

A nighttime aerial view of a city, likely Hong Kong, with numerous illuminated skyscrapers and a harbor. The image is overlaid with a semi-transparent purple gradient. The text is centered in the upper half of the image.

Bulletin on Regtech Use Case

Conduct Surveillance for Modern Communications Systems

March 2024

Bulletin on Regtech Use Case is a publication published by the Hong Kong Monetary Authority (HKMA). It should be noted that the sole purpose of this publication is to provide Authorized Institutions (banks) with information on the latest regulatory technology (Regtech) developments. The HKMA does not endorse any use cases or solution described in this bulletin. If a bank intends to adopt a particular solution or implementation, it should undertake its own due diligence to ensure that the technology or approach is suitable for its circumstances.

Background

The Bulletin on Regtech Use Case series showcases innovative Regtech solutions implemented by banks. It aims to promote the adoption of Regtech among financial institutions in Hong Kong, enhance their risk management and compliance effectiveness, and facilitate knowledge sharing within the Regtech ecosystem.

This bulletin outlines Theta Lake's communication analytics solution for the monitoring and surveillance of communication across modern collaboration tools. The solution, supported by underlying Regtech technologies such as Artificial Intelligence (AI) and Machine Learning (ML), helps banks to identify potential breaches, increase surveillance efficiency and effectiveness, and enhance the ability to remediate conversations containing sensitive data.

Conduct Surveillance for Modern Communications Systems

- Firms are accelerating the adoption of dynamic communication tools, such as collaboration, chat, productivity applications as well as mobile messaging and voice platforms, to increase productivity in an increasingly borderless, device-agnostic financial services sector. However, given the risks associated with electronic communications capture, retention, and surveillance practices, firms should equally focus on digital communications governance.
- The communication analytics solution aims to address conduct risks by providing comprehensive integrations with communication platforms for unified capture, unified search, and proactive compliance leveraging AI and ML technologies. Specifically, it can capture chat, voice, video, emails and productivity content, including reactions, emojis, and Graphics Interchange Formats (GIFs). Ingested content can be searched and analysed to detect conduct risks such as collusion, complaints, improper discussions of Material Non-Public Information (MNPI), inappropriate discussions or displays of sensitive, confidential or trade secret information, unlawful sharing of Personally Identifiable Information (PII) such as names, birthdates, and account numbers, use of profanity or inappropriate language, and wrongful attempts to engage in off-channel communications on WhatsApp, Signal, or other unmonitored platforms.
- The following sections outline the challenges of legacy approach to e-comms capture and oversight, introduce the communication analytics solution, and explain the benefits of an AI-enabled approach to proactive compliance.

Use Case

Challenges

- **Difficulty in evaluating conduct risk**
 - The capture of dynamic collaboration and chat content is rudimentary and incomplete, which hinders compliance and a firm's ability to comprehensively monitor conduct risks.
 - Ease of communicating over collaboration platforms increases the potential for inappropriate behaviours like off-channel conversations.
 - Legacy approaches to identifying conduct risk are limited to lexicons and word matching to flag problematic conversations, and these methods are inflexible and difficult to maintain.
- **Limitation on existing tools**
 - Existing compliance tools lack simple features to capture electronic communication content (emojis, edits, deletes, reactions, etc.) for archiving, surveillance, eDiscovery, and investigations purposes.

Solution

- The communication analytics solution is capable of capturing different modes of communications including video, voice, chat, and file transfers to identify potential conduct and compliance breaches. Strategic partnerships with various communications platform operators offer integrations with collaboration platforms including access to APIs, alignment on product roadmaps, and the ability to comprehensively capture chat, video, voice, and SMS features as well as conversation details such as emojis, reactions, and message edits and deletes.
- The communication analytics solution includes an AI-assisted review function to increase monitoring efficiency and effectiveness, workflows to route conversations for analysis based on risk or geography, and the ability to redact and remediate conversations containing sensitive data. AI transparency is provided by a classifier audit report. Reconciliation reports allow administrators to validate that messages sent from communication platforms have been received and ingested.

Key Implementation Success Factors

- Ease of deployment using global and major cloud service providers.
- One click capture of chat, emojis, reactions, GIFs, voice, and video from electronic communications platforms (Zoom, Slack, MS Teams, etc.) and mobile messaging.
- Adequate security and compliance controls to protect the security, confidentiality, and availability of information stored on the platform

Benefits

How Regtech Helps

- **Achieve Visibility**

Firms can achieve visibility into various aspects of collaboration, chat, and voice conversations. The solution helps them comply with regulatory mandates to capture, retain, and monitor business communication. Captured messages are searchable, including searching across emojis, text in images or video, or based on unique employee identifiers.

- **Risks Flagging and Alerts**

The intuitive compliance review screen pinpoints and displays risk flags. This improves firms' monitoring effectiveness and efficiency of reviews. For example, leveraging the risk flagging functionalities, pinpointed conduct risks identified in an hour-long meeting can be reviewed more effectively, reducing the effort of manually reviewing the entire conversation. The solution's ability to take proactive steps (e.g. redaction, remediation) reduces the risk of persistent breaches of rules in conversations. Alerts are generated and can be configured to be triggered as risky issues are identified. Using pre-trained, AI-based detections combined with routing rules, identification mappings, geographic restrictions, and emoji identification, the following can be detected:

- PII exposure: account numbers, national IDs, emails, birthdates;
- Off-channel conversations (e.g., "Call me on WhatsApp");
- Use of emojis in messages like 💰 📄 🚀
- Conversations between specific business units (equities, derivatives, research, etc.) or geographies (APAC, ANZ, USA, UK); and
- Risky URLs such as malware, shadow IT, social networking, etc.

Sample screenshot of the communication analytics solution

Theta Lake Compliance Review: Zoom Meeting

Zoom Meeting - "Brief Meeting" (Meeting Chat: Collusion, Risky ...) Risk Score ■■■■

demo highlight +

Participants

First name	Last name	Type	#
Lester	Bayne	SSN	078-05-1120
Hilda	Fields	SSN	219-09-9999
Don	Whitcher	SSN	303-00-7956
Bianca	Jensen	SSN	913-22-9046
Orville	Glover	SSN	042-89-0000
Kirk	Taylor	SSN	513-00-2348
Jason	Wong	SSN	941-57-3288
Mercedes	Carr	SSN	424-00-9123
Allan	Campbell	SSN	474-00-7737
Verna	Hardy	SSN	918-41-2987
Jeanette	Blake	SSN	666-83-8487
Francisco	Greene	SSN	085-00-2979
Damon	Carr	SSN	943-22-5957

00:01:40

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In Review ⚙️

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Content Review • 24 Summary • 38 Chat Transcript Transcript

00:01:40 **Compliance Advisor** Found something: could be Account and Policy Identifiers Spoken or Written in the audio. !

[Reply](#)

TD Theta Demo - Confirmed Risk Account numbers 7 months ago

00:02:21 **Compliance Advisor** Potential Account and Policy Identifiers on Screen in the video. !

[Reply](#)

00:02:35 **Compliance Advisor** Needs verification: Collusion found in the audio. !

[Reply](#)

[Add a comment here](#) Time 00:01:40 [Comment](#)

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