

ICTSAS530

# Use network tools

Assessment 3 of 6

Case Study

**Assessor Guide** 



#### **Assessment Instructions**

#### Task Overview

This Case Study assessment is divided into four [4] parts. Read the scenario in Part A and complete the associated tasks in Parts B, C and D. Case study tasks include completing simulated workplace documentation and/or templated written communication, such as emails.

Please type all responses into the spaces provided.

**Important:** Before commencing your work, you must update your *Student name* and *Student number* in the footer from page 2 onwards.

#### Additional Resources and Supporting Documents

*ICTSAS530\_03\_Case Study\_Scenario documents* (compressed/zipped folder) - This folder contains the following scenario documents and templates required for completing the tasks in this assessment.

- AUS Retail\_Email\_template.docx
- AUS Retail\_Stakeholder communication policy.pdf
- AUS Retail\_Project requirements\_template.docx
- AUS Retail\_Server room access and safety policy.pdf
- NIST-Cybersecurity-Framework-Policy-Template-Guide\_v1
- Essential Eight Maturity Model (November 2022)

#### **Assessment Information**



Submission

You are entitled to three (3) attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the Learning Platform. Hand-written assessments will not be accepted unless previously arranged with your assessor.



#### Reasonable adjustment

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

- the processes for conducting the assessment (e.g. allowing additional time)
- the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit. Refer to the Student Handbook or contact your Trainer for further information.





Please consider the environment before printing this assessment.



### Part A: Case study scenario

All tasks in this assessment refer to a simulated environment where conditions are typical of a work environment that is experienced in the information and communications technology (ICT) field of work. The scenario relates to a fictitious retail business organisation called 'AUS Retail'.

Read the case study scenario carefully before completing the tasks in Part B.

#### A1. Company background and project requirements

#### Company background

**AUS Retail** started as a single retail store based in Sydney, NSW. They now have retail store locations across several other states and territories in Australia, and the business continues to grow.

The company manages a large volume of sensitive data, including customer information, financial transactions, inventory details, and employee records. The organisation deals with sensitive financial and customer data and wants to ensure the confidentiality, integrity, and availability of its information. To ensure the security of this data and maintain the trust of its customers, AUS Retail needs to implement robust network security measures.

#### Your role

You work at AUS Retail as a **Network Administrator**. You are responsible for selecting, operating and testing an array of networking tools to maintain the network security of the existing network.

#### Project sponsors and key stakeholder contacts

The key project sponsors are the following AUS Retail stakeholders to whom you must directly report regarding the project's progress.

- o Chief Information Security Officer (CISO): (David.Smith@ausretail.com.au)
- o IT Systems and Security Manager: Alex Dawson (Alex.Dawson@ausretail.com.au)

#### A2. Equipment and resources

To carry out the assigned job tasks, you must have access to:

- a computer installed with an operating system
- a reliable internet connection
- industry software packages such as:
  - Web browsing software (e.g. Microsoft Edge, Firefox, Chrome, Safari)
  - Microsoft Office software (e.g. WORD, Excel)
  - o A PDF reader

#### A3. Industry standards and guidelines

#### WHS standards

Information media and telecommunications | SafeWork NSW

#### Industry standards and guidelines

- Australian cabling standards | ACMA
- Ethernet Compliance Testing | Granite River Labs



Refer to the Australian Signals Directorate by accessing:

- the cyber.gov.au official website at <a href="https://www.cyber.gov.au/resources-business-and-government/essential-cyber-security/essential-eight/essential-eight-maturity-model">https://www.cyber.gov.au/resources-business-and-government/essential-cyber-security/essential-eight/essential-eight-maturity-model</a>
- the 'Essential Eight Maturity Model' PDF document (Long URL: <a href="https://www.cyber.gov.au/sites/default/files/2023-03/PROTECT%20-%20Essential%20Eight%20Maturity%20Model%20%28November%202022%29.pdf">https://www.cyber.gov.au/sites/default/files/2023-03/PROTECT%20-%20Essential%20Eight%20Maturity%20Model%20%28November%202022%29.pdf</a>)

Note: A copy of this PDF version is provided to you as an additional resource.

Refer to the industry-standard security policy templates and guide by accessing:

- the SANS Institute official website at <a href="https://www.sans.org/information-security-policy/">https://www.sans.org/information-security-policy/</a>
- the 'NIST Cybersecurity Framework', 'Policy Template Guide' at <a href="https://www.cisecurity.org/-/jssmedia/Project/cisecurity/cisecurity/data/media/files/uploads/2021/11/NIST-Cybersecurity-Framework-Policy-Template-Guide-v21110nline.pdf">https://www.cisecurity.org/-/jssmedia/Project/cisecurity/cisecurity/data/media/files/uploads/2021/11/NIST-Cybersecurity-Framework-Policy-Template-Guide-v21110nline.pdf</a>

**Note:** A copy of this PDF document is provided as an additional resource.

#### A4. Organisational policies and procedures

You are provided with the following organisational resource documents and templates.

- AUS Retail\_Stakeholder communication policy.pdf includes organisational procedures, communication protocols and standards used when engaging with key stakeholders in the organisation for seeking input and feedback on the data process modelling project.
- AUS Retail\_Email\_template.docx This template is referred to in the 'AUS Retail\_Stakeholder communications policy.pdf' and must be used when drafting emails to AUS Retail's stakeholders.
- AUS Retail\_Project requirements\_template.docx This template must be used to capture and document technical details of network security and deployment projects.
- AUS Retail\_Server room access and safety policy.pdf includes standards for ensuring authorised access and procedures for safe handling of network hardware equipment in a server room environment.

## Part B: Identify hardware quality requirements

To complete this part of the assessment, you are required to:

- read the given scenario in Part A and within this section carefully to determine the necessary action
- use the organisational template provided to document the requirements of the project
- accept responsibility for planning, prioritising and sequencing complex tasks and workload.

#### Scenario:

As the Network Administrator at AUS Retail, you participated in a project meeting with two other AUS Retail stakeholders this morning to discuss the work brief for an upcoming project.

The meeting transcript records the details of the discussion as follows.

#### Project meeting - transcript

#### Participants:

- Network Administrator (You)
- Chief Information Security Officer (CSO) David Smith



IT Systems and Security Manager - Alex Dawson

Date and Time: (Today), 9AM - 10AM

**You:** Good morning, David, Alex. Thank you for joining this briefing. Today, we'll discuss the work brief for assessing our server room hardware and peripheral quality standards.

David: Morning, everyone. Let's dive in. Alex, could you give us an overview of the tasks?

**Alex:** Of course, David. Assessing the quality standards of our hardware and peripherals in the server room involves evaluating the condition, performance, and compliance with industry standards.

David: That sounds crucial. How will you approach this assessment?

You: We'll conduct thorough inspections of all hardware components, checking for any signs of wear, damage, or performance issues. Additionally, we'll review documentation and compare our hardware against industry benchmarks to ensure compliance with quality standards.

**Alex:** Sounds like a comprehensive approach. Additionally, we'll need to ensure compliance with organisational policies and procedures throughout these tasks.

**David:** Absolutely. It's essential to adhere to WHS standards, hardware quality standards, and organisational policies to maintain a secure and safe working environment. You will need to ensure that your team is briefed on these requirements and follows them diligently.

You: Understood, David. We'll prioritise safety, quality, and compliance throughout the assessment process.

David: Before we conclude, Alex, do you foresee any challenges or resource requirements for these tasks?

Alex: We may encounter challenges related to the complexity of our network infrastructure and the volume of hardware components. However, with proper planning and coordination, we should be able to overcome these challenges. Regarding resources, we may need to allocate additional time for thorough assessments and potentially invest in upgraded hardware tools to enhance our capabilities.

**David:** Thank you for highlighting those points, Alex. Let's ensure we have the necessary resources and support to successfully complete these tasks. Any final thoughts before we wrap up?

You: I will also need to allocate several support personnel to the project team to handle the volume of work.

**Alex:** I agree. Let's prioritise these tasks and collaborate closely to address any challenges that may arise. We will need to document all project requirements including all the details we discussed.

**You:** Yes. I will work on documenting the project requirements in detail and send it to both of you for confirmation.

**Alex:** That will be great. Thank you. You should lead this project and allocate suitable support personnel to the project team as necessary. Communication and coordination will be key to our success.

**David:** Agreed. Thank you both for your insights and commitment to this project. Let's move forward with confidence, knowing that we're taking proactive steps to strengthen our network security and infrastructure.

**You:** Thank you, David and Alex. Let's keep in touch as we progress with the assessments. If there are any updates or issues, please don't hesitate to reach out. Also, David we will need your approval on this documentation before we proceed with the hardware assessment tasks.

David: Absolutely. Thank you, everyone. Let's get to work.



As a result of the meeting discussion, you are tasked with planning and documenting the project requirements with detailed information on the work brief discussed at the meeting. To document the project brief you will be using AUS Retail's recommended project requirements template.

#### Tasks:

Plan and document the project's work brief using AUS Retail's project requirements template according to the following guidelines:

- B1. Document the project details using 'Section A'.
- B2. Identify and outline the work task details using 'Section B' as follows.
  - a. task name and objective(s): a clear task name and a brief outline of what the task involves (Word count: 15-30 words)
  - b. the task specifications listing 3-6 complex technical work tasks sequenced according to their priority (Word count: 100-125 words)
  - c. an outline of compliance requirements indicating document names/sections of relevant standards/policies/procedures including: [Word count: 100-125 words]
    - Work Health and Safety (WHS) standards
    - Hardware quality standards
    - Organisational policies and procedures.

B3. Identify and outline any other additional considerations (e.g. resource and communication requirements, challenges) using 'Section C' (Word count: 15-30 words).

Answer:			
Include here a copy of the completed organisational project requirements template.			
Assessor instructions: Assessors are to indicate the task result as Satisfactory (S) or Not Yet Satisfactory (NYS).			
Assessor comments:	□S	□ NYS	

#### The student must:

- demonstrate their ability to identify and interpret textual information and numerical data from a range of sources to determine necessary actions
- record textual and numerical data in format specific to requirements.
- accept responsibility for planning, prioritising and sequencing complex tasks and workload.

The student may use different wording in their responses. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.





# Project requirements for assessing server room hardware quality

The objective of this project is to assess the quality standards of hardware and peripherals in AUS Retail's server room.
Chief Information Security Officer (CISO): (David.Green@ausretail.com.au)
IT Systema and Security Manager: Alex Dawson (Alex.Dawson@ausretail.com.au)
Network Administrator (Lead)
Support personnel (as required)
Begin: February 20, 2024
End: March 10, 2024
Assess hardware and peripheral quality standards
<b>Objective(s):</b> Evaluate the condition, performance, and compliance of hardware and peripherals in the server room with industry quality standards.
<ol> <li>Review WHS regulations and organisational WHS policies to understand safety requirements for hardware assessment in the server room.</li> <li>Research and identify applicable hardware quality standards and guidelines, ensuring alignment with Australian regulatory requirements.</li> <li>Develop a checklist or criteria for assessing hardware and peripheral quality based on identified standards and regulations.</li> <li>Conduct on-site inspections of hardware and peripheral devices, evaluating their quality, safety features, and compliance with established standards. [e.g. check for signs of wear, damage, or performance issues]</li> <li>Document assessment findings, including any non-compliance issues or recommendations for improvement, following organisational reporting procedures.</li> <li>Review documentation and compare against industry benchmarks.</li> </ol>
<ul> <li>WHS Standards: Ensure all personnel involved adhere to WHS standards for safe handling of equipment and work in a safe environment.         <ul> <li>For example:</li> <li>Work Health and Safety Act 2011</li> <li>associated codes of practice.</li> </ul> </li> <li>Quality Standards: Comply with industry standards for hardware quality and performance to ensure reliability and efficiency.         <ul> <li>For example: Adherence to hardware quality standards outlined in Australian standards</li> <li>Australian cabling standards   ACMA</li> <li>Ethernet Compliance Testing   Granite River Labs</li> </ul> </li> <li>Organisational Policies and Procedures: Follow organisational policies regarding equipment maintenance, documentation, and compliance with industry</li> </ul>

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# Project requirements for assessing server room hardware quality

 AUS Retail\_Server room access and safety policy.pdf – includes standards for ensuring authorised access and procedures for safe handling of network hardware equipment in a server room environment.

#### Section C: Additional Considerations

**Resource Requirements:** Allocate sufficient time and resources for thorough assessments. **Communication:** Maintain open communication channels among team members and stakeholders throughout the project.

**Compliance**: Ensure all activities align with WHS standards, quality standards, and organisational policies and procedures.

#### Section D: Approval

This project requirements documentation requires approval from the Chief Information Security Officer (CISO)		
before commencement.		
Approval Signature (CISO):	Date:	

## Part C: Identify software quality requirements

To complete this part of the assessment, you are required to:

- read the given scenario in Part A and within this section carefully to determine the necessary action
- use the organisational template provided to document the requirements of the project
- accept responsibility for planning, prioritising and sequencing complex tasks and workload.

#### Scenario:

As the Network Administrator at AUS Retail, you participated in a project meeting with two other AUS Retail stakeholders this afternoon to discuss the work brief for an upcoming project.

The meeting transcript records the details of the discussion as follows.

#### Project meeting - transcript

#### Participants:

- Network Administrator You
- Chief Information Security Officer (CISO) David Smith
- IT Systems and Security Administrator (ITSA) Alex Dawson

Date and time: Today (2PM - 3PM)

**David:** Good afternoon, everyone. Thank you for joining this briefing. So, we're here to discuss how we should go about assessing the quality standards of our organisational web application software.



**You**: Good afternoon, David. Thank you for initiating this discussion. Alex, could you provide us with an overview of the objectives of this assessment tasks?

**Alex:** Certainly. The goal of this project is to evaluate the quality standards of our web application software to ensure reliability, security, and compliance with industry best practices.

**You**: That's crucial for maintaining the integrity and security of our systems. Alex, what specific aspects of the web application software will you be assessing?

**Alex:** We'll be examining various factors, including code quality, vulnerability management, authentication mechanisms, data encryption, and adherence to coding standards and best practices.

**David:** Excellent. Security is of paramount importance. Alex, how will you ensure that security aspects are thoroughly assessed?

**Alex:** We'll conduct security testing and vulnerability assessments to identify any potential security risks or weaknesses in the software. Additionally, we'll review access controls, encryption protocols, and data protection measures implemented by the software.

**David:** Sounds like a robust approach. As we proceed, it's essential to ensure compliance with organisational policies and industry standards. Alex, could you outline the specific requirements in this regard?

**Alex:** Absolutely. We must adhere to organisational policies regarding data privacy, security protocols, and compliance with relevant regulations. We should follow industry standards such as OWASP Top 10 and NIST guidelines for web application security.

**You:** Absolutely, Alex. I'll ensure that the project requirements documentation includes all the necessary details.

**David:** Excellent. Thank you, everyone, for your commitment to this project. Let's keep communication channels open and collaborate closely to ensure its success.

**You:** David, we will need your approval on the requirements documentation before we move to the next phase of the project.

**David:** Sure. Let's keep communication channels open and collaborate closely to ensure the success of the project.

End of Briefing Conversation

As the Network Administrator, you are tasked with preparing and circulating the project requirements documentation based on the discussion points outlined in the briefing conversation, including assessment criteria, timelines, resource requirements, and reporting procedures.

To document the project brief you will be using AUS Retail's recommended project requirements template.

#### Tasks:

Identify and document software quality standards for assessing the organisational computing software by:



- C1. reviewing the meeting discussion transcript
- C2. accessing the necessary software quality standards documents
- C3. using AUS Retail's project requirements template according to the following guidelines.
  - a. Outline the project details using section 'A'.
    - i. Project overview a brief description (Word count: 25 55 words).
    - ii. Project sponsor(s) and Project team list two (2) items (e.g. person names, team titles).
    - iii. Project timeline indicate an approximate start date and end date.
  - b. Outline the details of each work task using section 'B'.
    - i. Task name and objective(s) the name of the task (that clearly indicates what the task involves) and a brief description of the objectives (Word count: 25 55 words).
    - ii. Task specification(s) a breakdown of the workload which includes a list of 3-6 complex technical work tasks sequenced according to their priority of completion (Word count: 35-65 words).
    - iii. Compliance requirements an outline of legislative requirements including document names/sections of two [2] relevant standards/policies/procedure documents.
  - c. Outline the details of any other considerations of the project using section 'C'. (Word count: 35-55 words)
  - d. Include a copy of the completed organisational template for documenting technical requirements under the 'Answer:' section.

Answer:		
Include here a copy of the completed organisational project requirements template.		
Assessor instructions: Assessors are to indicate the task result as Satisfactory (S) or Not Yet Satisfactory (NYS).		
Assessor comments:	□S	□ NYS

#### The student must:

- demonstrate their ability to identify and interpret textual information and numerical data from a range of sources to determine necessary actions
- record textual and numerical data in format specific to requirements.
- accept responsibility for planning, prioritising and sequencing complex tasks and workload.

The student may use different wording in their responses. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.





# Project requirements for assessing web application software quality standards

Section A: Project details	
Project overview:	The objective of this project is to assess the quality standards of organisational web application software to ensure reliability, security, and compliance with industry best practices. This assessment will involve a comprehensive review of the software architecture, source code, and documentation, as well as security testing, vulnerability assessments, and code reviews.
Project sponsor(s):	Chief Information Security Officer (CISO): (David.Green@ausretail.com.au)  IT Systema and Security Manager: Alex Dawson (Alex.Dawson@ausretail.com.au)
Project team:	Network Administrator (Lead) Support personnel (as required)
Project timeline:	Begin: (start date) End: (end date)
Section B: Work Tasks	
Task name and objective(s):	Assessment of organisational computing software quality standards  Objective(s): The objective of this project is to assess the effectiveness, security, and compliance of organisational computing software within AUS Retail.
Task specification:	<ol> <li>Review all computing software applications, platforms, and systems currently in use across departments.</li> <li>Evaluate software licenses, version control, security protocols, data encryption practices, and compliance with industry standards and regulations.</li> <li>Compile findings into a comprehensive report outlining areas of improvement, recommended security measures, and compliance gaps.</li> </ol>
Compliance requirements: [Include names of specific compliance documents/quality standards/policies and procedures that apply]	Quality Standards: Comply with software licensing requirements.  Organisational Policies and Procedures: Follow organisational policies for reporting software security vulnerabilities.

#### Section C: Additional Considerations

**Resource Requirements:** Allocate sufficient time and resources for thorough assessments. **Communication:** Maintain open communication channels among team members and stakeholders throughout the project.

Compliance: Ensure all activities align with quality standards, and organisational policies and procedures.

Section D: Approval





# Project requirements for assessing web application software quality standards

This project requirements documentation requires approval from the Chief Information Security Officer (CISO)		
before commencement.		
Approval Signature (CISO): _	Date:	

### Part D: Confirm work brief related to work tasks

To complete this part of the assessment, you are required to:

- read the scenario in Part A
- refer to the organisational documentation and guidelines for using organisational templates
- refer to the project requirements gathered in Parts B and C
- request project sponsors to confirm the project requirements you have gathered via email.

#### Task:

Draft an email addressing the AUS Retail stakeholders (project sponsors) requesting to confirm the project's requirements you previously documented in Parts B and C of this assessment.

Important: When drafting the email, you must:

- D1. indicate that the completed project requirements documents are attached to the email
- D2. request a response from the key stakeholders to confirm the project work brief
- D3. use AUS Retail's standard email template to draft the email.

[Word count: 75 – 100 words in the email body].

#### Portfolio of evidence: (Drafted email to project stakeholders)

Draft your email in the space given below.

Assessor instructions: Assessors are to indicate the task result as Satisfactory (S) or Not Yet Satisfactory (NYS).

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Assessor comments:	□ S □ NYS

The student must confirm the work brief with the stakeholders via email.

Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit (for the email body)
- reflect the characteristics described in the exemplar answer



A sample answer is provided below.

#### Lastname, Firstname

From: Lastname, Firstname

Sent: Monday, 19th February 2024 4:00 PM

To: David Smith\_[David.Smith@ausretail.com.au], Alex Dawson [Alex.Dawson@ausretail.com.au] Attached document: AUS Retail\_Project requirements for hardware quality assessment\_v1.docx

AUS Retail\_Project requirements for software quality assessment\_v1.docx

Subject: Request to confirm work brief for hardware and software quality assessments

#### Hi David and Alex,

I hope this email finds you well.

I am writing to seek your confirmation on the attached Project Requirements Documentation for conducting hardware and software quality assessments. This document outlines the work brief and quality requirements that will guide our team's activities in the upcoming project phases.

Kindly take a moment to review the attached project requirement documents and provide your confirmation at your earliest. If you have any questions, feedback, or concerns, please don't hesitate to reach out to me directly.

Looking forward to your response.

Thanks and kind regards,

#### Firstname Lastname

**Network Administrator** 

Firstname.Lastname@ausretail.com.au



Before printing this email, please consider the environment.

This message may contain privileged information or confidential information or both and is intended for the recipient named. If you are not the intended addressee, please delete it and notify the sender.



# Appendix 1: Assessment submission checklist

Submit a PDF version of this completed assessment document. Make sure you have also included each of the following files as evidence of your performance. Remember to create a compressed folder for each module before uploading them for submission.

Part B: Id	entify hardware quality requirements	
B(1-3)	Included a copy of the 'Project requirements' document template completed with the required information.	
Part C: Id	entify software quality requirements	
C(1-3)	Included a copy of the 'Project requirements' document template completed with the required information.	
Part D: Confirm work brief for hardware quality assessment		
D (1-3)	Drafted an email to project sponsors requesting confirmation of the work brief.	
		/

Congratulations, you have reached the end of Assessment 3!

#### Assessment feedback

Assessors are to indicate the assessment outcome as Satisfactory (S) or Not Yet Satisfactory (NYS).

Assessor comments:	□S	□ NYS

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