Linaro Technical Forum

Attestation Verifier

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What is the problem we're trying to solve?

High-level

- Ensure that we have an ecosystem ready when our CCA enabled device are readily available.

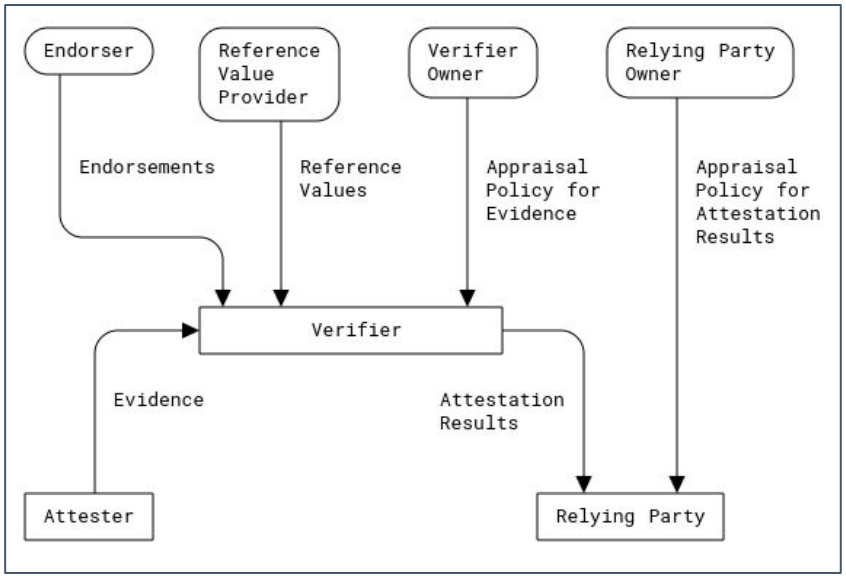
Secondary goals

- Answer the question, who is the attestation verifier?
- Solve fragmentation, lots of these solutions are proprietary.
- What characteristics should a verifier have to be trusted?
- Ease of use.

Why do we need it?

- Establishment of trust between mutually distrusting entities.
- Ensure that the devices we're communicating with are in the expected state and have the features enabled that they claim to offer.

IETF Remote ATtestation ProcedureS (RATS)



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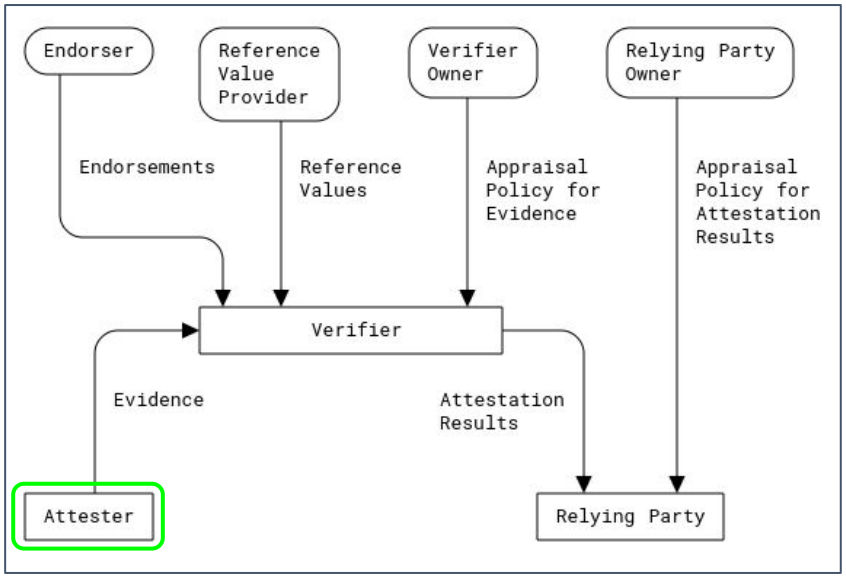
Armv8-A, Armv9-A
AMD Xilinx, NXP, ST, ... and so on



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Device manufacturer, ... OEMs:
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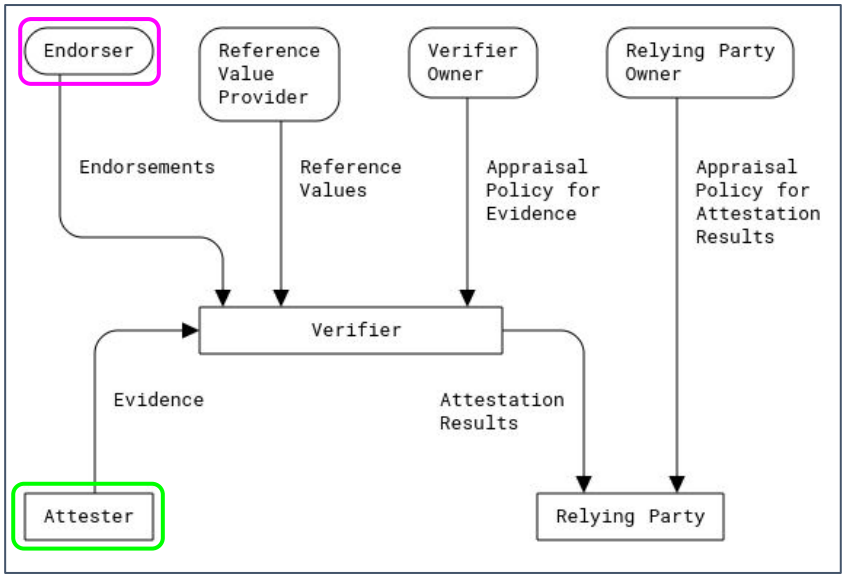

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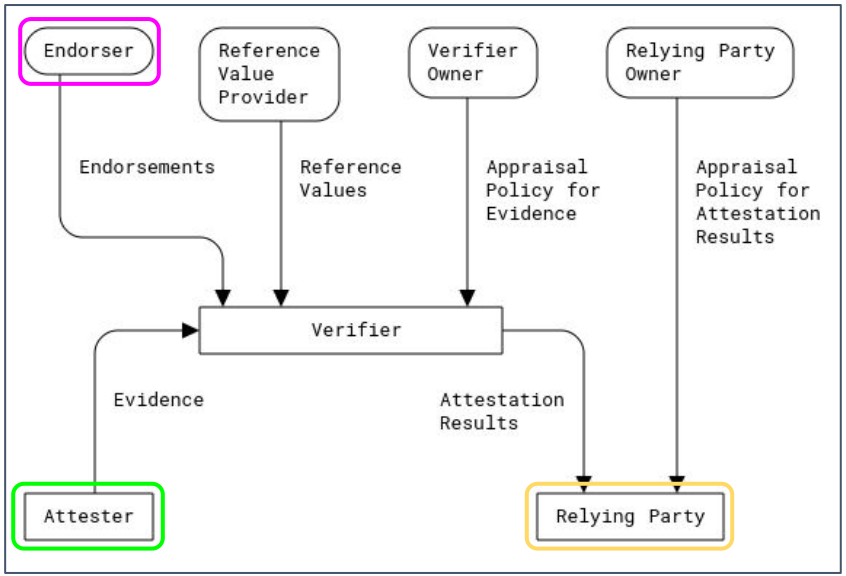
HSBC, Barclays, Wells Fargo, ...



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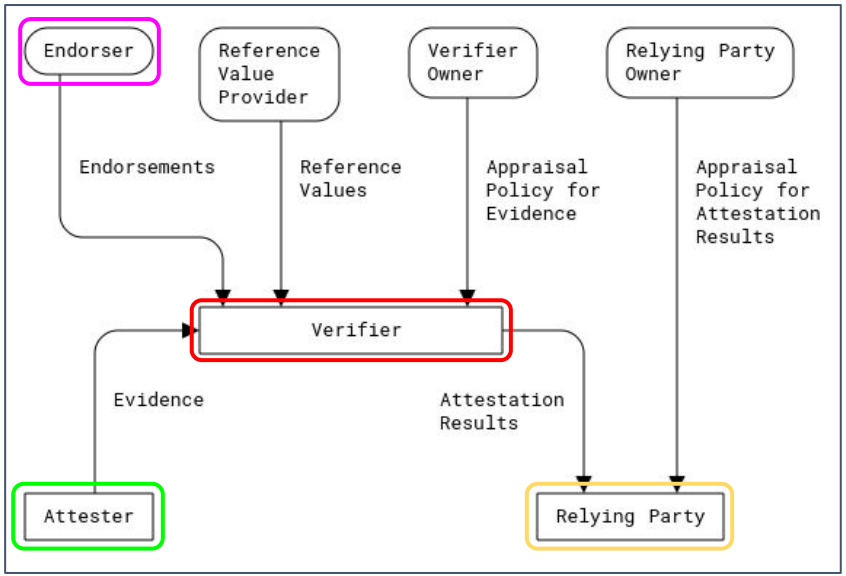
Who is this?



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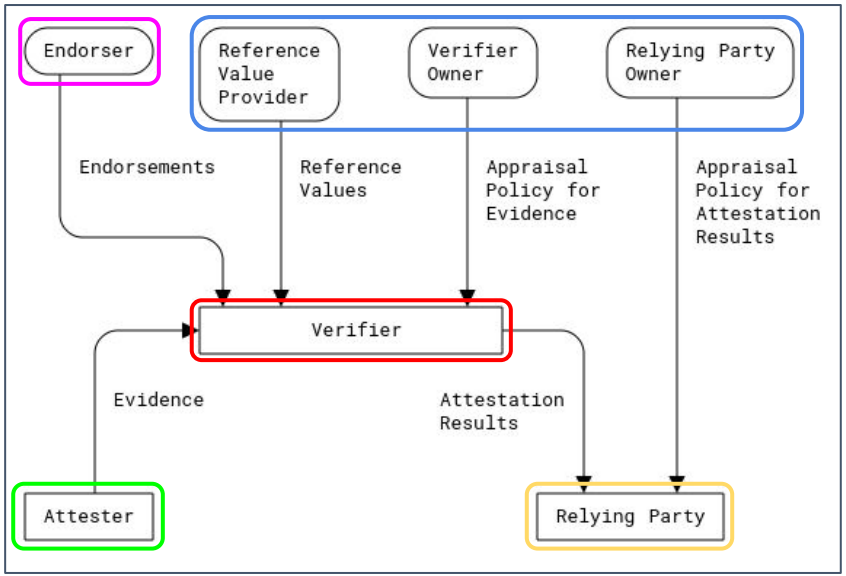
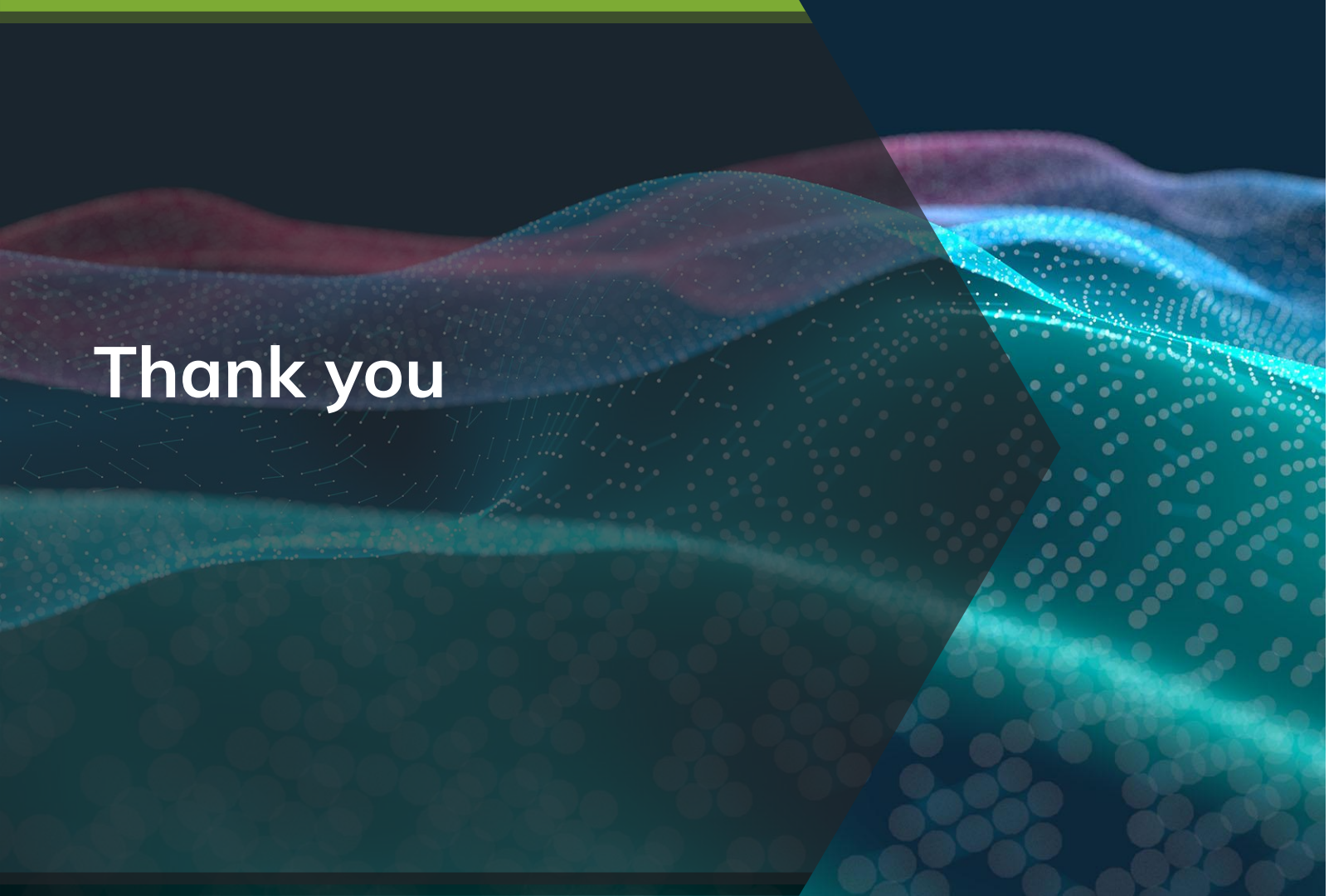
Who is this?

Also of interest, often the same players as the others



Work in progress

- DCAP - Deploy CCA on Arm Platforms
  - Data Center Group @ Linaro (Leonardo, Mathieu, Thomas, Kevin)
  - CoCo integration (CNCF)
  - CCA enablement in TRS
  - Documentation
  - FVP, QEMU (PoC/Reference build here), ... and other environments
- Project VERAISON
- IETF - RATS



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Terminology

Roles

- **Attester**: Produces **evidences**
- **Verifier**: Receives **evidences** and produces **attestation results**
- **Relying Party**: Receives **attestation results**, use that and **policies** to make decisions

Other roles

- **Endorser**: Produces **endorsements,** typically a manufacturer, trusted by verifier.
- **Reference Value Provider**: Produces “known good values”, typically a manufacturer.
- **Verifier Owner**: Entity authorized to configure an Appraisal Policy for Evidence in a Verifier
- **Relying Party Owner**: Entity authorized to configure an Appraisal Policy