Hey! I'm from Lumina team. We started implementingversioned consts from appconsts and we encounter some issues while incorporating them in our celestia-types

crate.

These are the issues:

- SubtreeRootThreshold

is used when Blob.Commitment

is computed, however AppVersion

is only present in ExtendedHeader

. So if a user requests a Blob

, they need first to request ExtendedHeader

, then Blob

and then pass the AppVersion

in order to get the Commitment

. In celestia-node you workaround this by having afixed version of constants, which we believe it is going to be an issue later on.

- ExtendedDataSquare

has a theoretical MAX_EXTENDED_SQUARE_WIDTH

, which is SquareSizeUpperBound * 2

. We use this value to validate EDS, but now this check can not be really done. We are unsure what to do about it. In order to keep this check then we need to apply restrictions on type-level and force user to give us the ExtendedHeader

on validation.

- DataAvailabilityHeader

has also a theoretical MAX_EXTENDED_SQUARE_WIDTH

, however DataAvailabilityHeader

exists in ExtendedHeader

and you can not retrieve it independently. Because of that we can pass ExtendedHeader.Header.Version.App

when we do the validation.

We believe AppVersion

should be added in all structs that need versioned consts and can be fetched on independently with an API call.