

# **Predictive Risk Profile**

Predictive Risk Profiles from CyberGRX revolutionize the approach to third-party cyber risk management. By applying the power of machine learning against our unparalleled Risk Exchange database, Predictive Risk Profiles provide unique insights across your entire portfolio of vendors to help you make faster, more informed decisions about your third parties.



## What are Predictive Risk Profiles

Predictive Risk Profiles forecast how a given third party will answer each question on our proprietary assessment based on firmographics, outside-in data, and similar completed assessments on our Exchange with up to an 85% accuracy rate. Every company on the CyberGRX Exchange will have a Predictive Risk Profile to view and share with those who request it, enabling transparency and collaboration to address control gaps and risk remediation strategies.

For those engaging with third parties, having these insights means being able analyze vulnerabilities immediately upon entering third parties in your portfolio, allowing you to make informed decisions about where to prioritize your risk management time and resources. For the third parties, who often struggle with an overwhelming number of assessment requests, Predictive Risk Profiles can be used as a bridge to help their customers make decisions while they prioritize requests with critical resources.

From inherent and residual risk views, to mapping against common and customized frameworks, to providing control gap analysis using threat profiles and real-life cyber attack analytics, our sophisticated Predictive Risk Intelligence allows you to monitor and analyze your third-party risk through the lens that matters most to you.

#### **Customer Benefits:**

- Receive immediate access to a comprehensive and actionable Predictive Risk Profile for each third party as well as your entire portfolio level
- Spend valuable time and resources analyzing data and remediating risks discovered rather than chasing assessments
- Prioritize your critical and high risks by using Predictive Risk Profiles, MITRE(R) Attack Scenario Analytics and threat profiles based on real-world cyber events
- Engage with your own Predictive Risk Profile to better manage your cyber risk reputation as a third party to your own customers

#### **Third Party Benefits**

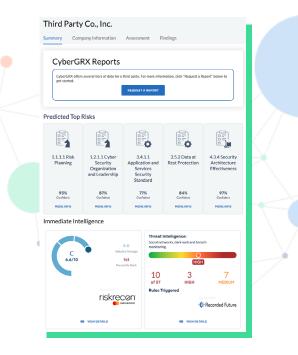
- Provide immediate risk insights results to customers, allowing for prioritization of requests for self-attested assessments
- Use the standardized CyberGRX assessment to enrich your Predictive Risk Profile and allow customers to see both predicted and self-attested results in one place
- Share your CyberGRX assessment with other requesters to save time and resources in responding to multiple requests
- Use the CyberGRX Framework Mapper to better understand control gaps and CyberGRX threat profiles to compare vulnerabilities to exploits used in real-life cyber attacks



# How are Predictive Risk Profiles created?

At the core of CyberGRX's predictive capabilities is our unparalleled third-party risk Exchange database which was created from more than 9,000 self-assessments from companies spanning various industries and geographies. Our standardized approach to assessment data collection over the past 5+ years has enabled us to apply advanced machine learning to our Exchange data as well as firmographic data, risk ratings and third-party threat intelligence from our technology partners to create the Predictive Risk Profile. Our proprietary algorithm analyzes this wealth of data to predict how a given third party will answer each assessment question with up to an 85% accuracy rate. As data contributing to the Predictive Risk Profile is refreshed, the profiles are also updated.

Any company on our Exchange has a Predictive Risk Profile, providing a valuable repository of risk data aimed at helping all companies gain better visibility to their third-party risk. Once your company has been added to a CyberGRX member's third-party portfolio within the platform, they are able to view your Predictive



Risk Profile. If you choose to complete an assessment on our Exchange and authorize sharing with your customers, both the predictive and actual self-attested results will be available, with the default view being your self-attested results. Self-attested assessments are an additional way to enrich your Predictive Risk Profile and provide validation of your cybersecurity controls.

### The Difference Between Accuracy and Confidence

Predictive Risk Profiles include measures of accuracy and confidence. The overall accuracy measures how well we can predict the answers of historical self-attested assessments on the Exchange. This means how accurate the machine learning model is in answering each individual question included on the predictive risk assessment.

Confidence is defined as confidence that our predicted results will not vary more than +/- 10% when compared to self-attested results. This calculation depends on of several factors:

## Evidence, or answers from the third party.

With additional answers, questions become fixed, which influences the probabilities of related questions, leading to less variance in simulating assessments for a third party. ➡ ► Variance from
■ Simulated assessments.

If the simulated assessment outcomes result in a distribution with high variance, there is a wider margin of error that has an influence on the confidence.



A high confidence level with a wider margin of error is undesirable due to scenarios where the results are, for example, 99% confident, but the coverage for that confidence almost spans the 0-100 range.

The best way to increase both the accuracy and confidence level of the predicted results is to become an active member of the CyberGRX Exchange and complete a self-attested assessment.



## Cyber Cyber GRX

# The Predictive Risk Profile in the CyberGRX Platform

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#### **Predicted Maturity**

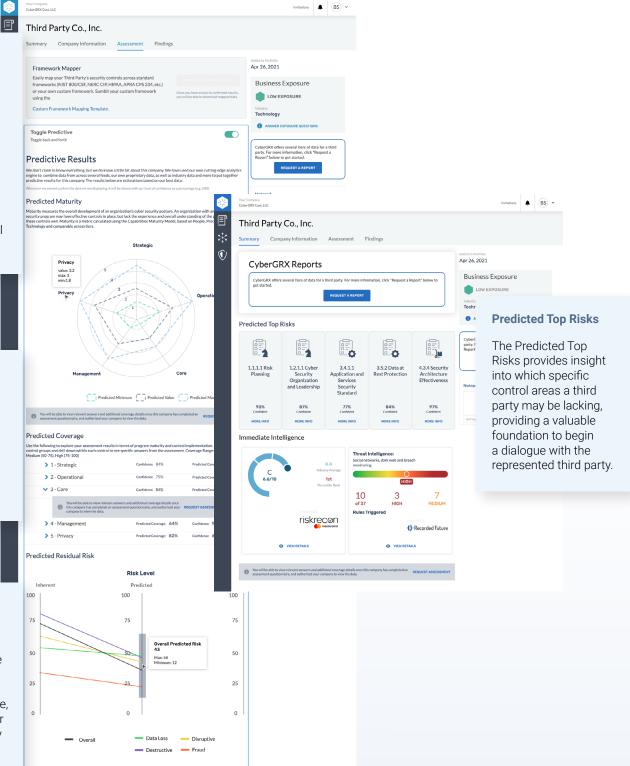
Predicted Maturity applies to the capability maturity model questions included in the CyberGRX selfassessment. The results measure the maturity level of people, process, and technology across all control groups.

#### **Predicted Coverage**

Predicted Coverage is a prediction of the percentage of controls in any control group the third party will claim to have in place.

#### Predicted Risk Surface Score

Predicted Risk Surface indicates the third-party's residual risk of a data loss, disruptive, destructive, or fraud-related cyber event, which is highly valuable information to evaluate based on the way in which you interact with a third party.





#### The leader in Cyber Risk Intelligence

CyberGRX strives to map the cybersecurity reputation of every company in the world. As the leader in third-party cyber risk intelligence, we are driven by sophisticated data analytics and advanced machine learning to help you modernize your approach to third-party cyber risk management. CyberGRX members can regain control of their cyber risk reputation and strengthen third-party relationships through collaborative, proactive risk mitigation and a focus on rapid, data-driven decision making.

# Cyber Cyber GRX

# Join the World's Largest Third-Party Cyber Risk Exchange

Visit www.CyberGRX.com for more info