Transport Properties

To registry, or not to registry?

Transport Properties

- Central concept to configure the transport system
- Classified by object / connection phase they effect:
 - Selection Properties (Preconnection)
 - Connection Properties (Connection)
 - Message Properties (Message Context)
 - but can be specified in earlier phases
- Different data types:
 - Boolean, Integer, Enumeration, Preference
- ► Individual Properties are only referenced by section title

Should we Standardise Property Names?

Pro:

- "interoperability": TAPS implementations will use the same names for well-know properties
 - Key reason for implementing TAPS instead of "something propriety"

Contra:

- Concrete values in an abstract API
- Limits Implementors' freedom

Property Registry – Why?

- WG discussions suggest generic transport properties specified in draft-ietf-taps-interface are not conclusive
 - Consensus Properties in Sections 5.2, 7.3, and 9.1
 - Non-Consensus Properties in Appendix A
 - Open debate: All mandatory to implement?
- We need to add protocol-specific properties e.g. for configuring TCP keep-alive
- We need extensibility for new transport features, protocols, and vendors

Questions

- Should we Standardise Property Names?
- Should we request a registry for Transport Property names?
- What should go into the Registry?
- What assignment policy to use?

Proposal: Property Names

- Transport Property names are CamelCased strings
- Format: [<namespace>(.|_)]property name>
- Namespace distinguishes generic/well known from protocol/vendor specific/experimental properties

Examples:

- ReliableDataTransfer (generic well known property)
- TCP.KeepAlive (protocol specific property)
- Linux.NoRecvMMAP (vendor specific property)

Proposal: Registries

Transport Property Namespaces

- Assignment policy: IESG approval
- Reference must point to list of properties in this namespace and assignment policy (external to IETF for vendors and non-IETF protocols)

Proposal: Registries

Well-Known Generic Transport Properties

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String Type Phase Description Reference
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Assignment policy: RFC required

Experimental and Private Use Transport Properties

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String Type Phase Description Reference
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Assignment policy: Specification Required