Trustworthy Digital Supply Chain Transparency Services

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https://www.ietf.org/archive/id/draft-birkholz-scitt-architecture-00.html
https://www.ietf.org/archive/id/draft-birkholz-scitt-receipts-00.html

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Countering Software Supply Chains Attacks: Trustworthy Transparency Services

How can I audit the provenance of all software in my TCB?
SCITT Architecture and Receipts

```
SCITT_Receipt = {
    ; Hash of transparency service key
    "serviceId" => bstr
    ; Transaction id
    "transactionId" => tstr
    ; Signature algorithm
    "alg" => int
    ; Signature over tree root
    "signature" => bstr
    ; Intermediate hashes (Merkle path)
    "proof" => [ + ProofElement]
}
```
Related Work and Working Groups in the IETF

- Envelopes & Receipts are based on COSE WG output
- Transparency service operations trustworthiness involves RATS WG output
- Transparency services borrow concepts and terms from the concept of Certificate Transparency defined in RFC 6962