



## **University Password/Authentication Policy**

### **1.0 Overview**

Passwords are an important aspect of computer security. They are the front line of protection for user accounts. A poorly chosen password may result in the compromise of Cleveland State University's entire corporate network. As such, all Cleveland State University employees (including contractors and vendors with access to CSU systems) are responsible for taking the appropriate steps, as outlined below, to select and secure their passwords.

### **2.0 Purpose**

The purpose of this policy is to establish a standard for creation of strong passwords, the protection of those passwords, and the frequency of change.

### **3.0 Scope**

The scope of this policy includes all personnel who have or are responsible for an account (or any form of access that supports or requires a password) on any system that resides at any Cleveland State University facility, has access to the Cleveland State University network, or stores any non-public Cleveland State University information.

### **4.0 Policy**

#### **4.1 General**

- All system-level passwords (e.g., root, enable, admin, application administration accounts, etc.) must be changed at least every 180 days.
- All user-level passwords (e.g., email, web, desktop computer, etc.) must be changed at least every year. The recommended change interval is every 180 days.
- User accounts that have system-level privileges granted through group memberships or programs such as "sudo" must have a unique password from all other accounts held by that user.
- Passwords must not be inserted into email messages or other forms of unencrypted electronic communication.
- Default system credentials must always be changed prior to deployment
- All user-level and system-level passwords must conform to the guidelines described below.
- Multi-Factor authentication must be used in all supported systems.

#### **4.2 Guidelines**

##### **A. General Password Construction Guidelines**

Passwords are used for various purposes at Cleveland State University. Some of the more common uses include: user level accounts, web accounts, email accounts, screen

saver protection, voicemail password, and local router logins. Since very few systems have support for one-time tokens (i.e., dynamic passwords which are only used once), everyone should be aware of how to select strong passwords.

Poor, weak passwords have the following characteristics:

- The password contains less than fifteen characters
- The password is a word found in a dictionary (English or foreign)
- The password is a common usage word such as:
  - Names of family, pets, friends, co-workers, fantasy characters, etc.
  - Computer terms and names, commands, sites, companies, hardware, software.
  - The words "Cleveland State University", "sanjose", "sananton" or any derivation.
  - Birthdays and other personal information such as addresses and phone numbers.
  - Word or number patterns like aaabbb, qwerty, zyxwvuts, 123321, etc.
  - Any of the above spelled backwards.
  - Any of the above preceded or followed by a digit (e.g., secret1, 1secret)

Strong passwords have the following characteristics:

- Contain both upper and lower case characters (e.g., a-z, A-Z)
- Have digits and punctuation characters as well as letters e.g., 0-9, !@#%&^&\*( )\_+|~-=\`{}[]:~<>?,./)
- Are at least fifteen alphanumeric characters long and is a passphrase (Ohmy1stubbedmyt0e).
- Are not a word in any language, slang, dialect, jargon, etc.
- Are not based on personal information, names of family, etc.
- Passwords should never be written down or stored on-line. Try to create passwords that can be easily remembered. One way to do this is create a password based on a song title, affirmation, or other phrase. For example, the phrase might be: "This May Be One Way To Remember" and the password could be: "TmB1w2R!" or "Tmb1W>r~" or some other variation.

NOTE: Do not use either of these examples as passwords!

## **B. Password Protection Standards**

Do not use the same password for Cleveland State University accounts as for other non-Cleveland State University access (e.g., personal ISP account, social media, benefits, etc.). Where possible, don't use the same password for various Cleveland State University access needs. For example, select one password for the Engineering systems and a separate password for IT systems.

Do not share Cleveland State University passwords with anyone, including administrative assistants or secretaries. All passwords are to be treated as sensitive confidential Cleveland State University information.

Here is a list of "don'ts":

- Don't reveal a password over the phone to ANYONE
- Don't reveal a password in an email message
- Don't reveal a password to the boss
- Don't talk about a password in front of others
- Don't hint at the format of a password (e.g., "my family name")
- Don't reveal a password on questionnaires or security forms
- Don't share a password with family members
- Don't reveal a password to co-workers while on vacation

If someone demands a password, refer them to this document or have them call someone in the IS&T Security Department.

Do not use the "Remember Password" feature of applications outside of approved password vault solutions.

Again, do not write passwords down and store them anywhere in your office. Do not store passwords in a file on ANY computer system without encryption.

Change passwords at least once every six months.

If an account or password is suspected to have been compromised, report the incident to IS&T Security Department and change all passwords.

Password cracking or guessing may be performed on a periodic or random basis by IS&T Security or its delegates. If a password is guessed or cracked during one of these scans, the user may be required to change it.

### **C. Application Development Standards**

Application developers must ensure their programs contain the following security precautions. Applications:

- should support authentication of individual users, not groups.
- should not store passwords in clear text or in any easily reversible form.
- should provide for some sort of role management, such that one user can take over the functions of another without having to know the other's password.
- should support modern SSO solution provided by IS&T wherever possible. If SSO is not supported, IS&T must be consulted to provide alternate solutions.

### **CI. Passphrases**

Passphrases are generally used for public/private key authentication. A public/private key system defines a mathematical relationship between the public key that is known by all, and the private key, that is known only to the user. Without the passphrase to "unlock" the private key, the user cannot gain access.

Passphrases are not the same as passwords. A passphrase is a longer version of a password and is, therefore, more secure. A passphrase is typically composed of multiple words. Because of this, a passphrase is more secure against "dictionary attacks."

A good passphrase is relatively long and contains a combination of upper and lowercase letters and numeric and punctuation characters. An example of a good passphrase:

"The\*?#>\*@TrafficOn90Was\*&!#ThisMorning"

All of the rules above that apply to passwords apply to passphrases.

### **5.0 Enforcement**

Any employee found to have violated this policy may be subject to disciplinary action, up to and including termination of employment.

### **6.0 Definitions**

#### **Terms**

#### **Definitions**

Application Administration Account Any account that is for the administration of an application (e.g., Oracle database administrator, PeopleSoft administrator).

### **7.0 Revision History**

- 04/07/2022