Kofax Communication Server

TC/At2URL Manual

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KOFAX

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Chapter 1

Preface

The module TCAt2Url.dll is a Link-Exit. The Link calls it for messages that come from Kofax Communication Server and go to the mail system that is connected via any Link that supports Link-Exits.

TCAt2Url removes attachments of a configurable content and inserts instead an URL. The connected mail system gets only small messages, while the large attachments remain on the KCS server or in the archive.

If a message is very big, it can be printed automatically. It is configurable with the Windows registry, if the functionality is active or not. To use that functionality TCAt2Prn and TCLanPrt has to be installed and configured correctly.

The URL consists of a fixed configurable part and some parameters that are taken from each message. That way this URL becomes to be a reference pointing to the original content of the message. To use that reference TC/Web has to be installed and configured correctly.

Chapter 2

Operation

Depending on the Registry value 'SearchInOutbox', TCAt2Url handles only messages which were created by a KCS event, or also messages not sent via event and so the recipient is not a KCS user are processed. (Please refer to Restriction for using TCAt2Url for not event generated messages)

Depending on configuration attachments are removed from the message and replaced by the URL. The KCS INT_DOC_CLASS property of the message defines what kind of content the message consists of. With the registry keys *RemoveDocClass* and *RemoveMode* TCAt2Url decides for what kind of messages the attachments are removed.

RemoveDocClass defines which message classes should be replaced. Possible are combinations of fax-images, voice-attachments and binary attachments.

RemoveMode can have the value 1 or 2. 1 means that all attachments will be replaced if one or more document classes are matching between message and configuration. 2 means that the document class has to match exactly for the replace operation.

RemoveText makes it possible to remove also the text parts of the message. This is independent of *RemoveDocClass* and *RemoveMode*. If *RemoveText* is set to 1, the text parts of the message will be replaced by the URL.

AlwaysInsertURL puts the URL with a special text to the message even if nothing was removed. This is necessary for the use with the escalation module. In this case the messages are created via In-Events, which are set without auto termination (so the message remains un-terminated until also the content has been viewed). But as it is possible to send subject-only messages, a URL can also be inserted with a special text without removing something. This is to alert the user that he has to follow this link in order to terminate the message and not to let it fall under the escalation proceedings.

The parameters that are put to the URL are KCS User-ID (recipient/originator), the KCS Cif Id, the message ID and the reception time. They are put with parameter names after the static part of the URL. The parameter names are "UserId"/"OriginatorId", "MsgCifId", "MsgId" and "MsgTimeIntend".

Example of an inserted URL, including the preceding text:

```
Use the following link to view the attachments of the message:
http://hostname/TcWeb/Login.asp?UserId=KG&MsgId=12345&MsgTimeIntend=011023:123419
```

Due to the fact that the URL provides all information on how the message can be found on KCS, there is a possibility to encrypt the URL parameters. With normal encryption (registry setting EnCryptURL = 1), the URL is fully encrypted, however will become longer.

```
Use the following link to view the attachments of the message:
http://hostname/TcWeb/Login.asp?EncId=142E3439360E00160C162C025A232E584D211E...
```

Some mail client cannot properly process such long URLs. E.g. it will be cut off. Part of the string will not be considered as belonging to the URL. For this case EnCryptURL = 2 ('Short URL') encrypt mode can be used. However, in this mode, the UserId value is not encrypted to keep the URL short.

```
Use the following link to view the attachments of the message:
http://hostname/TcWeb/Login.asp?o=w-1WShsf9dGwiQUjeVGe8APASZ
```

(Note that EnCryptURL = 2 ('Short URL') encrypt mode is supported only by TC/Web V4.15.09 or later or TC/Web.Net.)

It is configurable per user if attachments are replaced by a URL. The information if a user wants his attachments replaced is stored in the KCS user profile and is maintained with TCfW.

Note If a special header is set inside the KCS message ("X-TcSecureEmail: 1"), the Meta-Mail setting of the originator will be ignored. Therefore, special clients like the "KCS Secure E-Mail" connector for eCopy ShareScan OP can force a Meta-Mail (or Secure E-Mail) message.

Chapter 3

Requirements

Packages that are necessary with the following minimum versions:

TC/SP	7.42.03
TC/LP	2.01.03

(Links from the legacy package 1.19.03 are also possible to use, in this case the TC/Link directory is c:\tcoss\tclink and the modules TCLink.exe and TCSI32.dll have to be updated according to the versions below)

Module updates necessary on the TC/Link computer with the following minimum versions (the next TC/LP will not need this updates):

TCLink.exe	2.03.00	(c:\tcoss\tclp)
TCSI32.dll	2.38.00	(c:\topcall\shared)

To use the inserted URL is it necessary to have TC/Web installed and configured correctly.

To use the URL encryption and the SearchInOutbox feature, TC/Web Version 4.01.00 or higher is needed.

It is necessary that TC/LINK fetches only one send order at once from KCS. Some Links process messages that go to more than one recipient at once. As we would like to configure in future per user when to remove attachments, this must not be allowed and requires a new TC/Link enhancement.

Chapter 4

Installation

Copy the TCAt2Url.dll to the C:\TCOSS\TCLP folder. TC/Link has to be configured to use this module as Exit-DLL. To do this set the registry key HKLM \Software\TOPCALL\TCLINKXY\General\ExitDLL to "C:\TCOSS\TCLP\TCAt2Url.dll". XY stands for the Link-Type. It is also possible to put TCAt2Url.dll to any other folder, than the key has to be set accordingly.

Configuration

After the first start-up of the Link with TCAt2Url.dll configured as Exit-DLL, a new registry sub-key of the name TCAt2Url is created below the key of the Link-Instance. It consists of the following keys.

`HKEY_LOCAL_MACHINE\Software\TOPCALL\TCLINKxy\TCAt2Url`

Registry Key	Type	Default	Description
HTTPAddress	STRING	""	The first static part of the URL that is written to the messages. **Example:** "http://hostname/TcWeb/Login.asp"
TraceLevel	DWORD	10	Level of tracing. See separate section for description.
RemoveDocClass	DWORD	0x04	This binary field defines what kind of message class is removed: 0x04 – Fax-image 0x08 – Binary 0x10 – Voice For removing a combination of message classes, you have to add these values.
RemoveMode	DWORD	1	Defines how shall be removed if there are different kinds of attachments in one message: 1 – If the message consists of at least one attachment type as defined in RemoveDocClass, all attachments are removed and the URL is inserted. 2 – Only if all attachment types of the message are also defined in RemoveDocClass, the attachments are removed and the URL is inserted.
RemoveText	DWORD	0	0 – Text is not removed; the URL is put after the text block. 1 – Text is removed as well (independent of RemoveMode and RemoveDocClass).
AlwaysInsertURL	DWORD	0	0 – The URL will only be inserted if there is something removed. 1 – The URL will always be inserted, even if nothing is removed. That will be necessary if the escalation module is used and messages are not terminated automatically.

Registry Key	Type	Default	Description
PreURLText	STRING	"Use the following link to view the attachments of the message:"	The text that is put before the URL if attachments are removed and the URL is inserted instead.
PreURLTextForTermination	STRING	"It is necessary to click on the following link to terminate the message:"	This text is put before the URL if AlwaysInsertURL is configured and if in fact no attachments have been removed. This is necessary if the escalation module is used and messages are not terminated automatically.
AutoPrint	DWORD	0	Auto print active (1) or inactive(0)
EnCryptURL	DWORD	0	0 – no URL Encryption 1 – URL Encryption with TcEncrypt method 2 – 'Short URL' encryption
SearchInOutbox	DWORD	0	Only Event generated messages are handled(0), or also for messages in the outbox the content is replaced with the URL
FooterText	STRING	"Customizable footer text in the metamail message"	This text will be displayed below the metamail URL. The maximum length of the input text is 1056 characters.

The key HTTPAddress has to be set in order to write the correct URL to the message.

Chapter 5

Error Handling

If an error occurs the message is rejected with the error code "M0" ("Terminated by Exit"). In the TCfW outbox of the sending user (the user that has the event defined to forward the message to TC/LINK) the status of the message changes to "Inactive – Error".

For a future version that will make it possible to configure per user if attachments are removed an entry in rr99 might be suggested to send the message to a user that does not use MetaMail.

Chapter 6

Trace Level

The Trace Level of the module TCAt2Url.dll is set by the registry key HKLM\Software\TOPCALL \TCLINKXY\TCAt2Url\Tracelevel. The higher the value the more trace is written. The following table shows which values generate what kind of trace output.

00	fatal errors
10	warnings
20	operational outputs
80	traces of all function calls/returns

The trace is written to the trace file of the link instance that loaded the module (e.g. "c:\TCOSS\Trace \tclinkXYN.trc", where XY is the Link-Type, N the number of the trace files).

Chapter 7

Hints

The URL for the removed attachment can be split to a second line due to TC/Link message conversion. If you do not want that you will have to set the registry key …\Topcall\AllowLongLinesToMail to 1.

Restrictions

Messages in the short term archive (outgoing direction) cannot be searched optimized.

Another problem for those messages, and also for messages in the Archive is the following. The TIME_ACTION, which is used for filtering, is set as soon as the message is terminated. For messages, which are waiting for a read notification, this can take some time. Therefore, the applications, which search for the message (TC/Web) were modified. Now you define a timeframe there, which is used for filtering (see *TC/Web Installation and Configuration Manual* – MetamailLatestDelTime)

Implementation Information

The Exit-DLL TCAt2Url.dll is called before Link conversion.

The parameters for the dynamic parts of the URL are the TCSI fields TS_ORIGINATOR, INT_CIF_ID, TS_TC_MSG_ID and TIME_INTENDED.

INT_DOC_CLASS defines the message class, INT_EVENT_TYPES is used to check weather the message was generated by an In-Event or it is In-Mail message.

In case of attachment replacement all BLK_BINARY and SET_BLK_IMG of the L_ENV_CONT and the SET_ATT_OBJ object are removed. If text blocks are removed, all SET_BLK_TXT of the L_ENV_CONT and the SET_ATT_OBJ objects will be removed. The attachment content can also be again of type L_ENV_CONT or SET_ENTRY_MS, in this case it is proceeded recursively.

If there were replacements or the URL is supposed to be written regardless of replacements, the URL is written to a newly created text block.