

## Parchment



### Overview

#### Industry

- Technology

#### Challenge

- Needed to safeguard secure personal information
- Wanted a solution to stay on top of rapidly-evolving threat landscape
- Desired visibility of entire network
- Inability to adapt to behavior and network changes

#### Results

- Deployed Enterprise Immune System inside the network
- Total visibility of all insider traffic
- Ability to adapt and continuously understand new business protocols
- Can stay abreast of fast-moving threats

### Business Background

Parchment, based in Scottsdale, Arizona, is the most widely-adopted digital credential management service, allowing learners, academic institutions, and employers to request, verify, and share academic credentials in simple and secure ways. The platform has helped millions of people and thousands of schools and universities exchange more than 20 million transcripts and other credentials, globally.

Parchment has rapidly grown its institutional member network to include college and university registrars and admission offices. As of September 30, 2016, the active Parchment network spans 25 percent of US enrollments in secondary schools and 17 percent of US enrollments in postsecondary schools.

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**Bob Langan, Vice President of Engineering**

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### Challenge

In a new era of threats, where cyber-attacks are stealthy and subtle, Parchment was primarily concerned about protecting its vast amount of sensitive and private personal information. The security team needed a solution to stay on top of increasingly automated and fast-moving attacks, in order to defend its critical data.

With this initiative in mind, Parchment wanted to ensure it was adopting a mature security solution. It needed a technology that could defend against unknown threats, without having to be continuously updated with the growth of the company. It further needed a tool that could visualize the entire network, allowing the security team to spot anomalies as they emerge, in real time. “We are cognizant of the ever growing threats in cyber security,” commented Bob Langan, Vice President of Engineering, Parchment. “We needed a solution capable of securing our infrastructures and the information within.”

## Solution

To meet these challenges, Parchment decided to deploy Darktrace's Enterprise Immune System into the core of its network. This new and innovative approach to cyber defense uses unsupervised machine learning and advances in Bayesian mathematics, developed by specialists from the University of Cambridge, to understand 'self' for a network. By observing and establishing the 'pattern of life' for each device and user, as well as the network as a whole, Darktrace's self-learning technology can detect potential threats as they arise, without using rules, signatures or prior assumptions.

Within an hour of deployment, Parchment had complete real-time visibility of its entire network via the Threat Visualizer. The complete visibility allowed for Parchment to detect deviations from normal 'self', offering the ability to play back the threat in order to mitigate the attack before it escalates into a crisis.

"Darktrace's ability to adapt as our systems and behaviors change is invaluable to keep pace with cyber events and potential threats," added Langan. "The ability to retain and play back events means that once we solve an issue, we can go back and replay the event, drilling down to the lowest level to further evaluate the incident, and take corrective action with certainty."

## Benefits

Darktrace has quickly become a critical component to Parchment's overall security stack, due to its proactive and probabilistic approach. With the Enterprise Immune System fully deployed in its network, Parchment now has full confidence that it is staying ahead of a rapidly-evolving threat landscape.

The self-learning technology's capabilities allow it to detect new and unknown forms of attacks, without relying on a pre-defined assumption of 'bad', enabling the Parchment team to respond to threats before any damage is done.

Parchment is confident that its security strategy is prepared with the best tools for defense against new subtle forms of threats, even as the company continues its rapid growth. With Darktrace, Parchment has full visibility and can defend against a wide range of attacks: from insider threats, to the manipulation of the increasing Internet of Things, to silent, advanced, and automated forms of malware. Ultimately, the Enterprise Immune System allows Parchment to take a proactive and mature security posture, however advanced threats might evolve.

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Darktrace's unique machine learning allows us to define normal behavior. It is reassuring to know that there is an active way to be managing our network health 24/7, and one that will grow and evolve as our company does.

**Bob Langan, Vice President of Engineering** ”

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