

The `WebResourcePermission` and `WebUserDataPermission` objects resulting from the translation of a Servlet deployment descriptor must be constructed with a name produced by qualifying the URL pattern. The rules for qualifying a URL pattern are dependent on the rules for determining if one URL pattern matches another as defined in Section 3.1.3.3, “Servlet URL-Pattern Matching Rules”, and are described as follows:

- If the pattern is a path prefix pattern, it must be qualified by every path-prefix pattern in the deployment descriptor matched by and different from the pattern being qualified. The pattern must also be qualified by every exact pattern appearing in the deployment descriptor that is matched by the pattern being qualified.
- If the pattern is an extension pattern, it must be qualified by every path-prefix pattern appearing in the deployment descriptor and every exact pattern in the deployment descriptor that is matched by the pattern being qualified.
- If the pattern is the default pattern, `"/`, it must be qualified by every other pattern except the default pattern appearing in the deployment descriptor.
- If the pattern is an exact pattern, its qualified form must not contain any qualifying patterns.

URL patterns are qualified by appending to their String representation, a colon separated representation of the list of patterns that qualify the pattern. Duplicates must not be included in the list of qualifying patterns, and any qualifying pattern matched by another qualifying pattern may⁷ be dropped from the list.

```
QualifyingPatternList ::=
    empty string | colon QualifyingPattern |
    QualifyingPatternList colon QualifyingPattern

QualifiedPattern ::= Pattern QualifyingPatternList
```

All colon characters occurring within `Pattern` and `QualifyingPattern` elements must be transformed to escaped encoding⁸ prior to inclusion of the corresponding element in the `QualifiedPattern`.

⁷. Qualifying patterns implied by another qualifying pattern may be dropped because the use of the reduced list to qualify a pattern will yield a `URLPatternSpec` “equal” to the `URLPatternSpec` produced by qualifying the pattern with the full list (for example, `/a/*:/a/b:/a/b/*:/a/b/c/*` is equal to `/a/*:/a/b/*`).

⁸. See Section B.22, “Colons Within path-segment of Request URI for details.