

UCCX Integration with Office 365 for Agent Email

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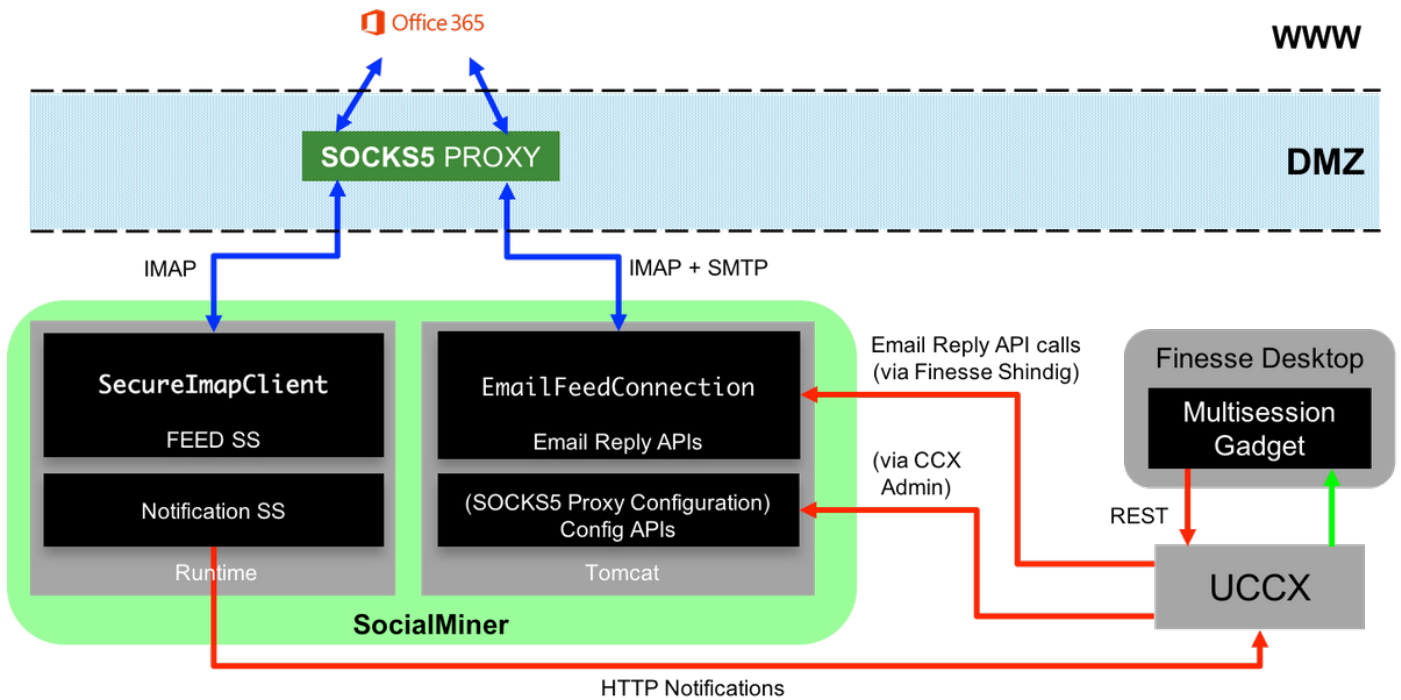
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Introduction

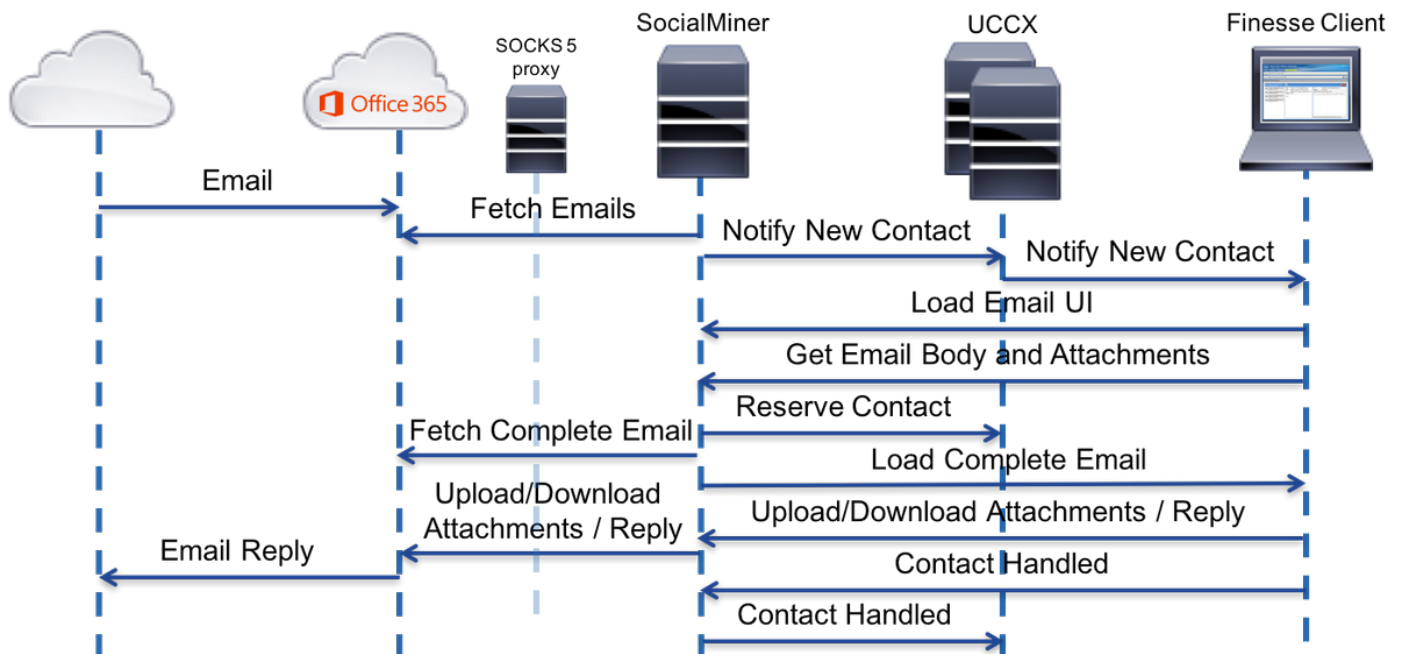
This document describes how Unified Contact Center Express (UCCX) solution, starting from version 11.5 along with SocialMiner (SM) supports Office 365 as an email server for agent email functionality. This is the first cloud email provider supported for the agent email functionality.

Design and Topology



The UCCX server now provides cloud email support starting from 11.5. This functionality is achieved by an integration to the Office365 email service via a SOCKS 5 proxy. It is important to note that having a proxy server is not mandatory, but most deployments have external network access blocked and therefore connection has to be established via a proxy server.

Apart from the one additional step of setting up the proxy, there is no other change for the customer. The messaging flow is shown in the image:



Configuration

1. Having a proxy server to connect to Office 365 is not mandatory. If your network connectivity is setup in such a way that the SM server can set up a TCP connection on the Internet Message Access Protocol (IMAP) and Simple Mail Transfer Protocol (SMTP) ports of office365.com, a proxy server is not needed.

2. If you wish to use a proxy between the SM and Office 365, SOCKS 5 is the only supported protocol. SOCKS4, SSH tunnels, and other protocols are not supported.
3. Cisco does not recommend which proxy server needs to be used.

Setting up the Proxy

As a part of this technote, an open source proxy server for Linux called Dante is used. Please note that this does not mean that this is the Cisco recommended proxy server; it is one of the servers used in the lab for creating this document. You are free to use any server of choice as long as the SOCKS5 protocol is used.

Note: The server that is being configured as a proxy should have access to office365.com, without the need to have further proxies.

On a Linux server with root access:

Step 1. Install the Dante server.

```
# update package repos to get latest version info
sudo apt-get update

# install the dante-server
sudo apt-get install dante-server
```

Step 2. Configure the server by adding the following info into the **/etc/danted.conf** file.

```
#####
#
# /etc/dante.d - Configuration for dante as a SOCKSv5 server with user authentication
#
#####

# Log to a file
logoutput: /var/log/socks.log

# Where do we want to host the dante proxy server? (IP/interface and port)
internal: eth0 port = 1080

# using which IP/interface should dante try to forward incoming proxy requests?
external: eth0

# Which methods of authentication do we support?
# OPTIONS:
#   username:    Uses a system user account
#   none:        No authentication
#   rfc931:      Uses the IDENT protocol
socksmethod: username

clientmethod: none

# system user accounts used for executing proxy operations
user.privileged: root
user.notprivileged: socksuser
user.libwrap: socksuser

# Allow proxy access from *ANY* host and *ANY* port to *ANY* host outside
# Log on connect, disconnect and errors
client pass {
    from: 0.0.0.0/0 port 1-65535 to: 0.0.0.0/0
    socksmethod: username
    log: connect disconnect error
}

# Establish proxy connection to *ANY* host outside
# Log on connect, disconnect and errors
pass {
    from: 0.0.0.0/0 to: 0.0.0.0/0
    protocol: tcp udp
    log: connect disconnect error
}
```

Step 3. Start the server, ready to use.

```
# stop dante daemon
sudo service danted stop

#start dante daemon
sudo service danted start

# validate dante server is indeed running
netstat -anlp | grep 1080
tcp        0      0 10.232.38.104:1080  0.0.0.0:*        LISTEN      -
```

More information about the Dante server and downloading the install packages can be found here: <https://www.inet.no/dante/index.html>

Office365 Account

Login Portal:<https://login.microsoftonline.com>

To buy a paid Office365 account, go to <https://products.office.com/en/exchange/compare-microsoft-exchange-online-plans>with your credit card. (The basic pricing option costs \$4 before tax per email account per month.)

Note: When signing up for the Office365 service, ensure that the service allocated to you is from the same country where the SocialMiner server is. This is very important, or you will have issues with connectivity.

Configure the UCCX/SM

This section provides the high-level tasks and related information for configuring Unified CCX integration with office 365 for Agent Email.

Configuration Tasks	Reference	Detailed steps
	See Cisco Unified Communications Manager Install and Upgrade Guides	
1. Configure the Unified Communications Manager server.	Cisco Unified Communications Manager Install and Upgrade Guides	
2. Configure the Unified Communications Manager for the Unified CCX.	See Cisco Unified Communications Manager Configuration Guides	
3. Configure Unified CCX.	See Cisco Unified Contact Center Express Install and Upgrade Guides	

Step 1. From the Unified CCX Administration menu bar, navigate to **Subsystems > Chat and Email > SocialMiner Configuration**.

The SocialMiner Configuration web page appears.

Step 2. Complete or modify the following fields for SocialMiner:

IP Address / Host Name: IP address or fully qualified domain name of SocialMiner server. For example, 192.168.1.5 or host.example.com.

Username/Password of the SocialMiner administrator.

Note: Unified CCX and SocialMiner servers must have DNS entries. SocialMiner must be accessible to Unified CCX by hostname. If the entries are not valid, an error is displayed.

Step 3. Click **Save** to save the changes.

If you see an error message, click **Save** to re-create feeds, campaigns and notifications for chat and email in SocialMiner.

4. Configure SocialMiner.

See the [SocialMiner Configuration chapter](#) of the [Cisco Unified CCX Administration Guide, Release 11.5](#)

System Applications Subsystems Wizards Tools Help

SocialMiner Configuration

Save Cancel

Status

Ready

Configure SocialMiner

IP Address / Host Name *:

User Name*:

Password*:

*- indicates required item

*-HostName / IPAddress will be resolved to fully qualified domain name

Step 1. From the Unified CCX Administration menu bar, navigate to **Subsystems > Chat and Email > Mail Server Configuration**. The Mail Server Configuration web page opens.



Step 2. Complete the fields for the Office 365 mail server, as shown in the image:

5. Configure Unified CCX Mail Server.


See the [Mail Server Configuration chapter](#) of the [Cisco Unified CCX Administration Guide, Release 11.5](#)

System Applications Subsystems Wizards Tools Help

Mail Server Configuration


 Update  Cancel

Status

 Ready

Proxy Settings

SOCKS: ☐ Enable ☒ Disable

 To enable SOCKS, configure SOCKS proxy in System Parameters

Incoming (Secure IMAP)

Host Name*:



Port Number*:


Outgoing (Secure SMTP)


Host Name*:

Port Number*:

Description: Maximum 100 characters

 Update 

 *- Indicates required item

 Host Names must be in Fully Qualified Domain Name (FQDN) format

If the proxy is required for Office 365 access:

- System parameter Configuration

Add hostname, port, username and password fields in the proxy parameters section of System Parameters page. (Username / Password is optional)

 **Cisco Unified CCX Administration**
For Cisco Unified Communications Solutions

System Applications Subsystems Wizards Tools Help

Mail Server Configuration

 Update 

Status

 Ready

Proxy Settings

SOCKS: ☒ Enable ☐ Disable

6. Configure
Socks Proxy
Server

7. Contact
Service Queues
Configuration

See the [Contact Service Queues Configuration](#) chapter of the [Cisco](#)

[Unified CCX Administration Guide, Release 11.5](#)

CSQ Name*:	<input type="text"/>
Resource Selection Criteria*:	Longest Available ▾
CSQ Type*:	Email ▾
Mail Server:	
Email username*:	<input type="text"/>
Email password*:	<input type="password"/>
Folder Name*:	Inbox
Poll Interval (Seconds)*:	600
Snapshot Age (Minutes)*:	120

Next

Cancel



*- indicates required item

Predefined Response Configuration

Save Cancel

Status

Ready

Title*	<input type="text"/>
	Maximum 100 characters
Type*	Email ▾
Response Description*	<div><div>B I U </div><div></div></div>
	Characters (including HTML): 0
Tags*	<div>Maximum 1,500 characters</div> <div><input checked="" type="radio"/> Global for all CSQs <input type="radio"/> Customize(Maximum 10 CSQs)</div>

Save Cancel

8. Predefined Responses Configuration



See the [Predefined Responses](#) chapter of the [Cisco Unified CCX Administration Guide, Release 11.5](#)

9. Channel Parameters Configuration


See the [Channel Parameters](#)

chapter of
the [Cisco
Unified CCX
Administration
Guide, Release
11.5](#)


Channel Parameters

 Save  Cancel

Status

 Ready

Chat

No Answer Timeout (Seconds)*: 

Join Timeout (Minutes)*:

Inactivity Timeout (Minutes)*:

Offer Chat Contact When On Voice Call*: ☒ Yes ☐ No

Offer Voice Call When On Chat*: ☒ Yes ☐ No


Maximum Number Of Chat Sessions Per Agent*:

Email

Maximum Number Of Email Sessions Per Agent*:

Sticky Email Timeout (Hours)*:

Save Cancel

 *- indicates required item

Troubleshoot

Relevant logs

These logs are important to debug the O365 related issues.



- **Runtime Logs:** <https://<SocialMiner Server IP/Host>/ccp-webapp/logs/runtime/>
File Pattern: CCBU-runtime.*.startup.log, Error-runtime.*.startup.log
- **API Logs:** <https://<SocialMiner Server IP/Host>/ccp-webapp/logs/ccapi/>
File Pattern: CCBU-ccapi.*.startup.log, Error-ccapi.*.startup.log

Checklist

Check these to ensure that Office365 functionality is working fine as expected in a SocialMiner system:

- Check if SocialMiner is able to reach Office365 directly.
- If SocialMiner is not able to reach Office365, configure Socks Proxy in SocialMiner and enable it.
- Only **Socks 5 Protocol** is supported.

- Ensure that the Socks Proxy server is able to reach Office365.
- Check Office365 credentials in CCX.
- Check Office365 email feed status in SocailMiner If the feed is fetching normally, it would be green and not red with cross mark (X) as shown in the image.If the feed is broken, you can hover over the red cross mark (X) to know the reason.

<input type="checkbox"/>	CCX Test GT issue Email	Email		Test GT issue Email
<input type="checkbox"/>	email test	Email		Cannot establish connection with the email server. Check that the email server receive host and port are configured correctly. Last successful fetch time was less than a minute ago, Success rate is 0%

4 item

Note: Upon Socks Proxy reconfiguration, all existing email feeds would be automatically updated to use the latest Socks Proxy Configuration.

Common Scenarios

Problem: Agents are not able to receive emails.

Possible Cause 1: Socks Proxy is not configured/enabled

In the runtime logs, the following error is shown:

```
exception=javax.mail.MessagingException: connect timed out;
```

Recommended action:

- Configure the Socks Proxy Server and enable it.
- Make sure that Socks Proxy is reachable from SocialMiner and Socks Proxy Server is able to reach the O365.

Possible: If using authenticated Socks Proxy, credentials provided are wrong

In the runtime logs, the following error is shown:

```
exception=javax.mail.MessagingException: SOCKS : authentication failed;
```

Recommended action :

- Resolve the authentication issue by providing the correct credentials.
- Ensure that the Socks Proxy is reachable from SocialMiner and Socks Proxy Server is able to reach the O365.

Problem: Delay in sending emails using Office365.

Recommended action:

- If sending an email takes > 10 seconds, find if SMTP connection to Office365 is causing the delay.
- Configure Office365 using Thunderbird or outlook client via IMAP. If sending an email takes long time with authenticated SMTP connection, then it indicates the same slowness issue in SocialMiner as well.
- The issue is from Office365. Contact Office365 support.

Microsoft Diagnostics tool

If you are having trouble with the connectivity with the Office365 service and want to check on the status of your service, there is a tool from Microsoft that can be used. The tool is called **Support and Recovery Assistant** and can be downloaded from here: <https://diagnostics.outlook.com/#/>

More details about the same: <https://blogs.office.com/2016/05/11/new-tool-for-helping-resolve-office-365-issues/>

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation at: <http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>.

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