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opencanary / opencanary / logger.py

...



jayjb Add ignore_localhost for portscan

c85d092 · 3 years ago



294 lines (257 loc) · 10.5 KB

```
1  from __future__ import print_function
2  import simplejson as json
3  import logging.config
4  import socket
5  import hpfeeds
6  import sys
7
8  from datetime import datetime
9  from logging.handlers import SocketHandler
10 from twisted.internet import reactor
11 import requests
12
13 from opencanary.iphelper import *
14
15 class Singleton(type):
16     _instances = {}
17     def __call__(cls, *args, **kwargs):
18         if cls not in cls._instances:
19             cls._instances[cls] = super(Singleton, cls).__call__(*args, **kwargs)
20         return cls._instances[cls]
21
22 def getLogger(config):
23     try:
24         d = config.getVal('logger')
25     except Exception as e:
26         print("Error: config does not have 'logger' section", file=sys.stderr)
```

```
27         exit(1)
28
29     classname = d.get('class', None)
30     if classname is None:
31         print("Logger section is missing the class key.", file=sys.stderr)
32         exit(1)
33
```

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Code Blame

Raw



```
22     def getLogger(config):
23         kwargs = d.get('kwargs', None)
24         if kwargs is None:
25             print("Logger section is missing the kwargs key.", file=sys.stderr)
26             exit(1)
27         try:
28             logger = LoggerClass(config, **kwargs)
29         except Exception as e:
30             print("An error occured initialising the logger class", file=sys.stderr)
31             print(e)
32             exit(1)
33
34     return logger
35
```



52 class LoggerBase(object):

```
53     LOG_BASE_BOOT = 1000
54     LOG_BASE_MSG = 1001
55     LOG_BASE_DEBUG = 1002
56     LOG_BASE_ERROR = 1003
57     LOG_BASE_PING = 1004
58     LOG_BASE_CONFIG_SAVE = 1005
59     LOG_BASE_EXAMPLE = 1006
60     LOG_FTP_LOGIN_ATTEMPT = 2000
61     LOG_HTTP_GET = 3000
62     LOG_HTTP_POST_LOGIN_ATTEMPT = 3001
63     LOG_SSH_NEW_CONNECTION = 4000
64     LOG_SSH_REMOTE_VERSION_SENT = 4001
65     LOG_SSH_LOGIN_ATTEMPT = 4002
66     LOG_SMB_FILE_OPEN = 5000
67     LOG_PORT_SYN = 5001
68     LOG_PORT_NMAPOS = 5002
69     LOG_PORT_NMAPNULL = 5003
70     LOG_PORT_NMAPXMAS = 5004
71     LOG_PORT_NMAPFIN = 5005
72     LOG_TELNET_LOGIN_ATTEMPT = 6001
```

```
73         LOG_HTTPPROXY_LOGIN_ATTEMPT = 7001
74         LOG_MYSQL_LOGIN_ATTEMPT = 8001
75         LOG_MSSQL_LOGIN_SQLAUTH = 9001
76         LOG_MSSQL_LOGIN_WINAUTH = 9002
77         LOG_TFTP = 10001
78         LOG_NTP_MONLIST = 11001
79         LOG_VNC = 12001
80         LOG_SNMP_CMD = 13001
81         LOG_RDP = 14001
82         LOG_SIP_REQUEST = 15001
83         LOG_GIT_CLONE_REQUEST = 16001
84         LOG_REDIS_COMMAND = 17001
85         LOG_TCP_BANNER_CONNECTION_MADE = 18001
86         LOG_TCP_BANNER_KEEP_ALIVE_CONNECTION_MADE = 18002
87         LOG_TCP_BANNER_KEEP_ALIVE_SECRET_RECEIVED = 18003
88         LOG_TCP_BANNER_KEEP_ALIVE_DATA_RECEIVED = 18004
89         LOG_TCP_BANNER_DATA_RECEIVED = 18005
90         LOG_USER_0 = 99000
91         LOG_USER_1 = 99001
92         LOG_USER_2 = 99002
93         LOG_USER_3 = 99003
94         LOG_USER_4 = 99004
95         LOG_USER_5 = 99005
96         LOG_USER_6 = 99006
97         LOG_USER_7 = 99007
98         LOG_USER_8 = 99008
99         LOG_USER_9 = 99009
100
101     def sanitize_log(self, logdata):
102         logdata['node_id'] = self.node_id
103         logdata['local_time'] = datetime.utcnow().strftime("%Y-%m-%d %H:%M:%S.%f")
104         logdata['utc_time'] = datetime.utcnow().strftime("%Y-%m-%d %H:%M:%S.%f")
105         logdata['local_time_adjusted'] = datetime.now().strftime("%Y-%m-%d %H:%M:%S.%f")
106         if 'src_host' not in logdata:
107             logdata['src_host'] = ''
108         if 'src_port' not in logdata:
109             logdata['src_port'] = -1
110         if 'dst_host' not in logdata:
111             logdata['dst_host'] = ''
112         if 'dst_port' not in logdata:
113             logdata['dst_port'] = -1
114         if 'logtype' not in logdata:
115             logdata['logtype'] = self.LOG_BASE_MSG
116         if 'logdata' not in logdata:
117             logdata['logdata'] = {}
118         return logdata
```

```
118         return logger
119
120     class PyLogger(LoggerBase):
121         """
122         Generic python logging
123         """
124         __metaclass__ = Singleton
125
126     def __init__(self, config, handlers, formatters={}):
127         self.node_id = config.getVal('device.node_id')
128
129         # Build config dict to initialise
130         # Ensure all handlers don't drop logs based on severity level
131         for h in handlers:
132             handlers[h]["level"] = "NOTSET"
133
134         logconfig = {
135             "version": 1,
136             "formatters" : formatters,
137             "handlers": handlers,
138             # initialise all defined logger handlers
139             "loggers": {
140                 self.node_id : {
141                     "handlers": handlers.keys()
142                 }
143             }
144         }
145
146         try:
147             logging.config.dictConfig(logconfig)
148         except Exception as e:
149             print("Invalid logging config", file=sys.stderr)
150             print(type(e))
151             print(e)
152             exit(1)
153
154         # Check if ignorelist is populated
155         self.ignorelist = config.getVal('ip.ignorelist', default='')
156
157         self.logger = logging.getLogger(self.node_id)
158
159     def error(self, data):
160         data['local_time'] = datetime.utcnow().strftime("%Y-%m-%d %H:%M:%S.%f")
161         msg = '[ERR] %r' % json.dumps(data, sort_keys=True)
162         print(msg, file=sys.stderr)
163         self.logger.warn(msg)
164
```

```
164
165  ✓      def log(self, logdata, retry=True):
166          logdata = self.sanitizeLog(logdata)
167          # Log only if not in ignorelist
168          notify = True
169          if 'src_host' in logdata:
```

```
221         self.host=str(host)
222         self.port=int(port)
223         self.ident=str(ident)
224         self.secret=str(secret)
225         self.channels=map(str,channels)
226         hpc=hpfeeds.new(self.host, self.port, self.ident, self.secret)
227         hpc.subscribe(channels)
228         self.hpc=hpc
229
230     def emit(self, record):
231         try:
232             msg = self.format(record)
233             self.hpc.publish(self.channels,msg)
234         except:
235             print("Error on publishing to server")
236
237     class SlackHandler(logging.Handler):
238         def __init__(self,webhook_url):
239             logging.Handler.__init__(self)
240             self.webhook_url=webhook_url
241
242     def generate_msg(self, alert):
243         msg = {}
244         msg['pretext'] = "OpenCanary Alert"
245         data=json.loads(alert.msg)
246         msg['fields']=[]
247         for k,v in data.items():
248             msg['fields'].append({'title':k, 'value':json.dumps(v) if type(v) is dict else v})
249         return {'attachments':[msg]}
250
251     def emit(self, record):
252         data = self.generate_msg(record)
253         response = requests.post(
254             self.webhook_url, json=data
255         )
```

```
256         if response.status_code != 200:
257             print("Error %s sending Slack message, the response was:\n%s" % (response.status_code,
258
259     class TeamsHandler(logging.Handler):
260         def __init__(self,webhook_url):
261             logging.Handler.__init__(self)
262             self.webhook_url=webhook_url
263
264     def message(self, data):
265         message = {
266             "@type": "MessageCard",
267             "@context": "http://schema.org/extensions",
268             "themeColor": "49c176",
269             "summary": "OpenCanary Notification",
270             "title": "OpenCanary Alert",
271             "sections": [{
272                 "facts": self.facts(data)
273             }]
274         }
275         return message
276
277     def facts(self, data, prefix=None):
278         facts = []
279         for k, v in data.items():
280             key = str(k).lower() if prefix is None else prefix + '__' + str(k).lower()
281             if type(v) is not dict:
282                 facts.append({"name": key, "value": str(v)})
283             else:
284                 nested = self.facts(v, key)
285                 facts.extend(nested)
286         return facts
287
288     def emit(self, record):
289         data = json.loads(record.msg)
290         payload = self.message(data)
291         headers = {'Content-Type': 'application/json'}
292         response = requests.post(self.webhook_url, headers=headers, json=payload)
293         if response.status_code != 200:
294             print("Error %s sending Teams message, the response was:\n%s" % (response.status_code,
```