

SUMMARY OF AMENDMENTS
REVISED GUIDELINES ON TECHNOLOGY RISK MANAGEMENT

(Date of Issuance: 19 August 2024)

The following table provides a summary of key amendments to the revised *Guidelines on Technology Risk Management* (Guidelines) issued on 19 August 2024:

A. Overview
<ol style="list-style-type: none">1. The <i>Guidelines</i> aim to promote robust and sound technology risk management practices among capital market entities.2. In line with this aim, the <i>Guidelines</i> have been reviewed by the SC and amended to strengthen these practices and to provide further clarity to capital market entities.3. These amendments, among others, include new requirements on submitting reports to the SC on near miss events, performing cyber security assessments prior to deployment of a system and conducting penetration testing prior to deployment of new critical systems.4. In addition, the Guidelines were also amended to:<ol style="list-style-type: none">(a) enable the SC to appoint an independent party to conduct a review on capital market entity on its compliance with the Guidelines including performing a technology audit, where necessary; and(b) provide guidance to the capital market entities to use artificial intelligence (AI) and machine learning (ML) in an ethical manner.5. Housekeeping and editorial amendments throughout the Guidelines were made to provide greater clarity and consistency. These amendments include stylistic or formatting changes and necessary changes of an editorial nature such as renumbering of certain requirements.

B. Amendment Highlights			
No.	Prior to 19 August 2024	Revised Version Dated 19 August 2024	Comments
Chapter 3: RELATED PROVISIONS			
1.	Paragraph 3.01	Paragraph 3.01	Inserted clarification that any references made to the Guidelines on Management of Cyber Risk in other SC guidelines or handbooks will now be substituted with the <i>Guidelines</i> instead.
Chapter 4: DEFINITIONS AND INTERPRETATION			
2.	Paragraph 4.01	Paragraph 4.01	Introduced definitions of “critical” and “system” for the purposes of clarity. Introduced the definition of “near miss event” and amended the definition of “cyber incident” for the new reporting on near miss events.
Chapter 5: GOVERNANCE			
3.	-	Paragraph 5.10	Inserted a new provision to enable the SC to appoint an independent party to perform a review of the capital market entity’s compliance with the Guidelines including a technology audit, where necessary, and that the cost of such review or technology audit shall be borne by the capital market entity.
Chapter 7: TECHNOLOGY OPERATION MANAGEMENT			
4.	-	Paragraph 7.13A	Inserted new requirement for a capital market entity to conduct a cyber security assessment prior to the deployment of a new system.

B. Amendment Highlights			
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5.	Paragraph 7.34	Paragraph 7.34	Amended to clarify that capital market entities are required to communicate to their key stakeholders on any changes made to its IT systems.
6.	Paragraph 7.56	Paragraph 7.56	Amended to clarify that a capital market entity must restore its IT system within the recovery time objectives.
Chapter 8: TECHNOLOGY SERVICE PROVIDER MANAGEMENT			
7.	Paragraph 8.13(d)	Paragraph 8.13(d)	Amended to clarify that the costs and expenses of a review or audit by an independent party appointed by the SC shall be borne by the capital market entity.
Chapter 9: CYBER SECURITY MANAGEMENT			
8.	Paragraph 9.23	Paragraph 9.23	Migrated requirement for capital market entity to carry out penetration testing prior to any major changes to critical system into new Paragraph 9.23A.
9.	Paragraph 9.23	Paragraph 9.23A	Expanded the requirement on penetration testing from Paragraph 9.23 to also apply prior to the deployment of any critical systems.
Chapter 10: NOTIFICATION PROCESS			
10.	Paragraph 10.03	Paragraph 10.03	Expanded the reporting requirement for capital market entities to also report to the SC on near miss events.

B. Amendment Highlights			
No.	Prior to 19 August 2024	Revised Version Dated 19 August 2024	Comments
11.	-	Paragraph 10.06	Inserted provision to clarify that where a capital market entity has complied with the reporting requirements under paragraphs 10.03 and 10.04 of the Guidelines, it is deemed to have complied with the reporting requirements under SC guidelines.
Appendix 3 - GUIDING PRINCIPLES RELATING TO THE ADOPTION OF ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML)			
12.	-	Paragraph 1(c)	Inserted new guidance that capital market entities should ensure AI and ML are used ethically and include policies and procedures to ensure the same.
Appendix 5 - NOTIFICATION OF TECHNOLOGY INCIDENT, CYBER INCIDENT AND NEAR MISS EVENT			
13.	Appendix 5	Appendix 5	Updated the notification form to cater for technology incidents and cyber incidents as well as the new reporting on near miss events.