Analysis and Verification of Practical Password Strength Meters

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Introduction

Many sites introduce a password strength meter that measures the safety of a password when setting a password at the time of member registration by using a service on the Web. However, there was a lack of consistent calculation criteria for calculating the strength score by the meter, and it was pointed out that there may be a deviation from the entropy originally owned by the password. Meanwhile, we have not investigated the actual status of password strength meter in the site group which is widely used now. In this poster, we extract sites using password strength meter from Alexa Top 100 site, analyze their behavior, and clarify the actual situation. Furthermore, we analyze statistical information such as distribution of scores actually calculated by the meter using more than 30 million password data sets.

Survey

- Alexa Top 100 Sites
- Picking up sites using password strength meter
- Calculating password score using RockYou dataset

Results