SURVEIL-X™
Communication

Comprehensive Communication Surveillance and Risk Detection for a Complex World

Today's fast-changing world is making communications surveillance more complicated by the day. Regulated employees, many of whom are now working from home, are adopting new communication modalities – unified communications, mobile phones and instant messaging apps – in addition to using traditional methods. As face-to-face interactions become more difficult due to social distancing, voice and electronic communications are growing faster than ever.

At the same time, prescriptive regulations are putting more pressure on compliance resources, as more employees, asset classes, devices and communication channels need to be monitored, along with the need to detect intent. Added to this are inherent complexities of surveilling voice communications, especially multilingual communications with their vast array of accents and dialects.

Is your firm still relying on outdated point surveillance systems to monitor these different communication modalities? Are you finding it hard to connect the dots to detect intent? Are you left with compliance gaps due to an inability to surveil different types of communications and languages? Are legacy systems making it harder to detect conduct-related risks, driving up compliance costs and inefficiency, and overwhelming your staff with high false positive rates? Do your analysts lack adequate case management and investigation tools?

It's time to step up to SURVEIL-X.

SURVEIL-X ™
Communication
A Better Way

SURVEIL-X Communication addresses all of these challenges, by providing comprehensive surveillance coverage for all communication modalities, asset classes and languages, in a single cloud-ready solution.

SURVEIL-X Communication includes advanced features like natural language understanding, built-in transcription, contextual querying, integrated case management and interactive dashboards, along with proven risk detection models which can help you weed out false positives, bolster efficiency, drive down costs and reduce regulatory risk.

Comprehensive Communications Surveillance Coverage in One Solution

SURVEIL-X Communication monitors one-hundred percent of your regulated employee communications, across all voice and electronic communication channels – turrets, desktop phones, mobile, email, instant messaging, chat, texts, social media, unified communications, and even document attachments.

SURVEIL-X Communication seamlessly connects to your existing communication archiving systems (both NICE and third party) to ingest structured, unstructured and semi-structured data. All data is WORM-protected so it can't be overwritten or deleted. With built in voice transcription (powered by Nexidia), **SURVEIL-X Communication** accurately converts voice communications to text.

Ingested data is automatically cleaned, normalized, converted to an industry standard format, and indexed, so it can be analyzed, understood and leveraged across **SURVEIL-X Communication's** compliance applications.

Advanced Language Understanding Makes Sense of Communications, Reduces False Positives

Lexicon-based solutions, which focus on finding words rather than understanding the true context of communications, are highly imprecise and ineffective. Analysts waste a lot of time reviewing communications that would otherwise be weeded out by a more intelligent system. Additionally, primitive lexicon-based systems never 'learn' from their mistakes.

In contrast, **SURVEIL-X Communication** leverages advanced text analytics and natural language processing to analyze, understand and reveal the true meaning of regulated employee conversations, accurately flagging risky communications across all channels, and reducing false positives by up to 90 percent.

SURVEIL-X Communication can understand and analyze communications in 45 different languages, and automatically detect people, places, products, companies, trades, assets classes and conversation topics, even the tone and sentiment of conversations, to provide unprecedented insight into regulated employees' actions and intentions.

For example, using NLP and text analytics, **SURVEIL-X Communication** can categorize communications based on your firm's risk-based policies and procedures, by determining:

- What a conversation was about;
- Patterns of behavior that occurred;
- Trending topics discussed;
- And whether rules and corporate policies were followed.

Fine-tuned for financial markets, **SURVEIL-X Communication** can even detect jargon in conversations indicative of market manipulation. **NICE Actimize** has partnered with **GreenKey**, a company specializing in domain-specific natural language processing solutions, to incorporate GreenKey's financial-focused NLP into **SURVEIL-X Communication**, enabling deeper understanding of communications. Leveraging GreenKey's unmatched expertise in data science and understanding of trader jargon, **SURVEIL-X** is able to accurately detect transactions in communications so those communications can be more accurately mapped to actual trades (for trade reconstruction).

Contextual Search and Queries for Investigations and Discovery

SURVEIL-X Communication also empowers compliance officers with powerful query tools for investigations and discovery. For example, compliance officers are able to identify specific instances where regulated employees are engaging in suspicious activities (e.g. potential market abuse) or not adhering to internal bank policies.

SURVEIL-X uses NLP and text analytics to index interactions and make them searchable. Compliance officers are then able to conduct highly precise searches for specific sentence patterns.

For example, they can build a query to identify if 'breaking news' is mentioned alongside either 'buy' or 'sell.'

> "Breaking news is about to be aired, you need to sell all of the different assets of Company A that you own."
>
> "Company A is going to buy Company B soon it seems, did you hear the same from Person X?"

The compliance officer can flag these types of suspicious communications for compliance review to determine if market abuse occurred.

Natural language understanding capabilities like stemming, lemmas and also synonyms, acronyms and customizable word categories (for example based on investment products, locations, or clients) give compliance analysts the flexibility to naturally expand searches to include specific types of targeted communications.

SURVEIL-X

Search... Advanced   TJ Ted Jones ⌄   14 ⑦   **NICE·ACTIMIZE**

Work Items > All Items > Alerts: CS_25681(In Process)   ‹ ›   Item 1 of 23

More ⌄

Communication Work Item | Email   Corporate | Step" In Process | Owner: Compliance User 1 | Item Date: 06/15/2017 12:00AM

From	Receiver	Duration	Direction	Labels	Score
Sam	Steve	21 Seconds	Outgoing	Random	100

⊟ PersonalBenefits	Score **100**	
Profits	✓ ✗	
Personal Account	✓ ✗	
⊞ Disclosure	Score **20**	
⊞ Manipulation	Score **850**	
⊞ Market Manipulation	Score **100**	
⊞ Order Placement	Score **10**	
⊞ Product Details	Score **40**	
Done Reject all rules	Total Score **1120**	

February 13, 2020 21:00

📞 Sam <+19198914008> to Steve <+19143297154>
Duration: 21 Seconds

Potential Priority Level ▪▪▪▪
Confirmed Priority Level ▪▪

Sam   20:48:44
Hey Steve Good morning

Steve   20:48:45
Good morning Sam

Sam   20:48:46
I have got very positive news today

Steve   20:48:47
Ohh really, What was that

Sam   20:48:48
looks like google espying look i'm coming days

Steve   20:48:49
mhmm that nice

1x ◄◄ ► ►►   ⮔   20:48:47 PM 🔊

Unparalleled Conduct Risk Detection Coverage

SURVEIL-X Communication's broad range of out-of-the-box risk detection models analyze all modalities of back office and trader communications (across dozens of languages) to proactively identify compliance risks. Because the models work across all communication platforms, they can identify otherwise impossible to detect misconduct scenarios where regulated employees might try to fly under the radar by 'switching channels.'

Detection models cover both execution and orders-based misconduct scenarios, including collusion, bragging, insider trading, and market manipulation. Risky communications are automatically flagged, scored and prioritized for policy review.

This systematic approach enables firms to identify suspicious communications with unprecedented accuracy, and has been proven to reduce false positives by as much as 90 percent, alleviating work for compliance analysts and taking risk detection to a much higher level.

No other solution provides a broader array of detection models covering every regulation across all asset classes – from equities and fixed income, to foreign exchange, swaps, futures and options.

With the addition of **SURVEIL-X Studio**, your firm can even create, test and deploy its own custom analytic risk detection models. Non-technical business analysts can effortlessly create models using **SURVEIL-X Studio's** drag-and-drop interface, choosing from an expansive library of customizable templates or easily building their own rules from scratch.

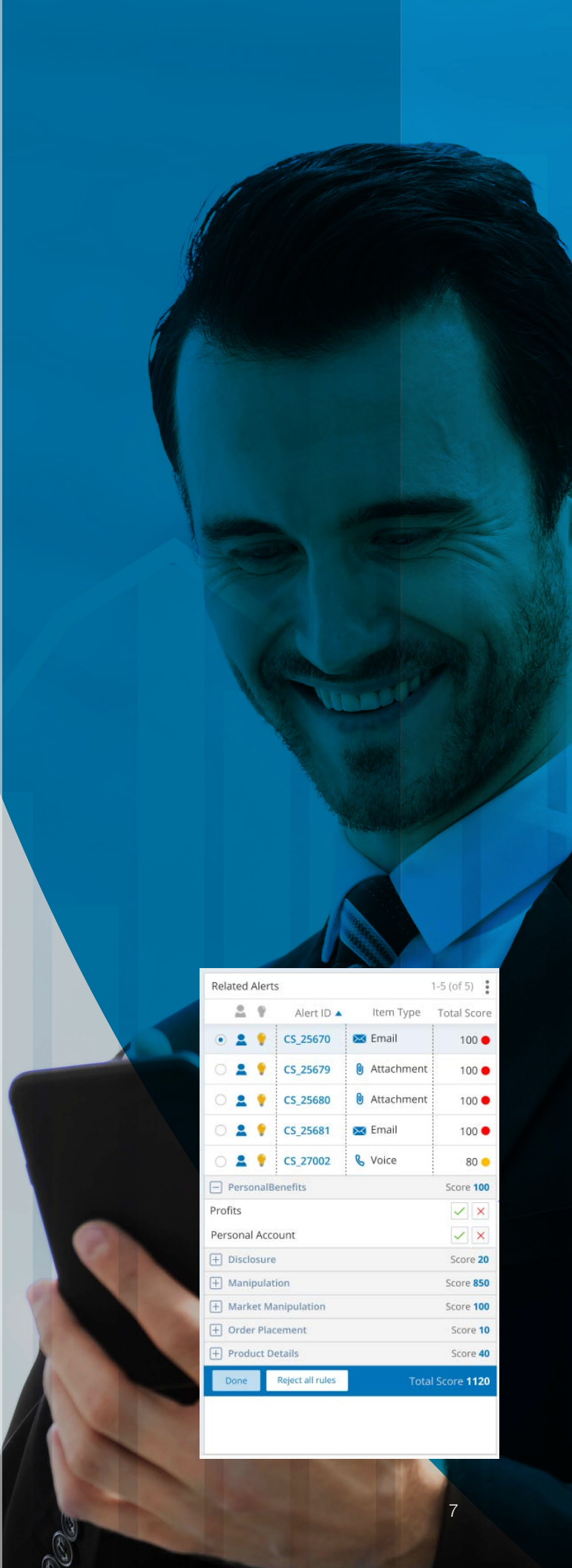# Integrated Case Management Streamlines Investigations

If your compliance analysts are using separate case management tools for different communication surveillance platforms, they're having to work a lot harder and missing the big picture. With **SURVEIL-X's Communication**, your analysts have one place to visualize and manage alerts and cases related to all types of risky communications.

Effective surveillance and powerful case management go hand-in-hand. With **SURVEIL-X Communication's** robust case management tools, your compliance analysts benefit from collaborative alert management, automated workflows, policy driven reviews, and powerful investigation tools.

NICE Actimize's integrated case management automates every step of the investigation process, and can reduce investigation time by 70%. Each time analysts log on, they're presented with alerts and reasons why communications were flagged. As they conduct their investigations, robotics work in the background to automate repetitive, manual processes, and policy-driven workflows guide them through the next steps to take.

Using the Investigation module, analysts can easily reconstruct traders' communications as they happened over time. A multimedia player graphically depicts trader interactions as they were recorded. Using a smart search function powered by a patented correlational algorithm, analysts can also search for similar interactions (that might be indicative of compliance risks) based on patterns of behavior. Analysts can also easily share their findings, escalate cases, and upload documents and notes. All actions are tracked and auditable.

Additionally, through alert resolution, analysts are able to provide feedback to **SURVEIL-X Communication's** Machine Learning interface to continuously improve detection accuracy over time.

Related Alerts			1-5 (of 5)	
	Alert ID ▲	Item Type	Total Score	
● 👤 💡	CS_25670	✉ Email	100 ●
○ 👤 💡	CS_25679	📎 Attachment	100 ●
○ 👤 💡	CS_25680	📎 Attachment	100 ●
○ 👤 💡	CS_25681	✉ Email	100 ●
○ 👤 💡	CS_27002	📞 Voice	80 ●

⊟ PersonalBenefits		Score 100
Profits		✓ ✗
Personal Account		✓ ✗
⊞ Disclosure		Score 20
⊞ Manipulation		Score 850
⊞ Market Manipulation		Score 100
⊞ Order Placement		Score 10
⊞ Product Details		Score 40
Done Reject all rules		Total Score 1120

Advanced Anomaly Detection: Improve Risk Detection without Requiring Additional Resources

Relying only on prescriptive detection methods that focus on known risks? Risk is a moving target and with the volume and variety of communications steadily increasing every day, you're likely to miss something.

SURVEIL-X Communication's advanced anomaly detection helps you get a step ahead of risk, by using unsupervised machine learning to bring attention to previously undetectable behaviors, for example, communications activity that's atypical for a specific account, portfolio manager, trader or group of traders.

It does this by analyzing communications data for all regulated employees to establish profiles of normal behavior. Using these profiles, **SURVEIL-X Communication** then applies unsupervised machine learning to identify changes in behavior, thereby detecting anomalies and outliers that signify risky behavioral patterns. For example, is a trader or wealth advisor behaving differently than they've historically behaved? Is their behavior deviating from the group? Are they communicating at odd hours of the day, or suddenly sending emails with several attachments?

When anomalies are detected, **SURVEIL-X Communication** automatically generates alerts for first or second line compliance professionals to review. Discovered anomalies are presented to the compliance analyst on an intuitive dashboard. The analyst can drill down into the data, investigate further and escalate issues as needed.

As communications and alert volumes increase, anomaly detection can also be used to help firms prioritize alerts for review, without adding more compliance staff or overhead.

Finally, **SURVEIL-X Communication's** anomaly detection can automatically adjust detection models as new behavioral patterns are recognized over time, further improving detection accuracy.
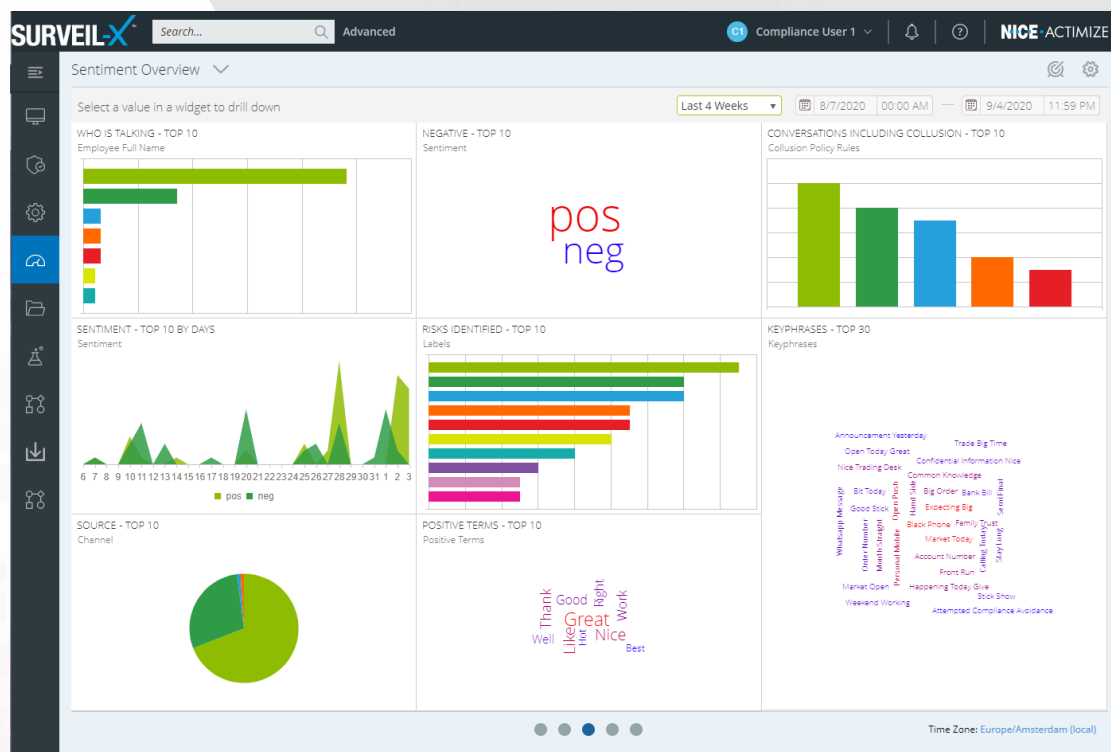
Out-of-The Box and Custom Reporting Dashboards

SURVEIL-X Communication's intuitive, interactive dashboards help compliance managers visualize data in meaningful ways so they can make timely, data-driven decisions. Managers get complete insight into effectiveness of communication surveillance from different vantagepoints, with the ability to visualize and share dashboard reports, and drill down into data.

Operations reports validate that the system is working flawlessly, and indexing all captured communications for all modalities. Compliance management reports document work progress and alert status, as well as tracking the accuracy of alerts (e.g. percent false positive vs. confirmed).

Other reports provide insight into regulated employee communications based on: the types of risks detected and how they're trending over time; trending topics based on key words and phrases; most common conduct issues; asset class trends; top communicators; and companies frequently mentioned.

With **SURVEIL-X Communication's** third-party integrations, managers can even develop their own custom reports.

Secure Cloud Environment

Firms can deploy **SURVEIL-X Communication** in any configuration – on-premise, hybrid on-premise, private cloud or as a pure cloud solution for added versatility and lower TCO.

SURVEIL-X Communication leverages Amazon Web Services' cloud services to provide firms with flexible and scalable capacity in an ultra-secure cloud environment that meets global information security standards.

Path to Holistic Surveillance

As one module of the **SURVEIL-X Holistic Surveillanace** suite, **SURVEIL-X Communication** can also be your first step on the path to holistic surveillance, which can help you better connect the dots across all surveillance modalities for true understanding.

With the seamless addition of **SURVEIL-X Markets Surveillance**, you can leverage communications, trade data and other real-time data sources, along with **SURVEIL-X's** advanced capabilities and patented correlation algorithms, to ensure comprehensive risk coverage, improve your firm's ability to detect intent, automate trade reconstruction and ensure timely responses to regulator requests.

SURVEIL-X: Trade and Conduct Surveillance Revolutionized

SURVEIL-X Communication is part of the **SURVEIL-X Holistic Surveillance** suite. The industry's first AI-powered, cloud-native, true holistic trade-related surveillance solution, **SURVEIL-X** detects all forms of risky behavior to ensure compliance with key global regulations, including MIFID II, Dodd-Frank, MAR, Regulation Best Interest, SM&CR and others, while also protecting firms from previously undetectable risks that could result in fines and reputational damage.

SURVEIL-X revolutionizes surveillance by providing complete surveillance coverage with both AI-powered and traditional expert rule-based analytics, and advanced visualization tools, all on a cloud-native platform that drives down total cost of ownership.

SURVEIL-X offers unparalleled risk coverage for buy- and sell-side firms, insurance companies, crypto exchanges, regulators and more, by enabling accurate detection and rapid, thorough investigation of market abuse, inappropriate sales practices, conduct risk and otherwise undetectable compliance risks to insulate firms from fines and reputational damage.

SURVEIL-X™
Communication Benefits

- **One surveillance solution** for all communication modalities, including voice

- **Built-in transcription** accurately converts speech to text

- **Advanced language understanding** reveals true context of communications, reducing false positives by up to 90%

- **More accurate detection** than lexicon-based solutions

- **Provides insight into risky communications** for improved decision-making

- **Expansive coverage**: analyzes communications in 45 different languages

- **Leverages GreenKey NLP** for highly accurate analysis of trader jargon

- **Out-of-the-box detection models** provide unparalleled conduct risk detection coverage across dozens of languages, covering every asset class and key regulation

- **DIY analytics** via drag-and-drop interface enables firms to create custom rules

- **Uncovers hidden risk and underlying intent** within vast repositories of communications data

- **Provides instant access to billions of records** with fast investigative search and automatic reconstruction tools

- **Reduces the cost of compliance** by automating compliance workflows and improving overall efficiency of compliance analysts by up to 80%

- **Reduces regulatory and business risk** by using advanced machine learning techniques and Natural Language Processing (NLP) driven analytics and models to automatically review 100 % of regulated employee communications

- **Ensures full compliance** with MiFID II, Dodd-Frank and FX Global Code regulations around communications surveillance

- **Reduces Total Cost of Ownership (TCO)** through intelligent analytics and cloud deployment

- **Advanced anomaly detection** improves risk detection without adding resources or overhead

- **Provides a path to holistic surveillance**, and improved risk detection

- Easily "turn on" **additional specialized SURVEIL-X capabilities** (e.g. **SURVEIL-X** Conduct, **SURVEIL-X** Suitability)

NICE·ACTIMIZE

About NICE Actimize

NICE Actimize is the largest and broadest provider of financial crime, risk and compliance solutions for regional and global financial institutions, as well as government regulators. Consistently ranked as number one in the space, NICE Actimize experts apply innovative technology to protect institutions and safeguard consumers and investors assets by identifying financial crime, preventing fraud and providing regulatory compliance. The company provides real-time, cross- channel fraud prevention, anti-money laundering detection, and trading surveillance solutions that address such concerns as payment fraud, cybercrime, sanctions monitoring, market abuse, customer due diligence and insider trading.

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