

YANG Data Extensions

draft-ietf-netmod-data-ext-01

IETF 101

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The problem

- The YANG extension statement `yang-data` in the module `ietf-restconf` can be used to define a data structure that is not intended to be part of a datastore.
- Original use case was RESTCONF resources and errors, but since then it has been used to define file formats, contents of protocol messages etc.
- However, this solution has a couple of limitations:
 - The structure cannot be augmented
 - The structure must define exactly one container
 - Creates a dependency to RFC 8040 RESTCONF

The solution

A separate document that defines two new extension statements:

- `yang-data` – intended to replace `ietf-restconf:yang-data`. Semantics the same, but removes the limitation that the top-level node must be a single container.
- `augment-yang-data` – can be used to augment a structure defined with `yang-data`.

Open Issue #1

Should we also define a new statement `uses -yang-data` that can be used just like normal `uses`, in all places where `uses` can be used?

Drawback: we get two ways of defining reusable structures, `grouping` and `yd:yang-data`.

Proposal: Do not define such a statement. Normal groupings can be defined and used within `yd:yang-data`, if necessary.

Open Issue #2

Currently there is no way to define special `<error-info>` content for an `rpc/action`. `yd:yang-data` could be used to define the structure. But should we also define a new extension that can be used in `rpc/action` to refer to such a structure?

```
yd:yang-data my-error-info { ... }

rpc my-rpc {
  input { ... }
  output { ... }
  yd:map-error-info my-error-info;
}
```

Even if this is a good idea, it expands the scope of the document.

If we add this, should we also do something for `error-app-tag`?

Can we assume that all protocols used with YANG has an `error-info` field in their `rpc` reply?

Next Steps

- Fix some inconsistent terminology, and any other comments after this meeting, and then publish -02.
- Ask for WGLC on -02.