Strategies for dealing with R4 and R4B

Referring to the R4b-explanation - FHIR v4.3.0 (hl7.org)

R4 and R4B are mostly the same, except for a few specific differences documented in the R4B specification:

- Overview: R4b-explanation - FHIR v4.3.0 (hl7.org)
- Detailed: Diff - FHIR v4.3.0 (hl7.org)

Client Strategy

Since the differences are carefully confined to a few specific domains, most clients will have little trouble interoperating with either R4 or R4B servers. In general, an R4 client should be able to connect to either version.

It should default to accept either and throw an error if one of the resources that changed in R4B is used and the resource is now invalid: non-existing resource type, missing mandatory elements, non-existing elements.

It is expected that R4B clients have no problem with accepting R4 conformance resources directly or as an indirect dependency. For example, resources claiming conformance to an R4 conformance resource or to an R4B resource which is profiling an R4 resource.

Should I upgrade from R4?

Since R4B client libraries are expected to still be able to handle R4 resources, client owners are expected to upgrade to R4B where possible. Only if your use case makes use of the resources that have been changed in R4B, you should first make sure that those are migrated to their R4B format too.

Library specific guidance

- For the Java client in HAPI, there's a property on the R4 + R4B clients: get/setConnectToEitherR4Version(). TODO
- TODO

Implementation Guide / FHIR package development strategy

It is allowed for R4B resources and packages/Implementation Guides to have dependencies on their R4 counterparts. R4B clients and servers are expected to have no problems with handling (e.g. validating against) both R4 and R4B resources.

The reverse (R4 resources and packages/Implementation Guides having dependencies on R4B counterparts) is not allowed, since R4 implementations cannot be expected to know about R4B.

Should I upgrade from R4?

Clients and servers using R4 cannot be expected to understand R4B conformance resources without an upgrade to R4B. If the actors in your use case can upgrade to R4B (limited implementation so far, new ecosystem) or if you specifically need the resources that have been updated in R4B (for example, you want to exchange data with FDA/EMA) upgrading is recommended.

Tool specific guidance

- IG Publisher TODO
- Simplifier TODO

Server strategy

Since the differences are carefully confined to a few specific domains, most servers will have little trouble interoperating with either R4 or R4B (conformance) resources.

It should default to accept either and throw an error if one of the resources that changed in R4B is used and the resource is now invalid: non-existing resource type, missing mandatory elements, non-existing elements.

It is expected that R4B servers have no problem with accepting R4 conformance resources directly or as an indirect dependency. For example, resources claiming conformance to an R4 conformance resource or to an R4B resource which is profiling an R4 resource.
**TODO** Expect to be able to serve both R4 and R4B or serve only R4B? The latter would force all clients to upgrade too.

**Should I upgrade from R4?**

Since R4B servers are expected to still be able to handle R4 resources, server owners are expected to upgrade to R4B where possible. Only if your use case makes use of the resources that have been changed in R4B, you should first make sure that those are migrated to their R4B format too.

**Validator**

**TODO**