

# Proxy PAC Files

## Matching in proxy.pac

### Problem

The inclusion of a leading period (.) within the “host” parameter’s value seems to be ignored. In the example below, this causes “fakewebex(dot)com and “fake(dot)webex(dot)com” to both match the shExpMatch, which is not ideal.

```
function FindProxyForURL(url, host) {  
    if (shExpMatch(host, "*.webex.com"))  
        return "PROXY ${ZAPP_TUNNEL2_BYPASS}";  
    return "DIRECT";  
}
```

### Solution

“ shExpMatch is a regular expression match function. RegEx considers a dot as matching any character - so [webex.com](#) would match “[webex.com](#)” as well as “webexxcom” and webex1com”.

You should consider

```
dnsDomainIs(Host, "webex.com")
```

as a function, which is more efficient, but also more specific.

If you need more specificity using RegEx then

```
shExpMatch(host, ".*.webex.com")
```

would be a more appropriate regular expression, since the dot is escaped - meaning it should explicitly match the dot. This function is essentially the same as the dnsDomainIs function above, but is still using RegEx which makes it computationally less efficient (not that it particularly matters)

The **shExpMatch** example `shExpMatch(host, ".*.webex.com")` does indeed cause `fakewebex.com` to no longer get matched, and so it meets the goal. The code below that meets all of the criteria (matches on `webex.com` and `anything.webex.com`, but doesn't match on `fakewebex.com`, or `fakewebexcom`).

```
function FindProxyForURL(url, host) {  
  if (dnsDomainIs(host, "webex.com") || dnsDomainIs(host, ".webex.com"))  
    return "PROXY ${ZAPP_TUNNEL2_BYPASS}";  
  return "DIRECT";  
}
```

Source: <https://community.zscaler.com/t/pac-file-syntax-shexpmatch-period-seemingly-ignored/16705/4>

## Links

Link	Description
<a href="http://findproxyforurl.com/pac-functions/">http://findproxyforurl.com/pac-functions/</a>	PAC file functions and more information
<a href="https://thorsen.pm/">https://thorsen.pm/</a>	Online proxy PAC file tester

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