Password Construction Guidelines

Free Use Disclaimer: This policy was created by or for the SANS Institute for the Internet community. All or parts of this policy can be freely used for your organization. There is no prior approval required. If you would like to contribute a new policy or updated version of this policy, please send email to policy-resources@sans.org.

Things to Consider: Please consult the Things to Consider FAQ for additional guidelines and suggestions for personalizing the policy for your organization.

Last Update Status: Updated October, 2017

1. Overview
Passwords are a critical component of information security. Passwords serve to protect user accounts; however, a poorly constructed password may result in the compromise of individual systems, data, or network. This guideline provides best practices for creating secure passwords.

2. Purpose
The purpose of this guidelines is to provide best practices for the created of strong passwords.

3. Scope
This guideline applies to employees, contractors, consultants, temporary and other workers, including all personnel affiliated with third parties. This guideline applies to all passwords including but not limited to user-level accounts, system-level accounts, web accounts, e-mail accounts, screen saver protection, voicemail, and local router logins.

4. Statement of Guidelines
Strong passwords are long, the more characters you have the stronger the password. We recommend a minimum of 14 characters in your password. In addition, we highly encourage the use of passphrases, passwords made up of multiple words. Examples include “It’s time for vacation” or “block-curious-sunny-leaves”. Passphrases are both easy to remember and type, yet meet the strength requirements. Poor, or weak, passwords have the following characteristics:

- Contain eight characters or less.
- Contain personal information such as birthdates, addresses, phone numbers, or names of family members, pets, friends, and fantasy characters.
- Contain number patterns such as aaabbb, qwerty, zyxwvuts, or 123321.
- Are some version of “Welcome123” “Password123” “Changeme123”
In addition, every work account should have a different, unique password. To enable users to maintain multiple passwords, we highly encourage the use of ‘password manager’ software that is authorized and provided by the organization. Whenever possible, also enable the use of multi-factor authentication.

5. **Policy Compliance**

5.1 Compliance Measurement
The Infosec team will verify compliance to this policy through various methods, including but not limited to, periodic walk-thrus, video monitoring, business tool reports, internal and external audits, and feedback to the policy owner.

5.2 Exceptions
Any exception to the policy must be approved by the Infosec team in advance.

5.3 Non-Compliance
An employee found to have violated this policy may be subject to disciplinary action, up to and including termination of employment.

6. **Related Standards, Policies and Processes**
None.

7. **Definitions and Terms**
None.

8. **Revision History**

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<thead>
<tr>
<th>Date of Change</th>
<th>Responsible</th>
<th>Summary of Change</th>
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<tbody>
<tr>
<td>June 2014</td>
<td>SANS Policy Team</td>
<td>Separated out from the Password Policy and converted to new format.</td>
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<tr>
<td>October, 2017</td>
<td>SANS Policy Team</td>
<td>Updated to reflect changes in NIST SP800-63-3</td>
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