# GRC: Compliance Audit for Skyler Inc.

**Robert Russell** 

## Overview

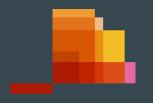
Cybersecurity Compliance Audit → GRC: Frameworks ► NIST CSF V1.1 (2.0?) Policy vs Control Risk Appetite Gapps Platform Tool Demonstration

#### Goal

Perform an IT compliance audit on a simulated tech company using the web-platform Gapps

**└**→ Summary

## What is a Cybersecurity Compliance Audit?



## The Regulators

CyberSecurity Auditors come from Third-Party companies to check for regulatory compliance to <u>a</u> framework

## PWC Deloitte



## Governance, Risk, and Compliance Frameworks





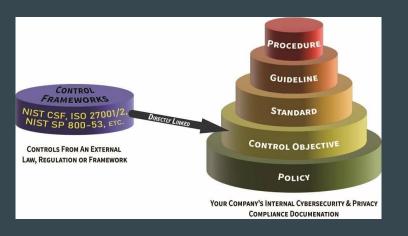








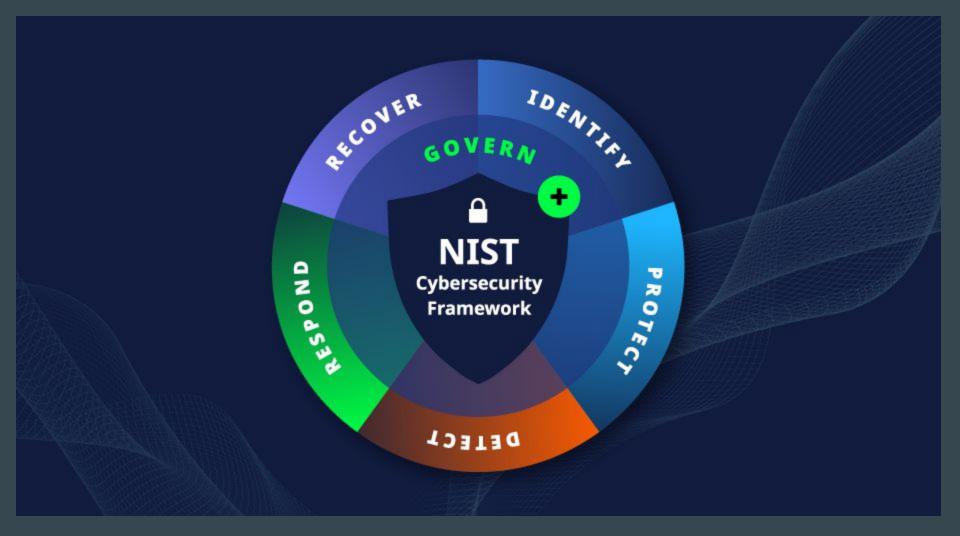
## Governance, Risk, and Compliance Frameworks

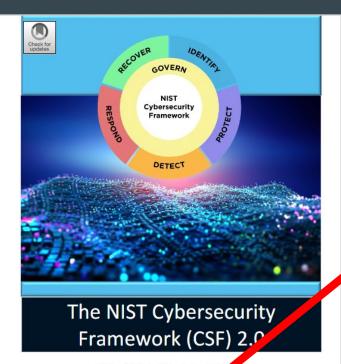




#### The Cover

Frameworks drive policy implementation by outlining the guide to meet the company's goals





National Institute of Standards and Tech

This publication is available free of charge from: https://d

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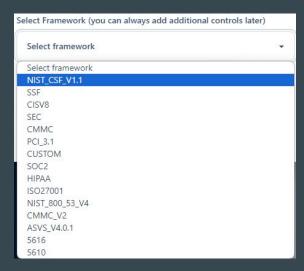
NIST CSF 2.0

## NIST CSF V1.1 ca. 2018

### **NIST CyberSecurity Framework**



Technology



23 Controls

100+ Subcontrols

| REF<br>CODE | CONTROL NAME         | #SUB<br>CONTROLS |       | REF<br>CODE | CONTROL NAME                   | #SUB<br>CONTROLS |
|-------------|----------------------|------------------|-------|-------------|--------------------------------|------------------|
| RS.AN       | Analysis             | 5                |       | RC.IM       | Improvements                   | 2                |
| DE.AE       | Anomalies & Events   | 5<br>6<br>5      |       | RS.IM       | Improvements                   | 2                |
| ID.AM       | Asset Management     |                  |       | PR.IP       | IPPP                           | 12               |
| PR.AT       | Awareness & Training |                  |       | PR.MA       | Maintenance                    | 2                |
| ID DE       | ŭ                    |                  |       | RS.MI       | Mitigation                     | 3                |
| ID.BE       | Business Environment | 5                | PR.PT |             | Protective Technology          | 5                |
| RC.CO       | Communications       | 3                | ľ     | RC.RP       | Recovery Planning              | 1                |
| RS.CO       | Communications       | 5                | ľ     | RS.RP       | Response Planning              | 1                |
| PR.DS       | Data Security        | 8                | ľ     | ID.RA       | Risk Assessment                | 6                |
| DE.DP       | Detection Process    | 5                |       | ID.RM       | Risk Management Strategy       | 3                |
| ID.GV       | Governance           | 4                |       | DE.CM       | Security Continuous Monitoring | 8                |
| PR.AC       | IAM                  | 7                |       | ID.SC       | Supply Chain Risk Management   | 8                |

## Policy vs Control

#### Policy

General statement from executive leadership to guide action and decisions for a desired outcome.

"We are willing to have a high risk appetite. Modify assessment thresholds and controls accordingly."



#### Control

Technical/administrative/physical safeguards to mitigate the exploitation of a vulnerability.

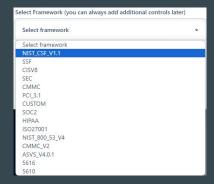
"Risk of doing this is high, but move forward as is. Leadership says they're willing to accept the risk."

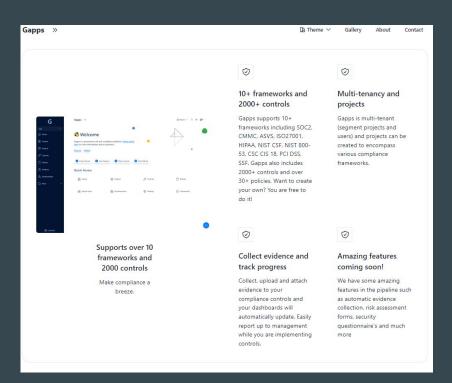
## Gapps

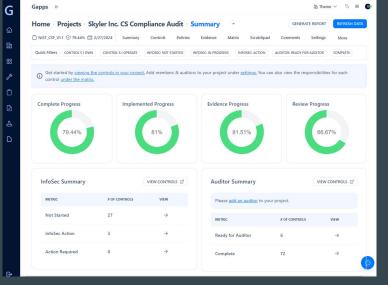
#### Tool

Free open-source GRC compliance web application



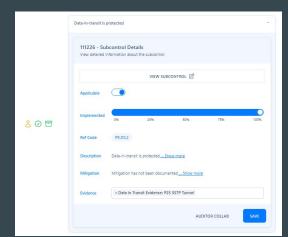






Controls complete and in progress

Dashboard



| ome > Pr                         | ojects > S      | Skyler Inc. CS Complia                    | nce Audit         |            | GEN         | IERATE REPORT | REFRESH DAT |
|----------------------------------|-----------------|---|-------------------|------------|-------------|---------------|-------------|
| NIST_CSF_V1.1                    | <b>⊘</b> 79.44% | Summary Controls Po<br>More               | licies Evidence   | Matrix     | Scratch     | pad Comments  | Settings    |
| CONTROL'S I OW<br>AUDITOR: READY |                 | L'S I OPERATE INFOSEC: NOT START COMPLETE | ED INFOSEC: IN PR | OGRESS     | OSEC: ACTIO | ON            |             |
| Project Co                       | ntrols (23)     |   | Grouping:         | Controls • | All         | v             | e x         |
| Show 25 ❤ e                      | entries         |   |                   |            | Se          | earch:        |             |
| ID †                             | REF CODE        | NAME :                                    | STATUS            | REVIEW :   | TODO        | IMPLEMENTED   | VIEW ;      |
| <b>6</b> 62983                   | DE.AE           | Anomalies And Events                      | In Progress       | 2/5        | 0/0         | 40            | **          |
| <b>6</b> 62984                   | DE.CM           | Security Continuous<br>Monitoring         | Complete          | 8/8        | 0/0         | 100           | 20          |
| <b>6</b> 62985                   | DE.DP           | Detection Processes                       | In Progress       | 3/5        | 0/0         | 60            | 4.5         |
| <b>6</b> 62986                   | ID.AM           | Asset Management                          | Complete          | 6/6        | 0/0         | 100           | 55          |
| <b>6</b> 62987                   | ID.BE           | Business Environment                      | Complete          | 5/5        | 0/0         | 100           | 55          |
| <b>6</b> 62988                   | ID.GV           | Governance                                | Complete          | 2/4        | 0/0         | 100           | **          |
| <b>6</b> 62989                   | ID.RA           | Risk Assessment                           | In Progress       | 1/6        | 0/0         | 33.33         | 20          |
| 62990                            | ID.RM           | Risk Management Strategy                  | In Progress       | 0/3        | 0/0         | 83.33         | 20          |
| 62991                            | ID.SC           | Supply Chain Risk<br>Management           | In Progress       | 0/5        | 0/0         | 40            | 5.5         |

PR.DS.2 implemented and approved

## Demonstration

## Summary

#### GRC Frameworks

The Cover to the Book

#### NIST CSF

➤ An Industry-leading framework

#### Policies

High-level statements to direct subsidiary decisions

#### Controls

A Measure that modifies risk

### Risk Appetite

The Level of risk a companies willing to accept to reach their goals

### Gapps

Free open-source GRC compliance platform

# THANK YOU!

## Sources

Gapps: <a href="https://gapps.darkbanner.com/">https://gapps.darkbanner.com/</a>

Gapps Repository: <a href="https://github.com/bmarsh9/gapps">https://github.com/bmarsh9/gapps</a>

NIST CSF V2.0: https://doi.org/10.6028/NIST.CSWP.29

Azure NIST CSF CRM:

https://servicetrust.microsoft.com/ViewPage/BlueprintLegacy?command=Download&downloadType=Document&downloadId=89ec5635-be07-4a5d-87d3-51783e4d3002

Azure and NIST CSF: https://learn.microsoft.com/en-us/azure/compliance/offerings/offering-nist-csf

CS Compliance: <a href="https://www.upguard.com/blog/difference-between-compliance-and-auditing-in-information-security">https://www.upguard.com/blog/difference-between-compliance-and-auditing-in-information-security</a>

Framework in GRC:

https://aws.amazon.com/what-is/grc/#:~:text=A%20GRC%20framework%20is%20a,the%20company%20toward%20its%20goals

Policy vs Control: <a href="https://complianceforge.com/grc/policy-vs-standard-vs-control-vs-procedure">https://complianceforge.com/grc/policy-vs-standard-vs-control-vs-procedure</a>

Guide to Getting Starting with a CS Risk Assessment: https://www.cisa.gov/sites/default/files/video/22\_1201\_safecom\_guide\_to\_cybersecurity\_risk\_assessment\_508-r1.pdf