ACE Clients in Disadvantaged Networks

draft-secheverria-ace-client-disadvantaged-00

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Disadvantaged Networks

- Conditions worse than for "constrained networks"
 - Disconnected, Intermittent, Limited (DIL)
 - High risk of sabotage, impersonation, device capture
- Scenarios: First responders, Law enforcement, Military
 - → AS wants to revoke tokens for compromised RS
 - → Clients want to check their tokens are still valid

Alternatives

- Short token lifetime
 - AS stops making tokens for known compromised RS
 - Problems:
 - Waste of bandwith for requesting new tokens
 - "Good" tokens may not be valid long enough
 - How to interpret denied token request?
- Token revokaction & Client introspection
 - AS revokes tokens of known compromised RS
 - C checks tokens when AS in range

Token Revocation and Client Introspection

- Problem: Attackers may learn token claims
 - Differentiate between clients and RS
 - → AS only returns "Active" parameter for clients
- Problem: AS needs to decrypt the token
 - Need to find the key shared with the RS
 - → include a "kid" in COSE wrapper

Next Steps

• Is there WG interest to explore specific problems of disadvantaged networks?