



DRAKE STATE

COMMUNITY & TECHNICAL COLLEGE

Password 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 Drake State Community and Technical College's entire corporate network. As such, all Drake State employees (including contractors and vendors with access to Drake State 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 Drake State facility, has access to the Drake State network, or stores any non-public Drake State information.

4.0 Policy

4.1 General

- All system-level passwords (e.g., root, enable, application administration accounts, etc.) must be changed on at least a quarterly basis.
- All user-level passwords (e.g., email, web, desktop computer, etc.) are recommended to be changed at least every six months. Some systems (e.g., INB) must be changed every three months.
- 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 electronic communication.
- Passwords must not be written or displayed on or near desk or computer.
- Where SNMP is used, the community strings must be defined as something other than the standard defaults of "public," "private" and "system" and must be different from the passwords used to log in interactively. A keyed hash must be used where available (e.g., SNMPv2).
- All user-level and system-level passwords must conform to the guidelines described below.

4.2 Guidelines

A. General Password Construction Guidelines

Passwords are used for various purposes at Drake State Community and Technical College. 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.
- 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 Drake State accounts as for other non-Drake State access (e.g., personal ISP account, social media, personal email, etc.). Where possible, do not use the same password for various Drake State access needs. For example, select one password for email and a separate password for IT systems. Also, select a separate password to be used for a Windows account and a UNIX account.

Do not share Drake State passwords with anyone, including administrative assistants or secretaries. All passwords are to be treated as sensitive, confidential Drake State Community and Technical College 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 store your password anywhere on your desk
- 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 contact the Drake IT Helpdesk.

Do not use the "Remember Password" feature of browsers or applications (e.g., Internet Browser, Outlook, Gmail, iCloud).

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

Change passwords at least once every six months (except system-level passwords which must be changed quarterly). The recommended change interval is every four months.

If an account or password is suspected to have been compromised, report the incident to the IT Helpdesk and change all passwords.

Password cracking or guessing may be performed on a periodic or random basis by Drake State IT. If a password is guessed or cracked during one of these scans, the user will 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 TACACS+ , RADIUS and/or X.509 with LDAP security retrieval, wherever possible.

D. Use of Passwords and Passphrases for Remote Access Users

Access to the Drake State Network via remote access is to be controlled using either a one-time password authentication or a public/private key system with a strong passphrase in addition to multifactor authentication.

E. 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*?#>*@TrafficOnThe101Was*&#!#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.