T.37 OnRamp 팩스

목차

소개

기본 [Fax over IP T.37 Store 및 Forward Fax](#) 문서의 이 섹션에서는 OnRamp 스토어 및 전달 팩스에 대해 설명합니다.OnRamp T.37은 팩스 호출을 수락하고 TIFF(Tagged Image File Format)로 팩스를 인코딩하여 해당 TIFF를 이메일 서버에 첨부 파일로 보내는 프로세스입니다.

이 문서에는 기능을 작동시키는 데 필요한 구성이 포함되어 있습니다.Troubleshoot 섹션은 유용한 **debug** 명령 및 의미를 해석하는 방법을 설명합니다.사용된 토폴로지는 [네트워크 다이어그램](#) 섹션에 나와 있습니다.

사전 요구 사항

요구 사항

이 문서에 대한 구체적인 요구 사항은 주 섹션인 Fax over [IP T.37 Store and Forward Fax에](#) 지정되어 있습니다.

사용되는 구성 요소

이 문서는 특정 소프트웨어 및 하드웨어 버전으로 한정되지 않습니다.

이 문서의 정보는 특정 랩 환경의 디바이스를 토대로 작성되었습니다.이 문서에 사용된 모든 디바이스는 초기화된(기본) 컨피그레이션으로 시작되었습니다.현재 네트워크가 작동 중인 경우, 모든
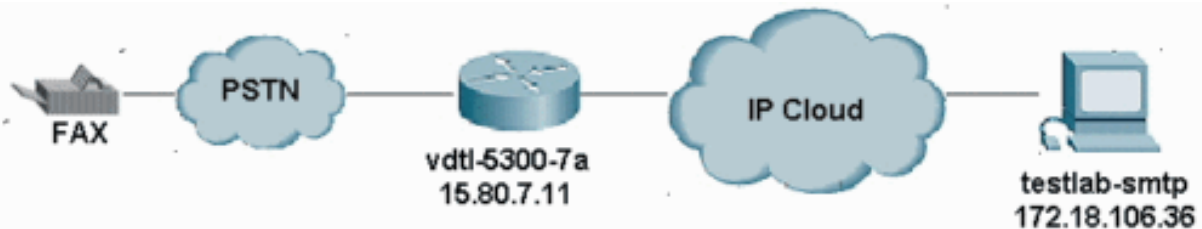
명령어의 잠재적인 영향을 미리 숙지하시기 바랍니다.

표기 규칙

문서 규칙에 대한 자세한 내용은 Cisco 기술 팁 표기 규칙을 참조하십시오.

구성

아래 섹션에서 먼저 OnRamp 팩스 구성과 관련된 Cisco IOS® Software 구성 매개변수에 대해 설명하면 5300 컨피그레이션에 중요한 명령의 기능을 설명하는 추가 정보가 표시됩니다.5300 컨피그레이션 뒤에 나오는 섹션에서 일부 선택적 컨피그레이션 매개변수를 확인할 수 있습니다.

네트워크 다이어그램

이 문서에서는 아래 다이어그램에 표시된 네트워크 설정을 사용합니다.

구성 매개변수

필수 매개 변수:	
팩스 인터페이스 유형 팩스 메일	게이트웨이에 대해 T.37 기능을 활성화합니다.5300에서는 재부팅해야 하지만 5350 또는 5400은 재부팅하지 않습니다.
mta 전송 서버	라우터가 OnRamp 이메일을 통해 전송할 SMTP(Simple Mail Transfer Protocol) 서버의 호스트 이름 또는 IP 주소입니다.이 컨피그레이션이 없으면 라우터가 OnRamp 이메일을 전송할 위치를 알지 못합니다.서버가 구성되지 않은 디버깅 및 콘솔 메시지에 대해서는 서버 구성 없음 섹션을 참조하십시오.
mta 게시 마스터 전송	이 주소는 mta가 **mail-from** 옵션을 평가하지 않거나 구성하지 않은 경우 사용됩니다.OnRamp Email From 필드에 배치됩니다.**mta send mail-from username** 및 mta send **mail-from hostname**이

	있는 경우는 선택 사항입니다.실패한 통화에 **대한 디버그 mspi**를 보려면 <u>여기</u>를 클릭하십시오.
<u>ip 도메인 이름</u>	hostname.domain-name으로 HELO 메시지에서 이메일 발신자를 식별하는 데 사용됩니다.이 명령을 구성한 후 라우터를 다시 로드해야 합니다.
<u>application voice onramp flash:app_libreto_onramp.2.0.1.1.tcl</u>	응용 프로그램의 전역 이름(이 경우 onramp)과 해당 위치(이 경우 라우터의 플래시에서)를 정의합니다.
<u>dial-peer voice 8913180 pots application onramp</u>	이 다이얼 피어가 일치하면 응용 프로그램 onramp에 전화를 겁니다.
<u>다이얼 피어 음성 1 mmoip 애플리케이션 fax_on_vfc_onramp_app 출력 바운드</u>	이 MMoIP(Multimedia Mail over IP) 피어가 일치할 때 호출할 응용 프로그램입니다.Cisco IOS Software에 사전 번들로 제공됩니다.**show call application voice summary**를 통해 **표시됩니다**.
선택적 매개 변수:	
<u>mta 메일 보낸 사람 호스트 이름</u>	OnRamp 이메일의 **From** 필드에서 사용할 호스트 이름입니다.mta send postmaster 명령**이** 없는 경우 필수입니다.mta **send mail-from username**을 사용하는 경우 구성해야 합니다.
<u>mta 사용자 이름 메일 보내기</u>	OnRamp 전자 메일의 From 필드에서 사용할 발신자입니다.전체 From 필드를 가져오기 위해 **mta send mail-from hostname**(즉, username@hostname)과 함께 사용합니다.mta send postmaster 명령**이** 없는 경우 필수입니다.mta send mail-from hostname을 사용하는 경우 **구성해야** 합니다.
<u>mta 전송 제목</u>	OnRamp 전자 메일의 **Subject** 필드에 사용할 텍스트 문자열입니다.
mta 전송(제목 포함)	- 발신자 번호를 키워드 **s**과(와) **함께 추가합니다**.

	• 호출된 파티 번호를 키워드 **d로 추가합니다**. • 발신 및 수신자 번호를 키워드 **둘 다**로 추가합니다. 디버그 표시를 보려면 <u>여기</u>를 클릭하십시오.
<u>mta 반환 수신 전송</u>	키워드는 **사용자 이름** 및 **호스트 이름입니다**.함께 disposition-notification-to:username@hostname을 구성합니다.
dial-peer 음성 번호 *mmoip* **mdn**	이 MOIP 피어를 통해 전송된 이메일에 대한 요청 MDN(Message Disposition Notification)은 mta send return-receipt-to 명령에 의해 정의된 **대상으로** 전송됩니다.
dial-peer 음성 번호 *mmoip* **dsn** <u>{delay	성공	실패}</u>	mta send mail-from 명령에 의해 정의된 대상으로 DSN(배달 상태 알림)을 **보내도록** 요청합니다.

OnRamp 컨피그레이션

```
vdtl-5300-7a# show running-config
Building configuration...

Current configuration : 2294 bytes
!
! Last configuration change at 10:49:16 EST Mon Mar 18 2003
! NVRAM config last updated at 11:00:42 EST Mon Mar 4 2003
!
version 12.2
service timestamps debug datetime msec localtime
service timestamps log datetime msec localtime
no service password-encryption
!
hostname vdtl-5300-7a
!
!
resource-pool disable
clock timezone EST -5
!
ip subnet-zero
ip domain-name testlab-t37.com
!--- The ip domain-name command is needed so the router sends a fully qualified !--- domain-name
(FQDN) to the email server.

!--- Router must be reloaded after ip domain-name configuration due to a known bug !--- that has
since been resolved.

ip name-server 172.18.106.36
```

```
!--- The ip name-server command is required in order to do name resolution.

!
!
isdn switch-type primary-5ess
!
fax receive called-subscriber 8913180
fax interface-type fax-mail
!
mta send server testlab-smtp.testlab-t37.com port 25
!--- The mta send server command identifies the email server for OnRamp emails.

!
mta send subject Fax from On-Ramp GW vdlt-5300-7a
mta send with-subject both
mta send postmaster administrator@testlab-t37.com
!
!--- The address set with mta send postmaster is used as the "From" address !--- unless mta send
mail-from commands are defined.

!
mta send mail-from hostname vdtl-5300-7a.testlab-t37.com
mta send mail-from username $s$
mta send return-receipt-to hostname testlab-t37.com
mta send return-receipt-to username admin
mta receive maximum-recipients 0
call-history-mib retain-timer 500
!
controller T1 0
framing esf
clock source line primary
linecode b8zs
pri-group timeslots 1-24
!
!
!
interface Ethernet0
ip address 15.80.7.11 255.255.255.0
!
interface Serial0:23
no ip address
isdn switch-type primary-5ess
isdn incoming-voice modem
no cdp enable
!
ip classless
ip route 0.0.0.0 0.0.0.0 15.80.7.1
no ip http server
ip pim bidir-enable
!
call rsvp-sync
!
call application voice onramp flash:app_libretto_onramp.2.0.1.1.tcl
!--- This identifies the call application to use. It is named "onramp" in !--- this example.
voice-port 0:D ! mgcp profile default ! dial-peer voice 1 mmoip application
fax_on_vfc_onramp_app out-bound destination-pattern 8913144 information-type fax session target
mailto:$d$@testlab-t37.com ! !--- The MMoIP peers contain configuration specific to the called
party number. !--- It requests MDN and DSN. It identifies the application to use for the
outbound !--- call leg and specifies the address to which the email will be sent. mdn dsn
success dsn failure ! dial-peer voice 891314 pots application onramp incoming called-number
891314[4-5] direct-inward-dial port 0:D !--- The pots peers for T.37 are no different than for
voice calls with the exception of !--- using the application defined above in the call
application global configuration !--- command. The direct-inward-dial command is required unless
using a redialer.
```

```
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4
login
!
ntp clock-period 17179806
ntp server 172.18.106.15
end

vdtl-5300-7a#
```

선택적 구성

다음은 몇 가지 선택적 컨피그레이션 매개변수입니다.첫 번째 예는 기존 이메일 주소를 사용하여 여러 이메일 계정을 구성하는 방법을 보여줍니다. 두 번째 예는 이메일 주소에 대해 수신자 번호를 사용하여 여러 이메일 계정을 구성하는 방법을 보여줍니다.

예 1:

`!`
`dial-peer voice 1 mmoip`
` application fax_on_vfc_onramp_app out-bound`
` destination-pattern 8913144`
` information-type fax`
` session target mailto:andy@testlab-t37.com`
`!`
`dial-peer voice 2 mmoip`
` application fax_on_vfc_onramp_app out-bound`
` destination-pattern 8913145`
` information-type fax`
` session target mailto:bobby@testlab-t37.com`
`!`
`dial-peer voice 891314 pots`
` application onramp`
` incoming called-number 891314[4-5]`
` direct-inward-dial`
` port 0:D`
`!`
	이 컨피그레이션에서는 PRI에 두 개의 DID(Direct Inward Dialing) 번호가 있습니다.891-3144 및 891-3145전화를 건 번호에 따라 andy@testlab-t37.com 또는 bobby@testlab-t37.com으로 전자 메일이 전송됩니다.

예 2:

``` ! dial-peer voice 1 mmoip application fax_on_vfc_onramp_ app out-bound destination- pattern 8913144 information-type fax session target mailto:d@testlab -t37.com ! ```	이 컨피그레이션에서는 DNIS(Dialed Number Identification Service)(수신자 번호)가 RCPT TO:SMTP 명령.이를 통해 고객은 각 사용자에게 OnRamp 애플리케이션에 대한 DID를 제공할 수 있습니다.이메일 서버에 별칭을 추가하면 됩니다.3월 12일 15:42:12.947:(C)S:수신:<FAX=8913144@testlab-t37.com>

참고: 이메일 별칭이 8913144@domain.com 대신 FAX=8913144@domain.com인지 확인하십시오. 그렇지 않으면 이메일이 제대로 전달되지 않습니다.

문제 해결

실패한 디버깅

참고: 컨피그레이션 변경 사항은 디버그 위에 표시됩니다.

```
debug mspi send
!
fax interface-type fax-mail
mta send server testlab-smtp.testlab-t37.com port 25
mta send mail-from hostname whatever.com
mta receive maximum-recipients 0
call-history-mib retain-timer 500
!
```

참고: mta **send mail-from username** 명령은 mta send postmaster 명령과 마찬가지로 컨피그레이션에서 생략됩니다.

```
vdtl-5300-7a#
Mar 4 10:03:29.165: mspi_setup_req: for cid=0x27
Mar 4 10:03:29.165: envelope_from=FAX=@        !--- Note: This is not a valid email address (no
domain). Mar 4 10:03:29.165: envelope_to=andy@testlab-t37.com
Mar 4 10:03:30.165: mspi_chk_connect: cid=0x27, cnt=0,
Mar 4 10:03:30.165: SMTP connected to the server !  !--- The connection to the SMTP server is
initiated. Mar 4 10:03:30.165: mspi_bridge: cid=0x27, dst cid=0x28, Mar 4 10:03:56.985:
mspi_xmit: cid=0x27, st=CONFERENCED, src_cid=0x28, buf cnt=0 Mar 4 10:03:56.985: %MSPI-4-
MSPI_NO_SMTP_SEND: MSPI- Could not
 send data to the SMTP server, cid=39, mspi_on_xmit, lost connection
Mar 4 10:03:56.985: mspi_on_xmit: cid=0x27, lost connection
Mar 4 10:03:56.985: disc text=no route to destination (3): SMTP client engine
 lost connection  !--- The statement "no route to destination" is a little misleading as a cause
code. Mar 4 10:03:56.985: mspi_xmit: cid=0x27, st=ABORTING, src_cid=0x28 Mar 4 10:03:56.985:
discarding buffer !--- Several lines of mspi_xmit debugs that were identical to the lines above
!--- and below this note have been suppressed. Mar 4 10:03:56.989: mspi_xmit: cid=0x27,
st=ABORTING, src_cid=0x28 Mar 4 10:03:56.993: discarding buffer Mar 4 10:03:56.993:
```

```
%LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NO_ESMTP_CONNECT: ESMTP client did not connect or lost connection
to remote server Mar 4 10:03:56.993: mspi_bridge_drop: cid=0x27, dst cid=0x28, st=ABORTING,
onramp Mar 4 10:03:56.993: mspi_disconnect: cid=0x27, st=DISCONNECTING, cause=no route to
destination (3) Mar 4 10:03:56.993: mspi_on_call_hist: cid=0x27, cause=no route to destination
(3): SMTP client engine lost connection Mar 4 10:03:56.993: disposing smtp ctx Mar 4
10:03:56.993: mspi_free_ccb: mmccb allocated=1, inserted=0 vdtl-5300-7a#
```

이 디버그를 사용하면 동일한 문제를 좀 더 명확하게 볼 수 있습니다.

```
vdtl-5300-7a# debug mta send all
Mar 5 16:48:46.420: esmtp_client_engine_open: from=FAX=@, to=andy@testlab-t37.com
Mar 5 16:48:46.420: esmtp_client_engine_add_headers: from_comment=Fax
Mar 5 16:48:46.792: esmtp_client_work: socket 0 attempting to connect to IP
 address 172.18.106.36
Mar 5 16:48:46.792: esmtp_client_work: socket 0 readable for first time
Mar 5 16:48:46.792: esmtp_client_work: socket 0 readable for first time
Mar 5 16:48:46.796: (C)R: 220 testlab-smtp.testlab-t37.com Microsoft ESMTP MAIL Service,
 Version: 5.0.2195.4453 ready at Tue, 5 Mar 2002 16:48:12 -0500 !--- This is the SMTP server
information displayed with the login. Mar 5 16:48:46.796: (C)S: EHLO vdtl-5300-7a.testlab-
t37.com
Mar 5 16:48:47.208: (C)R: 250-testlab-smtp.testlab-t37.com Hello [15.80.7.11]
!--- All the responses through the R: 250 OK are in response to the EHLO command from !--- the
sender (the 5300). These are the capabilities of the receiver. Mar 5 16:48:47.208: (C)R: 250-
TURN Mar 5 16:48:47.208: (C)R: 250-ATRN Mar 5 16:48:47.208: (C)R: 250-SIZE Mar 5 16:48:47.208:
(C)R: 250-ETRN Mar 5 16:48:47.212: (C)R: 250-PIPELINING Mar 5 16:48:47.212: (C)R: 250-DSN Mar 5
16:48:47.212: (C)R: 250-ENHANCEDSTATUSCODES Mar 5 16:48:47.212: (C)R: 250-8bitmime Mar 5
16:48:47.212: (C)R: 250-BINARYMIME Mar 5 16:48:47.212: (C)R: 250-CHUNKING Mar 5 16:48:47.212:
(C)R: 250-VRFY Mar 5 16:48:47.212: (C)R: 250-X-EXPS GSSAPI NTLM LOGIN Mar 5 16:48:47.212: (C)R:
250-X-EXPS=LOGIN Mar 5 16:48:47.212: (C)R: 250-AUTH GSSAPI NTLM LOGIN Mar 5 16:48:47.212: (C)R:
250-AUTH=LOGIN Mar 5 16:48:47.212: (C)R: 250-X-LINK2STATE Mar 5 16:48:47.212: (C)R: 250-XEXCH50
Mar 5 16:48:47.212: (C)R: 250 OK Mar 5 16:48:47.212: (C)S: MAIL FROM:
```

                                    !--- This is the mail from command.

```
Mar 5 16:48:47.708: (C)R: 501 5.5.4 Invalid Address                              !--- The
server does not like the address. Mar 5 16:48:47.708: esmtp_client_work: error in response to
MAIL FROM  !--- This tells exactly where the problem ocurred in the SMTP exchange. Mar 5
16:48:47.708: esmtp_client_work: ERROR, socket=0 Mar 5 16:49:15.132: %MSPI-4-MSPI_NO_SMTP_SEND:
MSPI- Could not send data to the SMTP server, cid=96, mspi_on_xmit, lost connection Mar 5
16:49:15.132: %LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NO_ESMTP_CONNECT: ESMTP client did not connect or
lost connection to remote server Mar 5 16:49:15.208: esmtp_client_work: Freeing ctx=0x62616C4C
Mar 5 16:49:15.208: esmtp_client: returned from work, context freed
```

구성된 서버 없음

```
fax receive called-subscriber 8913180
fax interface-type fax-mail
mta send subject Fax from On-Ramp GW vdlt-5300-7a
mta send postmaster administrator@testlab-t37.com
mta send mail-from hostname vdtl-5300-7a.testlab-t37.com
mta send mail-from username $s$
mta receive maximum-recipients 0

vdtl-5300-7a#
Mar 4 10:46:48.703: mspi_setup_req: for cid=0x3F
Mar 4 10:46:48.703: %MSPI-1-MSPI_BAD_CONFIG: MSPI-bad configuration, mspi_setup_req:
 NULL server ip address
Mar 4 10:46:48.703: mspi_setup_req: NULL server address
Mar 4 10:46:48.703: %LAPP_ON_MSGS-6-LAPP_ON_CAUSE_NO_ESMTP_CONNECT: ESMTP client
```

```
 did not connect or lost connection to remote server
vdtl-5300-7a#
```

서버가 구성되었지만 서버에 대한 IP 경로가 없습니다.

```
vdtl-5300-7a# debug mspi send
Mail SPI send debugging is on
vdtl-5300-7a#
Mar 20 09:35:27.126: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510
Mar 20 09:35:29.306: mspi_setup_req: for cid=0x141
Mar 20 09:35:29.306: envelope_from=FAX=8915510@vdtl-5300-7a.testlab-t37.com
Mar 20 09:35:29.310: envelope_to=FAX=8913144@testlab-t37.com
Mar 20 09:35:30.310: mspi_chk_connect: cid=0x141, cnt=0,
Mar 20 09:35:30.310: SMTP is in the error state...
Mar 20 09:35:30.310: disc text=no route to destination (3): SMTP client open failed
Mar 20 09:35:30.310: Still waiting for the SMTP connection.....  !--- You can tell that the SMTP
connection was never established. Mar 20 09:35:30.310: %LAPP_ON_MSGS-6-
LAPP_ON_CAUSE_NO_ESMTP_CONNECT: ESMTP client
 did not connect or lost connection to remote server
Mar 20 09:35:30.310: mspi_disconnect: cid=0x141, st=DISCONNECTING, cause=no route
 to destination (3)  !--- This cause code seems to be an accurate description of the problem.
Mar 20 09:35:30.310: mspi_on_call_hist: cid=0x141, cause=no route to destination (3):
 SMTP client open failed
Mar 20 09:35:30.310: disposing smtp ctx
Mar 20 09:35:30.310: mspi_free_ccb: mmccb allocated=1, inserted=0
Mar 20 09:35:36.006: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510,
 call lasted 14 seconds
vdtl-5300-7a#
```

참고: 라우터가 MS Exchange 서버에 FQDN(정규화된 도메인 이름)을 보내지 않고 구문을 좋아하지 않습니다."ip domain-name *domain*"을 추가한 후 라우터를 다시 로드해야 하기 때문입니다.

```
vdtl-5300-7a# debug mmoip send email andy@testlab-t37.com
vdtl-5300-7a#
Mar 28 09:55:16.768: %SYS-5-CONFIG_I: Configured from console by console
Mar 28 09:55:17.936: esmtp_client_engine_open: from=testing@vdtl-5300-7a.testlab-t37.com,
 to=andy@testlab-t37.com
Mar 28 09:55:17.940: esmtp_client_engine_add_headers: from_comment=mspi Test User
Mar 28 09:55:18.072: esmtp_client_work: socket 0 attempting to connect to IP
 address 172.18.106.36
Mar 28 09:55:18.072: esmtp_client_work: socket 0 readable for first time
Mar 28 09:55:18.072: esmtp_client_work: socket 0 readable for first time
Mar 28 09:55:18.076: (C)R: 220 testlab-smtp.testlab-t37.com Microsoft ESMTP MAIL Service,
 Version: 5.0.2195.4453 ready at Thu, 28 Mar 2002 09:54:02 -0500
Mar 28 09:55:18.076: (C)S: EHLO vdtl-5300-7a.  !--- The Exchange server does not like the
trailing dot (.). Mar 28 09:55:18.484: (C)R: 501 5.5.4 Invalid Address
Mar 28 09:55:18.484: esmtp_client_work: EHLO failed; will try sending HELO
Mar 28 09:55:18.484: (C)S: HELO vdtl-5300-7a.
Mar 28 09:55:18.984: (C)R: 501 5.5.4 Invalid Address
Mar 28 09:55:18.984: esmtp_client_work: error in response to HELO
Mar 28 09:55:18.984: esmtp_client_work: ERROR, socket=0
Mar 28 09:55:18.984: esmtp_client_work: Freeing ctx=0x62661F18
Mar 28 09:55:18.988: esmtp_client: returned from work, context freed
vdtl-5300-7a#
```
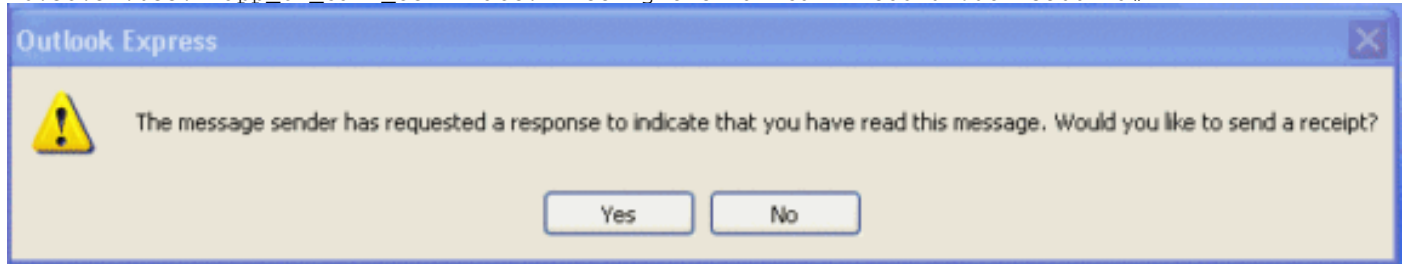
작업 디버깅

이러한 **debug** 명령은 OnRamp의 SMTP 측에 사용됩니다.

```
vdtl-5300-7a# debug foip on-ramp
```

```
FOIP On ramp faxmail debugging is on
vdtl-5300-7a#
Mar 18 10:57:50.995: lapp_on_application: Incoming Event: (15 = CC_EV_CALL_HANDOFF),
 CID(216), DISP(0)
Mar 18 10:57:50.995: lapp_on_call_handoff: Authentication enabled = FALSE
Mar 18 10:57:50.995: lapp_on_call_handoff: Authentication ID = 0
Mar 18 10:57:50.995: lapp_on_call_handoff: Authentication ID source = IVR or unknown
Mar 18 10:57:50.999: lapp_on_call_handoff: Authentication status = SUCCESS
Mar 18 10:57:50.999: lapp_on_call_handoff: Accounting enabled = FALSE
Mar 18 10:57:50.999: lapp_on_call_handoff: Accounting method list = fax
Mar 18 10:57:50.999: lapp_on_call_handoff: Mailto Address =
Mar 18 10:57:50.999: lapp_on_conference_vtsp_fmsp: Begin conferencing VTSP and FMSP...
Mar 18 10:57:50.999: lapp_on_change_state: old state(0) new state(1) !--- HANDOFF to
VTSP_FMSP_CONFERENCING Mar 18 10:57:51.003: lapp_on_application: Incoming Event: (29 =
CC_EV_CONF_CREATE_DONE), CID(216), DISP(0) Mar 18 10:57:51.003: lapp_on_application: Current
call state = 1 Mar 18 10:57:51.003: lapp_on_conference_created: The VTSP and the FMSP are
conferenced
Mar 18 10:57:51.003: lapp_on_conference_created: Wait for FMSP call detail event
Mar 18 10:57:51.003: lapp_on_change_state: old state(1) new state(2) !--- VTSP_FMSP_CONFERENCING
to FMSP_CALL_DETAIL Mar 18 10:57:57.075: %ISDN-6-CONNECT: Interface Serial0:18 is now connected
to 8915510 Mar 18 10:57:59.135: lapp_on_application: Incoming Event: (33 =
CC_EV_FROM_FMSP_ON_CALL_DETAIL), CID(217), DISP(0) Mar 18 10:57:59.139: lapp_on_application:
Current call state = 2 Mar 18 10:57:59.139: lapp_on_msp_event: Incoming call detail has arrived
from the FMSP Mar 18 10:57:59.139: lapp_on_setup_mspi: Prep MSPI ccCallSetupRequest... Mar 18
10:57:59.139: lapp_on_setup_mspi: Envelope from: FAX=8915510@vdtl-5300-7a.testlab-t37.com
Mar 18 10:57:59.139: lapp_on_setup_mspi: Envelope to: FAX=8913144@testlab-t37.com
Mar 18 10:57:59.139: lapp_on_setup_mspi: rfc822_to_comment: 8913144
Mar 18 10:57:59.139: lapp_on_setup_mspi: Faxmail subject: Fax from On-Ramp GW vdlt-5300-7a
[DNIS=8913144][ANI=8915510]
Mar 18 10:57:59.139: lapp_on_setup_mspi: Disposition notification to: admin@testlab-t37.com
!--- A read receipt is sent to admin@testlab-t37.com if the reader so chooses. Mar 18
10:57:59.139: lapp_on_setup_mspi: Originator's TSI = rfc822_from_comment = Fax Mar 18
10:57:59.139: lapp_on_setup_mspi: Auth/Account ID = 0 Mar 18 10:57:59.139: lapp_on_setup_mspi:
Do ccCallSetupRequest to MSPI Mar 18 10:57:59.139: lapp_on_conference_fmsp_dmsp: Starting
conference with FMSP and DMSP Mar 18 10:57:59.139: lapp_on_conference_fmsp_dmsp: tiff file
created = 2002:03:18 10:57:59
Mar 18 10:57:59.139: lapp_on_change_state: old state(2) new state(3)  !--- FMSP_CALL_DETAIL to
FMSP_DMSP_CONFERENCING Mar 18 10:57:59.139: lapp_on_application: Incoming Event: (29 =
CC_EV_CONF_CREATE_DONE), CID(217), DISP(0) Mar 18 10:57:59.139: lapp_on_application: Current
call state = 3 Mar 18 10:57:59.139: lapp_on_conference_created: The FMSP and the DMSP are
conferenced Mar 18 10:57:59.139: lapp_on_conference_created: Sending
CC_EV_TO_FMSP_ON_RECEIVE_ENABLE to FMSP Mar 18 10:57:59.139: lapp_on_change_state: old state(3)
new state(4) !--- FMSP_DMSP_CONFERENCING to FMSP_PAGE_ACCEPT_REQUESTED Mar 18 10:58:00.139:
lapp_on_application: Incoming Event: (8 = CC_EV_CALL_CONNECTED), CID(218), DISP(0) Mar 18
10:58:00.139: lapp_on_application: Current call state = 4 Mar 18 10:58:00.139:
lapp_on_call_connected: Call connected event received.... - CID(218)
Mar 18 10:58:00.139: lapp_on_call_connected: MSPI call connected - CID(218)
Mar 18 10:58:00.139: lapp_on_call_connected: Start conferencing the DMSP and the MSPI
Mar 18 10:58:00.139: lapp_on_application: Incoming Event: (29 = CC_EV_CONF_CREATE_DONE),
 CID(219), DISP(0)
Mar 18 10:58:00.139: lapp_on_application: Current call state = 4
Mar 18 10:58:11.539: lapp_on_application: Incoming Event:
 (36 = CC_EV_FROM_FMSP_ON_PAGE_ACCEPT_REQUESTED), CID(217), DISP(0)
Mar 18 10:58:11.539: lapp_on_application: Current call state = 4
Mar 18 10:58:11.539: lapp_on_msp_event: Page accept request arrived from fmsp
Mar 18 10:58:11.539: lapp_on_msp_event: Sending page accept event to the FMSP
Mar 18 10:58:11.539: lapp_on_msp_event: Pages processed = 1
!--- The first fax page is received. Mar 18 10:58:11.539: lapp_on_change_state: old state(4) new
state(4) Mar 18 10:58:16.015: lapp_on_application: Incoming Event: (37 =
CC_EV_FROM_DMSP_ON_PAGE_PROCESSED), CID(219), DISP(146) Mar 18 10:58:16.015:
lapp_on_application: Current call state = 4 Mar 18 10:58:16.015: lapp_on_msp_event: Page
processed event arrived from the DMSP Mar 18 10:58:16.015: lapp_on_change_state: old state(4)
new state(4) Mar 18 10:58:30.719: lapp_on_application: Incoming Event: (36 =
CC_EV_FROM_FMSP_ON_PAGE_ACCEPT_REQUESTED), CID(217), DISP(0) Mar 18 10:58:30.719:
```

lapp_on_application: Current call state = 4 Mar 18 10:58:30.719: lapp_on_msp_event: **Page accept request arrived from fmsp**
Mar 18 10:58:30.719: lapp_on_msp_event: **Sending page accept event to the FMSP**
Mar 18 10:58:30.719: lapp_on_msp_event: **Pages processed = 2**
!--- The second fax page is received. Mar 18 10:58:30.719: lapp_on_change_state: old state(4) new state(4) Mar 18 10:58:32.199: lapp_on_application: Incoming Event: (37 = CC_EV_FROM_DMSP_ON_PAGE_PROCESSED), CID(219), DISP(0) Mar 18 10:58:32.199: lapp_on_application: Current call state = 4 Mar 18 10:58:32.199: lapp_on_msp_event: Page processed event arrived from the DMSP Mar 18 10:58:32.199: lapp_on_change_state: old state(4) new state(4) Mar 18 10:58:34.355: lapp_on_application: Incoming Event: (11 = CC_EV_CALL_DISCONNECTED), CID(218), DISP(0) Mar 18 10:58:34.355: lapp_on_application: Current call state = 4 Mar 18 10:58:34.355: lapp_on_call_disconnected: Call Disconnected - CID= 218 cause= 0x10 call_state= 4 Mar 18 10:58:34.355: lapp_on_call_disconnected: MSPI disconnected Mar 18 10:58:34.355: lapp_on_call_disconnected: **Faxmail acknowledged by remote SMTP server**
Mar 18 10:58:34.355: lapp_on_change_state: old state(4) new state(7) *!--- FMSP_PAGE_ACCEPT_REQUESTED to CONFERENCE_DESTROYING* Mar 18 10:58:34.355: lapp_on_conference_cleanup: Destroying conferences... Mar 18 10:58:34.355: lapp_on_conference_cleanup: **Destroying conference for VTSP & FMSP**
Mar 18 10:58:34.355: lapp_on_conference_cleanup: **Destroying conference for FMSP & DMSP**
Mar 18 10:58:34.355: lapp_on_conference_cleanup: **Destroying conference for DMSP & MSPI**
Mar 18 10:58:34.355: lapp_on_application: Incoming Event: (30 = CC_EV_CONF_DESTROY_DONE), CID(217), DISP(0)
Mar 18 10:58:34.355: lapp_on_application: Current call state = 7
Mar 18 10:58:34.355: lapp_on_conference_destroyed: FMSP/DMSP conference destroyed
Mar 18 10:58:34.355: lapp_on_conference_destroyed: Conference destroyed..... confID = 150
Mar 18 10:58:34.355: lapp_on_application: Incoming Event: (30 = CC_EV_CONF_DESTROY_DONE), CID(219), DISP(0)
Mar 18 10:58:34.355: lapp_on_application: Current call state = 7
Mar 18 10:58:34.355: lapp_on_conference_destroyed: DMSP/MSPI conference destroyed
Mar 18 10:58:34.355: lapp_on_conference_destroyed: Conference destroyed..... confID = 151
Mar 18 10:58:34.355: lapp_on_application: Incoming Event: (30 = CC_EV_CONF_DESTROY_DONE), CID(216), DISP(0)
Mar 18 10:58:34.355: lapp_on_application: Current call state = 7
Mar 18 10:58:34.355: lapp_on_conference_destroyed: VTSP/FMSP conference destroyed
Mar 18 10:58:34.355: lapp_on_conference_destroyed: Conference destroyed..... confID = 149
Mar 18 10:58:34.355: lapp_on_change_state: old state(7) new state(8) *!--- CONFERENCE_DESTROYING to DISCONNECTING* Mar 18 10:58:34.355: lapp_on_conference_destroyed: All conferences are destroyed. Mar 18 10:58:34.355: lapp_on_change_state: old state(8) new state(8) Mar 18 10:58:34.355: lapp_on_call_leg_cleanup: Sending disconnect for FMSP Mar 18 10:58:34.359: lapp_on_call_leg_cleanup: Sending disconnect for DMSP Mar 18 10:58:34.359: lapp_on_application: Incoming Event: (12 = CC_EV_CALL_DISCONNECT_DONE), CID(219), DISP(0) Mar 18 10:58:34.359: lapp_on_application: Current call state = 8 Mar 18 10:58:34.359: lapp_on_disconnect_done: Received call disconnect done ... callID = 219 Mar 18 10:58:34.359: lapp_on_disconnect_done: DMSP disconnect done Mar 18 10:58:34.359: lapp_on_disconnect_done: Sending disconnect for MSPI Mar 18 10:58:34.359: lapp_on_application: Incoming Event: (12 = CC_EV_CALL_DISCONNECT_DONE), CID(218), DISP(0) Mar 18 10:58:34.359: lapp_on_application: Current call state = 8 Mar 18 10:58:34.359: lapp_on_disconnect_done: Received call disconnect done ... callID = 218 Mar 18 10:58:34.359: lapp_on_disconnect_done: MSPI disconnect done Mar 18 10:58:34.363: lapp_on_application: Incoming Event: (12 = CC_EV_CALL_DISCONNECT_DONE), CID(217), DISP(0) Mar 18 10:58:34.363: lapp_on_application: Current call state = 8 Mar 18 10:58:34.363: lapp_on_disconnect_done: Received call disconnect done ... callID = 217 Mar 18 10:58:34.363: lapp_on_disconnect_done: FMSP disconnect done Mar 18 10:58:34.363: lapp_on_disconnect_done: Sending disconnect for VTSP Mar 18 10:58:36.627: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510 , call lasted 45 seconds Mar 18 10:58:37.647: lapp_on_application: Incoming Event: (28 = CC_EV_CALL_FEATURE), CID(216), DISP(0) Mar 18 10:58:37.647: lapp_on_application: Current call state = 8 Mar 18 10:58:37.647: lapp_on_event_unsupported: Unsupported event received--- Mar 18 10:58:37.647: lapp_on_event_unsupported: EV(28=CC_EV_CALL_FEATURE), CID(216), disp(0) Mar 18 10:58:37.647: lapp_on_event_unsupported: Current call state = 8 Mar 18 10:58:37.651: lapp_on_application: Incoming Event: (12 = CC_EV_CALL_DISCONNECT_DONE), CID(216), DISP(0) Mar 18 10:58:37.651: lapp_on_application: Current call state = 8 Mar 18 10:58:37.651: lapp_on_disconnect_done: **Received call disconnect done ... callID = 216**
Mar 18 10:58:37.651: lapp_on_disconnect_done: **VTSP disconnect done**
Mar 18 10:58:37.651: lapp_on_disconnect_done: All the calls are now void or disconnected

```
Mar 18 10:58:37.651: lapp_on_change_state: old state(8) new state(9)!--- DISCONNECTING to
TERMINAL Mar 18 10:58:37.651: lapp_on_call_terminate: Freeing the IVR call handoff record Mar 18
10:58:37.655: lapp_on_call_terminate: Freeing the fax call record vdtl-5300-7a#
```


이메일을 수신하는 클라이언트는 MDN 집합이 포함된 이메일을 열 때 위와 유사한 창을 표시합니
다.요청자가 받는 응답은 사용자에게 보내는 이메일의 형태로 "이것은 "8913144"
<Fax=8913144@testlab-t37.com>으로 보낸 이메일의 수신입니다(3/18/2002 10:58AM).이 확인서
는 수신자의 컴퓨터에 메시지가 3/18/2002 11:07 AM에 표시되었는지 확인합니다."

```
vdtl-5300-7a# debug mta send all
All email send debugging is on
vdtl-5300-7a#
Mar 18 14:50:46.278: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510
Mar 18 14:50:48.474: esmtp_client_engine_open:
 from=FAX=8915510@vdtl-5300-7a.testlab-t37.com, to=FAX=8913144@testlab-t37.com
Mar 18 14:50:48.474: esmtp_client_engine_add_headers: from_comment=Fax
Mar 18 14:50:48.702: esmtp_client_work: socket 0 attempting to connect to
 IP address 172.18.106.36
Mar 18 14:50:48.702: esmtp_client_work: socket 0 readable for first time
Mar 18 14:50:48.702: esmtp_client_work: socket 0 readable for first time
Mar 18 14:50:48.706: (C)R: 220 testlab-smtp.testlab-t37.com Microsoft ESMTP MAIL Service,
 Version: 5.0.2195.4453 ready at Mon, 18 Mar 2002 14:49:51 -0500
Mar 18 14:50:48.706: (C)S: EHLO vdtl-5300-7a.testlab-t37.com
Mar 18 14:50:49.166: (C)R: 250-testlab-smtp.testlab-t37.com Hello [15.80.7.11]
Mar 18 14:50:49.166: (C)R: 250-TURN
Mar 18 14:50:49.170: (C)R: 250-ATRN
Mar 18 14:50:49.170: (C)R: 250-SIZE
Mar 18 14:50:49.170: (C)R: 250-ETRN
Mar 18 14:50:49.170: (C)R: 250-PIPELINING
Mar 18 14:50:49.170: (C)R: 250-DSN
Mar 18 14:50:49.170: (C)R: 250-ENHANCEDSTATUSCODES
Mar 18 14:50:49.170: (C)R: 250-8bitmime
Mar 18 14:50:49.170: (C)R: 250-BINARYMIME
Mar 18 14:50:49.170: (C)R: 250-CHUNKING
Mar 18 14:50:49.170: (C)R: 250-VRFY
Mar 18 14:50:49.170: (C)R: 250-X-EXPS GSSAPI NTLM LOGIN
Mar 18 14:50:49.170: (C)R: 250-X-EXPS=LOGIN
Mar 18 14:50:49.170: (C)R: 250-AUTH GSSAPI NTLM LOGIN
Mar 18 14:50:49.170: (C)R: 250-AUTH=LOGIN
Mar 18 14:50:49.170: (C)R: 250-X-LINK2STATE
Mar 18 14:50:49.170: (C)R: 250-XEXCH50
Mar 18 14:50:49.170: (C)R: 250 OK
Mar 18 14:50:49.170: (C)S: MAIL FROM:




Mar 18 14:50:49.666: (C)R: 250 2.1.0 FAX=8915510@vdtl-5300-7a.testlab-t37.com....Sender OK
Mar 18 14:50:49.666: (C)S: RCPT TO:
```

```
      ORCPT=rfc822;FAX+3D8915510@vdtl-5300-7a.testlab-t37.com
Mar 18 14:50:50.170: (C)R: 250 2.1.5 FAX=8913144@testlab-t37.com
Mar 18 14:50:50.698: (C)R: 354 Start mail input; end with
```

Mar 18 14:50:50.698: (C)S: Received: by vdtl-5300-7a.testlab-t37.com for Mar 18 14:51:05.706: esmtp_client_work: writing lingering data for socket 0 Mar 18 14:51:05.714: esmtp_client_work: writing lingering data for socket 0 Mar 18 14:51:14.726: esmtp_client_work: writing lingering data for socket 0 Mar 18 14:51:14.734: esmtp_client_work: writing lingering data for socket 0 Mar 18 14:51:14.738: (C)S: --yradnuoB_008B2002145048474.vdtl-5300-7atestlab-t37.com-- Mar 18 14:51:14.738: esmtp_client_work: Sending terminating dot ...(socket=0) Mar 18 14:51:14.738: (C)S: . *!--- This is the terminating dot to end the SMTP session.* Mar 18 14:51:14.986: (C)R: 250 2.6.0 <008C2002145050698@vdtl-5300-7a.testlab-t37.com> Queued mail for delivery Mar 18 14:51:14.986: (C)S: **QUIT**

```
Mar 18 14:51:15.406: (C)R: 221 2.0.0 testlab-smtp.testlab-t37.com Service closing
 transmission channel
Mar 18 14:51:15.406: esmtp_client_work: Freeing ctx=0x6266946C
Mar 18 14:51:15.406: esmtp_client: returned from work, context freed
Mar 18 14:51:18.938: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510 ,
 call lasted 38 seconds
vdtl-5300-7a#


vdtl-5300-7a# debug dmsp fax-to-doc
Doc MSP fax to doc debugging is on
vdtl-5300-7a#
Mar 18 14:53:03.338: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510
Mar 18 14:53:05.530: docmsp_call_setup_request: callid=227
Mar 18 14:53:05.530: docmsp_call_setup_request(): ramp data dir=ONRAMP, conf dir=DEST
Mar 18 14:53:05.534: docmsp_caps_ind: call id=227, src=225
Mar 18 14:53:05.534: docmsp_bridge cfid=156, srccid=227, dstcid=225

Mar 18 14:53:05.534: docmsp_bridge(): ramp data dir=ONRAMP, conf dir=DEST, encode out=2
Mar 18 14:53:06.530: docmsp_bridge cfid=157, srccid=227, dstcid=226

Mar 18 14:53:06.530: docmsp_bridge(): ramp data dir=ONRAMP, conf dir=SRC, encode out=2
Mar 18 14:53:11.510: docmsp_xmit: call id src=225, dst=227
Mar 18 14:53:11.510: docmsp_process_rcv_data: call id src=225, dst=227
Mar 18 14:53:12.350: docmsp_xmit: call id src=225, dst=227
```
!--- Output suppressed. Mar 18 14:53:22.242: docmsp_process_rcv_data: call id src=225, dst=227 Mar 18 14:53:22.242: docmsp_get_msp_event_buffer: Mar 18 14:53:23.082: docmsp_xmit: call id src=225, dst=227 Mar 18 14:53:23.082: docmsp_process_rcv_data: call id src=225, dst=227 Mar 18 14:53:23.922: docmsp_xmit: call id src=225, dst=227 *!--- Output suppressed.* Mar 18 14:53:36.950: docmsp_process_rcv_data: call id src=225, dst=227 Mar 18 14:53:38.430: docmsp_xmit: call id src=225, dst=227 Mar 18 14:53:38.430: docmsp_process_rcv_data: call id src=225, dst=227 Mar 18 14:53:38.434: docmsp_get_msp_event_buffer: Mar 18 14:53:41.022: docmsp_bdrop cfid=156, srccid=227, dstcid=225 Mar 18 14:53:41.022: docmsp_bdrop cfid=157, srccid=227, dstcid=226 Mar 18 14:53:41.026: docmsp_call_disconnect: callid=227 Mar 18 14:53:41.026: docmsp_do_call_history: call id=227 Mar 18 14:53:42.886: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510 , call lasted 45 seconds vdtl-5300-7a#

참고: debug mmoip **send email** *address* 명령은 화면 자체에 아무것도 표시하지 않지만 매우 유용합니다.SMTP 클라이언트로 라우터를 사용하여 debug 명령에 지정된 주소로 이메일을 전송합니다.이 전자 메일에는 구성에 정의된 제목이 있으며 "mspi 테스트 사용자"의 제목이 있습니다. "Cisco Powered Libreto FaxMail을 통해 전송된 테스트 이메일 메시지입니다."라는 텍스트가 첨부되어 있습니다.

다음은 OnRamp의 팩스 측면에 대한 디버깅입니다.

```
vdtl-5300-7a# debug fmsp send t30
FMSP send t30 debugging is on
vdtl-5300-7a#
Mar 19 14:50:04.604: t30 call4Leg=311, state=1, substate=4
Mar 19 14:50:04.604: received flag of modulation:
0
Mar 19 14:50:04.628: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510
Mar 19 14:50:06.252: msg dump:FF C0 C2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 1E 86 62
Mar 19 14:50:06.252:
Mar 19 14:50:06.252: t30 call4Leg=311, state=1, substate=4
Mar 19 14:50:06.252: received: TSI remote id string: Fax

Mar 19 14:50:06.672: msg dump:FF C8 C1 0 47 E
Mar 19 14:50:06.672:
Mar 19 14:50:06.824: t30 call4Leg=311, state=1, substate=4
Mar 19 14:50:06.824: in response receive WAIT FOR CD
Mar 19 14:50:11.632: t30 call4Leg=311, state=1, substate=6
Mar 19 14:50:11.632: received flag of modulation:
8
Mar 19 14:50:19.304: t30 call4Leg=311, state=1, substate=6
Mar 19 14:50:19.304: received flag of modulation:
0
Mar 19 14:50:20.364: msg dump:FF C8 F2
Mar 19 14:50:20.364:
Mar 19 14:50:22.324: t30 call4Leg=311, state=1, substate=6
Mar 19 14:50:22.324: received flag of modulation:
8
Mar 19 14:50:31.643: t30 call4Leg=311, state=1, substate=6
Mar 19 14:50:31.643: received flag of modulation:
0
Mar 19 14:50:32.683: msg dump:FF C8 F4
Mar 19 14:50:32.683:
Mar 19 14:50:33.155: t30 call4Leg=311, state=0, substate=6
Mar 19 14:50:33.155: fax session aborted by aplication
Mar 19 14:50:37.295: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510 ,
 call lasted 38 seconds
vdtl-5300-7a#

vdtl-5300-7a#debug fmsp receive t30
FMSP receive t30 debugging is on
vdtl-5300-7a#
Mar 19 14:46:26.536: t30 call4Leg=307, state=1, substate=3   !--- state=PHASE_B_RECEIVE
substate=TX_DIS_DTC_BLOCK Mar 19 14:46:26.536: CSI_PACKET(8913180) !--- The CSI option, which
shows that the called number is 8913180, is !--- controlled by the fax receive called-subscriber
configuration.

Mar 19 14:46:26.536: t30 call4Leg=307, state=1, substate=3
Mar 19 14:46:26.536: DIS_PACKET(speed: 5, resolution: 1, encoding:
1
Mar 19 14:46:26.536: t30 call4Leg=307, state=1, substate=4   !--- Moved to substate
RX_DCS_DTC_BLOCK. Mar 19 14:46:26.536: fax2_response_receive: PROCESSING Mar 19 14:46:29.452:
t30 call4Leg=307, state=1, substate=4 Mar 19 14:46:29.452: fax2_response_receive: PROCESSING Mar
19 14:46:29.476: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510 Mar 19
14:46:30.736: t30 call4Leg=307, state=1, substate=3 Mar 19 14:46:30.736: CSI_PACKET(8913180)
Mar 19 14:46:30.736: t30 call4Leg=307, state=1, substate=3
Mar 19 14:46:30.736: DIS_PACKET(speed: 5, resolution: 1, encoding:
1   !--- speed=14400, resolution=, encoding=modified read Mar 19 14:46:30.736: t30 call4Leg=307,
state=1, substate=4 Mar 19 14:46:30.736: fax2_response_receive: PROCESSING Mar 19 14:46:31.100:
t30 call4Leg=307, state=1, substate=4 Mar 19 14:46:31.100: fax2_response_receive: PROCESSING Mar
19 14:46:31.100: msg dump:FF C0 C2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 1E 86 62 Mar 19
14:46:31.100: Mar 19 14:46:31.100: t30 call4Leg=307, state=1, substate=4 Mar 19 14:46:31.100:
received: TSI remote id string: Fax
```

```
Mar 19 14:46:31.100: t30 call4Leg=307, state=1, substate=4
Mar 19 14:46:31.100: fax2_response_receive: PROCESSING
Mar 19 14:46:31.532: t30 call4Leg=307, state=1, substate=4
Mar 19 14:46:31.532: fax2_response_receive: PROCESSING
Mar 19 14:46:31.532: msg dump:FF C8 C1 0 47 E
Mar 19 14:46:31.532:
Mar 19 14:46:31.532: t30 call4Leg=307, state=1, substate=4
Mar 19 14:46:31.532: fax2_response_receive: PROCESSING
Mar 19 14:46:31.672: t30 call4Leg=307, state=1, substate=4
Mar 19 14:46:31.672: in response receive WAIT FOR CD
Mar 19 14:46:31.672: t30 call4Leg=307, state=1, substate=9   !--- The substate is changed to
RX_TCF. Mar 19 14:46:31.672: received DCS_PACKET, BR: 9,   !--- BR=v.21 14400 resolution: 1,
encoding: 1, remote_id_string: Fax
Mar 19 14:46:31.672: t30 call4Leg=307, state=1, substate=10  !--- The substate is changed to
WAIT_FOR_FDR. Mar 19 14:46:31.672: wait for ready for data from application Mar 19 14:46:31.672:
t30 call4Leg=307, state=1, substate=12 !--- The substate is changed to TX_TCF_RESPONSE. Mar 19
14:46:31.672: send CFR_PACKET
Mar 19 14:46:31.672: t30 call4Leg=307, state=1, substate=6   !--- The substate is changed to
CONFIGURE_RX_DATA. Mar 19 14:46:31.672: fax2_configure_rx_data: STILL_LOOKING, T2 timer not
expired Mar 19 14:46:36.472: t30 call4Leg=307, state=1, substate=6 Mar 19 14:46:36.472:
fax2_configure_rx_data: DETECTED_DATA
Mar 19 14:46:36.472: t30 call4Leg=307, state=2, substate=43  !--- state = PHASE_C_RECEIVE,
substate=RX_FIRST_DATA_BYTE - starting to RX page data... Mar 19 14:46:36.472: No data yet Mar
19 14:46:43.872: t30 call4Leg=307, state=2, substate=14 !--- The substate is changed to RX_DATA.
Mar 19 14:46:43.872: end of page
Mar 19 14:46:43.872: t30 call4Leg=307, state=1, substate=6   !--- The substate is changed to
CONFIGURE_RX_DATA. Mar 19 14:46:43.872: fax2_configure_rx_data: STILL_LOOKING, T2 timer not
expired Mar 19 14:46:43.872: t30 call4Leg=307, state=1, substate=6 Mar 19 14:46:43.872:
fax2_configure_rx_data: STILL_LOOKING, T2 timer not expired Mar 19 14:46:44.140: t30
call4Leg=307, state=1, substate=6 Mar 19 14:46:44.140: fax2_configure_rx_data: DETECTED_COMMAND
Mar 19 14:46:44.140: t30 call4Leg=307, state=1, substate=7 !--- The substate is changed to
RX_COMMAND. Mar 19 14:46:44.140: fax2_command_receive: NO_COMMAND, T2 timer not expired Mar 19
14:46:45.200: t30 call4Leg=307, state=1, substate=7 Mar 19 14:46:45.200: fax2_command_receive:
PROCESSING Mar 19 14:46:45.200: msg dump:FF C8 F2 Mar 19 14:46:45.200: Mar 19 14:46:45.200: t30
call4Leg=307, state=1, substate=7 Mar 19 14:46:45.200: fax2_command_receive: PROCESSING Mar 19
14:46:45.352: t30 call4Leg=307, state=1, substate=7 Mar 19 14:46:45.352: fax2_command_receive:
RECEIVED_COMMAND Mar 19 14:46:45.352: t30 call4Leg=307, state=3, substate=8 !--- The substate is
changed to ROUTE_COMMAND. Mar 19 14:46:45.352: received MPS  !--- Received Multipage Signal. Mar
19 14:46:45.352: t30 call4Leg=307, state=3, substate=10 !--- The substate is changed to
WAIT_FOR_FDR. Mar 19 14:46:45.352: waiting for page acceptence by the application Mar 19
14:46:45.352: t30 call4Leg=307, state=3, substate=17 !--- The substate is changed to
SCHEDULE_PP_RESPONSE. Mar 19 14:46:45.352: send MCF   !--- Send a Message Confirmation. Mar 19
14:46:45.352: t30 call4Leg=307, state=1, substate=6 Mar 19 14:46:45.352: fax2_configure_rx_data:
STILL_LOOKING, T2 timer not expired Mar 19 14:46:47.172: t30 call4Leg=307, state=1, substate=6


!--- Now this must be done again, starting from the page data, because two pages !--- are being
sent. Mar 19 14:46:47.172: fax2_configure_rx_data: DETECTED_DATA Mar 19 14:46:47.172: t30
call4Leg=307, state=2, substate=43 !--- state = PHASE_C_RECEIVE, substate=RX_FIRST_DATA_BYTE -
starting to RX page data... Mar 19 14:46:47.172: No data yet Mar 19 14:46:56.212: t30
call4Leg=307, state=2, substate=14 !--- The substate is changed to RX_DATA. Mar 19 14:46:56.212:
end of page Mar 19 14:46:56.212: t30 call4Leg=307, state=1, substate=6 Mar 19 14:46:56.212:
fax2_configure_rx_data: STILL_LOOKING, T2 timer not expired Mar 19 14:46:56.212: t30
call4Leg=307, state=1, substate=6 Mar 19 14:46:56.212: fax2_configure_rx_data: STILL_LOOKING, T2
timer not expired Mar 19 14:46:56.512: t30 call4Leg=307, state=1, substate=6 Mar 19
14:46:56.512: fax2_configure_rx_data: DETECTED_COMMAND Mar 19 14:46:56.512: t30 call4Leg=307,
state=1, substate=7 Mar 19 14:46:56.512: fax2_command_receive: NO_COMMAND, T2 timer not expired
Mar 19 14:46:57.552: t30 call4Leg=307, state=1, substate=7 Mar 19 14:46:57.552:
fax2_command_receive: PROCESSING Mar 19 14:46:57.552: msg dump:FF C8 F4 Mar 19 14:46:57.552: Mar
19 14:46:57.552: t30 call4Leg=307, state=1, substate=7 Mar 19 14:46:57.552:
fax2_command_receive: PROCESSING Mar 19 14:46:57.700: t30 call4Leg=307, state=1, substate=7 Mar
19 14:46:57.700: fax2_command_receive: RECEIVED_COMMAND Mar 19 14:46:57.700: t30 call4Leg=307,
state=3, substate=8 Mar 19 14:46:57.700: received EOP
```

```
!--- Received End of Procedure. Mar 19 14:46:57.700: t30 call4Leg=307, state=3, substate=10 Mar
19 14:46:57.700: waiting for page acceptence by the application Mar 19 14:46:57.700: t30
call4Leg=307, state=3, substate=17 Mar 19 14:46:57.700: send MCF
!--- Send a Message Confirmation. Mar 19 14:46:57.700: t30 call4Leg=307, state=1, substate=6 Mar
19 14:46:57.704: fax2_configure_rx_data: STILL_LOOKING, T2 timer not expired Mar 19
14:46:58.140: t30 call4Leg=307, state=0, substate=6 !--- state=PHASE_IDLE Mar 19 14:46:58.140:
fax session aborted by aplication Mar 19 14:47:02.188: %ISDN-6-DISCONNECT: Interface Serial0:18
disconnected from 8915510 , call lasted 38 seconds vdtl-5300-7a#
```

```
vdtl-5300-7a# debug fax relay t30 called-number 8913144
Debugging fax relay t30 to 8913144
vdtl-5300-7a#
Mar 19 14:40:19.134: 0:D:302 1205778176 fr-entered (10ms)
Mar 19 14:40:22.498: 0:D:302 1205781540 fr-msg-tx CSI
Mar 19 14:40:23.826: 0:D:302 1205782870 fr-msg-tx DIS
Mar 19 14:40:25.070: %ISDN-6-CONNECT: Interface Serial0:18 is now connected to 8915510
Mar 19 14:40:26.146: 0:D:302 1205785190 fr-msg-det TSI
Mar 19 14:40:27.026: 0:D:302 1205786070 fr-msg-det DCS
Mar 19 14:40:30.558: 0:D:302 1205789600 fr-msg-tx CFR
Mar 19 14:40:40.766: 0:D:302 1205799810 fr-msg-det MPS
Mar 19 14:40:41.266: 0:D:302 1205800310 fr-msg-tx MCF
Mar 19 14:40:53.098: 0:D:302 1205812140 fr-msg-det EOP
Mar 19 14:40:53.598: 0:D:302 1205812640 fr-msg-tx MCF
Mar 19 14:40:56.390: 0:D:302 1205815430 fr-msg-det DCN
Mar 19 14:40:57.682: %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from 8915510 ,
 call lasted 38 seconds
Mar 19 14:40:58.518: 0:D:302 1205817560 fr-end-dcn
```

fr-msg-tx indicates T.30 messages that are transmitted by the router
fr-msg-det indicates T.30 messages that are received by the router

자세한 내용은 [팩스 릴레이 문제 해결 가이드](#)를 참조하십시오.

show 명령

```
vdtl-5300-7a# show call history fax brief
<ID>: <start>hs.<index> +<connect> +<disc> pid:<peer_id> <direction> <addr>
dur hh:mm:ss tx:<packets>/<bytes> rx:<packets>/<bytes> <disc-cause>(<text>)
IP <ip>:<udp> rtt:<time>ms pl:<play>/<gap>ms lost:<lost>/<early>/<late>
delay:<last>/<min>/<max>ms <codec>
MODEMPASS <method> buf:<fills>/<drains> loss <overall%> <multipkt>/<corrected>
last <buf event time>s dur:<Min>/<Max>s
FR <protocol> [int dlci cid] vad:<y/n> dtmf:<y/n> seq:<y/n>
<codec> (payload size)
ATM <protocol> [int vpi/vci cid] vad:<y/n> dtmf:<y/n> seq:<y/n>
<codec> (payload size)
Telephony <int>: tx:<tot>/<voice>/<fax>ms <codec> noise:<lvl>dBm acom:<lvl>dBm
Proxy <ip>:<audio udp>,<video udp>,<tcp0>,<tcp1>,<tcp2>,<tcp3> endpt: <type>/<manf>
bw: <req>/<act> codec: <audio>/<video>
tx: <audio pkts>/<audio bytes>,<video pkts>/<video bytes>,<t120 pkts>/<t120 bytes>
rx: <audio pkts>/<audio bytes>,<video pkts>/<video bytes>,<t120 pkts>/<t120 bytes>


Telephony call-legs: 3
SIP call-legs: 0
H323 call-legs: 0
Total call-legs: 5
1225 : 374672hs.31 +2 +1367 pid:8913180 Answer 8915510
dur 00:00:13 tx:7/124 rx:104/693 10 :1F (normal call clearing (16):normal,
 unspecified (31): User abort)
```

```
Telephony 0:D:61: tx:0/0/0ms 14400 noise:0dBm acom:0dBm

122B : 401714hs.32 +100 +2966 pid:1 Originate andy@testlab-t37.com
dur 00:00:28 tx:50942/0 rx:0/0 10 :0 (normal call clearing (16):)
IP 172.18.106.36 AcceptedMime:0 DiscardedMime:0

1229 : 400917hs.33 +1 +4108 pid:8913180 Answer 8915510
dur 00:00:41 tx:11/164 rx:760/45251 10 :10 (normal call clearing (16):normal
 call clearing (16): Normal conn)
Telephony 0:D:64: tx:0/0/0ms 14400 noise:0dBm acom:0dBm

1230 : 439580hs.34 +100 +2971 pid:1 Originate andy@testlab-t37.com
dur 00:00:28 tx:50942/0 rx:0/0 10 :0 (normal call clearing (16):)
IP 172.18.106.36 AcceptedMime:0 DiscardedMime:0

122E : 438783hs.35 +1 +4109 pid:8913180 Answer 8915510
dur 00:00:41 tx:11/164 rx:761/45256 10 :10 (normal call clearing (16):normal
 call clearing (16): Normal conn)
Telephony 0:D:68: tx:0/0/0ms 14400 noise:0dBm acom:0dBm
```

관련 정보

- [T.37 OffRamp 팩스](#)
- [Fax over IP T.37 저장소 및 팩스 전달](#)
- [음성 기술 지원](#)
- [음성 및 통합 커뮤니케이션 제품 지원](#)
- [Cisco IP 텔레포니 문제 해결](#)
- [Technical Support - Cisco Systems](#)