

DETECT & PROTECT

Whitethorn® – Advanced Digital Certificate
Discovery and Management Platform

—
The only software to be able to provide
full digital certificate and key discovery,
management and automation

The problem with internet communication – how do you know what to trust?

The Digital Challenge

The whole digital internet environment is based on trust. Software interactions are based on informed trust, each piece of code having its own digital certificate, provided by a recognized and trusted third party. This is essential for all digital communication across the internet.

However malware – including ransomware and foreign and criminal hacks seeking to steal information or take over or destroy your systems, hide behind stolen or compromised certificates. Many of the infamous malware attacks, like Stuxnet, WannaCry, LockerGoga and NotPetya have hidden behind stolen or compromised certificates, which can enable malicious software to be validated as trusted and pass into an enterprise totally undetected. These have cost businesses billions of pounds.

The challenge for the stakeholders of a company's technology, risk and executive teams is having full visibility of the enterprise and knowing which certificates are valid, their origination, their access and their expiry. Not knowing which of the digital certificates are compromised, revoked or expired puts the business and shareholder value at risk. Enterprises of all shapes, sizes and complexities had until now no way to identify all their certificates and keys. This made cyber attacks, data breaches and certificate expiry almost impossible to defend against.



Source: IBM

The Complications

All IT systems rely on PKI to ensure digital trust for communications, both internally and externally. If a certificate expires this communication ceases.

To avoid compromise all certificates need to be renewed, ideally annually. If certificates go out of date services will stop – such as when the O2 mobile network in the UK went down in December 2018 affecting millions of customers and some critical infrastructure like emergency services and public transport that relied on their network.

Expiring certificates cost the world's largest 5000 companies collectively over \$200 billion per year.

Unless your system can identify all of the digital certificates in your own and attached software, your system is in danger of dropping service and its own security.



Source: Ponemon Institute

The Discovery Solution

Whitethorn® is the only digital certificate discovery platform that can today find all of the digital certificates on your systems, and identify which are compromised and which are going to expire shortly.

Whitethorn® is the most comprehensive certificate and key discovery, management and automation technology. It's next gen capability is unrivalled providing full visibility and management of what was previously considered impossible.

Impact of PKI Hacks via Compromised PKI:

\$3.5 bn

Loss of market value following Equifax breach

25 + million

Facebook user IDs lost

380 k

British Airways Payment details compromised

How much risk are you and your clients at from your own digital systems?

The majority of organisations don't know all of the devices connected to their systems, let alone all the certificates, so without visibility of their certificates cannot manage or protect them. A radical new way of certificate and key discovery, management and automation is urgently required.



Source: Bloomberg

For your business to survive, let alone thrive, good certificate management is critical. Without full discovery the management of certificates will only provide a degree of protection. It's very likely that the certificates that you do not know about and therefore do not manage may be the ones that allow breaches, potentially allowing malicious software (malware/ransomware) to enter undetected.

Until recently, it was virtually impossible to know how many certificates were in an enterprise, where they originated from and what access they had.

Whitethorn® was born to identify a breach within a NATO military environment, when discovered it was found that the 'payload' had gained undetected access via a stolen certificate. Whitethorn® is revolutionising digital security and PKI management by being able to 'Discover, Manage and Automate' certificate lifecycle, enabling full visibility and control, management and automation.

Questions to ask your Chief Information Security Officers (CISO) about your digital certificate risks

Compromised Certificates

Q: How many Chinese, Russian, North Korean and certificates from other countries are there in your enterprise?

Q: Do you have any revoked certificates in your enterprise?

Q: If you have any of the above, what access do they have?

Weak Certificates

Q: How many SHA1 and other weak certificates are in your enterprise and how will you identify and replace them?

Q: What self signing certificates are in your enterprise, what access do they have, and what is their lifecycle?

Expiring Certificates

Q: What certificates are expiring today, tomorrow, next week or next month?

Q: What is the risk that they could cause a service outage across all or part of your system?

Q: What might that cost in terms of remediation and loss of customers' confidence?

If they cannot answer ALL of the above questions readily, easily and with confidence, the chances are that you're already compromised

Contact us to run Whitethorn® and give you full visibility across your enterprise. No other certificate management solution 'discovers' like Whitethorn®.

It's not just the known problems that can cause issues, it's the ones hiding behind the unknown unknowns!

How Whitethorn® can work for you

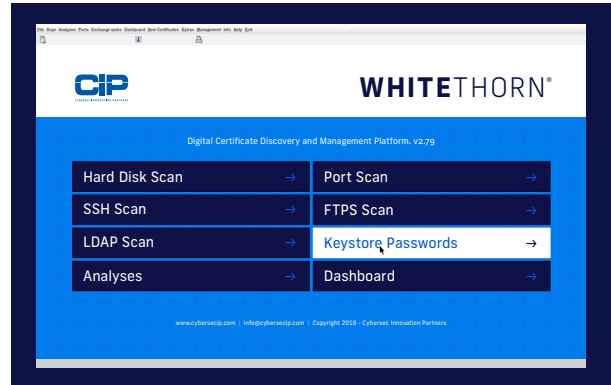
A Comprehensive View of Your Certificate Risk

The Whitethorn® dashboard gives your Information Security team the ability to scan all digital certificates and keys across your entire enterprise.

Whitethorn® provides a proprietary and unique enterprise-wide view of the certificate risk landscape; mitigating data breach, service loss and non-compliance; automating certificate retirement and exchange; and controlling rotation of certificates.

A Single Certificate Repository

Whitethorn® includes proprietary scanning engines whose output data is uniquely harmonised into a single Certificate Repository for the entire enterprise. In addition, the integrated and modular Certificate Life Cycle Management Platform will enable our customers, for the first time, to dynamically scan, detect and automate the discovery, issuance, integrity, exchange and remediation of all keys and certificates.



Delivery & Technical Specifications

Leveraging CIP expertise and managed service capabilities, the Whitethorn® Digital Certificate Discovery & Management Platform can be rapidly deployed with minimal organisational, installation and training effort.

Whitethorn® Digital Certificate Discovery & Management Platform works on all Java supporting operating systems e.g. Windows, UNIX, Solaris, Mac OS, and IoT.

Whitethorn® has 5 unique components

Whitethorn® Scanners	Multiple scanning engines to identify all keys and certificates
Whitethorn® Repository	Central Certificate Database and Management Module
Whitethorn® Manager	Central Management Console
Whitethorn® Zone Server	Transfer of data over distributed networks (multi-site)
Whitethorn® Remote	Endpoint Management, Policy Enforcement Module

Benefits

- A clear representation of your company's certificate risk landscape
- Identification of all the required data to manage certificates and execute a robust PKI policy
- Validation, identification and auditing of previously unknown risks and vulnerabilities in your digital trust strategy
- Platform for extending the control of certificates to the extended enterprise
- NextGen discovery and remediation capability
- Increased confidence in the control of certificate security with a positive business ROI on the investment made
- Automatic replacement of expiring certificates that retrospectively cost £millions to remediate/replace
- Proactive management and automation of certificate management processes that were previously both manual and incomplete
- Discovers up to 60% more certificates than current leading certificate management providers.

Cybersec Innovation Partners

Cybersec Innovation Partners are a team of recognised cyber and security leaders led by industry specialists. Our mission is to identify NextGen software technology with proven risk reduction capabilities and fast track their deployment into enterprise use. CIP solutions inform executive and management teams of cyber threats and operational risks.

CIP bring world-class capabilities and high-quality managed services to clients, delivering the insights required to address their most complex security challenges.

CIP provides consulting and support services to ensure that clients are able to make the most of Whitethorn® as easily as possible.

Cybersecurity Services from CIP

Whitethorn® Insight

A short consulting programme applying the Whitethorn® Scanners to scan a number of computers, discover the full set of certificates, identify the PKI vulnerabilities and manage them

CIP Professional Services

Implementation of the Whitethorn® platform across the organisation, training your responsible people and handing over management of the platform to your Information Security function

CIP Managed Services

Continued management of the Whitethorn® platform on your behalf to ensure that your digital certificates continue to be effectively and securely scanned and managed

CIP are proud to be partnered with some of the world's leading cybersecurity technology companies. Used together as an eco-system we provide unrivalled risk reduction and mitigation.



CrowdStrike is a leading cloud delivered endpoint detection and response solution, providing 24/7 protection against all malware and malware-free threat types, with near real-time oversight of vulnerabilities across all endpoints and platforms. CrowdStrike Includes machine learning malware protection, indicator of attack (IOA), behavioural blocking and exploit blocking, with a sandbox environment to ensure no attachments or downloads are harboring malware.



Menlo software eliminates phishing, malware, credential theft and other risks from web and email. It eliminates the risk of web malware, removing the need for client software or plugins. Menlo also protects your systems from email phishing attacks, eliminating drive-by malware exploits and protecting against credential theft. It provides safe document downloads, eliminating the risk from weaponised documents.



GlobalSign is an identity services company providing cloud-based highly scalable PKI solutions for enterprises needing to conduct safe commerce and communications. Their identity and security solutions enable businesses, to conduct secure communications, manage millions of verified digital identities and to automate.

Reinstate digital trust, protect your organisation from operational and cyber risk

Whitethorn® goes beyond the capability of any digital certificate detection and management product on the market today.

Our next generation, best in class PKI/certificate and keys solution will limit vulnerabilities across your entire enterprise, saving your company £millions in costly service outages and vastly reducing your risk.

Allow us to show you how.

Contact Cybersec Innovation Partners

For more information or a demo visit:

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