



Quantar CyCalc[®] Cyber Valuation Analytics

Making Sense of Cyber Threat Modelling for P&C Carriers

Unlike others, cyber risks pose unique challenges to insurers due to their constant evolution and the lack of historic data relating to their impact upon businesses. Cyber threats require a different approach to understanding the financial impairment caused by a successful attack:

- Today's threats do not necessarily represent those of tomorrow
- Asymmetry of data between client and insurer limits models
- Aggregated risk may lead to catastrophic loss for an insurer
- Every client's business has proprietary processes and systems

Underwriting a risk requires a wealth of data from which to model and price insurance. In its absence, judgement and qualitative assessment leaves insurers limited in their ability to meet client demands for higher levels of cover.

Quantar CyCalc[®] Cyber Analytics

Our unique cyber threat valuation platform gives insurers for the first time, the ability to understand the financial impact of a successful cyber attack when underwriting cover. Since 2005, Quantar CyCalc[®] has been delivering underwriting support with its cyber threat valuation solution. Through combining multiple sources of data with risk and scenario modelling, adverse selection, correct pricing and setting of ceiling limits can be attained with deep insight.

Data

aggregation facilitates overall cyber portfolio risk management capability and development of new products and services.

Our Methodology

Our systems collect data from multiple sources to extrapolate into future periods, to avoid autopsy risk assessments and provides meaningful historic versus future trend analysis. Acquiring proprietary network threat data from clients and combining this with their unique process-system independency information, delivers the insight P&C insurers need, to control and manage their cyber risk exposure. We give insurers the capability to operate on the basis of data-driven Informed Insurance[®].

CyCalc[®] Highlights

Threat Data Engine

- Continuous client threat data acquisition for analysis and extrapolation of future events

Multi-Model Approach

- Both stochastic and linear modelling of input data providing for enhanced underwriting capability

What-if Scenarios

- Ability to create multiple scenarios and measure against baseline financial and operating risk exposures
- Test mitigation actions on a cost-effective basis to target capital spending for enhanced cyber resilience

Non-Cloud Secure Data Use

- Local installation and acquisition of threat data only, excluding packet content removes an additional security and compliance burden that comes with cloud-based solutions

Informed Insurance® for Cyber Risk

Whilst there are a number of tools available to assess an enterprises' cyber security, these tend to ignore key contributors to overall cyber exposure and as such are not true indicators for the insurer nor for corporate risk management and executives.

Quantar's CyCalc® Risk Analytics utilise multiple data sources and loss models developed specifically for the insurance industry. Whilst our models provide a financial value for cyber risks posed to individual enterprises, our technology also:

- Accounts for outsourced operations in various time zones
- Enables models to include insider threats, physical attacks on infrastructure and catastrophes, natural or otherwise
- Extrapolates actual threat growth, delivering insight into future financial risk exposure levels and not simply a current scenario

Example Case Usage

We provide insurers with deep insight into the true cyber risk exposure arising from single clients or an aggregated portfolio. Through the provision through using CyCalc®, the following advantages can be realised:

- Underwriters no longer rely upon qualitative judgement; pricing, assessment and client evaluation is achieved through current and ongoing data capture.
- Product development teams and actuarial valuations can be created from deterministic models based upon the proprietary data per client and aggregated for longitudinal accuracy in pricing and product terms
- Enterprise risk managers use their own data and combined with ours, are able to evaluate their corporate risk and assist in data regulatory compliance
- Easy to understand graphical outputs and what-if scenario modelling facilitates enhanced capital allocation to those areas of highest exposure requiring additional security, reducing insurance costs.
- Reinsurers can ascertain the total portfolio risk in a data-driven manner, with a greater symmetry of data held between carrier and client.

CyCalc® Benefits

Aggregated Risk Portfolios

- Supplements underwriting information with the ability to combine multiple data sets according to need, providing aggregation of risk factors

Pricing & Profiling

- Creates the ability to establish profiles according to data characteristics, delivering uplift of pricing accuracy and aligning to real risk exposure

Product Development

- Enables your teams to design new insurance products better aligned to the needs your clients and your company
- Delivers the information needed to create terms and conditions that match your client's cyber exposure
- Facilitates collaborative working with your clients to reduce cyber risk exposure, benefitting both you and your client and increase retention rates



Quantar creates software to support the Property and Casualty (P&C) carrier market in understanding the individual and aggregated risks associated with cyber and business interruption insurance. We utilise multiple data sources for our cyber threat valuation platform, to provide risk carriers the critical data they need for Informed Insurance® decisions. For more information, please visit www.quantar.tech.

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