At Bay

EXHIBIT A	
Quantar's Preliminary Infringement Contentions	
US Patent No: 9143523 12/811,208	**Accused Instrumentalities**
Claim: 1	
1. Apparatus for assessing threat to at least one computer network, the threat including at least one electronic threat, the computer network comprising a plurality of IT systems and a plurality of business processes operating on the plurality of IT systems, wherein (a) at least one IT system has two or more of the plurality of business processes operating thereon or (b) at least one business process operates on two or more of the plurality of IT systems, the apparatus comprising at least one processor and a memory coupled to the processor, the memory storing instructions executable by the processor that cause the processor to:	
predict future threat activity based on past observed threat activity including, for the at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

target, determine expected downtime of each system of the plurality of IT systems in dependence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency, determine loss for each of the plurality of business processes dependent on the downtimes of the IT systems, and add losses for the plurality of business processes so as to obtain a combined loss arising from the threat activity.	
Claim: 12	
12. A method of assessing threat to at least one computer network, the threat including at least one electronic threat, the network comprising a plurality of IT systems wherein a plurality of business processes operate on the plurality of IT systems, and wherein (a) at least one IT system has two or more of the plurality of business processes operating thereon or (b) at least one business process operates on two or more of the plurality of IT systems, the method comprising, by using at least one computer processor:	
predicting threat activity based on past observed activity including, for the at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

the observed threat and a severity score for each target;	
determining expected downtime of the plurality of IT systems in dependence upon said ==predicted== threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining loss for the plurality of business processes dependent on the downtimes of the IT systems;	
adding losses for the plurality of business processes to obtain a combined loss arising from the threat activity.	
Claim: 15	
15. A non-transitory computer readable medium storing a computer program which when executed by a computer system, causes the computer system to perform a method of assessing threat to at least one computer network, the threat including at least one electronic threat, the computer network comprising a plurality of IT systems wherein a plurality of business processes operate on the plurality of IT systems, and wherein (a) at least one IT system has two or more of the plurality of business processes operating thereon or (b) at least one business process operates on two or	

more of the plurality of IT systems, the method comprising:	
predicting threat activity based on past observed activity including, for the at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining expected downtime of each of the plurality of IT systems in dependence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining loss for the plurality of business processes dependent on the downtimes of the IT systems;	
adding losses for the plurality of business processes to obtain a combined loss arising from the threat activity.	

Note: Total claims: 15 and Independent claims: 3

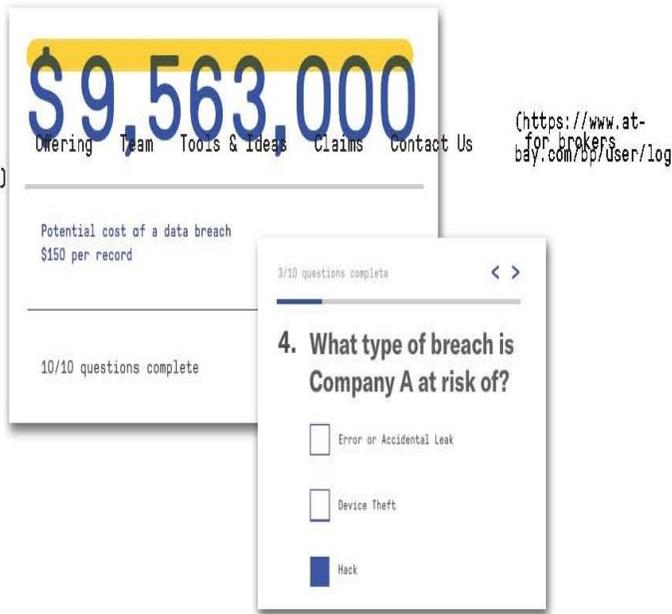| EXHIBIT B	
Quantar's Preliminary Infringement Contentions	
US Patent No: 9363279 13/322,298	**Accused Instrumentalities**
Claim: 1	
1. An apparatus including one or more computer processors and a non-transient computer readable memory, wherein the one or more computer processors are configured pursuant to programming code in a the non-transient computer readable memory to predict, for each of a plurality of threats capable of affecting at least one computer network in which a plurality of systems operate, future threat activity using a Monte Carlo method based on stochastic modelling of past observed threat events, wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats includes a plurality of computer viruses, wherein the one or more computer processors are configured, for a given threat, to model a set of past observed threat events to obtain an estimate of at least one model parameter, and, in a Monte Carlo simulation of a given threat, to predict future threat events using the at least one model parameter and a stochastic model using a projection of at least one model parameter which is based on the estimate of at least one model parameter and on a randomly-drawn variable, and to predict a distribution of	

<table>
<tr>
<td>future threat events by repeating the simulation using a plurality of variables; and</td>
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<tr>
<td>wherein the apparatus is further configured to determine an expected downtime of each of said systems in dependence upon said predicted future threat activity and to determine a <mark>financial loss</mark> for each of a plurality of operational processes dependent on the downtimes of each of said systems and to add the <mark>financial losses</mark> for said plurality of processes so as to obtain a combined <mark>financial loss</mark> arising from the predicted future threat activity.</td>
<td>

ATBAY 1;

provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

[(https://www.at-bay.com/data-breach-calculator/)]

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(https://www.at-bay.com/bp/user/log for brokers

Potential cost of a data breach
$150 per record

3/10 questions complete   < >

10/10 questions complete

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

☒ Hack

ATBAY 2;

Play with different variables to test your costs under multiple breach

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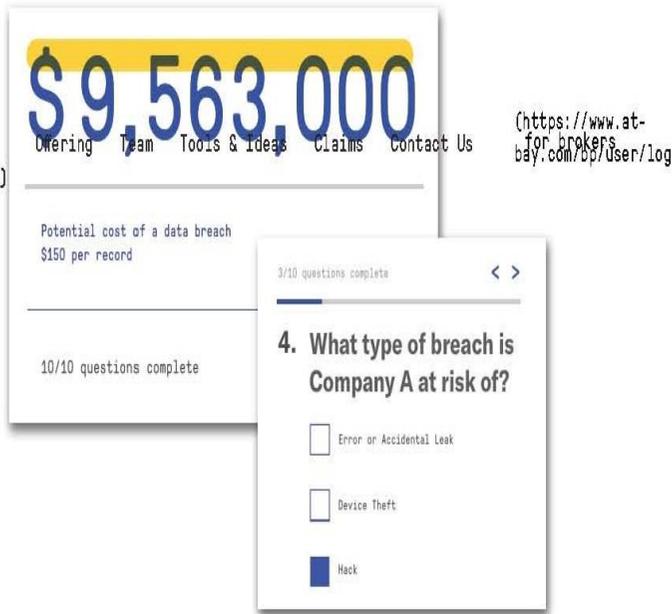|	scenarios.
	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
	ATBAY 3;
	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

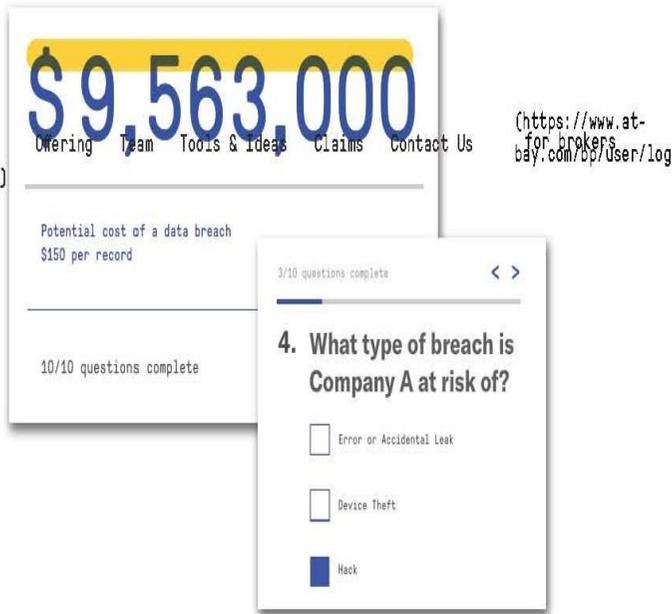| **Claim: 25**	
25. A computer-implemented method, the method being performed by a computer system having one or more computer processors and a non-transient computer readable memory, the one or more computer processors being configured pursuant to programming code in the non-transient computer readable memory, the method comprising:	
predicting, for each of a plurality of threats, future threat activity using a Monte Carlo method based on stochastic modelling of past observed threat events capable of affecting at least one computer network in which a plurality of systems operate, wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats includes a plurality of computer viruses;	
wherein for each given threat the method comprises:	

modelling a set of past observed threat events to obtain an estimate of at least one model parameter;	
performing a Monte Carlo simulation of the given threat by:	
predicting future threat events using the at least one model parameter and a stochastic model using a projection of at least one model parameter which is based on the estimate of at least one model parameter and on a randomly-drawn variable, and predicting a distribution of future threat events by repeating the simulation using a plurality of variables; and	
wherein determining an expected downtime of each system in dependence upon said <mark>predicted</mark> future threat activity;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining a <mark>financial loss</mark> for each of a plurality of operational processes dependent on the downtimes of the systems;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

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adding the financial losses for the plurality of processes to obtain a combined financial loss arising from the future threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

	ATBAY 3; Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 29	
29. A non-transitory computer readable medium having a computer program thereon, which when executed by a computer system having one or more computer processors and a non-transient computer readable memory, causes the computer system to predict, for each of a plurality of threats, future threat activity a Monte Carlo method based on stochastic modelling of past observed threat events capable of affecting at least one computer network in which a plurality of systems operate, wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats includes a plurality of computer viruses;	
wherein execution of the computer program causes the computer system to perform, for each given threat, steps comprising:	
modelling a set of past observed threat events to obtain an estimate of at least one model parameter;	

performing a Monte Carlo simulation of the given threat by:	
predicting future threat events using the at least one model parameter and a stochastic model using a projection of at least one model parameter which is based on the estimate of at least one model parameter and on a randomly-drawn variable, and predicting a distribution of future threat events by repeating the simulation using a plurality of variables; and	
wherein determining an expected downtime of each system in dependence upon said <mark>predicted</mark> future threat activity;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining a <mark>financial loss</mark> for each of a plurality of operational processes dependent on the downtimes of the systems;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

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adding the financial losses for the plurality of processes to obtain a combined financial loss arising from the future threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

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Note: Total claims: 30 and Independent claims: 3

EXHIBIT C
Quantar's Preliminary Infringement Contentions

US Patent No: 9288224 14/827,712	Accused Instrumentalities
Claim: 1	
1. Apparatus for assessing and valuing computer network threats, the threats including at least one electronic threat, the computer network comprising a plurality of IT systems and a plurality of business processes operating on the plurality of IT systems, the apparatus comprising at least one processor and a memory coupled to the processor, the memory storing instructions executable by the processor that cause the processor to:	
predict future threat activity based on past observed threat activity including, at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine expected downtime of each system of the plurality of IT systems in dependence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine the <mark>financial loss</mark> for each of the plurality of business processes dependent on the downtimes of the IT systems, and;	**ATBAY1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
add the <mark>financial losses</mark> for the plurality of business processes so as to obtain a combined financial loss arising from the threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

Potential cost of a data breach
$150 per record

10/10 questions complete

(https://www.at-bay.com/data-breach-calculator/) open calculator

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3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

Claim: 13	
13. A method of assessing and valuing computer network threats, the threats including at least one electronic threat, the network comprising a plurality of IT systems wherein a plurality of business	

processes operate on the plurality of IT systems the method comprising, by using at least one computer processor:	
predicting threat activity based on past observed activity including, for at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of ==predicted== threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining expected downtime of the plurality of IT systems in dependence upon said ==predicted== threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining the ==financial loss== for the plurality of business processes dependent on the downtimes of the IT systems;	**ATBAY1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 3;**

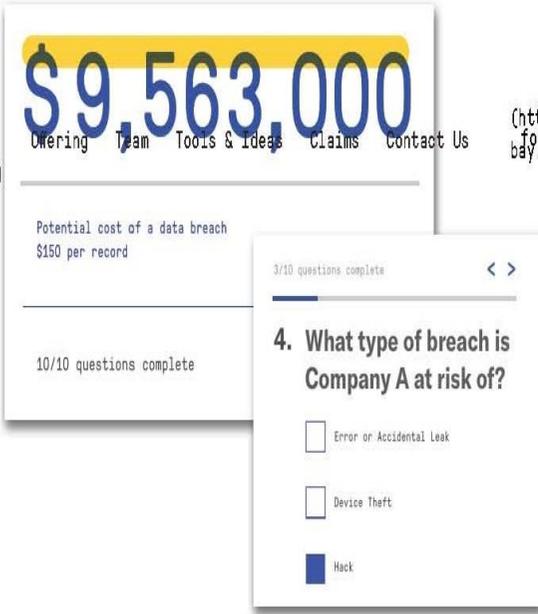|	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
adding the <mark>financial losses</mark> for the plurality of business processes to obtain a combined <mark>financial loss</mark> arising from the threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

	ATBAY 3; Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 16	
16. A non-transitory computer readable medium storing a computer program which when executed by a computer system, causes the computer system to perform a method of assessing and valuing computer network threats, the threats including at least one electronic threat, the computer network comprising a plurality of IT systems wherein a plurality of business processes operate on the plurality of IT systems, the method comprising:	
predicting threat activity based on past observed activity including, at least one electronic threat, to receive observed threat data from a database, to extrapolate future event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

determining expected downtime of each of the plurality of IT systems in dependence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining the <mark>financial loss</mark> for the plurality of business processes dependent on the downtimes of the IT systems;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (https://www.at-bay.com/data-breach-calculator/) open calculator $9,563,000 Offering Team Tools & Ideas Claims Contact Us (index.html) Potential cost of a data breach $150 per record 10/10 questions complete (https://www.at-bay.com/bp/user/log for brokers) 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ■ Hack

	ATBAY 3;
	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
adding the ==financial losses== for the plurality of business processes to obtain a combined ==financial loss== arising from the threat activity.	**ATBAY1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

Note: Total claims: 16 and Independent claims: 3

EXHIBIT D	
Quantar's Preliminary Infringement Contentions	
US Patent No: 9418226 15/017,645	Accused Instrumentalities

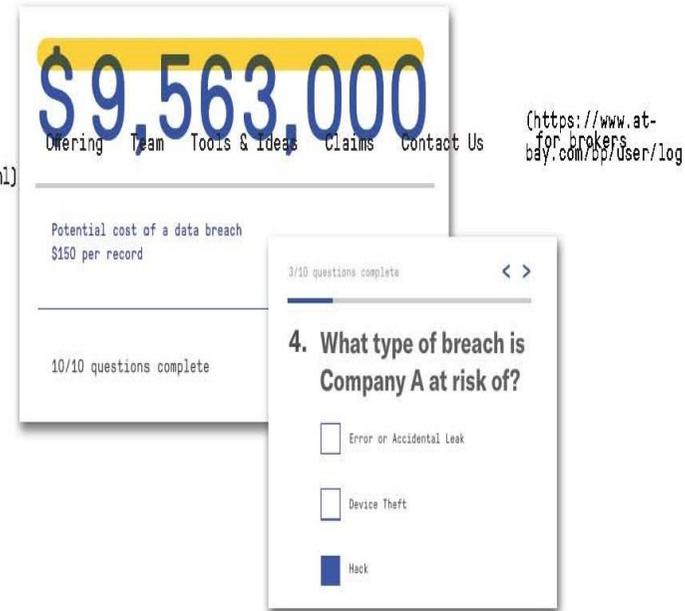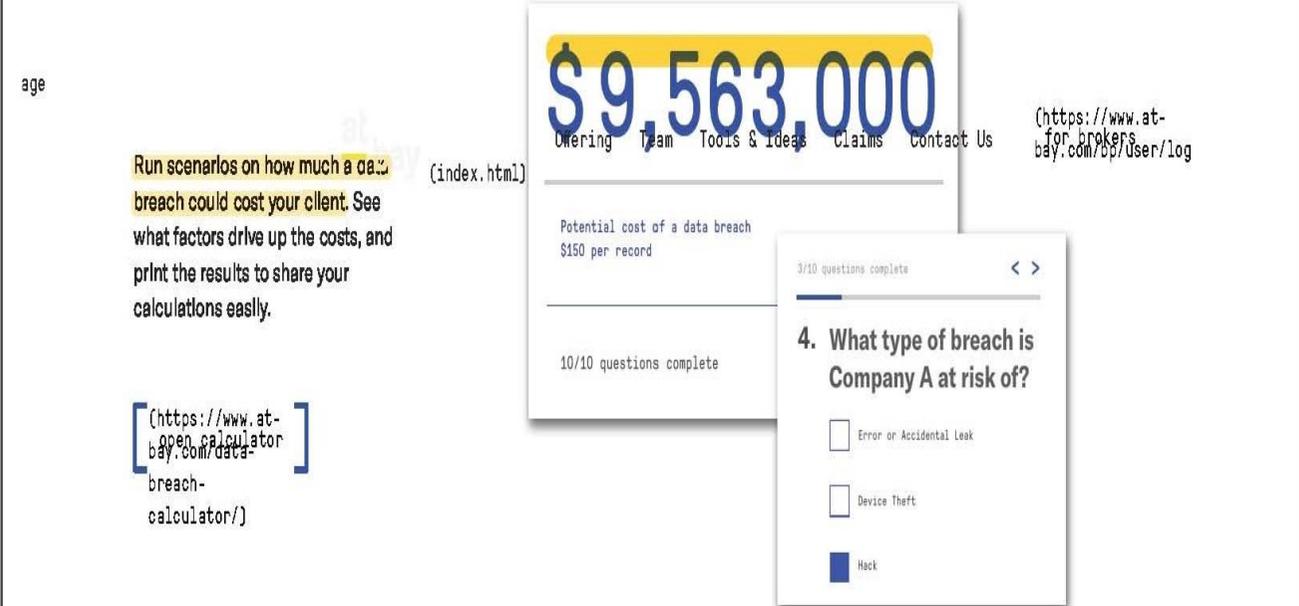| Claim: 1	
1. Apparatus for assessing **financial loss** from threats capable of affecting at least one computer network, a network includes a plurality of interconnected networks, the threats including at least one electronic threat, the computer network comprising a plurality of IT systems, an IT system defined in terms of physical location, and a plurality of operational business processes operating on the plurality of IT systems, the apparatus including one or more computer processors and a computer readable memory in which programming code is stored, wherein the one or more computer processors are configured pursuant to programming code in the computer readable memory to, predict for each of a plurality of threats capable of affecting at least one computer network in which a plurality of systems operate, future threat activity based on past observed threat activity wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats includes a plurality of computer viruses, Trojan horses, computer worms, hacking and denial of service attacks, to receive observed threat data from a database, to extrapolate future threat event frequency and to produce a profile of predicted threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

	ATBAY 3; Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
determine expected downtime of each system of the plurality of IT systems independence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine <mark>financial loss</mark> for each of the plurality of operational business processes dependent on the downtimes of the IT systems;	**ATBAY1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

	ATBAY 1; provide you with unique insights into their risk. We pair that with financial exposure analysis
add financial losses for the plurality of business processes to obtain a combined financial loss arising from the threat activity.	
	ATBAY 3; Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 13	

13. A method for assessing financial loss from threats capable of affecting at least one computer network, a network includes a plurality of interconnected networks, the threats including at least one electronic threat, the computer network comprising a plurality of IT systems, an IT system defined in terms of physical location, and a plurality of operational business processes operating on the plurality of IT systems, the apparatus including one or more computer processors and a computer readable memory in which programming code is stored, wherein the one or more computer processors are configured pursuant to programming code in the computer readable memory to, predict for each of a plurality of threats capable of affecting at least one computer network in which a plurality of systems operate, future threat activity based on past observed threat activity wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats includes a plurality of computer viruses, Trojan horses, computer worms, hacking and denial of service attacks, to receive observed threat data from a database, to extrapolate future threat event frequency and to produce a profile of predicted threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;

ATBAY 1;

provide you with unique insights into their risk. We pair that with financial exposure analysis

ATBAY 2;

Play with different variables to test your costs under multiple breach scenarios.

Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

	ATBAY 3;
	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
determine expected downtime of each system of the plurality of IT systems independence upon said predicted threat activity including the severity scores and extrapolated future event frequency;	ATBAY 2; Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine financial loss for each of the plurality of operational business processes dependent on the downtimes of the IT systems;	ATBAY 1; provide you with unique insights into their risk. We pair that with financial exposure analysis

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add financial losses for the plurality of business processes to obtain a combined financial loss arising from the threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

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[(https://www.at-bay.com/data-breach-calculator/) open calculator]

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(index.html)

Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

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Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

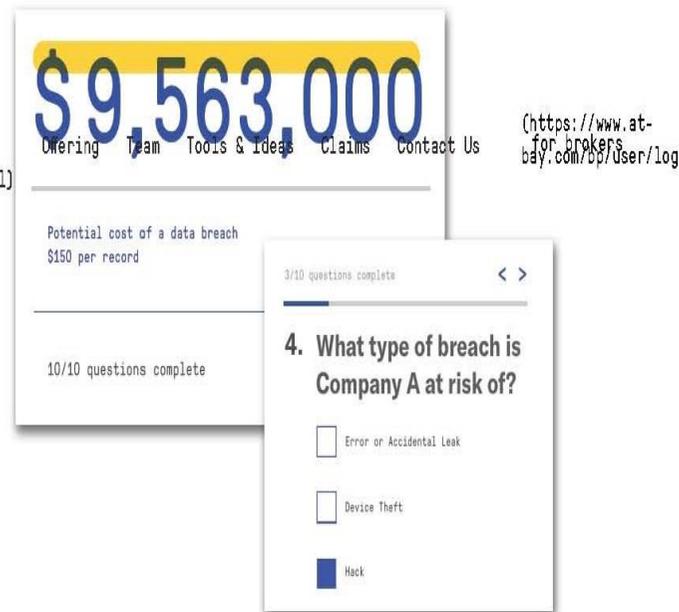| **Claim: 16**	
16. A non-transitory computer readable memory storing a computer program which when executed by a computer system, causes the computer system to perform a method of assessing financial loss from	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

threats capable of affecting at least one computer network, a network include a plurality of interconnected networks, the threats including at least one electronic threat, the computer network comprising a plurality of IT systems, an IT system defined in terms of physical location, and a plurality of operational business processes operating on the plurality of IT systems, the method comprising:	age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (index.html) [(https://www.at- bay.com/data- open calculator breach- calculator/)] $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at- for brokers bay.com/bp/user/log Potential cost of a data breach $150 per record 10/10 questions complete 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ☒ Hack **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
predict for each of a plurality of threats capable of affecting at least one computer network in which a plurality of systems operate, future threat activity based on past observed threat activity wherein the plurality of threats includes a plurality of electronic threats and the plurality of electronic threats	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

includes a plurality of computer viruses, Trojan horses, computer worms, hacking and denial of service attacks, to receive observed threat data from a database, to extrapolate future threat event frequency and to produce a profile of <mark>predicted</mark> threat activity, wherein the observed threat data includes observed threats and, for each observed threat, one or more targets for the observed threat and a severity score for each target;	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine expected downtime of each system of the plurality of IT systems independence upon said <mark>predicted</mark> threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine <mark>financial loss</mark> for each of the plurality of operational business processes dependent on the downtimes of the IT systems;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

Potential cost of a data breach
$150 per record

10/10 questions complete

$9,563,000

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(https://www.at-bay.com/bp/user/log for brokers

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

☑ Hack

[(https://www.at-bay.com/data-breach-calculator/) open calculator]

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

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add financial losses for the plurality of business processes to obtain a combined financial loss arising from the threat activity.

ATBAY 1;

provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

[(https://www.at-bay.com/data-breach-calculator/)]

open calculator

$9,563,000

Offering   Team   Tools & Ideas   Claims   Contact Us

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Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

Note: Total claims: 16 and Independent claims: 3

EXHIBIT E
Quantar's Preliminary Infringement Contentions

US Patent No: 9762605 15/012,182	Accused Instrumentalities
Claim: 1	
1. Apparatus for assessing <mark>financial loss</mark> from cyber threats capable of affecting at least one computer network, the threat including at least one electronic threat, the computer network comprising a plurality of IT systems and a plurality of business processes operating on the plurality of IT systems, the apparatus comprising at least one processor configured pursuant to programming code in a non-transitory computer readable memory coupled to the processor, the non-transitory computer memory storing instructions executable by the processor that cause the processor to:	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 3;**

	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
predict future cyber threat activity using a Monte Carlo method based on stochastic modeling of actual past observed computer network cyber threat activity, to receive observed cyber threat data from a database, the list of observed cyber threats including information, for each threat, of identification of at least one computer system targeted, to extrapolate future event frequency, to produce a profile of predicted cyber threat activity, wherein for each actual observed cyber threat on the computer network, an identifier, a name, a description of the threat, a temporal profile specifying frequency of occurrence, a target (or targets) for the threat and a severity score for the (each target) are included in the cyber threat data within the database, output the predicted future threat activity to one or more firewalls to improve their accuracy in correctly identifying cyber threats actually observed on the one or more computer networks to improve the accuracy of the apparatus and stochastic modeling of assessing <mark>financial loss</mark> from cyber threats on an ongoing basis, determine expected downtime of each system of the plurality of IT systems in dependence upon said predicted threat activity including the severity scores and extrapolated	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

future event frequency, determine loss for each of the plurality of business processes dependent on the downtimes of the IT systems, and add losses for the plurality of business processes so as to obtain a combined <mark>financial loss</mark> arising from the cyber threat activity.	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 11	
11. A computer-implemented method, the method being performed by a computer system having one or more computer processors and a non-transitory computer readable memory in which programming code is stored, whereupon execution of the programming code by one or more computer processors the computer system performs operations comprising:	
predicting future cyber threat activity, for each of a plurality of computer network cyber threats, using a Monte Carlo method based on stochastic modeling of actual past observed computer network cyber threat activity, to receive observed cyber threat data from a database, the list of observed cyber threats including information, for each threat, of identification of at least one computer system targeted, to extrapolate future	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis **ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

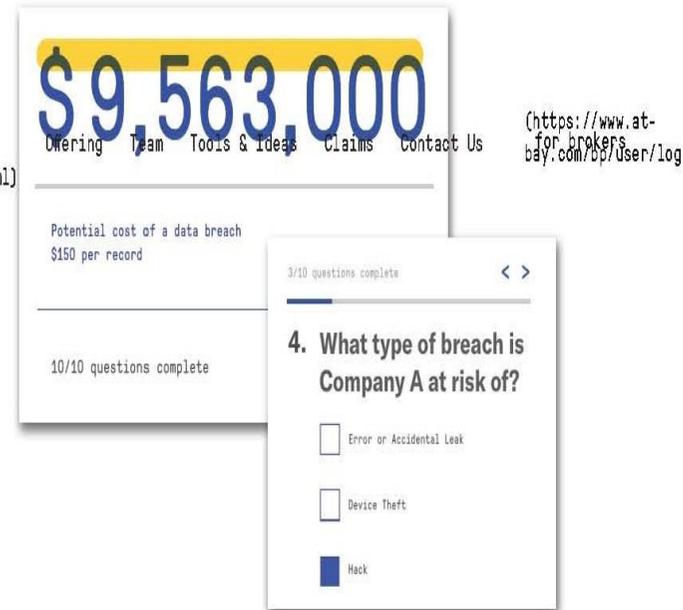|	
event frequency, to produce a profile of <mark>predicted</mark> cyber threat activity, wherein for each actual observed cyber threat on the computer network, an identifier, a name, a description of the threat, a temporal profile specifying frequency of occurrence, a target (or targets) for the threat and a severity score for the (each target) are included in the cyber threat data within the database, output the <mark>predicted</mark> future threat activity to one or more firewalls to improve their accuracy in correctly identifying cyber threats actually observed on the one or more computer networks to improve the accuracy of the apparatus and stochastic modeling of assessing <mark>financial loss</mark> from cyber threats on an ongoing basis, wherein for each given threat the method comprises;	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (index.html) $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at-for brokers bay.com/bp/user/log Potential cost of a data breach $150 per record 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ☑ Hack 10/10 questions complete (https://www.at-open calculator bay.com/data-breach-calculator/) **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
modeling a set of past observed computer network cyber threat events to obtain an estimate of at least one model parameter;	

performing a Monte Carlo simulation of the given computer network cyber threat by:	

predicting future computer network cyber threat events using the at least one model parameter and a stochastic model using a projection of at least one model parameter which is based on the estimate of at least one model parameter and on a randomly-drawn variable according to a predefined distribution and to use said at least one variable in the stochastic model and predicting a distribution of future computer network cyber threat events by repeating the simulation using a plurality of variables, determining expected downtime of each IT system in dependence upon said predicted future computer network cyber threat activity, determining financial loss for each of a plurality of operational processes dependent on the downtimes of the IT systems adding losses for the plurality of processes to obtain a combined financial loss arising from the future computer network cyber threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (https://www.at-bay.com/data-breach-calculator/) open calculator (index.html) $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at-bay.com/bp/user/log for brokers Potential cost of a data breach $150 per record 10/10 questions complete 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ☑ Hack **ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 13	
13. A computer readable medium having a computer program thereon, which when executed by a computer system having one or more computer processors and a non-transitory computer readable memory, causes the computer system to perform steps comprising:	
to predict, for each of a plurality of computer network cyber threats, future cyber threat activity using a Monte Carlo method based on stochastic modeling of actual past observed computer network cyber threat activity, to receive observed cyber threat data from a database, the list of observed cyber threats including information, for each threat, of identification of at least one computer system targeted, to extrapolate future event frequency, to produce a profile of predicted cyber threat activity, wherein for each actual observed cyber threat on the computer network, an	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

identifier, a name, a description of the threat, a temporal profile specifying frequency of occurrence, a target (or targets) for the threat and a severity score for the (each target) are included in the cyber threat data within the database, output the ==predicted== future threat activity to one or more firewalls to improve their accuracy in correctly identifying cyber threats actually observed on the one or more computer networks to improve the accuracy of the apparatus and stochastic modeling of assessing ==financial loss== from cyber threats on an ongoing basis;

age

(index.html)

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(https://www.at-bay.com/data-breach-calculator/)

open calculator

$9,563,000

Offering   Team   Tools & Ideas   Claims   Contact Us

(https://www.at-bay.com/bp/user/log for brokers

Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

ATBAY 2;

Play with different variables to test your costs under multiple breach scenarios.

Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

ATBAY 3;

	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
wherein execution of the computer program causes the computer system to perform, for each given threat, steps further comprising:	
modeling a set of past observed computer network cyber threat events to obtain an estimate of at least one model parameter;	
performing a Monte Carlo simulation of the given computer network cyber threat by:	
predicting future computer network cyber threat events using the at least one model parameter and a stochastic model using a projection of at least one model parameter which is based on the estimate of at least one model parameter and on a randomly-drawn variable according to a predefined distribution and to use said at least one variable in the stochastic model and predicting a distribution of future computer network cyber threat events by repeating the simulation using a plurality of variables.	

Note: Total claims: 15 and Independent claims: 3

EXHIBIT F

Quantar's Preliminary Infringement Contentions	
US Patent No: 10122751 15/696,202	**Accused Instrumentalities**
Claim: 1	
1. A system comprising:	
one or more computers comprising one or more hardware processors;	
one or more computer-readable media storing instructions that, when executed by the one or more computers, cause the one or more computers to perform operations comprising:	
receiving, by the one or more computers, data indicating a list of observed computer-based threats including at least one selected from the group consisting of a virus, malware, a network intrusion, and a denial of service attack, with data for each threat identifying frequency of occurrence, which may include at least one period of time and corresponding frequency of occurrence for a given time window having a beginning and end;	
accessing, by the one or more computers, data specifying relationships between:	
(i) IT system infrastructures representing computing devices of an organization and a network connecting the computing devices and their physical and logical location, defined by	

information such as identity, name and category identity;	
(ii) system categories indicating characteristics of assets of the organization;	
(iii) operational processes of an organization, defined by identity, a name and a value in terms of a monetary value for a given time window having a beginning and end;	
(iv) mitigating actions representing the threat mitigation measures of the organization;	
performing, by the one or more computers a plurality of simulations using a Monte Carlo method using the accessed data specifying relationships to predict a distribution of threat events, each simulation involving propagating data through stochastic modelling for a given time window having a beginning and end;	
modelling threat events using at least two different stochastic models and obtaining at least two different sets of model parameters, sampling, by the one or more computers, outcomes of the plurality of simulations generated using a Monte Carlo method according to the set of threat events within a series of temporal profiles, each having a beginning and end;	
sampling, by the one or more computers, a plurality of simulation outcomes of the plurality of simulations generated using a Monte Carlo	

method that include mitigating actions representing the threat mitigation measures of the organization for a series of given time windows, each having a beginning and end;	
based on the sampled outcomes of the simulations, determining, by the one or more computers, measures of impact of the computer-related threats to the organization for a given time window having a beginning and end and providing, by the one or more computers and for output to a user, graphical representations of the determined measures of impact of the computer-based threats to the organization, for a given time window having a beginning and end, in a graphical user interface;	
the one or more computers further configured to;	
receive observed computer-based threat data;	
receive input data of the number of viruses contracted by period and the number of new viruses worldwide;	
extrapolating from the input data, using a Monte Carlo method, to predict future computer-based threat activity rates and types and;	
outputting said predicted future computer-based threat activity into the network and firewall logs, updating the firewall policy tree to define the action of accept or deny, according to the changes	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

automatically made to the policy tree of rules in the sets of firewall rules, which in turn inserts updated rules into the firewall policy.	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
Claim: 9	
9. A method performed by one or more computers, the method comprising:	
receiving and accessing, by the one or more computers, data specifying relationships between:	
(i) IT system infrastructures representing computing devices of an organization and a network connecting the computing devices and their physical and logical location, defined by information such as identity, name and category identity;	
(ii) system categories indicating characteristics of assets of the organization;	
(iii) operational processes of an organization, defined by identity, a name and a value in terms of a monetary value for a given time window having a beginning and end;	
(iii) a list of observed computer-based threats including at least one selected from the group consisting of a virus, malware, a network intrusion, and a denial of service attack, with data for each threat identifying frequency of occurrence, which may include at least one period of time and corresponding frequency of	

occurrence for a given time window having a beginning and end;	
(iv) mitigating actions representing the threat mitigation measures of the organization;	
the one or more computers performing a plurality of simulations using a Monte Carlo method using the accessed data specifying relationships, each simulation involving propagating data through stochastic modeling for a given time window having a beginning and end;	
sampling by the one or more computers, outcomes of the plurality of simulations generated using a Monte Carlo method, for a given time window having a beginning and end;	
sampling by the one or more computers, outcomes of the plurality of simulations generated using a Monte Carlo method, that include mitigating actions representing the threat mitigation measures of the organization for a given time window having a beginning and end;	
performing, based on the sampled outcomes of the simulations generated using a Monte Carlo method, determining, by the one or more computers, measures of impact of the computer-related threats to the organization for a given time window having a beginning and end and providing, by the one or more computers and for output to a user, graphical representations of the determined measures of impact of the computer-	

based threats to the organization, for a given time window having a beginning and end, in a graphical user interface;	
receive observed computer-based threat data;	
receive input data of the number of viruses contracted by period and the number of new viruses worldwide;	
extrapolating from the input data, using a Monte Carlo method, to predict future computer-based threat activity rates and types and;	
outputting said ==predicted== future computer-based threat activity to one or more firewalls, to improve accuracy in identifying computer based threats on the one or more computer networks, strengthen their accuracy through the detection of anomalous firewall policy rules, into the network and firewall logs, updating the firewall policy tree to define the action of accept or deny, according to the changes automatically made to the policy tree of rules in the sets of firewall rules, which in turn inserts updated rules into the firewall policy, wherein the method is performed by one or more computers comprising one or more hardware processors;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
one or more computer-readable media storing instructions that, when executed by the one or more computers, cause the one or more computers to perform operations comprising.	

Claim: 17	
17. A non-transitory computer-readable medium storing instructions that, when executed by the one or more computers, cause the one or more computers to perform operations comprising:	
receiving and accessing, by the one or more computers, data specifying relationships between:	
(i) IT system infrastructures representing computing devices of an organization and a network connecting the computing devices and their physical and logical location, defined by information such as identity, name and category identity;	
(ii) system categories indicating characteristics of assets of the organization;	
(iii) operational processes of an organization, defined by identity, a name and a value in terms of a monetary value for a given time window having a beginning and end;	
(iv) a list of observed computer-based threats including at least one selected from the group consisting of a virus, malware, a network intrusion, and a denial of service attack, with data for each threat identifying frequency of occurrence, which may include at least one period of time and corresponding frequency of occurrence for a given time window having a beginning and end;	

(iv) mitigating actions representing the threat mitigation measures of the organization;	
the one or more computers performing a plurality of simulations using a Monte Carlo method, each simulation involving propagating data through stochastic modeling for a given time window having a beginning and end;	
sampling by the one or more computers using the accessed data specifying relationships, outcomes of the plurality of simulations for a given time window having a beginning and end;	
sampling by the one or more computers using the accessed data specifying relationships, outcomes of the plurality of simulations that include mitigating actions representing the threat mitigation measures of the organization for a given time window having a beginning and end;	
based on the sampled outcomes of the simulations, determining, by the one or more computers, measures of impact of the computer-related threats to the organization for a given time window having a beginning and end and providing, by the one or more computers and for output to a user, graphical representations of the determined measures of impact of the computer-based threats to the organization, for a given time window having a beginning and end, in a graphical user interface;	
the one or more computers further configured to;	

receive observed computer-based threat data;	
receive input data of the number of viruses contracted by period and the number of new viruses worldwide;	
extrapolating from the input data, using a Monte Carlo method, to predict future computer-based threat activity rates and types and;	
 	
outputting said <mark>predicted</mark> future computer-based threat activity to one or more firewalls, to improve accuracy in identifying computer based threats on the one or more computer networks, strengthen their accuracy through the detection of anomalous firewall policy rules, into the network and firewall logs, updating the firewall policy tree to define the action of accept or deny, according to the changes automatically made to the policy tree of rules in the sets of firewall rules, which in turn inserts updated rules into the firewall policy.	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

Note: Total claims: 20 and Independent claims: 3

EXHIBIT G
Quantar's Preliminary Infringement Contentions

US Patent Application No: 20180039922 15/231,131	Accused Instrumentalities

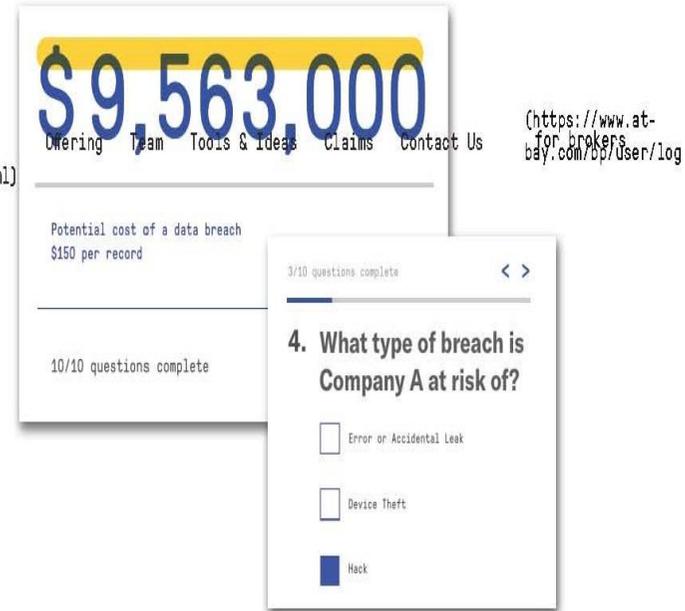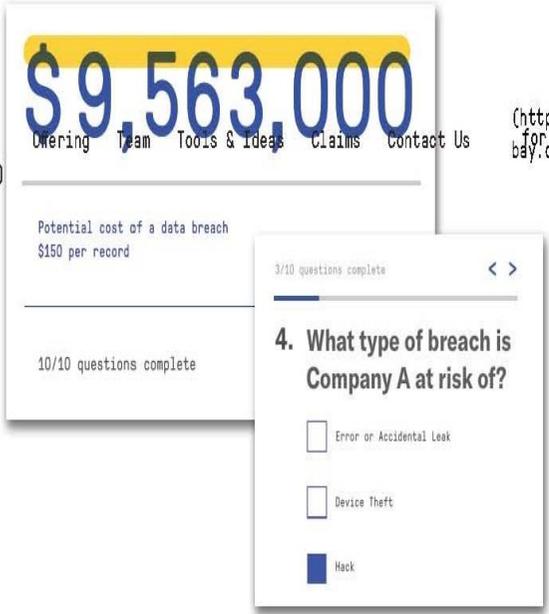| Claim: 1	
1. Apparatus for calculating <mark>economic loss</mark> from electronic threats capable of affecting computer networks, a network includes at least two interconnected networks and at least two IT systems, the threats including at least one electronic threat, and business processes operating on the IT systems, the apparatus including one or more computer processors and a computer readable memory coupled to the one or more computer processors in which programming code is stored, wherein the, one or more computer processors are configured pursuant to programming code in the computer readable memory to:	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (index.html) $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at-bay.com/bp/user/log for brokers Potential cost of a data breach $150 per record 10/10 questions complete [https://www.at-bay.com/data-breach-calculator/) open calculator 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ☐ Hack **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

predict for each electronic threat capable of affecting computer networks in which IT systems operate, future threat activity based on past electronic threat activity wherein the electronic threats include computer viruses, Trojan horses, computer worms, malware, malicious signed binaries, hacking, and denial of service attacks, to receive electronic threat data from a database, to extrapolate future electronic threat event frequency and to produce a profile of predicted electronic threat activity comprising a list of predicted electronic threats, and their expected frequency of occurrence, wherein the electronic threat data includes observed threats and, for each electronic threat, one or more targets for the electronic threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine expected downtime of each system of the IT systems independence upon said predicted electronic threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine economic loss for each of the business processes dependent on the downtimes of the IT systems, and;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(https://www.at-bay.com/data-breach-calculator/) open calculator

(index.html)

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(https://www.at-bay.com/bp/user/log for brokers

Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

add economic losses for each business process to obtain a combined economic loss arising from the electronic threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

	age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (index.html) [(https://www.at- bay.com/data- breach- calculator/)] open calculator $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at- for brokers bay.com/bp/user/log Potential cost of a data breach $150 per record 3/10 questions complete < > 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ■ Hack 10/10 questions complete
	ATBAY 3; Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
Claim: 13	
13. A method for calculating economic loss from electronic threats capable of affecting computer networks, a network includes at least two interconnected networks and at least two IT systems, the threats including at least one electronic threat, and business processes operating	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

on the IT systems, the apparatus including one or more computer processors and a computer readable memory coupled to the one or more, computer processors in which programming code is stored, wherein the one or more computer processors are configured pursuant to programming code in the computer readable memory to:	age Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (index.html) $9,563,000 Offering Team Tools & Ideas Claims Contact Us (https://www.at-bay.com/bp/user/log for brokers Potential cost of a data breach $150 per record 3/10 questions complete < > 10/10 questions complete 4. What type of breach is Company A at risk of? ☐ Error or Accidental Leak ☐ Device Theft ■ Hack (https://www.at-bay.com/data-open calculator breach-calculator/) **ATBAY 3;** Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
predict for each electronic threat capable of affecting computer networks in which IT systems operate, future threat activity based on past electronic, threat activity wherein the electronic threats include computer viruses, Trojan horses, computer worms, malware, malicious signed	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios.

binaries, hacking, and denial of service attacks, to receive electronic threat data from a database, to extrapolate future electronic threat event frequency and to produce a profile of <mark>predicted</mark> electronic threat activity comprising a list of <mark>predicted</mark> threats and their expected frequency of occurrence, wherein the electronic threat data includes observed threats and, for each electronic threat, one or more targets for the electronic threat and a severity score for each target;	Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine expected downtime of each system of the IT systems independence upon said <mark>predicted</mark> electronic threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determine <mark>economic loss</mark> for each of the business processes dependent on the downtimes of the IT systems, and;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

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for brokers
bay.com/bp/user/log

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

Potential cost of a data breach
$150 per record

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

10/10 questions complete

☐ Error or Accidental Leak

☐ Device Theft

▣ Hack

[(https://www.at-
bay.com/data-
breach-
calculator/)]
open calculator

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

add economic losses for the business processes to obtain a combined economic loss arising from the threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

Claim: 16	
16. A computer readable memory storing a computer program which when executed by a computer system, causes the computer system to perform a method of calculating economic loss	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

from electronic threats capable of affecting computer networks, the computer network comprising IT systems, wherein business processes operate on the IT systems, the method comprising:	age (index.html) $9,563,000 Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily. (https://www.at-bay.com/data-breach-calculator/) open_calculator Offering Team Tools & Ideas Claims Contact Us (https://www.at-bay.com/bp/user/log for brokers Potential cost of a data breach $150 per record 10/10 questions complete 3/10 questions complete < > 4. What type of breach is Company A at risk of? Error or Accidental Leak Device Theft Hack
	ATBAY 3;
	Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,
predicting future electronic threat activity based on historical electronic threat activity, for each electronic threat capable of affecting computer networks in which IT systems operate;	

to receive electronic threat data from a database, to extrapolate future electronic threat event frequency and to produce a profile of ==predicted== electronic threat activity comprising a list of ==predicted== electronic threats and their expected frequency of occurrence, wherein the electronic threat data includes observed threats and, for each electronic threat, one or more targets for the electronic threat and a severity score for each target;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining expected downtime of each system of the total IT systems in dependence upon said ==predicted== electronic threat activity including the severity scores and extrapolated future event frequency;	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
determining ==economic loss== for each of the business processes dependent on the downtimes of the IT systems, and;	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

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$9,563,000

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(index.html)

Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. What type of breach is Company A at risk of?

☐ Error or Accidental Leak

☐ Device Theft

■ Hack

ATBAY 3;

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure,

adding economic losses for each business process to obtain a combined economic loss arising from the electronic threat activity.	**ATBAY 1;** provide you with unique insights into their risk. We pair that with financial exposure analysis

age

Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

(index.html)

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◼ Hack

ATBAY 3;

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Note: Total claims: 16 and Independent claims: 3

EXHIBIT H
Quantar's Preliminary Infringement Contentions

US Patent No: 16/129,820	Accused Instrumentalities
CLAIM 1.	
A system, comprising one or more networks comprising computing systems that are subject to a security policy, the security policy comprising breach parameters defining one or more events that are indicative of an electronic threat, the security policy breach parameters being associated with a remediation provision in a network security device policy for the computing systems and the network or networks;	
one or more data and traffic collecting devices, deployed within the network or networks, that collect entity information and monitor network data and traffic of the network or networks that is related to security information;	
samples network data and traffic and automatically detects occurrence of one or more of the events that are indicative of an electronic threat based on the network data and traffic;	
identifies electronic threats using a list of known threats stored in a database;	

produces observed electronic threat data, which includes a list of the observed electronic threats and their frequency of occurrence and stores the data in a database accessed by a threat assessment system that;	
automatically determines the breach parameters that apply for the one or more electronic threats that have been identified; and generates a remediation of network security device security parameters for the network or networks based upon <mark>predicted</mark> losses arising from the observed electronic threats.	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
CLAIM 16.	
A method, comprising: establishing security parameters for an entity, the security parameters defining one or more events that are indicative of an electronic threat, the security policy breach parameters being associated with a remediation provision in a network security device policy of the entity	
automatically detecting occurrence of one or more of the events that are indicative of an electronic threat;	

automatically determining the breach parameters that apply for the one or more events that occurred; and	
causing a remediation of network security device security parameters determined based upon predicted losses arising from electronic threats.	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods
CLAIM 20.	
A system, comprising: one or more data and traffic collecting devices deployed within a network that collect entity information and monitor network data and traffic of the network that is related to security information, the network comprising computing systems that are subject to a security policy, the security policy comprising breach parameters defining one or more events that are indicative of an electronic threat, the breach parameters being associated with a remediation provision in a	

network security device policy for the computing systems and the network or networks;	
a threat analyzer and threat assessment system: automatically detects occurrence of one or more of the events that are indicative of an electronic threat based on the network data and traffic;	
automatically determines the breach parameters that apply for the one or more electronic threats; and generates a remediation of network security device security parameters for the network or networks based on <mark>predicted</mark> losses arising from the observed electronic threats.	**ATBAY 2;** Play with different variables to test your costs under multiple breach scenarios. Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods

EXHIBITS

ATBAY 1

age

Brokers, we scan and score the security of your clients, and provide you with unique insights into their risk. We pair that with financial exposure analysis — all in a seamless platform.

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Run scenarios on how much a data breach could cost your client. See what factors drive up the costs, and print the results to share your calculations easily.

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$9,563,000

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Potential cost of a data breach
$150 per record

10/10 questions complete

3/10 questions complete   < >

4. **What type of breach is Company A at risk of?**

☐ Error or Accidental Leak

☐ Device Theft

☑ Hack

ATBAY 2;

At Bay

- Skip to navigation (n)
- Skip to content (c)
- Skip to footer (f)

Cyber insurance for the digital age visit at-bay.com

How much will
a data breach cost my company?

- **Ask "what if...?"**

  Not every breach is the same. Even within a company, breach costs can vary widely. Play with different variables to test your costs under multiple breach scenarios.

- **Understand "why?"**

  Understanding your cyber risk is the first step to managing it. We provide explanations of the different costs, their drivers, and their likelihoods to help you make sense of it all.

Question 1 of 10 Final estimate

Jump to...

Jump to a specific question

- Whose records?
- How many individuals' data?
- Type of records?
- Type of breach?
- Store customer mailing addresses?
- Publicly disclosed breach in the last 2 years?
- Network complexity?
- Size of news story?
- Security controls?

ATBAY 3;

≡

MSSP Alert

Managed Security Services Providers (MSSP) News, Analysis and Cybersecurity Research

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Cyber Risk Insurance Startup At-Bay Secures $6M in Seed Funding

At-Bay launches cyber risk insurance & management product to help protect brokers & organizations against data breaches, extortion & other cyberattacks.

by Dan Kobialka • Nov 17, 2017

At-Bay CEO Rotem Iram

At-Bay has launched with $6 million in seed funding from investors LightSpeed Venture Partners, LocalGlobe and Shlomo Kramer, the company has confirmed. In addition, At-Bay has partnered with globally specialized insurer and reinsurer The Hartford Steam Boiler Inspection and Insurance Company (HSB) to market a product that provides cyber risk insurance and protection.

At-Bay provides organizations and insurance brokers with the ability to assess and manage cyber risk, the company said. It leverages data collection, discovery and enrichment technology to help security experts analyze cyber risks, At-Bay stated, and delivers cyber risk assessments to drive informed decision-making.

Also, At-Bay offers a digital platform for insurance brokers that combines its insurance product with risk insights, the company noted. The platform helps brokers provide clients with insights into their security and financial exposure, At-Bay indicated, and deliver a low-friction sales process.