Preface

The International Conference on Passwords (PASSWORDS 2014) was held December 8-10, 2014, at NTNU in Trondheim, Norway. This volume contains a collection of the 10 best papers presented at the conference.

The conference included four invited keynote talks:

- Alec Muffett. *Crack - A Sensible Password Checker for Unix*
- Marc Heuse. *Online Password Attacks*
- Benjamin Delpy. *mimikatz, or how to push Microsoft to change some little stuff*
- Sigbjørn Hervik. *The Big Perspective!*

The complete conference program can be found on the web at `http://passwords14.item.ntnu.no`.

Note that all presentations were video recorded by the NTNU Mediasenter and are available at `https://video.adm.ntnu.no/serier/5493ea75d5589`

The technical and practical problem addressed by this conference is illustrated by the fact that more than half a billion user passwords have been compromised over the last five years, including breaches at big internet companies such as Adobe, Twitter, Forbes, LinkedIn, and Yahoo. Yet passwords, PIN codes, and similar remain the most prevalent method of *personal authentication*. Clearly, we have a systemic problem.

The Passwords conference series started in 2010, where the initiator Per Thorsheim set out to rally the best practice driven password hackers and crackers from around the globe on the focussed topic of 'all password related'. This includes attacks, analyses, designs, applications, protocols, systems, practical experiences, and theory. The intention was to provide a friendly environment with plenty of opportunity to communicate directly with the speakers and participants before, during, and after their presentations, and at social evenings with pizza. We did all this at PASSWORDS 2014.

Five conference events have been organized in Norway since 2010 (Bergen, Oslo, Trondheim), mainly sponsored and supported by Norwegian universities and the FRISC research network. The attendance, significance and reputation of the conference have been growing steadily. Annual participation has doubled over the past three years. About 90 participants attended the PASSWORDS 2014, with people arriving from 11 European countries, and from India, China, Russia, and USA. The upcoming conference will be hosted by Cambridge University, UK in December 2015. (It should be mentioned here that two more Passwords 'presentations only' conferences have been organized in Las Vegas in 2013 and 2014, during the hot August 'hacker weeks' there.)

We set ourselves the challenge to attract more university people to this important practice problem area. Hence the PASSWORDS 2014 became the first in this conference series that issued a call for papers in the academic sense with regular peer review and publishing.

Hackers, in the wide positive sense, are often enthusiastic presenters of their practical experience and exploits, but quite indifferent to writing papers. By contrast, scientist are expedite at writing papers, but often oblivious to the actual details of practice. At times, this difference in approach incites antagonistic attitudes between these communities. We wanted to mingle the two, shall we say, the *explorers* and the *explanators*, for mutual inspiration and communications to the benefit of the conference topic. Certainly a risky ambition, but we wanted to give it a try. And judged by the response from the participants, we succeeded!

Here is how the academic activity turned out. The uncertainty of whether we would receive a sufficient number of submissions in response to the call-for-paper made the program committee opt for a post-event proceedings publication. Consequently, the papers appearing in this post-event proceedings were selected in a two round review and revise process. We received in total 30 submissions for the conference, including tutorials, short and long papers. The program committee accepted 21 of these submissions to be qualified for conference presentations. This was done through a double blind review process with an average of 2.7 reviews per submission. A pre-proceedings was uploaded to the conference web site. The second round happened in the months after the conference, where we received 13 papers for the submissions presented at the conference. These papers were now revised according to comments from the first round and questions/remarks made at the conference presentation, and showed the authors' name and affiliation. Therefore we performed this round as a single blind review process with 2 reviewers per paper. This second review process resulted in that 10 papers were finally accepted for publication. The Easychair web service was used throughout this work.

of 10 Norwegian universities and research organizations with research groups in information security. The purpose of the FRISC network is to bring together practitioners and academics, and the Passwords conference series have been an excellent arena for this. FRISCS is partly funded by the Norwegian Research Council.

July 7, 2015   Stig Frode Mjølsnes
TRONDHEIM   Editor

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