

## A Trusted Business Card: Demonstrating Supply Chain Defenses



ESP32

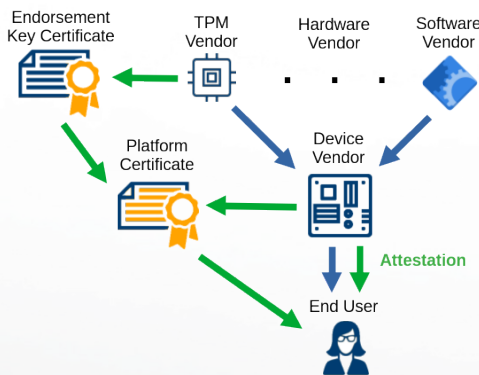
Infineon TPM

How do you know if your  
device is authentic and  
untampered?

This is a fun and fast  
demonstration of how TCG  
standards can be used for supply  
chain defense.

Cards will be given away to the  
first twenty attendees who ask.

### Supply Chain Defense with TPM



The end user can verify:  
Authenticity of TPM  
Authenticity of device  
Authenticity of firmware

### Demonstration

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Verification Report for Trusted Business Card at /run/media/dave/0021-1F61/ESP/
Verifying Endorsement Key Certificate from Infineon
EK.CRT verification: /run/media/dave/0021-1F61/ESP/EK.CRT: OK
Verifying that the Card's EK.DER matches the EK certificate
EK created on card matches EK from Infineon Certificate
Verifying platform cert against EK and CA certs
Attribute certificate is valid.
Verifying Attestation Key Certificate from Dave
AK.CRT verification: /run/media/dave/0021-1F61/ESP/AK.CRT: OK
Verifying that the Card's AK.DER matches the AK certificate
AK created on card matches AK from AK Certificate
Verifying vendor signature binding AK and EK:
Verified OK
Verifying TPM_QUOTE
Decrypting quote with AK
Quoted data matches pci0 data
Hash of quoted data matches decrypted signature
Verifying RIM Signatures
Verifying rim for CARD.JPG - Signature Verified Successfully
Verifying rim for SAFFORD.PDF - Signature Verified Successfully
Verifying event log:
PCR 10 SHA256: 3F8D95BFE924C9A5033C1B3D840A2B32365DB0481ACC8E8C4A7ECF5B3590450B MATCHES
Verifying that current challenge file was used.
Correct challenge file was used.
Writing a new random challenge. Reset the card for it to be measured.
Verifying flash image - press boot-reset on the card
press enter when ready
Reading flash. This should take about one minute...
Files fw/flash.img and out.bin are identical
  
```

This is an open source, open  
hardware project, with all  
details at:  
[github.com/safforddr/tbc](https://github.com/safforddr/tbc)