000 pages of documentation to shift through and intertwined in this is classified data and sensitive proprietary information from contractors who helped to develop Carnivore. After mounting public pressure and extensive media coverage, Attorney General Janet Reno has implemented a plan to have a university panel investigate Carnivore and report it's findings.

The Department of Justice (DOJ) posted a 63-page document on its web site soliciting for university contractor to review Carnivore's use. Contractors have been asked to submit their bids by September 6th. Attorney General Reno will select a contractor and the contract will be awarded by 25 September. The final version of the report of findings is due out mid December. EPIC is doubtful full technical details will be made in the review findings and all questions surrounding Carnivore will not be answered. Others point out that this review will only apply to the current version of the software being used. Bureau sources say that Carnivore is constantly being updated to improve its capabilities.

According to the solicitation the government wants to know: " If the operators obey the law, will Carnivore provide agents with all the information they ought to see, but only that information? Will Carnivore risk harming an Internet service provider's network? Does Carnivore introduce new risks the FBI agents or others will gain intentional unintentional access to electronic communications they have no right to see? Are Carnivore's operational procedures and built-in protections adequate to prevent such unauthorized access?"

The issue of computer user privacy is now center stage. Peter Sachs, President of ICONN.net, an ISP in New Haven, Connecticut testified before a congressional subcommittee warning of Carnivores threat to the Fourth Amendment. Based on his knowledge of ISP operations he voiced his concern that Carnivore does intrude on ISP users privacy rights and the issues of liability of the ISP when asked to connect Carnivore to its system. Mr. Sachs warned of possible threat of an ISP's system security when Carnivore is connected since the only vigilance of the systems operation is by the FBI's full remote control of Carnivore. The ISP has no ability to monitor connections of Carnivore when in use unlike that of a phone company running and monitoring 100 percent of a traditional wiretap. He questioned the FBI's need to use this system since any ISP has the ability, with as little as two lines of code, to provide law enforcement with Emails of suspects without having to possibly infringe on the privacy of innocent ISP

users. ISPs have concerns in what their possible liabilities might be having the device connected and the device gathering data not specified in a court order. To date one ISP lost a court battle when they refused to allow Carnivore to be connected.

Currently law enforcement can legally obtain a court order granting a wire tape of a single phone line of a criminal suspect once sufficient evidence has been ascertained that this would prove beneficial in pursuing the suspect. Once granted the single wire tape is connected and controlled solely by the phone company. However with Carnivore the device is connected to an ISP and controlled remotely by the FBI. Carnivore monitors the data flow of the ISP's system unlike the single line phone tap. This is an overwhelming amount of data sniffed by the device. Even if it is monitoring the to and from Internet Protocol (IP) addresses of Email the question of innocent users privacy still surfaces.

Who is monitoring the FBI who is monitoring all this data? The FBI argues that the federal judge issuing the Carnivore tap is responsible to overseeing the FBI's operation just like the same judge would monitor the operation a conventional wiretap. A judge usually sets a review of a wiretap every week to ten days. Concerns arise with Carnivores ability to possibly gobble up private email of innocent users of an ISP which has a Carnivore system connected to it. The FBI counters that Carnivore filters out only the data that is authorized by the court order. The question then arises if it's filtered the data being filtered could be access and abused.

Organized crime has sufficient funds to use high tech equipment and implement encryption to counter Carnivore, as does the public in general. Concerns are that the FBI might have technology in Carnivore to break some forms of encryption. What is unknown is the key length they are able to break if at all. The mystery and the unknown are what is feeding the media frenzy and privacy advocates. Until questions are better answered we will see these concerns continue.

In conclusion, there are currently 20 Carnivore systems maintained at Quantico, VA when not in use. The FBI says they are only used when absolutely needed. The request for a university panel investigation into the specific details of the system operating abilities has been initiated. Many points and counterpoints have been volleyed across the media net to further create a mystery which needs to be solved with the release of hard facts by a reliable source. In the meantime, with the availability of encryption for public use many ask what the big concern of Carnivore is. Most Americans do not use encryption when sending Email or take advantage of anonymous browsers yet they say they are concerned of their privacy. Maybe they should start.

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