

# NIST CSF and Compliance in Higher Education:

Or how I learned to stop worrying (so much) and just manage risk

Hunter Ely  
Security Architect



# Business Challenges.... Compliance Edition!



# Compliance Does Not Equal Security



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## Compliance is Not Synonymous With Security

By Josh Lefkowitz on May 21, 2018

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RISK // COMPLIANCE

4/16/2013 07:50 PM

### Can We Cease Check-Box Compliance?

Some indicators show a transition to risk-based management driving security decisions, but compliance checklists still pay the infosec bills

Erica Chokowski

For years now, security insiders have railed against the check-box compliance ethos, warning enterprises that simply chasing after regulatory lists won't ever

THE INSIDER THREAT SECURITY BLOG

## MOVING FROM CHECKBOX COMPLIANCE TO TRUE DATA SECURITY

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DataCenter Knowledge



INDUSTRY PERSPECTIVES

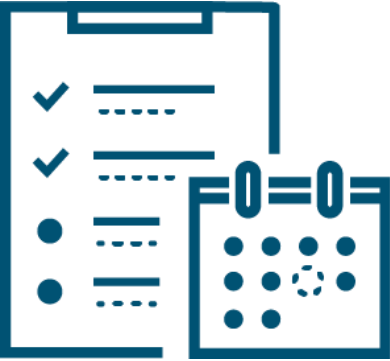
## Stop Thinking of Compliance as a Checkbox

photo by Christopher Huang

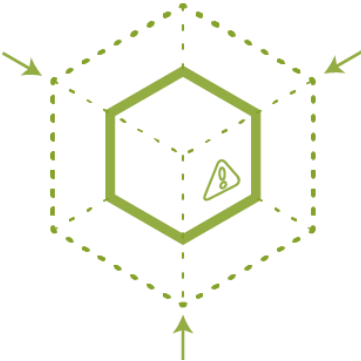
Many of today's executives view compliance as a check-box – and move on after the main



# Higher Education Business Challenges



*Meet Business and Security goals*



*Reduce cyber risk*



*Achieve Compliance*

# Issues with Common Compliance Approach

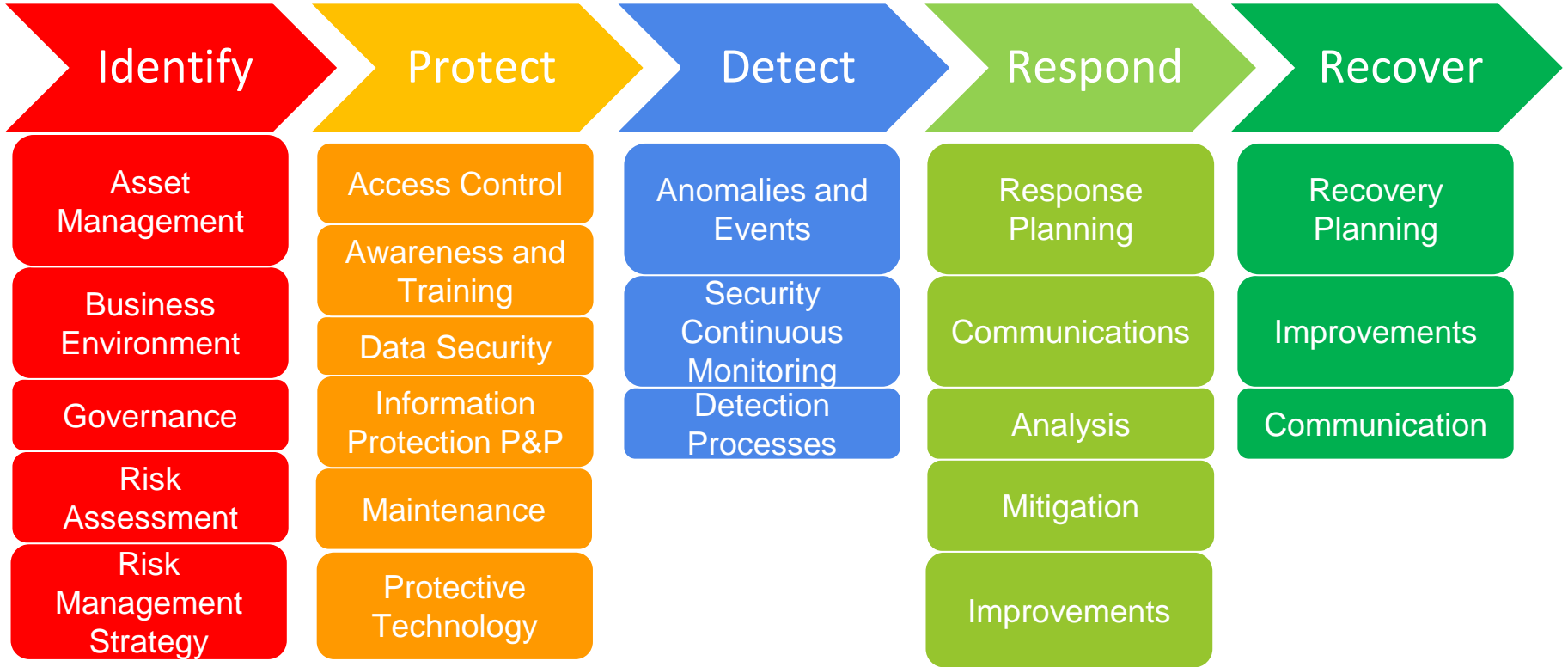


- Checkbox or “good enough” approach
- Not focused on cyber risk reduction
- Not focused on preventing threats
- Sub-optimal use of staff resources

# What is the NIST Cybersecurity Framework?

- Initially released in February 2014, the CSF was developed in response to an Executive Order which directed the Federal Government to work with private industry to protect the nation's Critical Infrastructure.
- The NIST CSF is a voluntary framework providing guidance on the management and reduction of Cybersecurity risk.
- While it is not a one size fits all framework. It outlines a series of guidance points to allow organizations, both private and public sector, to mature their Cybersecurity practices in a common and well understood format.

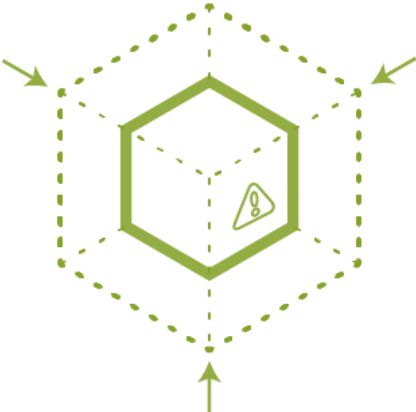
# Overview of NIST CSF Stages



# New Approach to Compliance



*Good Cyber Hygiene*



*Reduce Cyber Risk*



*Threat Prevention*



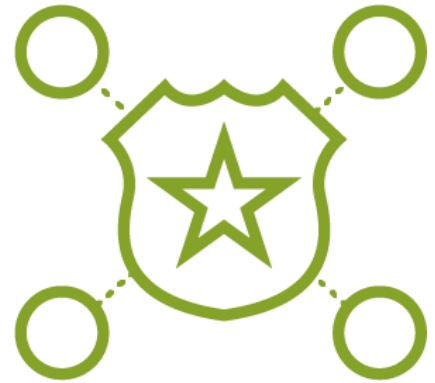
# Prevention Mindset



*Complete Visibility*



*Integration/Automation*



*End to End Prevention*

# Benefits of Threat Prevention Approach



*Improved Productivity*



*Data Protection*



*Better Cybersecurity*

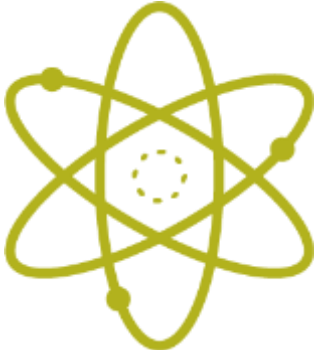
# Critical Success Factors



*Increase Visibility*

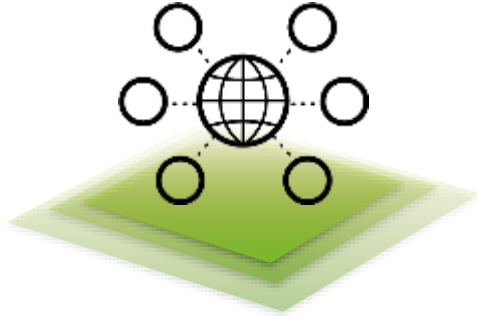


*Improve Cyber Hygiene*



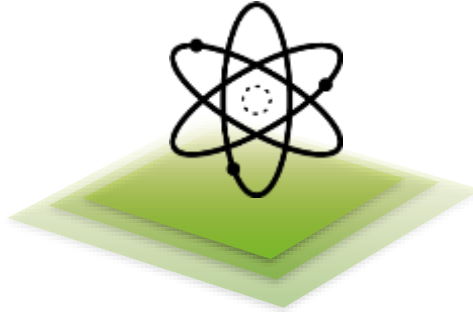
*Evolve Continuously*

# Stop Attacks With a Platform Approach



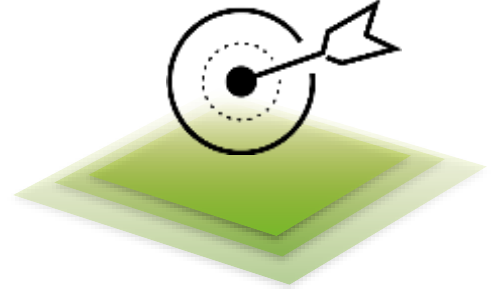
## Unmatched Protection

Visibility and control everywhere: on-premises, other campuses, mobile, cloud



## Tightly Integrated

Save time and reduce complexity by replacing disconnected tools

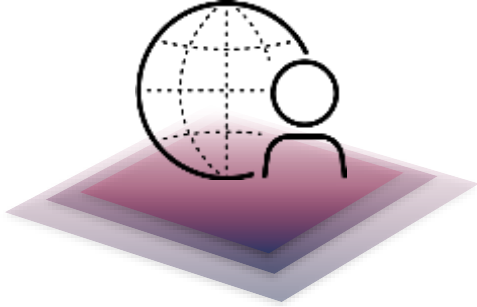


## Accurate and automated

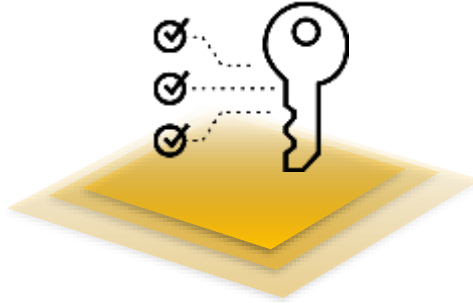
Analytics trigger automation for immediate, effective actions

# BUILT FOR SIMPLICITY

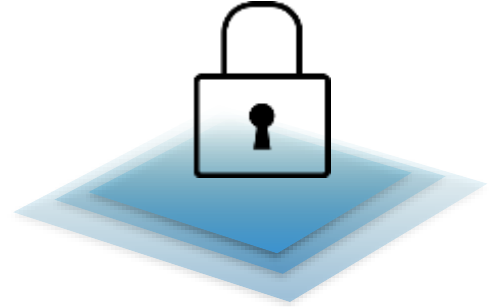
# Next-Generation Firewall as a Security “Hub”



**Consistent Visibility  
and Control**

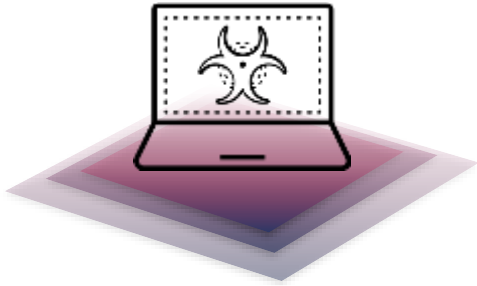


**Integrated  
Services Replace  
Disconnected Tools**

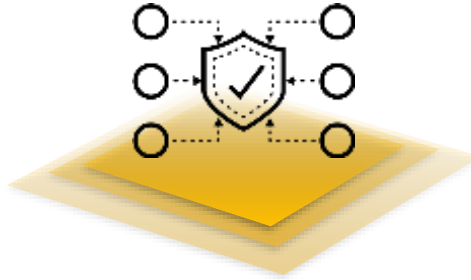


**Automation With  
Analytics Deliver  
Immediate Preventions**

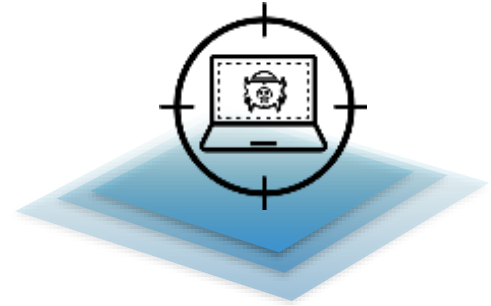
# Modern Endpoint Protection beyond Antivirus



**Block ransomware, exploits  
and fileless threats**

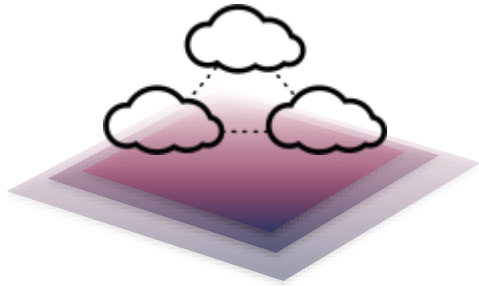


**Stop spread of threats  
with shared intelligence**



**Detects and responds to  
attacks with machine learning**

# The Journey to the Cloud



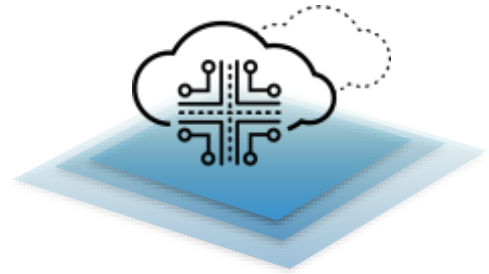
## Access

Connect users and transport data to and from the cloud



## SaaS Applications

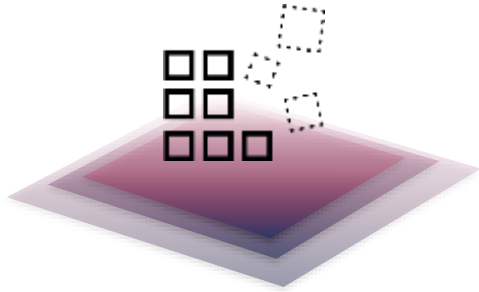
Discover and control the use of third party applications running in the cloud



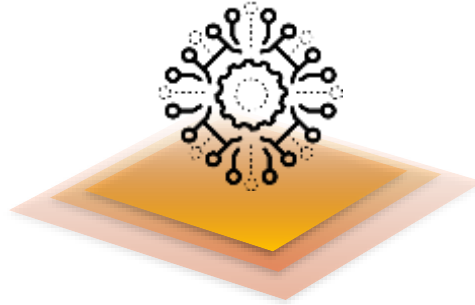
## Cloud Applications

Design, build, deploy, and run applications in the cloud

# Secure the Future with Autonomous Security build on AI and ML



**Stitches data for  
enterprise-wide view**



**Harnesses AI and machine  
learning for rapid insight**



**Orchestrates and automates  
to speed resolution**

**BREAK SILOS AND DELIVER RADICAL SIMPLICITY**



# Securing Your Transformed Enterprise

Hybrid data center

Internet Perimeter

Branch & mobile

5G & IoT

Endpoint

**SECURE  
THE ENTERPRISE**



**SECURE  
THE CLOUD**



**DATA LAKE**



**SECURE  
THE FUTURE**

Secure access

SaaS

Public cloud

Detection & response

Automation & orchestration

Network traffic & behavioral analytics

Threat intelligence



# Palo Alto Networks: Automated protection that propels education.

The cybersecurity challenge in education merely starts with the 21st century classroom – it encompasses a city-like array of campus functions, the curriculum needs of our future workforce, and the safety of our nations research and intellectual property. We provide a holistic security operating platform that arms educational institutions to protect every possible step in a student's educational journey, and the societal impacts they will create.



## K-12

We create a *secure modern learning environment*, unconstrained by physical location.



## Doctoral Research Universities

We protect our nation's pipeline of critical *research and intellectual property*.



## Universities & Colleges

We solve the conundrum of a *fast, open, and collaborative* campus that is also *secure and resource efficient*.



## Community & Trade Colleges

We provide the curriculum and labs to build our cyber *workforce* of the future.

# *THANK YOU*

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