



**Homeland
Security**
Office of Intelligence and Analysis

INTELLIGENCE NOTE

28 March 2017

(U//FOUO) Unknown Cyber Actors Target US Water and Sewage Authority Network

(U) Prepared by the Office of Intelligence and Analysis (I&A) and coordinated with the National Cybersecurity and Communications Integration Center (NCCIC).

(U//FOUO) **Scope:** This Intelligence Note provides current intelligence on a specific threat to industrial control systems and networks associated with the US Water and Wastewater Systems Sector and other critical infrastructure sectors reliant on remote wireless Internet connectivity for their operations. I&A prepared this Note in direct support of the information sharing and analysis centers (ISACs) for water, electricity, financial services, surface transportation, and emergency management and response.

(U//FOUO) Likely Network Device Compromise Results in Excessive Data Traffic; Device Provided Access to Industrial Control System

(U//FOUO) An unidentified actor or actors between November 2016 and January 2017 targeted a US water and sewage authority's network, resulting in excessive cellular charges and unusual traffic on ports 10000 and 9600, according to an FBI source with excellent access who spoke in confidence but whose reliability cannot be determined.¹ The FBI source indicated that four of the seven devices on the authority's cellular data plan were impacted with high data usage, which was likely a result of compromised network devices. The November 2016–December 2016 billing cycle totaled \$45,000, and the December 2016–January 2017 billing cycle totaled \$53,000. A typical monthly bill averages approximately \$300. The devices were Sixnet devices, which had been in place for six or seven years and provided access to the authority's industrial control systems, according to the same FBI source.

(U//FOUO) Support to Computer Network Defense

(U//FOUO) Sixnet BT-5xxx and BT-6xxx series device versions prior to 3.8.21, as of May 2016, were vulnerable to a compromise that exploited a hard-coded factory password that could enable full access to the affected device, according to ICS-CERT Advisory ICSA-16-0147-02. The same advisory identifies vendor patches and firmware updates that address the issue.²

(U//FOUO) Sixnet BT-5xxx series industrial cellular modems and BT-6xxx machine-to-machine gateways facilitate data communications connectivity in mobile or remote environments. Ports 9600 and 10000 are used for transmission control protocol and user datagram protocol (TCP/UDP) communications, according to an online report from a firm that provides industrial automation and networking solutions.³

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(U) Reporting Computer Security Incidents

(U) To report a computer security incident, either contact US-CERT at 888-282-0870 or go to <https://forms.uscert.gov/report/> and complete the US-CERT Incident Reporting System form. The US-CERT Incident Reporting System provides a secure, web-enabled means of reporting computer security incidents to US-CERT. An incident is defined as a violation or imminent threat of violation of computer security policies, acceptable use policies, or standard computer security practices. In general, types of activity commonly recognized as violating typical security policies include attempts (either failed or successful) to gain unauthorized access to a system or its data, including personally identifiable information; unwanted disruption or denial of service; the unauthorized use of a system for processing or storing data; and changes to system hardware, firmware, or software without the owner's knowledge, instruction, or consent.

(U) Tracked by: HSEC-I.4.2.16, HSEC-I.4.4, HSEC-I.5.1, HSEC-I.6.2.16, HSEC-I.10.1

¹ (U//FOUO); FBI; IIR 4 213 1461 17; 172045Z FEB 17; DOI 09 FEB 2017; (U//FOUO); Industrial Control System Compromise at an Identified US Water and Sewage Authority, as of January 2017; Extracted information is U//FOUO; Overall document classification is U//FOUO.

² (U); DHS; Advisory (ICSA-16-147-02); 26 MAY 2016; DOI UNK; (U); Sixnet BT Series Hard-coded Credentials Vulnerability; Extracted information is UNCLASSIFIED; Overall document classification is UNCLASSIFIED.

³ (U); Redlion; "BT-6000 Series IndustrialPro M2M Gateways"; 2014; www.redlion.net; accessed on 08 MAR 2017.

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Customer Feedback Form

Product Title:

All survey responses are completely anonymous. No personally identifiable information is captured unless you voluntarily offer personal or contact information in any of the comment fields. Additionally, your responses are combined with those of many others and summarized in a report to further protect your anonymity.

1. Please select partner type: and function:

2. What is the highest level of intelligence information that you receive?

3. Please complete the following sentence: "I focus most of my time on:"

4. Please rate your satisfaction with each of the following:

	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied	N/A
Product's overall usefulness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product's relevance to your mission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product's timeliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product's responsiveness to your intelligence needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How do you plan to use this product in support of your mission? *(Check all that apply.)*

- | | |
|--|---|
| <input type="checkbox"/> Drive planning and preparedness efforts, training, and/or emergency response operations | <input type="checkbox"/> Initiate a law enforcement investigation |
| <input type="checkbox"/> Observe, identify, and/or disrupt threats | <input type="checkbox"/> Initiate your own regional-specific analysis |
| <input type="checkbox"/> Share with partners | <input type="checkbox"/> Initiate your own topic-specific analysis |
| <input type="checkbox"/> Allocate resources (e.g. equipment and personnel) | <input type="checkbox"/> Develop long-term homeland security strategies |
| <input type="checkbox"/> Reprioritize organizational focus | <input type="checkbox"/> Do not plan to use |
| <input type="checkbox"/> Author or adjust policies and guidelines | <input type="checkbox"/> Other: <input type="text"/> |

6. To further understand your response to question #5, please provide specific details about situations in which you might use this product.

7. What did this product not address that you anticipated it would?

8. To what extent do you agree with the following two statements?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
This product will enable me to make better decisions regarding this topic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This product provided me with intelligence information I did not find elsewhere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How did you obtain this product?

10. Would you be willing to participate in a follow-up conversation about your feedback?

To help us understand more about your organization so we can better tailor future products, please provide:

Name:
Organization:
Contact Number:

Position:
State:
Email:

Submit
Feedback

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CLASSIFICATION:

Product Serial Number:

REV: 10 November 2016