OpenSSL CONFERENCE

The impending Tsunami

Is our testing and validation pipeline capable or will it collapse?

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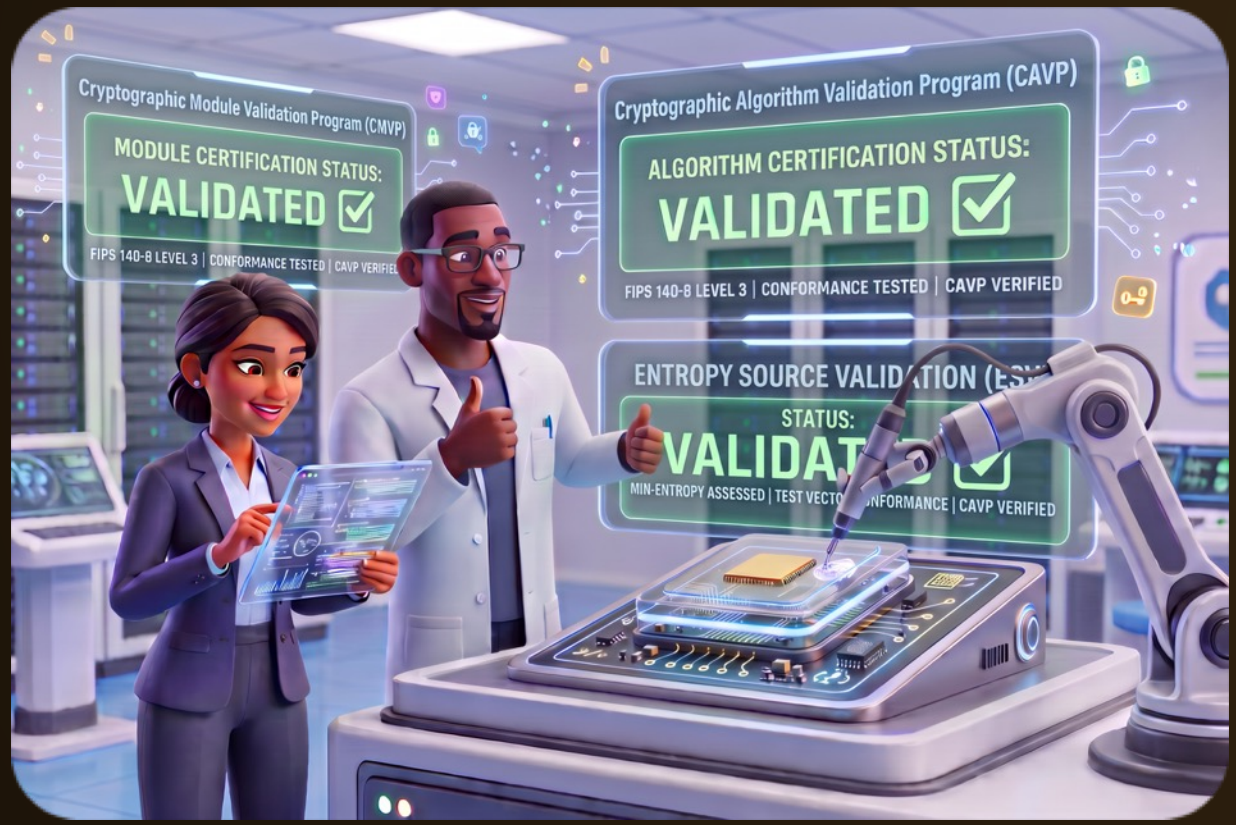
Targeting the Holy Grail

Recognized Excellence



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Facing the impending Tsunami

Fighting against time

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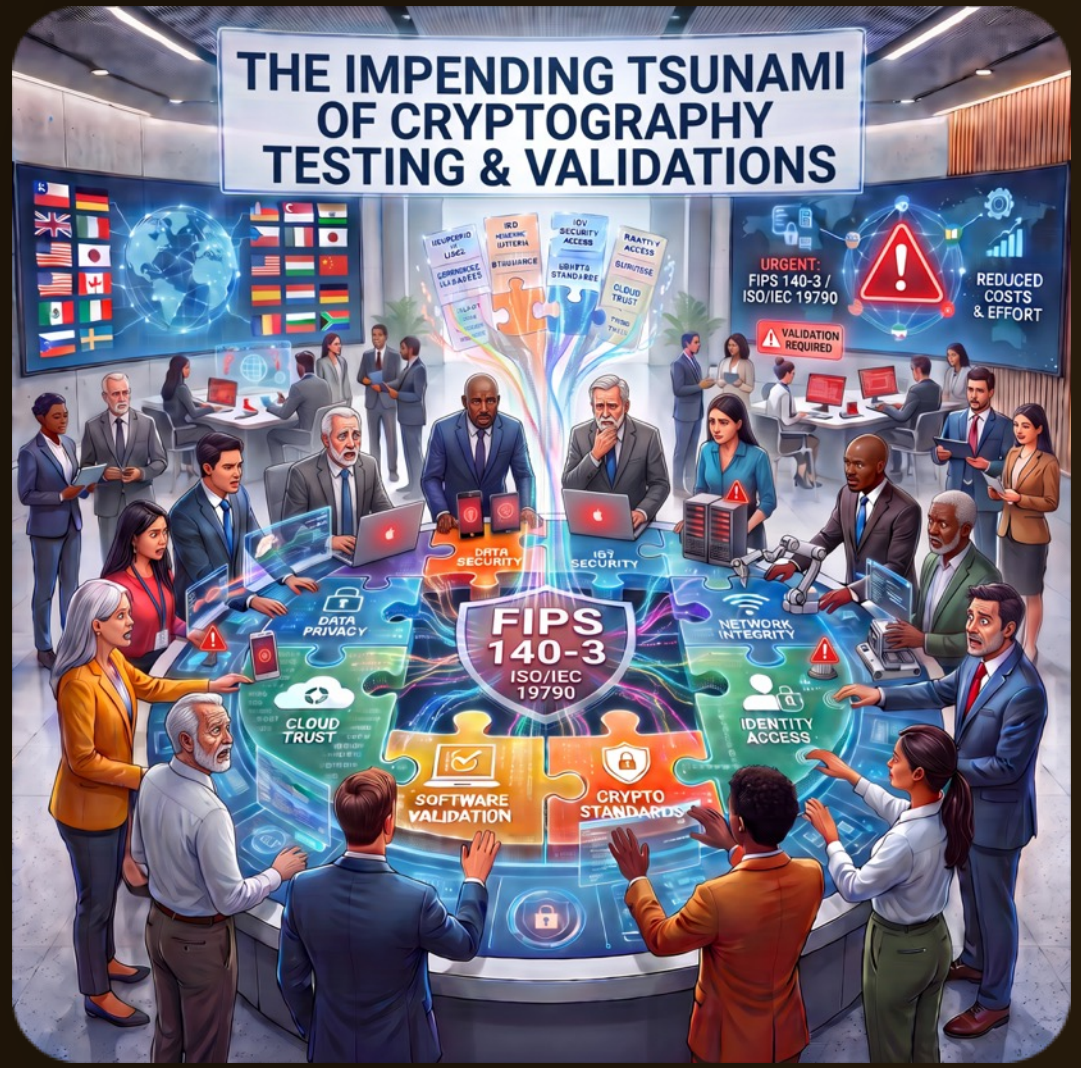

Challenges

Baggage on the road to success

- Rush to implement PQC everywhere
- Rush to validate PQC everywhere
- Excessively long validation times
- Point in Time validation - Yearly, more?
- Technology is faster than validation

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Product-killing Friction

Every stakeholder is overloaded

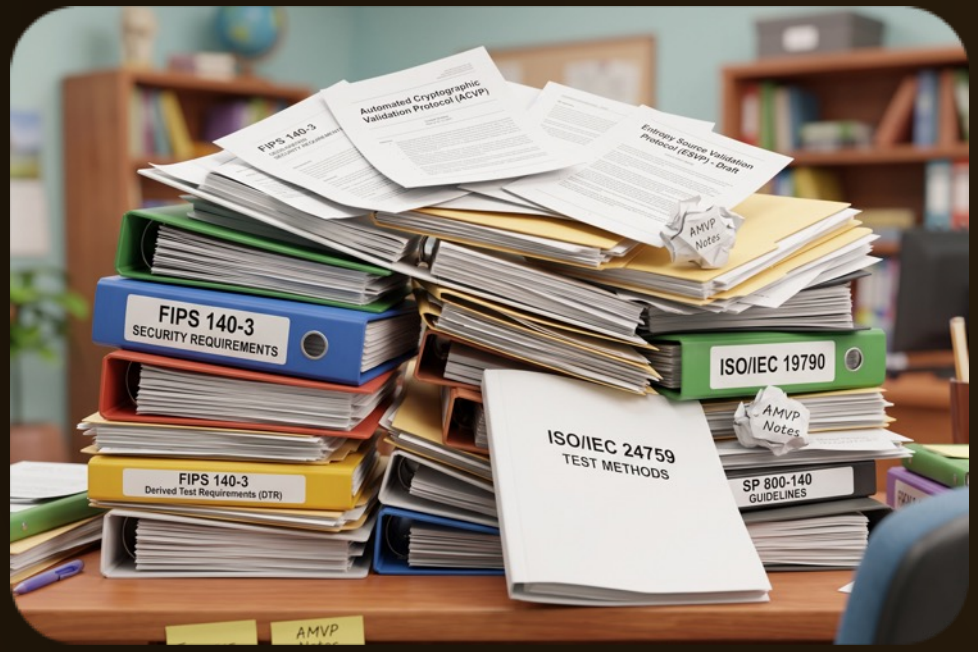
Vendors

Testing Labs

Certifiers

Product-killing Friction

Validation is where Products go to die



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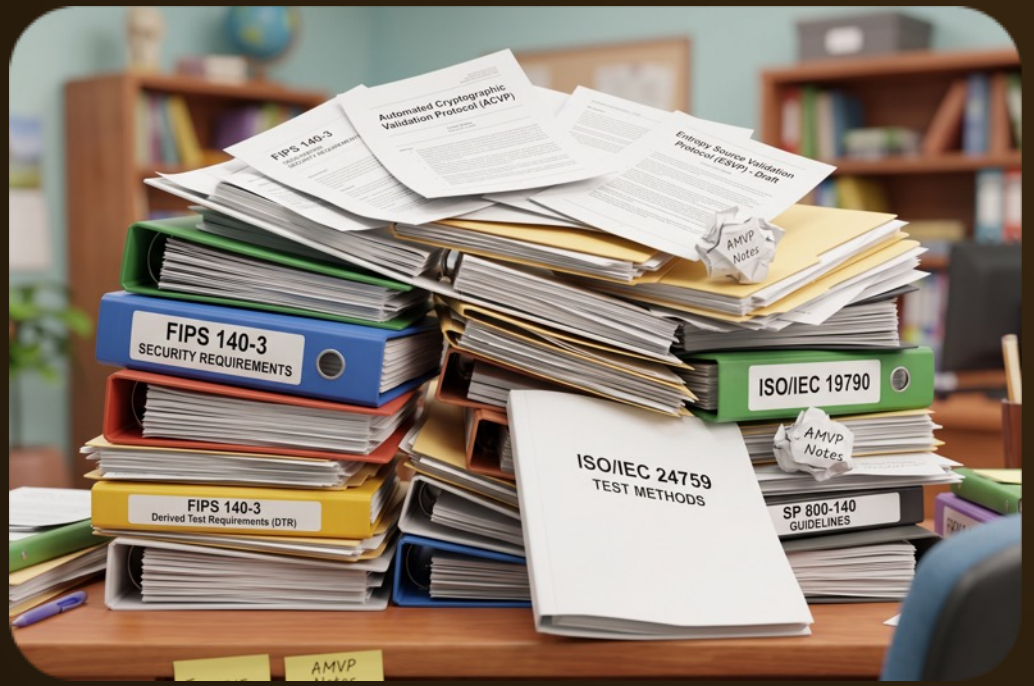
Challenges

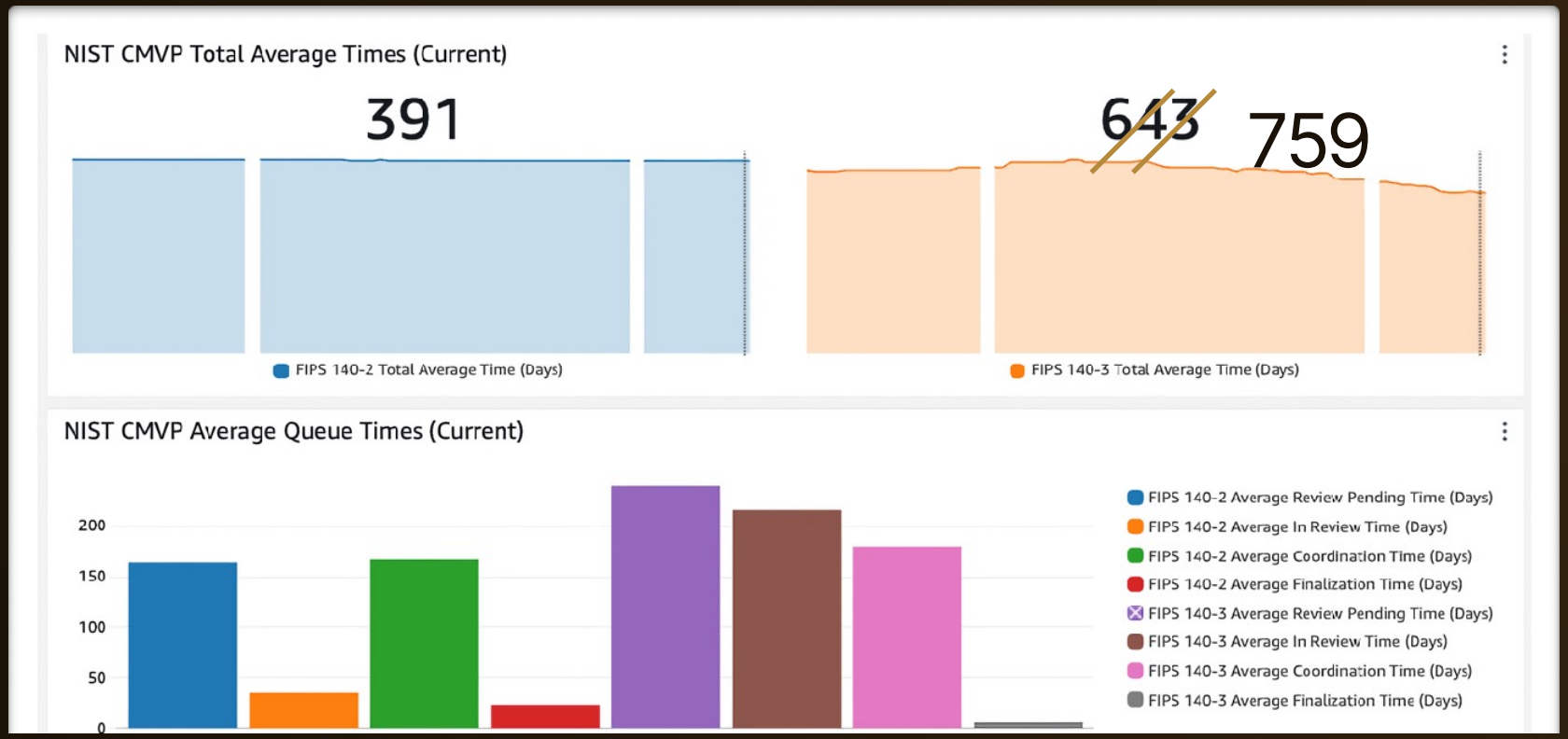
We need to accelerate the process

We are still missing one of the most critical pieces that could **accelerate the whole process from end-to-end**. With rapid innovation, pace of technology, recent explosion of AI, and changing / competing regulations, we are impeding our potential by dragging around **old baggage** with **only human readable and interpreted documentation.**



But, ... the Queue time

The drag on your excellence



Stats from Alicia Squires, AWS, Manager, Global Certifications
June 2024

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We need to move at machine speed…

So does our data!

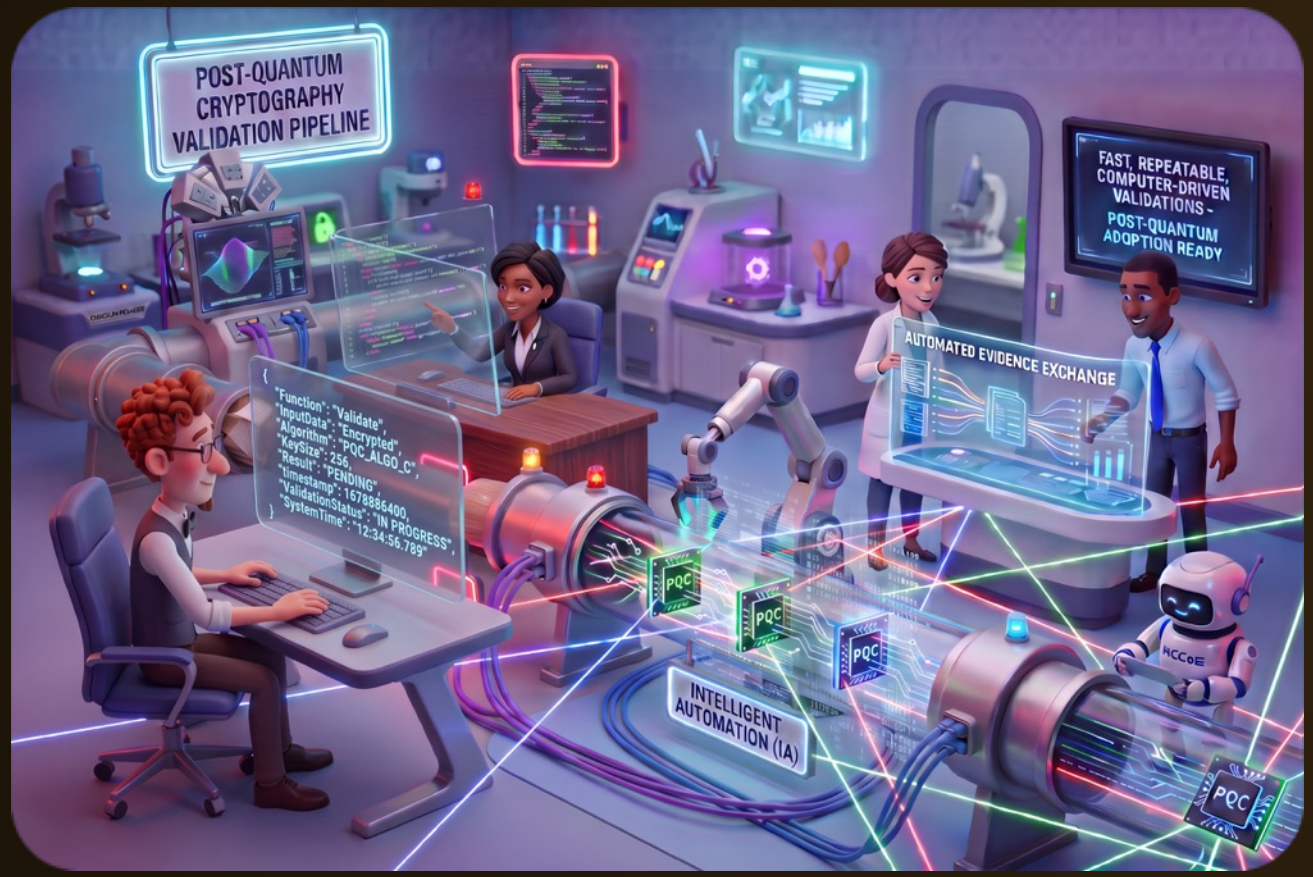
Removing the Friction

Making Validations an Asset

- More product validations in the same time
- Many more Operating Environments
- Validating more Versions - point releases ?
- Continuous Validations - not point in time
- Validations MUST catch up to technology

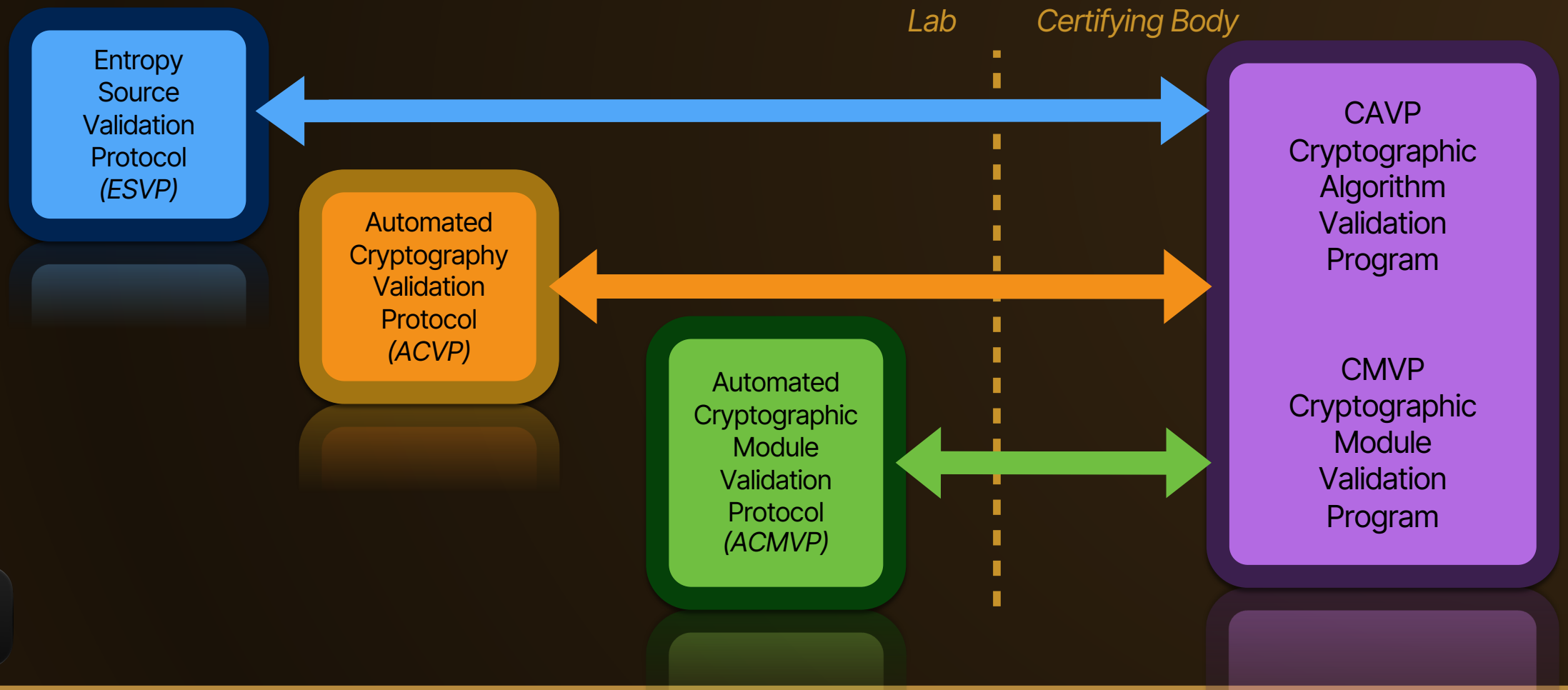
Optimizing the pipeline

Removing the friction



Validation Evidence Exchange

Solving the Queue(s) Problem thru Evidence Normalization



Validation Evidence Exchange

Solving the Queue(s) Problem thru Evidence Normalization

JSON Schemas - Data normalization

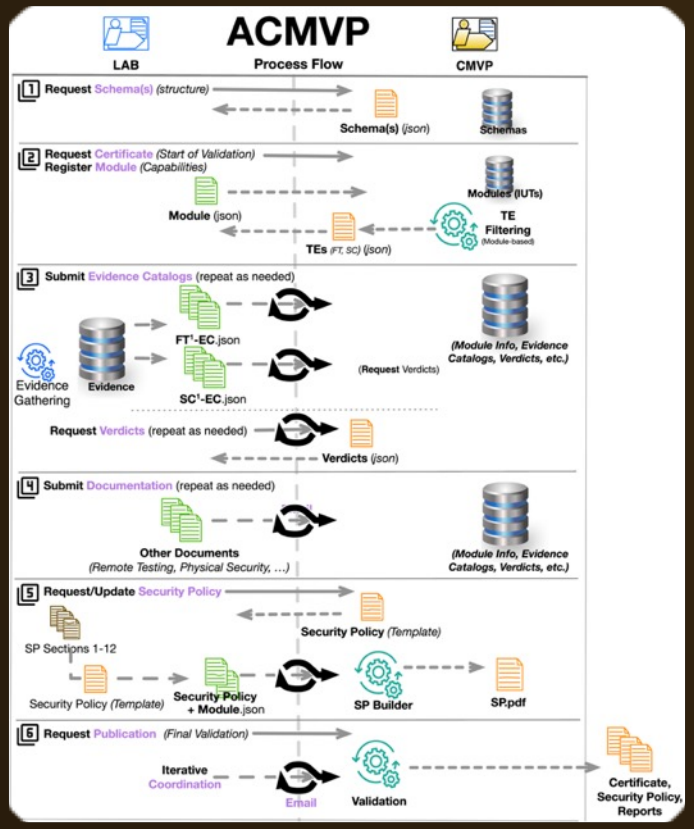
Module Registration - Define Module Capabilities

Submit Evidence Catalog - Evidence metadata

Submit Documentation - Support Documents

Submit Security Policy - SP Section data

Request Publication - Request Formal Validation



Validation Evidence Exchange

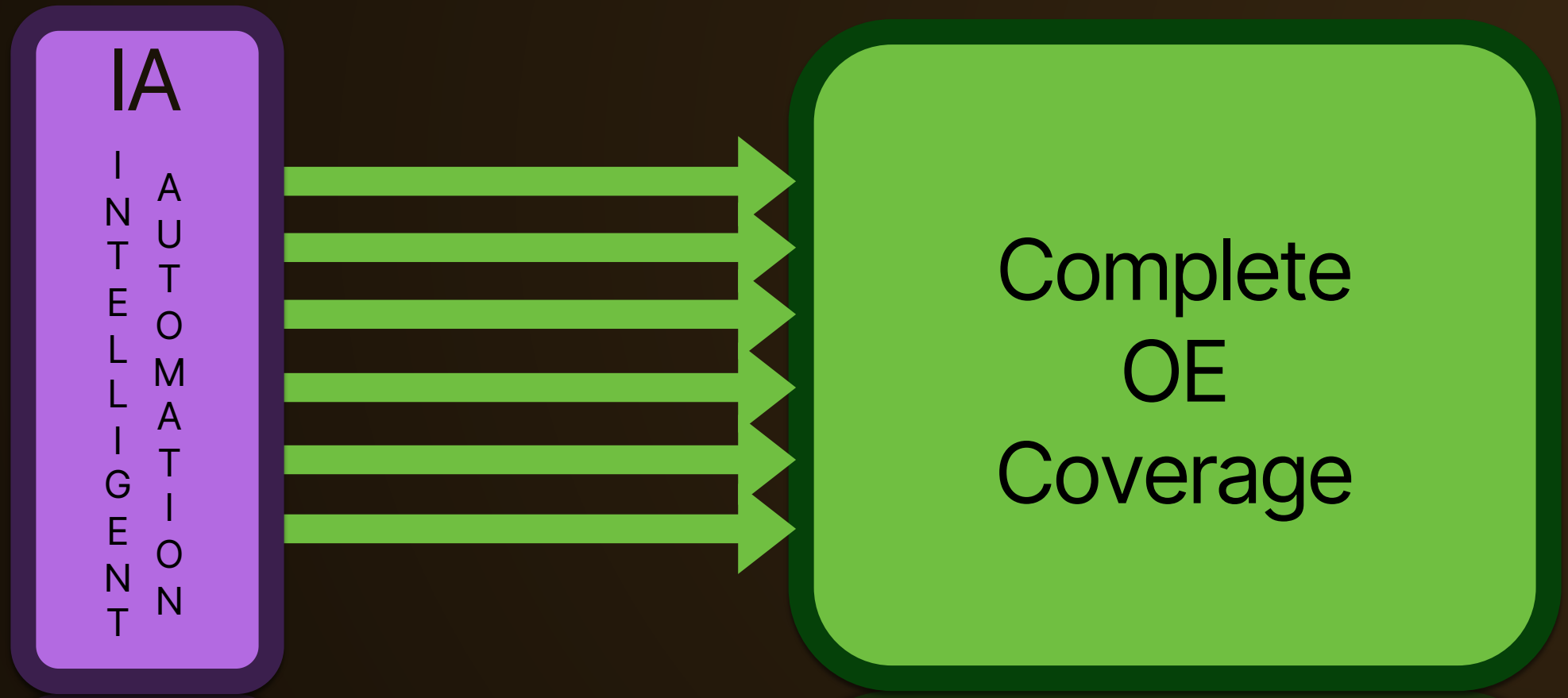
Solving the Queue(s) Problem thru Evidence Normalization


```
"teList": [“02.15.05",  “02.16.04", “02.17.04" ],

"description": "Excluded components (if claimed) not leading to uncontrolled",
"access": "observed",
"technique": "debugger",
"setup": "reference into Catalog",
"errorInduction": "description of modifications made to the module or its OE to induce an error for the
                   purpose of performing negative testing”,
"results": {
        "summary": "Summary of the results, why does the result mean the requirement is met",
        "digest": "ab75bebb665f38041949a3287b04242b37051824",
        "fileLocation": "Functional-Test/Services-Testing/Excluded-Component-Test",
        "integrityMechanism": “SHA2-256”
        }
```

Validation Evidence Exchange

Solving the Resource Problem thru Intelligent Automation



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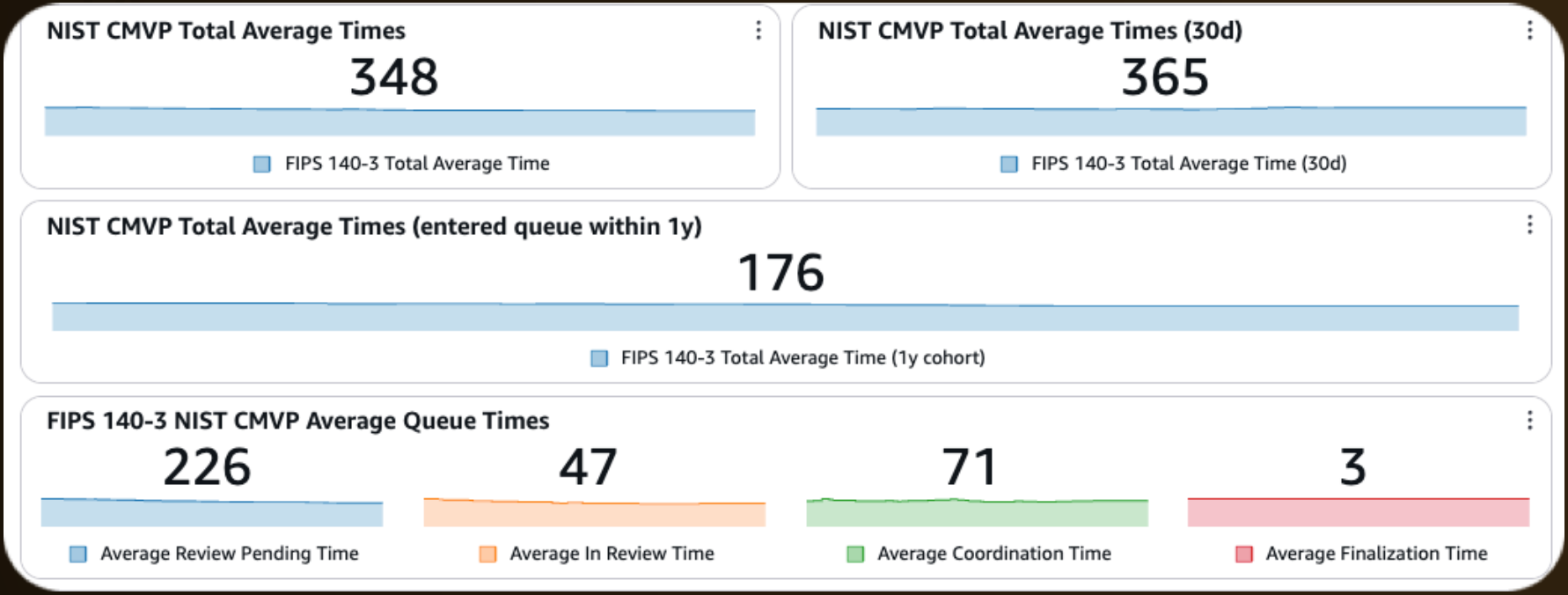
Validation Evidence Exchange

Solving the Resource Problem thru Intelligent Automation



Stats from Alicia Squires, AWS, Manager, Global Certifications
October 2026

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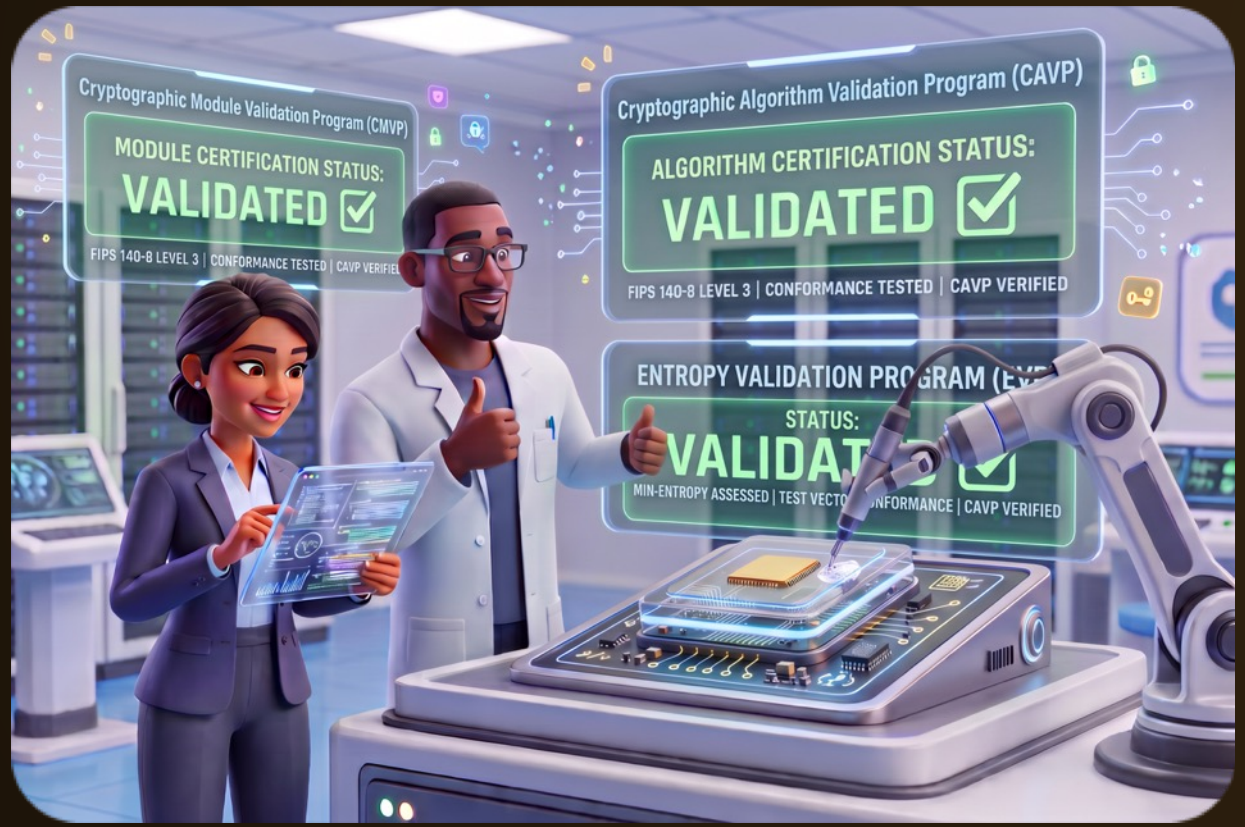
Accelerated End-to-End

Recognized Excellence at Machine Speed



Win, Win, Win

From exhaustion to ecstatic

Vendors

Testing Labs

Certifiers

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Overcoming

Take control. Break through

Questions

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