ICTICT522 - Task1 & Task 2

Evaluate vendor products and equipment

October 10th, 2025

TASK 1

**Professional Ethics, Conduct and Complaints**

<https://www.acs.org.au/memberships/professional-ethics-conduct-and-complaints.html>

I think that, although ethics is an inherent quality of every person, there is a "manual" of standards of conduct that should be followed. The ACS (Australian Computer Society) compiles ethical standards for professional conduct, primarily related to honesty, trustworthiness, and respect.

For example, in the process of evaluating and selecting products, objectivity and independence are extremely important. By acting within ethical and professional standards, the employee will objectively choose the product that best suits the client. This way, the client will be confident that the employee's actions are not biased due to conflicts of interest or other reasons.

I believe that compliance with international standards in the process of evaluating and selecting ICT products is a critical task in a project. Since it guarantees interoperability and compatibility with existing infrastructure and future hardware/software updates, it can even guarantee interoperability with another company. By following the same standards, integration between systems is faster to implement. For example, the TPM (Trusted Platform Module) chip, developed by TCG (Trusted Computing Group, TCG), is a hardware feature that greatly increases the level of security of computer equipment, both at the hardware and software levels, as it implements password protection levels and encryption systems that are more robust than traditional ones. TPM complies with international ISP and IEC standards, so it is likely to be well-compatible with hardware that meets these regulations.

In this example, TPM is a technology that has been around since the 2000s and is rapidly being adopted. Initially, it was an additional security option; in 2016, it became a mandatory feature in government companies. Therefore, if we have the hardware that meets these international standards, TPM implementation will likely be rapid.

In addition, by complying with international standards, we can avoid fines, problems with the law and boycotts.

In the product evaluation and selection process, it is extremely important to review a wide range of suppliers, primarily to compare prices. However, in the product research process, we can discover things like:

- market trends

- new technologies

- new suppliers

- quality vs. performance

Therefore, during the selection process, we have more information to choose the most suitable hardware components for the client, in addition to negotiating with all suppliers and reaching the best terms for the client.

It is important to consider the client's business domain during the supplier product evaluation and selection process to choose suppliers and products that comply with the norms, standards, laws, and requirements the client must meet.

Before starting the process, you should research government regulations in the client's business domain, as well as local and international standards and regulations relevant to the client.

It is also important to understand the functional requirements of the products you wish to acquire. For example, depending on the industry, a business laptop might have more security features at the hardware and software level, depending on the level of security for a particular market domain.

Additionally, it will also help us understand the client and we may learn something in the process. As a result, this research will help us select suppliers involved in that industry.

In conclusion, it is important to consider the client's business domain to offer alternatives that comply with all regulations and thus avoid risks for our client.

Copyright legislation - Copyright Act 1968

<https://www.copyright.org.au/resources>

[https://www.ipaustralia.gov.au](https://www.ipaustralia.gov.au/)

**Copyright Regulations 2017**

details the procedure for implementing the rights and also details the effects on the protected works.

**Copyright Act 1968**

- Defines what types of works are protected by copyright.

- Defines the exclusive rights of works.

- Defines the duration of rights.

- Includes exceptions to rights.

- Includes other types of copyright.

**Patents Act 1990**

It grants the author a temporary exclusive right over a registered work.

**Trade Marks Act 1995, Designs Act 2003, Plant Breeder's Rights Act 1994, Circuit Layouts Act 1989**

It protects a company's trademark (logo, names, etc.) that makes the trademark unique.

It protects the visual appearance of a product (shape, design, etc.) that makes the product unique.

It protects a variety of different developed bananas.

It protects the arrangement of integrated circuits in an electronic circuit and its design. It grants the author a temporary exclusive right over a registered work.

It protects a company's trademark (logo, names, etc.) that makes the trademark unique.

It protects the visual appearance of a product (shape, design, etc.) that makes the product unique.

It protects a variety of different developed bananas.

It protects the arrangement of integrated circuits in an electronic circuit and its design.

**PLC Programmable Logic Controller**

**Features and Capabilities:**

- Industrial Rugged: Designed to operate under industrial conditions (maintenance, harsh environmental conditions, etc.)

- Remote Control: Complete remote control and management

- Modularity and Scalability: Designed to be modular and easily scalable, allowing for hot-pluggable addition or removal of hardware such as CPUs, I/O cards, communication cards, RAM, hard drives, or other storage types

**Blade Data Center**

**Features and Capabilities:**

- Density: Designed to contain a high density of components to reduce volume so multiple servers can be housed in the same rack

- Shared Infrastructure: Servers share power, communications, cooling, and storage resources

- Efficiency: Drastically reduces the overall infrastructure requirements, such as cabling, power management, storage, and cooling

- Centralized Management: Allows all servers to be managed, monitored, configured, and deployed from a single interface

- Easy Scalability: Scales quickly hot-add or remove hardware components

**Firmware**

**Features and Capabilities:**

- Low-Level Software: Software embedded in non-volatile memory that provides hardware control.

- Power on Self Test: Powers up the device and prepares it for the operating system to load, run, and manage it.

- Intermediation: Acts as an intermediary between the hardware and the OS.

**Bare Metal Hypervisor**

**Features and Capabilities:**

- Direct Execution on Hardware: This is the thin software layer on top of the device firmware, so it does not require an OS.

- High Performance: Provides near-full access to the hardware without overloading it, delivering the highest possible performance to virtual machines. It also provides an isolated environment, allowing each virtual machine to have its own resources such as CPU, storage, network, etc.

- Security: A bare metal hypervisor provides an isolated environment between each virtual machine.

- Dynamic Resources: Allows dynamic management of host physical resources between virtual machines.

TASK 2