

# æœ€ä½³âœ–Microsoft Office

## 365/Webexçš,,AnyConnectæ<†â^†éššé“

ç>®éœ,,

[ç°;ä»<](#)

[èfœ™-è³†è·š](#)

[â^†â%²éœšé“](#)

[â<•æ...<â^†â%²éœšé“](#)

[çµæ...<](#)

[é©—è%o](#)

ç°;ä»<

æœ–æ–†æ”â»<ç¹â!,ä½•ä½ç””è·â®šé... ç½®ASAï¼œä»¥â¼žVPNéœç·šä,æž’é™ç™¼â¼œMicrosoft Office 365(Microsoft Teams)âœCisco Webexçš,,æµé†æš,

èfœ™-è³†è·š

é... ç½®è†æé©æ†%oâ®%oâ... èœç½®(ASA)é,,ç,°æ”æèè†æé©æ†%oâ®%oâ... èœç½®çš,,Any

â^†â%²éœšé“

éœœèâ†ASAé... ç½®ç,°â¼žéššé“ä,æž’é™æœæ†â®šçš,,IPv4âœIPv6ç>®æ”™æ,...â-®äœ,é°æ†¼ç

â<•æ...<â^†â%²éœšé“

é™æ°†â^†â%²æž’é™ç”²è·-âœ°âœæ,...â-®ä¹â¼œæ”WindowsâœMacç%o^AnyConnect 4.6.ä,é,,æ-âçžä°†â<•æ...<â^†â%²éššé“äœ,â<•æ...<â^†â%²éššé“â½ç””FQDNä¼†çç°â®šéœç·šæ~â

çµæ...<

âœPython 3

REPLä,éèjœææœæ†ä»çç¼¼œæ^âœ”â...-â...±REPLç°âçf(â|,AnyConnectO365DynamicExclude)ä,é

```
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",
"10.255.255.255",
"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(
    "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 0365
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#configuring-split-tunneling
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-Service
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 related to Office 365
#
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 365")
#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
)
)

```

---

Microsoft® IPsec VPN Client for Windows  
365 Exchange Online & SharePoint Online  
Microsoft Teams  
[365 Exchange Online & SharePoint Online](#)  
Microsoft Teams

---

Microsoft  
Teams 10.107.6

---

©

ACLä, ä³¼çš, äœ°ä €ä¡«ä.....çš,, éžâ®%ä... èç"±ä»



## 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	

## 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:0:0:0:0:1
Server:	172.18.229.149
▼ Bytes	
Sent:	120926
Received:	47394
▼ Frames	

Reset

Export Stats...

## 關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。