

What's New in Workflow Server Release 1.7.2

Workflow Server release 1.7.2 adds a number of new features, enhancements and match rules. Key features in this release are support for OAuth, capacity increase and support for x30 and x50 endpoints.

Release 1.7.2 includes several bug fixes and is available via the support.polycom.com website. Please ensure you have a support contract in place and contact your Poly Professional Services project manager or technical assistance center for the download password.

OTD OAuth (Modern) Authentication for Microsoft Office365

Release 1.7.2 supports both basic and OAuth (modern) authentication for calendar retrieval from Microsoft Office 365. When the Workflow Server Environment > cloud calendar service provider is configured as *O365*, Workflow Server will only use Basic authentication if the Environment > Credentials > Username is populated with a UPN (email) format address.

To use OAuth (modern) authentication requires creation of a client ID and associated secret within Microsoft Azure, assigning permission to use the Exchange Web Services (EWS) API. The steps for creating and assigning permissions are as follows:

Register Your App in Azure

1. Sign in to the Azure portal using administrator account.
2. Select Azure Active Directory > App registrations > New registration
3. When Register an application page appears, enter application's registration information below:

Name: **OTD**

Supported account types: **Accounts in any organizational directory (Any Azure AD directory – Multitenant)**

4. When finished, click on **Register**.
5. Note down **Application (client) ID** from **Overview** page.

Create Client Secret

1. Select **Certificates and secrets > New client secret**
2. Provide a **Description**, select **Expires** as **Never** and click on **Add**.

Grant API Permissions

1. Select **API Permissions > Add a permission > Microsoft APIs > Exchange > Application permissions**
2. Enable **full_access_as_app**.
3. Click **Add Permissions**.
4. Verify that **Exchange > full_access_as_app** is included in list of permissions.
5. Click on **Grant admin consent** to provide consent.
6. Accept the permissions.
7. Verify that consent is granted for **Exchange > full_access_as_app** permission.

OTD Increased Capacity

Workflow Server release 1.7.2 enables the administrator to configure the memory available to the Workflow Server application via Configuration > System.

For 2GB allocated Workflow Server supports calendaring retrieval for up to 500 devices.

For 6Gb allocated workflow server supports calendaring retrieval for up to 1000 devices.

Additional OTD enhancements

- **Enhanced DMA Scheduled VMR creation for RealConnect conferences** - With release 1.7.2 Workflow Server assigns the Skype conference ID as the DMA scheduled conference ID. If multiple meetings are discovered with the same conference ID (such as recurring meetings), Workflow Server simply modifies the scheduled start and/or end date and time to encapsulate all instances
- **Dial string for Easy Schedule includes meeting passcode** – For Easy Schedule meetings Workflow Server OTD functionality will instruct the device to dial <meetingID>**<meetingPasscode>. For H.323 calls a preliminary is required to convert the dial string to <meetingID>#<meetingPasscode>. See the bottom of page 251 of the [DMA 10.0.0.3 system operations guide](#)
- **Added Pexip Google Meet Gateway Service match rule** - The match rule parses the body of the meeting invitation for https://tel.meet. If found Workflow Server retrieves the web page and parses for the videoconferencing URI
- **Added Pexip Teams Gateway Service match rule** - The match rule parses the body, location or subject for the pattern pexip.me/sipDomain/conferenceId and results in the join button dialing conferenceId@sipdomain. For example an invite containing the URL https://pexip.me/teams/vc.myrpp.cloud/1122327411 would result in the endpoint dial string 1122327411@vc.myrpp.cloud

- **Enhanced Workflow Server Zoom match rule to include meeting passcode** - This enhancement requires DMA release 10.0.0.6 or later. In earlier releases the DMA H.323 ACF response changed all characters to lowercase
- **Enhanced Skype for Business Online Meeting match rule to support updating the meeting invitation on behalf of the organizer with join instructions for videoconferencing devices** - In previous releases this functionality was only available if Workflow Server created a DMA scheduled conference. Feature requires Workflow Server to have an account assigned the application impersonation role and for Workflow Server to discover meetings via either the Exchange Transport rule feature or rooms defined within the Workflow Server Admin UI
- **Added support for multi-domain environments for Easy Schedule and/or OTD with LDAP authentication** - The additional domains list must be populated with the NETBIOS names of all domains and the LDAP connection must be pointed at the global catalog TCP port
- **Added support for LDAP authentication for endpoints when OTD is configured for O365 or Google calendar retrieval** - Adds Active Directory Username and Password fields for use with the LDAP authentication. Note when using LDAP authentication the email address assigned to the AD user account must match the email address of the calendar being requested
- **Enhanced Workflow Server to match any host header for single environment deployments** - When Workflow Server is configured with a single environment it will match all received HTTP requests. For example if the environment is configured with the FQDN otd.myrpp.cloud it would also match HTTP requests from poly endpoints configured with the Exchange server set to the Workflow Server IPv4 address
- **Enhanced Workflow Server to negate the need for Cisco Agents to be configured with credentials for authenticating with the Workflow Server environment** - When Workflow Server is configured with cisco agents, it is no longer necessary to configure the agents with a username and password for authenticating with the Workflow Server environment

Easy Schedule enhancements

- Updated Easy Schedule logo - <Detail change of logo and text for UI>
- Added Japanese language and template – Templates for English, French, German and Russian

Meeting Director enhancements

- Reduced time taken for UI to load in browser – x

Admin UI enhancements

- Reduced time taken for UI to load in browser – x

System Capabilities and Constraints

Workflow Server is an application for installation on a Windows Server. The minimum requirements for the server are as follows:

To Support up to 500 Devices

- Windows Server 2012R2, 2016 or 2019 for hosting the Workflow Server application
- 2 CPU's or better
- 8GB RAM or better

To support up to 1000 Devices

- Windows Server 2012R2, 2016 or 2019 for hosting the Workflow Server application
- 4 CPU's or better
- 16GB RAM or better

OTD function of the workflow server has been integrated with up to 5 concurrent calendaring environments.

One Touch Dial

OTD supports calendar retrieval from Exchange 2010 through 2019 on premise editions, Office 365 Exchange Online and Google calendaring.

Each Workflow Server instance supports enablement of One Touch Dial (OTD) calendaring up to 500 devices. Deployments greater than 500 deployments require orders and installation of additional instances of the OTD feature set.

The OTD Exchange Transport Rule Monitored Mailbox feature is limited to retrieval of 1000 calendar entries for any combination of ongoing meetings and meetings scheduled to start in the next 60 minutes.

Support for Poly TRIO devices is limited to software releases 5.9.0 and 5.9.1, for Exchange on premise or O365 Exchange online deployments. Google calendaring is not supported in this release.

Easy Schedule

Easy Schedule supports calendar integration with Exchange 2010 through 2019 on premise editions, Office 365 Exchange Online and Google calendaring.

For Exchange 2013 through 2019 and Office 365, installation of the add-in for OWA and/or Outlook 2013 through 2019 and Office 365 is via a manifest file uploaded through the ECP. For Exchange 2010 or Outlook 2010 installation of a shim and the manifest on each PC is required. Office 2011 for Mac is not supported.

Support for Google calendaring is via a Chrome extension.

Each Easy Schedule deployment supports a single Microsoft Active Directory (AD) forest. Deployments with more than 1 AD forest require orders and additional instances of the Easy Schedule feature set, and a DMA instance per AD forest.

RealPresence Meeting Director

RealPresence Meeting Director supports conference control of conferences hosted on Poly DMA with RMX devices

The Meeting Director app supports codec control of Group Series and HDX based videoconferencing devices connected to the same network as the Workflow Server. The solution does not support Immersive Flex/Studio, HDX ATX, TPX, RPX and OTX telepresence rooms.

Meeting Director is currently limited to English (USA) language.

Interoperability

One Touch Dial (OTD)

OTD has been tested with the following Poly devices and software releases:

- HDX release 3.1.14
- Group Series release 6.2.2
- TRIO releases 5.9.0 and 5.9.1
- Debut 1.3.3
- RealPresence Desktop / Mobile 3.10.0
- G7500 releases 2.1.0, 3.0.0 and 3.1
- X30 and X50 Release 3.0 and 3.1
- Studio X 3.0 and 3.1
- DMA releases 9.0.1.4 and 10.0.0.6

OTD has been tested with the following Cisco devices and software releases:

- C and EX series devices release 7.3.17
- DX, MX and SX series devices release CE 9.7.1
- WebEx Room and Board series devices release Room OS 2019-07-02 a37dc2ce640
- CTS series devices release 1.10.16
- TX series devices release 6.1.13
- IX series devices release 8.2.3(25)

OTD has been tested with the following Microsoft Exchange and Google GSuite calendaring versions:

- Exchange Server 2019
- Exchange Online October 2019
- Google G Suite calendaring October 2019

Easy Schedule

Easy Schedule for Microsoft Exchange and Outlook has been tested with the following versions:

- Exchange Server 2019
- Exchange Online October 2019
- Office 2019 Outlook release 1808 (Build 10351.20054)
- Office 365 Outlook release
- Office 2019 Outlook for Mac release 16.30.0
- Office 365 Outlook for Mac release 16.31.0

Easy Schedule Google Chrome browser extension for Google G Suite calendaring has been tested with the following versions:

- Google Chrome version 78.0.3904.70
- Google G Suite calendaring October 2019

Easy Schedule has been tested with Poly DMA releases 9.0.1.4 and 10.0.0.4

RealPresence Meeting Director

RealPresence Meeting Director has been tested with the following browser versions:

- Microsoft Edge version 44.18362.387.0
- Google Chrome version 78.0.3904.70
- Apple Safari version 13.0.1

RealPresence Meeting Director device controls have been tested with HDX version 3.1.14. The solution does not support HDX ATX, TPX, RPX and OTX telepresence rooms.

RealPresence Meeting Director conference management has been tested with the following Poly releases:

- DMA releases 9.0.1.4 and 10.0.0.4
- RMX releases 8.7.5.6 and 8.8.1

RealPresence Meeting Director calendaring has been tested with the following Exchange versions:

- Exchange Server 2019
- Exchange Online October 2019

Touch Plus

Touch Plus device controls have been tested with HDX version 3.1.14. The solution does not support HDX ATX, TPX, RPX and OTX telepresence rooms.

Touch Plus requires Poly RealPresence Touch operating software version 1.2.0-173 (labelled to be used with Group Series 5.1.2 software).

Touch Plus calendaring has been tested with the following Exchange versions:

- Exchange Server 2019
- Exchange Online October 2019

Poly Workflow Server Software Upgrade - Single Instance

The steps to upgrade the Workflow Server application are as follows:

1. Stop the windows Workflow Server Service
2. Backup the c:\programdata\polycom\workflowServer\ folder
3. Uninstall Workflow Server via Windows Programs and Feature. Note the configuration files will not be removed
4. Install the new version by double clicking the MSI file. Once complete, confirm you can login to the application using Chrome web browser on the Windows Server, browsing to <https://localhost/admin>

Poly Workflow Server Software Upgrade - HA Pair

The steps to upgrade the Workflow Server application are as follows:

1. Remote desktop to the two instances of Windows Server hosting the Workflow Server App
2. On one of the instances, launch Windows Failover Cluster Manager and select Roles. Highlight the FQDN assigned to the Workflow server pair and select stop role
3. On both instance launch Regedit. Expand HKEY_LOCAL_MACHINE > System > CurrentControlSet > Services > Polycom Workflow Server > Parameters. Note with Workflow Server release 1.7.1 the path has been changed to HKEY_LOCAL_MACHINE > System > CurrentControlSet > Services > Poly Workflow Server > Parameters
Take a screenshot or copy to notepad the Windows Cluster shared storage volume path values assigned to the keys
 - a. AppEnvironmentExtra (NODE_CONIG_DIR=)
 - b. AppStdErr
 - c. AppStdOut
4. On each host open Chrome web browser and request URL <https://localhost/admin>. Only one of the instances should return the webpage, indicating is the active instance
5. Login to the active instance and make a note or take a screenshot of the total number of active sessions
6. Backup the workflow Server folder of the Windows cluster shared volume to one of the desktops.
7. Uninstall Workflow Server on the inactive Windows Server via Windows Programs and Feature. Note the configuration files will not be removed
8. Install the new version by double clicking the MSI file. Once complete, confirm you can login to the application using Chrome web browser on the Windows Server, browsing to <https://localhost/admin>. Note Workflow Server will default to creating and using a local configuration, not the shared volume, therefore ignore the configuration
9. Stop the Workflow Server Windows service
10. Refresh the registry and observe the keys listed in step 3 have defaulted to the path c:\programdata\polycom\workflowServer\... Modify each of the values to be the same as noted during step 3. Double check these values against the current active Workflow Server instance, which has yet to be upgraded

11. Stop the Workflow Server Windows service on the active instance and start on the upgraded instance. Login to the Admin UI <https://localhost/admin>. Wait for 5 minutes and confirm the total number is close to step 5
12. Repeat steps 7 through 11 for the other instance.
13. On one of the instances, launch Windows Failover Cluster Manager and select Roles. Highlight the FQDN assigned to the Workflow server pair and select start role. Confirms the role starts successfully
14. Restart the Windows Server hosting the current active Workflow Server instance. Confirm the Workflow Server Windows Service is automatically started on the other instance. If necessary, repeat to swap back to the original instance

1.7.2 Known OTD Limitations

The table below details known limitations and any associated workarounds

Limitation	Workaround
Poly Debut and HDX devices are limited to NTLM authentication and therefore do not support pass through of authentication credentials to Office 365 Exchange online	Configure Workflow Server environment to authenticate Debut and HDX devices locally and use a service account to retrieve the calendar on behalf of the device
Workflow Server does not notify Administrator if Exchange or Office 365 Exchange online service account password is incorrect or has expired.	None

1.7.2 Known Easy Schedule Limitations

The table below details known limitations and any associated workarounds

Limitation	Workaround
Easy Schedule add-in fails to authenticate if Environment > Credentials > Realm1 is set to local instead of domain authentication	Move domain authentication to Realm1 using the up arrow.
Easy Schedule add-in with office 2016, 2019 or Office 365 for Mac fails to authenticate if user credentials are defined in keychain as a UPN (user@domain)	Define as domain\user
Easy Schedule add-in with office 2016, 2019 or Office 365 for Mac fails to prompt for new credentials if password associated with username changes.	Delete or modify keychain entry
Easy Schedule fails to update meetings if DMA prefix is changed.	Easy Schedule fails to update meetings if the DMA prefix is changed. If it is necessary to change the DMA prefix, advise users any meetings scheduled with the old prefix should be cancelled and rescheduled.
Easy Schedule shim/add-in fails to populate the comments (body) of meeting invitations	The problem occurs if the template .txt, .rtf, and .htm template files do not include the <AGENDA/> attribute. To prevent this issue, ensure the attribute <AGENDA/> is included in all templates.
When Easy Schedule Monitor mailbox is first enabled, or workflow server is restarted red highlighted "LDAP connection not found is printed once to the logs"	None. Does not impact system operation. Will be fixed in a later release.
Moving a meeting scheduled start date back more that 7 days without selecting the Easy Schedule button in the calendar, does not update the DMA meeting scheduled start date.	Select the Easy Schedule button prior to sending the update.
Removing the Easy Schedule monitored mailbox as an attendee from the invite will result in Workflow server not updating the DMA scheduled date and time.	Do not remove the Easy Schedule monitored mailbox from the invite.

Creating a new meeting invitation, selecting the Easy Schedule Random conference and closing the meeting invitation creates a DMA scheduled conference, even though the invitation was not sent.	None. Is transparent to the organizer and DMA will delete the conference as part of the nightly cleanup of conferences with an end date and time greater than 24 hours in the past.
Modifying the date and time of a previously scheduled Easy Schedule Random conference, selecting the Easy Schedule but not selecting send update, applies the revised date and time to the conference.	Before closing the invite set the date and time range back to the original date and time.
There is currently an Easy Schedule limitation whereby the “-external” template will only be selected if the email address is validated by Outlook before moving the cursor from the ‘TO’ field. Validated email addresses are identified by being underlined. If you click into another field before the email address is underlined Outlook will not notify the Easy Schedule add-in or shim and therefore the template will fail to flip. Polycom will address this limitation in a later release.	Add the external email addresses before clicking the Easy Schedule add-in button, or when adding the email addresses select the ‘Check Names’ button before leaving the ‘TO’ field.
Using Workflow Server release 1.6.2.61900 or later in conjunction with shim versions earlier than 1.6.2.2 fails to populate the body of the meeting invitation.	Uninstall the old shim and install the latest version. The Shim may be downloaded from the Workflow Server Tools tab.

1.7.2 Known RealPresence Meeting Director Limitations

The table below details known limitations and any associated workarounds

Limitation	Workaround
Meeting Director does not support cascade conferences	Known limitation, will be addressed in a later release
Meeting Director does not support RealConnect conferences	Known limitation. A later release will add support for RealConnect conferences

1.7.2 Known Issues

Summary	Poly Reference
Workflow Server LDAP connection errors in logs while authenticating exchange on premise account with impersonation rights as well as reviewer rights and also with GOOGLE using LDAP	EN-178113
Workflow Server - Blue Jeans meetings are not fetched	EN-17916

Resolved Issues

The table below details the fixes available in the Workflow Server 1.7.2 Release

Summary	Poly Reference
Fixed an issue whereby Workflow Server OTD functionality failed to match the DMA HTTP responses. This caused an issue when creating DMA scheduled conferences for recurring Skype for Business online meetings and Workflow Server OTD would fail to recognize the HTTP/409 conflict error for the duplicate alias of the prior occurrence of the meeting	EN-164085
Fixed an issue whereby Workflow Server OTD RealConnect for Office 365 match rule was incorrectly matching all Skype Online meeting invitations, instead of just those with the Poly RealConnect for Office 365 join instructions	EN-163277
Fixed an issue whereby Workflow Server OTD failed to perform calendar retrieval for Poly devices when using a Microsoft Exchange account assigned the Application Impersonation RBAC role	EN-159416
Fixed an issue whereby Poly endpoints using the Workflow Server OTD body match rule would only dial the host portion of a URI unless the protocol was set in the match rule as SIP or a postfix was assigned. This issue occurred with all prior releases of Workflow Server. With 1.7.2 if the regex assigned to the match rule match field defines a URI, Poly endpoints will also dial the URI. This issue did not affect Cisco agents	EN-161852
Fixed an issue whereby Workflow Server Exchange Mailflow/Transport rule monitored mailbox would fail to create DMA scheduled conferences for Skype for Business Online Meetings if one or more rooms or participants were removed from the invite	EN-164391
Fixed an issue whereby Workflow Server failed to parse calendar entries in the Easy Schedule Monitored Mailbox	EN-164585
Fixed an issue whereby Workflow Server would listen for HTTP requests on TCP/80 when the Meeting Director was disabled. The HTTP TCP/80 listener is now only enabled if Meeting Director is enabled.	EN-164561
Fixed a security vulnerability whereby Workflow Server did not disable autocomplete for the Admin UI local user change password fields	EN-165498
Removed support for TLS 1.1 from Workflow Server Admin UI and HTTPS services	EN-166316
Fixed an issue whereby Easy Schedule would print to the Workflow Server logs the SAM account name and Group membership when a user authenticated	EN-167194
Fixed an issue whereby OTD would not use an HTTP forwarding proxy for retrieval Google calendars	EN-166314
Fixed an issue whereby OTD would periodically print to the logs "access token no longer valid" when retrieving calendars from Google	EN-167346
Fixed an issue whereby for deployments using an HTTP forwarding proxy the Skype match rule was unable to retrieve the retrieve the conference/focus URI using the meeting URL	EN-168701
Fixed an issue whereby cancelled meetings continued to appear on TRIO devices until the TRIO device restarted	EN-170830
Fixed an issue whereby meeting reminder did not appear on TRIO devices	EN-165972

Fixed an issue whereby the Skype match rule would intermittently not create DMA scheduled conferences for calendar entries for rooms equipped with TRIO devices	EN-171901 / EN-170830
Improved memory utilization of Workflow Server. Workflow Server logs page now displays the last 200 lines of log entries. On previous releases Workflow Server would read the entire active log file, which could cause high memory utilization.	EN-160343
Fixed an issue whereby agents did not support Cisco endpoints without a password assigned	EN-167856
Fixed an issue whereby LDAP group names were case sensitive	EN-165090
Fixed a memory leak issue whereby browsing to workflow server admin UI would cause application to restart	EN-160343
Fixed a memory leak whereby Workflow Server would intermittently crash when configured for pass through authentication between Poly endpoints and Microsoft Exchange	EN-159559

Poly Easy Schedule 1.6.3.3 Shim Upgrade

The steps to upgrade the Easy Schedule shim required for Outlook 2010 and/or Exchange 2010 deployments are as follows:

1. Uninstall the Easy Schedule 1.6.3.2 or earlier shim via Windows Apps and Features / Add or Remove Programs. Note the manifest configuration file will not be removed
2. Install the new version by double clicking the MSI file. Once complete, login to Outlook, schedule a new meeting and confirm the Easy Schedule button appears in the calendar ribbon