# SECULITY AND 2023 SPECIAL REPRINT EDITION

# COMPREHENSIVE THREAT ANALYSIS AND RISK ASSESSMENT SOLUTIONS

AN INTERVIEW WITH TERRY INGOLDSBY PRESIDENT AND OWNER, AMENAZA TECHNOLOGIES

CYBERSECURITY IN THE SPACE DOMAIN: SAFEGUARDING OUR FUTURE

WHY AI-BASED CYBERSECURITY WILL CONTINUE
TO NEED THE HUMAN TOUCH



The need to reduce cyber risk has never been greater, and Amenaza Technologies



has demonstrated excellence in this regard. The TAG Cyber analysts have selected Amenaza as a 2023 Distinguished Vendor, and such an award is based on merit. Enterprise teams using Amenaza's platform will experience world-class risk reduction—and nothing is more important in enterprise security today.

The Editors, TAG Cyber Security Annual www.tag-cyber.com

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AN INTERVIEW WITH TERRY INGOLDSBY PRESIDENT AND OWNER, AMENAZA TECHNOLOGIES

# COMPREHENSIVE THREAT ANALYSIS AND RISK ASSESSMENT SOLUTIONS

n a world where cyber threats are perpetually evolving, the ability to anticipate and strategize for potential attacks is becoming indispensable. The task of preemptive planning and detailed vulnerability analysis is complex, which is where trailblazing cybersecurity analyst Amenaza Technologies steps in, providing innovative tools to manage this challenging landscape. In a recent interview with Amenaza, we explored the concept of attack trees and the crucial role decision trees play in contemporary information security. We also discussed how their flagship product, SecurlTree®, streamlines and enhances attack tree analysis, making identifying potential threats and their associated risk factors more manageable and insightful.







# TAG Cyber: What are attack trees, and why do they apply to information security?

AMENAZA: Attack trees are a type of decision tree—a visual representation of an adversary's possible decisions in attacking a given target. Formally, they are a graphical, hierarchical tree structure comprised of Boolean AND, OR, and leaf nodes. Paths from the tree's bottom (leaf nodes) to the tree's top (root) node satisfy the tree's AND/OR logic and depict potential attack scenarios. Each path varies in resources required by adversaries, goals achieved, and damages victims suffer.

Amenaza understood the potential of attack tree analysis but realized it was impractical without sophisticated and purpose-built analytic software. The hierarchical nature of attack trees makes it easy and natural to divide the model into different subtrees. Experts in various areas can contribute their knowledge and assemble it into one comprehensive model.

Additionally, many components of a particular system in an organization will be similar to those used in other systems.

Analysts can create component libraries and quickly and easily introduce them into new models, which substantially reduces the effort required to generate attack trees.

#### TAG Cyber: Why are attack trees needed in information security?

AMENAZA: With each passing year, organizations spend ever-increasing resources on cybersecurity tools. And yet, the number and magnitude of cyberattacks continue to increase. While conventional tools (i.e., firewalls, intrusion detection systems, VPNs, and encryption) are necessary, a scattergun approach to deployment is neither practical nor efficient. To prevent or minimize attacks, viewing our systems from the perspective of our adversaries is crucial.

Attack trees are a formal, objective method for assessing potential attacks against a system and predicting the adversary's attack preference. Thorough analysis enables accurate predictions of the frequency of each type of attack, enabling defenders to prioritize attack scenarios based on rational decision-making.

After identifying the highest-risk scenarios, the model can incorporate the best control choices (before implementation) and then repeat the analysis to gauge their effectiveness.





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# TAG Cyber: How does Amenaza's SecurITree® software leverage attack tree analysis?

**AMENAZA:** A national intelligence agency developed attack trees in the 1990s, but limited awareness and understanding among practitioners have hindered their widespread adoption. Amenaza provides a comprehensive three-day onsite training course on attack tree theory and practice to address this issue.

Some individuals attempt to create attack trees using manual methods or generic drawing tools like Visio or CorelDraw, only to quickly realize their unsuitability. Consequently, many of these individuals become enthusiastic supporters of Amenaza's SecurlTree software, which we specifically designed to conduct attack tree analysis. The software also significantly reduces the effort required to construct and modify attack trees.

Over twenty years of research and development went into creating the SecurITree threat modeling software tool. SecurITree makes it easy to develop attack trees and provides powerful analytic functions to extract understanding from the models. Analyzing attack trees presents a challenge due to the vast number of combinatoric paths they can contain. Typical trees representing IT systems in an organization can have hundreds of thousands of potential attack paths.

One real-world example developed by Amenaza for an existing control system involved billions of scenarios! Without practical tools, the sheer volume of information can be overwhelming.

# TAG Cyber: Can you provide insights into how your SecurITree tool helps organizations assess supply chain risks?

**AMENAZA:** SecurITree's attack tree models are remarkable due to their holistic nature, encompassing various hostile threats against a system, including cyber, physical, and transitive threats from other organizations.

Unlike conventional tools, SecurITree models recognize the significance of considering threats from interfaces with business partners and suppliers. These threat vectors often pose more significant risks than direct attacks on the organization's systems.

Ideally, the expandable attack model can incorporate the potential compromise of a supplier's system, thereby creating an additional attack vector. However, a common challenge is the lack of knowledge and means to verify a business partner's security practices. This knowledge gap becomes apparent when creating an attack tree, prompting the organization to







seek information for accurate threat modeling. In cases where obtaining such information is not feasible, the attack tree model suggests an alternative approach.

When information about a portion of the system, such as the supply chain or other technologies, is unattainable, it is prudent to model the unknown as highly deficient and establish compensating controls to mitigate the risk. This proactive strategy may result in implementing some unnecessary controls at worst, but at best, it can prevent a catastrophic event!

# TAG Cyber: Can you briefly outline the benefits of the new machine learning feature introduced in SecurITree v5.4?

**AMENAZA:** With each new release, Amenaza strives to enhance automation for analysts. Prior to v5.4, analysts had to manually inspect individual attack scenarios and identify similarities in their characteristics.

For example, certain scenarios may have required a significant financial investment from the attacker while demanding low technical expertise and being difficult for the defender to detect. Recognizing these similarities and grouping them appropriately required considerable effort from the analyst.

However, SecurITree v5.4 introduced a machine-learning feature that automates this process. Within seconds, the software can automatically sort and group similar scenarios based on the criteria defined by the analyst, which streamlines the workflow significantly. Moreover, SecurITree v5.5 will further enhance this capability in the upcoming release, offering even more advanced functionality.







# CYBERSECURITY IN THE SPACE DOMAIN: SAFEGUARDING OUR FUTURE



SPACE CENTER HOUSTOI



DAVID NEUMAN

International Space Center Mission Control

In the quiet and bustling offices of the International Space Station's control center in Houston, Texas, a tension-filled silence suddenly hung in the air. The screens in front of the control team flickered, shifting from the usual display of telemetry data to an ominous black. Only a single line of text remained: "Access granted. Control transferred."

A thousand kilometers above, the International Space Station (ISS) began slowly veering off its usual orbital track, unbeknownst to the astronauts living and working inside. Meanwhile, thousands of kilometers below, another significant event was taking place.

Simultaneously, the global positioning system (GPS) ground stations, a constellation of 24 satellites traveling 12,000 miles above the Earth to provide positioning data to billions of users around the globe, started reporting unexpected anomalies. This wasn't an isolated error; all 24 satellites were rapidly rendered non-operational. The lifeblood of navigation and timestamping systems worldwide was effectively silenced.

Down on Earth, the impacts of this double-edged attack were almost immediate. Air traffic controllers stared at their screens in bewilderment as the positional data of thousands of planes disappeared.





Ships at sea lost their bearings, and self-driving vehicles on the streets came to a bewildered halt, unable to pinpoint their location. Stock markets experienced extreme turbulence as high-frequency trading systems faltered.

In the backrooms of power grids, engineers watched in horror as synchronization of the grid, which relied on GPS timestamps, started to fail, causing blackouts in cities worldwide. At the same time, billions of smartphone users were suddenly unable to access location-based services, severely disrupting daily life and business operations. The world had been rendered blind and lost in space and time.

At the ISS control center, the staff desperately tried to regain command of the space station. Their concern was not just for astronaut safety but also for the dozens of crucial scientific experiments onboard, many of which had

Contemplating the chaos of a major cyberattack on space technology may be easier than trying to imagine a coordinated response.

implications for climate research and future space exploration. As the ISS continued its unintended and risky orbital maneuver, the specter of the uncontrollable descent of the 420,000 kg station towards Earth loomed, with potentially catastrophic consequences for those on board and those in the projected impact zone on Earth.

Suppose this hypothetical scenario had actually happened. What would come next?

Chaos would have erupted in the civilian world and within the corridors of power, both domestic and international. A flurry of activity would have begun within various government agencies in the United States. The Department of Homeland Security would have quickly mobilized to protect and coordinate a response to cyberattacks against terrestrial components of the space systems.

And so it went. As they worked tirelessly to manage the impact on civilian infrastructure, the Federal Bureau of Investigation launched a parallel investigation, seeking to identify the perpetrators of the cybercrime. Simultaneously, the Department of Defense, in coordination with the U.S. Space Force and U.S. Cyber Command, focused on the defense of national space systems. Their immediate goal was to restore control of the International Space Station and the GPS satellites while securing other space-based assets against potential follow-up attacks.

The National Reconnaissance Office, tasked with operating intelligence satellites, was also in high gear, scanning through petabytes of data to ascertain if the attack originated from a foreign power. Meanwhile, the National Aeronautics and Space Administration (NASA) provided technical support, applying its extensive expertise on the ISS to help regain control of the wayward space station.

Despite this flurry of activity, there was a palpable sense of confusion and tension due to overlapping jurisdictions and the need for defined responsibilities. It needed to be made clear who should be taking the lead, causing delays in the response and creating friction between agencies. With its responsibility for commercial spaceflight, the Federal Aviation Administration felt sidelined despite the significant impact on commercial aviation and navigation systems.

Internationally, the response was even more fragmented. Nations dependent on GPS scrambled to mitigate the impacts. Discussions started at the United Nations about the need for an international framework for space cybersecurity. The spacefaring nations, each with its own stake in space assets, urgently convened to discuss a joint response. But the absence of an international body with clear responsibility and authority to respond to space-based cyberattacks added another layer of complexity and delay.







This hypothetical is indeed the stuff of science fiction. And yet, it represents a plausible threat in our increasingly interconnected and space-reliant world. The repercussions such an event could have on society and businesses worldwide, from disrupting air travel and telecommunications to causing catastrophic power failures and affecting financial markets, are alarming.

Our future on Earth and in space is irrevocably tied to our ability to safeguard these crucial systems from cyber threats. Hence, the need for technological solutions and international cooperation, for norms and defined responsibilities in this rapidly growing field. This is not merely about preserving the status quo; it's about securing a future where space continues to be a resource that unites nations, propels economic growth, and catalyzes scientific discovery.

#### WE ARE INTERTWINED WITH THE SPACE DOMAIN

Our entanglement with these space systems stretches far wider and deeper into our everyday lives and societies than one might initially realize. A look at satellite communications, weather forecasting, climate monitoring, and other dependencies throws this into stark relief.

An attack on satellite communications, the backbone of global connectivity, would go beyond merely obstructing GPS navigation. It would cripple services like TV broadcasts, internet connectivity, and long-distance telephony. This would be particularly detrimental to remote and rural areas, where traditional infrastructure may not reach, potentially isolating entire communities.

Simultaneously, our ability to predict and prepare for severe weather conditions could be dramatically hampered if the satellites that monitor weather patterns and climate trends were compromised. Such an event would not only impair our ability to provide life-saving early warnings for hurricanes or monsoons, it could also compromise our long-term understanding of climate change, with far-reaching implications for the planet.

Similarly, an attack on space-based systems that support precision agriculture, global financial systems, emergency services, and scientific research would prove devastating. Farmers could face massive agricultural losses without the weather data they rely on. Disruptions in the precise timestamping provided by GPS satellites could send shockwaves through global stock exchanges and banking transactions, potentially triggering widespread economic instability. Additionally, we rely on emergency services for safety and security, such as fire, police, and ambulance services, which could significantly increase response times without reliable navigation systems. Finally, pursuing knowledge could be stalled, as researchers across various fields—from wildlife migration to astronomy—rely heavily on satellite technology for data gathering and observation.

#### THE COMPOSITION OF SPACE SYSTEMS AND OPERATIONS

This extensive network of dependencies highlights the need for robust and proactive measures to safeguard space-based assets from the looming threat of cyberattacks. Protecting space systems requires cyber defenders to fully grasp intricate operations and interconnections. Like an enterprise, these systems contain many connected components, each potentially a vulnerability that adversaries could exploit. Comprehending how they fit together, function, and interact is key. It empowers defenders to anticipate threats, implement protections, and maintain resilience.

Securing assets from cyber threats isn't just about guarding individual components. It's about protecting an entire ecosystem, which demands a holistic understanding of the system's architecture and operations. In the intricate ballet of global communication, space-based assets such as satellites, space telescopes, and space stations perform their dance high above the Earth. Each celestial body houses its onboard systems.





Think of these as the asset's brain—containing computer processors, storage, sensors, and communication antennas. Some even have thrusters for maneuvering. This array of onboard systems receives commands from Earth and manages the assets' daily operations, ensuring the harmony of their orbital dance.

On the Earth's surface, the dance partners of these space assets are the ground stations, each equipped with large antennas. Positioned strategically around the world, they maintain a constant pas de deux with the satellites, undeterred by the Earth's rotation. Here is where the conversation happens—ground stations dispatch commands to the satellites and, in return, receive a cascade of data. They function as the essential terrestrial connection points in this vast space communication network, transmitting and receiving signals like the ebb and flow of an electromagnetic tide.

But the dance does not end there. The data, once received, embarks on a new journey, coursing through terrestrial networks toward data centers scattered across various locations. The frequencies and technologies forming these communication links vary, fine-tuned for the type of satellite and its distance from Earth. The information is processed, stored, and analyzed in these data centers, converting the raw data into a comprehensible format for further use.

Finally, these data centers also take on the pivotal role of a command hub, from which operators send instructions to the space-based assets. This intricate network, stretching from the silent void of space to the bustling data centers on Earth, forms a complicated choreography far more elaborate and interconnected than traditional technology systems. Understanding this network is vital to appreciating the sophistication of our modern space infrastructure, and the vulnerabilities that must be secured to protect it.

#### THREATS TO SPACE OPERATIONS

While specific details about cyberattacks on space systems are often classified or undisclosed due to national security concerns, several recent incidents shed light on the types and severity of such threats. These real-world attacks illustrate the diversity of the space ecosystem's cyber threats, ranging from service disruption to espionage. The threats can come from various sources, including nation-states, non-nation threat actors, and individual hackers. (I have created below a timeline of recent space-related attacks, including published attributions of the attackers.)

### Space Cyberattack Timeline (2014-2022)

#### China

Chinese cyberattack on a NOAA weather satellite disrupts the transmission data downlink

government satellite video link

#### 2014

#### **Non-State Actor**

A British citizen arrested for hacking into a U.S. military satellite and stealing personnel and satellite phone data

#### China

2017

Chinese hackers gain access to Indian

#### 2020

#### Russia

Hackers use malware to access information on satellites at U.S. federal agencies and businesses, including the Departments of State and Defense

#### Russia

Russia military successfully infiltrates a U.S. satellite network, not detected for months

#### Russia

Cyberattack against Viasat ground stations in Europe, cutting off communications for Ukraine government

#### 2022

#### Non-State Actor

A group affiliated with the hacking organization known as Anonymous breaks into Russia's Roscosmos satellite control center

#### Non-State Actor

Volunteers calling themselves the "IT Army" launch cyberattacks against Russia and Belarus.







Why is space particularly susceptible to cyber threats? While space assets share similarities with those affecting terrestrial systems, several factors make them uniquely vulnerable. Assets such as satellites are designed to operate for many years, sometimes even decades. This longevity means their onboard security can quickly become outdated, making them more vulnerable to evolving threats. Once a satellite is in orbit, it's virtually impossible to physically access it for repairs or upgrades. Therefore, any security vulnerabilities present at launch, or those that arise due to changing threat landscapes, can't be rectified.

Due to the inherent latency in communication with space assets, and the limited processing capabilities of many satellites, sophisticated real-time intrusion detection and response measures take time to implement. The radio signals used for satellite communication can be relatively easy to intercept, jam, or spoof, especially those of lower-frequency bands, unless protected by strong encryption and authentication measures. Components for space assets often come from a global supply chain, increasing the risk of compromised hardware or software being included in the final product.

Given these challenges, cybersecurity in the space domain requires specialized strategies and solutions that go beyond the measures employed in traditional IT systems. It calls for secure design and manufacturing advances, robust encryption and authentication protocols, secure and reliable command-and-control systems, and international cooperation to establish space-specific cybersecurity norms and practices.

#### SECURING SPACE AGAINST CYBERATTACKS

As we extend our reach into the cosmos, security becomes paramount. This reality is rendered more pressing as the scope of our space economy continues to expand. The 5,400 satellites currently in orbit will be dwarfed by the anticipated launch of more than 24,500 satellites over the next decade. Commercial ventures will account for over 70% of these new celestial bodies.

The escalating significance of these assets to the global infrastructure, and the mounting sophistication of cyber threats, underline the urgency for innovative solutions. However, the unique hurdles presented necessitate a different approach than we typically employ to tackle traditional cybersecurity issues.

Several solutions are emerging, each addressing the specific cybersecurity demands of the space domain. Quantum encryption, for instance, is leading the way in communication protection between space assets and ground stations, as traditional encryption methods risk obsolescence in the face of advancing quantum computing. Al and machine learning are emerging as invaluable tools for real-time threat identification, sifting through massive data sets to improve response times and system resilience.

As our space assets multiply, secure space traffic management is becoming increasingly vital for identifying potential cyberattacks and ensuring safe operation. A commitment to cyber resilience in space systems design is essential. Building these systems with cybersecurity as a cornerstone from inception will help ensure they can withstand future threats.

In an increasingly interconnected world, establishing international cybersecurity standards for space could unify and enhance the security of all spacefaring nations and companies. And leveraging blockchain technology could help secure the integrity of hardware and software used in space systems, mitigating a significant source of the threats.

Finally, strengthening the security of land-based components, such as ground stations and data centers, is crucial to a holistic space strategy. By integrating these innovative technologies and approaches, we can fortify the cybersecurity of the space domain, securing the critical services we rely on now and will continue to rely on in the future.







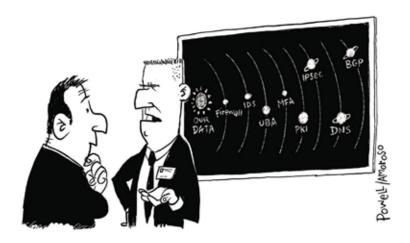
#### THE TAKEAWAY

My hypothetical cyberattack was designed to serve as a sobering reminder of the potential vulnerabilities and profound consequences of such an attack on our space-based systems. I hope it underscored thought-provoking questions about our preparedness, the interconnectedness of our world, and the urgent need for action.

Moreover, the response portrayed in our scenario highlights the challenges of coordinating a timely and effective counter to space-based cyber threats. Overlapping jurisdictions, a lack of defined responsibilities, and the absence of international protocols create confusion and delays, leaving us vulnerable. It emphasizes the critical need for collaboration and clear lines of authority to ensure a swift and coordinated response.

I hope the scenario also underscored the unique nature of space as a domain for cyber threats. The longevity of space assets, the difficulty of access for upgrades, and the global supply chains make them particularly susceptible to evolving risks. We must recognize the distinctive characteristics of space systems and develop tailored strategies to protect them from threats that transcend traditional cybersecurity approaches.

Our future, on Earth and beyond, is inseparable from the space domain. It is time for governments, organizations, and individuals to prioritize the protection of our space-based systems and preserve the benefits they bring. Will we unite to strengthen resilience, foster international collaboration, and establish robust frameworks to defend against space-based cyber threats? The answer will shape the future of our interconnected world and determine whether space remains a beacon of unity, innovation, and exploration.



"Uh, yes – I will admit some NASA influence in the new security architecture."







# WHY AI-BASED CYBERSECURITY WILL CONTINUE TO NEED THE HUMAN TOUCH

#### DAVID HECHI FR

It strikes me as almost a foregone conclusion that artificial intelligence will transform cybersecurity. But it's far less clear, at least to me, whether the result will be a standoff between enemy forces that rely almost entirely on Al defenses.

It seems inevitable that there will be an Al arms race. There already is. The United States and China are the competitors mentioned most prominently in the media. Russia, North Korea and Iran are the other nation-states active in launching cyberattacks. They'll try to match the advances of their targets. Other countries could emerge in coming decades.

It's easy to argue that AI will figure into the equation more and more prominently—on both offense and defense. But that doesn't

mean that the machines will be in control. Al will not be calling all the shots. At least not in the foreseeable future. Much about the way the competition evolves will depend upon the humans who collaborate with the technology. Just as it does when Al is used by the military (as I will discuss below).

A lot of the talk right now is about the astonishing technological advances. When the conversation turns to people, they are often engineers who are building the software, and leaders of companies that are funding it—and pushing the competition. These individuals are certainly enjoying a well-deserved moment. But they aren't the only ones who are important players in this realm.

Lawyers, philosophers, journalists, researchers and all kinds of academics have expressed concern about the dangers





Al may pose not only to our country, but to humanity. Far from being seen as our protector against cyberattacks, some people view Al as a grave threat to our future.

A widely cited **survey** produced by Al Impacts in 2022 asked researchers who had published papers presented at two large machine-learning conferences this question: "What probability do you put on future Al advances causing human extinction or similarly permanent and severe disempowerment of the human species?" Based on 738 responses, the median respondent said the chance was 5%. But the number that many news accounts cited was double that number because 48% of respondents said the chance was 10%, and that's the statistic almost everyone used.

"Would you work on a technology you thought had a 10% chance of wiping out humanity?" New York Times columnist Ezra Klein **wrote** in March 2023. Klein explained his deep concerns while acknowledging that the train has "Al systems can neither design themselves nor clean their own data, which leads us to conclude that increased reliance on Al will make human skills even more important..."

already left the station. And the challenge of slowing, much less stopping, its progress seems daunting at best. As apprehensions about ChatGPT have mounted, a chorus of voices joined his.

It's possible that politicians may try to gain some measure of control through legislation. But even if they were convinced of the need, the likelihood of success seems highly problematic. The work is in the private sector, and the funding is from companies like Microsoft, Google and Facebook. So government doesn't control all the purse strings. And if the government tries to create legal roadblocks, critics will almost certainly accuse it of handing China a devastating, and potentially deadly, gift.

But let's return to cybersecurity, where the aim is to use AI to safeguard our safety. The machine learning will need to be directed by humans who study the threats and feed relevant information into the technology. In my research, the article I came across that shed the most light on this subject was **Prediction and Judgment: Why Artificial Intelligence Increases the Importance of Humans in War**, by Avi Goldfarb and Jon R. Lindsay (this is where my earlier reference to the military comes in). Writing in the journal International Security, the authors did touch on cybersecurity and cyberwar, but that's not why I found it relevant. When we're talking about cybersecurity in the broadest sense—including battles between nation-states—then war is more than an analogy.

Goldfarb and Lindsay don't address the cybersecurity challenges we're addressing here, but they do talk about the ways corporations and even doctors use Al. The authors see great value in the technology. They expect it to transform the world in which we live. But they don't see it substituting for humans. They anticipate a collaborative relationship that builds on the strengths of each. "A well-specified Al utility function has two characteristics," they write. "First, goals are clearly defined in advance. If designers cannot formally specify payoffs and priorities for all situations, then each prediction will require a customized judgment. This is often the case in medical applications. When there are many possible situations, human judgment is often needed upon seeing the diagnosis. The judgment cannot be determined in advance because it would take too much time to specify all possible contingencies. Such dynamic or nuanced situations require, in effect, incomplete contracts that leave out complex, situation-specific details to be negotiated later."







The authors go on: "Al adoption may radically change the distribution of judgment by altering who in an organization makes decisions and about what, but in all cases, humans are ultimately responsible for setting objectives, making trade-offs, and evaluating outcomes.... Al systems can neither design themselves nor clean their own data, which leads us to conclude that increased reliance on Al will make human skills even more important..."

There's another important factor concerning cybersecurity based on Al. The debate over ChatGPT may not involve the government, but the government is very much involved in the world of cybersecurity. And it will inevitably be deeply involved in budgetary and strategic decisions that involve Al. When Goldfarb and Lindsay write that "seemingly trivial procedures can become politicized when budgets and authorities are implicated," it's easy to see how this applies to cybersecurity. "Even in the absence of parochialism," they continue, "the complexity of administrative systems introduces interpretive challenges for personnel."

In the case of cybersecurity, there's plenty of personnel. The Cybersecurity and Infrastructure Security Agency, the National Security Agency and the Department of Justice all play important roles. The heads of those organizations and other appointed cybersecurity leaders don't report to Al. And their judgments affect how Al is deployed. When it comes time for lobbyists and government agencies to press representatives in the House and Senate to approve appropriations for cybersecurity tentatively slated to be included in the annual National Defense Authorization Act, they aren't likely to be gladhanded by ChatGPT.

Finally, let's not forget that the political winds in the United States have been shifting from administration to administration. There are no guarantees that new leaders will continue to support AI or a robust cybersecurity budget. A new administration's strategy could certainly change course. And the same could be true in other parts of the world. As hard as it is to predict the advances of the technology, it can be just as challenging to gauge the path that politics will take.







Amenaza Technologies Ltd. is a leading threat analysis and risk assessment solutions provider. With its flagship product, Secure/Tree®, the company assists organizations in identifying potential vulnerabilities, analyzing threat scenarios, and optimizing security countermeasures. Founded in 1998, Amenaza Technologies is headquartered in Calgary, Canada, serving diverse global clients.

