

Testing TAPS using the YANG model

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Configuring a Preconnection

```
p = taps.Preconnection(remote_endpoint=ep,  
                        local_endpoint=lp,  
                        transport_properties=tp,  
                        security_parameters=sp)
```

VS.

```
p = taps.Preconnection(yangfile=fname)
```

- YANG instance:
 - Substitutes Preconnection parameters
 - Easy to refer to (e.g., in tests)
 - Portable across implementations

Getting YANG to work

- Install libyang
- Build shared library
- Tested on Linux + macOS

- Pain point:
 - Uses C++ library
 - pyang "too painful" for validating instances

Hackathon changes

- Tests using echo server
- Suggested changes to YANG model:
 - **Security parameters**: Make identity and algorithm optional
 - Check if **at least one Endpoint**
 - Check if **Transport Properties exclude each other**
 - Add profiles

Hackathon discussions

- Interface type
 - Uses iana-if-type YANG module
 - API draft: Implementation-specific
 - Revisit?
- Output Connection state:
 - Start with Endpoint, Interface, Protocol?

More test ideas

- Implementation satisfies API contract?
- Given **input** (Preconnection+Endpoint) results in given **output** (Connection state)?
 - Portable in-/output using YANG model
- "Interoperability"?