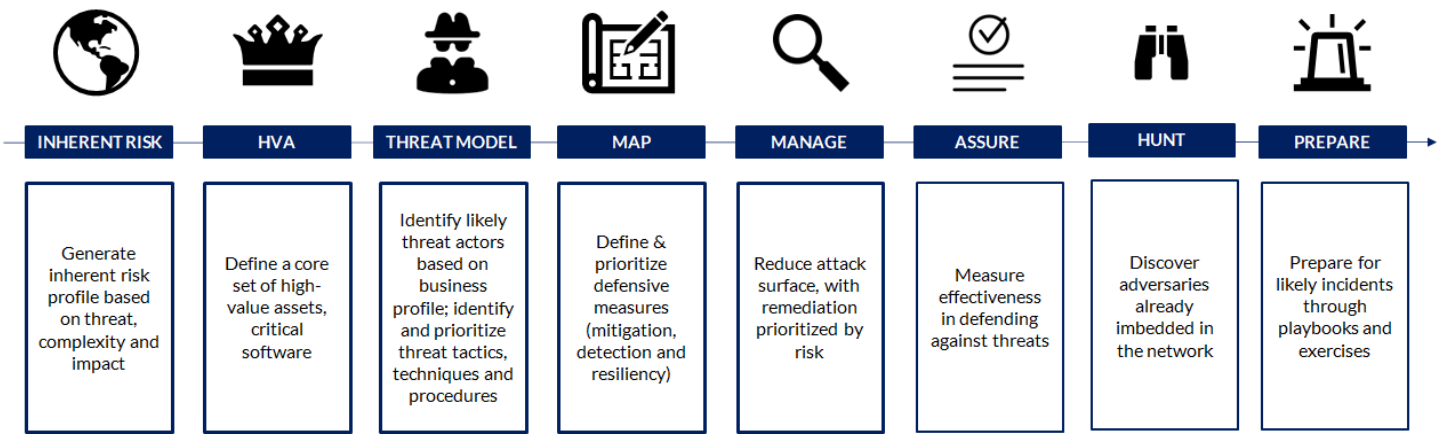
Threat-Informed Defense Managed Services

Summary
Security teams continually tune their cyber defenses against threat behaviors that are most likely to attack them. However, keeping pace with rapidly evolving threat groups and the hundreds of tactics, techniques and procedures (TTPs) they employ is difficult. Understanding whether currently-deployed security products can defend effectively against those TTPs is even harder. Accurately assessing which of the thousands of capabilities available from hundreds of vendors can best defend against those TTPs has also been a challenge for even the largest of security organizations.

Through its partnership with Tidal Cyber, The Chertoff Group is solving this problem. By leveraging the Enterprise Edition of Tidal Cyber's platform, The Chertoff Group can continually deliver threat-informed defense as a managed service to help its organizations:

- Understand which TTPs matter most as adversaries behaviors evolve;
- Rapidly assess whether existing security products and capabilities adequately cover those evolving TTPs; and
- Identify solutions that address critical coverage gaps as they emerge.

The Chertoff Group Approach
The Chertoff Group helps organizations develop comprehensive threat-informed defense strategies and operating models that provide direction and repeatability for safeguarding businesses and their customers from key cyber-related risks. The Chertoff Group's threat-informed defense operating model service incorporates these principles through the following elements:



The Chertoff Group's approach leverages its expertise combined with the MITRE Corporation's ATT&CK framework. ATT&CK is the most comprehensive, authoritative approach to mapping of threat actors to tactics, techniques and procedures (TTPs) openly available today.

The Chertoff Group's approach is anchored in core cyber resiliency strategic design principles like focusing on common critical assets; supporting agility and architecting for adaptability; reducing attack surfaces; assuming compromised resources and expecting adversaries to evolve. Taken together, these design principles are intended to reduce the occurrence of threat activity and the potential severity of impacts.

In doing so, The Chertoff Group helps clients isolate the following issues and answer these persistent questions:

1. What are we being asked to defend? The Chertoff Group ensure strategies and operating models are informed by a comprehensive understanding of inherent risk and the attack surface, with a particular focus on high-value assets.
2. What are we being asked to defend against? ATT&CK serves as the foundational framework and knowledge-base for mapping threats to attack-surface-specific defenses.
3. How do we go about it? We use a capability development framework to map capability needs to resources required to address those needs, and then build a program that can scale based on the scope of the organization.

Leveraging Tidal Cyber's Enterprise Edition to Keep Pace with Adversary Evolution
Tidal Cyber's Enterprise Edition enables security organizations to gain continuous visibility into their operational security posture relative to all key threats at scale through the implementation of:

Threat Profiling and **Coverage Mapping**
Threat Profiling enables security operators to add and automatically track the behavioral evolution of multiple important threat objects (groups, malware families, campaigns) that are likely to attack a given enterprise. Leveraging MITRE ATT&CK and other threat intelligence sources, Tidal Cyber maintains an updated perspective on the TTPs that are likely to be employed by that threat object. The platform gives security organizations the ability to weight each TTP based on the relative risk associated with the behavior.

Tidal Cyber Coverage Map

Coverage Mapping automatically assesses risk to an asset or group of assets by a Threat Profile on a TTP-by-TTP basis. This scalable approach compares the risks associated with a given TTP in a Threat Profile against the risk reductions offered by a **Defensive Stack**. A Defensive Stack is an inventory of security capabilities, as deployed and configured within a client's environment, to protect an asset or group of assets. The platform gives security organizations the ability to weigh each defensive capability based on its expected efficacy.

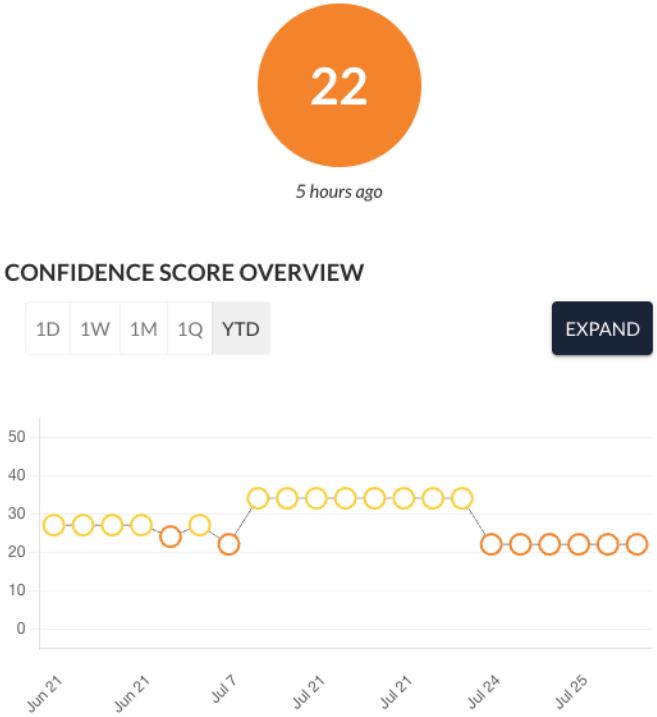
Tidal compares the risk presented by a TTP against the combined efficacy of the capabilities that comprise a Defensive Stack using a Behavioral Score. The Behavioral Score is an index between 0 and 50 that reflects the confidence that the risk presented by a TTP can be adequately offset by the capabilities in a Defensive Stack. The average of all Behavioral Scores is the overall Confidence Score of a Coverage Map.

Confidence Scoring gives Coverage Mappings depth and value that evolves contemporaneously as adversaries and defensive capabilities evolve. With Confidence Scoring, security decision-makers have the ability to:

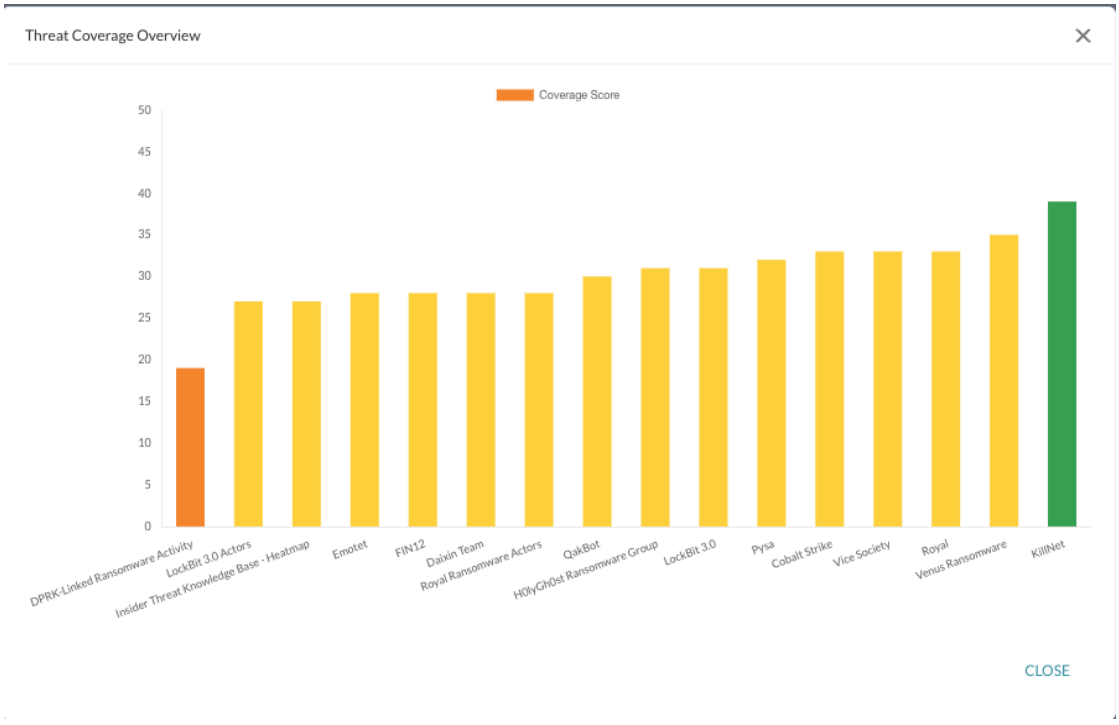
- Quickly and easily understand their operational security posture across the enterprise and see how it evolves over time.
- Identify key gaps in defensive posture and make data-driven decisions around which defensive capabilities are most important to add immediately.
- Optimize defensive coverage to ensure defense-in-depth where it is needed most.

- Save significant money by eliminating unnecessary redundancies or migrating to more efficient platforms that offer the same or more risk reduction at a lower price.
- Understand the risk-reducing impact of security controls.

Confidence Score Over Time



Threat Coverage Overview



With Tidal Cyber's approach, security organizations have the ability to understand their updated security posture against TTPs as they evolve, how well the risk presented by a given TTPs has been resolved, and the relative residual risk that remains on an adversary-by-adversary basis.

The Chertoff Group Threat-Informed Defense Managed Service
The Threat-Informed Defense managed service will enable companies to keep pace with adversary TTPs as they rapidly evolve. Key elements include:

- **Inherent Risk Profile.** A strategic design principle for cyber resilience is supporting agility and architecting for adaptability. A starting point for doing so is understanding the inherent risk facing an organization – that is, the risk before mitigations are put in place – and how that risk is changing, for example based on new business initiatives, mergers & acquisitions or changes in technology architecture. This starts with business profile. From our experience, three foundational factors define inherent risk: (1) threat, (2) complexity and (3) impact, and we work to build and update profiles anchored in these elements.

- **High Value Assets.** Key operating constraints to defending an environment include both (a) a universe of threat actors that are adaptive and well-funded, and (b) limited resources with which to defend the attack surface. A secondary objective is to focus defenses on assets that represent heightened risks. The Chertoff Group helps define and evolve High Value Asset categorizations.

- **Threat Model.** Based on cyber threat intelligence sources, The Chertoff Group leverages the **Tidal Cyber** platform to continually update Threat Profiles that are relevant to the organization's business profile, including high-priority threat objects (adversary groups, malware families and emerging campaigns). The Chertoff Group tailors the weights for each threat object as it evolves based on specific requirements.

- **Map.** As The Chertoff Group updates Threat Profiles and Defensive Capabilities, the **Tidal Cyber** platform will recalculate Coverage Maps and Confidence Score automatically, providing an always current view of the organization's security posture against the TTPs that matter most.

- **Manage.** Leveraging **Tidal Cyber,** Chertoff Group will provide ongoing recommendations for adding new capabilities that fill new and existing coverage gaps, prioritized by the greatest impact to risk reduction.

- **Assure.** The Chertoff Group identifies and prioritizes critical defensive capabilities for periodic adversary emulation testing, providing the assurance that key defensive capabilities are as effective as expected. As important capabilities pass or fail these tests, The Chertoff Group adjusts the expected efficacy of the respective capability accordingly.

- **Threat Hunt.** Threat hunting complements existing detection capabilities, which are basically reactive, by proactively focusing on "identifying new adversaries or previously undiscovered malicious actors already entrenched in the enterprise." (MITRE World Class SOC Framework). Chertoff Group insights help prioritize these threat hunt operations.

- **Prepare for Incidents.** In a world where there is no such thing as risk elimination, incident preparedness is critical to minimizing impact from a successful intrusion. The Chertoff Group works with clients to develop plans, playbooks and exercises critical to sustaining a baseline of good practice and muscle memory on how to respond to high-severity incidents.

About The Chertoff Group
The Chertoff Group is an advisory firm of highly qualified experts that uses proven frameworks to help organizations achieve their business and security objectives in a complex risk environment. Our team helps organizations manage cyber, physical and geopolitical risks; navigate evolving regulatory and compliance requirements; and discover opportunities to win business and create value. Through our investment banking subsidiary Chertoff Capital, the firm provides M&A advisory services to companies in the defense technology, national security and cybersecurity markets. Together, we enable a more secure world. For more information, visit www.chertoffgroup.com.

About Tidal Cyber
Founded in January 2022 by a team of threat intelligence veterans with experience at MITRE, the U.S. Department of Homeland Security, and a wide range of innovative security providers, Tidal Cyber enables businesses to implement a threat-informed defense more easily and efficiently. Through both the Tidal Platform and our expert services, Tidal helps its customers map the security requirements and capabilities of their unique environment against the industry's most complete knowledgebase of adversary tactics and techniques, including the MITRE ATT&CK® knowledge base, additional open-source threat intelligence sources, and a Tidal-curated registry of security products mapped to specific adversary techniques. The result is actionable insight to track and improve their defensive coverage, gaps, and overlaps while also empowering cybersecurity teams to work more efficiently. For more information please contact: info@tidalcyber.com