AR 3730.1 Information Security – Logging and Monitoring

Reference(s):
California Community College Information Security Standard

1.0 Purpose and Scope
The objective of this Administrative Regulation is to document the requirements for logging and monitoring at Rancho Santiago Community College District. Rancho Santiago Community College District monitors its IT infrastructure so that potential security incidents can be detected early and dealt with effectively.

This is one of a series of information security Administrative Regulations maintained by the District Information Technology Services (ITS) department designed to protect Rancho Santiago Community College District information systems.

2.0 Logging and Monitoring
Monitoring helps speed resolution of system problems and aids in the identification of access control policy violations. The monitoring program also verifies correct operation and the overall success or failure of network, server, and application security controls.

2.1 Logging Responsibilities and Tools
The District ITS Network and Communications team serves as the primary focal point for network logging and monitoring. The College ITS teams have tools and systems for monitoring network and desktop systems which can also be used by District ITS as requested.

Centralized log analysis and event correlation of operating system event logs is performed continuously.

2.2 Basic Logging Requirements
Automated audit trails should reconstruct the following events for all firewalls, routers, database servers, and critical servers, including:

- Alarms generated by network management devices or access control systems
- All actions taken by any individual with administrative privileges
- Changes to the configuration of major operating system network services / utilities security software
- Anti-virus software alerts
- Access to all audit trails or log records
• Failed or rejected attempts to access Restricted data or resources

These events should be tracked by:

• User identification (UserID / account name)
• Type of event
• Date and time stamp
• Success or failure indication
• Name of affected data, system component, or resource

2.3 Log Access and Retention

Access to audit files must be limited to authorized administrators and ITS management. Only individuals with a job-related need should be able to view, initialize or create audit files.

Audit files must be kept secure so that they cannot be altered in any way, through file permissions or other means. Precautions must also be taken to prevent files or media containing logs from being overwritten and that sufficient storage capacity is present for logs.

Logs must be kept for the minimum period specified by any business or legal requirements. If no specific requirements exist, logs should be retained for at least one year.

2.4 Log Review Schedule

The following table lists logging checks to be performed on a daily, weekly basis or ongoing/as needed basis.

<table>
<thead>
<tr>
<th>IT Security Event</th>
<th>Frequency</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarms generated by network management devices or access control systems</td>
<td>Daily</td>
<td>District ITS</td>
</tr>
<tr>
<td>All actions taken by any individual with administrative privileges</td>
<td>Daily</td>
<td>District ITS</td>
</tr>
<tr>
<td>Anti-virus software alerts</td>
<td>Daily</td>
<td>District ITS</td>
</tr>
<tr>
<td>Access to all audit trails</td>
<td>Daily</td>
<td>District ITS</td>
</tr>
</tbody>
</table>
Failed or rejected attempts to access *Restricted* data or resources | Daily | District ITS
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Changes to the configuration of major operating system network services / utilities / security software | Weekly or as required | District ITS
Application logs (e.g., SIS) | As required | District ITS

2.5 Payment Card Industry (PCI) Requirements
The following additional network controls are specific to network locations in-scope for PCI:

- Review logs for all system components at least daily. Log reviews must include those servers that perform security functions like intrusion-detection system (IDS) and authentication, authorization, and accounting servers.
- Retain audit trail history for at least one year, with a minimum of three months immediately available for analysis (for example, online, archived, or restorable from back-up).

*Adopted: March 4, 2019*