**About Zero-length Components**

*Empty component is very strange thing with not clear semantics.*

Two questions or points about this:

1. What are the potential negative consequences of leaving support for empty components intact?
2. Why reduce the expressiveness of the namespace unnecessarily?

Negative Consequences

As forwarding can ignore the empty component, I have trouble seeing why the protocol definition should not allow this case.

When you don’t know, grant freedom.[[1]](#footnote-1)

Expressiveness

In languages, the explicit *null* or *None* is quite useful, and often preferable to an application-defined non-value. Why would similar support not be valuable in the NDN namespace?

For example, consider the application that maps directly the contents of a variable to a particular component. In the building automation and management system application, this might be a name like /routable-prefix/<building>/<room>/<system>/etc… For building-wide systems, an E-BAMS application could just encode <room> as null, represented as a zero-length component, rather than implement a special name. /routable-prefix/melnitz//electrical/foo becomes a reasonable name.[[2]](#footnote-2)

As a point of comparison, RFC 3986, which defines URIs, allows empty components.[[3]](#footnote-3)

1. F. P. Brooks, *The Design of Design*, talking about the design principle of generality in computer architecture. “Generality is the ability to use a function for many ends. It expresses the professional humility of the designer, his conviction that users will be inventive beyond his imagination and that needs may change beyond his ability to forecast. The designer should avoid limiting a function by his own notions about its use. When you don’t know, grant freedom.” [↑](#footnote-ref-1)
2. There are some application-side disadvantages to this, especially in URI-encoded names, because errors could be introduced through mistyping an extra slash. But that’s an application-side problem. [↑](#footnote-ref-2)
3. <http://tools.ietf.org/html/rfc3986#section-3.3> [↑](#footnote-ref-3)