Information Systems Audit Report

This report contains two items, which are the results from audits of:

1. Database security
2. Application reviews.

Database Security

Databases used by Western Australian Government agencies collect and store a significant amount of sensitive and confidential information. Agencies rely on this data to deliver services to the public and are obliged to secure these systems from unauthorised access.

Databases used by agencies to store information are highly desirable targets for cyber-attacks as they may offer hackers immediate and significant benefits, such as financial details of organisations and individuals.

This year as part of our annual general computer control audits and application reviews, we undertook health checks on 13 databases that store critical information at a sample of seven agencies.

We examined seven key areas of database security being, attack surface, account security, system hardening, version/patching, data protection auditing/monitoring and backdoors/misconfiguration.

We found that the sampled agencies have not adequately protected information from attackers to prevent unauthorised access and data loss. Sensitive and confidential information is at risk and agencies may not know if or the extent to which data is compromised.

We identified 115 weaknesses with failures in all seven key areas. Most concerning was a lack of some basic controls over passwords, patching and setting of user privileges. Our findings also revealed copies of sensitive information across systems and poorly configured databases.

To aid all agencies in addressing the security of their databases we have provided guidance material as an

Appendix to the report. This guidance explains some suggested security controls and practices focused on the seven areas of this audit.

Application Reviews

We reviewed key business applications at four agencies. This year we selected the following applications and agencies:

- **Integrated Court Management System** – Department of the Attorney General

- **LAW Office** – Legal Aid Commission Western Australia

- **WA Seniors Card Management System** – Department of Local Government and Communities

- **Services Information Management System 2** – Drug and Alcohol Office of WA

Each application was selected on the basis of the sensitive information that it contains and the potential impact on the agency or the public if the application was not managed well.

We found that all four applications were performing well and addressing business needs, but all four had some control weaknesses. The most common weaknesses were poor access controls and a lack of monitoring of activity. These weaknesses compromised the security of sensitive information.

We also found issues with operational, procedural and process controls that aim to ensure the applications function effectively. Correcting most of the issues we raised is relatively simple and inexpensive.