

2020 NACo Achievement Award Application

Citizen Cyber Security

York County, Virginia

Abstract:

York County's Citizen Cyber Security initiative is designed to educate the community of the dangers of the Internet and how to easily protect themselves from most cyber threats. The initiative accomplishes this through a three-phase approach.

The first step is to engage the citizens with an in-person presentation to make them aware of the various risks and how to reduce them in a broad sense. The second step is an informal question and answer session where citizens can ask how the prior guidance applies to their devices and lifestyles. The final step is access to an on-line repository of the exact steps needed to protect themselves, delivered in a non-technical format.

The original plan was to deliver the presentation at 3 sessions to at least 15 attendees. Over the course of a year, it has been delivered in 12 sessions to over 375 people. The overall average follow-up survey rating by attendees has been 4.9 out of a possible 5.

The overhead of this initiative was extremely small and consisted of creating online documentation and a single presentation that could be delivered at different locations. The community response has been overwhelmingly positive.

The Problem or Need for the Program

No organization exists in a complete bubble. We purchase goods and services to assist in our operation from surrounding vendors via credit cards and online transactions. Citizens utilize our online services through their personal devices to pay taxes and obtain other services. What does it matter if the County Government's network is extremely secure, if the "last mile" to the customer or business partner is extremely vulnerable to a cyber-attack? The result is still potentially compromised data regardless of who is at fault.

Our goal in developing this program was to reach out to citizens and local businesses to educate them about the cyber risks and how they can try to minimize the danger. We identified the highest risk target of cyber criminals as citizens over the age of 55. We knew we needed to engage them in a way that they would welcome and yet deliver technical security information in an extremely non-technical format.

Description of the Program

At a regional security conference in the summer of 2018, a federal representative encouraged local jurisdictions to host a website with cyber security information for their citizens (particularly targeting senior citizens). While York County agreed with the community need, we felt that the citizens in need of this information were not likely to search the County website for this information. We felt that the best way to engage citizens (particularly in the older demographic) was to host in-person presentations. Over the next few months, staff created a list of topics and practical cyber security steps that could be applied by non-technical individuals. While this information was not technical, it was extremely detailed and would have made for a dry and painful presentation. For this reason, we decided to present the material in a 3-phase approach. The first was a 1-hour in-person presentation where we could give people general awareness of the dangers and conceptually instruct how they could protect themselves. The second phase was for an interactive question and answer session where we could give general advice or clarification. The goal was for the attendees to not just listen to textbook information, but to start to associate and assimilate it into their daily lives. In the third phase, we would point them to our website that had the detailed instructions of how to reduce their risk to cybercrime or what they could do if they became a victim.

We began by presenting several practice sessions to groups of varying technical expertise. Through streamlining the presentation, we were able to focus not necessarily on what we wanted to tell them from our point of view, but what they would want to know, and what would make the largest impact in their personal security. We also emphasized the “right to choose.” We were not going to tell them what to do like a parent to a child, but give them options and recommendations. It is ultimately up to the user to determine the risks they are comfortable with taking in regards to their devices, information, and lives. We believe this sets the correct initial tone for the presentation. Our desire was for the information presented to be a resource to those in attendance, and we did not wish to alienate anyone for lack of knowledge or unwillingness to implement certain recommendations. The presentation talking points can be roughly grouped into the following topics: Anti-virus, updating operating systems, updating software, updating apps, firewalls, passwords, wireless, safe disposal, human factor, Internet safety, and what to do if you are hacked.

Next, we delivered the presentation as part of our Annual IT Conference for County staff, made up of citizens of the County or surrounding jurisdictions. This was helpful to identify potential issues, streamline the presentation, and build confidence and experience for the presenter (since the presenter had little experience with public speaking, but County staff was an audience he was familiar with). We were also able to record this

first presentation, posted it on YouTube, and linked to our County website. This first presentation was a huge success, and we scheduled a series of three sessions for citizens in October (for cyber security month), at our two libraries and our senior center.

The first session at the library was attended by two dozen citizens (mostly of a higher age demographic). After the hour long presentation, the question and answer session lasted for an additional 45 minutes. The attendees were actively participating in the Q&A session, and the responses from it were overwhelmingly positive. This initial citizen session was considered a success, and alone would have justified the time and effort put into the program. The second session at the library was in the evening and was more accessible for working adults. This session did draw in a wider age demographic, but was still heavily attended by the older demographic. This group also resulted in top reviews and the Q&A session lasted for 90 minutes (until 9:30 at night)! The third initially planned session had a packed room of about 60 senior citizens and again had very positive feedback. This Q&A session lasted for over 90 minutes.

These sessions were the only ones the County publicly promoted and scheduled; the following 8 sessions were all initiated by prior attendees. We presented at a meeting of the local Master Gardeners, a local Homeowners Association, a local chapter of the Disabled American Veterans, just to name a few. A financial group located in a neighboring jurisdiction also requested that we present at their facility. As the date approached, they began to turn people away due to the limited size of their meeting space. When the date came it was literally standing room only. The Q&A session lasted for 2 hours (total of 3 hours with the presentation) and only ended at that point since the hosting company needed to close. Not a single attendee left early! Another session of note was presenting a modified version for a regional Workforce Development workshop. This one was focused on business owners and included a section regarding DSS PCI (credit card) compliance and specific cyber dangers faced by businesses. This session was also standing room only.

York County has allowed this program to support any member of community regardless of home or business residency. We presented surveys during the first four sessions and had all but 2 attendees complete the survey. Some of the other future sessions did not lend themselves to surveys, but the additional surveys we received only reinforced these statistics. One of the survey questions was “How would you rate the technical level of the presentation?” All but 5 attendees chose “just right” (of the exceptions, 2 were higher and 3 were lower). Another question was “Which future sessions would you like hosted?”, and over 80% of attendees checked “A follow-up training on additional topics (Personal Cyber Security 2)”. The last question asked participants “How would you rate the Personal Cyber Security training (1-5)?”. The average response was 4.9 among all attendees. The demographics question revealed that over 75% of the attendees were over

55 years old, thus showing we effectively reached the target demographic. Attendees have reached out to let us know that they were able to put our recommendations into practice, that they have been able to recognize phishing emails easier, and that they feel their risk for falling victim to a cyberattack has greatly been reduced. One attendee called to ask about their credit union website that was asking for credentials. The website was running http (unsecured) not https, something that was warned about during the presentation. We gave general follow-up advice and strongly recommended they reach out to their bank with their concerns. Several days later when we checked the bank's website, it was running https (secure).

This program has educated many citizens as to the dangers of cybercrime, and has proven to be successful in allowing them to identify, mitigate, and correct cyber vulnerabilities. It has strengthened the trust and communication between members of the community and our local government. All of these benefits were gained through minimal staff time due to innovation and the commitment of County staff.

The Cost of the Program

The financial cost of this program has been about \$20 for pens and paper surveys. Staff time has been estimated at 16 hours to create the online documentation and 36 hours for the presentation creation. Each presentation takes about 3 hours, counting travel time. All of this has been completed by existing salaried staff members.

Public Safety has always struggled with ways to quantify the benefits of crime prevention; however, it is widely accepted that money spent on prevention will save much more money than after an incident has occurred. Citizens that attended these presentations work at businesses which may do financial transactions with the County. The safer the employees are, the safer the business will be, and the safer their business customers (including the County government) will be.

Through this education, citizens are taught that cyber security is just like driving in that you can follow all the rules and still get into an accident. With the popularity of so many local governments becoming cyber victims themselves, it is critical to build public confidence in our security practices. The time to build this public confidence isn't after a major event has occurred, but before one happens. If an incident doesn't occur, it builds critical government trust and demonstrates to the citizens the cyber sophistication of their local government IT staff.

The Results/Success of the Program

The original plan was to deliver the Personal Cyber Security presentation at 3 sessions to at least 15 attendees. Over a year, it has been delivered in 12 sessions to a total of over 375 people. The shortest question and answer session (after the 1-hour presentation) lasted for 45 minutes where 15 minutes would have been considered a success. For the presentation at a local business, they knew they were short on space and started to turn people away. However, more people still attended than expected and there was standing room only for the entire presentation. This was also the longest Q&A session that lasted 2 hours (3 hours total with presentation) and not a single person left early!

In many of these sessions we encouraged attendees to complete a survey form with several questions. The current overall average rating by attendees is 4.9 out of a possible 5. Over 80% of the attendees listed that they would choose to attend a “Personal Cyber Security 2” presentation. 75% of the attendees were 55 years or older, so the primary target audience (senior citizens) is also being effectively reached.

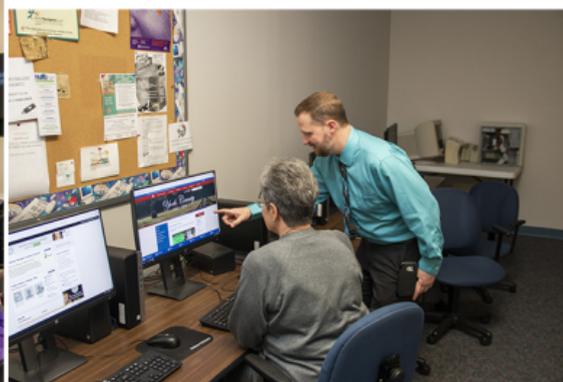
Due to the citizen engagement that followed the first sessions, we have presented additional sessions for the Disabled American Veterans, local master gardeners, Homeowners Associations, at a financial institution, a regional workforce development conference for businesses, and more. As great as the energy and feedback is during the presentation, getting attendees to take voluntary action afterwards is extremely difficult. We have had over 115 unique views to the County’s cyber security website, equating to an estimated 40% success rate of attendees visiting the how-to articles after the presentation. Most importantly, we have already gotten feedback about how attendees have assisted others in identifying and avoiding cyber-attacks, proving the initiative’s effectiveness.

Worthiness of Award

Everyone reads in the news about citizens, businesses, and lately even local governments being targeted by cyber criminals. Governments and businesses have begun greatly increasing IT security funding in order to combat this growing problem. But what about the cyber-attacks against citizens? How can they hope to have any chance when highly paid, formally educated cyber professionals struggle to protect their own networks? Local governments for decades have provided educational information to protect citizens from many forms of dangers to citizens. This has resulted in a dramatic gap of service to our citizens. The Citizen Cyber Security program has begun to address that community need by presenting situational awareness and protection tips that have already shown to make a difference in the community.

Supplemental Materials

You can view all the material made available to the citizens at <https://www.yorkcounty.gov/cyber>, as well as watching a recording of the 1- hour presentation.



WHAT WILL BE COVERED?

- Cyber Awareness
- Details at:
<https://www.yorkcounty.gov/IT>
- Question and Answer section

