

Department of Legislative Services
Maryland General Assembly
2018 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 456
Judiciary

(Delegate Barron)

Criminal Law - Crimes Involving Computers - Cyber Intrusion and
Ransomware

This bill (1) creates a criminal offense pertaining to extortion conducted through unauthorized software; (2) adds a violation of the offense created under the bill that concerns cyber extortion or ransomware to the list of offenses on which a charge of murder in the first degree may be based; and (3) authorizes a person who has suffered a specific and direct injury because of the offense created under the bill or a violation of § 7-302 of the Criminal Law Article (unauthorized access to computers and related material) to bring a civil action in a court of competent jurisdiction, establishes that a conviction for the applicable offense is not a prerequisite for maintenance of the civil action, and authorizes a court in such an action to award reasonable attorney's fees and court costs. The bill applies prospectively to any cause of action arising on or after the bill's October 1, 2018 effective date.

Fiscal Summary

State Effect: Minimal increase in general fund incarceration expenditures, as discussed below. Revenues are not affected.

Local Effect: Minimal increase in local revenues and expenditures due to the bill's penalty provisions, as discussed below.

Small Business Effect: None.

Analysis

Bill Summary: Under the offense established in the bill, a person who has the intent to unlawfully extort money, property, or anything of value from another may not knowingly create, place, or introduce without authorization software into a computer, computer system, or computer network (computer/system/network) if the software is designed to encrypt, lock, or otherwise restrict access or use by authorized users of the computer/system/network. A violator is guilty of a felony, punishable by imprisonment for up to 10 years and/or a \$10,000 maximum fine.

Current Law:

Extortion

Under the State's general extortion statute, a person may not obtain, attempt to obtain, or conspire to obtain money, property, labor, services, or anything of value from another person with the person's consent, if the consent is induced by wrongful use of actual or threatened (1) force or violence; (2) economic injury; (3) destruction, concealment, removal, confiscation, or possession of any immigration or government identification document with intent to harm the immigration status of another person; or (4) notification of law enforcement officials about another person's undocumented or illegal immigration status.

The prohibition does not apply to legitimate efforts by employees or their representatives to obtain certain wages, hours, or working conditions.

Classification of and penalties for violations of the statute vary based on the value of the property, labor, or services extorted, as noted in **Exhibit 1**. A prosecution for felony extortion must be instituted within five years after the crime was committed.

Exhibit 1
Classification of and Penalties for Violations of the General Extortion Statute

Value of Property, Labor, or Services Extorted	Classification and Penalty
Less than \$1,000	Misdemeanor Imprisonment for up to 18 months and/or a \$1,000 maximum fine
At least \$1,000 but less than \$10,000	Felony Imprisonment for up to 10 years and/or a \$10,000 maximum fine
At least \$10,000 but less than \$100,000	Felony Imprisonment for up to 15 years and/or a \$15,000 maximum fine
\$100,000 or more	Felony Imprisonment for up to 25 years and/or a \$25,000 maximum fine

Source: Department of Legislative Services

Unauthorized Access to Computers and Related Material

Under § 7-302 of the Criminal Law Article, a person may not intentionally, willfully, and without authorization, access or attempt to access, cause to be accessed, or exceed the person's authorized access to all or part of a computer or a computer network, language, software, system, service, or database. Also, a person may not intentionally, willfully, and without authorization, copy, attempt to copy, possess, or attempt to possess the contents of all or part of a computer database that was unlawfully accessed. A violation of these provisions is a misdemeanor, and the violator is subject to maximum penalties of imprisonment for three years and/or a fine of \$1,000.

A person may not intentionally, willfully, and without authorization, commit unlawful access or attempted access, as specified, with the intent to (1) cause the malfunction or interruption of any or all parts of a computer, network, language, software, service, or data; (2) alter, damage, or destroy all or any part of data or a program stored, maintained, or produced by a computer, network, software, system, service, or database; or (3) possess, identify, or attempt to identify a valid access code or publicize or distribute a valid access code to an unauthorized person.

If the aggregate amount of the loss is \$10,000 or more, the violator is guilty of a felony and is subject to maximum penalties of imprisonment for 10 years and/or a fine of \$10,000. If the aggregate loss is less than \$10,000, the violator is guilty of a misdemeanor and is subject to maximum penalties of imprisonment for 5 years and/or a fine of \$5,000.

A person may not gain or attempt to gain unauthorized access to computer services with the intent to interrupt or impair the functioning of (1) State government; (2) a service provided in the State by a public service company; or (3) a natural gas or electric service, device, or system provided in the State by someone other than a public service company.

If the aggregate amount of the loss associated with this prohibition is \$50,000 or more, a violator is guilty of a felony and subject to maximum penalties of 10 years imprisonment and/or a \$25,000 fine. If the aggregate loss is less than \$50,000, a violator is guilty of a misdemeanor and is subject to maximum penalties of 5 years imprisonment and/or a \$25,000 fine.

Access achieved in a prohibited manner under a single scheme or a continuing course of conduct may be considered one violation. A defendant may be tried in any county in Maryland where the act was performed or the accessed computer was located.

First-degree Murder

A murder is in the first degree if it is (1) a deliberate, premeditated, and willful killing; (2) committed by lying in wait; (3) committed by poison; or (4) committed in the perpetration of or an attempt to perpetrate any of a list of specified offenses, including rape, arson in the first degree, and carjacking/armed carjacking.

Background: Ransomware attacks are an increasingly popular crime in which individuals, who are often hackers based overseas, use software viruses to assume control of or encrypt computers, data stored in computers, or computer networks and refuse to release control of the computers or data unless a ransom is paid, often through the Internet currency Bitcoin. Unpaid ransoms can result in escalating demands or permanent loss of data. Victims of ransomware attacks include ordinary citizens, small businesses, public libraries, hospitals, local governments, and larger businesses/entities. Because the perpetrators are often based overseas, there is very little local and federal law enforcement can do, especially within the narrow window of time in which victims must pay a ransom.

In March 2016, computers at MedStar Health, a prominent health care system in the Maryland/Washington, DC area, were attacked by a virus that blocked some users from logging into its system. MedStar responded to the attack by shutting down extensive portions of its computer network. While there have been no official reports that the virus

was ransomware, employees reported seeing pop-up screens on their computers demanding payment in Bitcoin.

The Federal Bureau of Investigation (FBI) estimates that ransomware payments in 2016 totaled \$1 billion, a significant increase from the \$24 million in estimated payments during 2015. In an attempt to understand the scope of ransomware attacks and develop solutions and approaches to attacks, the FBI issued an alert in September 2016 asking victims to file reports through its Internet Crime Complaint Center. The lucrative nature of the attacks has created a growth industry within criminal networks, with reports of ransomware applications and toolkits being available for purchase and “ransomware as a service,” through which individuals can purchase time on a criminal network designed to launch attacks in return for paying the network provider a percentage of the extorted funds.

The Judiciary reports that there were four filings and three convictions statewide for extortion during fiscal 2017. In fiscal 2017, State correctional facilities received three offenders convicted of extortion. According to the Department of Public Safety and Correctional Services (DPSCS), extortion was the most serious offense for one of the offenders.

State Expenditures: General fund expenditures increase minimally as a result of the bill’s incarceration penalty due to more people being committed to State correctional facilities and increased payments to counties for reimbursement of inmate costs. The number of people convicted of this proposed crime and the expanded application of first-degree murder provisions under the bill is expected to be minimal. The bill is not expected to materially affect District Court caseloads.

Persons serving a sentence longer than 18 months are incarcerated in State correctional facilities. Currently, the average total cost per inmate, including overhead, is estimated at \$3,800 per month. Persons serving a sentence of one year or less in a jurisdiction other than Baltimore City are sentenced to local detention facilities. For persons sentenced to a term of between 12 and 18 months, the sentencing judge has the discretion to order that the sentence be served at a local facility or a State correctional facility. The State provides assistance to the counties for locally sentenced inmates and for (1) inmates who are sentenced to and awaiting transfer to the State correctional system; (2) sentenced inmates confined in a local detention center between 12 and 18 months; and (3) inmates who have been sentenced to the custody of the State but are confined in or who receive reentry or other prerelease programming and services from a local facility.

The State does not pay for pretrial detention time in a local correctional facility. Persons sentenced in Baltimore City are generally incarcerated in State correctional facilities. The Baltimore Pretrial Complex, a State-operated facility, is used primarily for pretrial detentions.

Local Revenues: Revenues increase minimally as a result of the bill's monetary penalty provision from cases heard in the circuit courts.

Local Expenditures: Expenditures increase minimally as a result of the bill's incarceration penalty. Counties pay the full cost of incarceration for people in their facilities for the first 12 months of the sentence. Per diem operating costs of local detention facilities have ranged from approximately \$40 to \$170 per inmate in recent years. The bill is not expected to materially affect circuit court caseloads.

Additional Information

Prior Introductions: None.

Cross File: SB 376 (Senator Lee, *et al.*) - Judicial Proceedings.

Information Source(s): Maryland State Commission on Criminal Sentencing Policy; Judiciary (Administrative Office of the Courts); Office of the Public Defender; Maryland State's Attorneys' Association; Department of Public Safety and Correctional Services; Federal Bureau of Investigation; Department of Legislative Services

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