ØªØ³ÙŠÙ† Ù†Ù�Ù‚ ØªÙ‚Ø³ÙŠÙ… AnyConnect Ù„ Microsoft Office 365/Webex

Ø§Ù„Ù…ØØªÙˆÙŠØ§Øª

Ø§Ù„Ù…Ù‚Ø¯Ù…Ø©

ÙŠØµÙ� Ù‡Ø°Ø§ Ø§Ù„Ù…Ø³ØªÙ†Ø¯ ÙƒÙŠÙ�ÙŠØ© ØªÙƒÙˆÙŠÙ† ASA Ø¨Ø¥Ø¹Ø¯Ø§Ø¯Ø§Øª Ù„Ø§Ø³ØªØ¨Ø¹Ø§Ø¯ ØØ±ÙƒØ© Ù…Ø±ÙˆØ± Ø§Ù„Ø¨ÙŠØ§Ù†Ø§Øª Ø§Ù„Ù…ÙˆØ¬Ù‡Ø© Ø¥Ù„Ù‰ Microsoft Office 365 (Microsoft Teams) Ùˆ Cisco Webex Ù…Ù† Ø§ØªØµØ§Ù„ VPN.

Ù…Ø¹Ù„ÙˆÙ…Ø§Øª Ø£Ø³Ø§Ø³ÙŠØ©

ÙƒÙ…Ø§ ÙŠØªØ¶Ù…Ù† ØªÙƒÙˆÙŠÙ† Ø¬Ù‡Ø§Ø² Ø§Ù„Ø£Ù…Ø§Ù† Ø§Ù„Ù‚Ø§Ø¨Ù„ Ù„Ù„ØªÙƒÙŠÙ� (ASA) Ø§Ø³ØªØ¨Ø¹Ø§Ø¯ Ø§Øª Ø¹Ù†ÙˆØ§Ù† Ø§Ù„Ø´Ø¨ÙƒØ© ÙˆØ§Ø³ØªØ¨Ù†Ø§Ø¡Ø§Øª Ø§Ù„Ù…Ø³ØªÙ†Ø¯Ø© Ø¥Ù„Ù‰ Ø§Ø³Ù… Ø§Ù„Ù…Ø¬Ø§Ù„ Ø§Ù„Ù…Ø¤Ù‡Ù„ Ø¨Ø§Ù„ÙƒØ§Ù…Ù„ Ø§Ù„Ø¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠ (FQDN) Ù„Ø¹Ù…Ù„Ø§Ø¡ AnyConnect Ø§Ù„Ø°ÙŠÙ† ÙŠØ¯Ø¹Ù…ÙˆÙ†Ù‡Ø§.

ØªÙ‚Ø³ÙŠÙ… Ø§Ù„Ø§ØªØµØ§Ù„ Ø§Ù„Ù†Ù�Ù‚ÙŠ

ÙŠØ¬Ø¨ ØªÙƒÙˆÙŠÙ† ASA Ù„Ø§Ø³ØªØ¨Ø¹Ø§Ø¯ Ø§Ù„Ù‚Ø§Ø¦Ù…Ø© Ø§Ù„Ù…ØØ¯Ø© Ù„Ù„Ø¹Ù†Ø§ÙˆÙŠÙ† IPv4 Ùˆ IPv6 Ø§Ù„ØªÙŠ Ø³ÙŠØªÙ… Ø¥Ø³ØªØ¨Ø¹Ø§Ø¯Ù‡Ø§ Ù…Ù† Ø§Ù„Ù†Ù�Ù‚. Ù„Ø³ÙˆØ¡ Ø§Ù„ØØ¸Œ Ù„Ø§Ø¦Ù…Ø© Ø§Ù„Ø¹Ù†Ø§ÙˆÙŠÙ† Ø¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠØ© ÙˆÙ…Ù† Ø§Ù„Ù…ØØªÙ…Ù„ Ø£Ù† ØªØªØºÙŠØ±. Ø±ØºØ¨Ø¹ Ù‚Ø³Ù… Ø§Ù„ØªÙƒÙˆÙŠÙ† Ù„Ø¨Ø±Ù†Ø§Ù…Ø¬ Ù†ØµÙŠ Ù„Ù„Ø¨ÙŠØ«ÙˆÙ†Œ ÙˆØ§Ø±ØªØ¨Ø· Ø¨ØÙ„Ù‚Ø© Ù„Ø±Ø§Ø¡Ø©-eval-Ø·Ø¨Ø§Ø¹Ø© (REPL) Ù„Ù„Ø¨ÙŠØ«ÙˆÙ† Ø¹Ø¨Ø± Ø§Ù„Ø¥Ù†ØªØ±Ù†Øª ÙŠÙ…ÙƒÙ† Ø¥Ø³ØªØ®Ø¯Ø§Ù…Ù‡ Ù„Ø§Ø³ØªØ±Ø¯Ø§Ø¯ Ø§Ù„Ù‚Ø§Ø¦Ù…Ø© ÙˆØ¥Ù†Ø´Ø§Ø¡ Ù†Ù…ÙˆØ°Ø¬ Ù„Ø§ØªÙƒÙˆÙŠÙ†.

Ø§Ù„Ø§ØªØµØ§Ù„ Ø§Ù„Ù†Ù�Ù‚ÙŠ Ø¨ØªÙ‚Ø³ÙŠÙ… Ø¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠ

Ø¨Ø§Ù„Ø¥Ø¶Ø§Ù�Ø© Ø¥Ù„Ù‰ Ù‚Ø§Ø¦Ù…Ø© Ø¹Ù†Ø§ÙˆÙŠÙ† Ø§Ù„Ø´Ø¨ÙƒØ© Ø§Ù„Ù…ØªÙ‚Ø³Ù…Ø© Ø§Ù„Ù„Ø³Ø§Ø¨Ù‚Ø©Œ ØªÙ…Øª Ø¥Ø¶Ø§Ù�Ø© Ø§ØªØµØ§Ù„

Ù†Ù�Ù‚ÙŠ Ø§Ù†Ù‚Ø³Ø§Ù… Ø¯¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠ Ù�ÙŠ AnyConnect 4.6 Ù„Ø£Ù†Ø¸Ù…Ø©
Ø§Ù„ØªØ¬ØºÙŠÙ„ Windows Ùˆ Mac. ÙŠØ³ØªØ®Ø¯Ù… Ø§Ù„Ø§ØªØµØ§Ù„ Ø§Ù„Ù†Ù�Ù‚ÙŠ
Ù„Ù„Ø§Ù†Ù‚Ø³Ø§Ù… Ø§Ù„Ø¯¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠ FQDN Ù„Ø¹ØªØ¯¯ÙŠØ¯¯ Ù…Ø§ Ø¥Ø°Ø§
ÙƒØ§Ù† Ø§Ù„Ø§ØªØµØ§Ù„ ÙŠÙ…ÙƒÙ† Ø£Ù† ÙŠÙ…Ø± Ø¹Ø¨Ø± Ø§Ù„Ù†Ù�Ù‚ Ø£Ù… Ù„Ø§.
ÙƒÙ…Ø§ ÙŠØ¢Ø¯¯ Ø¨Ø±Ù†Ø§Ù…Ø¬ Python Ø§Ù„Ù†ØµÙŠ Ø£ÙŠØ¶Ø§ FQDNs Ù„Ù„Ù‚Ø·
Ø§Ù„Ù†Ù‡Ø§ÙŠØ© Ù„Ø¥Ø¶Ø§Ù�Ø§ØªÙ‡Ø§ Ø¥Ù„Ù‰ Ø³Ù…Ø§Øª AnyConnect
Ø§Ù„Ù…Ø®ØµØµØ©.

Ø§Ù„ØªÙƒÙˆÙŠÙ†

Ù‚Ù… Ø¨Ø§Ø´ØªØºÙŠÙ„ Ù‡Ø°Ø§ Ø§Ù„Ø¨Ø±Ù†Ø§Ù…Ø¬ Ø§Ù„Ù†ØµÙŠ Ù�ÙŠ REPL Python 3 Ø£Ùˆ
ØªØ´ØºÙŠÙ„Ù‡ Ù�ÙŠ Ø¨ÙŠØ¦Ø© REPL Ø¹Ø§Ù…Ø© Ù…Ø«Ù„ [AnyConnectO365DynamicExclude](#)

```python
import urllib.request
import uuid
import json
import re


def print_acl_lines(acl_name, ips, section_comment):
    slash_to_mask = (
        "0.0.0.0",
        "192.0.2.1",
        "192.0.2.1",
        "10.224.0.0",
        "10.240.0.0",
        "10.248.0.0",
        "10.252.0.0",
        "10.254.0.0",
        "10.255.0.0",
        "10.255.128.0",
        "10.255.192.0",
        "10.255.224.0",
        "10.255.240.0",
        "10.255.248.0",
        "10.255.252.0",
        "10.255.254.0",
        "10.255.255.0",
        "10.255.255.128",
        "10.255.255.192",
        "10.255.255.224",
        "10.255.255.240",
        "10.255.255.248",
        "10.255.255.252",
        "10.255.255.254",
        "10.255.255.255",
        "10.255.255.255",
        "10.255.255.255",
        "10.255.255.255",
        "10.255.255.240",
        "10.255.255.248",
        "10.255.255.252",
        "10.255.255.254",
        "10.255.255.255",
    )
    print(
```

```python
                "access-list {acl_name} remark {comment}".format(
                    acl_name=acl_name, comment=section_comment
                )
        )
    for ip in sorted(ips):
        if ":" in ip:
            # IPv6 address
            print(
                "access-list {acl_name} extended permit ip {ip} any6".format(
                    acl_name=acl_name, ip=ip
                )
            )
        else:
            # IPv4 address.  Convert to a mask
            addr, slash = ip.split("/")
            slash_mask = slash_to_mask[int(slash)]
            print(
                "access-list {acl_name} extended permit ip {addr} {mask} any4".format(
                    acl_name=acl_name, addr=addr, mask=slash_mask
                )
            )


# Fetch the current endpoints for O365
http_res = urllib.request.urlopen(
    url="https://endpoints.office.com/endpoints/worldwide?clientrequestid={}".format(
        uuid.uuid4()
    )
)
res = json.loads(http_res.read())
o365_ips = set()
o365_fqdns = set()
for service in res:
    if service["category"] == "Optimize":
        for ip in service.get("ips", []):
            o365_ips.add(ip)
        for fqdn in service.get("urls", []):
            o365_fqdns.add(fqdn)


# Generate an acl for split excluding For instance
print("##### Step 1: Create an access-list to include the split-exclude networks\n")
acl_name = "ExcludeSass"
# O365 networks
print_acl_lines(
    acl_name=acl_name,
    ips=o365_ips,
    section_comment="v4 and v6 networks for Microsoft Office 365",
)
# Microsoft Teams
# https://docs.microsoft.com/en-us/office365/enterprise/office-365-vpn-implement-split-tunnel#configurin
print_acl_lines(
  acl_name=acl_name,
  ips=["10.107.60.1/32"],
  section_comment="v4 address for Microsoft Teams"
)
# Cisco Webex - Per https://help.webex.com/en-us/WBX000028782/Network-Requirements-for-Webex-Teams-Servi
webex_ips = [
    "10.68.96.1/19",
    "10.114.160.1/20",
    "10.163.32.1/19",
    "192.0.2.1/18",
    "192.0.2.2/19",
```

```
        "198.51.100.1/20",
        "203.0.113.1/19",
        "203.0.113.254/19",
        "203.0.113.2/19",
        "172.29.192.1/19",
        "203.0.113.1/20",
        "10.26.176.1/20",
        "10.109.192.1/18",
        "10.26.160.1/19",
    ]
    print_acl_lines(
        acl_name=acl_name,
        ips=webex_ips,
        section_comment="IPv4 and IPv6 destinations for Cisco Webex",
    )


    # Edited. April 1st 2020
    # Per advice from Microsoft they do NOT advise using dynamic split tunneling for their properties relate
    #
    print(
        "\n\n##### Step 2: Create an Anyconnect custom attribute for dynamic split excludes\n"
    )
    print("SKIP.  Per Microsoft as of April 2020 they advise not to dynamically split fqdn related to Office
    #print(
    #     """
    #webvpn
    #  anyconnect-custom-attr dynamic-split-exclude-domains description dynamic-split-exclude-domains
    #
    #anyconnect-custom-data dynamic-split-exclude-domains saas {}
    #""".format(
    #          ",".join([re.sub(r"^\*\.", "", f) for f in o365_fqdns])
    #     )
    #)
    #
    print("\n##### Step 3: Configure the split exclude in the group-policy\n")
    print(
        """
group-policy GP1 attributes
 split-tunnel-policy excludespecified
 ipv6-split-tunnel-policy excludespecified
 split-tunnel-network-list value {acl_name}
""".format(
            acl_name=acl_name
        )
    )
```

Ù…Ù„Ø§Ø¸Ø©: ØªÙˆØµÙŠ Microsoft Ø¨Ø§Ø³ØªØ¨Ø¹Ø§Ø¯ ØØ±ÙƒØ© Ù…Ø±ÙˆØ± Ø§Ù„Ø¨ÙŠØ§Ù†Ø§Øª Ø§Ù„Ù…ÙˆØ¬Ù‡Ø© Ø¥Ù„Ù‰ Ø®Ø¯Ù…Ø§Øª Office 365 Ø§Ù„Ø±Ø¦ÙŠØ³ÙŠØ© Ù…Ù† Ù†Ø·Ø§Ù‚ Ø§ØªØµØ§Ù„ VPN Ø¹Ù† Ø·Ø±ÙŠÙ‚ ØªÙƒÙˆÙŠÙ† Ø§ØªØµØ§Ù„ Ù†Ù�Ù‚ÙŠ Ù…Ù†Ù�ØµÙ„ Ø¨Ø§Ø³ØªØ®Ø¯Ø§Ù… Ù†Ø·Ø§Ù‚Ø§Øª Ø¹Ù†Ø§ÙˆÙŠÙ† IPv4 Ùˆ IPv6 Ø§Ù„Ù…ØªÙˆÙ�Ø±Ø©. Ù„Ù„ØµÙˆÙ„ Ø¹Ù„Ù‰ Ø£Ù�Ø¶Ù„ Ø£Ø¯Ø§Ø¡ ÙˆØ£ÙfØ«Ø± Ø¥Ø³ØªØ®Ø¯Ø§Ù… Ù„Ø³Ø¹Ø© Ø§Ù„Ø´Ø¨ÙfØ© Ø§Ù„Ø®Ø§ØµØ© Ø§Ù„Ø¸Ø§Ù‡Ø±ÙŠØ© (VPN)ØŒ ÙŠÙ…ÙfÙ† ØªÙˆØ¬ÙŠÙ‡ ØØ±ÙfØ© Ù…Ø±ÙˆØ± Ø§Ù„Ø¨ÙŠØ§Ù†Ø§Øª Ø¥Ù„Ù‰ Ù†Ø·Ø§Ù‚Ø§Øª Ø¹Ù†Ø§ÙˆÙŠÙ† IP Ø§Ù„Ù…Ø®ØµØµØ© Ù‡Ø°Ù‡ Ø§Ù„Ù…Ø±ØªØ¨Ø·Ø© Ø¨ Office 365 Exchange Online Ùˆ SharePoint Online Ùˆ Microsoft Teams (Ø§Ù…Ø´Ø§Ø± Ø¥Ù„ÙŠÙ‡Ø§ Ø¨Ø§Ø³Ù…

Ù�Ø¦Ø© Ø§Ù„ØªØ³ÙŠÙ† Ù�ÙŠ Ù^Ø«Ø§Ø¦Ù, Microsoft) Ù…Ø¨Ø§Ø´Ø±Ø©ØŒ Ø®Ø§Ø±Ø¬ Ù†Ù�Ù, Ø§Ù„Ø´Ø¨ÙƒØ© Ø§Ù„Ø®Ø§ØµØ© Ø§Ù„Ø¸Ø§Ù‡Ø±ÙŠØ© (VPN). Ø§Ø±Ø¬Ø¹ Ø¥Ù„Ù‰ [ØªØ³ÙŠÙ† Ø§Ø±ØªØ¨Ø§Ù„ Office 365 Ù„Ù„Ù…Ø³ØªØ®Ø¯Ù…ÙŠÙ† Ø¹Ù† Ø¨Ø¹Ø¯ Ø¨Ø§Ø³ØªØ®Ø¯Ø§Ù… Ø§Ù„Ø§Ø±ØªØ¨Ø§Ù„ Ø§Ù„Ù‡Ù�Ù,ÙŠ Ø¨ØªÙ,Ø³ÙŠÙ… VPN](#) Ù„Ù„ØØµÙ^Ù, Ø¹Ù„Ù‰ Ù…Ø¹Ù„Ù^Ù…Ø§Øª Ø£ÙƒØ«Ø± ØªÙ�ØµÙŠÙ„Ø§ ÙˆÙ„ Ù‡Ø°Ù‡ Ø§Ù„ØªÙˆØµÙŠØ©.

Ù…Ù„Ø§ØØ¸Ø©: Ù�ÙŠ Ø£ÙˆØ§Ø¦Ù„ Ø£Ø¨Ø±ÙŠÙ„ 2020ØŒ ÙƒØ§Ù†Øª Microsoft Teams ØªØ¹ØªÙ…Ø¯ Ø¹Ù„Ù‰ Ø¥Ø³ØªØ¨Ø¹Ø§Ø¯ Ù†Ø·Ø§Ù, IP 10.107.60.1/32 Ù…Ù† Ø§Ù„Ù†Ù�Ù,. Ø±Ø§Ø¬Ø¹ [ØªÙƒÙ^ÙŠÙ† ØØ±ÙƒØ© Ù…Ø±ÙˆØ± Ù^Ø³Ø§Ø¦Ø· Teams Ù^ØªØ£Ù…ÙŠÙ†Ù‡Ø§](#) Ù„Ù„ØØµÙ^Ù, Ø¹Ù„Ù‰ Ù…Ø²ÙŠØ¯ Ù…Ù† Ø§Ù„Ù…Ø¹Ù„Ù^Ù…Ø§Øª.

Ø§Ù„ØªØ§ÙÙ„Ù,

Ø¨Ù…Ø¬Ø±Ø¯ Ø§Ø®ØªØ§Ø¨Ù„ Ù…Ø³ØªØ®Ø¯Ù…ØŒ Ø³ØªØ±Ù‰ Ø§Ù„Ù…Ø³Ø§Ø±Ø§Øª Ø¨ŸÙŠØ± Ø§Ù„Ø¢Ù…Ù†Ø© Ø§Ù„Ù…Ø´Ø±ÙˆÙ†Ø© Ø¨Ø§Ù„Ø¹Ù†Ø§ÙˆÙŠÙ† Ø§Ù„Ù…Ù„Ø·Ù…Ø© Ù�ÙŠ Ù,Ø§Ø¦Ù…Ø© Ø§Ù„ØªØ�ÙƒÙ… Ù�ÙŠ Ø§Ù„Ù^ØµÙ^Ù, (ACL) Ø¨Ø§Ù„Ø¥Ø¶Ø§Ù�Ø© Ø¥Ù„Ù‰ Ù,Ø§Ø¦Ù…Ø© Ø¥Ø³ØªØ«Ù†Ø§Ø¡ Ø§Ù„ÙÙ�Ù, Ø§Ù„Ø¯ÙŠÙ†Ø§Ù…ÙŠÙƒÙŠ.

Statistics

AnyConnect VPN System Scan Roaming Security

Virtual Private Network (VPN)

Statistics | **Route Details** | Firewall | Message History

▼ Non-Secured Routes (IPv4)
    13.107.6.152/31
    13.107.18.10/31
    13.107.64.0/18
    13.107.128.0/22
    13.107.136.0/22
    23.103.160.0/20
    40.96.0.0/13
    40.104.0.0/15
    40.108.128.0/17
    52.96.0.0/14
    52.104.0.0/14
    52.112.0.0/14
    104.146.128.0/17
    131.253.33.215/32
    132.245.0.0/16
    150.171.32.0/22
    150.171.40.0/22
    191.234.140.0/22
    204.79.197.215/32
▼ Non-Secured Routes (IPv6)
    2603:1006:0:0:0:0:0:0/40
    2603:1016:0:0:0:0:0:0/36
    2603:1026:0:0:0:0:0:0/36

Statistics

AnyConnect **VPN** System Scan Roaming Security

Virtual Private Network (VPN)

Statistics | Route Details | Firewall | Message History

▼ Connection Information	
State:	Connected
Tunnel Mode (IPv4):	Split Exclude
Tunnel Mode (IPv6):	Split Exclude
Dynamic Tunnel Exclusion:	**outlook.office.com sharepoint.com outloo...**
Dynamic Tunnel Inclusion:	None
Duration:	00:00:42
Session Disconnect:	None
Management Connection State:	Disconnected (user tunnel active)
▼ Address Information	
Client (IPv4):	10.99.99.10
Client (IPv6):	2001:AAAA:0:0:0:0:0:1
Server:	172.18.229.149
▼ Bytes	
Sent:	120926
Received:	47394
▼ Frames	

Reset   Export Stats...

حول هذه الترجمة

ترجمت Cisco هذا المستند باستخدام مجموعة من التقنيات الآلية
والبشرية لتقديم دعم للمستخدمين في جميع أنحاء العالم
بلغتهم الخاصة. يُرجى ملاحظة أن أفضل ترجمة آلية لن تكون دقيقة كما
هو الحال مع الترجمة الاحترافية التي يقدمها مترجم محترف. تخلي Cisco
Systems مسؤوليتها عن دقة هذه الترجمات وتوصي بالرجوع دائمًا إلى
المستند الإنجليزي الأصلي (الرابط متوفر).