

the IMMUNE SYSTEM
for the INTERNET

Venafi: Uniquely protects the foundation of all cybersecurity that is failing today

Our Mission: To protect keys and certificates so bad guys can't use them

Trusted: Venafi secures hundreds of Global 5000 organizations worldwide



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for the INTERNET

Background



- Encryption keys and certificates form the foundation of trust for individuals and interconnected devices
- Increasing usage of encryption keys and certificates has created a management problem
 - Mobile devices
 - Internet of Things
- Hackers have noticed and are exploiting this issue

Trust takes years to build, seconds to break and forever to repair.



Who is Venafi?

- Founded in 2004
- HQ in Salt Lake City, UT
- EKCM is our core competency
- Recognized leader in this space
- Protect the Global 5000 from this threat



VENAFI PROTECTS

4 of 5
TOP BANKS

8 of 10
TOP HEALTH INSURERS

4 of 7
TOP RETAILERS

Hundreds of Global 5000 customers demonstrate the uniqueness of our vision and ability to protect

**“50% of network
attacks will use SSL by
2017”**

Gartner



Keys

Certificates



Keys and certificates establish what is trusted or not for software, applications, devices



HUMANS

User name, Password, Biometric

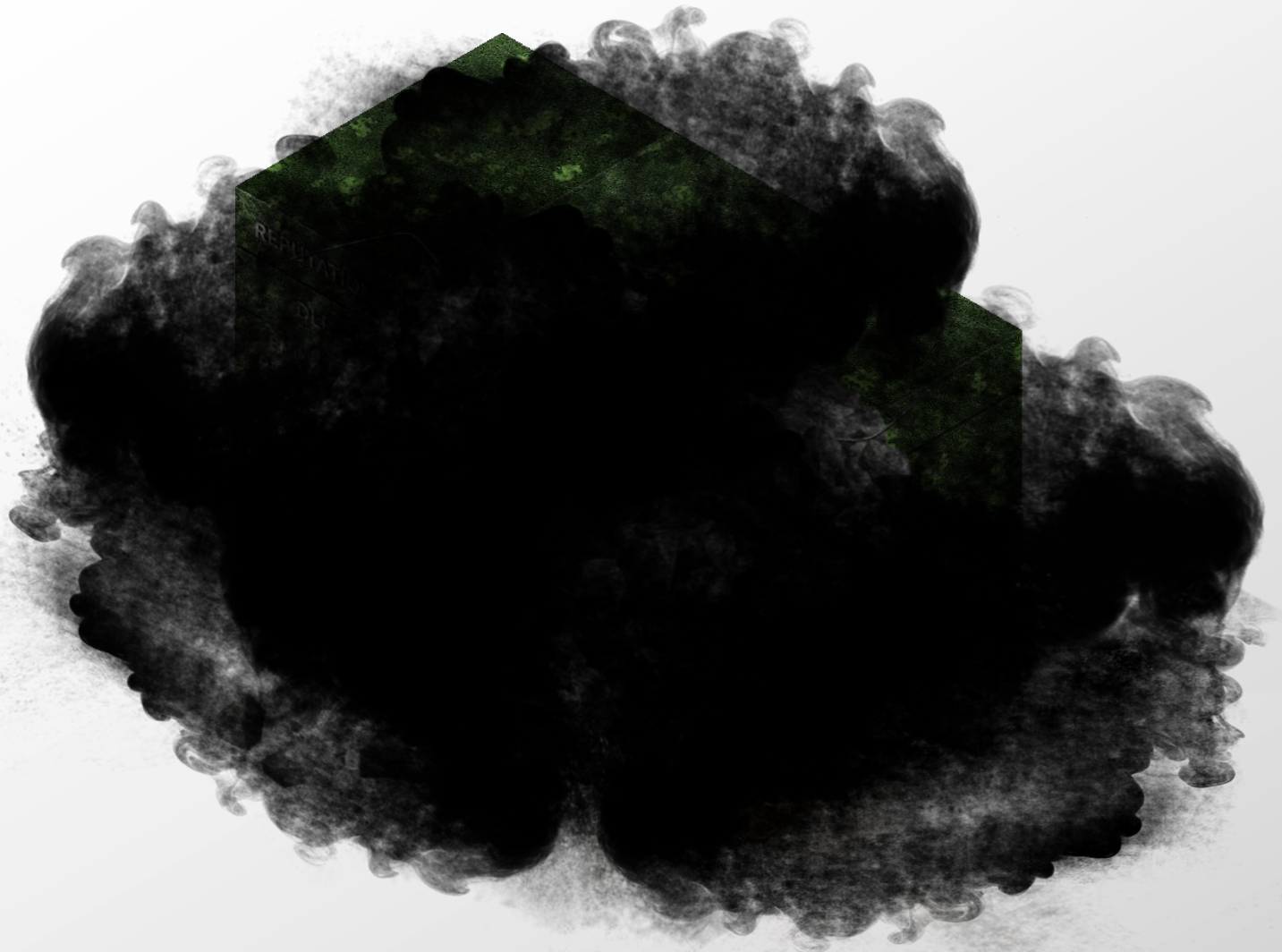


1 0 1 0
0 1 0 1
0 1 0 1

SILICON BASED LIFEFORMS

Keys and Certificates







IDENTITEITSKAART

XXXXXXXXXX

XXXXXXXXXX

/// /// ///

XXXXXXXXXX

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100 ft. underground tunnel





100 ft. underground tunnel







Keys and Certificates



Compromise
Keys and Certificates
One Key or Certificate



The Perfect Target

More than
17,000 in every
organization

Little awareness
or detection
capability

WIDE REACH

LOW VISIBILITY

POOR RESPONSE

TRUSTED STATUS

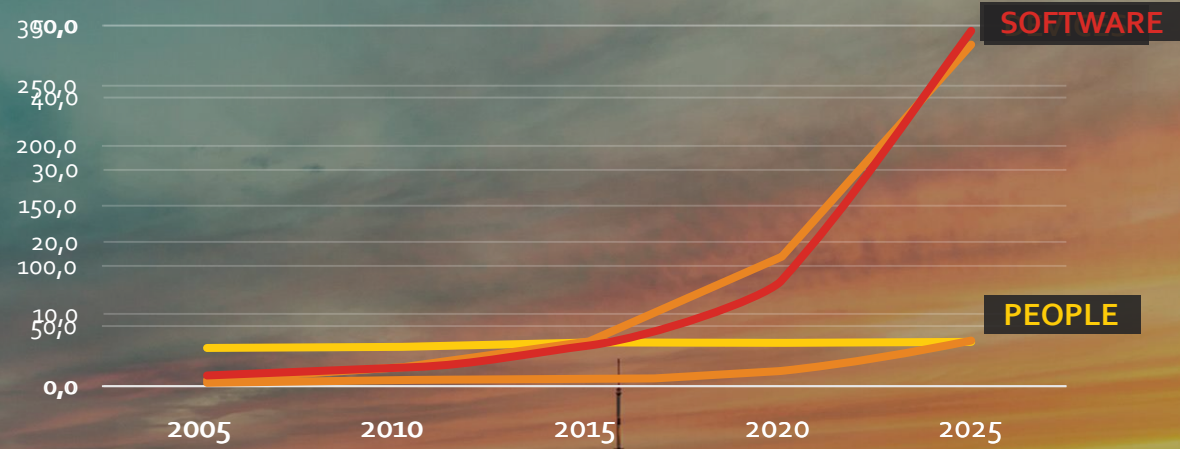
Compromise
One Key or Certificate

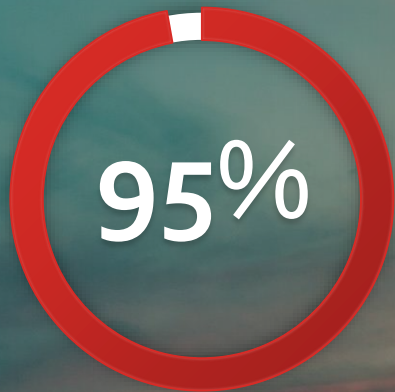
No tools for
responding to
attacks

Attackers are
granted privileged
status



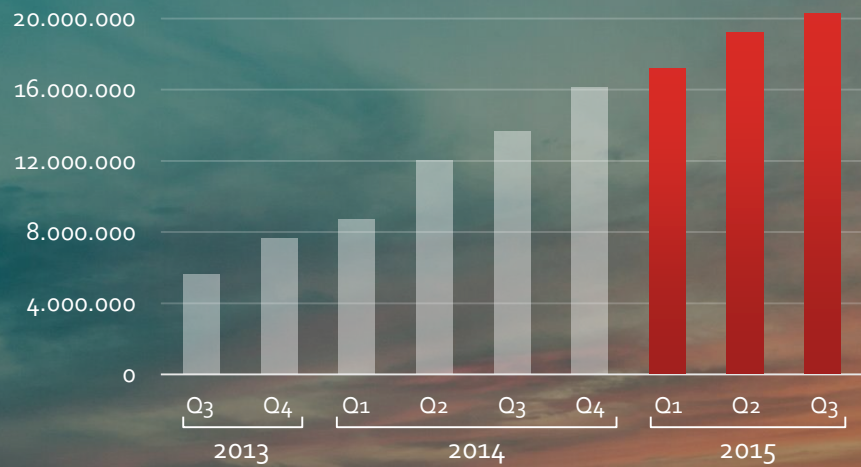
PROJECTED GROWTH (IN BILLIONS)





of organizations don't
know where keys/certs
are active in their networks

TOTAL MALICIOUS SIGNED BINARIES



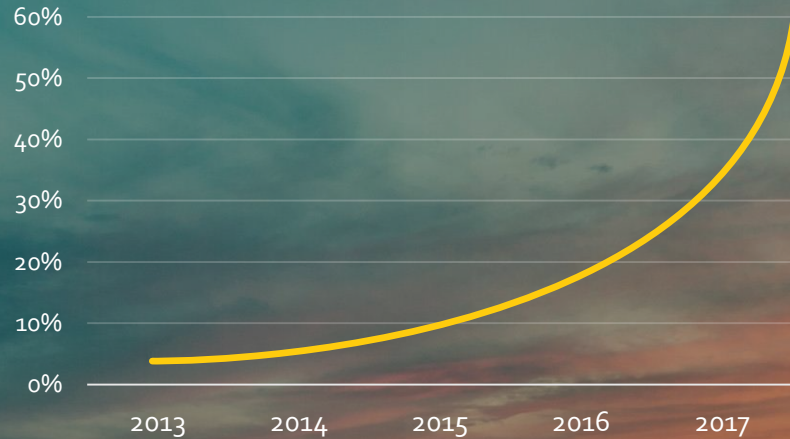
“The next big hacker marketplace is in stolen certificates.”

Mathew Rosenquist,
Security Strategist



Source: Intel Security, 2015

PERCENTAGE OF SSL-RELATED NETWORK ATTACKS



“50% of network attacks will use SSL by 2017”

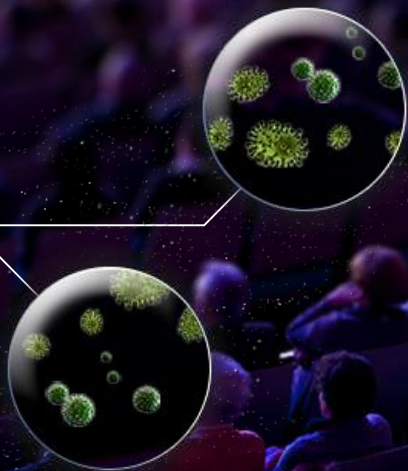
Gartner 2013

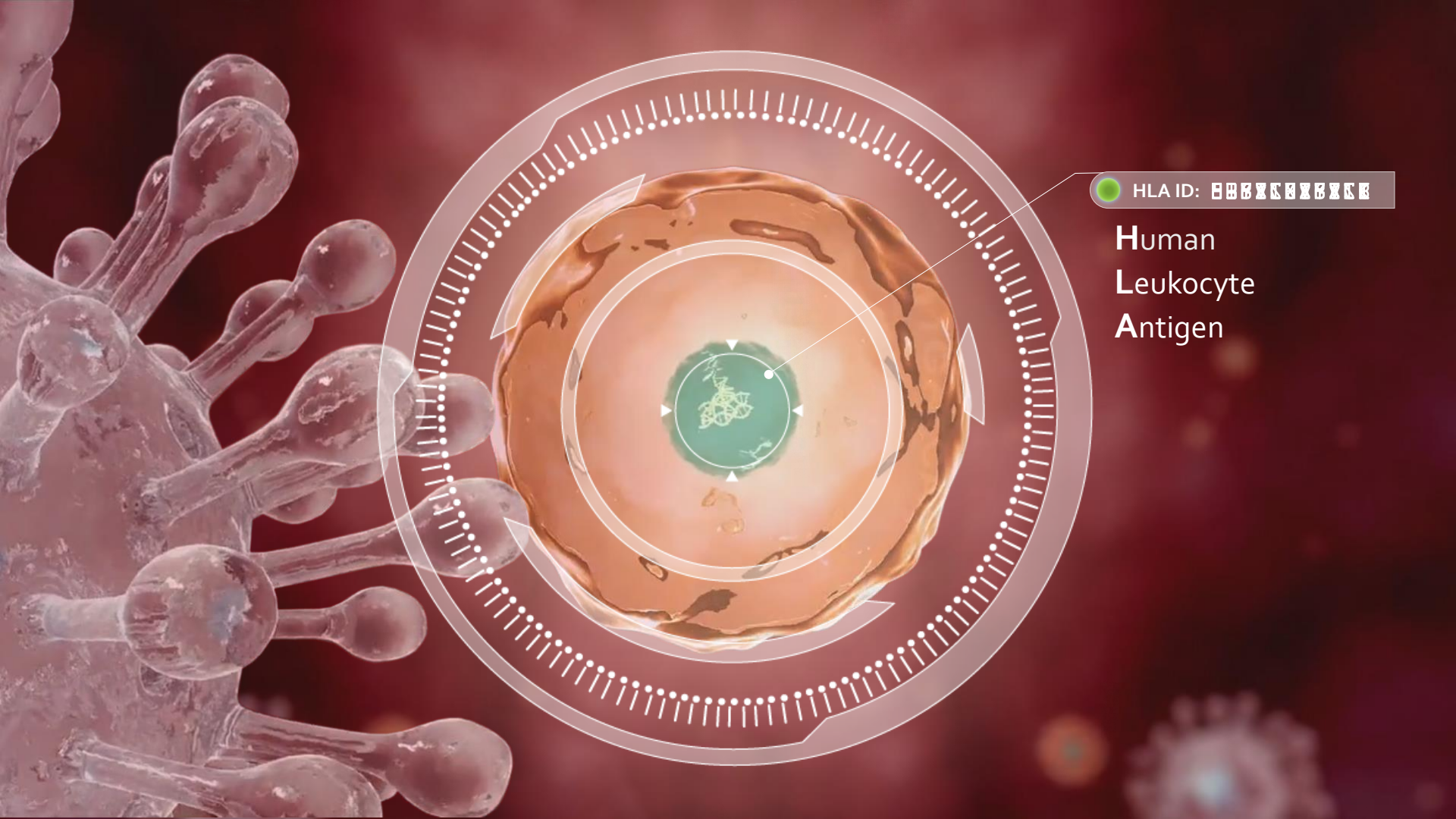
Would your organization tolerate
24,000 user IDs & passwords
with no awareness, policies, or control?

Would your organization tolerate
24,000 keys & certificates
with no awareness, policies, or control?

500 Million BC

2016
BACTERIA
VIRUSES
PATHOGENS





HLA ID: **BBBXXXXXXX**

**Human
Leukocyte
Antigen**

Certificates in the Real World.

2014's Best Known Fortune 500 Breaches

V



Aug 2014

Chinese exploit Heartbleed and failed remediation to steal key and certificate from Juniper SSL VPN – opening door to steal 4.5M patient records

<http://bloom.bg/1ys8LRz>



Nov 2014

Russian cyber gang compromises SSL key and certificate on JPMC partner site to execute man-in-middle and spoofing as part of 77M customer breach

<http://nyti.ms/1vBFSFx>



Dec 2014

Bad guys take down Sony with help of dozens of SSH keys for sensitive finance, HR, and IP and then publish keys for more bad guys to use

<http://buswk.co/1yDBiHG>

involved keys and certificates

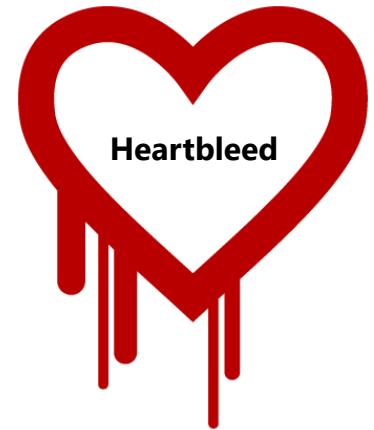
Vulnerabilities Remain



- Trust-based attack vulnerabilities are increasing
- Heartbleed showed how serious the impact could be

“Heartbleed is catastrophic... This means that anything in memory—SSL private keys, user keys, anything—is vulnerable. And you have to assume that it is all compromised. All of it.”

 - Bruce Schneier, Cryptographer



When, not if
next Heartbleed-
level response
will be needed

A Case Study

V



Aug 2014

Chinese exploit Heartbleed and failed remediation to steal key and certificate from Juniper SSL VPN – opening door to steal 4.5M patient records

Venafi reduces risk, accelerates agility



Brings order to chaos

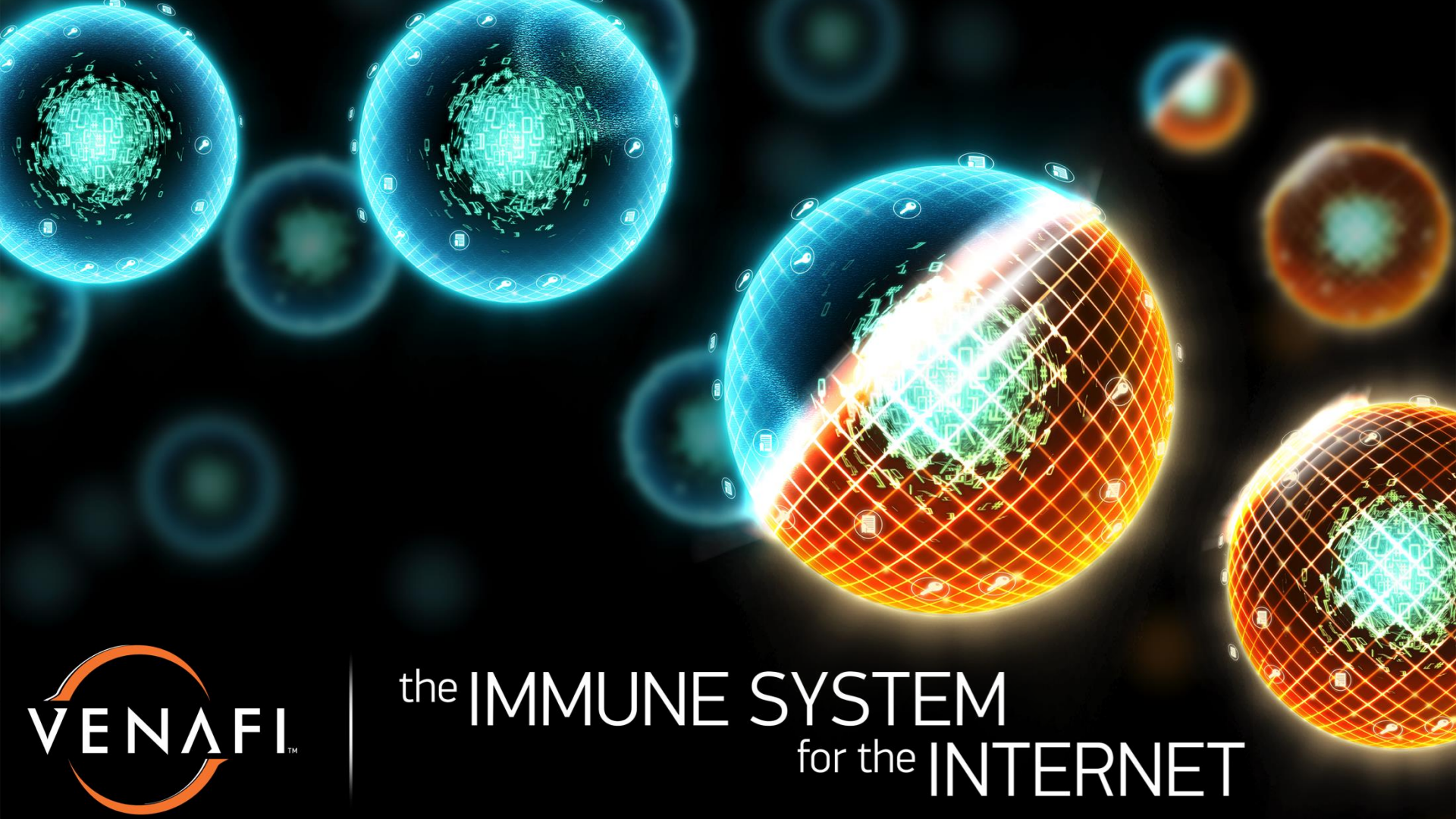


Eliminates blind spots



Secures at high speed





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