



# Protection Profiles

Understand and Comply  
Lachlan Turner



# Lightship Security



**COMMON CRITERIA 101**



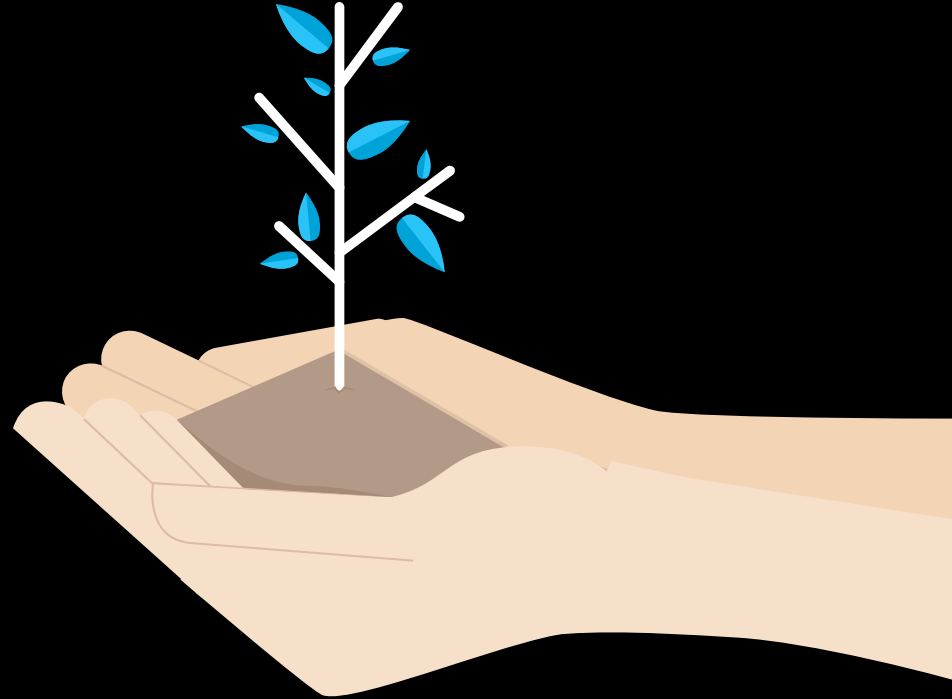
**PROTECTION PROFILES 101**



**COLLABORATIVE  
PROTECTION PROFILES**



**COMPLYING WITH A  
PROTECTION PROFILE**



# COMMON CRITERIA

KEY CONCEPTS





## VENDOR

Submits product for evaluation.



## LAB

Evaluates against criteria and submits results to scheme.  
(EVALUATOR)



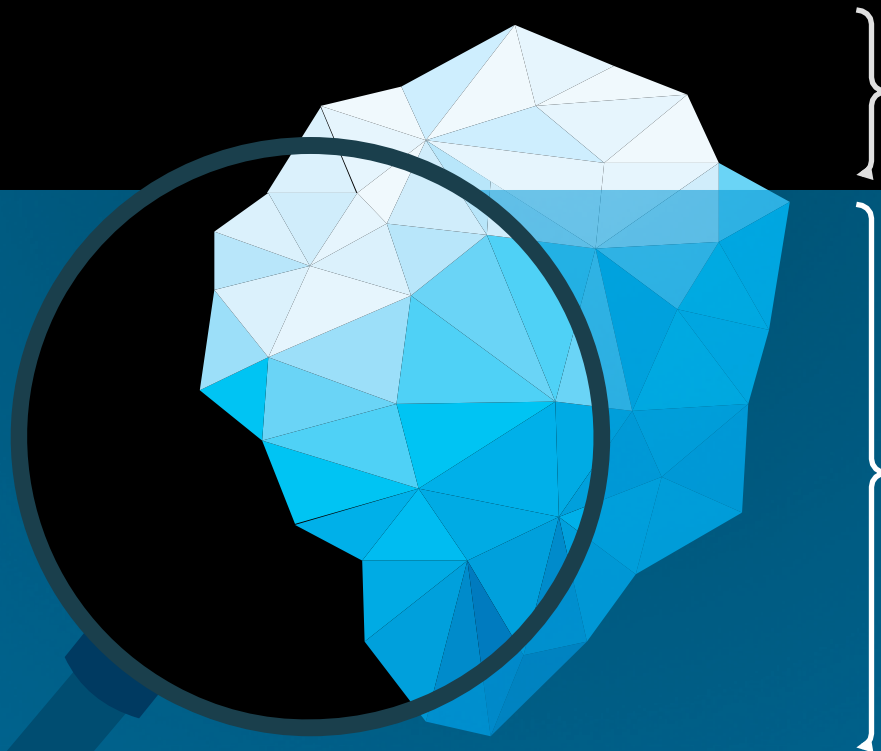
## SCHEME

Reviews lab work and issues certificates.  
(CERTIFIER / VALIDATOR)



## CONSUMER

Buys certified products if required by policy.



**The thing under evaluation.**



**Usually a subset of security functions**



**Defined in the Security Target (document)**

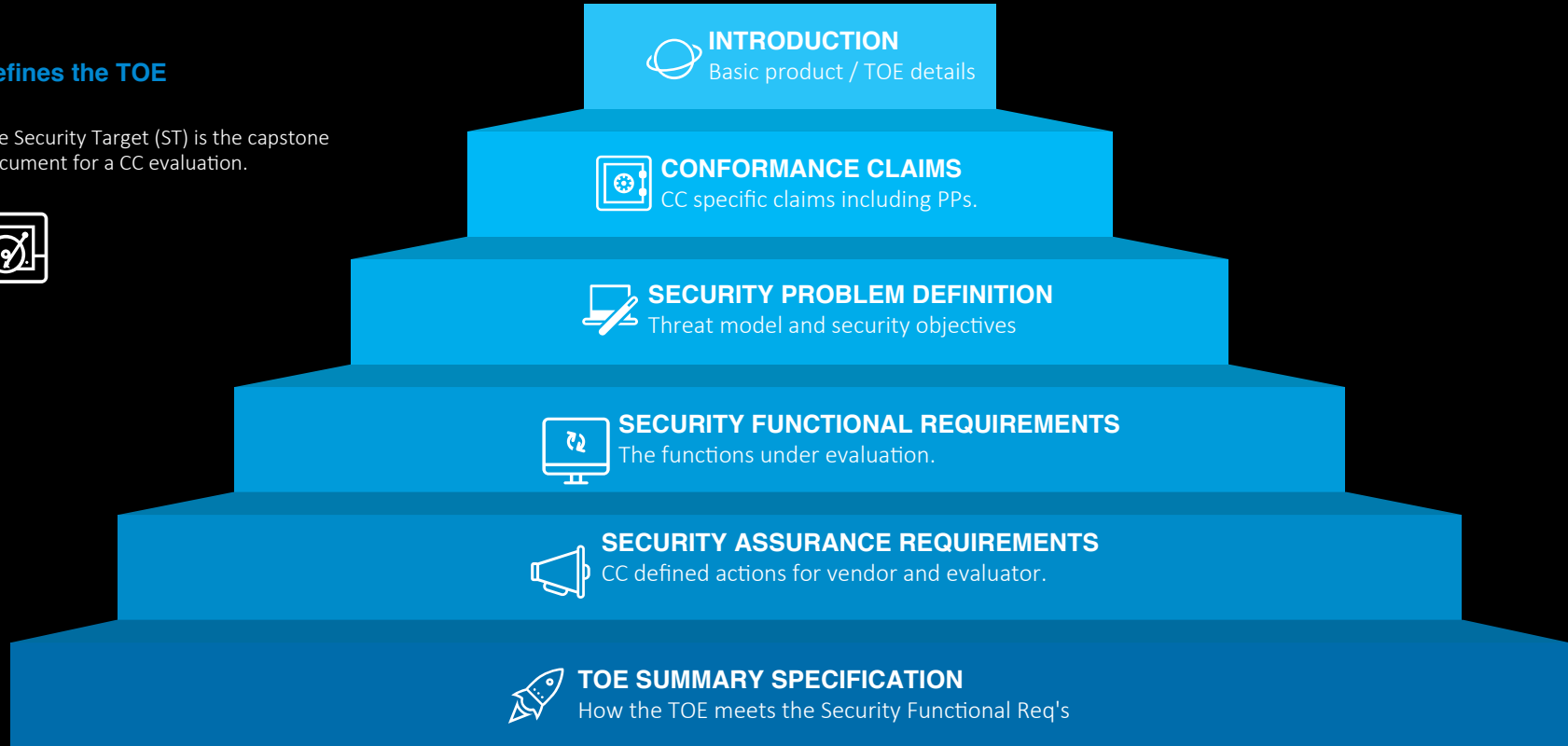


**Sets the scope of evaluation**



## Defines the TOE

The Security Target (ST) is the capstone document for a CC evaluation.





A function that the TOE must perform.

## Example:

FIA\_UAU.5.1 The TSF shall provide  
[*assignment: list of multiple authentication mechanisms*] to support user authentication.



**Common Criteria  
for Information Technology  
Security Evaluation**

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Part 2: Security functional components

April 2017

Version 3.1

Revision 5

CCMB-2017-04-002

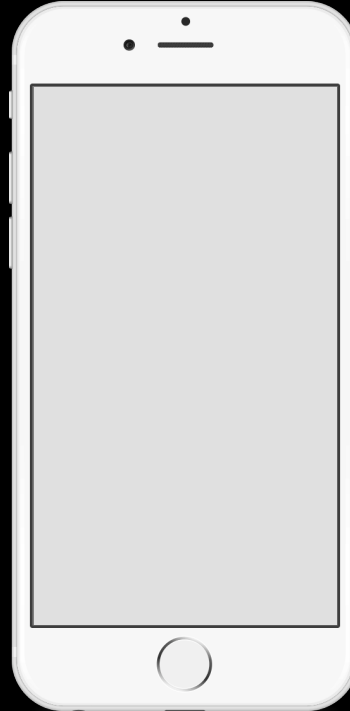


**Cryptographic Support (FCS)** ○

**User Data Protection (FDP)** ○

**Identification and Authentication (FIA)** ○

**Security Management (FMT)** ○



**Protection of the TSF (FPT)**



**TOE Access (FTA)**



**Trusted Path/Channels (FTP)**





An action that the evaluator or developer must perform to generate assurance.

### Example:

ATE\_IND.1.1D The **developer** shall provide the TOE for testing.

ATE\_IND.1.2E The **evaluator** shall test a subset of the TSF to confirm that the TSF operates as specified.



Common Criteria  
for Information Technology  
Security Evaluation

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Part 3: Security assurance components

April 2017

Version 3.1  
Revision 5

CCMB-2017-04-003

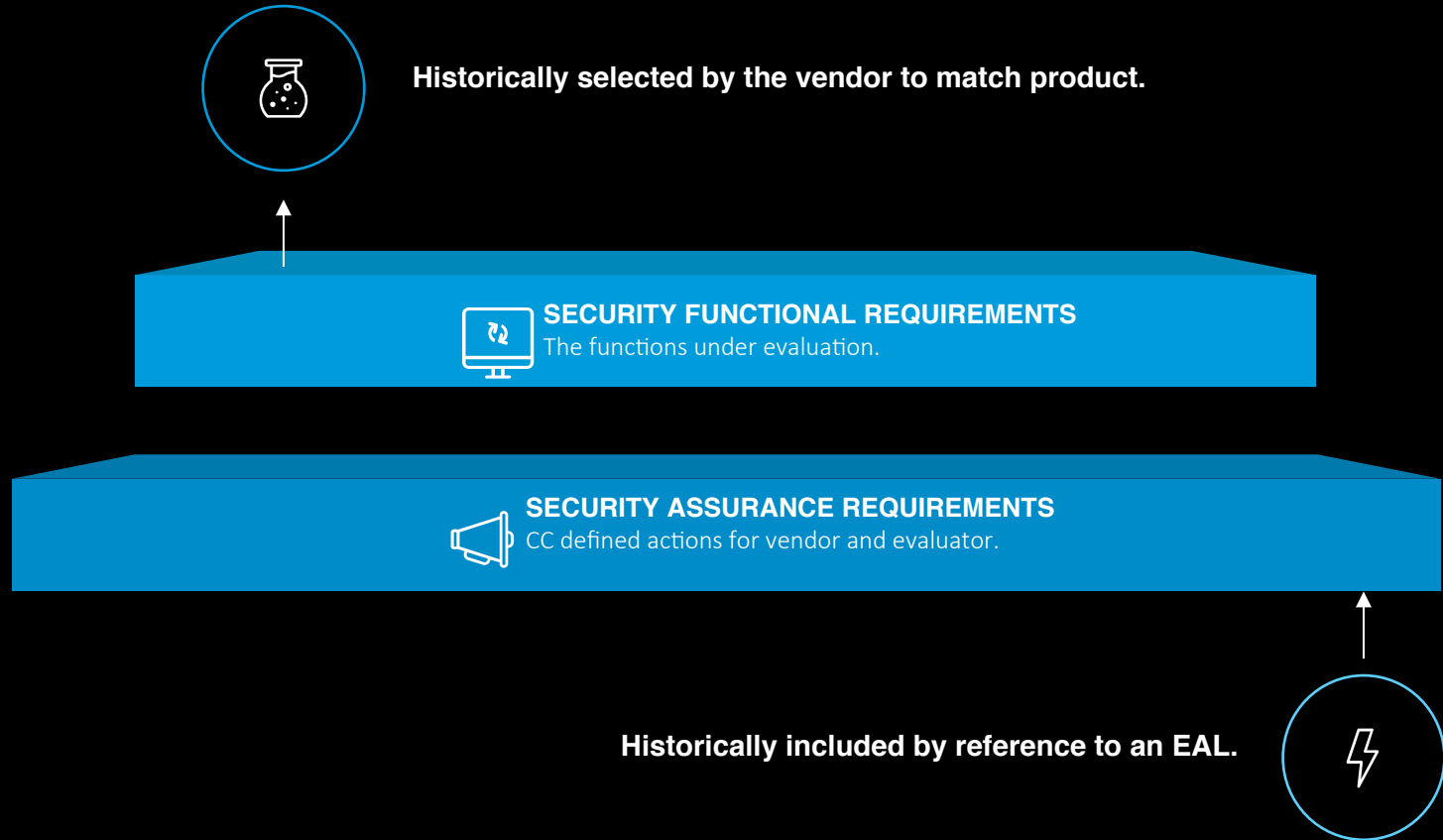


A pre-packaged set of assurance requirements.

ATE\_IND.1.1D The developer shall provide the TOE for testing.

ATE\_IND.1

Assurance class	Assurance Family	Assurance Components by Evaluation Assurance Level						
		EAL1	EAL2	EAL3	EAL4	EAL5	EAL6	EAL7
Development	ADV_ARC		1	1	1	1	1	1
	ADV_FSP	1	2	3	4	5	5	6
	ADV_IMP				1	1	2	2
	ADV_INT					2	3	3
	ADV_SPM						1	1
	ADV_TDS		1	2	3	4	5	6
Guidance documents	AGD_OPE	1	1	1	1	1	1	1
	AGD_PRE	1	1	1	1	1	1	1
Life-cycle support	ALC_CMC	1	2	3	4	4	5	5
	ALC_CMS	1	2	3	4	5	5	5
	ALC_DEL		1	1	1	1	1	1
	ALC_DVS			1	1	1	2	2
	ALC_FLR							
	ALC_LCD			1	1	1	1	2
	ALC_TAT				1	2	3	3
Security Target evaluation	ASE_CCL	1	1	1	1	1	1	1
	ASE_ECD	1	1	1	1	1	1	1
	ASE_INT	1	1	1	1	1	1	1
	ASE_OBJ	1	2	2	2	2	2	2
	ASE_REQ	1	2	2	2	2	2	2
	ASE_SPD		1	1	1	1	1	1
	ASE_TSS	1	1	1	1	1	1	1
Tests	ATE_COV		1	2	2	2	3	3
	ATE_DPT			1	1	3	3	4
	ATE_FUN		1	1	1	1	2	2
	ATE_IND	1	2	2	2	2	2	3
Vulnerability assessment	AVA_VAN	1	2	2	3	4	5	5





**TOE**



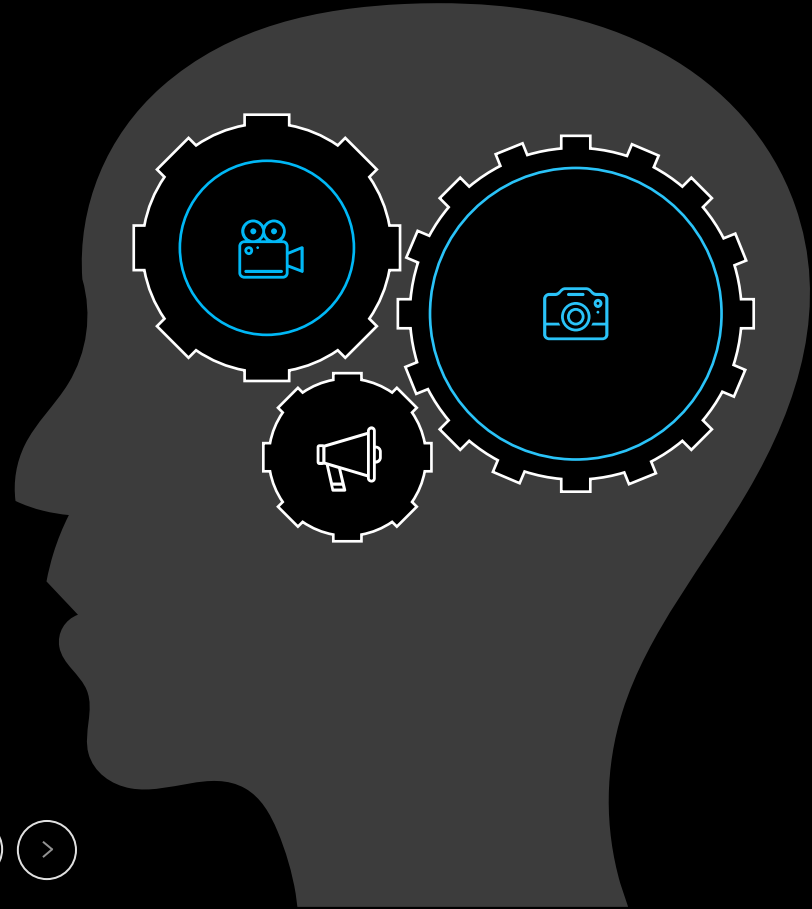
**Security Target**



**SFR and SAR**



**EAL**



# Protection Profiles

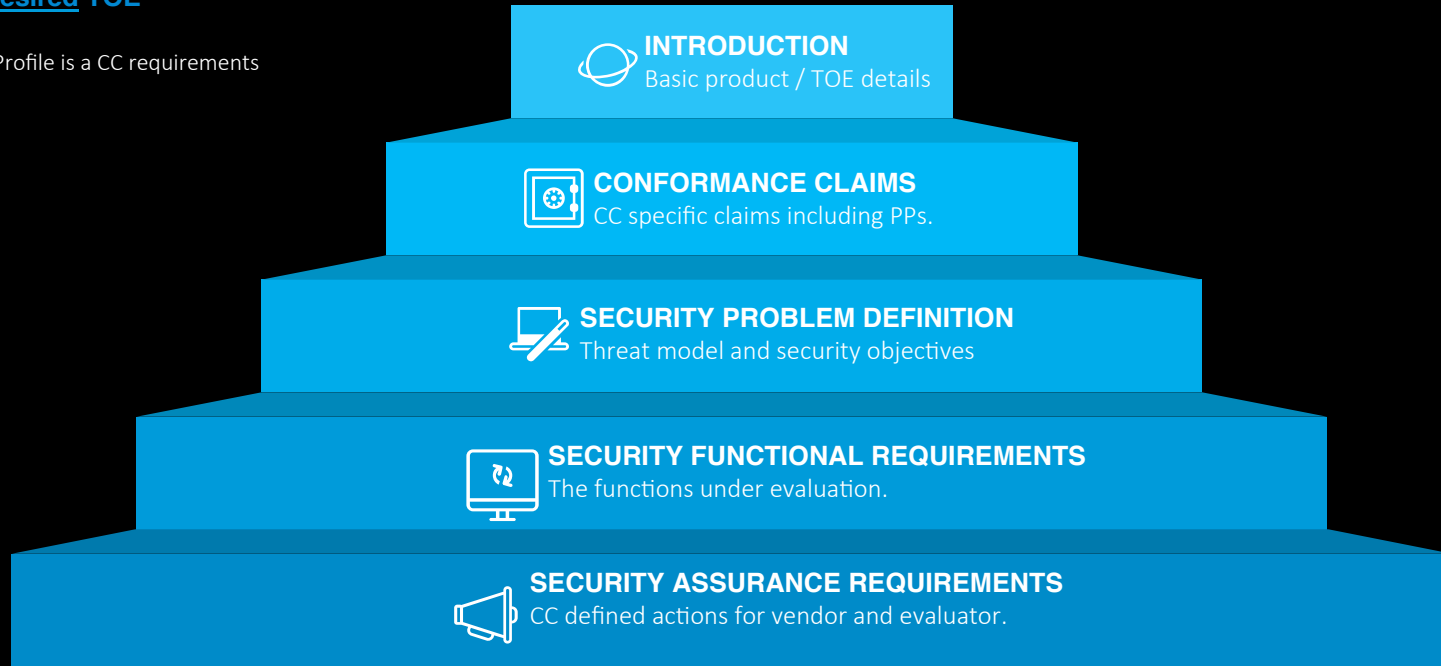
## KEY CONCEPTS





## Defines a desired TOE

A Protection Profile is a CC requirements specification





## CONSUMER



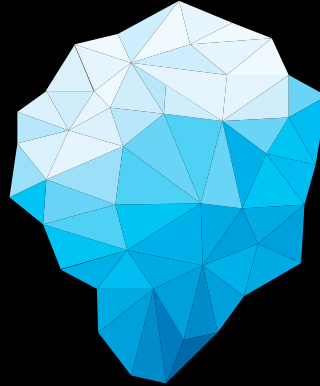
I want this

Protection Profile



**Widget PP**

Consumer XYZ



I can do that

Security Target



**Best Widget ST**

Vendor XYZ



## VENDOR



## Security Target



**Best Widget ST**

Vendor XYZ

Conforms with:

## Protection Profile

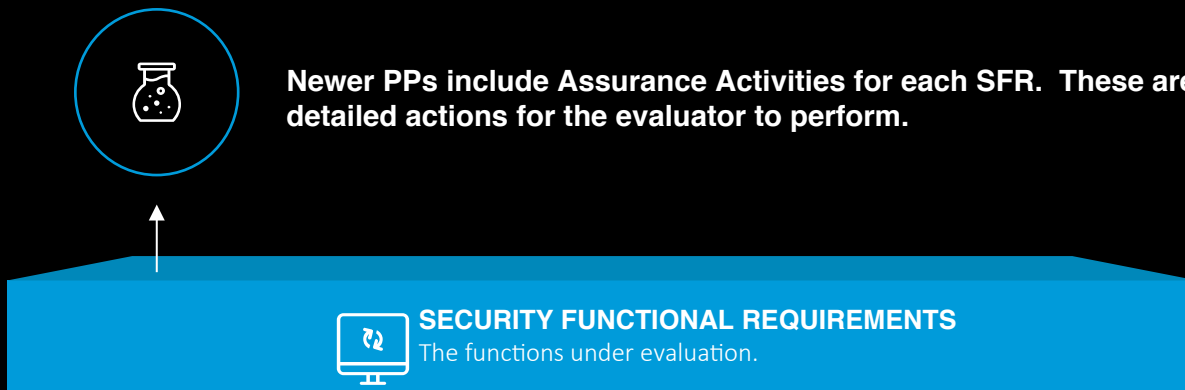


**Widget PP**

Consumer XYZ







**FAU\_STG.4.1** The TSF shall overwrite the oldest stored audit records if the audit trail is full.

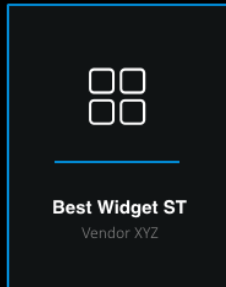
**Assurance Activity:**

The evaluator shall examine the TSS to ensure that it describes the size limits on the audit records, the detection of a full audit trail, and the action(s) taken by the TSF when the audit trail is full. The evaluator shall ensure that the action(s) results in the deletion or overwrite of the oldest stored record.



## VENDOR

Security Target



## LAB

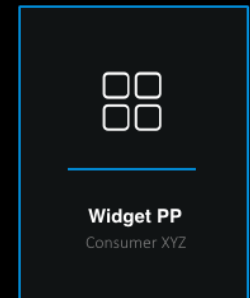


## SCHEME



## CONSUMER

Protection Profile



# Collaborative Protection Profiles

## KEY CONCEPTS





International Technical Community (iTC)



Protection Profile

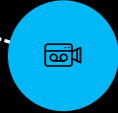
Widget PP  
Consumer XYZ

Supporting Doc

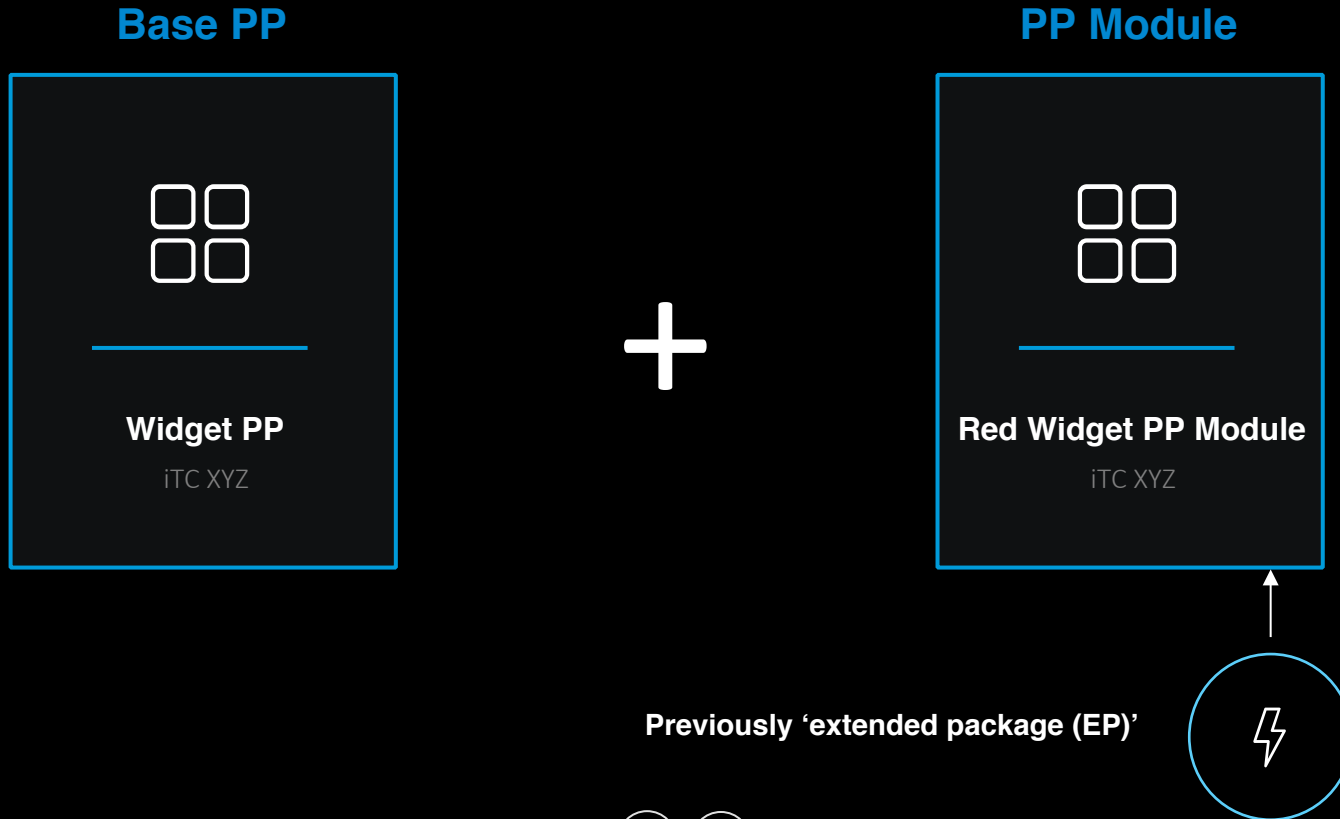
Widget PP  
Consumer XYZ



Additional Guidance

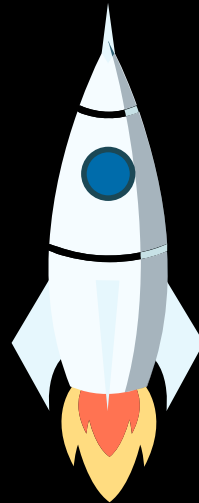


Assurance Activities





# JOIN A TECHNICAL COMMUNITY



[ccusersforum.org](https://ccusersforum.org)



[commoncriteriaportal.org](https://commoncriteriaportal.org)



[niap-ccevs.org](https://niap-ccevs.org)



[github.com/commoncriteria](https://github.com/commoncriteria)

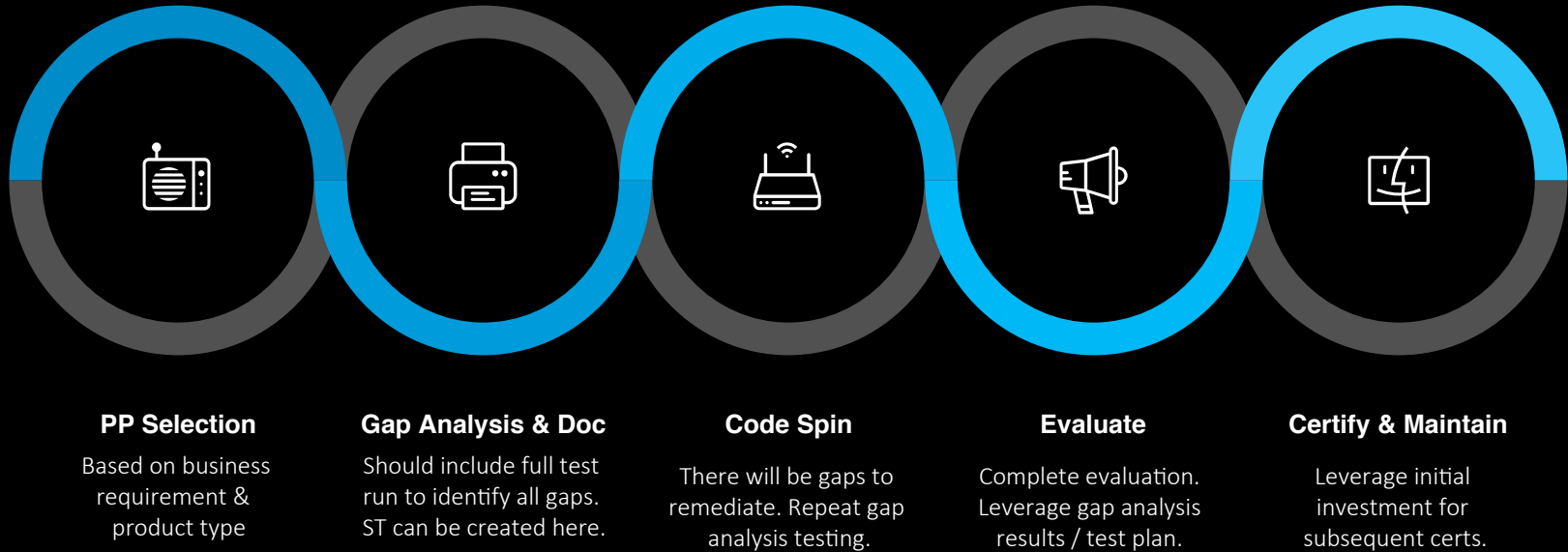


# Complying with a PP

## KEY CONCEPTS









# THANK YOU

QUESTIONS?

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