

Insurance Authority Guideline on
Cybersecurity (GL20) Revision
What are the impacts on insurers?

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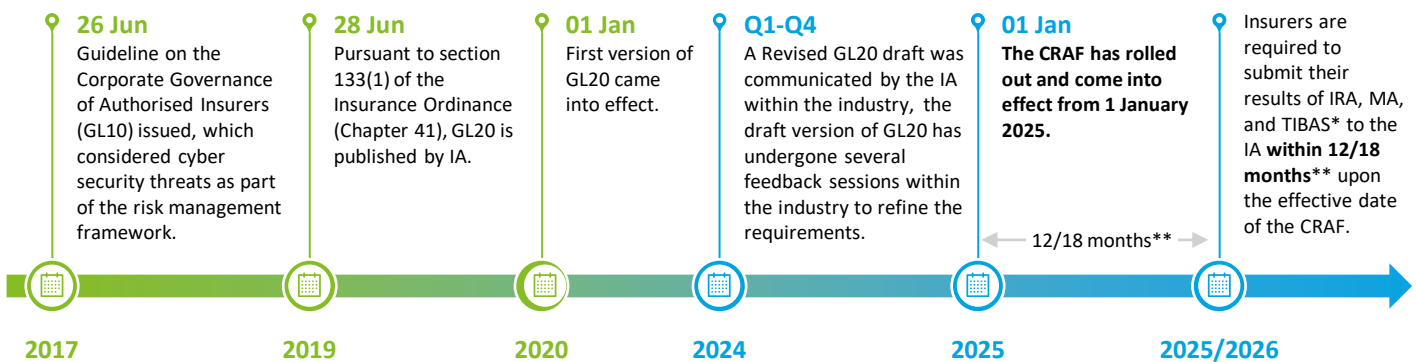


Summary of Guideline on Cybersecurity (GL20) Revision

Pursuant to section 133(1) of the Insurance Ordinance (Cap. 41) (the Ordinance), the Insurance Authority (“IA”) published the **Guideline on Cybersecurity (“GL20”)** in 2019, which came into effect since 1 January 2020, to regulate and supervise the insurance industry to protect all policy holders from cyber threats. It sets the minimum standard for cybersecurity that Authorised Insurers are expected to have in place and the general guiding principles which the IA uses in assessing the effectiveness of an insurer’s cybersecurity framework. However, in response to the fast changing landscape of emerging technologies and cybersecurity threats, the IA has proposed an updated framework in **October 2022**. And the **revised GL20** has been rolled out and come into effect on 1 January 2025. The revised guideline, incorporated the **Cyber Resilience Assessment Framework (“CRAF”)**, will require Authorised Insurers to complete a set of assessments including Inherent Risk Assessment (“IRA”), Maturity Assessment (“MA”) and Threat Intelligence Based Attack Simulation (“TIBAS”)* **by 2025 Q4 / 2026 Q2**.

*Threat Intelligence Based Attack Simulation (TIBAS) is only applicable for Authorised Insurers with high or medium inherent risk level.

Timeline of the Cyber Resilience Assessment Framework (“CRAF”)



**It depends on risk level, authorized insurers should submit to the IA the results within 12 months for insurers with a high inherent risk rating, and 18 months for insurers with a low or medium inherent risk rating.

What you should know about the GL20 Assessments

Requirements on Documentation Submission to the Insurance Authority

Inherent Risk Assessment (“IRA”)*

The report should include inherent risk assessment results, including the insurer’s overall inherent risk rating and the risk ratings for each individual indicator with relevant documents and information in support of the ratings.

*Insurers which opt for an overall “High” inherent risk level are exempted from conducting the IRA

Maturity Assessment (“MA”)

The report should include cybersecurity maturity assessment results, including the insurer’s overall cybersecurity maturity level and the cybersecurity maturity levels for each individual control principle applicable to the insurer, with relevant documents and information in support of the results.

Threat Intelligence Based Attack Simulation (“TIBAS”)

Authorised Insurers with medium and high inherent risks would be required to submit TIBAS results with the description of findings and findings risk ratings along with MA results.

Scope of Applicable Companies

All Authorised Insurers which carry on insurance business in or from Hong Kong, with the exception of Lloyd’s, captive insurers, special purpose insurers and marine mutual insurers. Insurers which have ceased insurance underwriting or accepting new insurance business in Hong Kong and are in the course of running off their insurance liabilities.

Scope of Assessment

All systems, infrastructure (both on-premises and cloud infrastructure), processes, and people supporting the Authorised Insurers’ business in Hong Kong. Under CRAF, an insurer’s overall inherent risk assessment and cybersecurity maturity assessment should be conducted in accordance with the qualitative or quantitative assessment criteria and the list of control principles.

Requirement to Engage External Consultant

GL20 assessments must be validated and confirm the result of the assessments by external consultants for Authorised Insurers with high and medium inherent risk level, while it’s optional for involving external consultants for low inherent risk Authorised Insurers. The Validator must not be an employee of the insurer or a body corporate that belongs to the same group of companies of the insurer.


Qualification of the Assessors

All assessors must be qualified (either by internal or external parties) with one of the following certifications: CISA, CISSP, CISM, CRISC, CSX-F & CISP-HK.

Completion Deadline

Results of the first IRA, MA and remediation roadmap are required to be submitted to the IA within 12/18 months** upon the effective date of the “CRAF”. Submission of TIBAS results are also required for Authorised Insurers with medium/high inherent risks.

Inherent Risk Assessment

 **Inherent Risk Assessment**

 **Maturity Assessment**

 **Threat Intelligence Based Attack Simulation**

Authorised Insurers are required to perform the Inherent Risk Assessment (“IRA”) to evaluate the Inherent Risk rating of the Authorised Insurers according to the indicators and assessment criteria within the GL20 Appendix: Annex A, which will result in the Authorised Insurers' overall Inherent Risk rating. The Inherent Risk rating determines the expected maturity level of cyber resilience for the Authorised Insurer. The guideline is as below:

1 Compute the Risk Profile

Compute the inherent risk profile of a company according to the 5 categories and 40 risk indicators* (“RI”) defined by the IA.



*RI: Each category encompasses a certain number of risk indicators, and each risk indicator has its assessment criteria to indicate the correspondent inherent risk level of an entity.

2 Define Inherent Risk Level

Define the overall inherent risk level by applying the formula stated in the GL20 Appendix with the total number of RIs at different inherent risk levels.



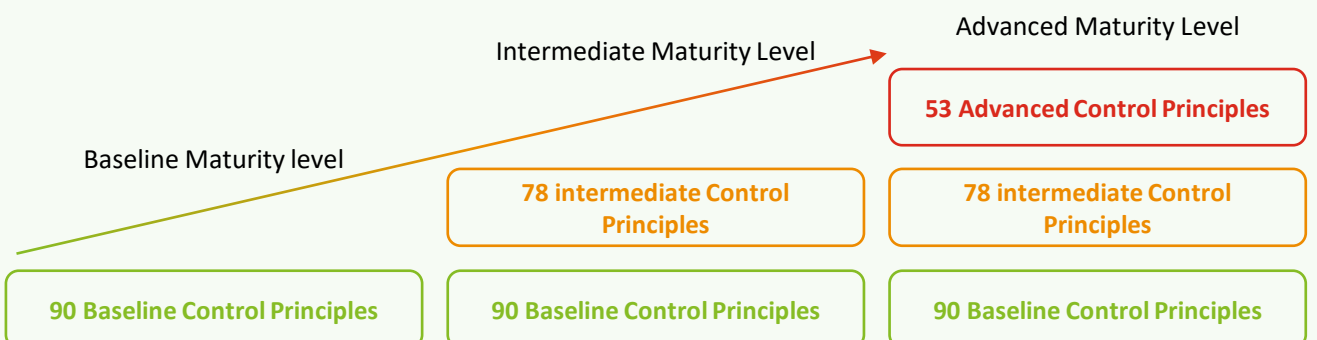
3 Assess Maturity Level

Match the overall inherent risk level to the minimum required maturity level in the assessment. Authorised Insurers with high, medium and low inherent risk levels are expected to achieve advanced, intermediate and baseline maturity level respectively.



4 Apply the Control Principles in accordance to the Maturity Level

Different levels of control principles should be applied in accordance to the maturity level.



Maturity Assessment



Inherent Risk Assessment



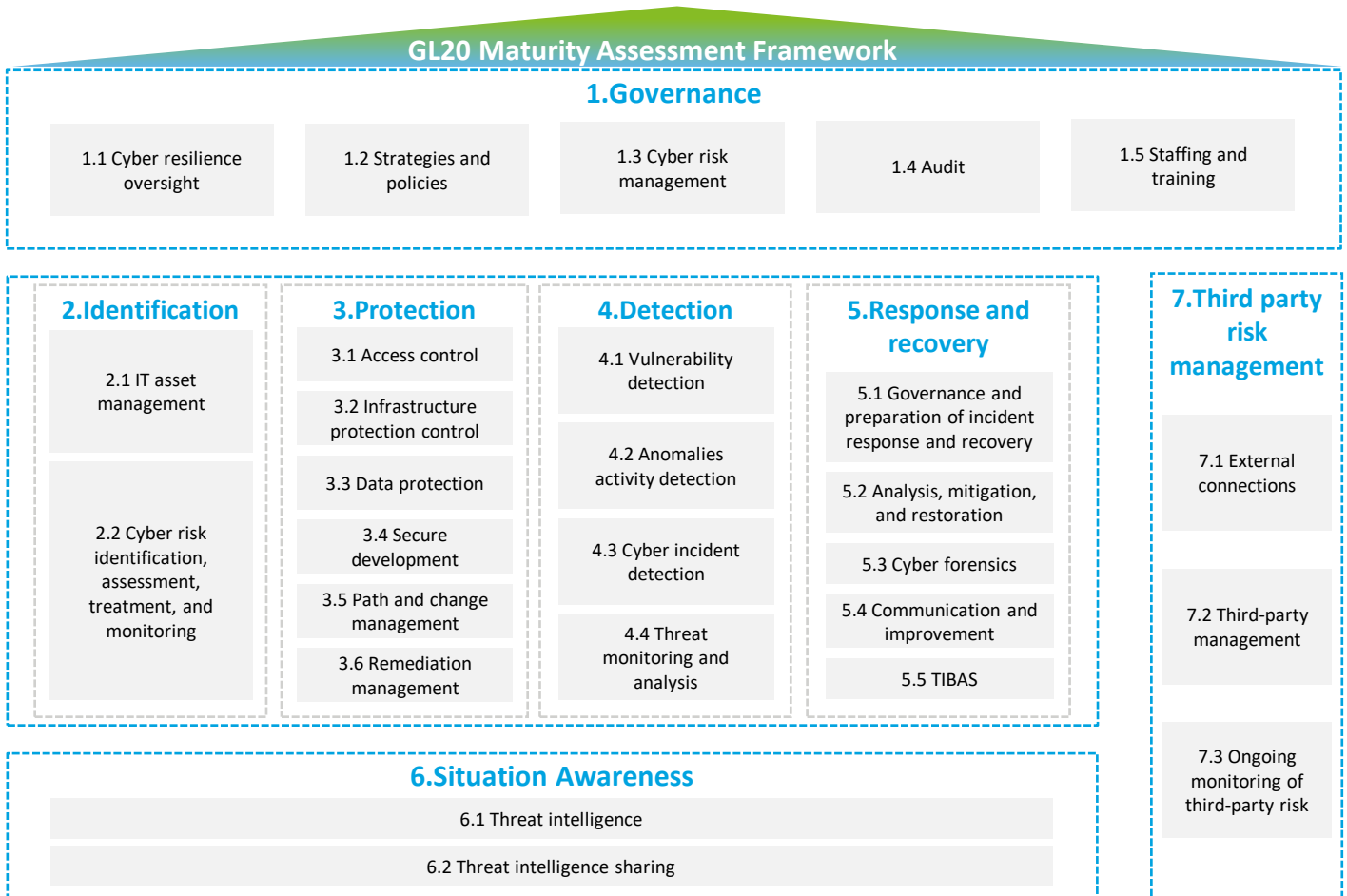
Maturity Assessment



Threat Intelligence Based Attack Simulation

Authorised Insurers are required to assess the maturity of their cybersecurity posture according to the list of control principles within the GL20 Appendix: Annex B (the Maturity Assessment, “MA”) and identify the maturity gaps. Authorised Insurers are also required to submit the remediation roadmap and commit to improve the control maturity level.

There are **7 domains** and **27 components** in the GL20 Maturity Assessment Framework.



Key Takeaways of MA

1 100 % Attainment of Control Principles

- All in-scope Authorised Insurers must meet the applicable number of control principles per its inherent risk level with **100% compliance**. Compliance means required controls established, alternative controls implemented, and risk accepted for that control principle with risk-mitigating measures and valid justifications.

2 Sample-based Assessment

- Sampling-based testing** is a must for MA.
- Sampling should cover a period of the recent past **6 months** for the first-time assessment and **12 months** thereafter in subsequent assessments.
- Sample size should be **risk-based**, and critical applications should be prioritised for sampling.

3 Roadmap

- Plans to close gaps between current maturity level and desired maturity level** should be established and submitted to IA along with MA results.
- All planned remediations must be implemented **before Authorised Insurers’ next GL20 assessment** which is typically 3 years after the current assessment.

4 Alternative Cybersecurity Assessment

- In case any Authorised Insurer wishes to leverage other assessment, such assessment should be conducted by **qualified independent assessor in the past year** from the submission date.
- Mapping** is required to match the alternative assessments (e.g. NIST) to GL20 MA. Additional assessment should be supplemented if not fully matchable.

Threat Intelligence Based Attack Simulation

 Inherent Risk Assessment

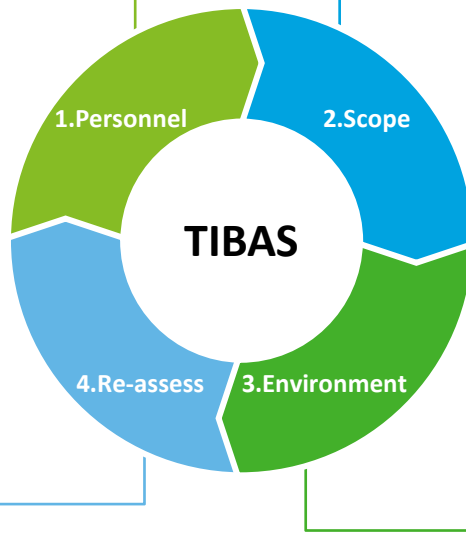
 Maturity Assessment

 Threat Intelligence Based Attack Simulation

In order to test the cyber incident response capability of the Authorised Insurers, Threat Intelligence Based Attack Simulation (“TIBAS”) is required with real-life attack scenarios based on the applicable threats to the Authorised Insurers. The cybersecurity systems, people and process would be evaluated as part of this exercise. This simulation is **mandatory for all Authorised Insurers with medium and high inherent risks**. Below is the full cycle of TIBAS:

1. Personnel

- The personnel performing testing must be **Independent** (e.g. external consultant), and possess industry-recognised **qualifications** across red team and threat intelligence (e.g. OSCP).



2. Scope

- A **minimum of three end-to-end cyber-attack** scenarios shall be covered in the simulation for Authorised Insurers with medium inherent risks.
- Attack scenarios should be determined **based on threat intelligence applicable to the Authorised Insurer**.
- Human and process element** should be assessed atop of technological components.

4. Re-assess

- Relevant attack scenarios should be tested at least **every 3 years** or **after significant system, technology, third-party, or business changes**.

3. Environment

- Testing should be performed in **Production environments**.
- Simulation exercise and testing should be **performed confidentially** and only known to the essential stakeholders during the testing.
- Generate **report** to record the outcomes of the simulation testing components.

How can Deloitte help

Our Extended Service Offerings



Advise

- Gap Analysis and Readiness Assessment on the new GL20 Cybersecurity Framework
- Support Inherent Risk Assessment and Maturity Assessment
- Support Threat Intelligence based Attack Simulation (“TIBAS”)

Operate

- Design and Implement Cybersecurity Framework, Cyber Strategy and Governance Structure, including Risk Assessment
- Draft Policies and Procedures to facilitate putting in place formal process documentation
- Improve and test Incident Response Plans to handle incidents timely and effectively
- Tailor and deliver Training and Table-top Exercise for Crisis Management

Implement

- 24x7 Managed Security Service – Identify and Response to Cyber Incident
- Backup as a Service (BaaS), DR as a Service (DRaaS), Desktop as a Service (DaaS)
- Data Loss Prevention (DLP) support including Policy/Rule Review, Implementation and Monitoring

Our Success Stories

Our Deloitte Cyber professional team has the experience and knowledge to get you prepared for getting compliant with the new GL20 assessment requirements. Below are some recent successful stories of our cybersecurity assessments similar to the newly proposed GL20 appendix, which may also apply to you:

- Cyber Resilience Assessment Framework (“C-RAF 2.0”)**: Deloitte team was engaged by various local/overseas banks and multiple virtual banks to perform cyber security assessment against C-RAF 2.0, **covering the scope similar to GL20 Assessments**, including **Inherent Risk Assessment (“IRA”)**, **Maturity Assessment (“MA”)** and **Intelligence-led Cyber Attack Simulation Testing (“iCAST”)**.
- Intelligence-led Cyber Attack Simulation (“iCAST”)**: Deloitte team was engaged by several leading banking clients to plan, conduct and execute an **iCAST**, **akin to TIBAS**, to emulate various prevalent and compelling threats facing the bank based on a cyber threat intelligence analysis against their critical functions and Hong Kong financial industry sector, which in turn provides the organization with an opportunity to assess maturity of cyber resilience.

Our Professionals’ Qualifications for GL20 Assessment



Contacts



Brad Lin
Partner, Technology & Transformation
Cyber

bradlin@deloitte.com.hk
+852 2109 5353



Hatty Siu
Director, Technology & Transformation
Cyber

hattysiu@deloitte.com.hk
+852 2852 5898



Philip Mok
Director, Technology & Transformation
Cyber

phmok@deloitte.com.hk
+852 2740 8829



Becca Leong
Senior Manager, Technology & Transformation
Cyber

beleong@deloitte.com.hk
+852 2258 6266



Yuan Chen
Senior Manager, Technology & Transformation
Cyber

chenyuan@deloitte.com.hk
+852 2740 8532



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