Back to School: Why Cybercriminals Continue to Target the Education Sector | Part Two

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September 14, 2020

A New Year, a New Beginning, and a New Round of Cyber Threats

2020's back to school is a bit different than usual as most students around the world are getting ready to meet again with their peers online. Rather than worrying about the classic back to school activities, such as purchasing the most in-style school supplies or figuring out the perfect outfit for day 1, students are more invested in finding the comfortable home setup for online learning. School IT admins, on the other hand, are most concerned this year about educating their students and staff regarding cybersecurity as school begins remotely, while in parallel focusing heavily on deterring cyber threats from cybercriminals looking to attack educational institutions.

In our last blogpost, <u>Back to School: Why Cybercriminals Continue to Target the Education</u> <u>Sector, Part 1</u>, we looked into threat actors' overall interest in targeting organizations in the education sector, diving into some examples of recent attempted attacks that we've spotted across the underground ecosystem. This blogpost touched on several key points that helped establish a general understanding of the threat level targeting educational institutions. We decided to circle back to this topic because of the increasing risks that emerged as much of the world begins to return to schools.

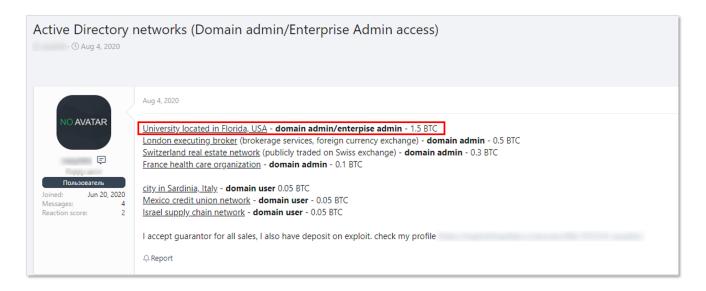
Schools already struggling with <u>high cases of COVID-19</u> now must begin battling other mishaps such as cyberattacks on their online learning platforms within their first days of remote learning. This situation occurred to one of the largest district schools in Florida and was likely caused by a newbie in the underground world – an alleged <u>16-year old threat</u> <u>actor</u>. This successful attack on a large school, by a supposedly young threat actor, may imply that planned attacks by more sophisticated and experienced threat actors are similarly on their way.

Summer's Over, but the Fun's Just Beginning (for Cybercriminals)

Since the release of our last post, we continued to monitor threat actors' interest in the education sector and laid out what other threats were seen in the underground ecosystem.

Over the last month, KELA closely monitored many underground communities as well as specialized auto shops where underground actors buy and sell credentials enabling <u>remote</u> <u>access to compromised websites and services.</u> Out of more than 45 remote accesses that we tracked over August alone, across the most popular three underground forums, we

noticed that 7 of those belong to educational institutions. These accesses were being sold mainly to UK or US educational institutions – with a couple in Australia and singles in Israel and Germany, too – at prices ranging from as little as 200 USD to as much as 17,000 USD.



Private School located in UK Enterprise/Domain Admin		
NO AVATAR Ользователь Нользователь Messages: 17 Reaction score: 0	Aug 22, 2020	
	Tittle say most,	
	Have access to the DC with Enterprise/Domain user right RDP access	
	Sophos Installed Veritas Backup Exec	
	\$5M revenue 24 hots at the moment of the scan	
	I dont really have a price, make me a reasonable offer over pm	

We tried to assess what the price differences could mean in terms of the victims being targeted. At times, it's difficult to understand how valuable an access may be, solely based on price and the limited detail published by the threat actor. However, after more in-depth review of the accesses, we noticed that much of the time, threat actors are pricing the goods as they would with any other business – based on the revenue of the victim at hand. The

educational institutions are viewed by many threat actors as just another business with growing revenue – and in that case, growing profits for the threat actors. Another factor that influences the price is access rights – whether the buyer will have access as a user or with administrator privileges.

The relatively high price and the speed at which some listings are purchased do indicate the high demand for these items in the underground ecosystem. For example, one of the listings was published for 5,660 USD and sold in less than a week.



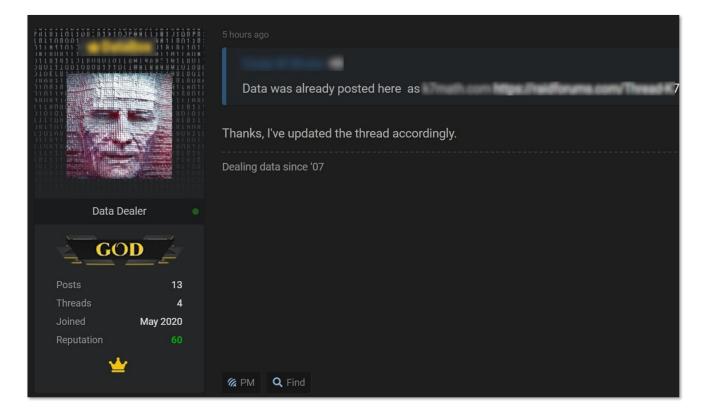
Though remote access has been growing in popularity in the underground ecosystem over the last few years, compromised data still holds a significant place for cybercriminals. For example, emails and passwords of a Singaporean school have been recently leaked for free, and personal data pertaining to US students has been offered for sale across underground marketplaces. In addition, we've recently spotted credentials to 4 different university FTP servers, some of which contain internal data – also leaked for free.

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New User MEMBER Posts 13 Threads 6 Joined Aug 2020 Reputation 0		🐴 Reply 🚳	Quote ⊨ Report
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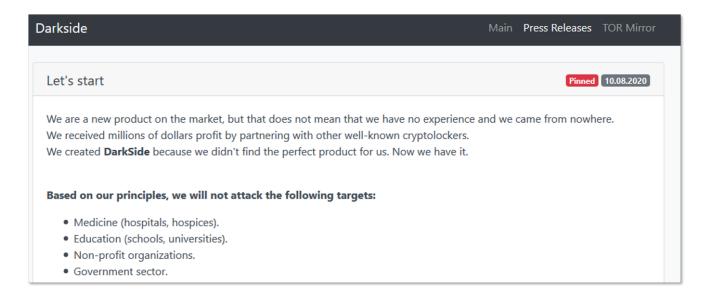
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New User 🛛 🔴	a school shell,some student in usa。 if u want buy some school web shell in usa, plz pm me thx	
MEMBER	one hand data No bargaining	
Posts 5		

FTP Servers of EDU Websites by August 29, 2020 at 09:38 AM			
	August 29, 2020 at 09:38 AM edu/ edu jedu/		
	Hidden Content		
New User	ftp://ftp.i ftp://ftp.i ftp://ftp.l Sometimes Accessible, Sometimes Unavailable] ftp://ftp.:		
Posts 9			
Threads 3 Joined Aug 2019			
Reputation 0			
1 YEAR OF SERVICE			

Some underground threat actors have been seen leveraging previously sold/leaked data pertaining to educational institutions. In a recent post, a threat actor published that he was offering data pertaining to an Australian Education Department, where upon further research, it turned out to be <u>K7math</u> – an online service providing school e-learning solutions – which was previously leaked in March. In both of these instances – both the initial March listing, and the later one – the data was leaked for free, likely a stunt for the threat actors looking to gain some good reputation in the underground communities.



As we continued to browse through different underground communities, we still noticed that there are newer players in the field who still claim against targeting the education sector. For example, <u>DarkSide</u>, the new ransomware gang that has recently emerged, states that it doesn't attack schools and universities. However, it's unlikely that most cybercriminals will adopt this attitude since they couldn't even get on board in terms of targeting medical institutions during a pandemic.



Educational Institution Defenders: "Wake Me Up When September Ends"

Defenders of educational institutions are likely still adapting to this new norm, but it really comes down to two main actions that may help them deter attacks in the most efficient way possible.

- Educate The safety of these institutions is nothing less than team effort. These
 defenders must invest in standard cybersecurity awareness for all students and staff to
 ensure that best practices are held in order to keep personal information and
 information systems secure. The potential damage that can be caused may begin from
 a small mistake caused by one individual, for example opening a malicious attachment
 received via email, which may enable a threat actor the initial foothold required to enter
 the institution's systems.
- 2. Invest in Threat Intelligence Cyberattacks generally occur after a long process of several different details combined. Organizations and specifically in this case, educational ones must invest in strategic monitoring of their assets, whether it be their domains, IT admins' personal details, IP addresses, or any other assets that can help threat actors initiate an attack on them. By investing in technologies that enable efficient and undetectable monitoring of their assets in underground marketplaces and forums, educational institution defenders can better prepare themselves for potential incoming threats that are targeting them.