

Internet Safety Technical Task Force Technology Submission

Portcard, Inc.
<http://www.portcard.net>

ABSTRACT

Portcard validates the identity of an individual behind their usernames on social networking services and stores a members' multiple identities (usernames) with a single membership. This cross-platform solution allows users of the various social networks and IM platforms to quickly and easily check to see if someone they are chatting with or someone who sends them a friend request is a member at Portcard. Portcard gives parents comfort in knowing that their child has the ability, and obligation, to "card" the people they are communicating with on these highly popular social networking sites and platforms.

KEYWORDS

Identification, verification, parental controls, Internet authentication, social networking.

FUNCTIONAL GOALS

Please indicate the functional goals of the submitted technology by checking the relevant box(es):

- X - Limit harmful contact between adults and minors
- X - Prevent harassment, unwanted solicitation, and bullying of minors on the Internet

PROBLEM INTRODUCTION

Portcard addresses the problem of Internet predators and cyber bullies who are hiding behind the total anonymity of the Internet. An Attorney General summarized the issue and his solution for families over two years ago: "MySpace is requiring anyone over 18 to know the full names or email addresses of someone under 16 before contacting them. Without age verification, this restriction is meaningless because both predators and children can - and will - skirt this barrier by lying about their ages. I will continue to press MySpace to implement effective age verification, acting with other attorneys general." [1]

Portcard's solution is to provide a new layer of safety for the millions of users who visit social networks daily in an effective and user-friendly manner. Portcard's approach is consistent with Attorney General Blumenthal's announcing this Task Force: "My hope is that it will explore age and identity technology available to social networking sites that can provide effective new protection for children. Age verification tools -- crucial to better shielding kids from predators and inappropriate content -- can and should be implemented by social networking sites as soon as possible." [2]

PROPOSED SOLUTION

Portcard offers a unique solution consistent with Attorney General Blumenthal's position. Portcard specifically:

- Validates the identity of an individual behind a username, screen name, or alias;
- Stores all of a person's usernames in a single membership so that all social networking sites are treated equally;
- Prevents another social networking user from obtaining a member's personal information;
- Allows individuals to maintain outward anonymity and a unique persona or multiple personas on the Internet;
- Securely stores identity information in the event there is a need to identify a particular Portcard member to law enforcement; and
- Provides revenue sharing with the referring site to promote referrals and facilitate adoption.

Registration.

A new Portcard member's identity is verified through a series of interview questions, which are based on historical data drawn from a vast array of both public and private data sources. Portcard members can register multiple aliases for themselves, as well as for their children by purchasing a "family" membership - these aliases will be then identified as "validated" by the Portcard site.

"Carding" for safety.

This voluntary identification process is similar to obtaining a driver's license or state identification card for the Internet. As users interact on the Internet through any means - social networking sites, instant messaging, etc. - they have the ability to "card" a given alias and check if that user has been validated by Portcard. Parents are involved by educating their children about how to "card" people who contact them on the Internet.

We do not pretend to know what users are bad, or have illicit intent, but rather Portcard verifies everyone so that predators cannot hide behind a false identify or the fact that they may not yet have been caught. We consider this approach similar to a seat belt in a car, protecting our users from the unknown.

Our focus groups show this is a "safety concept" that parents say they can understand, even if they do not fully understand social networks.

Users remain free to social network without restrictions; however, they are not free to roam without consequence for

their actions. Children can now simply check to see if these friends have had their identity validated at Portcard, which effectively removes the total anonymity of the Internet predators are exploiting today.

Information Security and Platform.

Portcard not only validates the identity of the person behind a username - Portcard securely stores that information in the event there is a need to identify a particular Portcard member to law enforcement. Children remain anonymous on the Internet while social networking, and the people your children talk with cannot learn who you are from Portcard.

A person's information is stored on our servers located in the United States. We treat data as an asset that must be protected and use industry recognized tools (encryption, passwords, physical security, etc.) to protect personal information against unauthorized access and disclosure.

Portcard is built on a Microsoft ASP.NET 2.0 platform. It takes advantage of the new Atlas module for AJAX (Asynchronous JavaScript and XML) compilation. AJAX is a key element of the new Web 2.0 infrastructure, which provides a user experience that is more interactive and richer than anything previously available.

Portcard's identity verification partner runs on the .NET platform as well. In particular, their system is written in VB.NET for business logic using SQL Server and direct socket connections to their databases for data storage and retrieval. Portcard communicates with their system through secure .NET Web Services.

Portcard is hosted on Windows Server 2003 running Microsoft Internet Information Services (IIS). Being integrated with this operating system allows for system-level security, authentication, and firewall protection.

As for security, Portcard's payment processing is done off-site both through direct credit card payments and PayPal. Our identity verification partner also processes the verification off-site.

Registration is safe, secure, and private through the use of cryptography. The .NET platform, in conjunction with Microsoft SQL Server, provides several top-of-the-line encryption schemes that are in use industry-wide.

Portcard's identity verification partner uses .NET Web Services over HTTPS for integration, so Portcard's connection with our partners is secure. The Portcard site is secured with SSL (Secure Sockets Layer) technology. Users are able to validate this security by clicking on the icon of a secure lock at the bottom of their browser. This gives users more assurance and peace of mind that their data is safe and not in the wrong hands. The certificate has been contracted for from VeriSign.

Tim Mather, Chief Security Analyst for RSA, validated the security and the technical parameters of the business as our

Chief Operating Officer. Mr. Mather remains an active advisor to the company.

Revenue Sharing.

Portcard complements the social networking sites by providing a voluntary increased level of protection while generating revenue for them based on Portcard's revenue sharing business model. By revenue sharing with the referring site, Portcard provides an economic incentive for them to recommend their users to Portcard for membership.

- **Technical attributes: features and functionality.**

As users participate on social networks, they converse with "friends" that they may have never met, or that they think they know through several degrees of separation. Portcard has developed a solution to this major security gap. Portcard members are able to "card" (referred to as Portcarding) their new found friends, thereby verifying their status as a fellow Portcard member. In doing so, a user may rest assured that Portcard has verified and stored their friend's true identity.

Portcard thus achieves two extremely useful ends: first, the total anonymity exploited by predators on social networks is removed; and second, the remedy does not take away the inherent desire of presenting a unique or confidential persona to other users. Our goal is to validate the identity of users while still allowing them to maintain whatever persona they please.

Children are in most need of protection, which is why Portcard is built to accommodate children of ALL ages. As part of the verification process, parents can choose to register their entire family (up to four children) all under the same account.

- **Use cases.**

Portcard is partnered with Officer Steve DeWams of Internet Child Safety, (www.internetchildsafety.net), and has contacted schools for permission to contact parents with a private company solution. St. Agnes School in Concord, CA was the first entirely "Portcarded" school with over three hundred students.

Recently, the Lindbergh Middle School in Peoria, IL has partnered with Portcard and registered 400 new users. We are currently pursuing additional school partners and hope to have entire school districts Portcarded by the years' end.

Portcard has had two private companies sign up as well. They are ELM Industries in Peoria, IL and Treadwell & Rollo in San Francisco, CA.

Portcard is a national partner of the Boys and Girls Clubs of America (BGCA). Currently, BGCA and Portcard are working on registering schools that are affiliated with the organization as well as partnering with individual agencies.

- **Portcard's effectiveness evaluation, measuring and testing.**

Portcard's technology took a year to develop to allow for seamless integration with the various social networks and instant messaging providers. The software was evaluated and tested by the schools and companies who are "Portcarded" and the users who confirm whether other users are Portcarded. The ability to check if a person has been validated, without leaving your Facebook page for example, is a very unique and proprietary technology.

- **Strengths-weaknesses analysis.**

The idea of registration, especially a paid registration, has traditionally had a chilling effect on social networks. Portcard is a cross platform solution that leaves the social networking sites on equal footing as a person registers all of their social networking usernames with a single service. By revenue sharing with the referring site, Portcard provides a strong economic incentive for them to forward their users to Portcard for registration. Portcard also enables these sites to act instead of react to the increasingly important issue of Internet safety.

- **Implementation requirements: hardware, software, and end user aptitudes.**

Portcard requires no software on an end-user's computer. They need only Internet access and the ability to go through a paid registration process that costs less than \$10 a year and takes less than 15 minutes to complete.

The registration process is a simple, three step process that minimizes sign up time while maximizing security. The first step of the registration process requires an email address (used as a screen name) and an eight or more digit alphanumeric password. After input of these categories, the user inputs a set of personal information which is necessary for two reasons: (1) this information acts as a first layer of defense against identity theft or fraud; and (2) "location" (the actual ability to verify an individual within our database) percentages are much higher.

The second layer of security comes with the third and final step of the registration process, adaptive authentication. After "locating" the customer, a series of questions appear in the browser. These questions range from "When is your (family member's name) birthday?" to "At which of these locations does (close acquaintance) live?" There are several security measures in place to ensure the integrity of this step. First, the questions are timed, preventing an imposter from researching certain questions. Second, there are velocity checks that prevent a user from accessing this step more than a set number of times per day, or set number of days per week.

- **Technical standards.**

Portcard has spent a year developing proprietary software that will interoperate with multiple social networks and instant messaging platforms. The supporting hardware, as explained herein, is based on applicable industry standards.

- **Portcard's reliance and use of law and policy for success.**

Portcard is compliant with relevant US laws aimed at protecting children and others on the Internet, and furthers this public policy by enabling Internet service providers themselves to become involved. Portcard requires the involvement of a parent when registering a minor.

- **Portcard's viability in both the US and international context.**

Portcard technology is proven in the United States. The viability of Portcard internationally will depend on the company's ability to verify identities outside the United States.

- **Portcard's effectiveness to date.**

The hope at Portcard is never to use the technology and to date, we have not had to provide the identity of a registered user to law enforcement. Portcard is designed to avoid the failures of not being able to catch predators who have not yet been convicted and registered in sex offender databases, by requiring registration of everyone who is a member of Portcard.

EXPERTISE

Portcard's technology was developed and is constantly reviewed by the following team of industry specialists:

Paul Eric Loeb, the company's co-founder, is a student in the Marshall School of Business at the University of Southern California. He is a Systems Analyst for USC's Trojan Transportation where he is responsible for developing and maintaining the computer applications used by students, faculty and staff.

Tim Mather as our Chief Operating Officer validated the security and technical parameters of the business and remains an active advisor to the company even though he has accepted a new position as Chief Security Strategist for RSA-The Security Division of EMC. He spent his prior 8 years with Symantec, Inc., where his titles included: Vice-President of Technology Strategy, (2006 – 2007); Vice-President & Chief Information Security Officer (2004 – 2006); Senior Director of Information Security (2002 – 2004); and, Director of Information Security (1999 – 2002). Prior to Symantec, he was with VeriSign, Inc. in similar capacities.

Bradford Taylor is currently Client Executive and IT Consultant for MSI Systems Integrators, one of the largest technology services and systems integration firms in North America. Mr. Taylor runs the Northern California territory for MSI, consulting for Fortune 500 companies and Internet startup ventures.

Kevin Ryan is San Francisco's Criminal Justice Director. Judge Ryan was the former United States Attorney for the Northern District of California. As US Attorney his office was committed to the Project Safe Child Initiative with great success towards protecting our children.

Professor David J. Franklyn is the Director of the Intellectual Property Department, University of San Francisco.

Arturo Perez-Reyes is a Lecturer at the Haas School of Business, University of California, Berkeley.

COMPANY OVERVIEW

Two University of Southern California students founded Portcard. The company has assembled a group of industry leaders experienced in Internet-based applications, identity verification, database management, and secure web hosting, to provide Portcard's identity verification solution. The founders, acting officers, and advisors currently run Portcard.

Lee C. Graves, CEO and President: Mr. Graves is the founder of the ELM Group of Companies, a privately held company headquartered in Peoria, Illinois, with revenues of over \$100M annually and over 1,500 employees.

Richard Proctor Doyle III, Founder: Mr. Doyle started Portcard as a marketing class project several years ago. Mr. Doyle is a senior in the Marshall School of Business at the University of Southern California.

Paul Eric Loeb, Co-Founder: Mr. Loeb is also a student in the Marshall School of Business at the University of Southern California.

Bradford Taylor, CTO: Currently Client Executive and IT Consultant for MSI Systems Integrators.

Rick Davenport, Vice President External Affairs: Mr. Davenport is working full time in sales for the company. He is the principal contact with schools and potential partners in California.

Sanford Farkash, Director of Midwest Marketing: Mr. Farkash is working with the Peoria school system, Illinois lawmakers, the Bradley University student promotion team, and various school officials.

Portcard is privately funded and is a Delaware Corporation.

Portcard's customer base includes the schools and businesses which are now "portcarded" and other persons who have learned of Portcard.

BUSINESS MODEL OVERVIEW

There is an annual membership fee, which is paid as part of the authentication process. The fee for this service is \$9.95 for an individual or \$14.95 for an entire family (up to four individuals). Thus, after having purchased a computer, software and an Internet provider at great cost, a parent can provide a safer experience on the Internet with Portcard for less than a dollar a month.

The business model of social networking sites is driven by user volume. A ten percent revenue share is available for all referring sites and organizations. With top sites having

over one hundred million users, the revenue potential is substantial. For smaller sites and organizations, we have developed a Portcard Partner service. Portcard Partner is a simple registration process that can be applied for online. After filling out a one page informational form, a Portcard Partner is given full access to Portcard materials.

For schools that cannot afford the service, we have begun to work out sponsorships, such as corporate sponsorships, to cover the cost of membership.

Portcard materials consist of digital presentations, sample emails, pamphlets, logos, link buttons, posters and an API for complete website integration. At the end of every month a tally of registered users is compiled and revenue share paid via check to the organization.

Portcard is also available as a completely integrated service for social networks.

MORE INFORMATION

www.portcard.net, which includes a video demonstrating the registration process on the website. This video is also available at:

<http://www.youtube.com/watch?v=KjNnylOpDIM>

Portcard has also set up "taskforce08" so that you can go through the Portcard registration and membership process using a promotional code.

CONTACT INFORMATION

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CERTIFICATION

"I certify that I have read and agree to the terms of the Internet Safety Technical Task Force Intellectual Property Policy."

REFERENCES

1. Press Release from Richard Blumenthal, Attorney General, State of Connecticut, *Attorney General Calls Latest MySpace Changes "Baby Steps"* (June 21, 2006).

<http://www.ct.gov/ag/cwp/view.asp?A=2341&Q=316948>

2. Press Release from Richard Blumenthal, Attorney General, State of Connecticut, *CT, NC Attorneys General Welcome Creation Of Task Force To Explore, Develop Social Networking Age Verification Tools* (Feb. 28 2008).

<http://www.ct.gov/ag/cwp/view.asp?A=2341&Q=410956>