

ITU KALEIDOSCOPE

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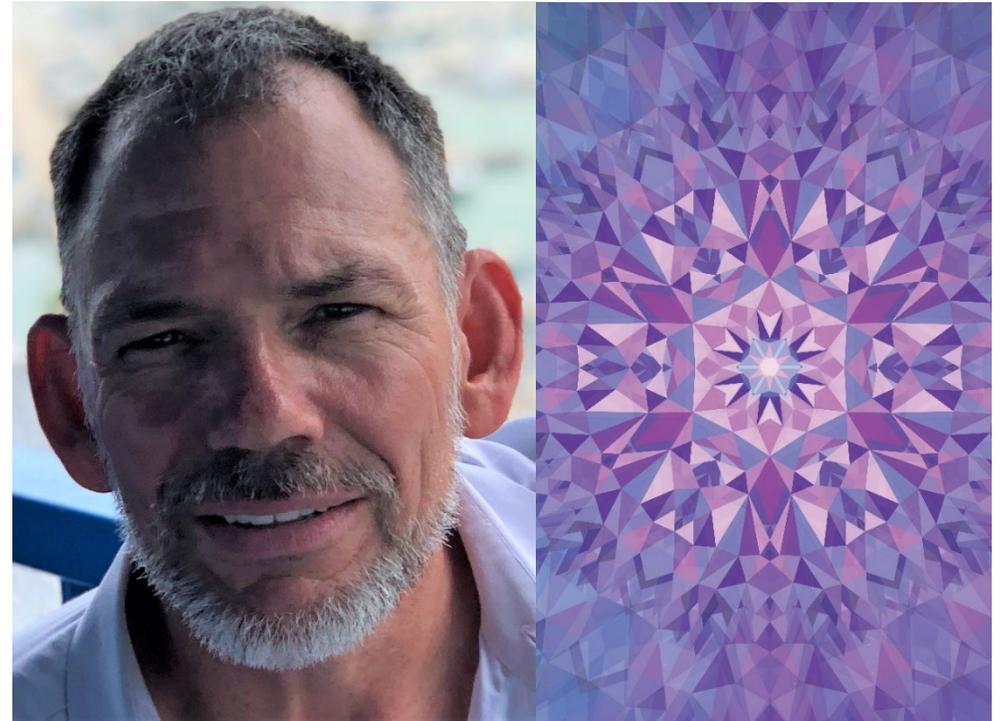
6-10 December 2021

**Security vulnerability
expressions: A technology for
empowering novice practitioners
around the world with security
maturity capabilities**

Jacques Remi Francoeur
Security Inclusion Now, USA

**Session 4: Policies and ontology for
security management**

**Paper S4.2: Security vulnerability expressions:
A technology for empowering novice practitioners
around the world with security maturity capabilities**



Title: SECURITY VULNERABILITY EXPRESSIONS:
A TECHNOLOGY FOR **EMPOWERING NOVICE PRACTITIONERS** AROUND THE WORLD WITH
SECURITY MATURITY CAPABILITIES

“empowering
novice
practitioners”

SECURITY VULNERABILITY EXPRESSIONS:
A TECHNOLOGY FOR **EMPOWERING NOVICE PRACTITIONERS** AROUND THE WORLD WITH
SECURITY MATURITY CAPABILITIES

Abstract: The evolution of security over several decades by advanced countries has generated vast amounts of valuable security knowledge contained in standards, regulations & guidance published in the form of documents and spreadsheets. Knowledge captured in this form is very difficult to consume and adapt, especially by novice practitioners. If this barrier could be removed, it would release its enormous locked-in value to the rest of the world who desperately need it. A model and enabling software application is proposed for novice practitioners to quickly ingest existing, readily available knowledge contained in frameworks; thereby enabling easy access, search, visualization, navigation, and consumption of the frameworks and their maps. This technology will be made available as open source to the world.

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ITU Standardization Published, Security Vulnerability Expression Prior Work, & **Active Validation** Development @ ITU-DCGI



ITU Study Group 17 Security: Technical Report

Unified Security Model



ITU Focus Group: Cryptocurrencies & Digital Fiat Currency

Protection Assurance for Digital Currencies



ITU SG17 Technical Report: Unified Security Model

ITU SG17 Security Manual 2020



Recommendation: ITU-T X1401 Annex (non-normative)

Security Threats to Distributed Ledger Technology Standard



Recommendation: ITU-T X1402 Annex (non-normative)

Security for Distributed Ledger Technology Standard

The **path** forward is **doable**, with **immediate** benefits

- Many paths forward, even the **one we're on** ...
 - If we **stay** on the **current** path of “**unsustainable** divergence” ...
- **Which** path should we take? We must **start** somewhere asap
 - **Here** is a path, that is **doable** now & can help **millions** of beginners and novice practitioners around the world, **immediately** ...
- Just a **few steps** forward and we will be **on our way** ...
 - Step 1: Raise Novice **Access** capability, **immediately**
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1st Step Forward: Raise Novice **Access** Capability

By **adopting** the tool, we **immediately** gain:

- Frictionless **access** to current security **body-of-knowledge**
all External Control Frameworks, e.g., Standards, Regulations, Guidance
- **Ability to choose** any framework as your **reference/anchor** view & see not only **how it has been mapped** to other target frameworks, but also the content of the mapped control
 - Currently **cannot be done**
- **Capability to flip** “framework view direction” by following any map from anchor to target framework & toggling the target framework into the anchor framework view **reveals** all mappings between the two, outlining **gaps**
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2nd Step: Raise Novice **Capability Level** Over Time

By adopting the Security Vulnerability Expression “relational” Model, novices can easily **learn & expand** to ...

- Greatly **facilitate** the creation of an **internal** security control framework, **custom** to the uniqueness of the **target**
- **Expand** from external control frameworks in Step 1 to include other Actors in the model, threat.
- Reflects **decisions** made, demonstrates **progress**
- Automatically **tracks** the **relationships** of the internal framework to other external frameworks to which one must **comply**

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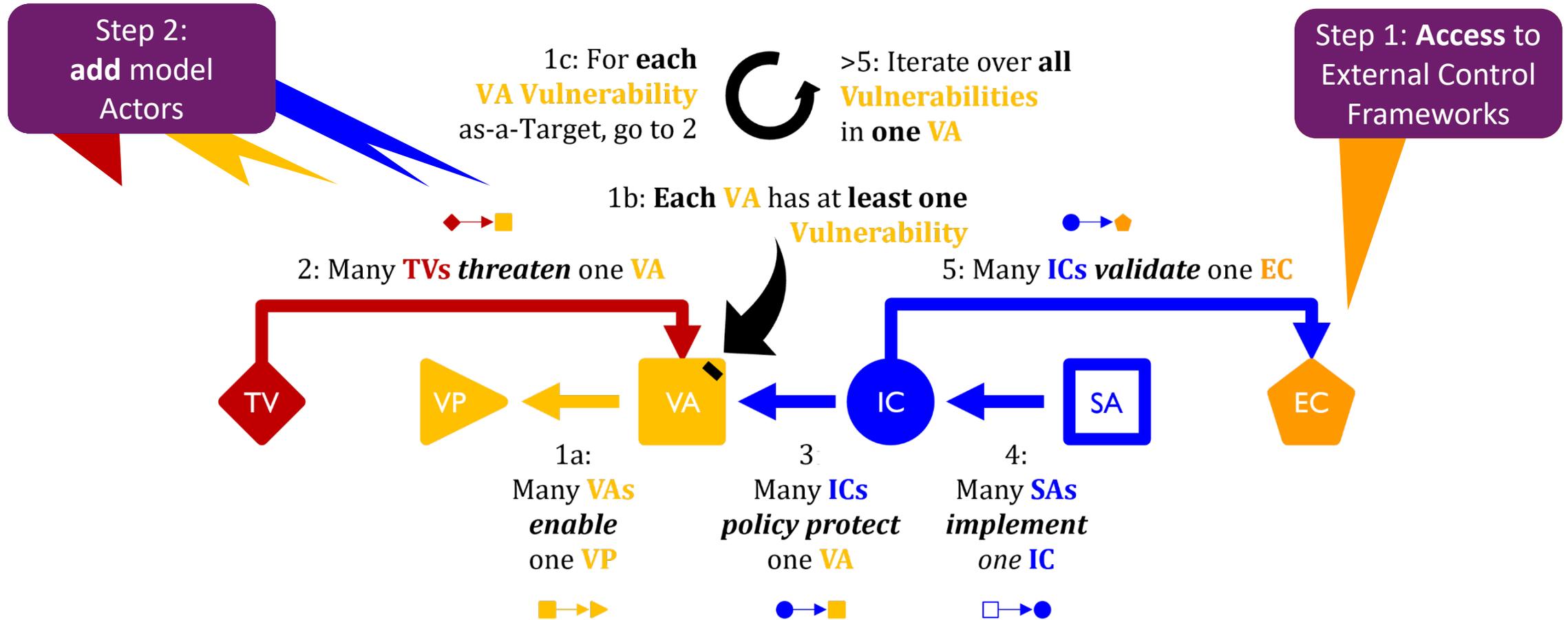
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Step 1: Raise Novice **Access** capability, immediately

Step 2: Raise Novice **Capability** level (learning), over time



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Thank you!

