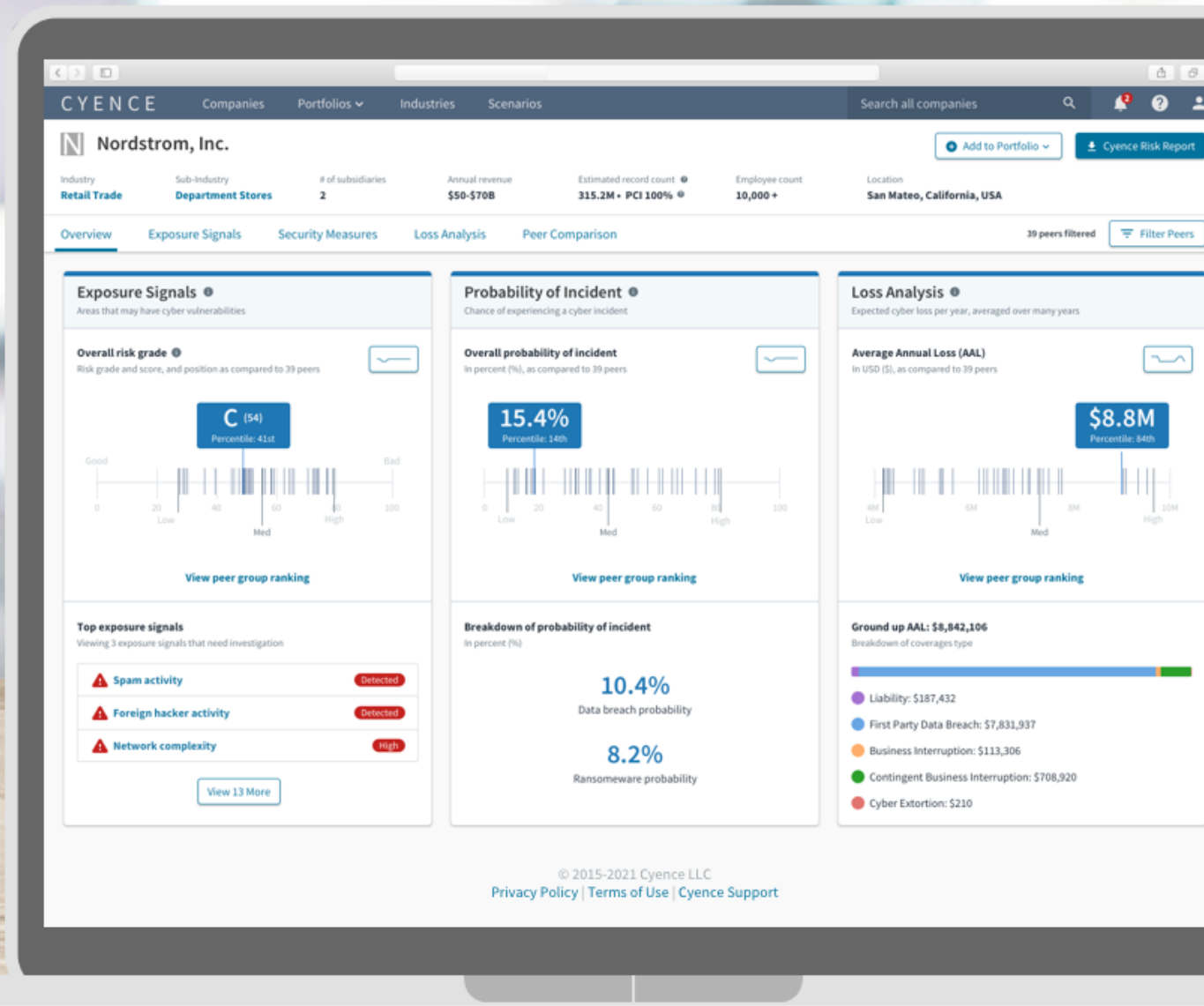
Cyence Risk Analytics

A risk assessment tool for cyber underwriters



About Cyence Risk Analytics

Cyence for cyber is a risk analytics tools used by underwriters to evaluate a risk of a business with online presence.

The underwriters than use this information to make underwriting and pricing decision.

It helps them to underwrite a risk with appropriate premium for insuring an online / digital business.

Persona

Cyber Underwriters

Problems:

- I don’t have enough information to determine a business risk.
- Risk evaluation is a time taking process due to administrative tasks.
- I struggle with gathering information about possible next action based on identified risk.

Needs:

- I need to understand a company’s risk faster and efficiently.
- I need actionable items to make effective underwriting decisions.

James
Cyber Underwriter

Age: 32
Employer: Insurer focusing on profitable cyber risks
Location: North America

Industry experience
Entry — Advanced

Data analysis & technical skills
Low — High

Time spent using Guidewire products
Low — High

I interact with:

Internal:
Underwriting Manager
Underwriting Assistants
Pricing Actuary

External:
Agents
Carrier/Insured company

Tools I use:
- Guidewire Cyence for Cyber
- Google Search
- Office Suite (Excel, Powerpoint, Word)
- Outlook or other email service
- Policy admin systems (like PolicyCenter)

“I identify, understand, measure, and evaluate highly complex risk and provide applicable terms and conditions to make profitable decisions for my company.”

I instantly gain differentiating insights to identify emerging risks.	I obtain necessary data points to write a company and determine pricing efficiently.	I am able to quantify risk based on experience history and forecasting methods.

MY RESPONSIBILITIES AND DECISIONS...

Solicit new and renewal submissions:
- What information do I need to collect to complete the submission?

Determine appropriate pricing of complex risks:
- How should the company be priced? How do I justify the risk I write?

Analyze highly complex risks underwritten:
- How do I evaluate the quality, quantity, and profitability of risks I write?

Interact with Agents:
- How can I engage them around why information is needed?

I’M FRUSTRATED WHEN...
- I don't have enough information to determine a business' risk.
- I'm unable to locate and document risk evaluation data.
- Valuable time is spent on administrative tasks.
- I can't keep up with trends in the quickly evolving marketplace.
- It's hard to differentiate from competition based on pricing and offerings.

MY SUCCESS IS MEASURED BY...
- The number of profitable businesses written.
- Growth of the company portfolio.
- Quality of interactions with Agents and colleagues.
- Timeliness and accuracy.
- Compliance with guidelines.

DESIGNING FOR JAMES:

I need clear guidance on how to use the tool and I want to understand how it can improve my work efficiency. It's important that I be able to effectively integrate it within my risk evaluation process.
I want to leverage the power of the tool to understand a company’s risk thoroughly. Standardized metrics with easy-to-understand visualizations can be very helpful.

Design Process

The design process is broken down in 2 stages

Pre-production

- User Research
- Ideation & Design
- Usability Testing
- Reiterate Design
- Deliver & Develop

Post-production

- Onboarding Design
- Release
- In-App UI Feedback
- Track Usage
- Design Backlog

User Research

Research Insights:

- # of customer involved: 7
- # of users: 10 (Underwriters and Underwriter leadership)
- Research set up: 1hr online zoom calls

Research Goals:

- To understand the reason behind identified usage patterns.
- To understand how the users are currently using all the information within application.
- To identify problems and friction points users are facing while using our risk analytics tool.

4 key identified problems…

Hard to understand the correlation between data

Hard to find impactful and most concerning information

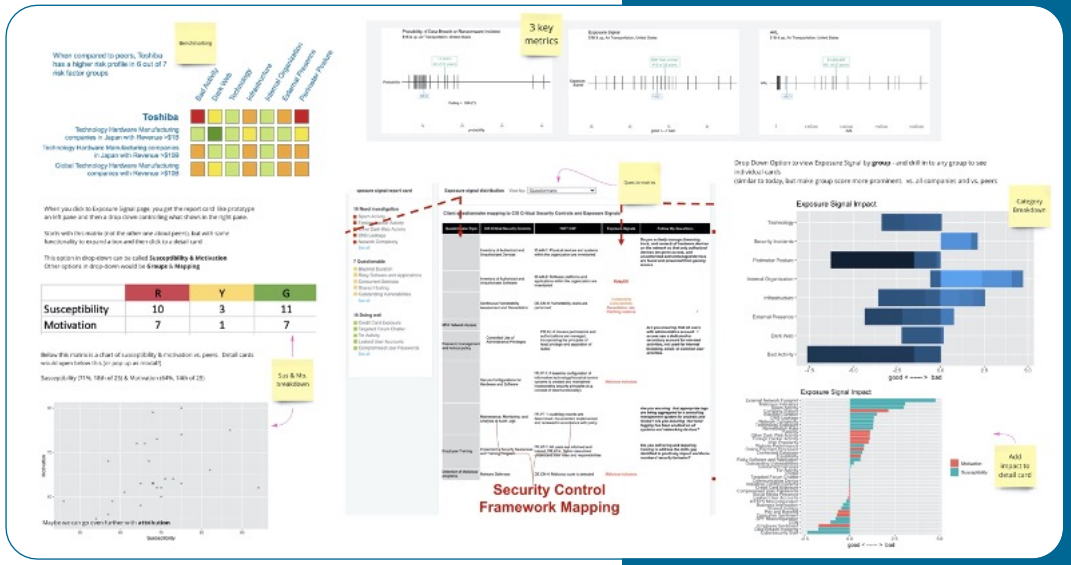
Don’t know what to do with certain information

Found the UX and printable report old and outdated

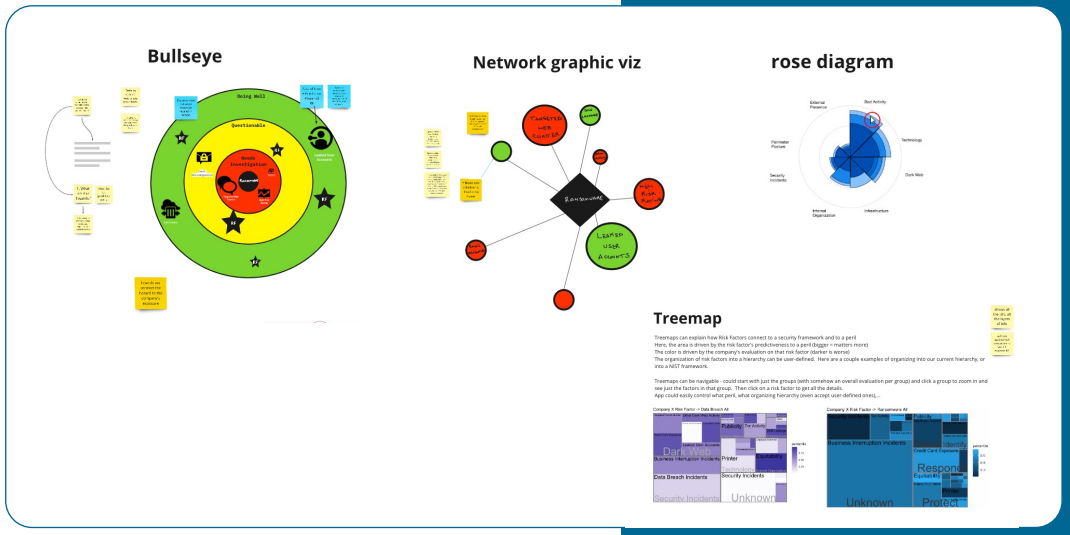
Proposed Solution

- Provide users a clear representation about the correlation of different data though out the UI.
- Provide a new overview page with most important information in order to increase productivity.
- Provide help text to users in order to understand the usage of information along with actionable steps which can them to move further in process.
- Provide users a new experience for the downloadable report format like new UI.

Ideation board

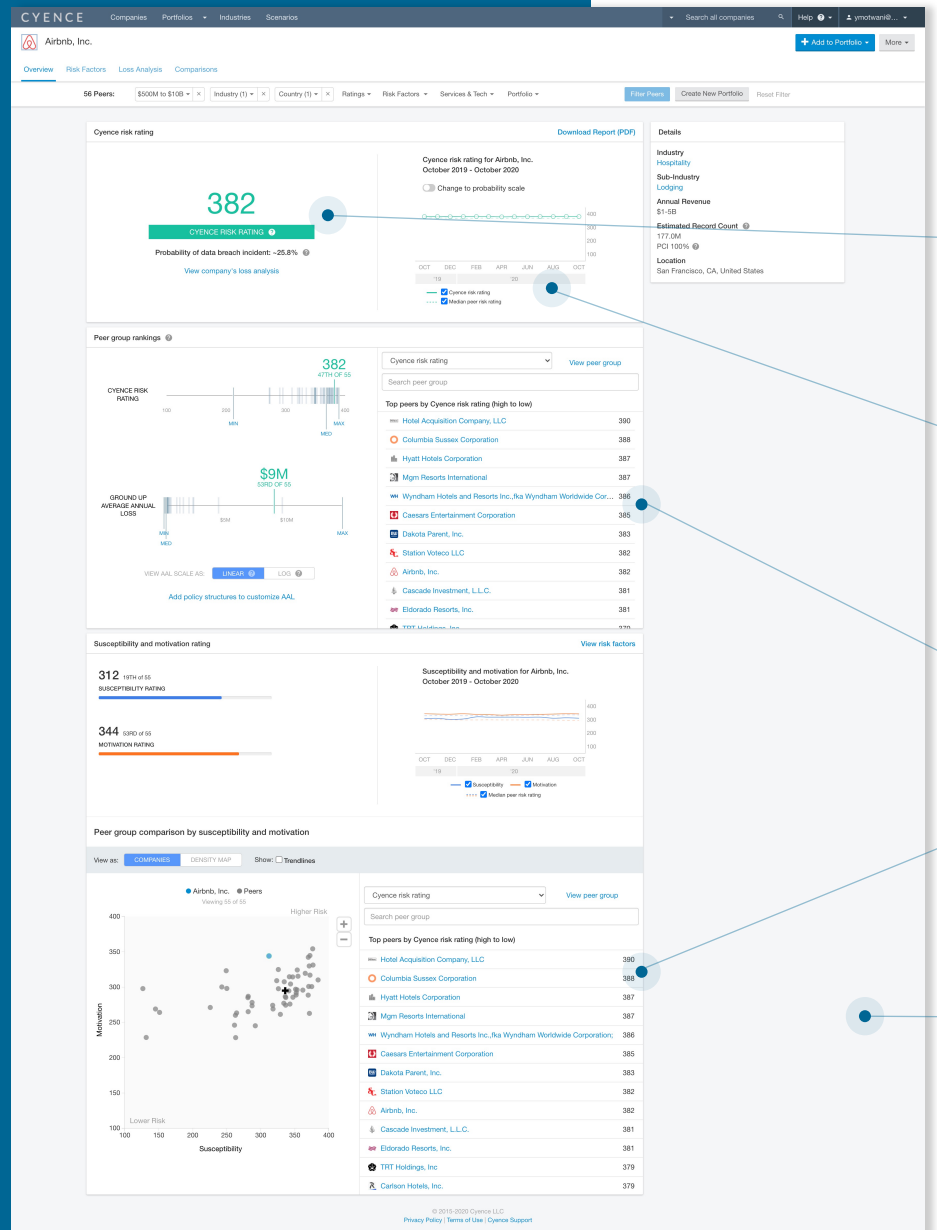


Data visualization exploration



Company Overview Page

Problems with old UX



01

A primary metrics which is usually misunderstood by underwriters

02

Historical trend is a secondary information but highly emphasized

03

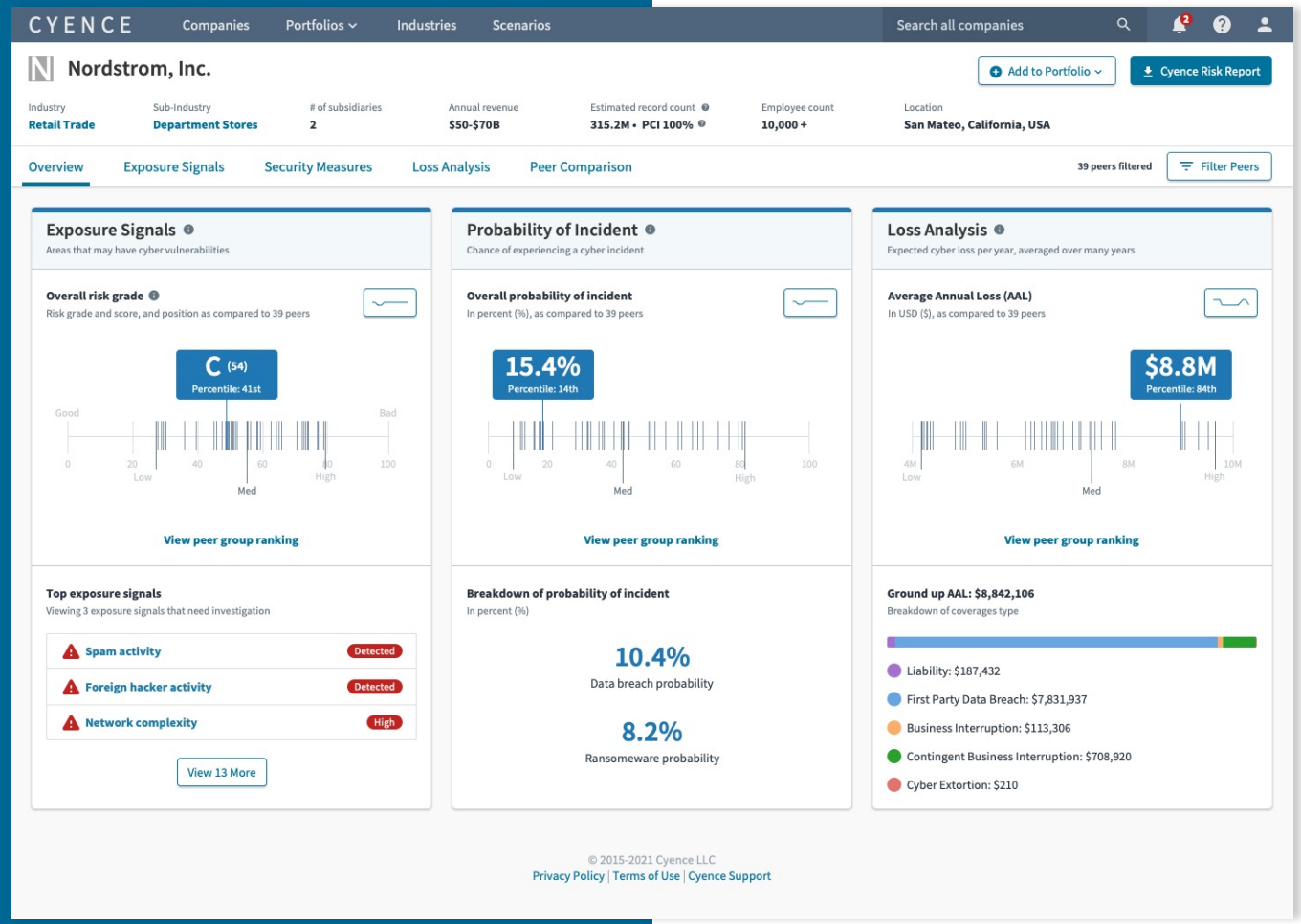
Repeated information and list of ranking which is not used that often

04

A lot of white space and unnecessary scrolling

Company Overview Page

New UX



New Information Architecture

New hierarchy of information to highlight the most important information up front.

Simplified Layout & Insights

New 3 column layout to provide the distinction of 3 different data points to identify risk.

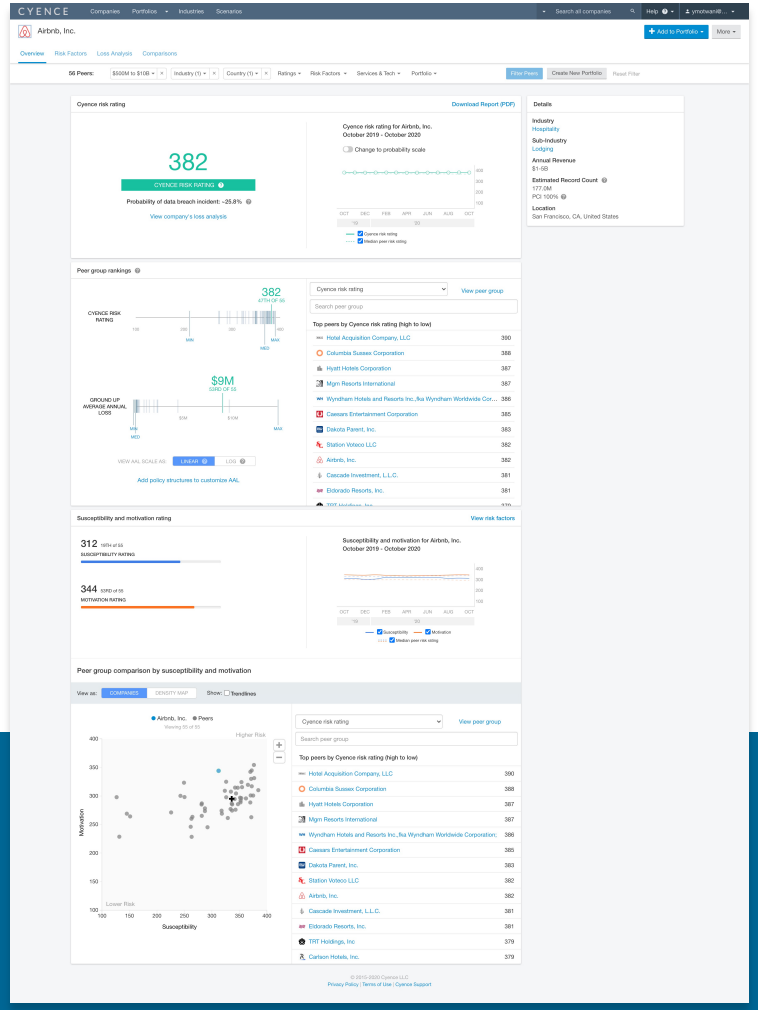
Simplified Data Visualization

Sparkline graphs to show the history trendlines for different data points to further simplify the experience.

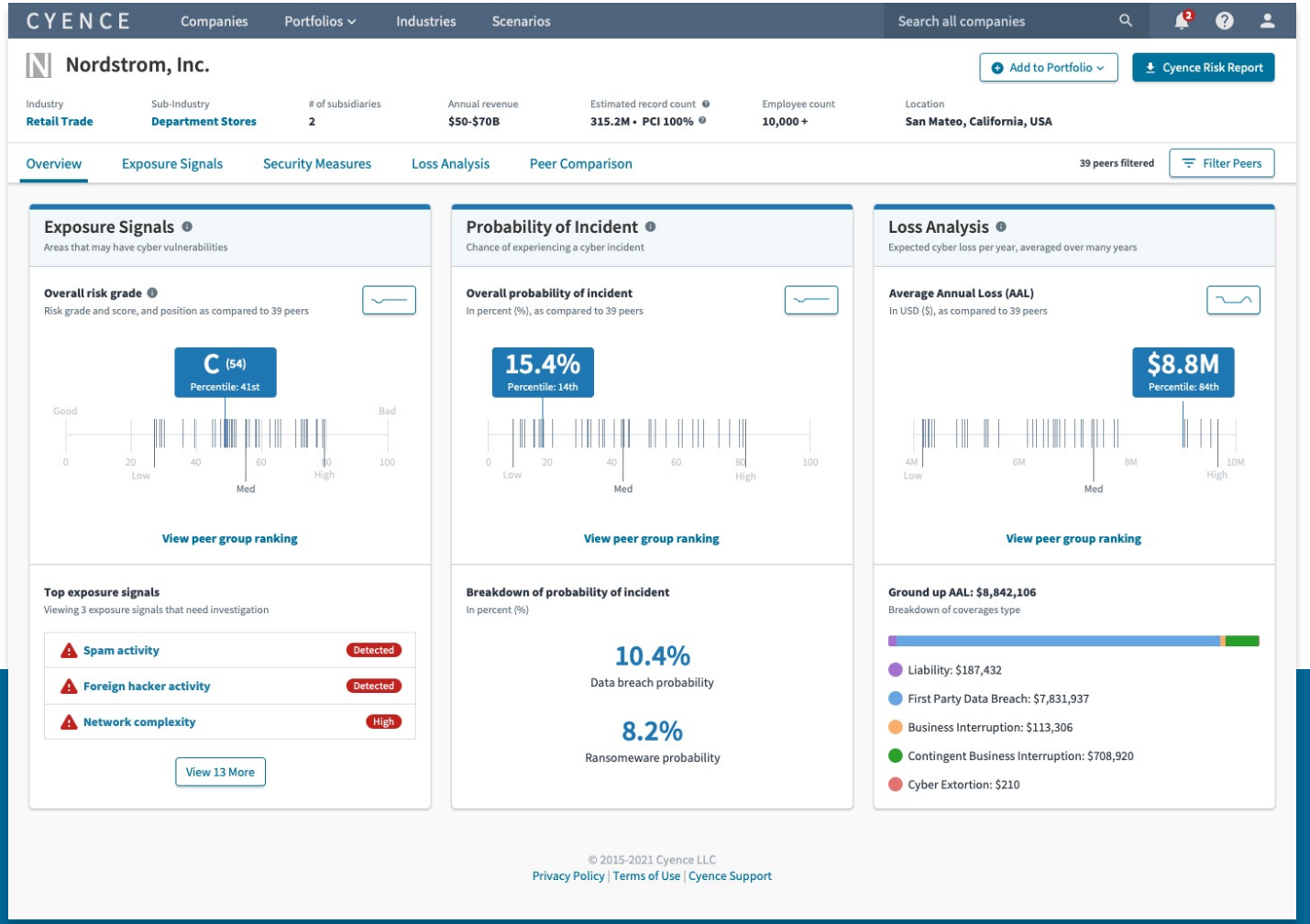
Old vs New UX

Company Overview Page

Old UX

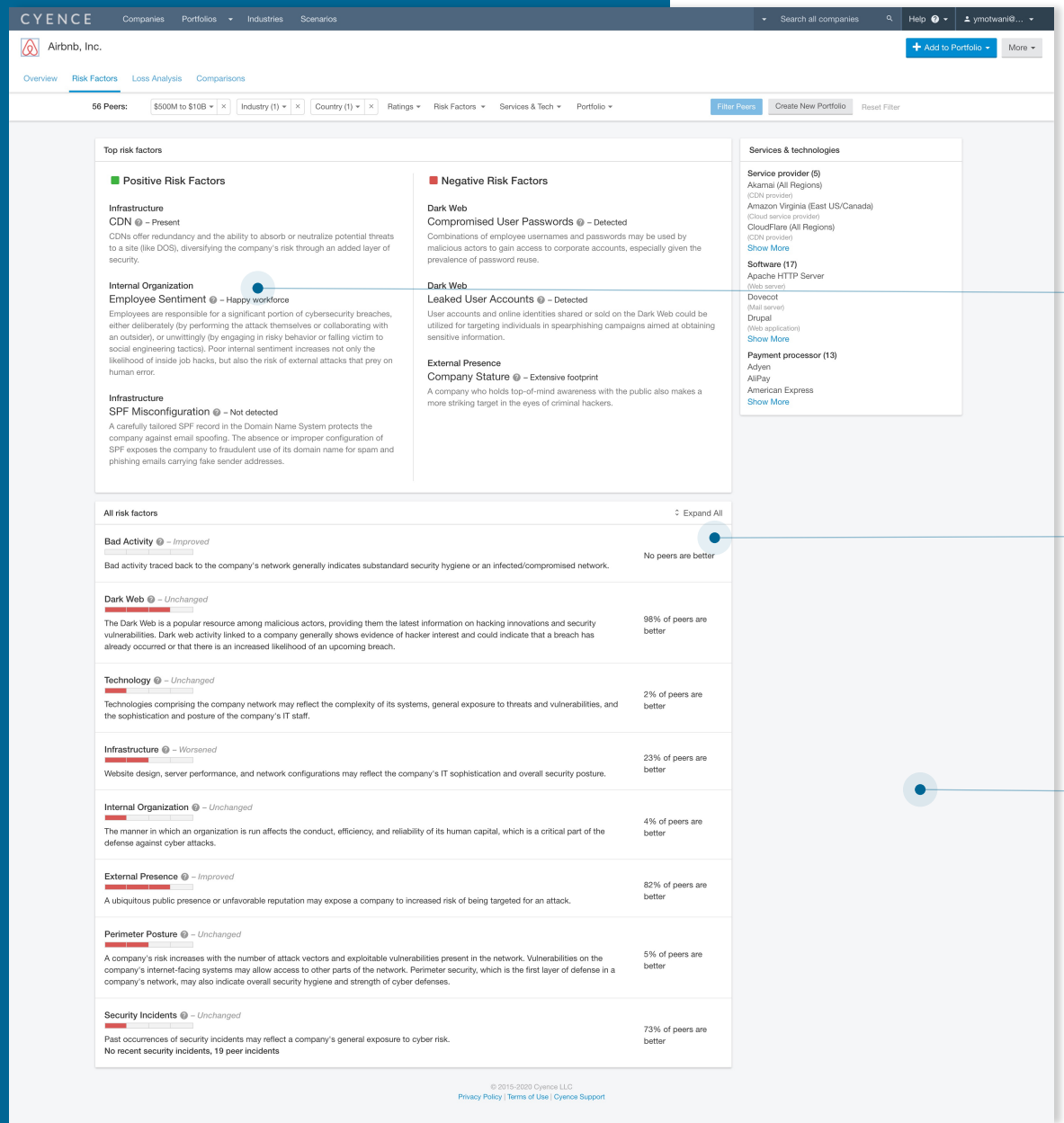


New UX



Exposure Signals Page

Problems with old UX



01

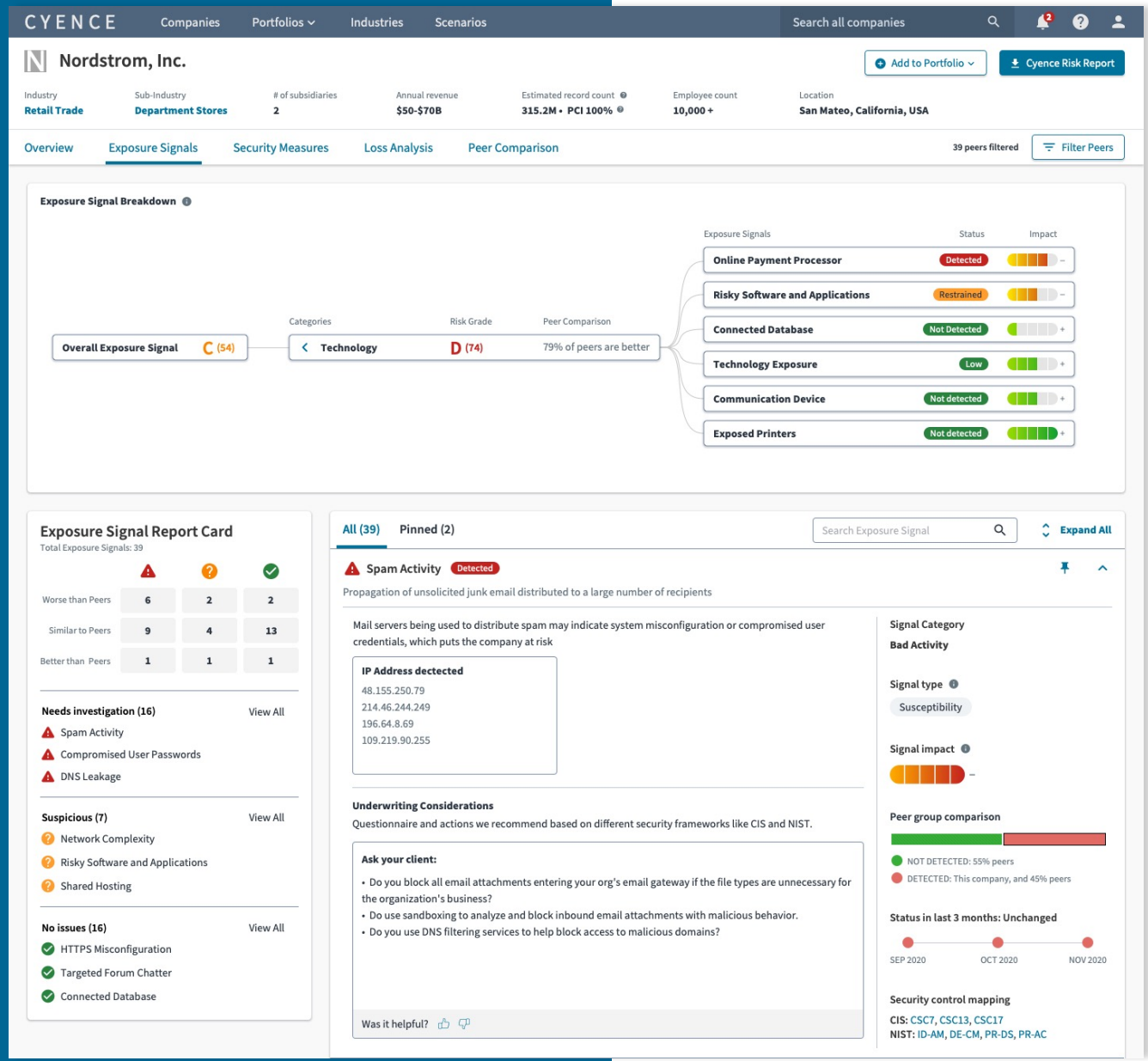
Underwriters didn't care about positive risk factors

02

Showed high impact risk categories but didn't tell users any actionable insights

03

A lot of white space and unnecessary scrolling



Exposure Signals Page

New UX

Exposure Signals is the most used page in the app, and as part of improvement we wanted to make this more effective and useful for our users by introducing:

Updated Priortization

The new prioritization was based on type of signal and severity. Now users can also pin them.

Introduced Report Card

To enable users easily navigate through most concerning risks.

Simplified Data Visualization

A tree view for underwriters to identify the most vulnerable risk through grading and risk impact.

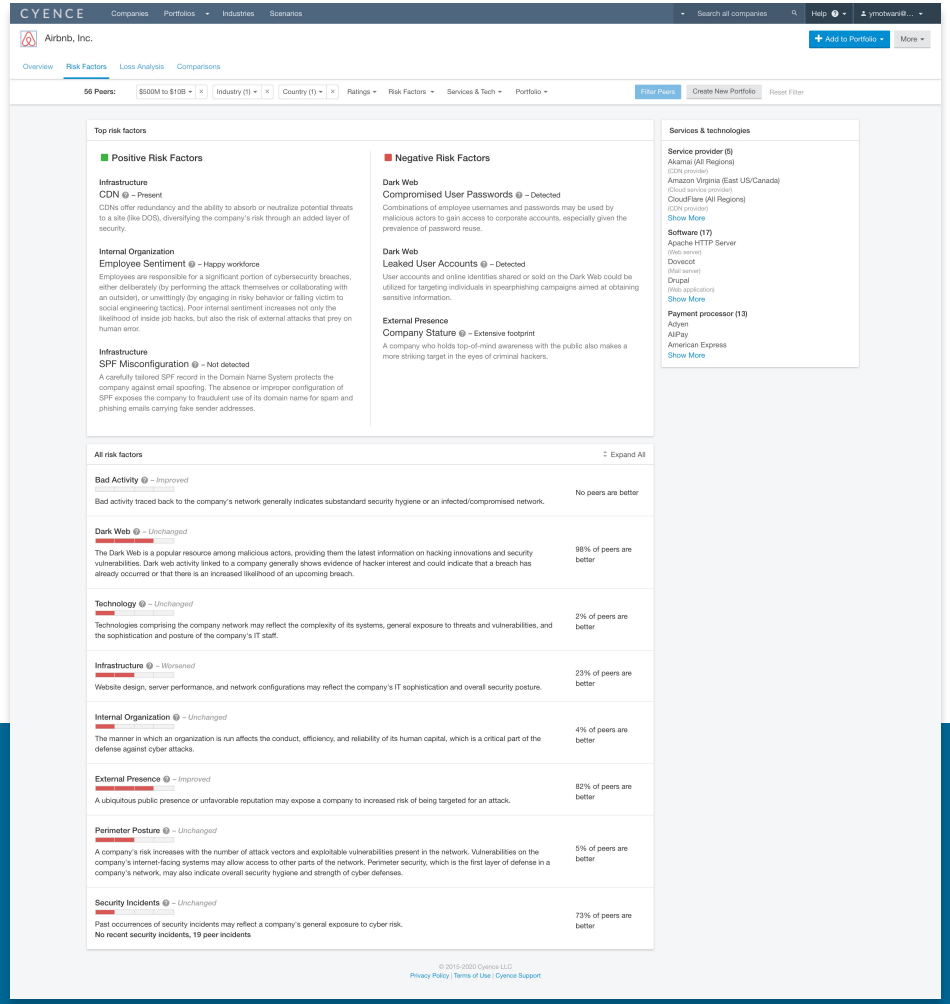
Actionable Security Measures

We provided our users a set of follow up questions they can ask to their customers to mitigate the risk.

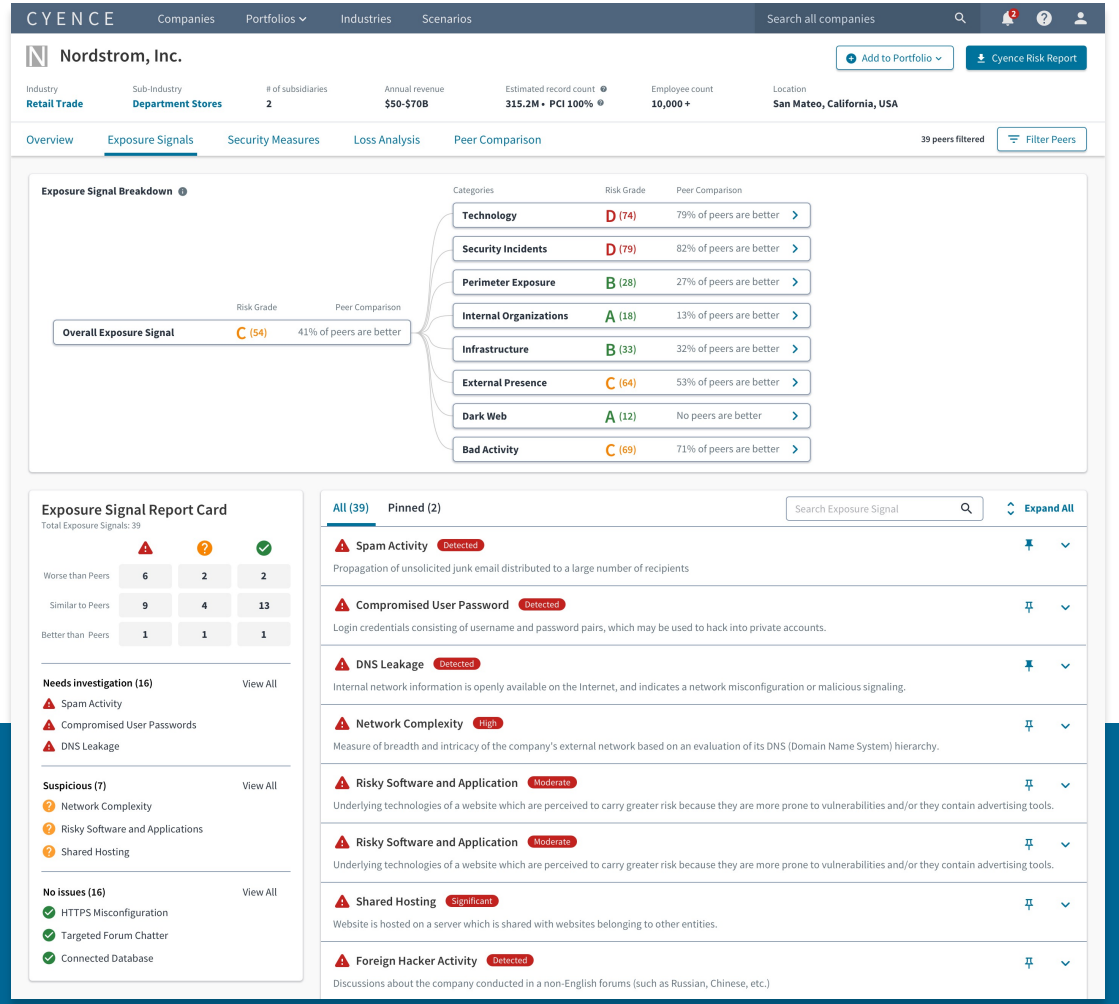
Old vs New UX

Exposure Signal Page

Old UX



New UX



Downloadable Report

Old UX

Nordstrom, Inc.

Cyence Unique ID: bdqoeybjreq

Report generated on December 14, 2020
with data from November 2020

CYENCE

CYENCE

Company Overview

Cyence Risk Rating	Susceptibility Rating	Motivation Rating
388	368	347
Out of 400	Out of 400	Out of 400
Peer range: 335-390 Peer median: 376	Peer range: 290-379 Peer median: 334	Peer range: 251-357 Peer median: 311

See following report for further details.

Company Details

Details

Industry: Retail Trade
Sub-Industry: Apparel Retailers
Annual Revenue: $10-50B
Estimated Record Count: 262.4M
PCI 100%
Location: Seattle, WA, United States

Services & Technologies

Service provider (13 found)
Software (22 found)
Payment processor (5 found)
Auditor (1 found)

Refer to the Appendix for full listing of Services and Technologies.

CYENCE

Risk Overview

Cyence Risk Rating
388
Out of 400
Peer range: 335-390
Peer median: 376

Risk Rating

The Cyence Risk Rating is a measure of a company's cyber risk, or the likelihood that it would experience a network security incident or unintentional release of protected information. This is derived from a combination of technical and non-technical indicators, which are reflected through the company's Susceptibility, Motivation, and Risk Factors. Based on a 100-400 scale, a higher Risk Rating indicates greater risk.

Probability of Data Breach
~36.4%

The Probability of Data Breach is mapped to the Cyence Risk Rating. This represents the probability of a company having at least one incident over the next 12 months. Probabilities are estimated and actual probabilities may vary.

37th of 39
Among its peer group of 39 companies

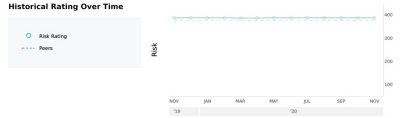
Peer Risk Comparison

Peers of Nordstrom, Inc. have Risk Ratings ranging from 335 to 390. The median Risk Rating among peers is 376.

Refer to the Appendix for peer group details.

CYENCE

Historical Rating Over Time



Historical Probability Over Time

CYENCE

Top Risk Factors

Top Risk Factors are the most significant factors impacting a company's Risk Rating. Positive Risk Factors are those that reduce a company's Risk Rating, while Negative Risk Factors are those that increase a company's Risk Rating.

Positive Risk Factors

Infrastructure
CDN - Present
CDNs offer redundancy and the ability to absorb or neutralize potential threats to a site (like DOS), diversifying the company's risk through an added layer of security.

Infrastructure
SPF Misconfiguration - Not detected
A carefully tailored SPF record in the Domain Name System protects the company against email spoofing. The absence or improper configuration of SPF exposes the company to fraudulent use of its domain name for spam and phishing emails carrying fake sender addresses.

Internal Organization
Employee Sentiment - Content workforce
Employees are responsible for a significant portion of cybersecurity breaches, either deliberately (by performing the attack themselves or collaborating with an outsider), or unwittingly (by engaging in risky behavior or falling victim to social engineering tactics). Poor internal sentiment increases not only the likelihood of inside job hacks, but also the risk of external attacks that prey on human error.

Negative Risk Factors

Bad Activity
Spam Activity - Detected
Mail servers being used to distribute spam may indicate system misconfiguration or compromised user credentials, which puts the company at risk.

Dark Web
Compromised User Passwords - Detected
Combinations of employee usernames and passwords may be used by malicious actors to gain access to corporate accounts, especially given the prevalence of password reuse.

External Presence
Company Stature - Extensive footprint
A company who holds top-of-mind awareness with the public also makes a more striking target in the eyes of criminal hackers.

Downloadable Report

New UX

GUIDEWIRE

Cyence Risk Report for

Care Wear, Inc.

Unique ID: bdqoeybjreq
Report generated on February 26, 2020
with data from November 2019

Care Wear, Inc.

Company Overview

Industry: Retail Trade
Sub-Industry: Apparel Retailers
Annual Revenue: $10-50B
Estimated Record Count: 262.4M
PCI 100%
Location: Seattle, WA, United States

Risk Overview

Risk Rating

310 of 400

Based on 15.4% probability

51st Percentile
Peer range: 290-400
Peer median: 320

Change in history

This Company — Peer Median

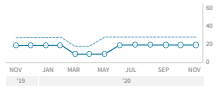
Probability of Incident

15.4%

Probability in percent (%)

26th Percentile
Peer range: 12% - 49%
Peer median: 24%

Change in history



This Company — Peer Median

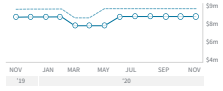
Average Annual Loss

$8.1m

Losses in USD ($)

72nd Percentile
Peer range: $3.1 - 9.4m
Peer median: $5.3m

Change in history



This Company — Peer Median

Top Exposure Signals

Based on peer comparison

Needs investigation

Spam activity	Propagation of unsolicited junk email distributed to a large number of recipients	Detected
Foreign hacker activity	Discussions about the company conducted in non-English forums (such as Russian, Chinese, etc.)	Detected
Network Complexity	Measure of breadth and intricacy of the company's external network based on an evaluation of its DNS (Domain Name System) hierarchy	High

Suspicious

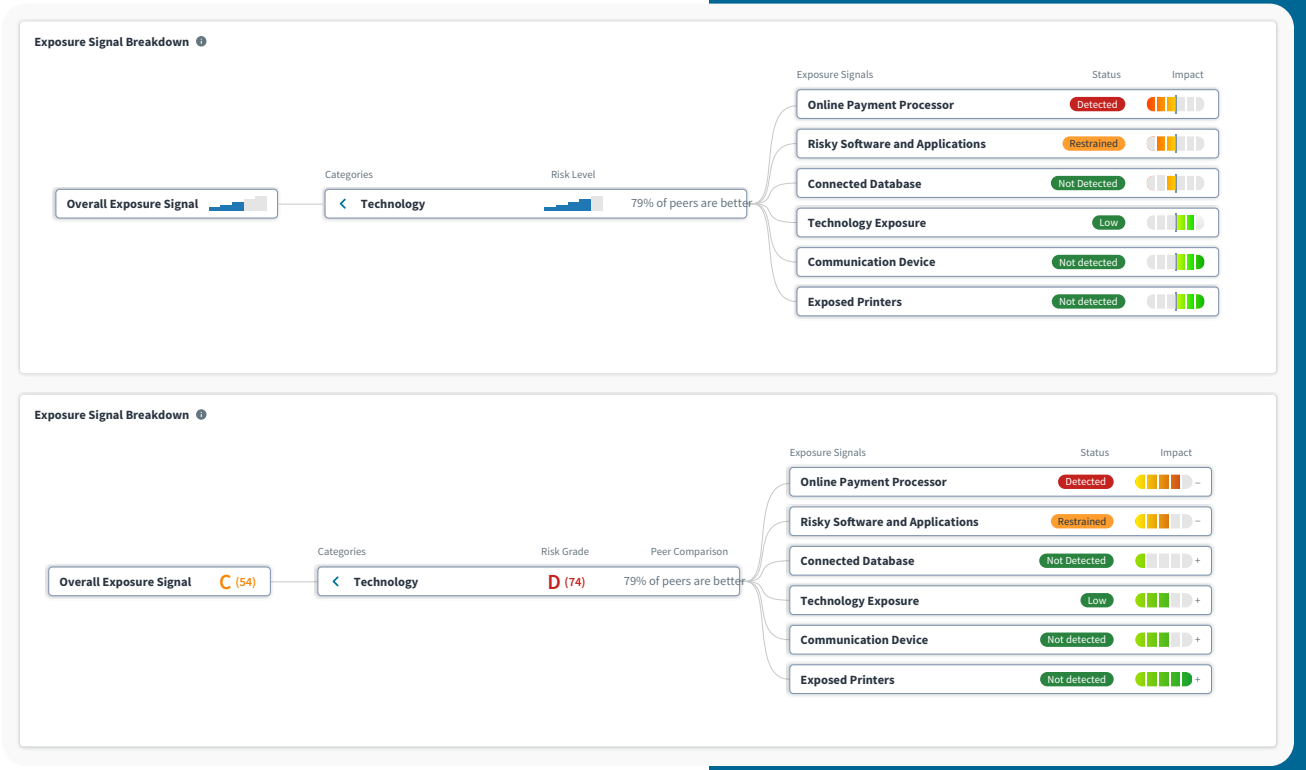
Network Complexity	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	Detected
Risky Software and Applications	Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy.	Detected
Shared Hosting	Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s.	High

Usability and A/B Testing

Risk Rating (Graph vs Grading)

We conducted A/B testing for deciding different data visualization and risk scaling system.

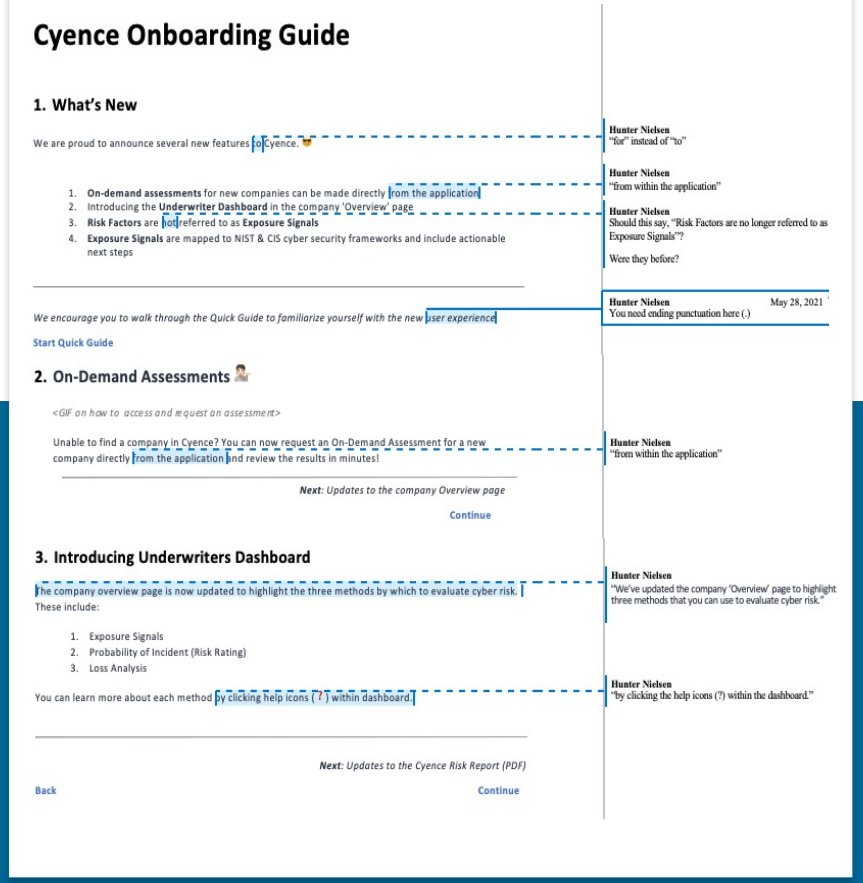
We ended up with Grading system because users were interested in granular differences of different risk level.



Onboarding Design Process

List features & define steps → Create & review content → Create & publish guide

Topics	Changes	Pendo Walkthrough
Overview page (3 column layout)	1. Top 3 exposure signals and security measures questionnaire snippet 2. Probability of incident ~~(including DD and RW breakdown)~~ along with Risk Rating. 3. Loss Analysis with AAL and Breakdown of coverages	Step 1: Highlevel 3 layout Step 2: New historical trend line
Exposure Signal page	1. Interactive Report Card ◦ View by peer comparison ◦ View by Sus/Mo. ◦ Top 3 exposure signals of High, Medium, Low type 2. Exposure signal detail changes ◦ Icons in addition to color for High, Medium, Low ◦ Updated UI view on closed card ◦ Past 3 month changes instead of 2 previously ◦ Security Measure questionnaire ◦ Security control mapping	Step 3: Report Card Step 4: In context security measures and control mapping.
Security Measures page	1. NIST/CIS Security Measures ◦ Common questionnaire for both frameworks ◦ Downloadable questionnaire ◦ Search for ESig withing Security Measures ◦ Default sorting of ESig from High-Low	Step 5: What is Security Measures? Step 6: Downloadable questionnaire.
Peer Comparison page	1. Sus/Mo *(previously in overview page)* in collapsed container 2. List of filtered peers 3. Company compare *(Same as before)*	Step 7: Moved Sus/Mo.



Cyence Onboarding Guide

1. What's New

We are proud to announce several new features to Cyence.

1. **On-demand assessments** for new companies can be made directly from the application
2. Introducing the **Underwriter Dashboard** in the company 'Overview' page
3. **Risk Factors** are not referred to as **Exposure Signals**
4. **Exposure Signals** are mapped to NIST & CIS cyber security frameworks and include actionable next steps

Hunter Nielsen "for" instead of "to"

Hunter Nielsen "from within the application"

Hunter Nielsen Should this say, "Risk Factors are no longer referred to as Exposure Signals"?

Were they before?

Hunter Nielsen May 28, 2021 You need ending punctuation here (.)

We encourage you to walk through the Quick Guide to familiarize yourself with the new user experience.

Start Quick Guide

2. On-Demand Assessments

<GIF on how to access and request an assessment>

Unable to find a company in Cyence? You can now request an On-Demand Assessment for a new company directly from the application and review the results in minutes!

Hunter Nielsen "from within the application"

Next: Updates to the company Overview page

Continue

3. Introducing Underwriters Dashboard

The company overview page is now updated to highlight the three methods by which to evaluate cyber risk. These include:

1. Exposure Signals
2. Probability of Incident (Risk Rating)
3. Loss Analysis

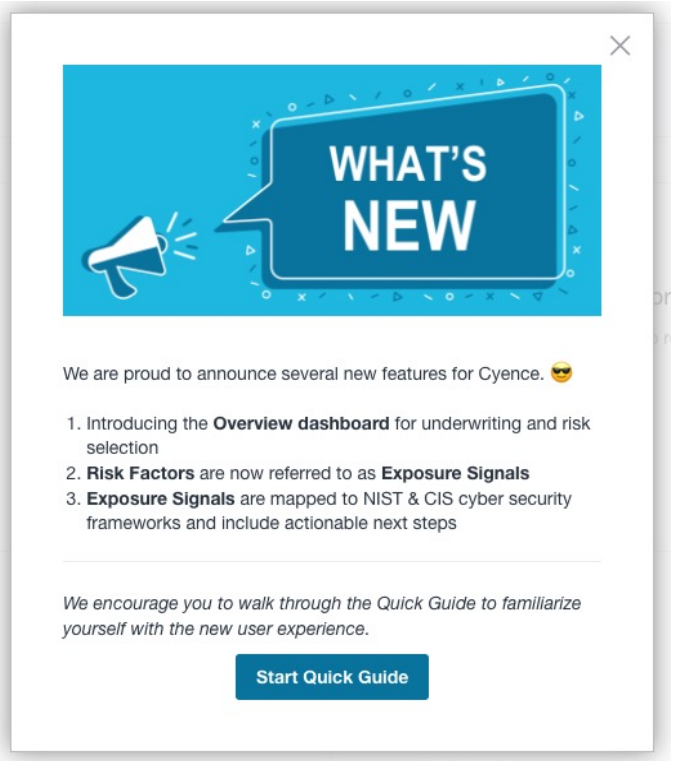
Hunter Nielsen "We've updated the company 'Overview' page to highlight three methods that you can use to evaluate cyber risk."

You can learn more about each method by clicking help icons (?) within dashboard.

Hunter Nielsen "by clicking the help icons (?) within the dashboard."

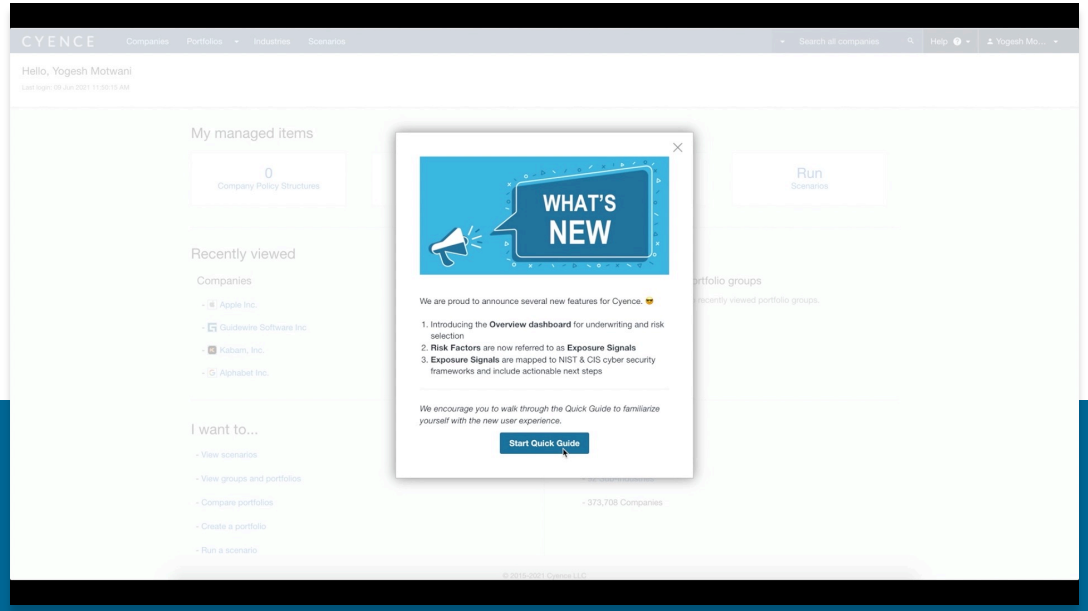
Next: Updates to the Cyence Risk Report (PDF)

Back Continue

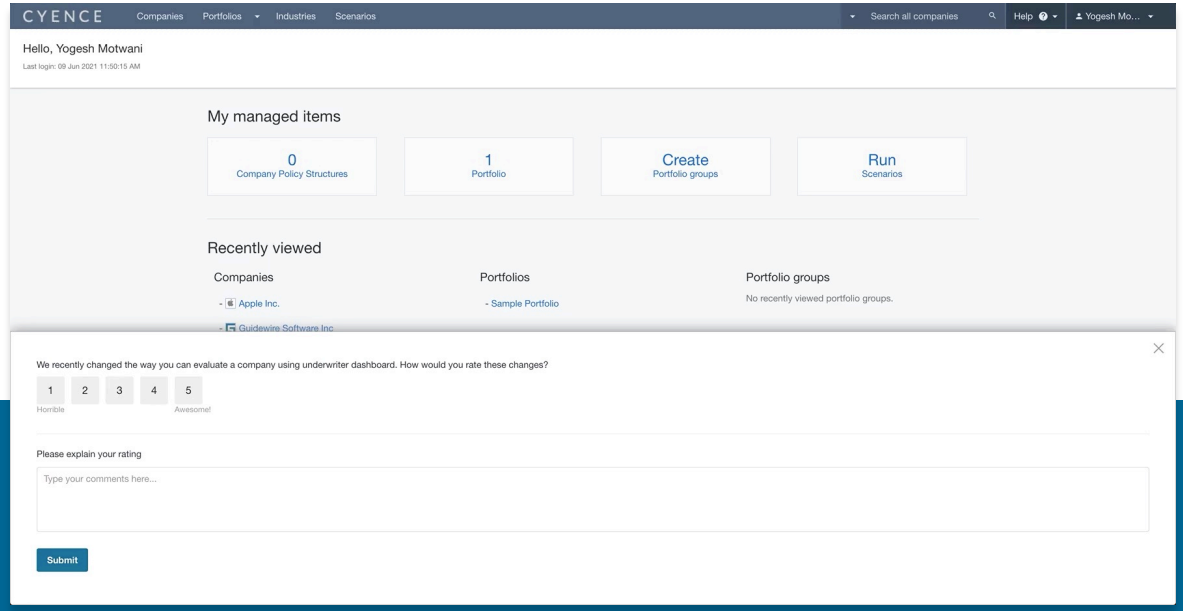


Onboarding Design Samples

Onboarding Guide



In-App UI Feedback



Product Success Metrics

The process of defining success metrics

Define | Review | Track & Report | Reflect | Design Backlog

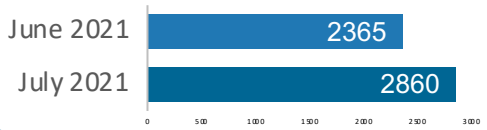
Some key insights

Month-over-month comparison

JUNE 2021 TO JULY 2021

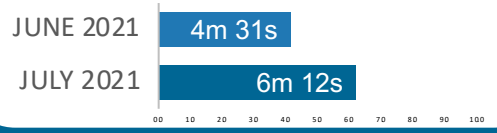
Unique Companies Viewed

21%



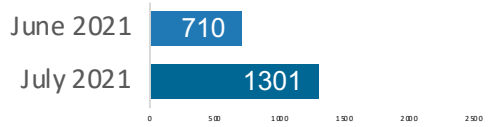
Time spent on new pages

49%

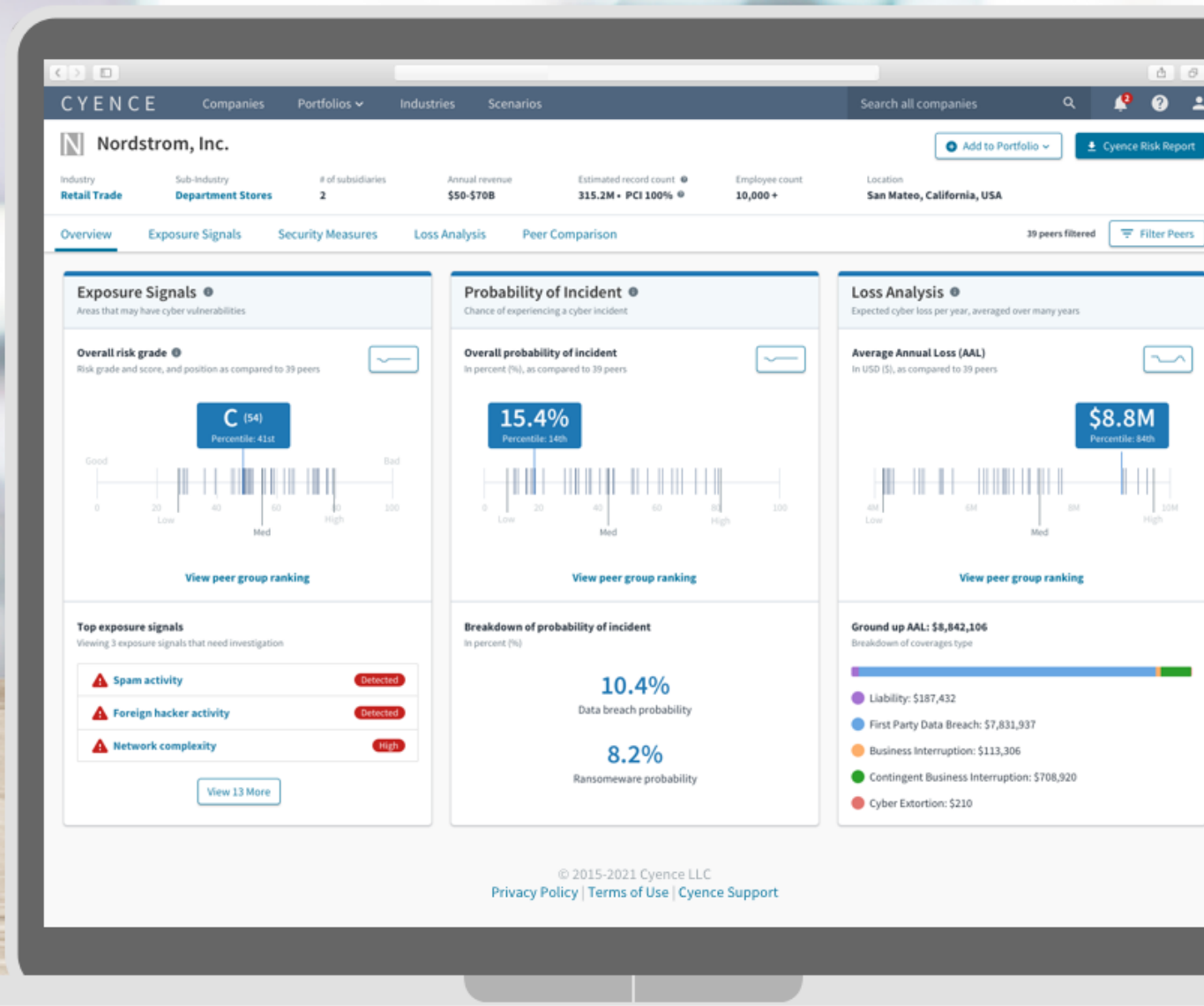


Report Downloads

83%



Thank You!


CYENCE
Companies
Portfolios
Industries
Scenarios
Search all companies
Nordstrom, Inc.
Add to Portfolio
Cyence Risk Report
Industry
Retail Trade
Sub-Industry
Department Stores
# of subsidiaries
2
Annual revenue
$50-$70B
Estimated record count
315.2M • PCI 100%
Employee count
10,000 +
Location
San Mateo, California, USA
Overview
Exposure Signals
Security Measures
Loss Analysis
Peer Comparison
39 peers filtered
Filter Peers
Exposure Signals
Areas that may have cyber vulnerabilities
Overall risk grade
Risk grade and score, and position as compared to 39 peers
C (54)
Percentile: 41st
Good
Bad
Low
Med
High
View peer group ranking
Top exposure signals
Viewing 3 exposure signals that need investigation
Spam activity
Detected
Foreign hacker activity
Detected
Network complexity
High
View 13 More
Probability of Incident
Chance of experiencing a cyber incident
Overall probability of incident
In percent (%), as compared to 39 peers
15.4%
Percentile: 14th
Low
Med
High
View peer group ranking
Breakdown of probability of incident
In percent (%)
10.4%
Data breach probability
8.2%
Ransomeware probability
Loss Analysis
Expected cyber loss per year, averaged over many years
Average Annual Loss (AAL)
In USD ($), as compared to 39 peers
$8.8M
Percentile: 84th
Low
Med
High
View peer group ranking
Ground up AAL: $8,842,106
Breakdown of coverages type
Liability: $187,432
First Party Data Breach: $7,831,937
Business Interruption: $113,306
Contingent Business Interruption: $708,920
Cyber Extortion: $210
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