IT07	Information and Communication Technology Systems Maintenance

Classification: Information Technology

Responsible Authority: Chief Digital Officer (CDO), Information Technology Services (ITS)

Executive Sponsor: Vice President, Finance and Administration

Approval Authority: Algonquin College Executive Team

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PURPOSE

To establish a schedule for systems remediation, updates, upgrades and changes to the College technology infrastructure to minimize disruption to students and employees while reducing the risk of system failure or disruption.

SCOPE

All information technology, communication technology under the part or full responsibility of the Information Technology Services (ITS).

DEFINITIONS

Word/Term	Definition
Maintenance	Maintenance includes, but is not limited to, software changes, hardware changes, network changes, patches, fixes or cabling work.
Maintenance Window	A maintenance window is a period of time pre-scheduled for maintenance. Sometimes this activity may render a particular system unavailable during the maintenance window.

POLICY

1. Regular scheduled IT Maintenance lowers the risk of failure and disruption to systems that facilitate critical business processes.

2. It is important to adhere to scheduled Maintenance activity to minimize the risk of system failure and preserve vendor warranties.

3. Scheduled Maintenance is far less disruptive to business processes than unscheduled system outages resulting from a lack of Maintenance.

4. The College will commit to regularly scheduled Maintenance windows to mitigate the risk of systems failure, disruption, and cyber security incidents.

5. Dates and times for Maintenance will take into account the following:
    a. Selecting a Maintenance Window that minimizes impact to business operation. This may include overall College peak times as well as department-specific peak times (e.g. finance year-end).
    b. Vendor controlled schedules:
    Many vendors (mostly cloud-based services such as Workday) have standard Maintenance windows.
    c. The urgency of the Maintenance work:
    In cases where this is an immediate risk or a significant impact on the College, Maintenance may need to be scheduled as soon as possible.
    d. Cost and Resources:
    If possible, scheduled times will attempt to reduce costs associated with call-back and overtime. Some Maintenance requires 3rd party resources to be available.

6. General Standard Maintenance Windows:
    a. Every Sunday 6:00 a.m. - 12:00 p.m. is a reserved period for IT Maintenance. Systems being maintained will vary depending on circumstances.

7. System Specific Standard Maintenance Windows:
    a. Student Information System: Daily @11:00 PM – 3:00 a.m.
    b. The College is using various SaaS (Software as a Service) solutions such as Workday, Salesforce and Adaptive Planning. SaaS vendors typically dictate the maintenance windows for their solutions. The vendors communicate their maintenance windows to customers approximately once a year. These maintenance windows can be found on the ITS website.

8. Negotiated Maintenance Windows:
    a. On occasion, ITS may need to schedule Maintenance to occur outside of General Standard and System Specific Standard Maintenance Windows. The Maintenance Windows will vary in length, and the downtimes incurred may also vary.

9. Emergency Maintenance Windows:
    a. On rare occasions, ITS may need to conduct emergency Maintenance. Such activities are often required to address an urgent problem or risk. Communication to the College announcing the Maintenance activity may be issued with very little (if any) notice. Criteria for emergency Maintenance includes (but is not limited to) the following:
        - The College is currently experiencing a problem with system performance. It is determined that the benefit of emergency Maintenance outweighs the alternative of waiting for a non-peak period to conduct Maintenance.
        - ITS has been notified of potential cybersecurity risk, and emergency Maintenance will mitigate a high risk to the College.

10. No Maintenance Window Required:
    a. Some Maintenance activities are deemed low risk and are a part of normal daily operations. The work being performed has been conducted several times with no impact on end-users. Communications to the College community is not required.

PROCEDURES

Action	Responsibility

1.   General Standard Maintenance Windows

1.1 For Maintenance that require downtime, departments that traditionally operate during the Maintenance Window are contacted to confirm impact before scheduling (e.g. Campus Services, Students' Association).   ITS

Additional communications will be provided to impacted users and stakeholders in advance of the Maintenance window. The amount of the notice supplied will be dependent on the impact to users and/or the requirement for users to perform any specific actions while balancing any urgency for completing the work. In most cases, ITS will aspire to provide five business days notice before performing Maintenance that will result in a system or service is unavailable. The communication will include the nature of the change, user impact, and the starting time and duration of the Maintenance window.

2.   System Specific Standard Maintenance Windows

2.1 As required, communications will be provided to impacted users and stakeholders in advance of the Maintenance window. The amount of the notice supplied will be dependent on the impact to users and/or the requirement for users to perform any specific actions while balancing any urgency for completing the work. In most cases, ITS will aspire to provide five business days notice before performing Maintenance that will result in a system or service is unavailable. The communication will include the nature of the change, user impact, and the starting time and duration of the Maintenance window.   ITS

Exception: The Student Information System Maintenance window is a daily window and is required to process backups and share data with other systems. In most cases, additional communications are not necessary.

3.   Negotiated Maintenance Windows

3.1 A communications plan will be developed. Input from stakeholders will be obtained as required. Considerations for the communication plan will include (but is not limited to) the length of downtime, the number of users impacted and overall risk.   ITS

4.   Emergency Maintenance Windows

4.1 If required, communication of the Maintenance activity will be issued to impacted users. Depending on the College's risk, the work may proceed before the communication has been delivered.   ITS

SUPPORTING DOCUMENTATION
None

RELATED POLICIES
None

RELATED MATERIALS
None