PCI Security Standards Council

North America
Community Meeting 2023

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PCI Security Standards Council

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DIGITAL REMOTE
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POWER
VOLUME
CHANNEL
MTV


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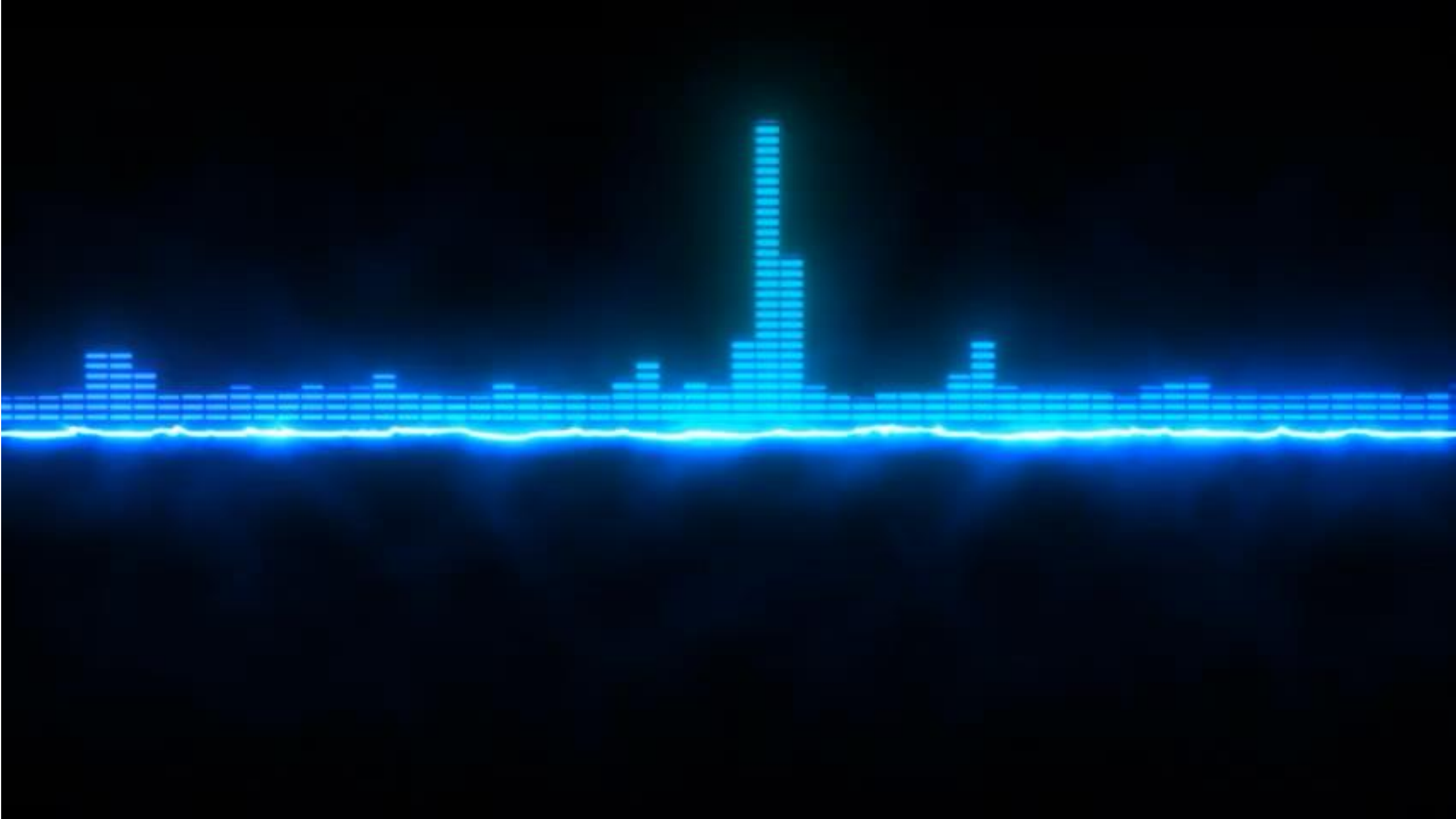

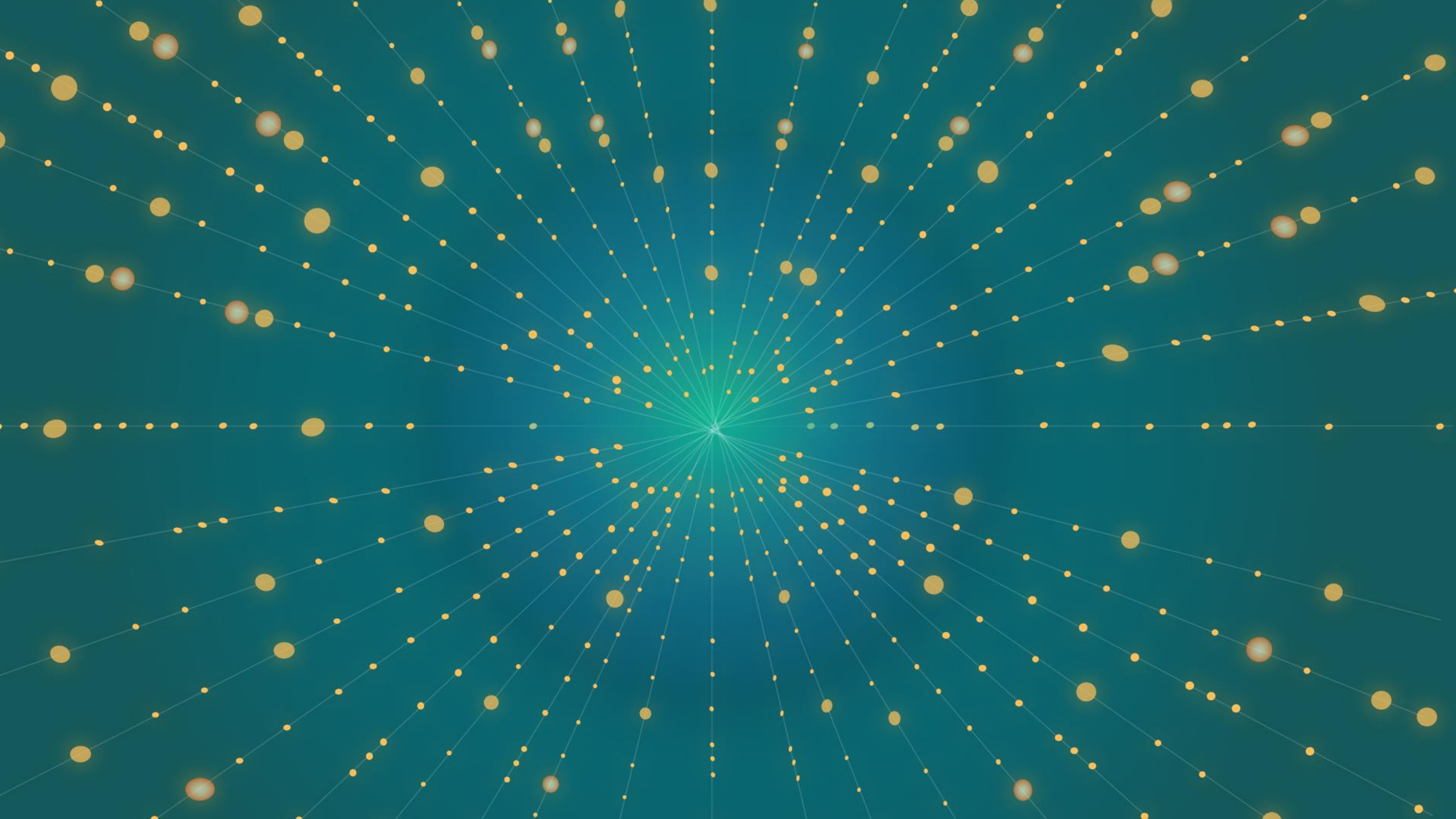

Software Security Principle #1

Software Security is a function of Software Quality

- Success is dependent on customer trust.
- Quality is a major factor in building customer trust.
- Lower quality = less trust & fewer customers.
- Once trust erodes, it is difficult to recover.

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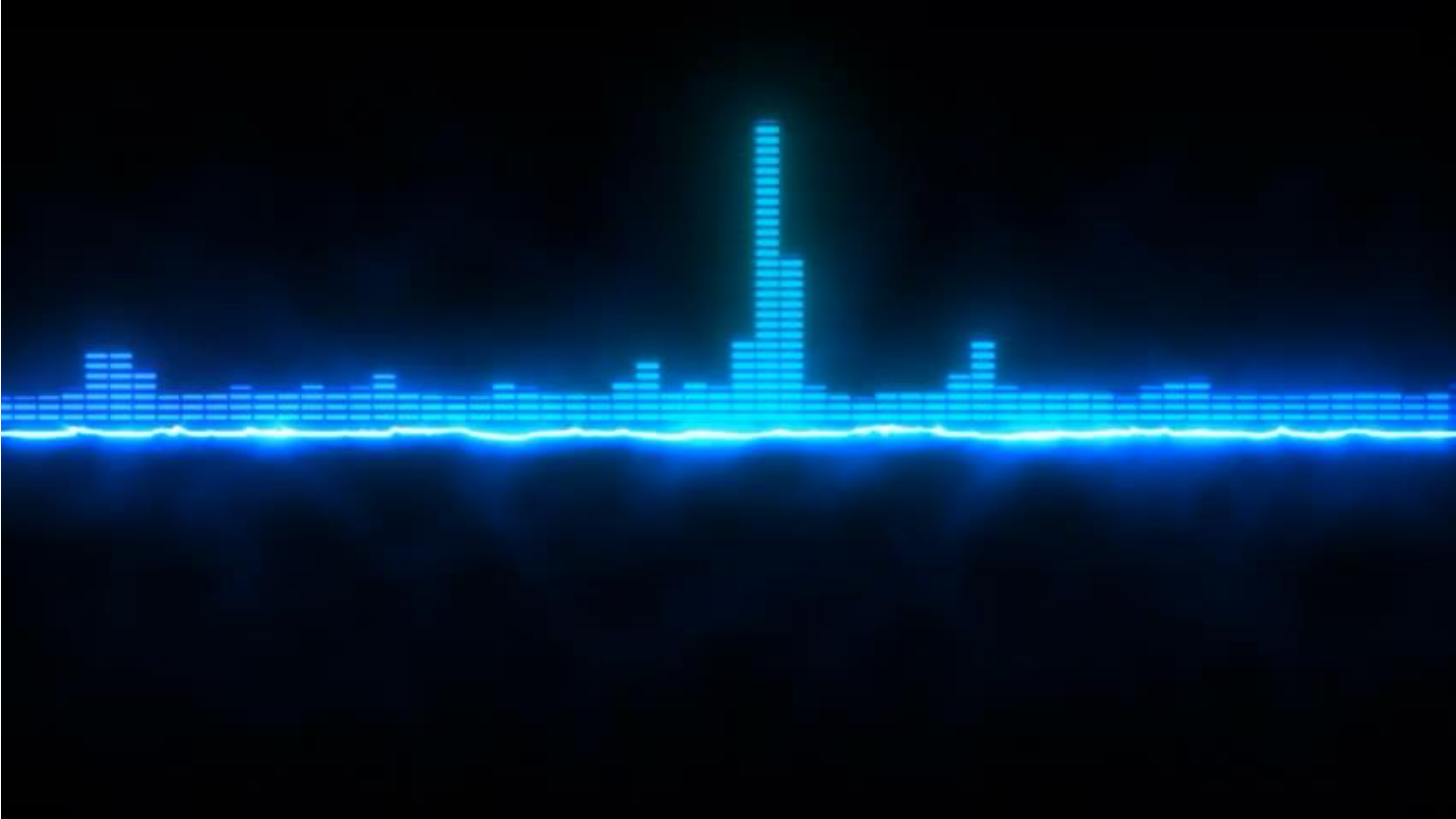

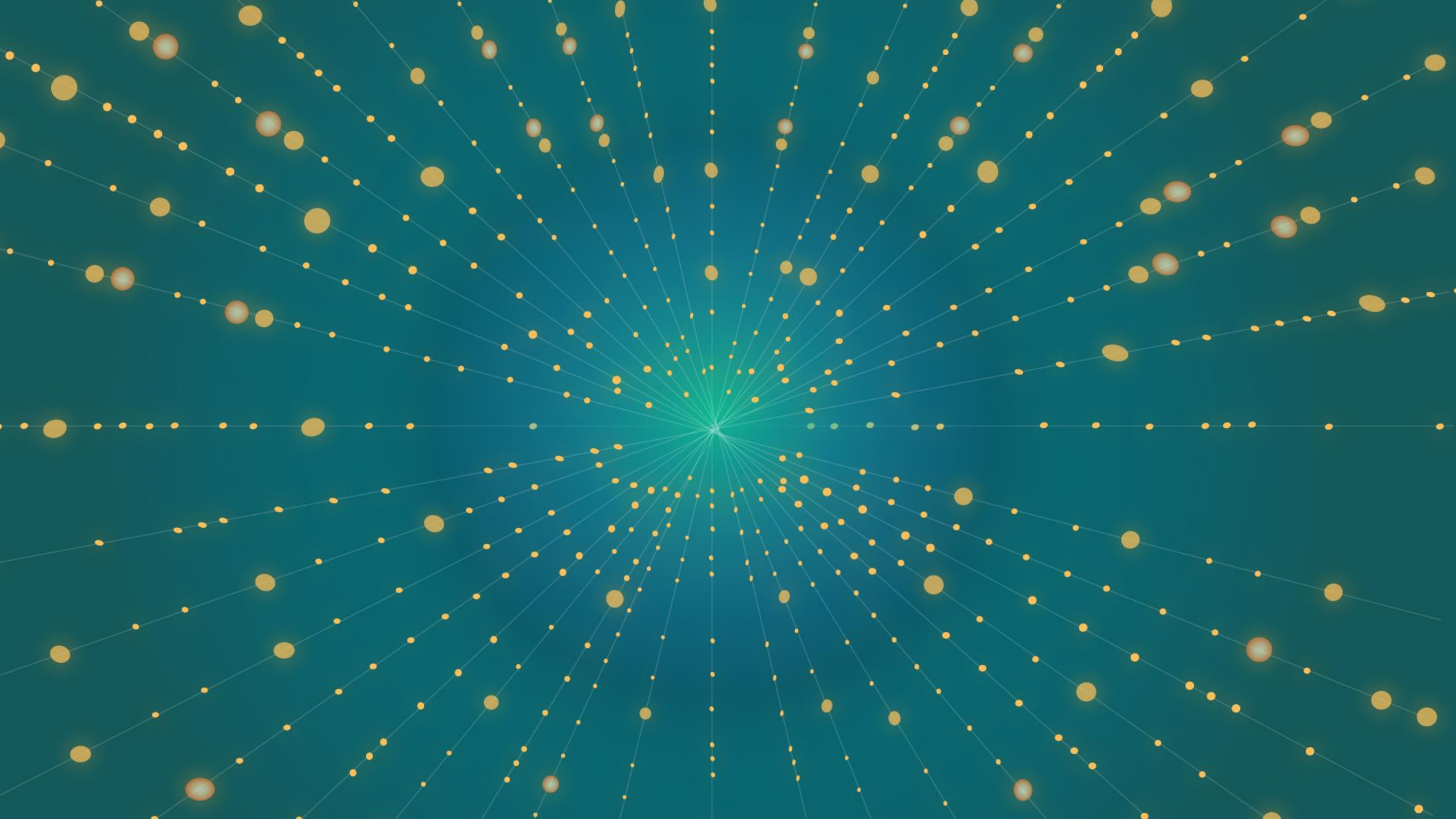


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Software Security Principle #2

Security and Quality Issues Can Have Major Repercussions

- The Internet is an extremely hostile environment.
- Software must be designed to withstand such conditions.
- Knowing one's weaknesses and how they may be exploited is key to one's survival.
- Insufficient testing and mitigation of threats and vulnerabilities* can have catastrophic consequences.

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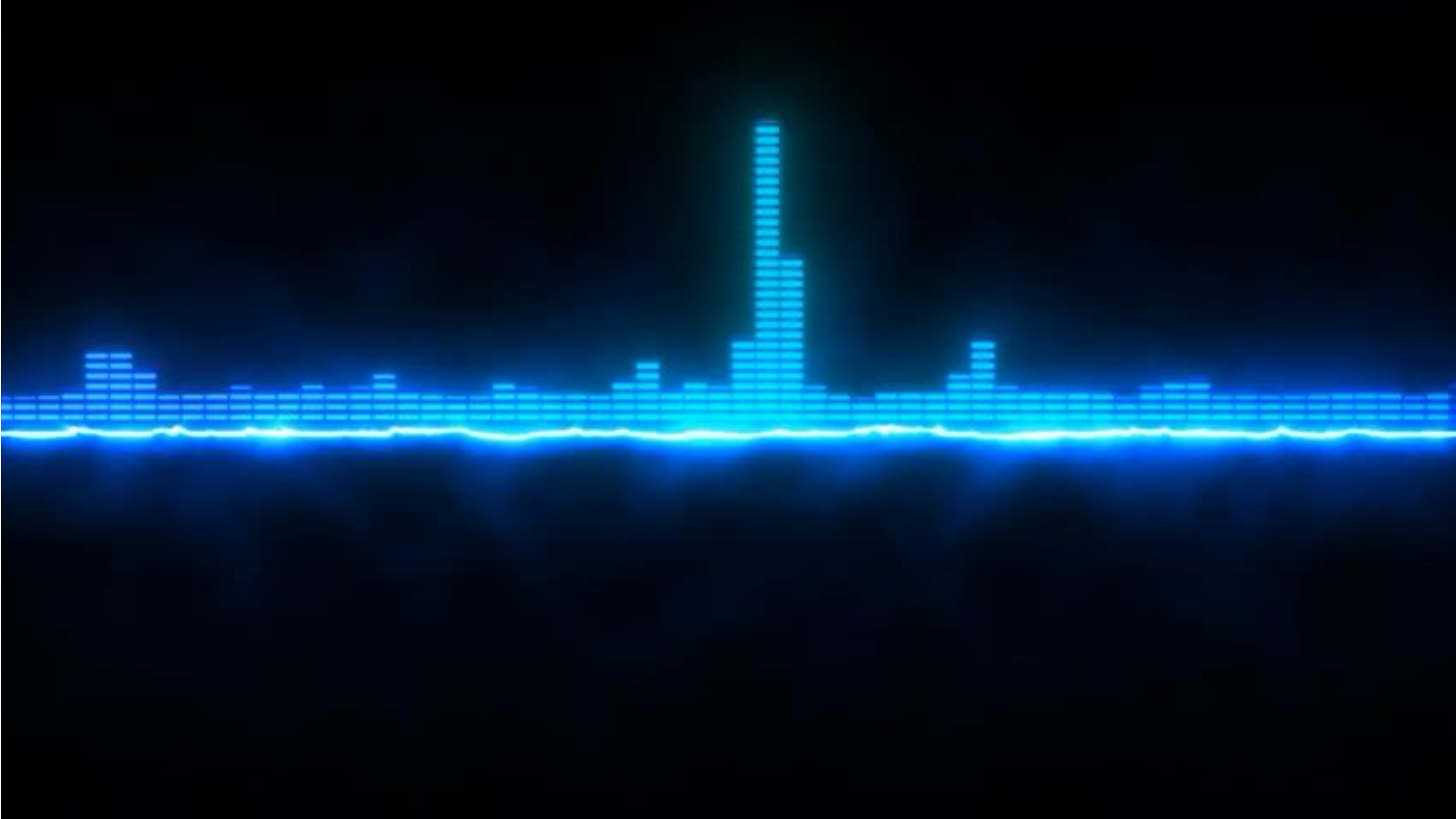

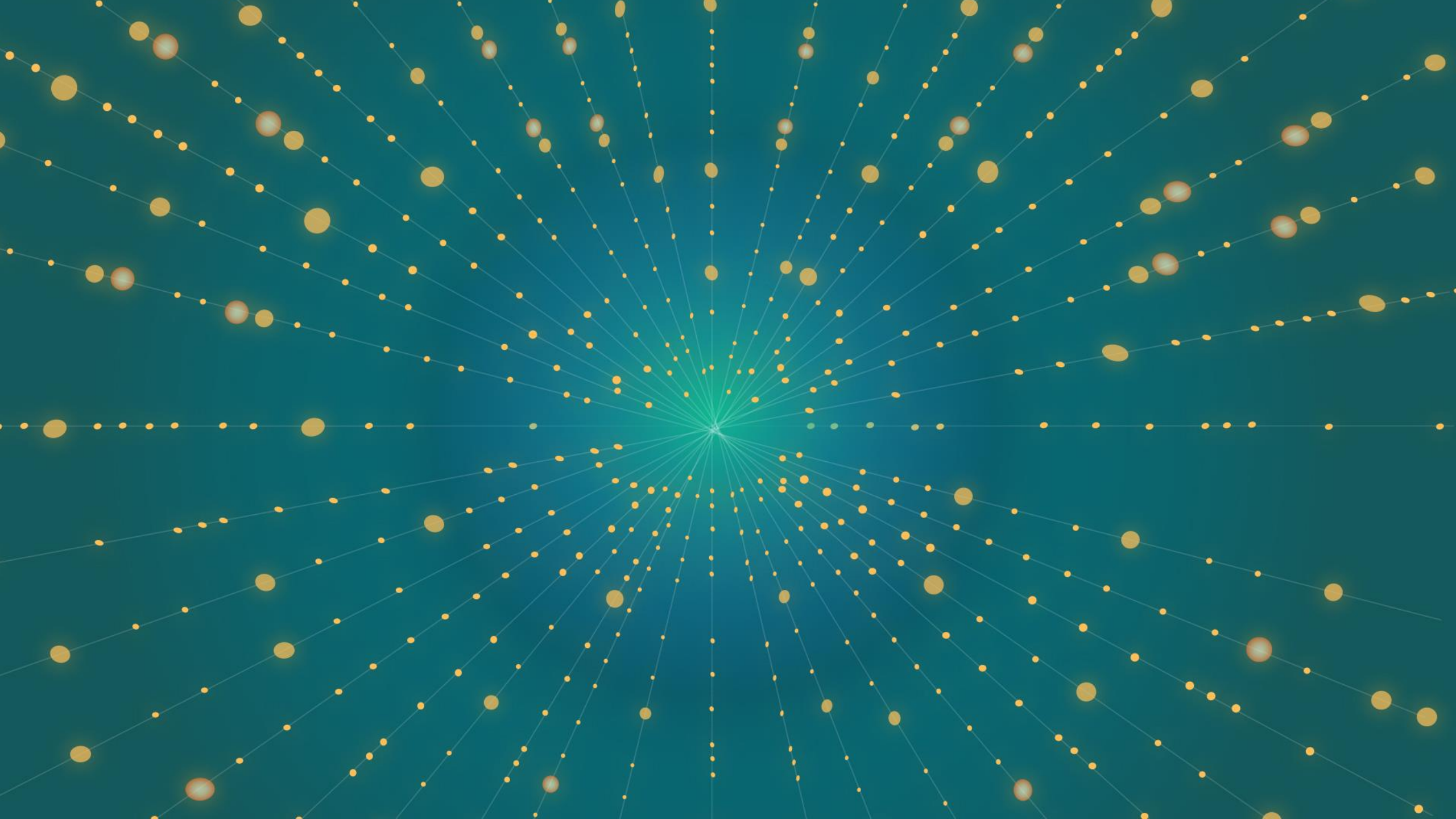

Software Security Principle #3

Software Security is Not Static

- Innovation often introduces new, unforeseen vulnerabilities.
- Threats aren’t static, so why are security practices often so?
- Maintaining software security requires continuous reassessment, enhancement, and evolution.

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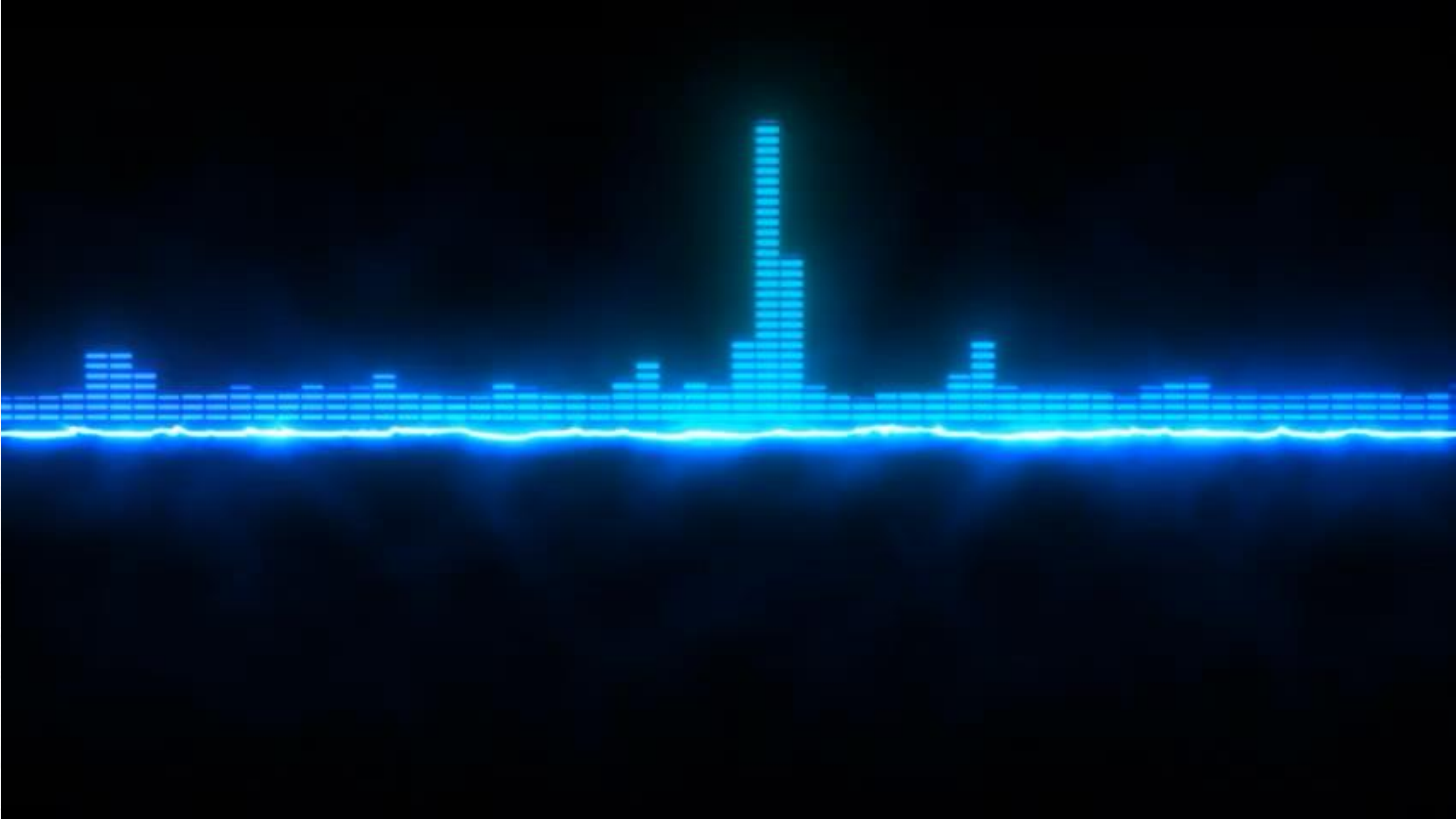
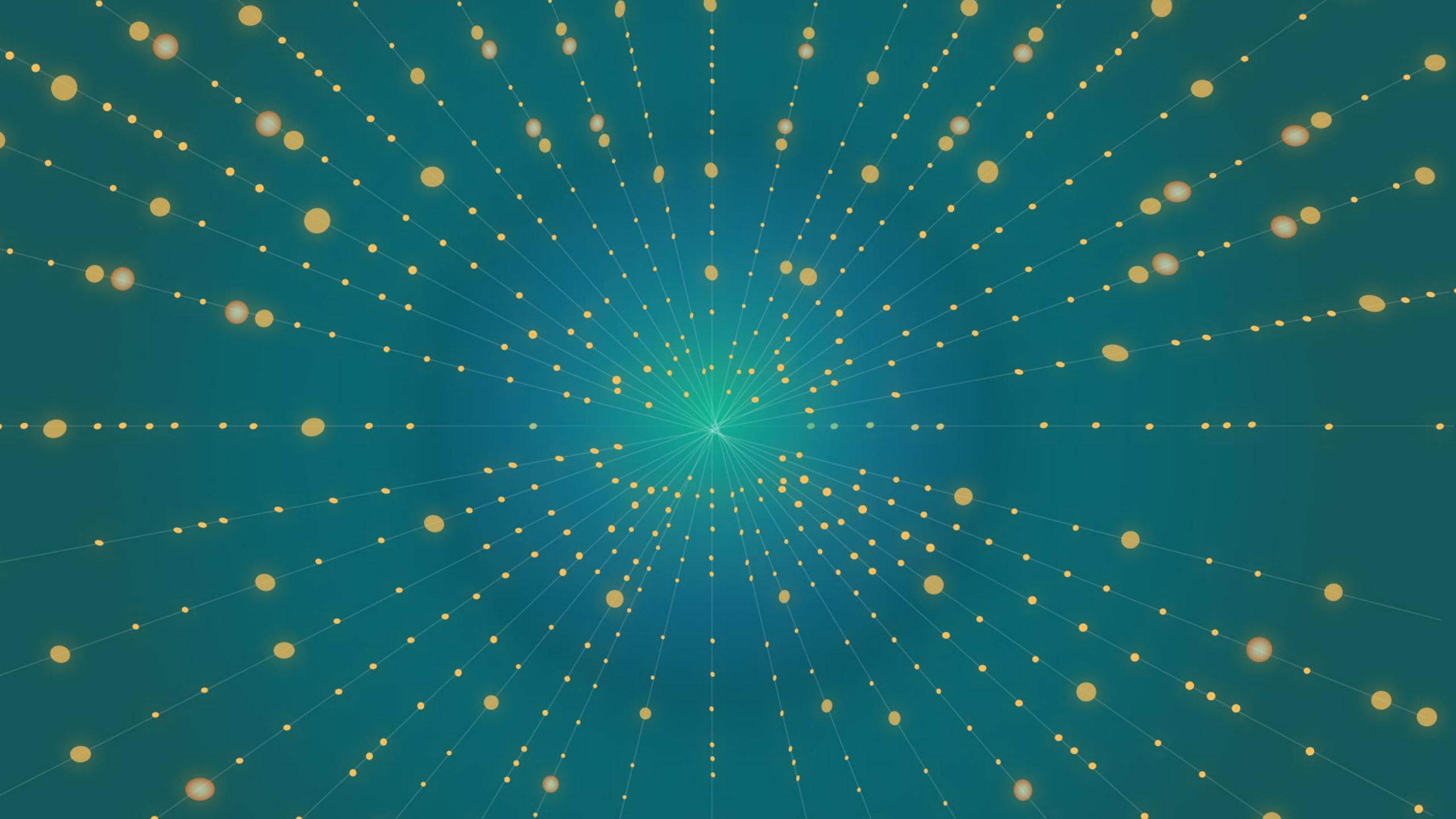
Applying These Principles with the Web Software Module





Applying These Principles

Ensuring Software Security Requires That You Know Your Product

- Cannot ensure quality if you don’t know the composition of your own products.
- Vulnerabilities in software components can lead to broader product vulnerabilities.
- Requires a detailed inventory of components and sub-components.

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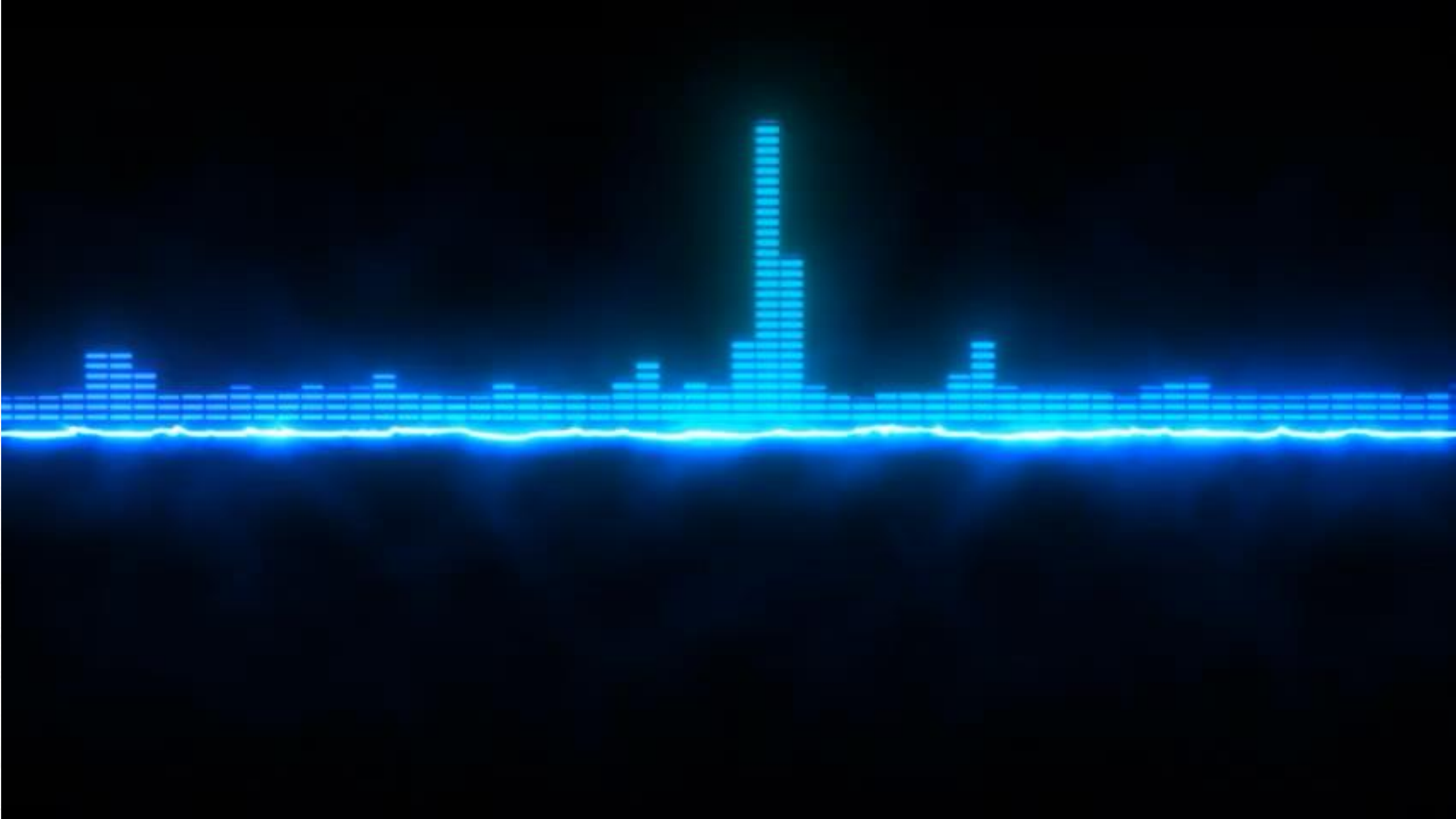

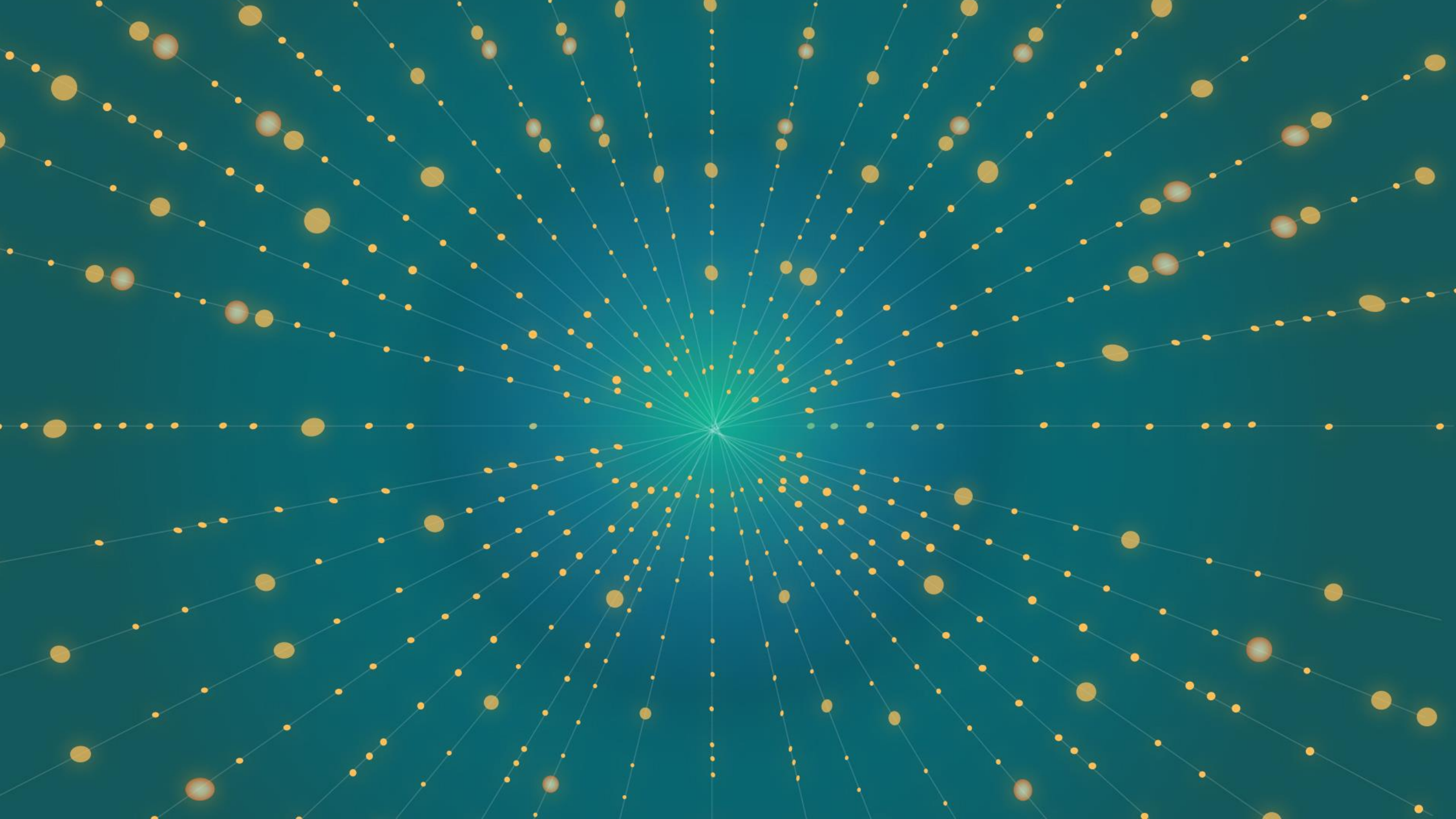


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Applying These Principles

Ensuring Software Security Requires That You Know Your Users

- Access control is fundamental to software security.
- Protecting the software and software assets requires robust authentication & access control capabilities.
- Failure to do so could enable unauthorized users to access sensitive functions and data or increase the software's attack surface.

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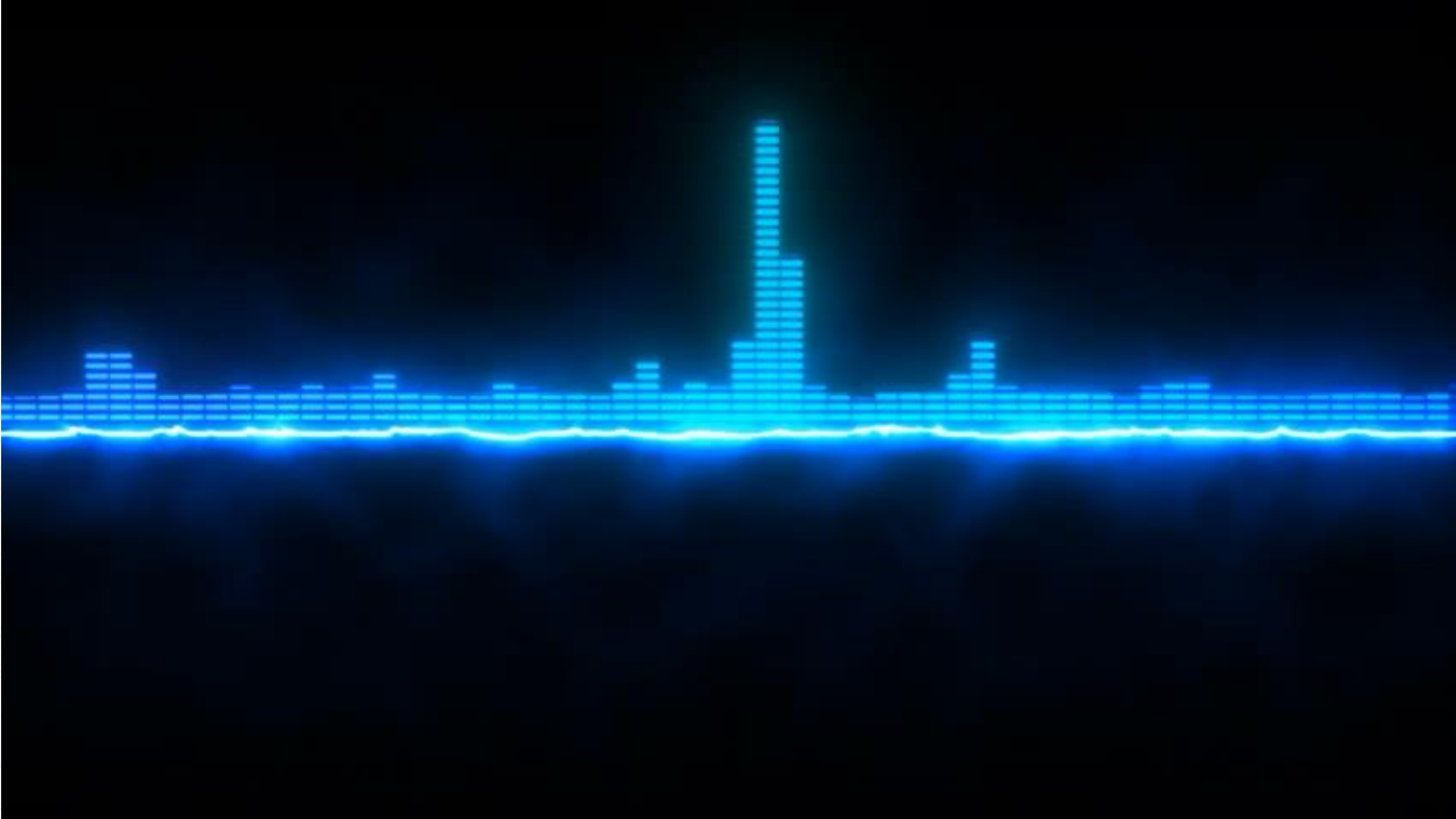

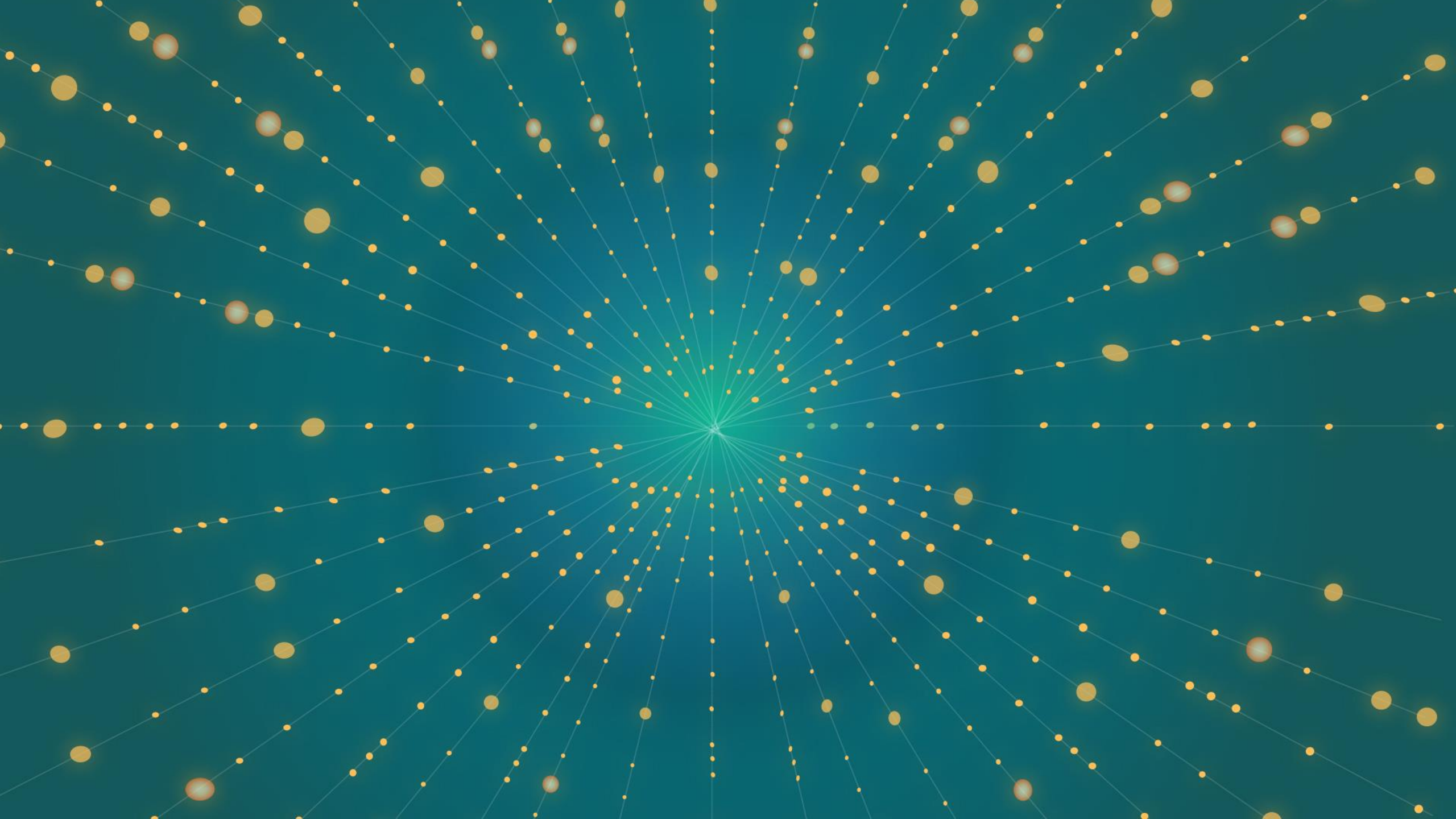

Applying These Principles

Ensuring Software Security Requires That You Know Your Weaknesses and Address Them

- Learn from past failures and previous vulnerabilities.
- Address vulnerabilities and do not repeat or reintroduce them.
- Do not blindly trust user input. Verify input and output are valid and/or properly formatted.

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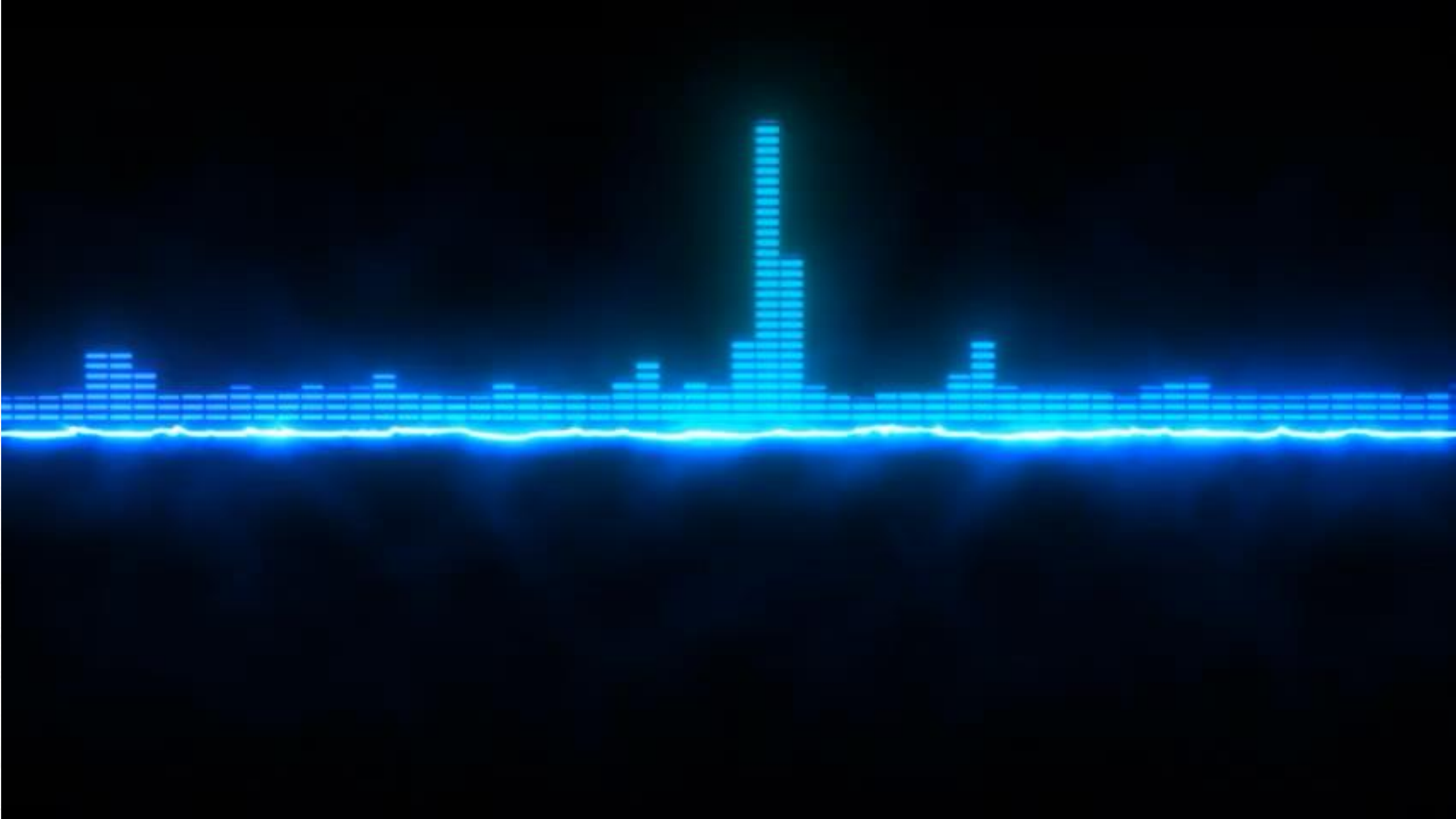

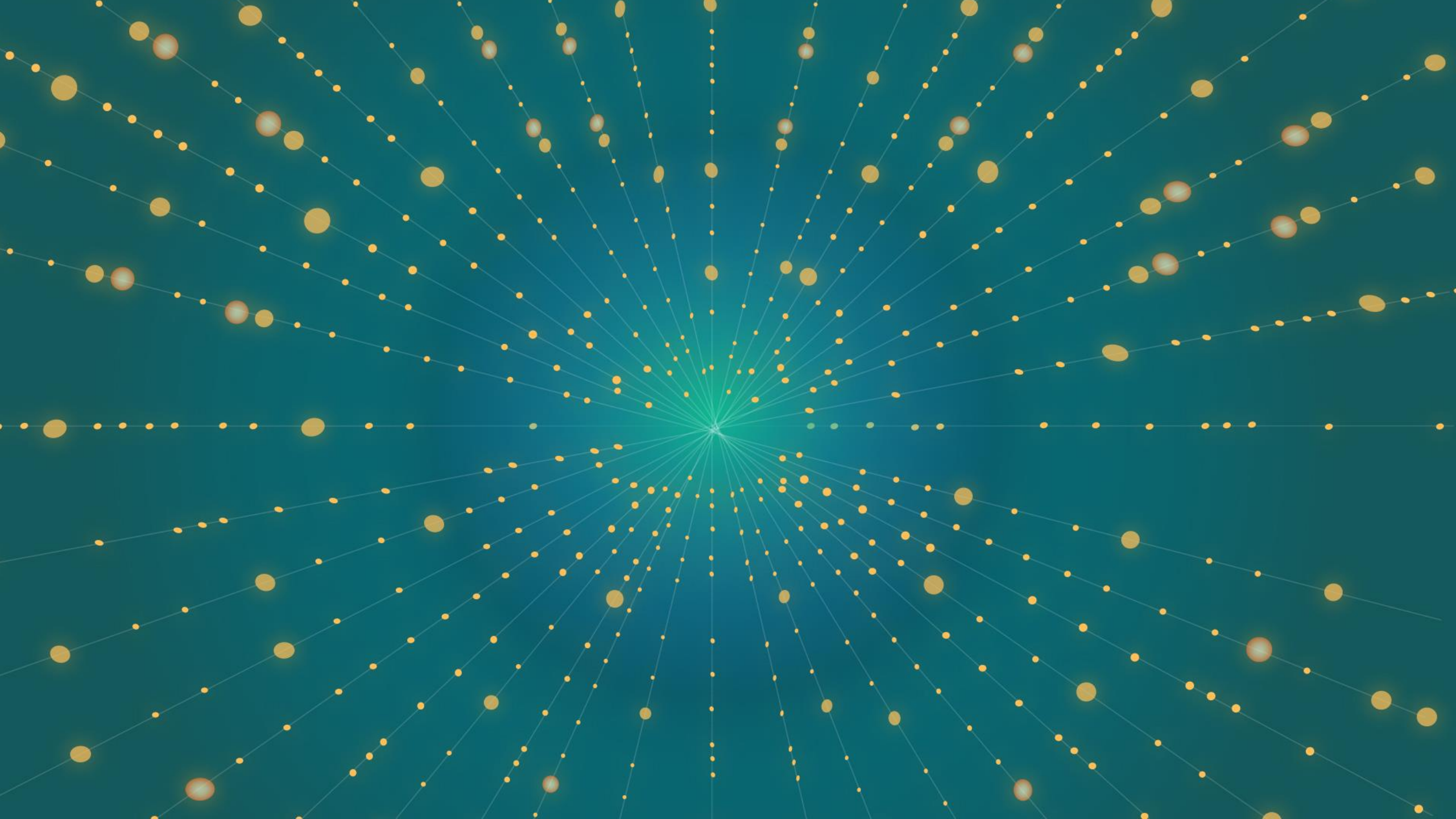


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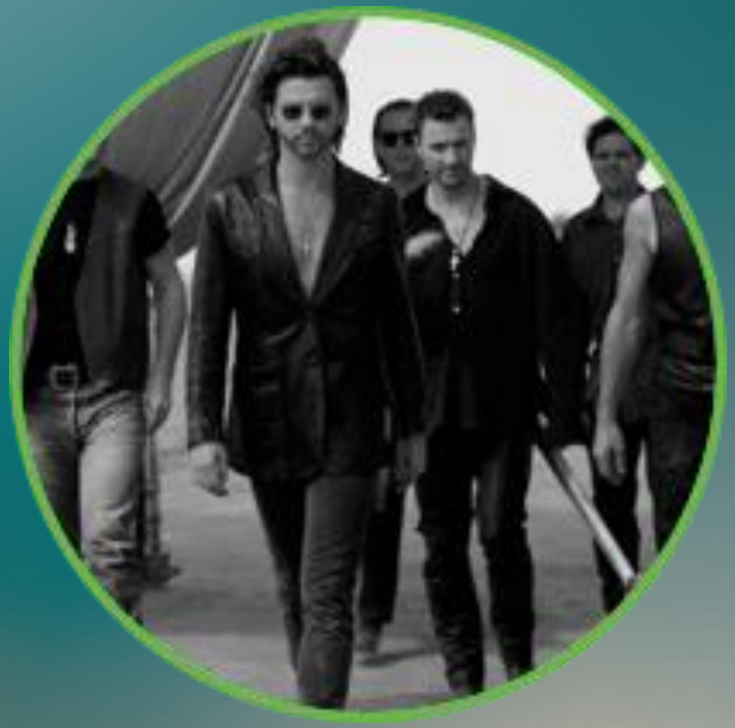
Applying These Principles

Ensuring Software Security Requires That You Know and Protect Your Assets



- If you do not know your assets or their value, then you cannot adequately protect them.
- Someone wants what you have.
- Inadequately protected assets will be compromised.

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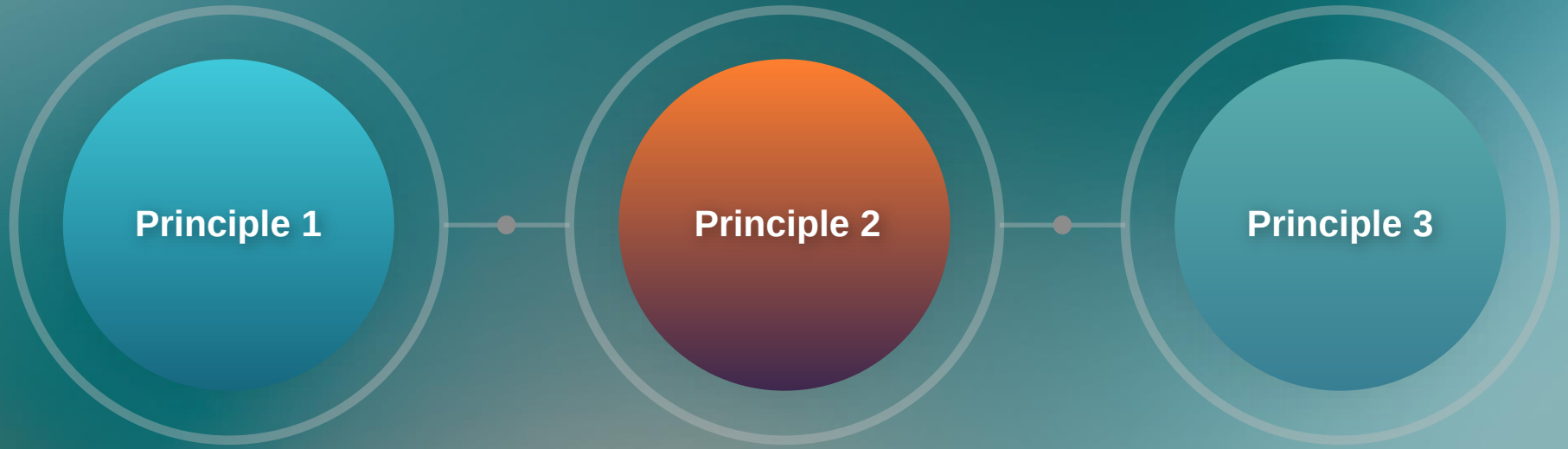
Summary of Key Principles



Software security is a function of software quality.

Security and quality failures can have major consequences.

Software security is not static and requires ongoing evolution.

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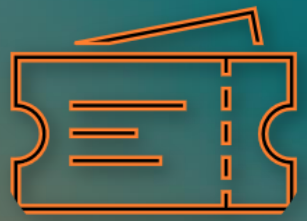
Summary of Required Actions

C.1 Web Software Components and Services

Know your product composition.

C.3: Web Software Attack Mitigation

Know your weaknesses and address them



C.2: Web Software Access Controls

Know your users and ensure they are who they claim to be.

C.4: Web Software Communications

Know your assets and protect them.

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Thank You!

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