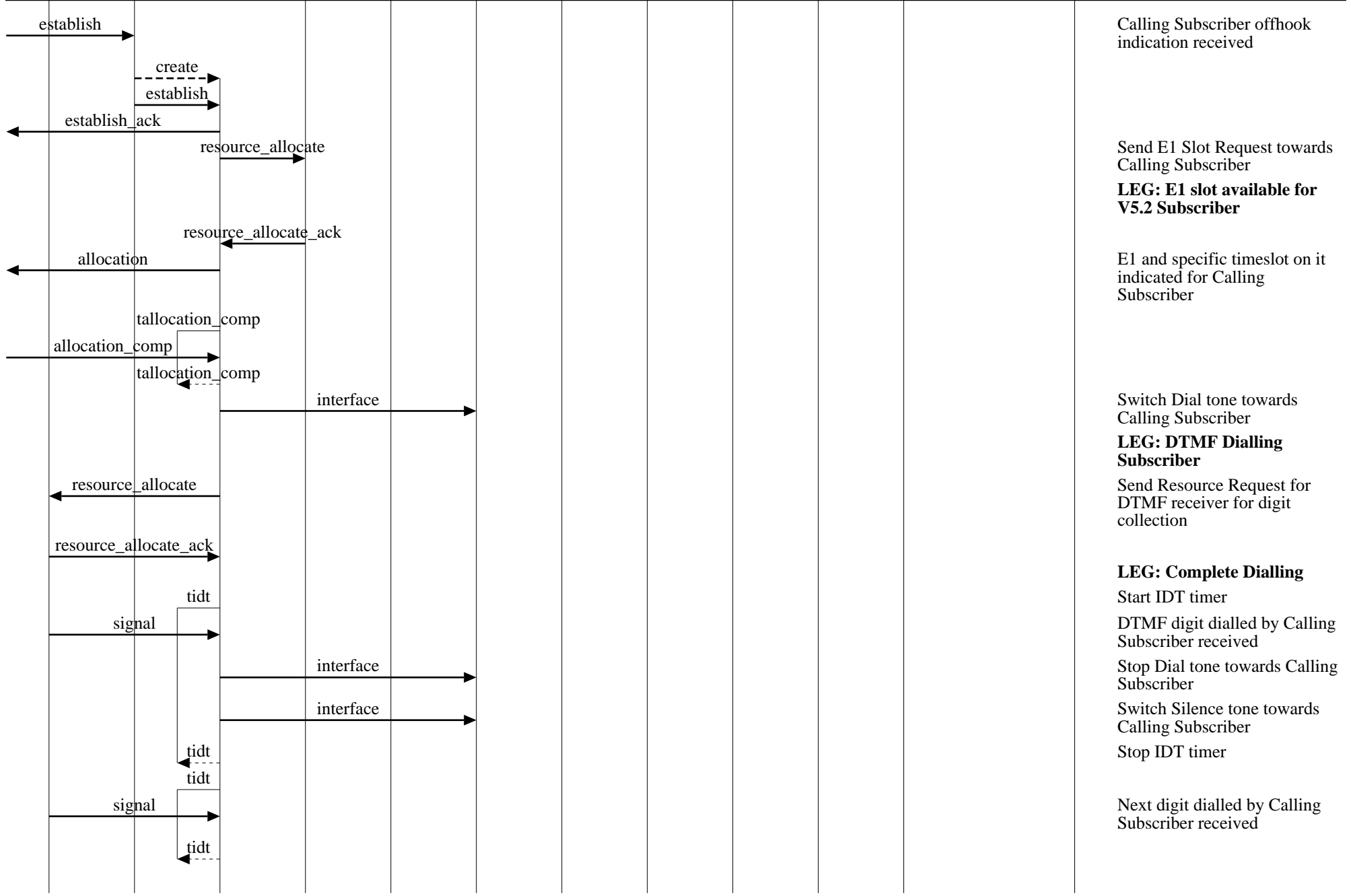


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Calling Subscriber offhook indication received

Send E1 Slot Request towards Calling Subscriber  
**LEG: E1 slot available for V5.2 Subscriber**

E1 and specific timeslot on it indicated for Calling Subscriber

Switch Dial tone towards Calling Subscriber  
**LEG: DTMF Dialling Subscriber**

Send Resource Request for DTMF receiver for digit collection

**LEG: Complete Dialling**

Start IDT timer  
 DTMF digit dialled by Calling Subscriber received

Stop Dial tone towards Calling Subscriber

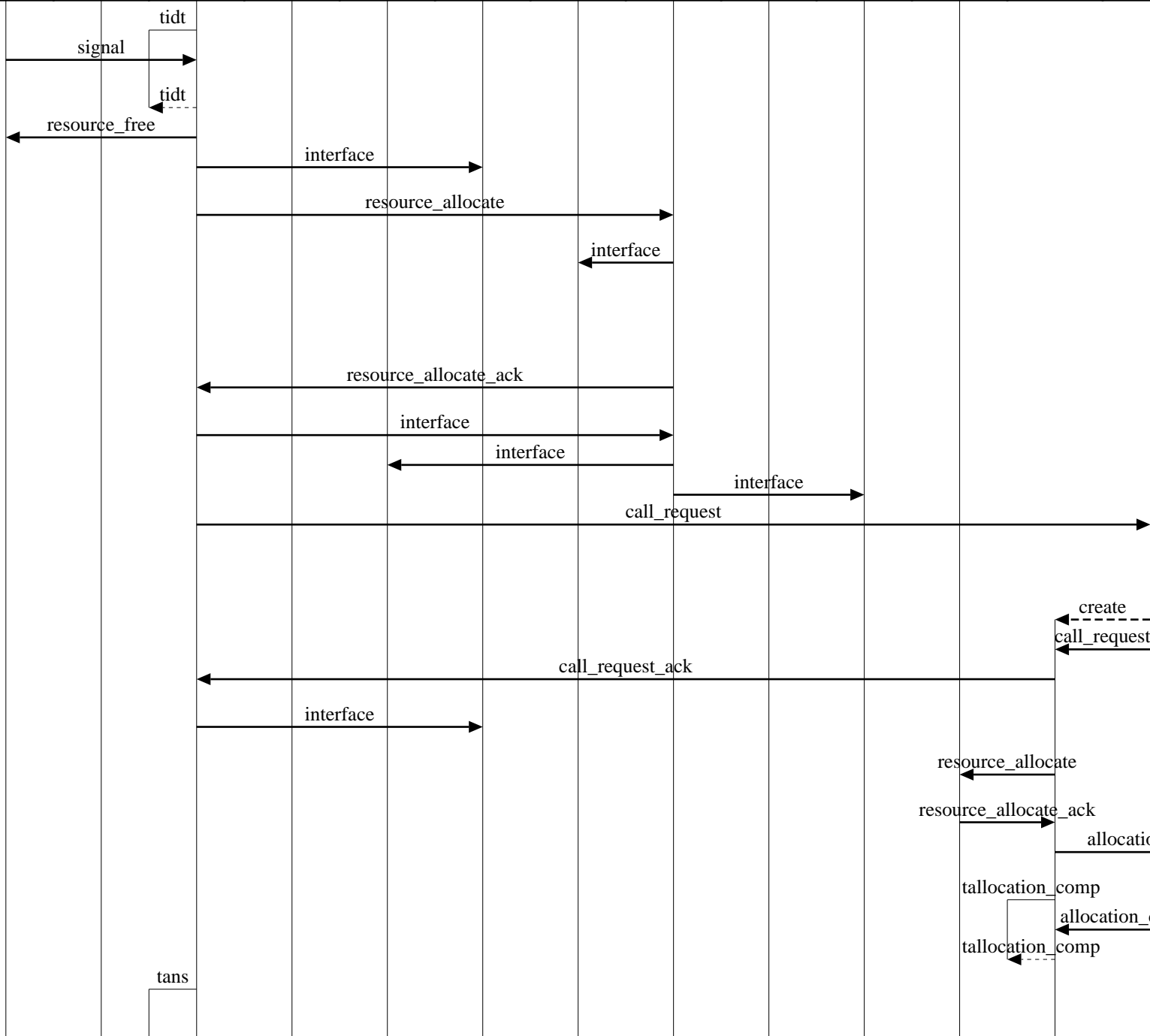
Switch Silence tone towards Calling Subscriber

Stop IDT timer

Next digit dialled by Calling Subscriber received

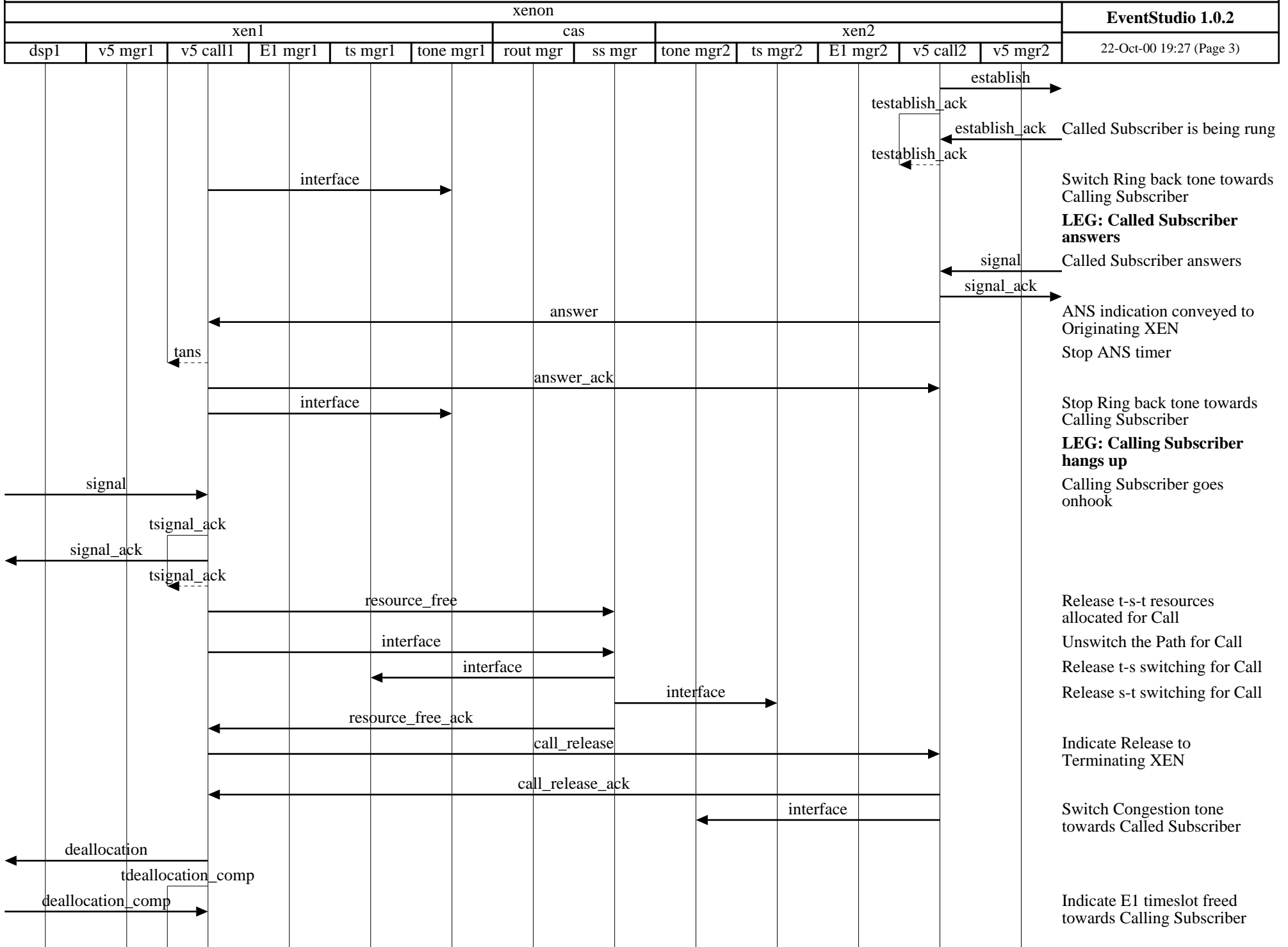
Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: Successful call)

xenon													EventStudio 1.0.2
xen1						cas		xen2					22-Oct-00 19:27 (Page 2)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	

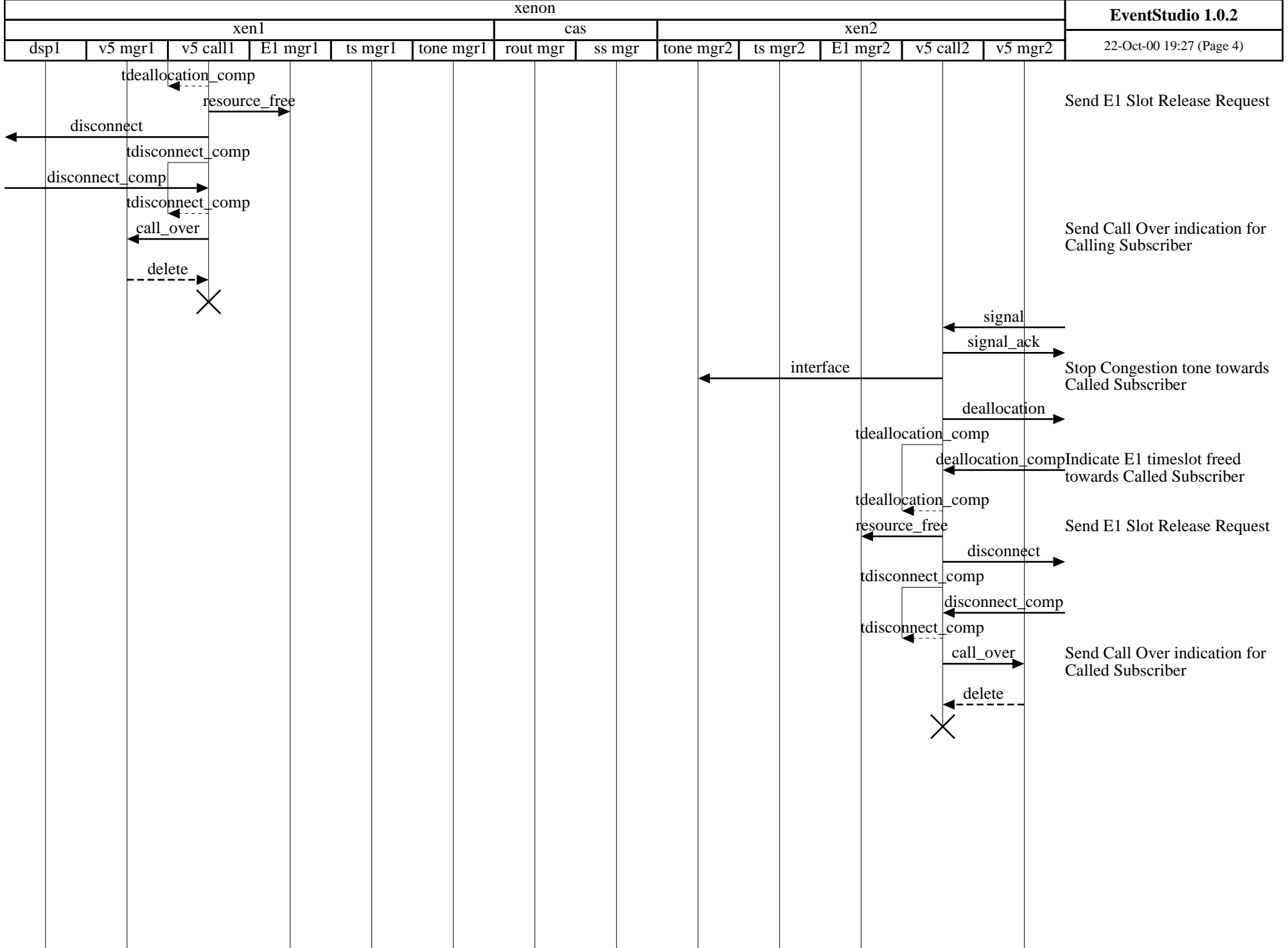


Next digit dialled by Calling Subscriber received  
 End of dialling detected  
 Release the DTMF receiver  
 Switch Routing tone towards Calling Subscriber  
 Send Resource Request for space slot  
 Call Routing being performed  
**LEG: Routing is successful**  
 Call to be terminated in this exchange detected; EntityID for Called DN determined  
 Resource Response containing t-s-t resources for Call received  
 Switch the Path for Call  
 Perform t-s switching for Call  
 Perform s-t switching for Call  
 Send Call Request to Terminating XEN  
**LEG: Called Subscriber is free**  
 Indicate that Called Subscriber is free  
 Stop Routing tone towards Calling Subscriber  
 Send E1 Slot Request towards Called Subscriber  
 E1 and specific timeslot on it indicated for Called Subscriber  
 Start ANS timer

**Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: Successful call)**



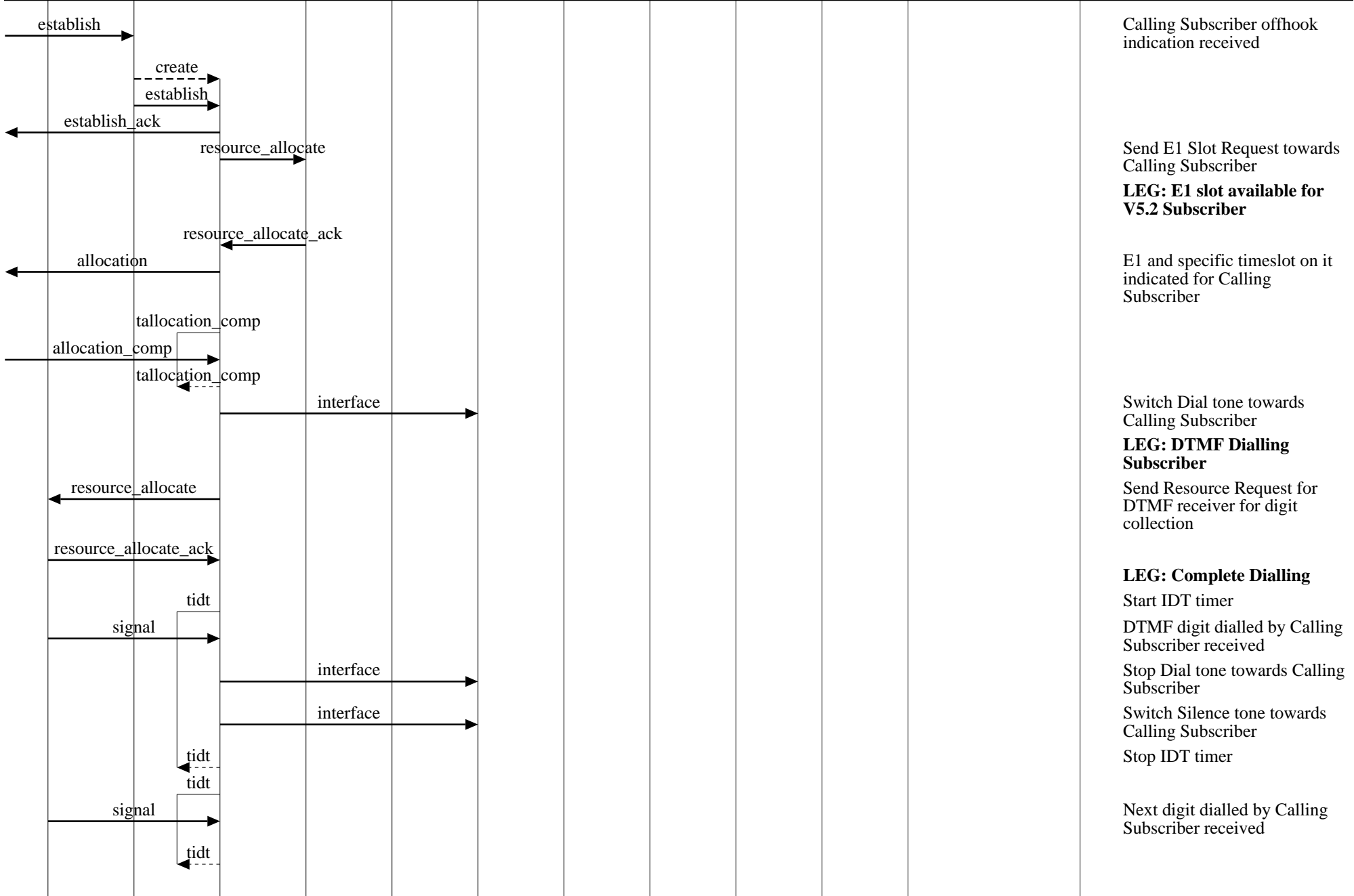
**Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: Successful call)**



**Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: CSH timeout)**

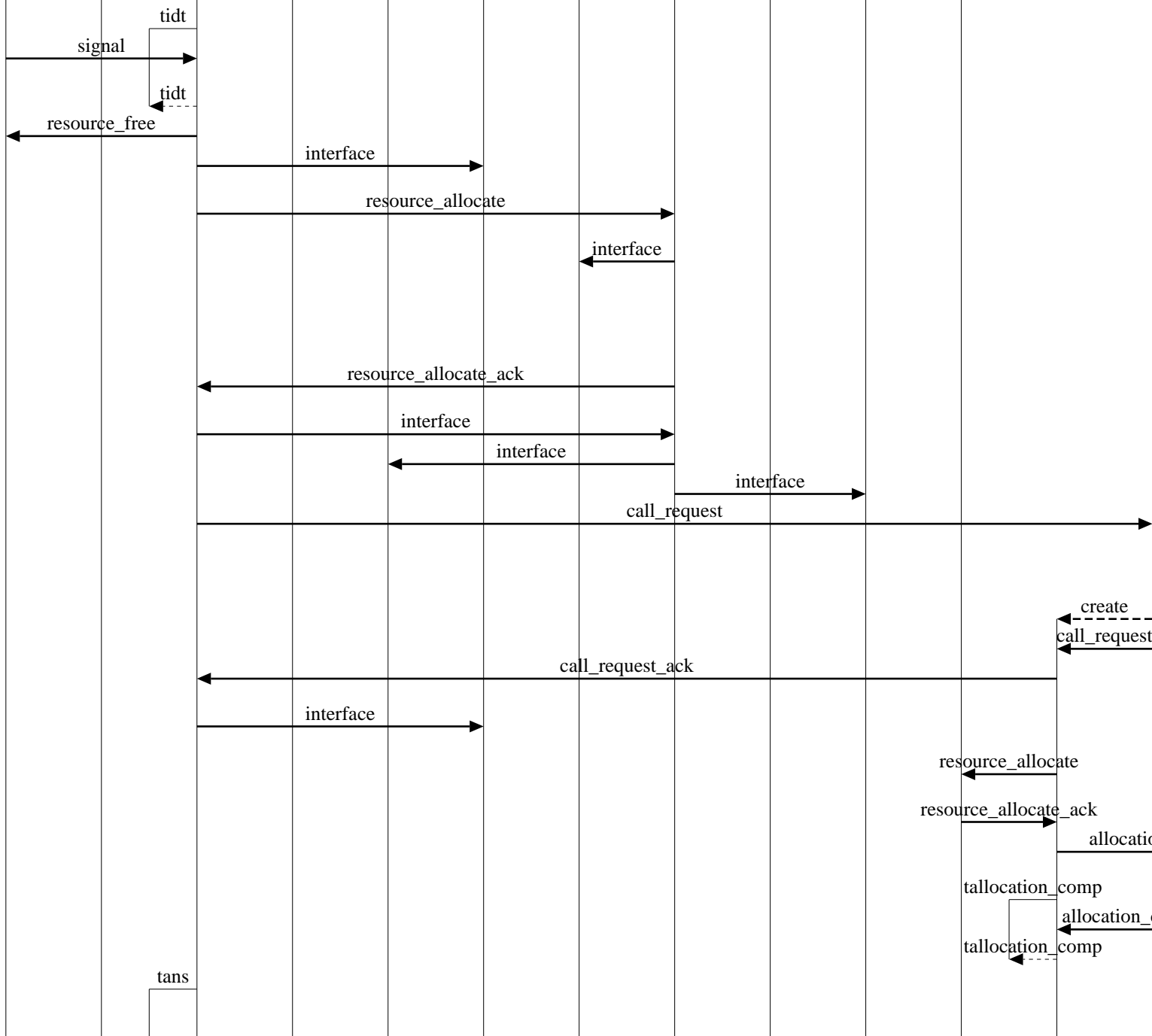
xenon												<b>EventStudio 1.0.2</b>
xen1						cas		xen2				22-Oct-00 19:27 (Page 5)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2

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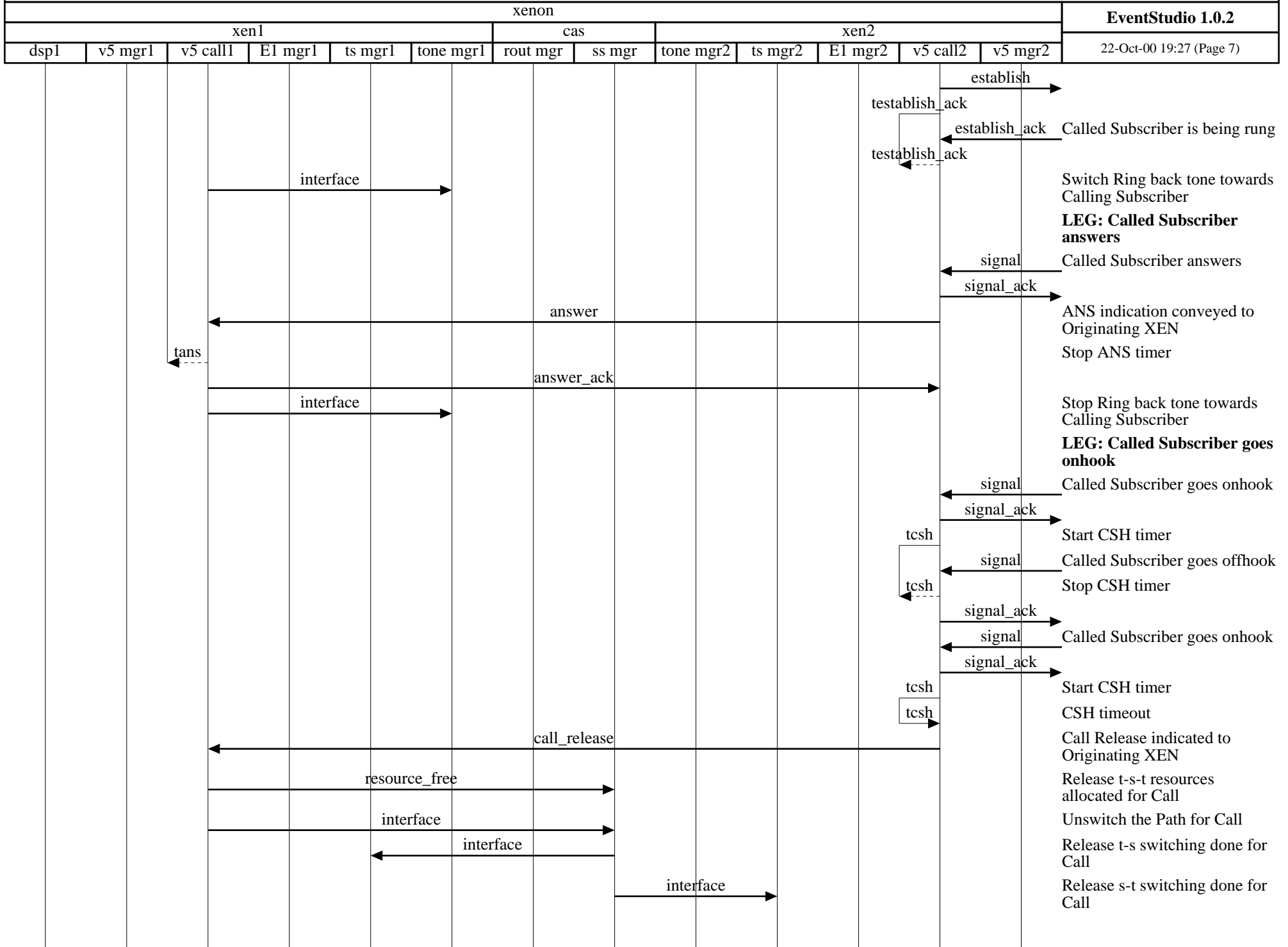
Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: CSH timeout)

xenon													EventStudio 1.0.2
xen1						cas		xen2					22-Oct-00 19:27 (Page 6)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



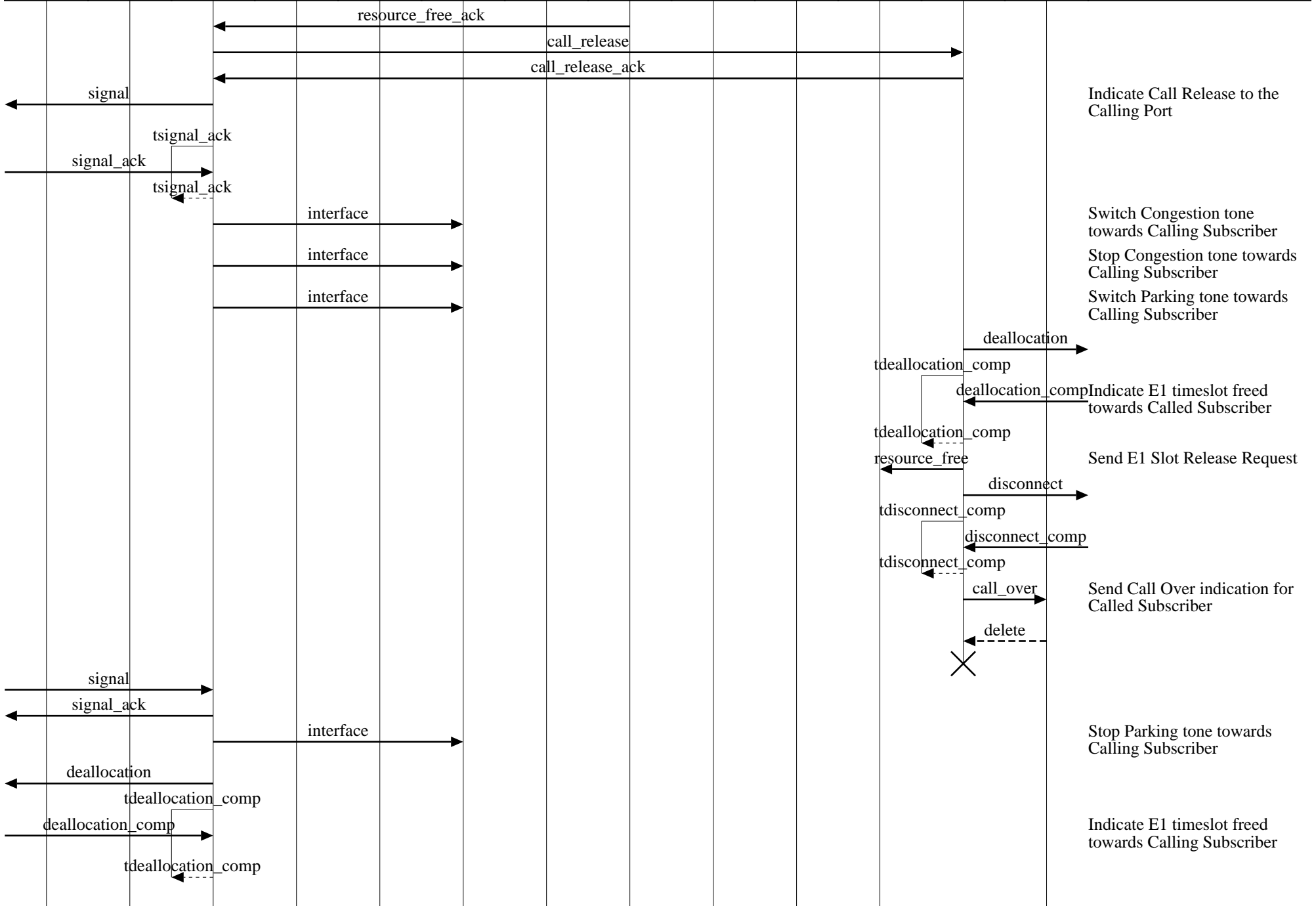
Next digit dialled by Calling Subscriber received  
 End of dialling detected  
 Release the DTMF receiver  
 Switch Routing tone towards Calling Subscriber  
 Send Resource Request for space slot  
 Call Routing being performed  
**LEG: Routing is successful**  
 Call to be terminated in this exchange detected; EntityID for Called DN determined  
 Resource Response containing t-s-t resources for Call received  
 Switch the Path for Call  
 Perform t-s switching for Call  
 Perform s-t switching for Call  
 Send Call Request to Terminating XEN  
**LEG: Called Subscriber is free**  
 Indicate that Called Subscriber is free  
 Stop Routing tone towards Calling Subscriber  
 Send E1 Slot Request towards Called Subscriber  
 E1 and specific timeslot on it indicated for Called Subscriber  
 Start ANS timer

Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: CSH timeout)



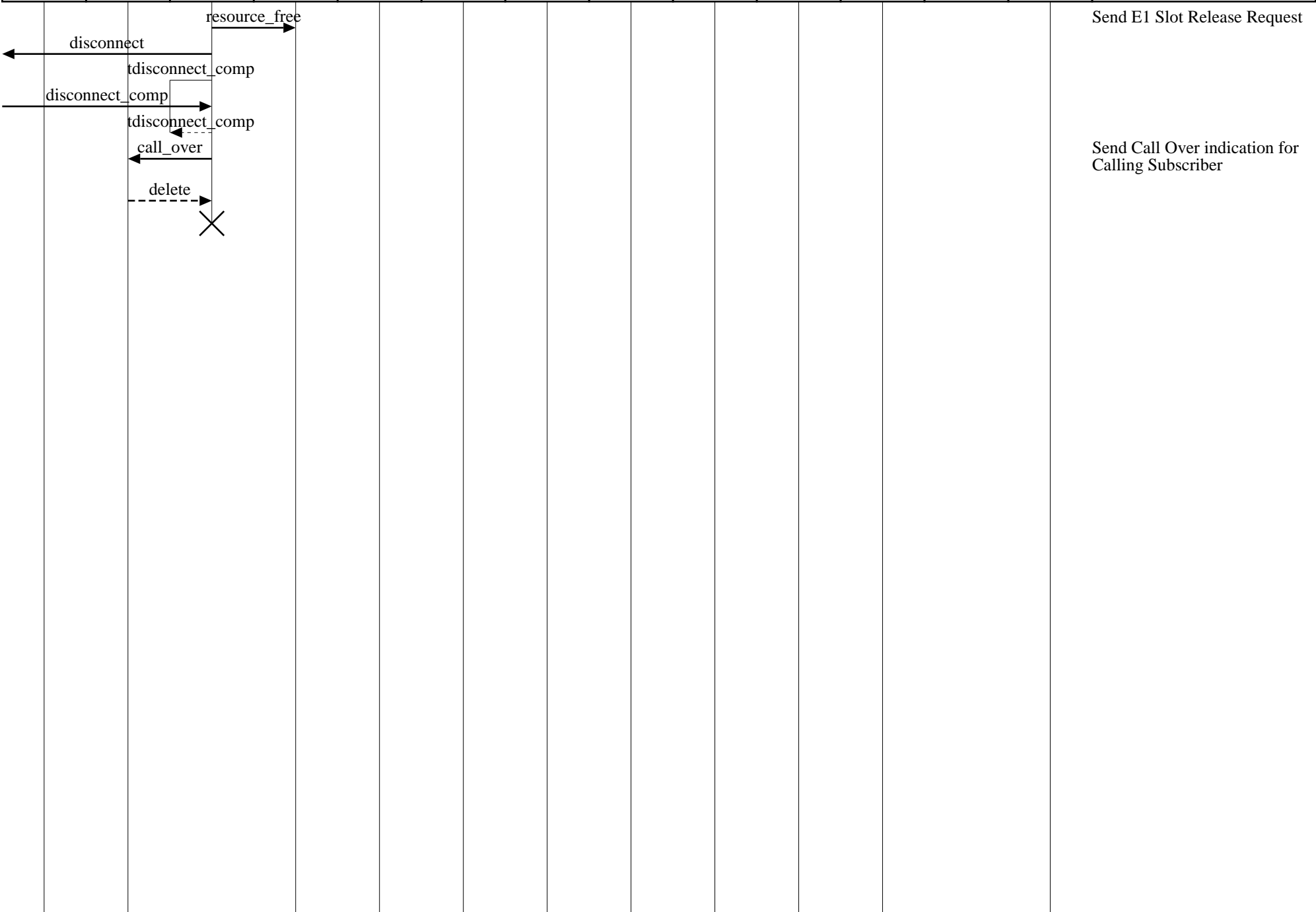
**Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: CSH timeout)**

xenon													<b>EventStudio 1.0.2</b>
xen1						cas		xen2					22-Oct-00 19:27 (Page 8)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



**Xenon switch V5.2 Line to Line Call (V5.2 - V5.2: CSH timeout)**

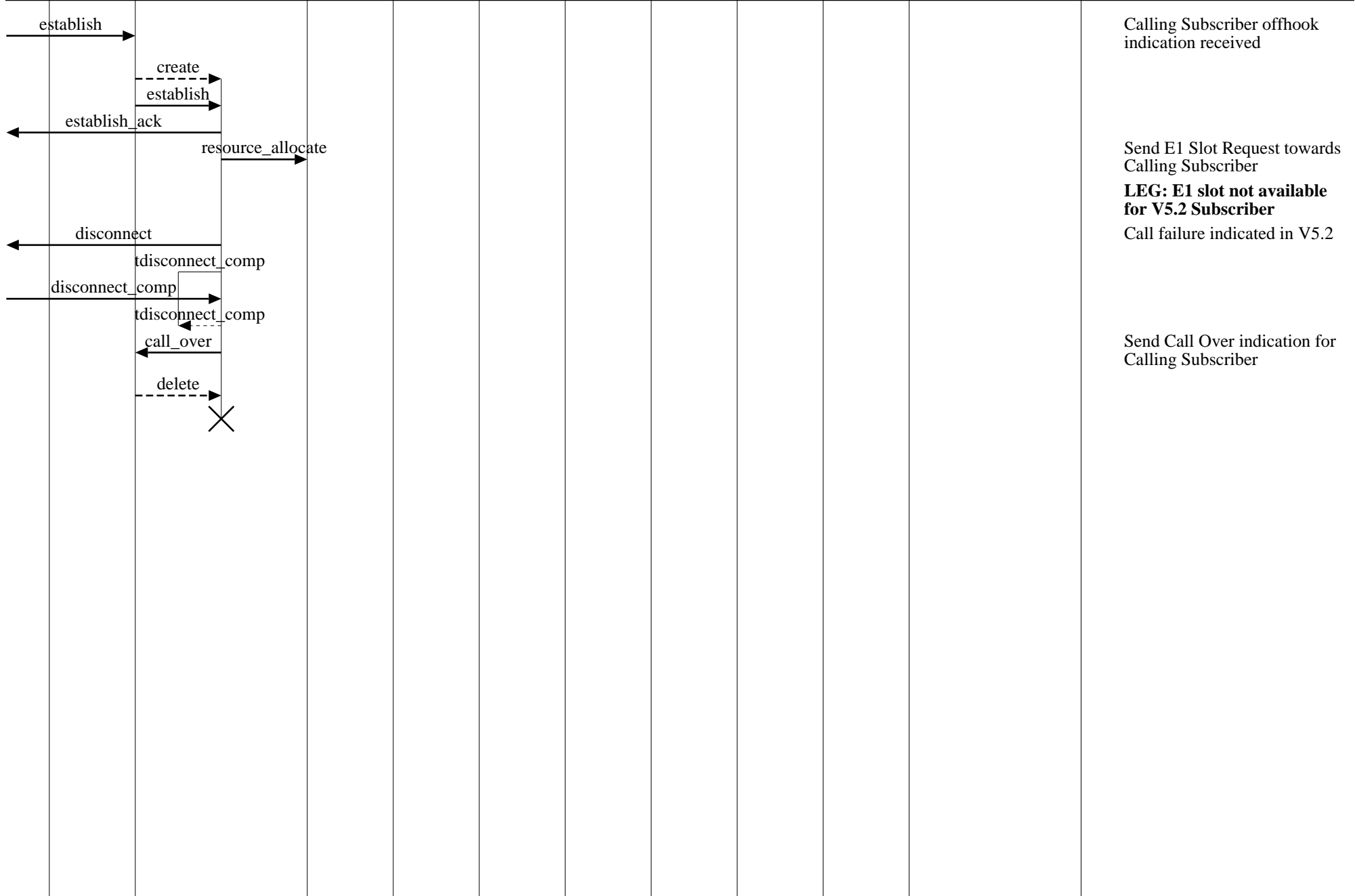
xenon												<b>EventStudio 1.0.2</b>	
xen1						cas		xen2				22-Oct-00 19:27 (Page 9)	
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



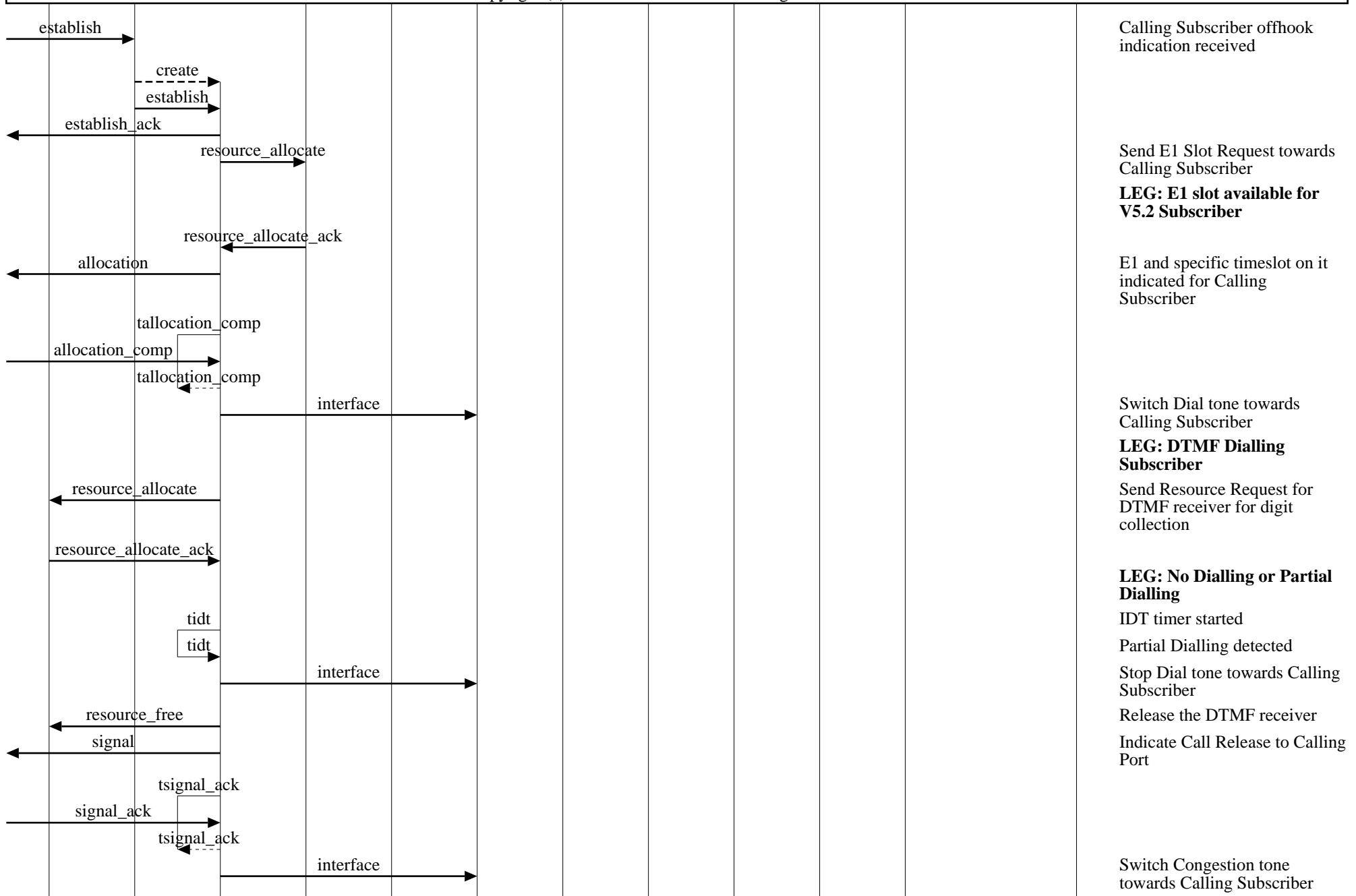
**Xenon switch V5.2 Line to Line Call (V5.2: E1 slot not available)**

xenon												<b>EventStudio 1.0.2</b>	
xen1						cas		xen2				22-Oct-00 19:27 (Page 10)	
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	

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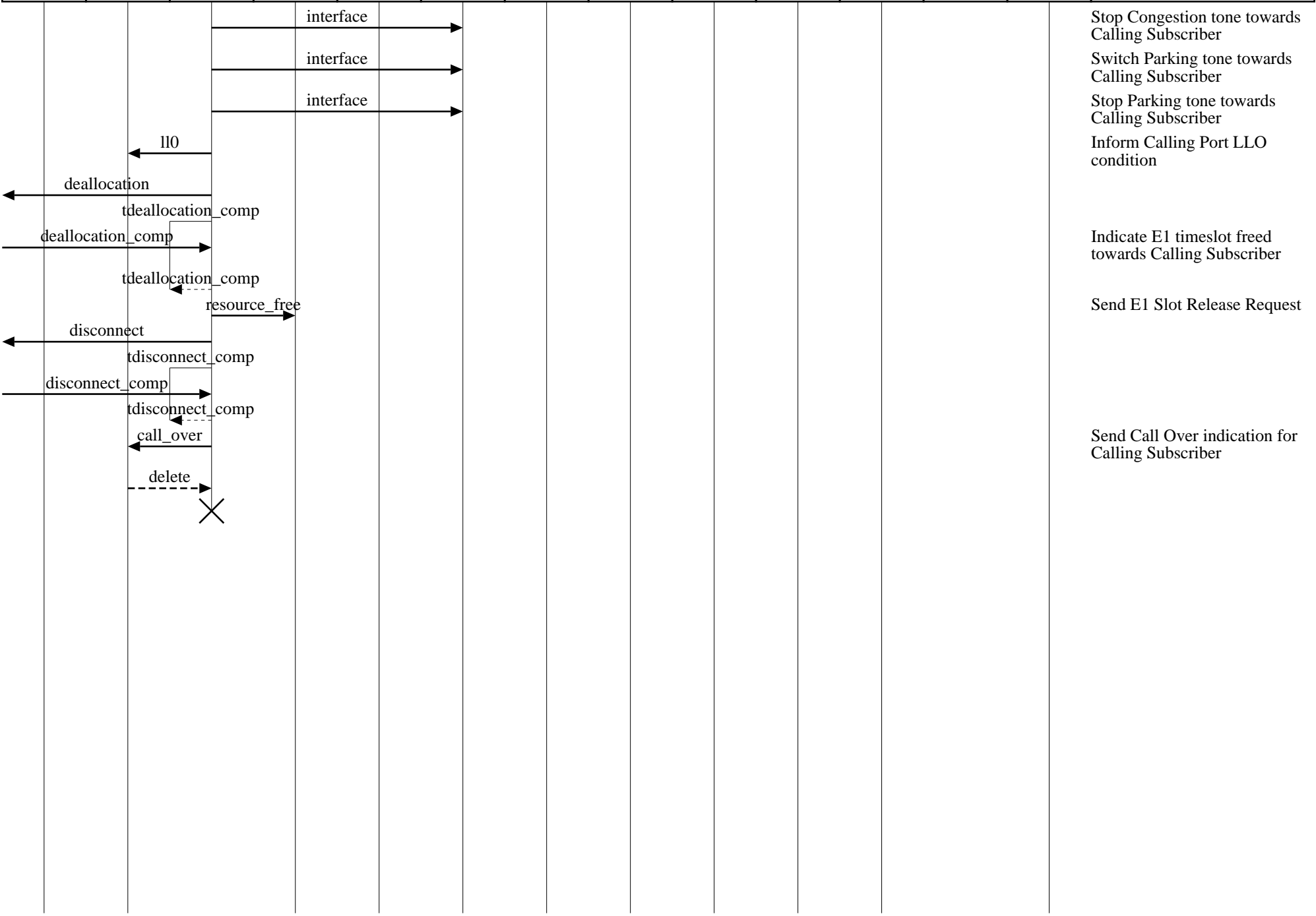


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**Xenon switch V5.2 Line to Line Call (V5.2: Partial dialling)**

xenon												<b>EventStudio 1.0.2</b>	
xen1						cas		xen2				22-Oct-00 19:27 (Page 12)	
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



Stop Congestion tone towards Calling Subscriber  
 Switch Parking tone towards Calling Subscriber  
 Stop Parking tone towards Calling Subscriber  
 Inform Calling Port LLO condition

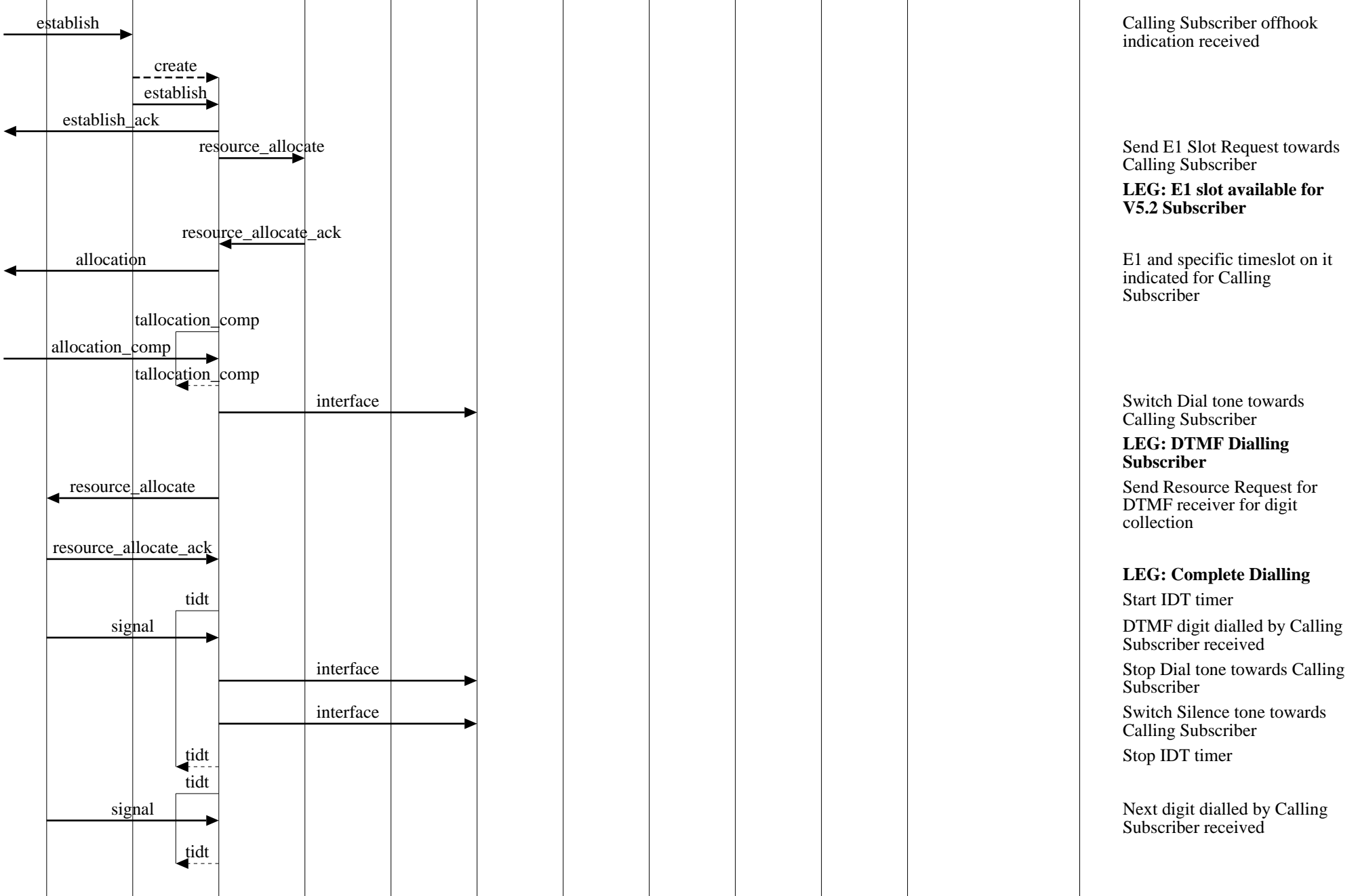
Indicate E1 timeslot freed towards Calling Subscriber  
 Send E1 Slot Release Request

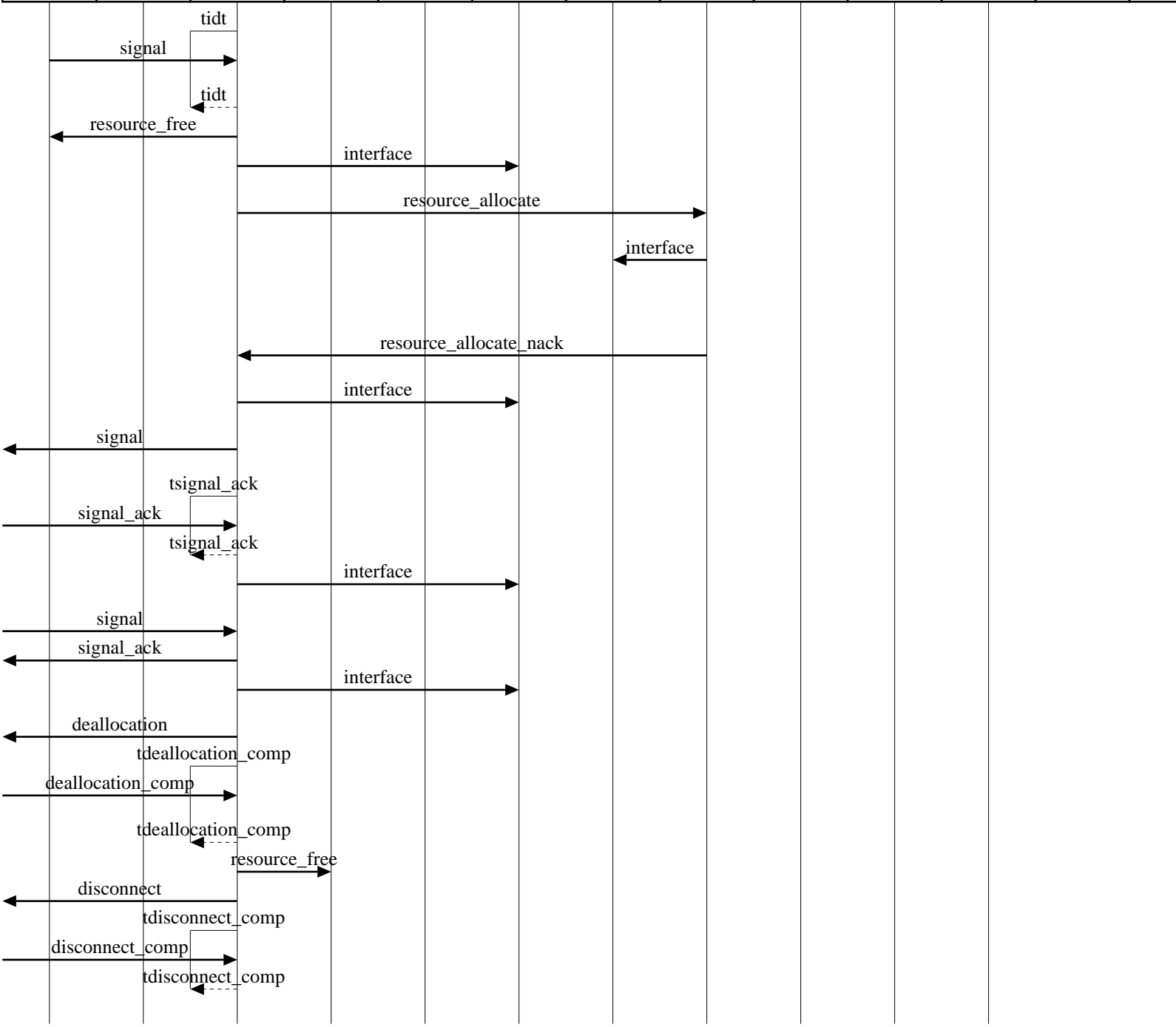
Send Call Over indication for Calling Subscriber

Xenon switch V5.2 Line to Line Call (V5.2: Directory number unknown)

xenon												<b>EventStudio 1.0.2</b>
xen1						cas		xen2				22-Oct-00 19:27 (Page 13)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2

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Next digit dialled by Calling Subscriber received

End of dialling detected

Release the DTMF receiver

Switch Routing tone towards Calling Subscriber

Send Resource Request for space slot

Call Routing being performed

**LEG: Call failed: DN unknown or All trunks to the Route are busy**

Indicate Routing Failure condition or Trunk Congestion

Stop Routing tone towards Calling Subscriber

Indicate Call Release to the Calling Port

Switch Congestion tone towards Calling Subscriber

Stop Congestion tone towards Calling Subscriber

Indicate E1 timeslot freed towards Calling Subscriber

Send E1 Slot Release Request

**Xenon switch V5.2 Line to Line Call (V5.2: Directory number unknown)**

xenon

**EventStudio 1.0.2**

xen1

cas

xen2

dsp1 | v5 mgr1 | v5 call1 | E1 mgr1 | ts mgr1 | tone mgr1 | rout mgr | ss mgr | tone mgr2 | ts mgr2 | E1 mgr2 | v5 call2 | v5 mgr2

22-Oct-00 19:27 (Page 15)

call\_over

delete

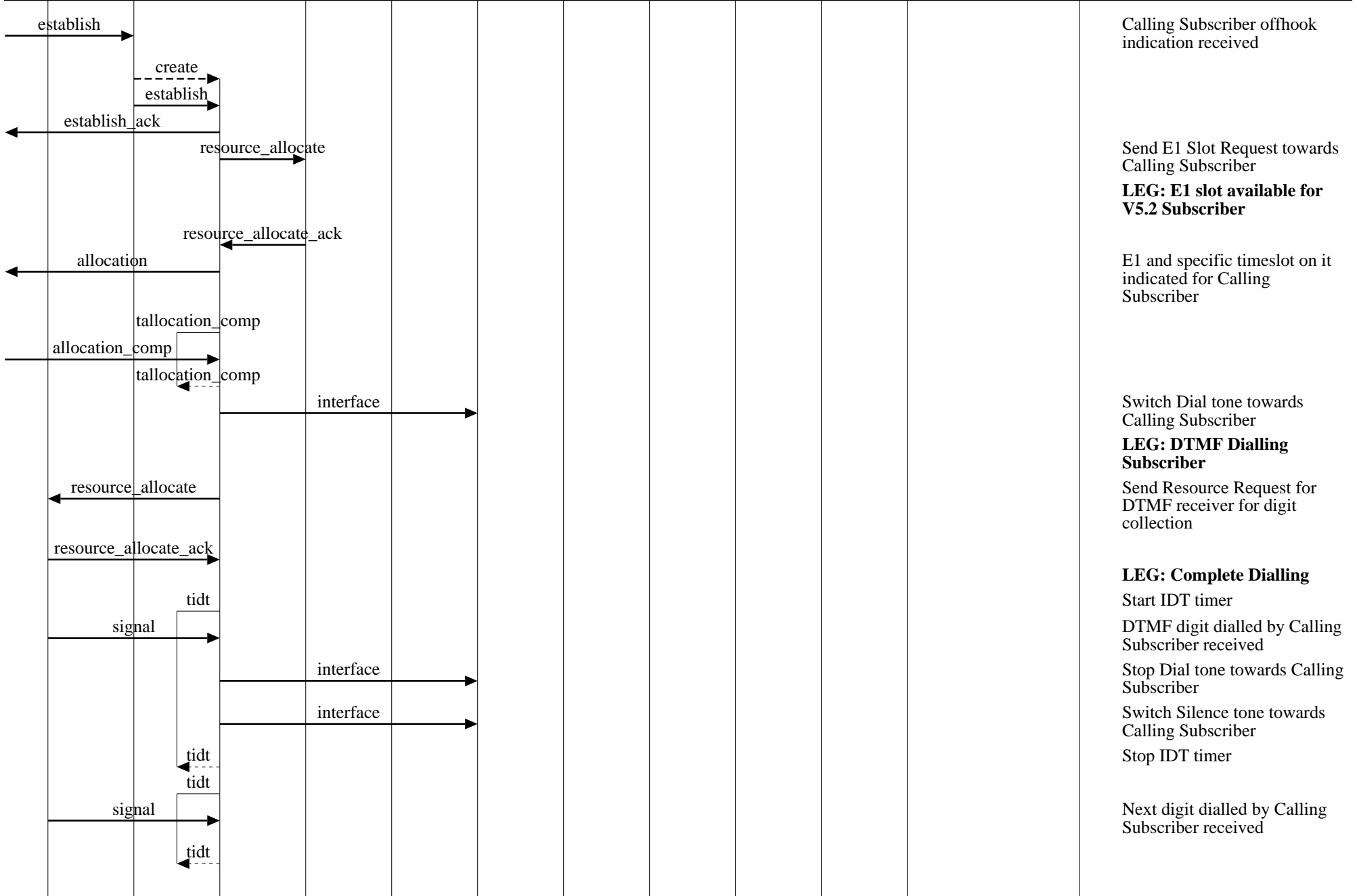


Send Call Over indication for Calling Subscriber

**Xenon switch V5.2 Line to Line Call (V5.2: Called subscriber is busy)**

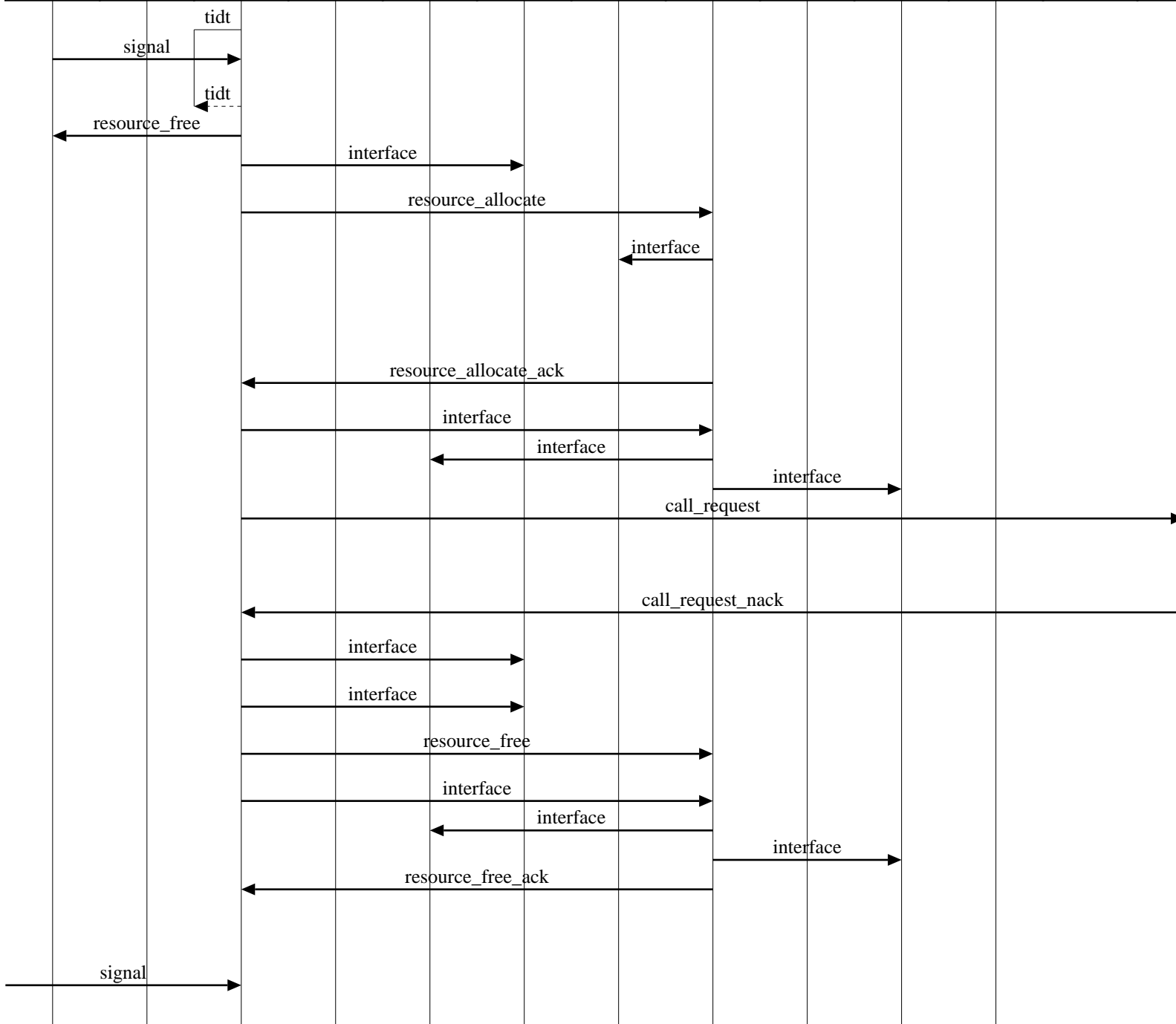
xenon												<b>EventStudio 1.0.2</b>
xen1						cas		xen2				22-Oct-00 19:27 (Page 16)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2

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**Xenon switch V5.2 Line to Line Call (V5.2: Called subscriber is busy)**

xenon													<b>EventStudio 1.0.2</b>
xen1						cas		xen2					22-Oct-00 19:27 (Page 17)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



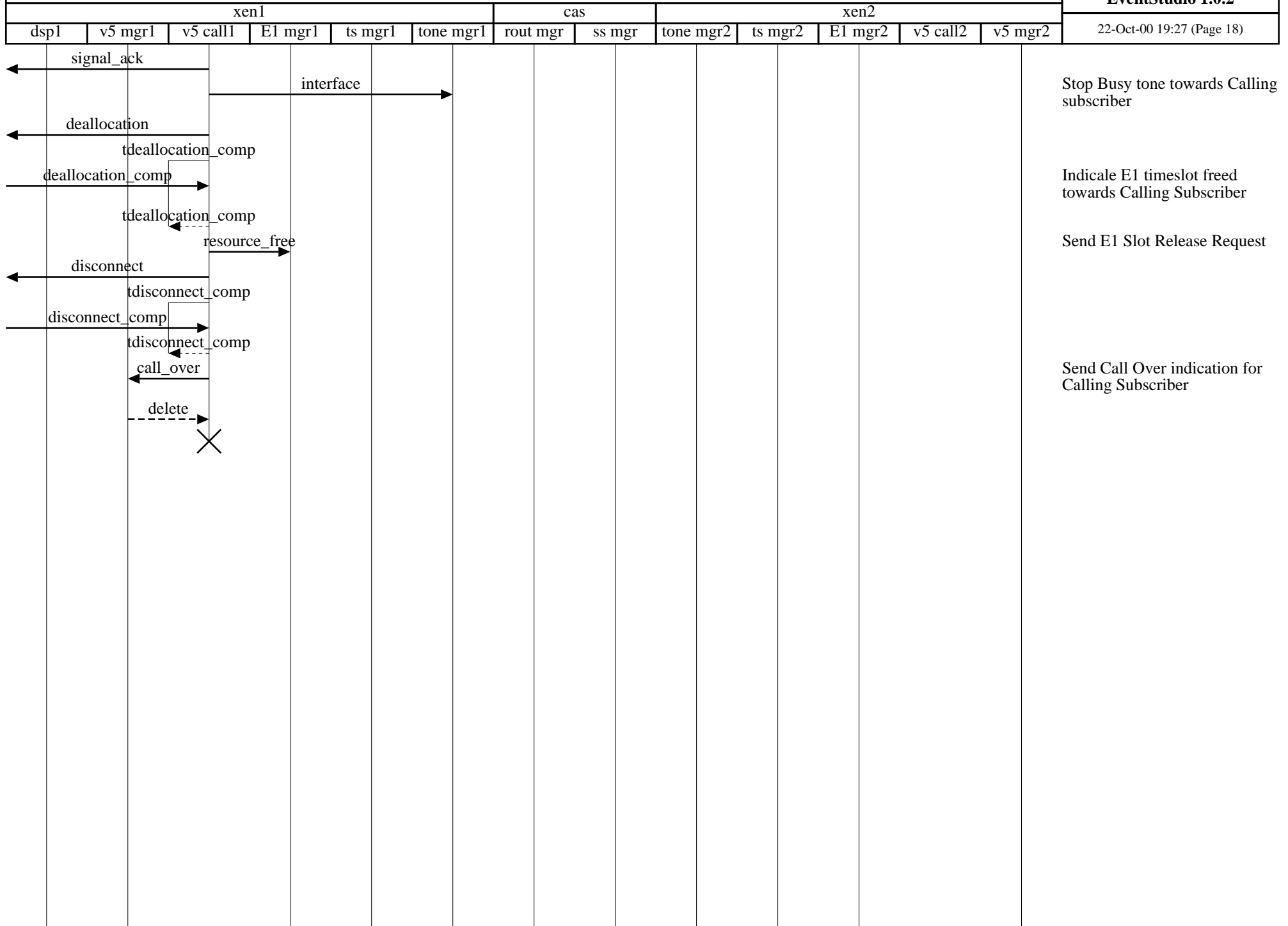
Next digit dialled by Calling Subscriber received  
 End of dialling detected  
 Release the DTMF receiver  
 Switch Routing tone towards Calling Subscriber  
 Send Resource Request for space slot  
 Call Routing being performed  
**LEG: Routing is successful**  
 Call to be terminated in this exchange detected; EntityID for Called DN determined  
 Resource Response containing t-s-t resources for Call received  
 Switch the Path for Call  
 Perform t-s switching for Call  
 Perform s-t switching for Call  
 Send Call Request to Terminating XEN  
**LEG: Called Subscriber is busy**  
 Indicate that Called Subscriber is busy  
 Stop Routing tone towards Calling Subscriber  
 Switch Busy tone towards Calling Subscriber  
 Release the t-s-t resources allocated for Call  
 Unswitch the Path for Call  
 Release t-s switching for call  
 Release s-t switching for call  
  
**LEG: Calling Subscriber goes onhook on hearing Busy tone**

**Xenon switch V5.2 Line to Line Call (V5.2: Called subscriber is busy)**

xenon

**EventStudio 1.0.2**

22-Oct-00 19:27 (Page 18)



**Xenon switch V5.2 Line to Line Call (V5.2: Called subscriber does not answer)**

xenon

**EventStudio 1.0.2**

xen1

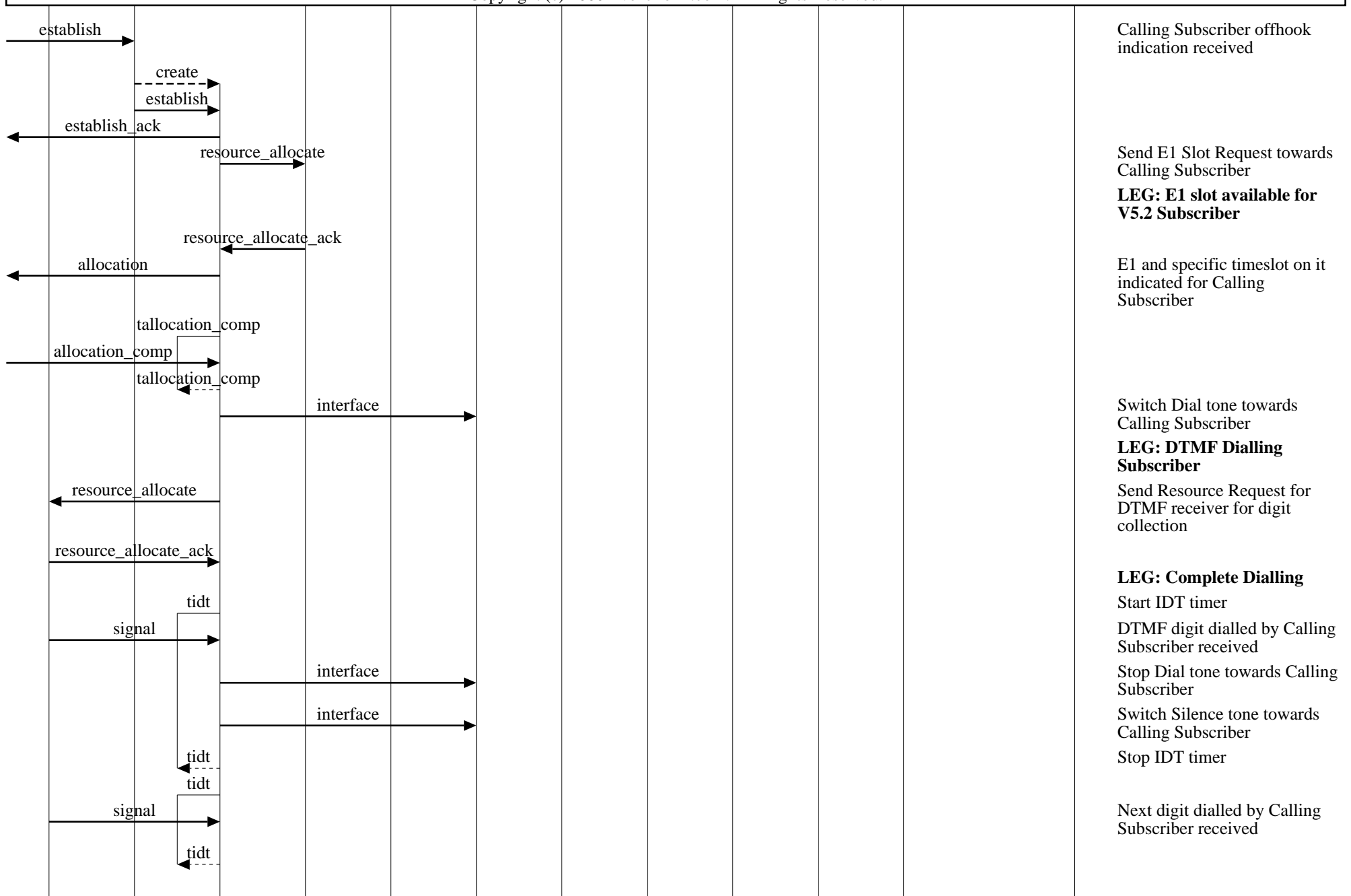
cas

xen2

dsp1 | v5 mgr1 | v5 call1 | E1 mgr1 | ts mgr1 | tone mgr1 | rout mgr | ss mgr | tone mgr2 | ts mgr2 | E1 mgr2 | v5 call2 | v5 mgr2

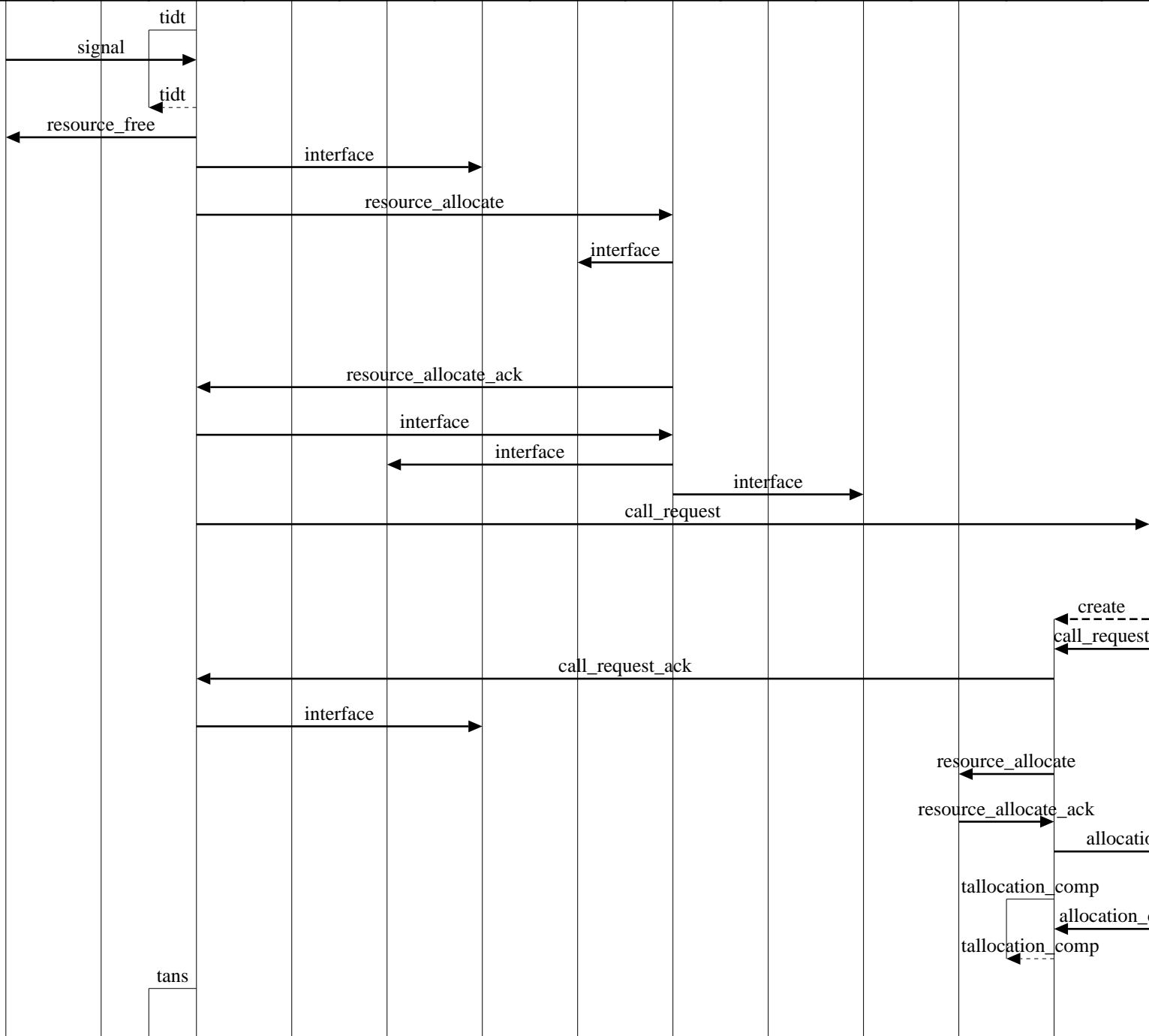
22-Oct-00 19:27 (Page 19)

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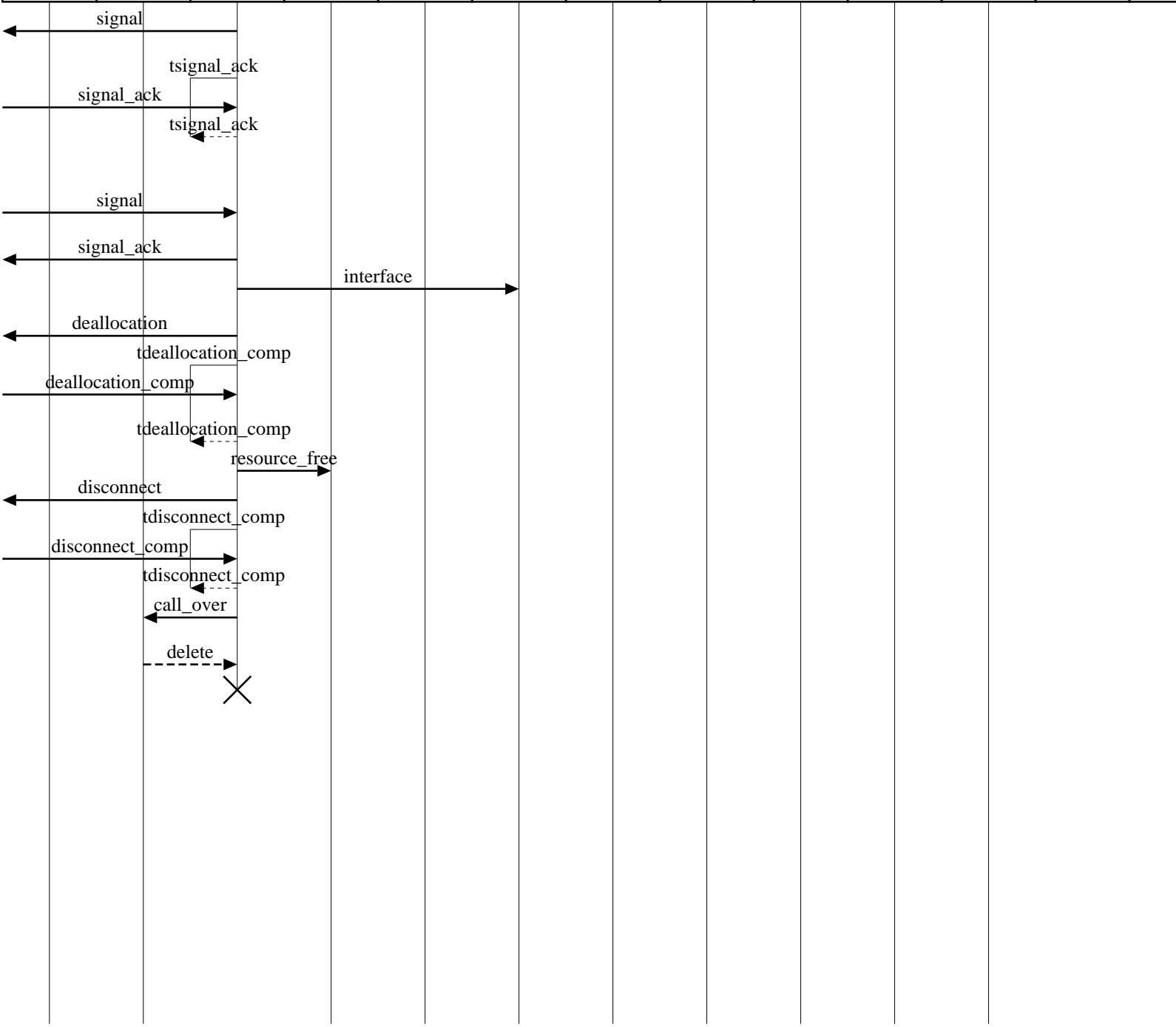
Xenon switch V5.2 Line to Line Call (V5.2: Called subscriber does not answer)

xenon													EventStudio 1.0.2
xen1						cas		xen2					22-Oct-00 19:27 (Page 20)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



Next digit dialled by Calling Subscriber received  
 End of dialling detected  
 Release the DTMF receiver  
 Switch Routing tone towards Calling Subscriber  
 Send Resource Request for space slot  
 Call Routing being performed  
**LEG: Routing is successful**  
 Call to be terminated in this exchange detected; EntityID for Called DN determined  
 Resource Response containing t-s-t resources for Call received  
 Switch the Path for Call  
 Perform t-s switching for Call  
 Perform s-t switching for Call  
 Send Call Request to Terminating XEN  
**LEG: Called Subscriber is free**  
 Indicate that Called Subscriber is free  
 Stop Routing tone towards Calling Subscriber  
 Send E1 Slot Request towards Called Subscriber  
 E1 and specific timeslot on it indicated for Called Subscriber  
 Start ANS timer





Indicate Call Release to the Calling Port

**LEG: Calling Subscriber clears on hearing Congestion**  
 Calling Subscriber goes onhook

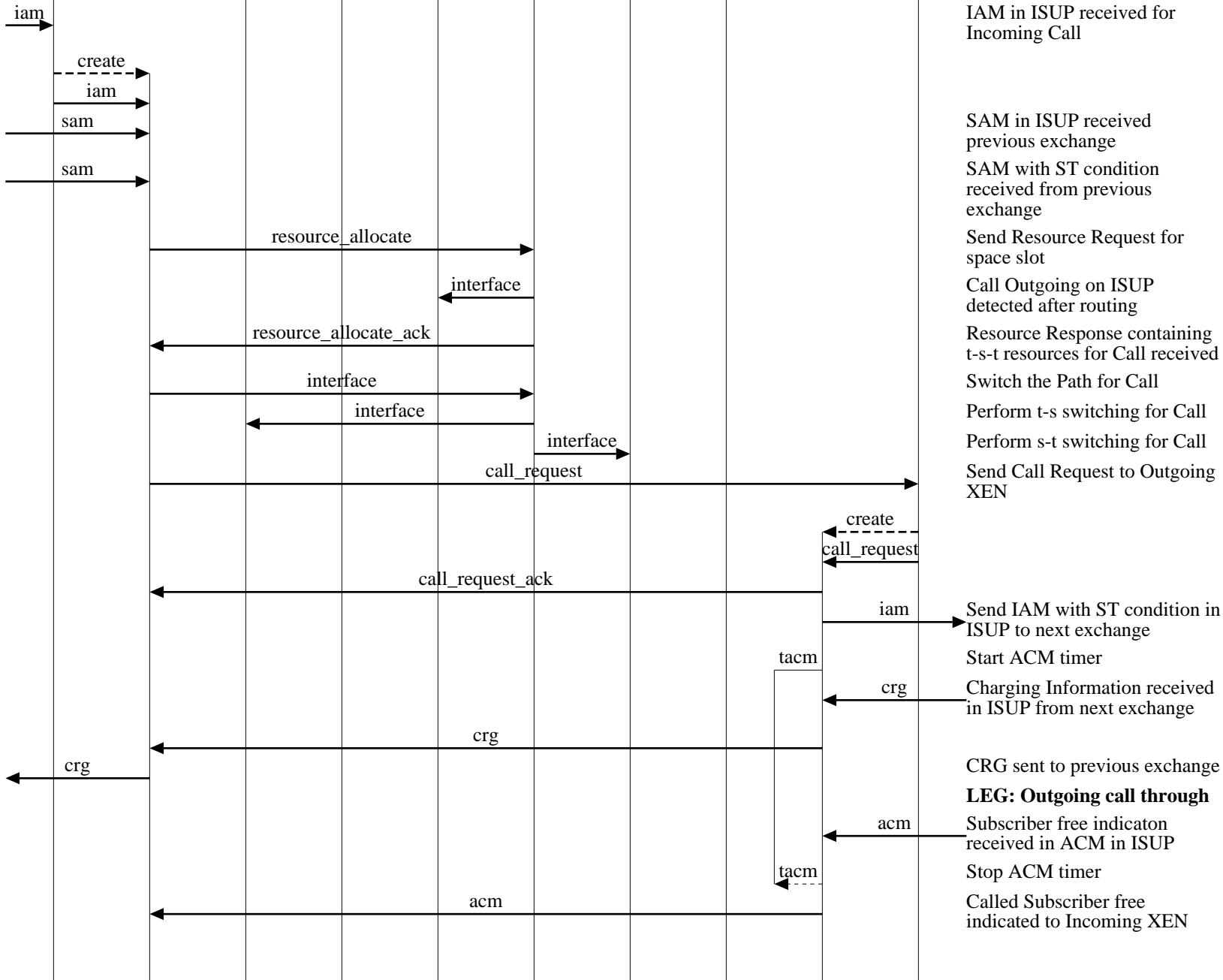
Stop Congestion tone towards Calling Subscriber

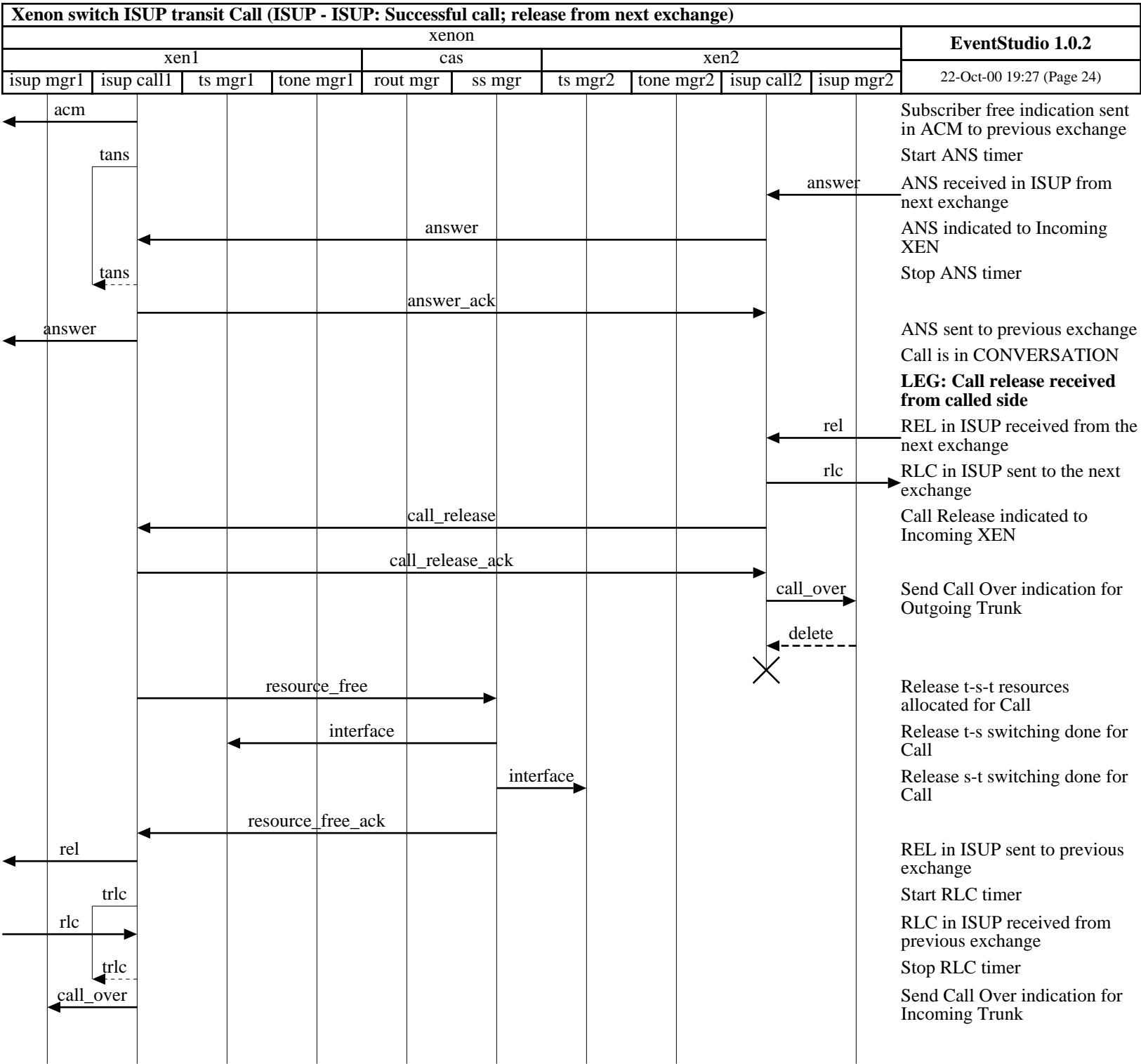
Indicate E1 timeslot freed towards Calling Subscriber

Send E1 Slot Release Request

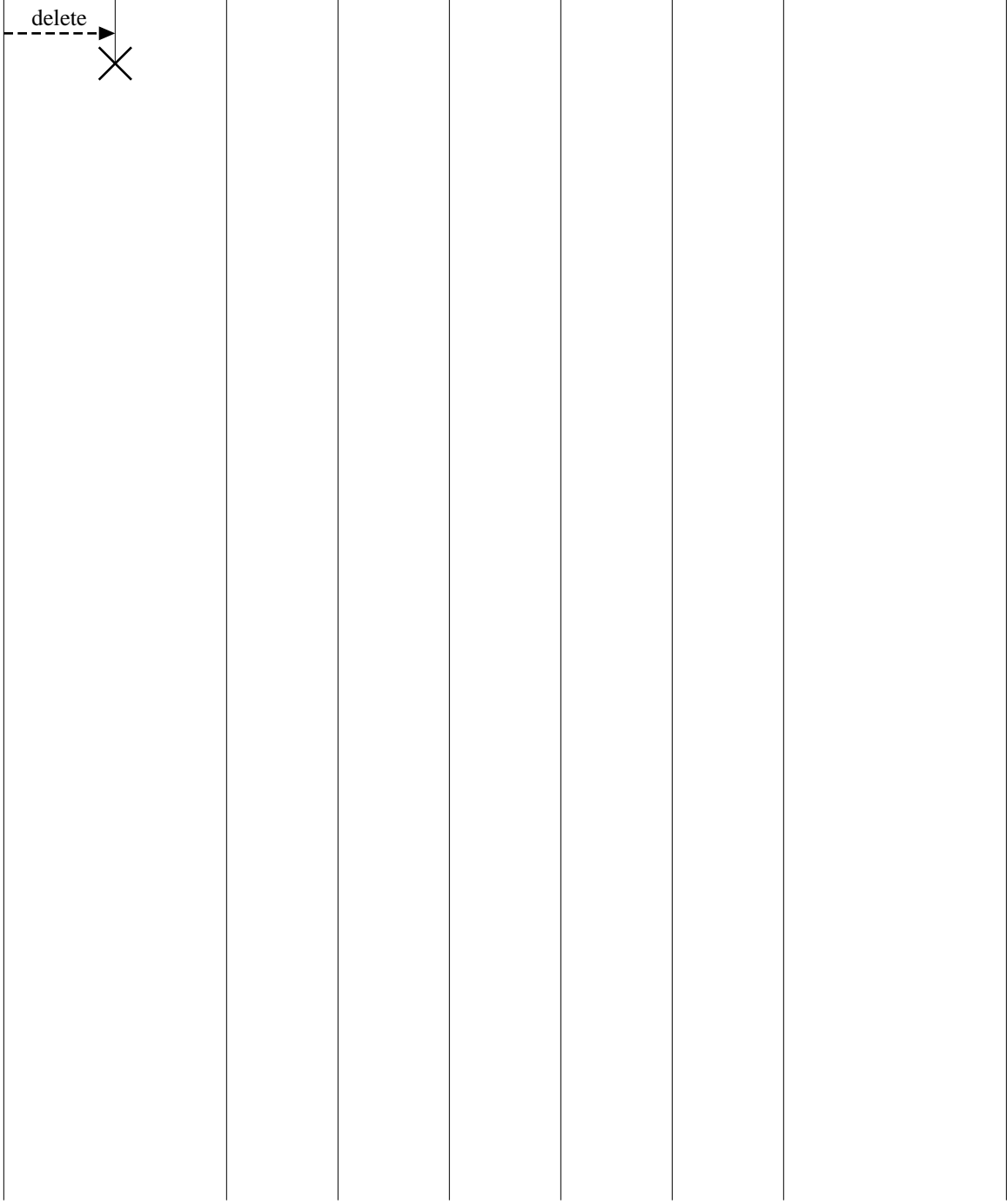
Send Call Over for Calling Subscriber

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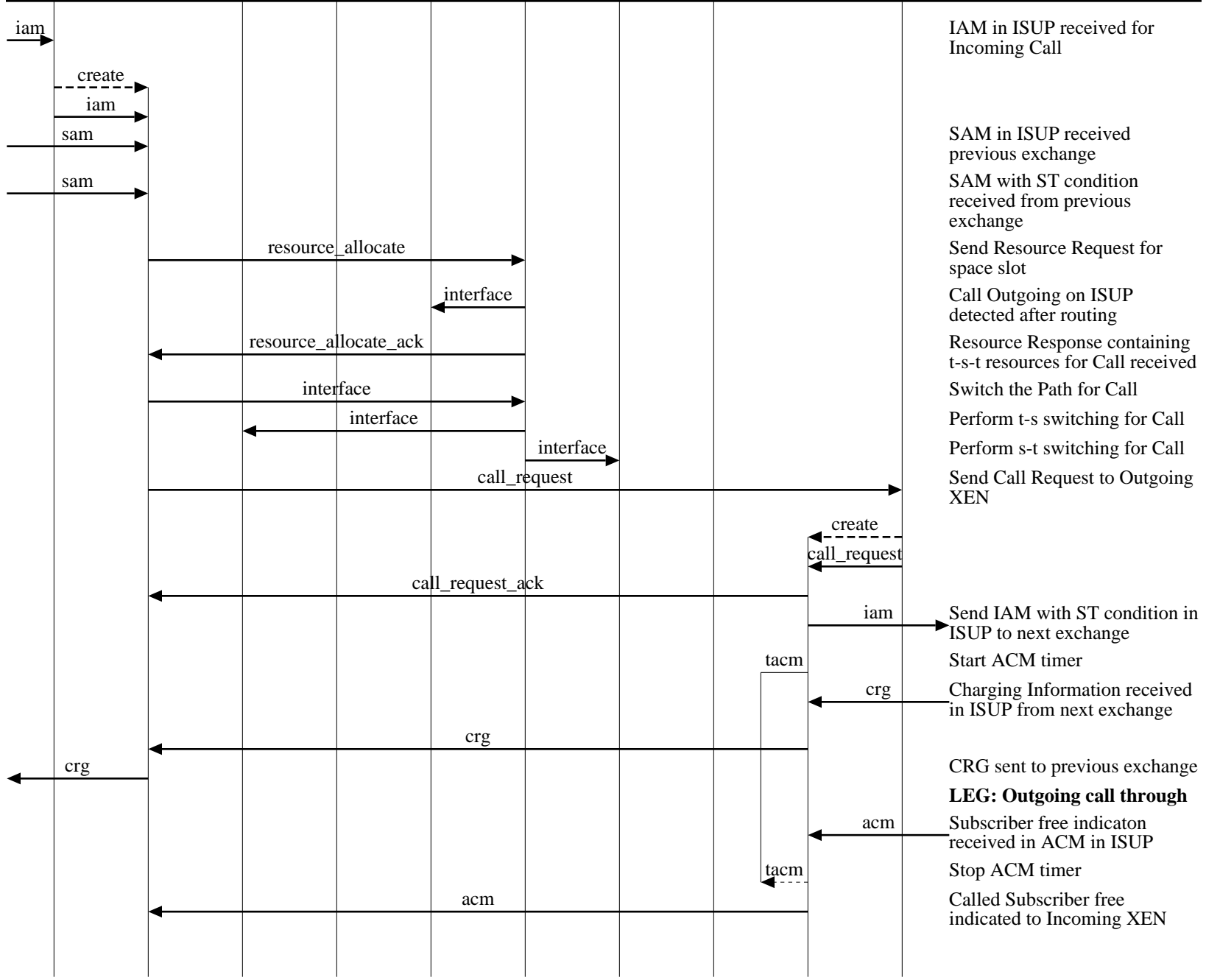


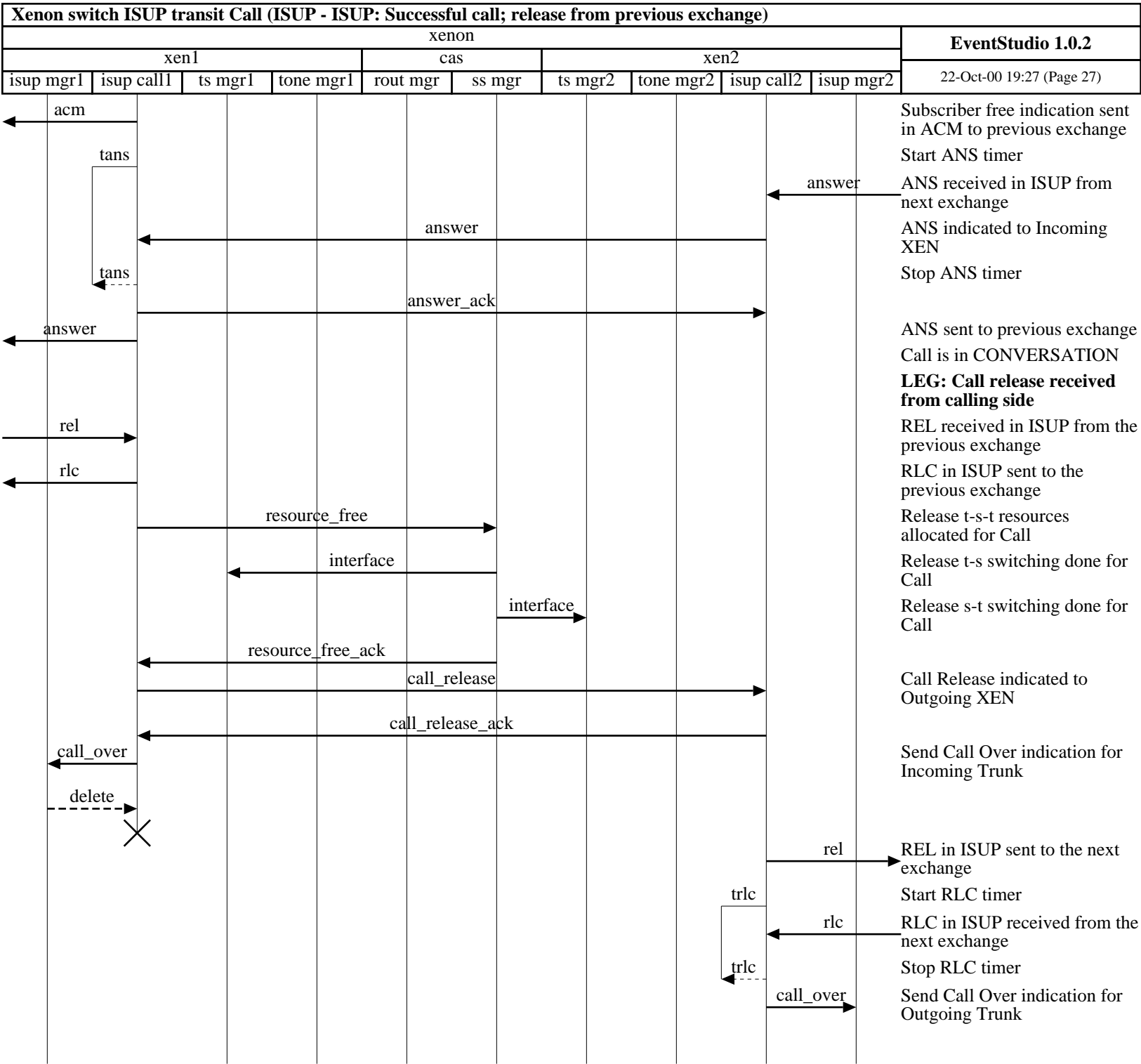


<b>Xenon switch ISUP transit Call (ISUP - ISUP: Successful call; release from next exchange)</b>											
xenon										<b>EventStudio 1.0.2</b>	
xen1				cas			xen2				22-Oct-00 19:27 (Page 25)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	ts mgr2	tone mgr2	isup call2	isup mgr2		



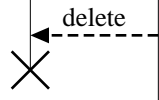
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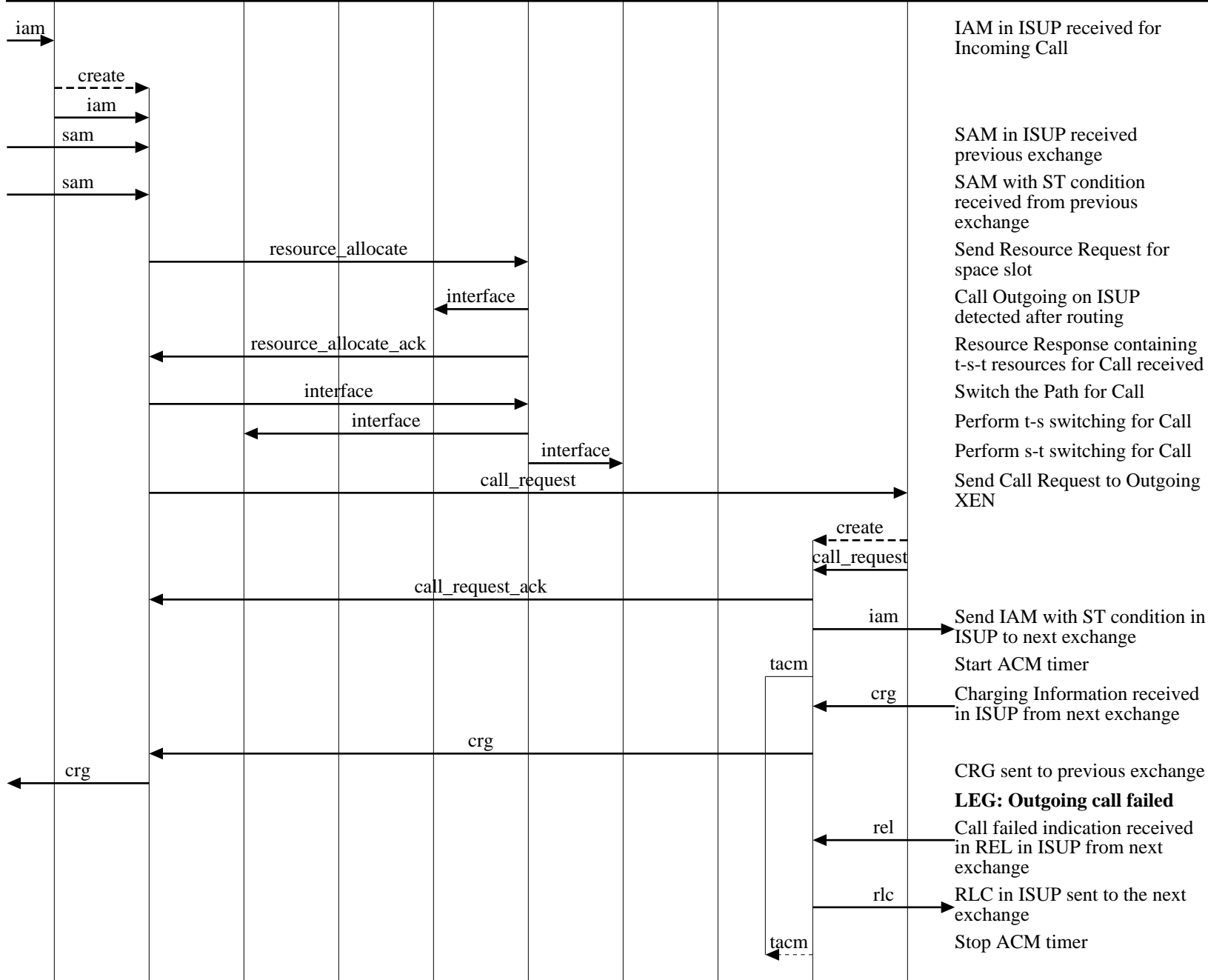


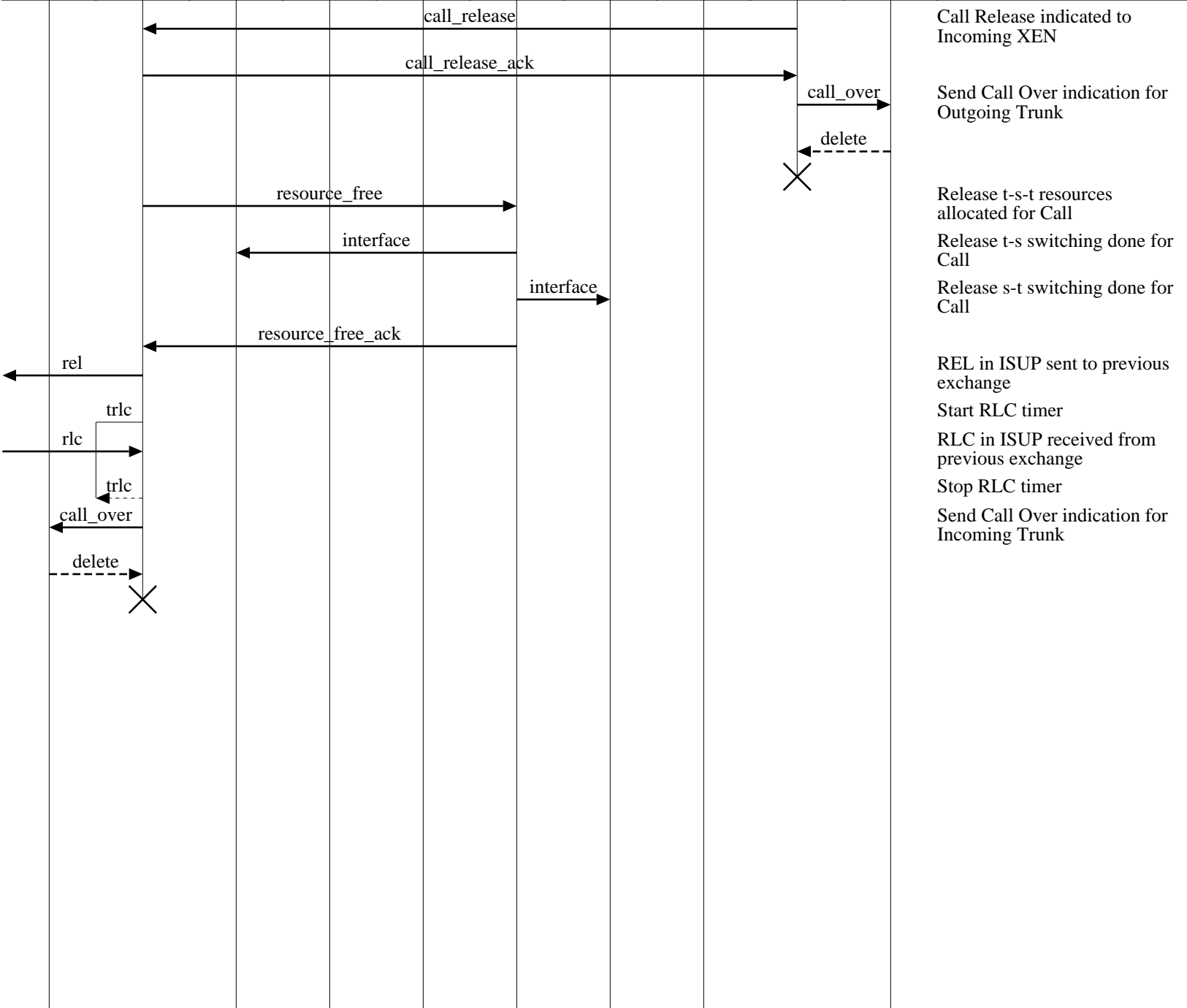
<b>Xenon switch ISUP transit Call (ISUP - ISUP: Successful call; release from previous exchange)</b>										
xenon										<b>EventStudio 1.0.2</b>
xen1				cas		xen2				22-Oct-00 19:27 (Page 28)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	ts mgr2	tone mgr2	isup call2	isup mgr2	

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Call Release indicated to Incoming XEN

Send Call Over indication for Outgoing Trunk

Release t-s-t resources allocated for Call

Release t-s switching done for Call

Release s-t switching done for Call

REL in ISUP sent to previous exchange

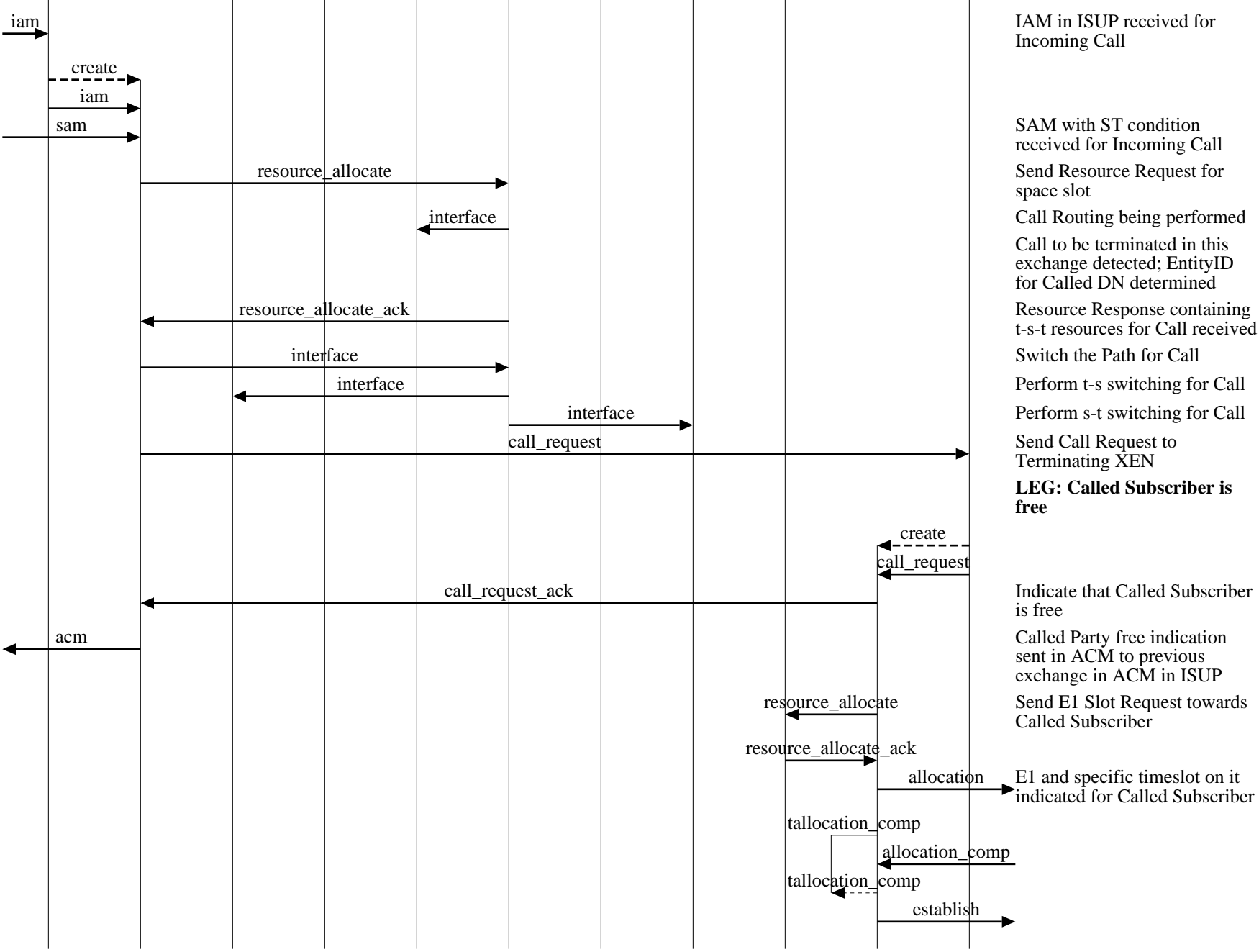
Start RLC timer

RLC in ISUP received from previous exchange

Stop RLC timer

Send Call Over indication for Incoming Trunk

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IAM in ISUP received for Incoming Call

SAM with ST condition received for Incoming Call

Send Resource Request for space slot

Call Routing being performed

Call to be terminated in this exchange detected; EntityID for Called DN determined

Resource Response containing t-s-t resources for Call received

Switch the Path for Call

Perform t-s switching for Call

Perform s-t switching for Call

Send Call Request to Terminating XEN

**LEG: Called Subscriber is free**

Indicate that Called Subscriber is free

Called Party free indication sent in ACM to previous exchange in ACM in ISUP

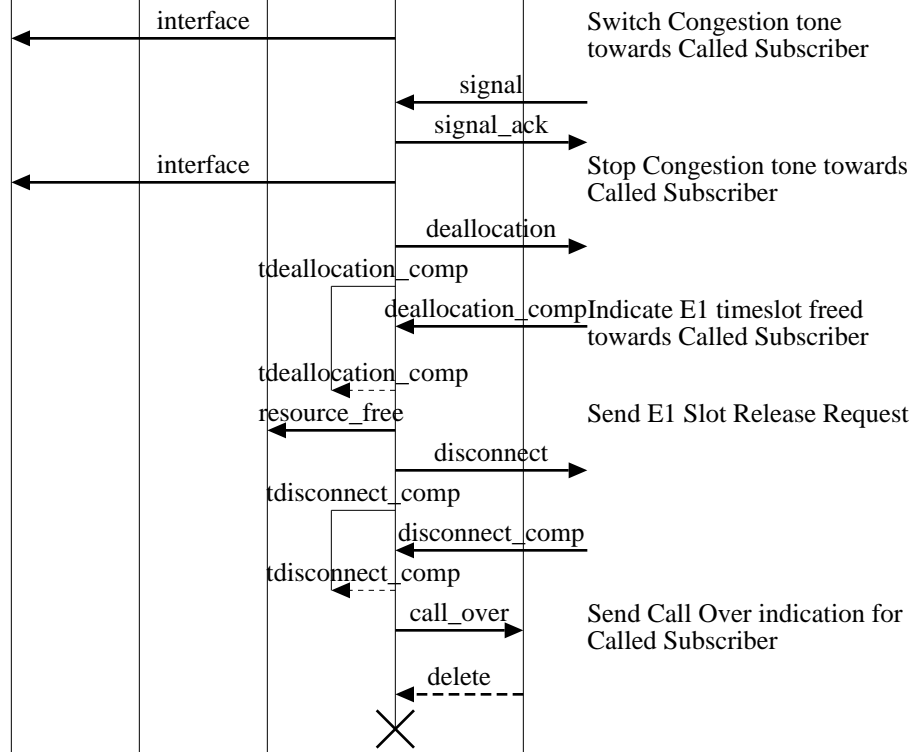
Send E1 Slot Request towards Called Subscriber

E1 and specific timeslot on it indicated for Called Subscriber

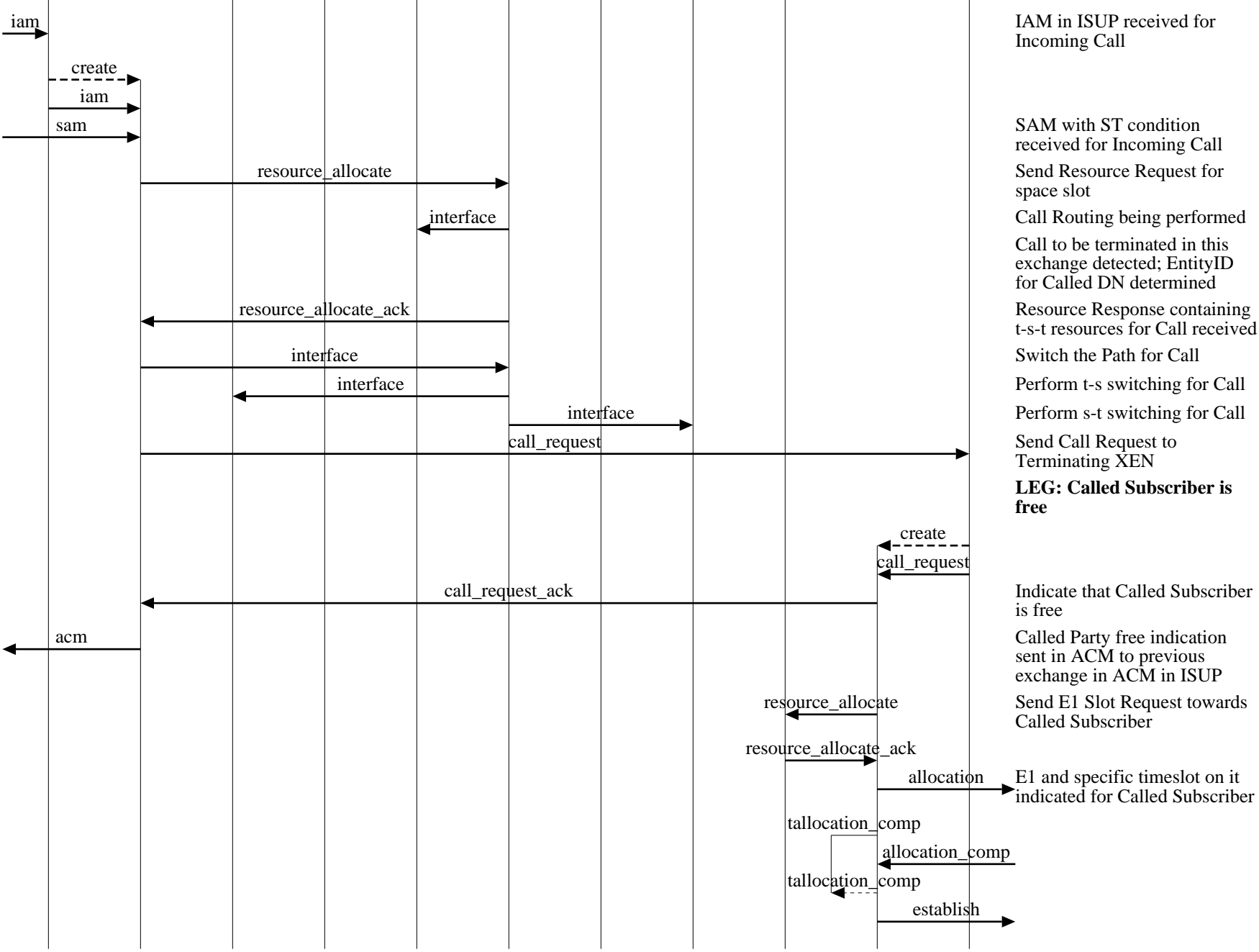


**Xenon switch Call incoming on ISUP (ISUP - V5.2: Successful call)**

xenon											<b>EventStudio 1.0.2</b>
xen1				cas		xen2					22-Oct-00 19:27 (Page 33)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



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IAM in ISUP received for Incoming Call

SAM with ST condition received for Incoming Call

Send Resource Request for space slot

Call Routing being performed

Call to be terminated in this exchange detected; EntityID for Called DN determined

Resource Response containing t-s-t resources for Call received

Switch the Path for Call

Perform t-s switching for Call

Perform s-t switching for Call

Send Call Request to Terminating XEN

**LEG: Called Subscriber is free**

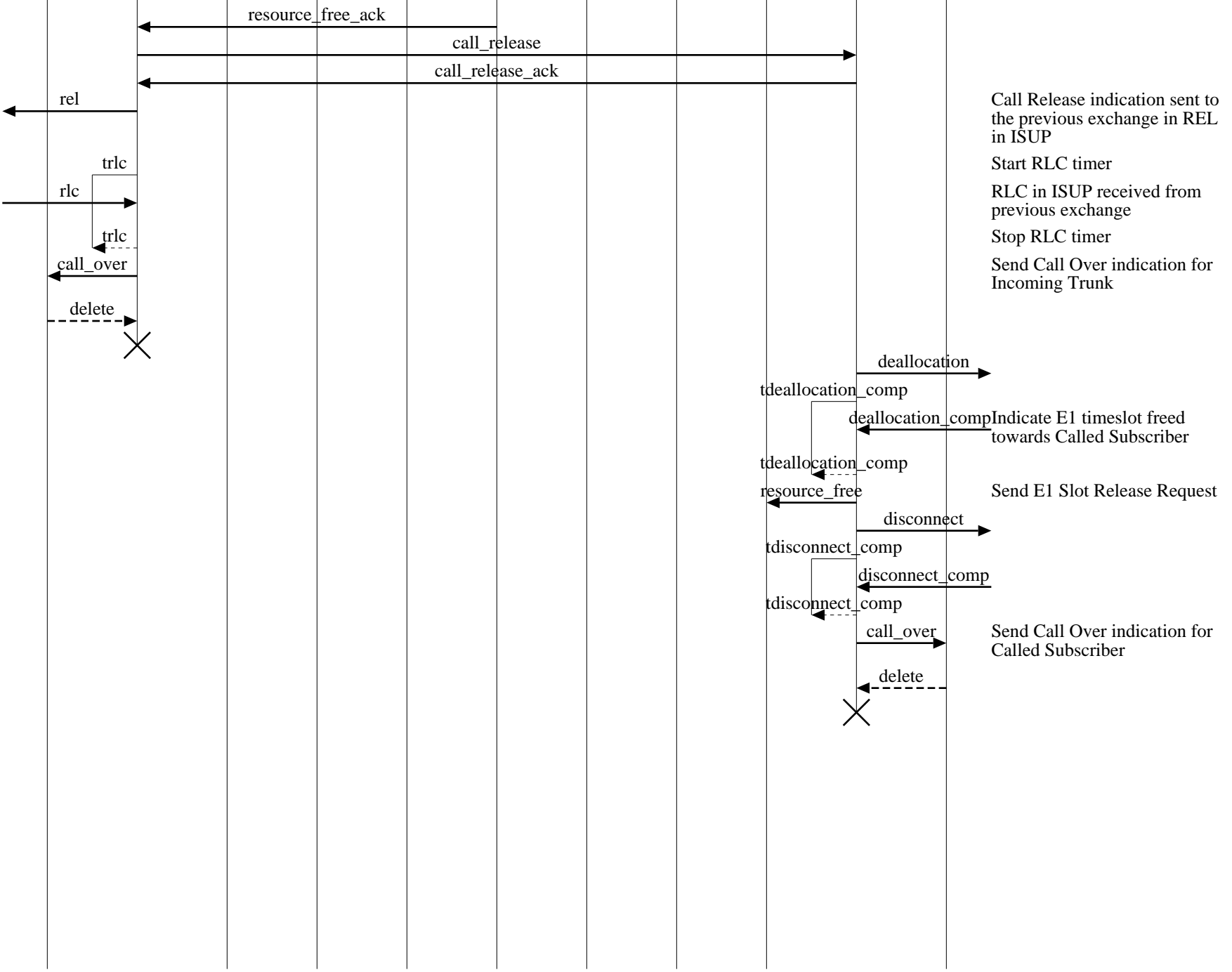
Indicate that Called Subscriber is free

Called Party free indication sent in ACM to previous exchange in ACM in ISUP

Send E1 Slot Request towards Called Subscriber

E1 and specific timeslot on it indicated for Called Subscriber





Call Release indication sent to the previous exchange in REL in ISUP

Start RLC timer

RLC in ISUP received from previous exchange

Stop RLC timer

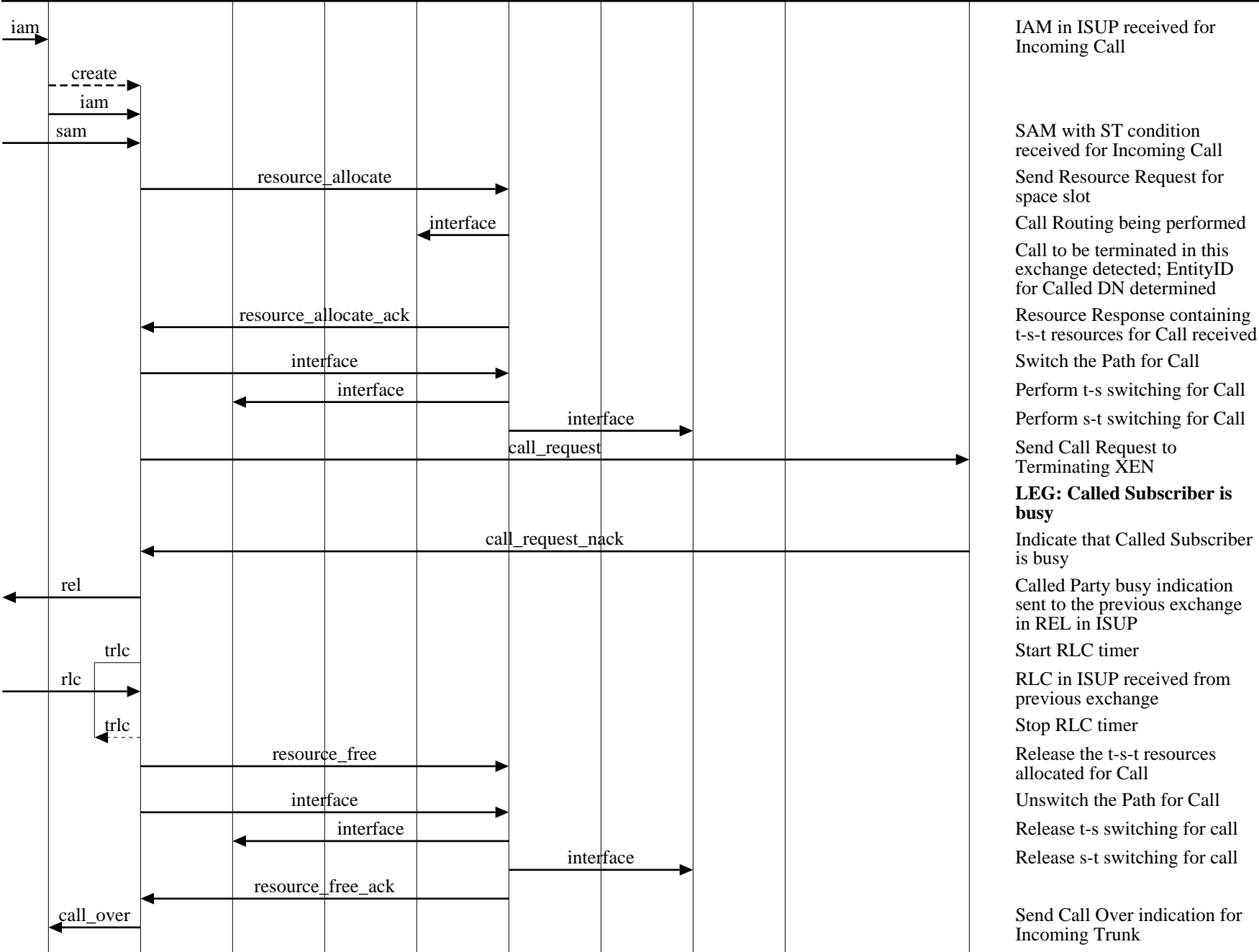
Send Call Over indication for Incoming Trunk

Indicate E1 timeslot freed towards Called Subscriber

Send E1 Slot Release Request

Send Call Over indication for Called Subscriber

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IAM in ISUP received for Incoming Call

SAM with ST condition received for Incoming Call

Send Resource Request for space slot

Call Routing being performed

Call to be terminated in this exchange detected; EntityID for Called DN determined

Resource Response containing t-s-t resources for Call received

Switch the Path for Call

Perform t-s switching for Call

Perform s-t switching for Call

Send Call Request to Terminating XEN

**LEG: Called Subscriber is busy**

Indicate that Called Subscriber is busy

Called Party busy indication sent to the previous exchange in REL in ISUP

Start RLC timer

RLC in ISUP received from previous exchange

Stop RLC timer

Release the t-s-t resources allocated for Call

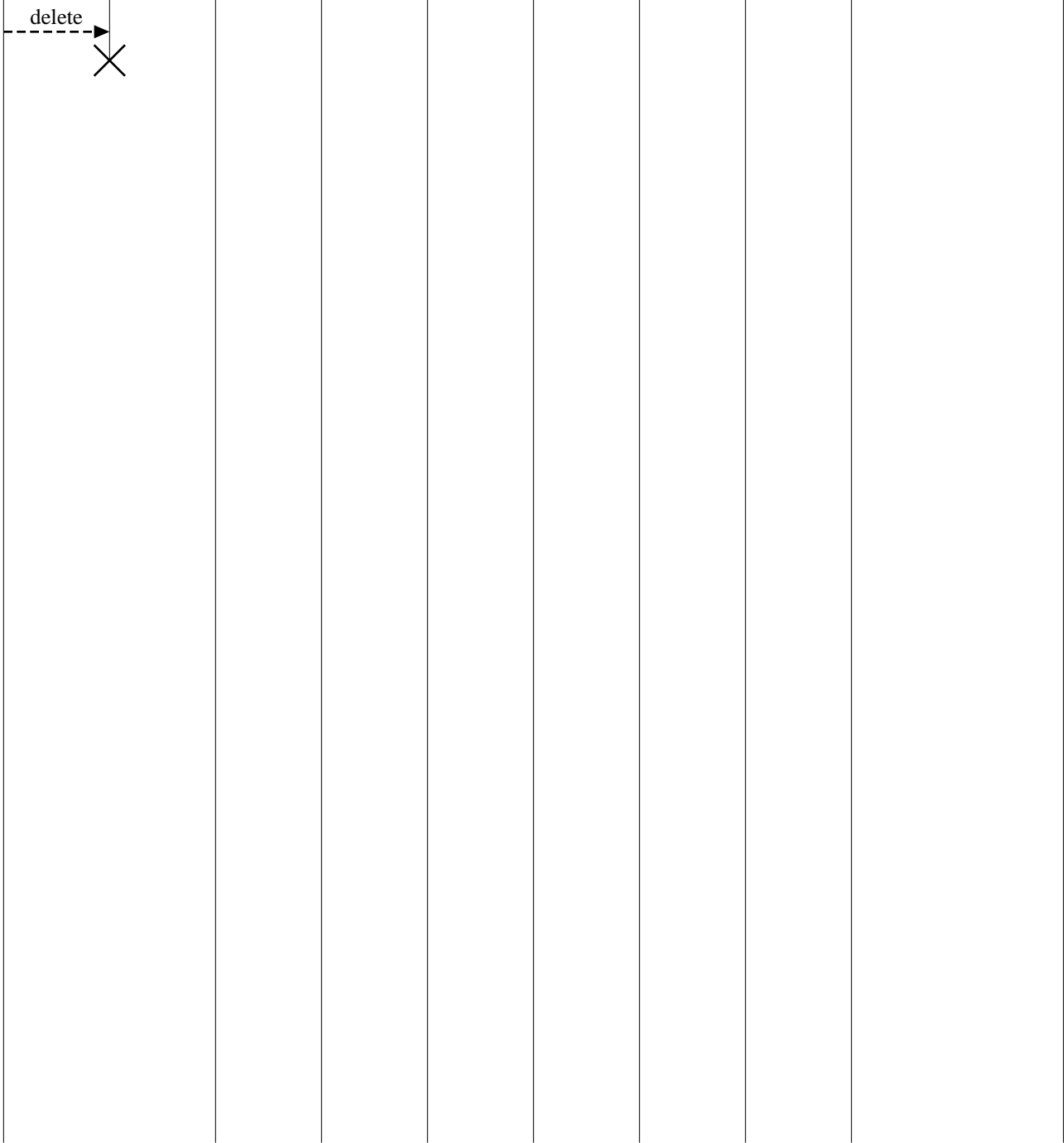
Unswitch the Path for Call

Release t-s switching for call

Release s-t switching for call

Send Call Over indication for Incoming Trunk

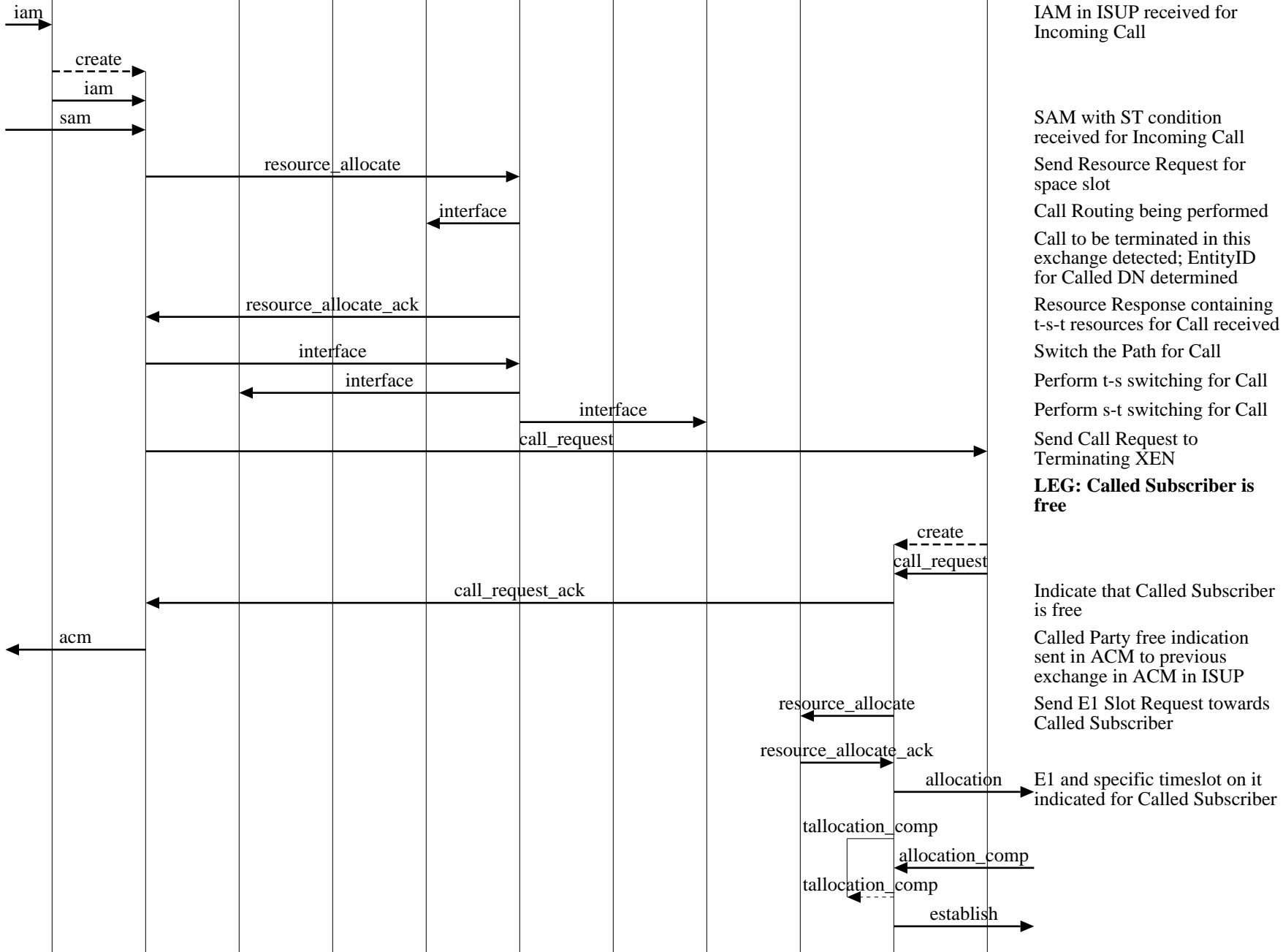
<b>Xenon switch Call incoming on ISUP (ISUP - V5.2: Outgoing call failed)</b>											
xenon										<b>EventStudio 1.0.2</b>	
xen1				cas		xen2					
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	22-Oct-00 19:27 (Page 38)



**Xenon switch Call incoming on ISUP (ISUP - V5.2: Called subscriber does not answer)**

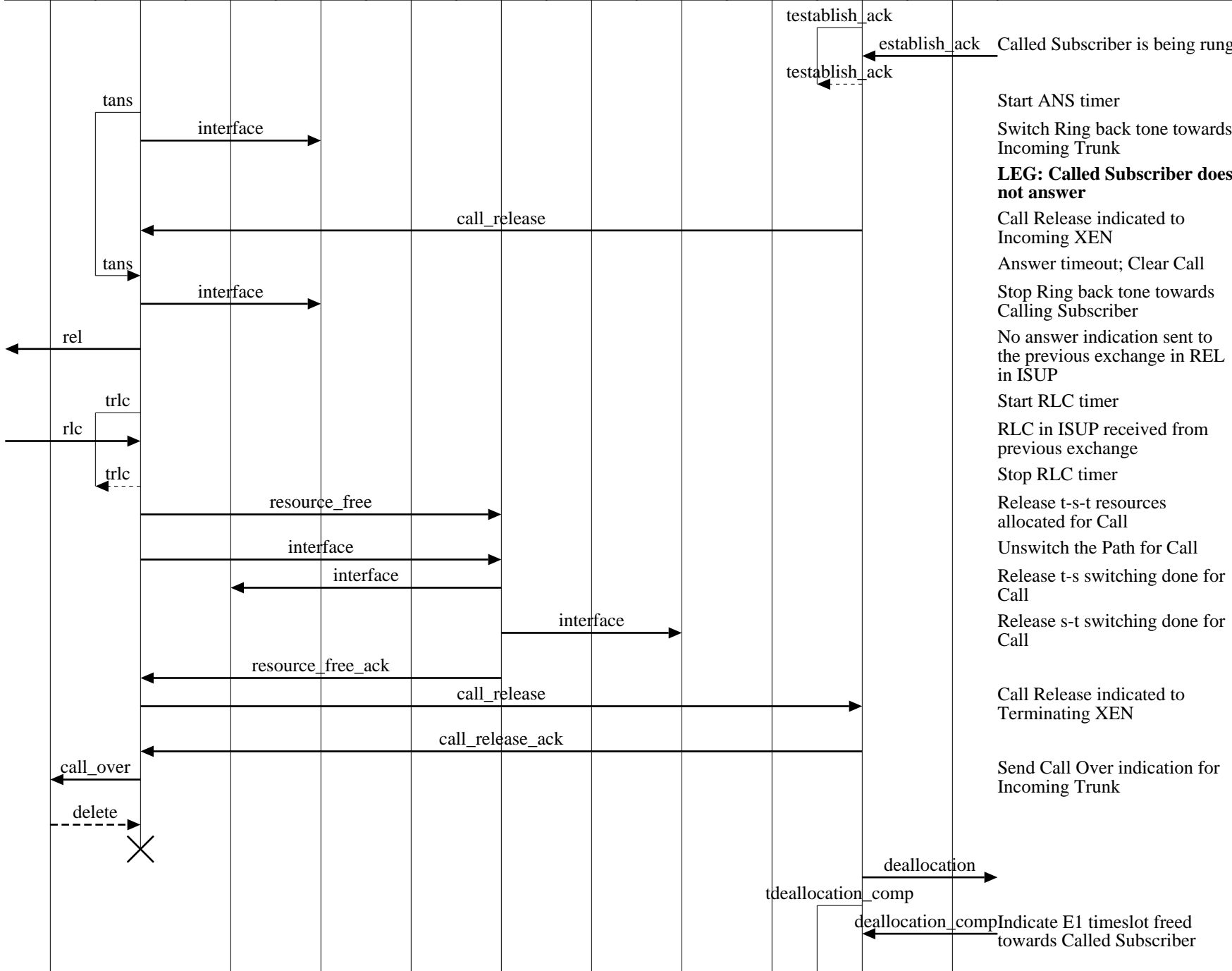
xenon											<b>EventStudio 1.0.2</b>
xen1				cas			xen2				22-Oct-00 19:27 (Page 39)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	

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**Xenon switch Call incoming on ISUP (ISUP - V5.2: Called subscriber does not answer)**

xenon											<b>EventStudio 1.0.2</b>
xen1				cas		xen2					22-Oct-00 19:27 (Page 40)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2	



Called Subscriber is being rung

Start ANS timer

Switch Ring back tone towards Incoming Trunk

**LEG: Called Subscriber does not answer**

Call Release indicated to Incoming XEN

Answer timeout; Clear Call

Stop Ring back tone towards Calling Subscriber

No answer indication sent to the previous exchange in REL in ISUP

Start RLC timer

RLC in ISUP received from previous exchange

Stop RLC timer

Release t-s-t resources allocated for Call

Unswitch the Path for Call

Release t-s switching done for Call

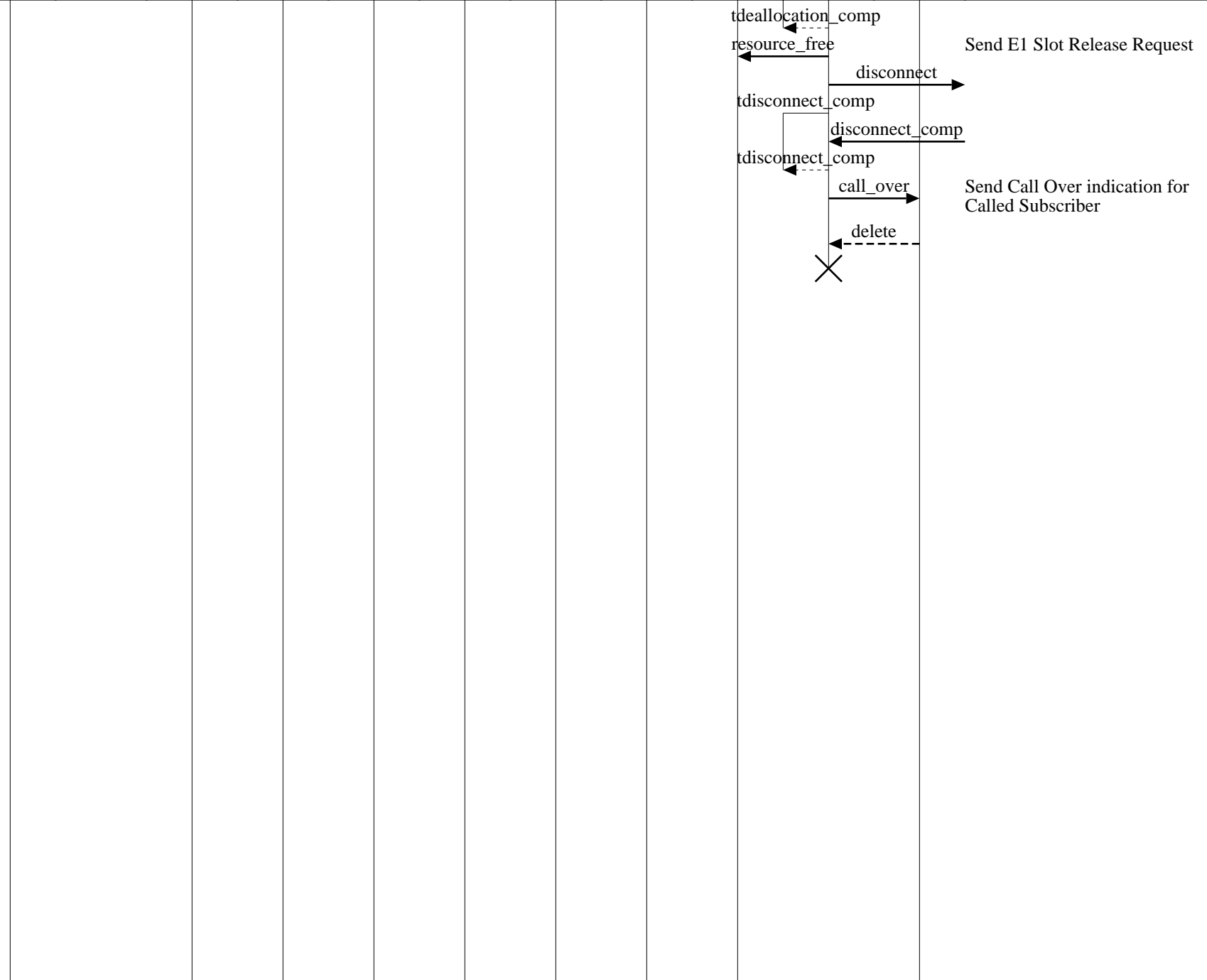
Release s-t switching done for Call

Call Release indicated to Terminating XEN

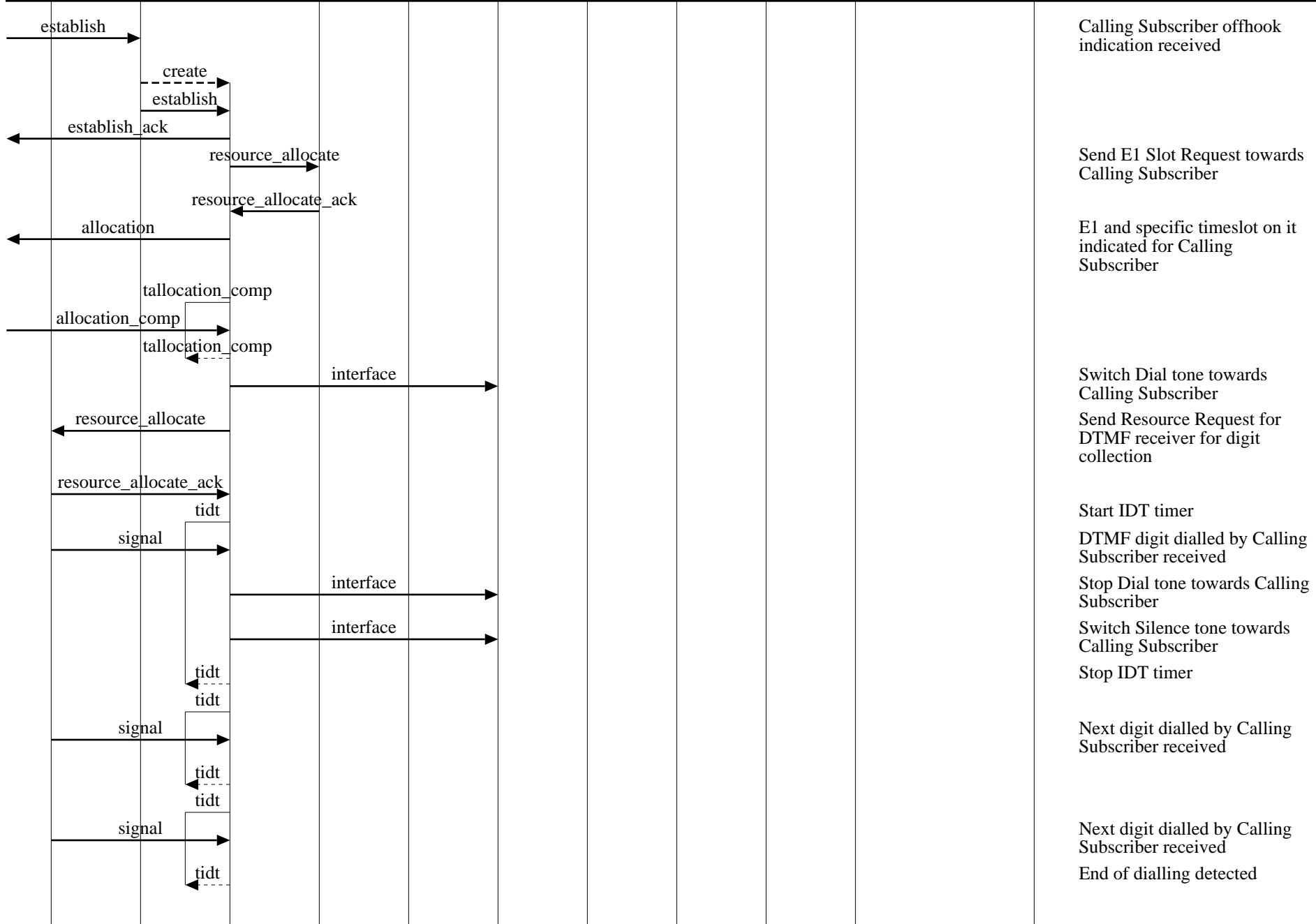
Send Call Over indication for Incoming Trunk

Indicate E1 timeslot freed towards Called Subscriber

<b>Xenon switch Call incoming on ISUP (ISUP - V5.2: Called subscriber does not answer)</b>												
xenon										<b>EventStudio 1.0.2</b>		
xen1				cas		xen2						22-Oct-00 19:27 (Page 41)
isup mgr1	isup call1	ts mgr1	tone mgr1	rout mgr	ss mgr	tone mgr2	ts mgr2	E1 mgr2	v5 call2	v5 mgr2		



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Calling Subscriber offhook indication received

Send E1 Slot Request towards Calling Subscriber

E1 and specific timeslot on it indicated for Calling Subscriber

Switch Dial tone towards Calling Subscriber

Send Resource Request for DTMF receiver for digit collection

Start IDT timer

DTMF digit dialled by Calling Subscriber received

Stop Dial tone towards Calling Subscriber

Switch Silence tone towards Calling Subscriber

Stop IDT timer

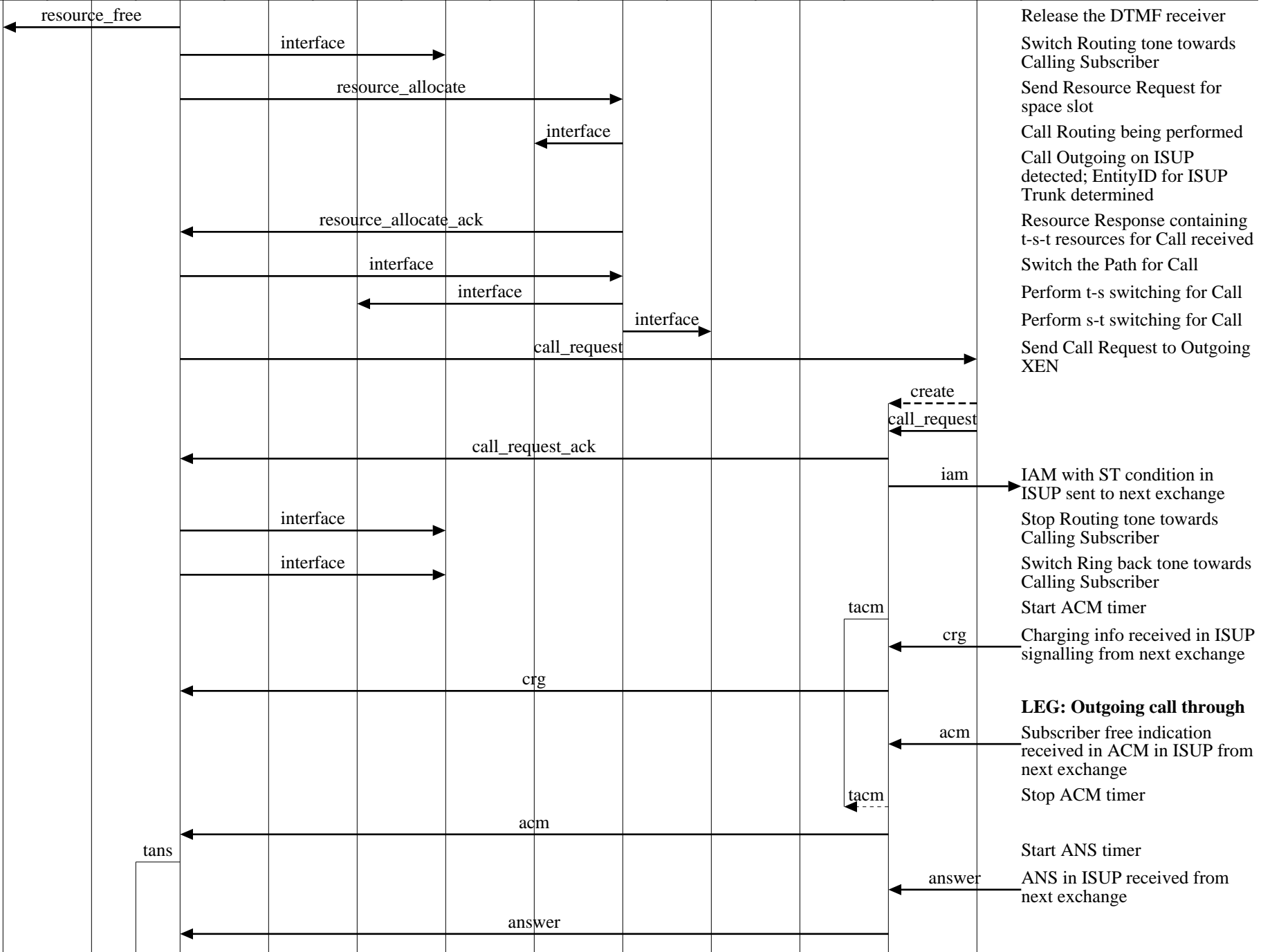
Next digit dialled by Calling Subscriber received

Next digit dialled by Calling Subscriber received

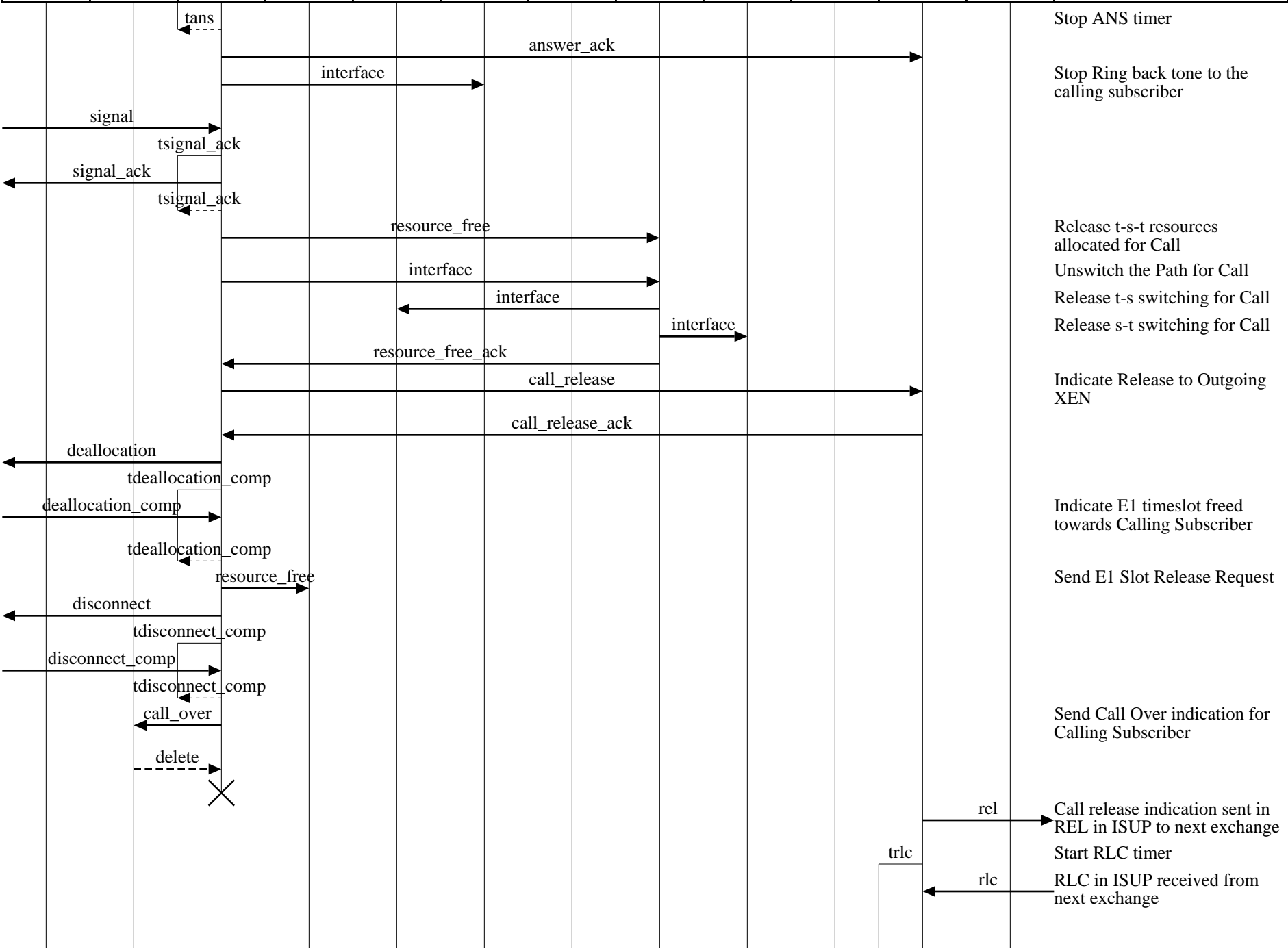
End of dialling detected

**Xenon Switch Call Outgoing on ISUP (V5.2 - ISUP: Successful call)**

xenon										EventStudio 1.0.2		
xen1					cas		xen2					22-Oct-00 19:27 (Page 43)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	ts mgr2	tone mgr2	isup call2	isup mgr2	



Release the DTMF receiver  
 Switch Routing tone towards Calling Subscriber  
 Send Resource Request for space slot  
 Call Routing being performed  
 Call Outgoing on ISUP detected; EntityID for ISUP Trunk determined  
 Resource Response containing t-s-t resources for Call received  
 Switch the Path for Call  
 Perform t-s switching for Call  
 Perform s-t switching for Call  
 Send Call Request to Outgoing XEN  
 create call\_request  
 call\_request\_ack  
 iam → IAM with ST condition in ISUP sent to next exchange  
 interface  
 interface  
 tacm → Start ACM timer  
 crg ← Charging info received in ISUP signalling from next exchange  
 crg  
 acm ← Subscriber free indication received in ACM in ISUP from next exchange  
 tacm → Stop ACM timer  
 tans → Start ANS timer  
 answer ← ANS in ISUP received from next exchange  
 answer



Stop ANS timer

Stop Ring back tone to the calling subscriber

Release t-s-t resources allocated for Call

Unswitch the Path for Call

Release t-s switching for Call

Release s-t switching for Call

Indicate Release to Outgoing XEN

Indicate E1 timeslot freed towards Calling Subscriber

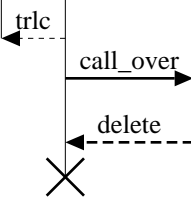
Send E1 Slot Release Request

Send Call Over indication for Calling Subscriber

Call release indication sent in REL in ISUP to next exchange

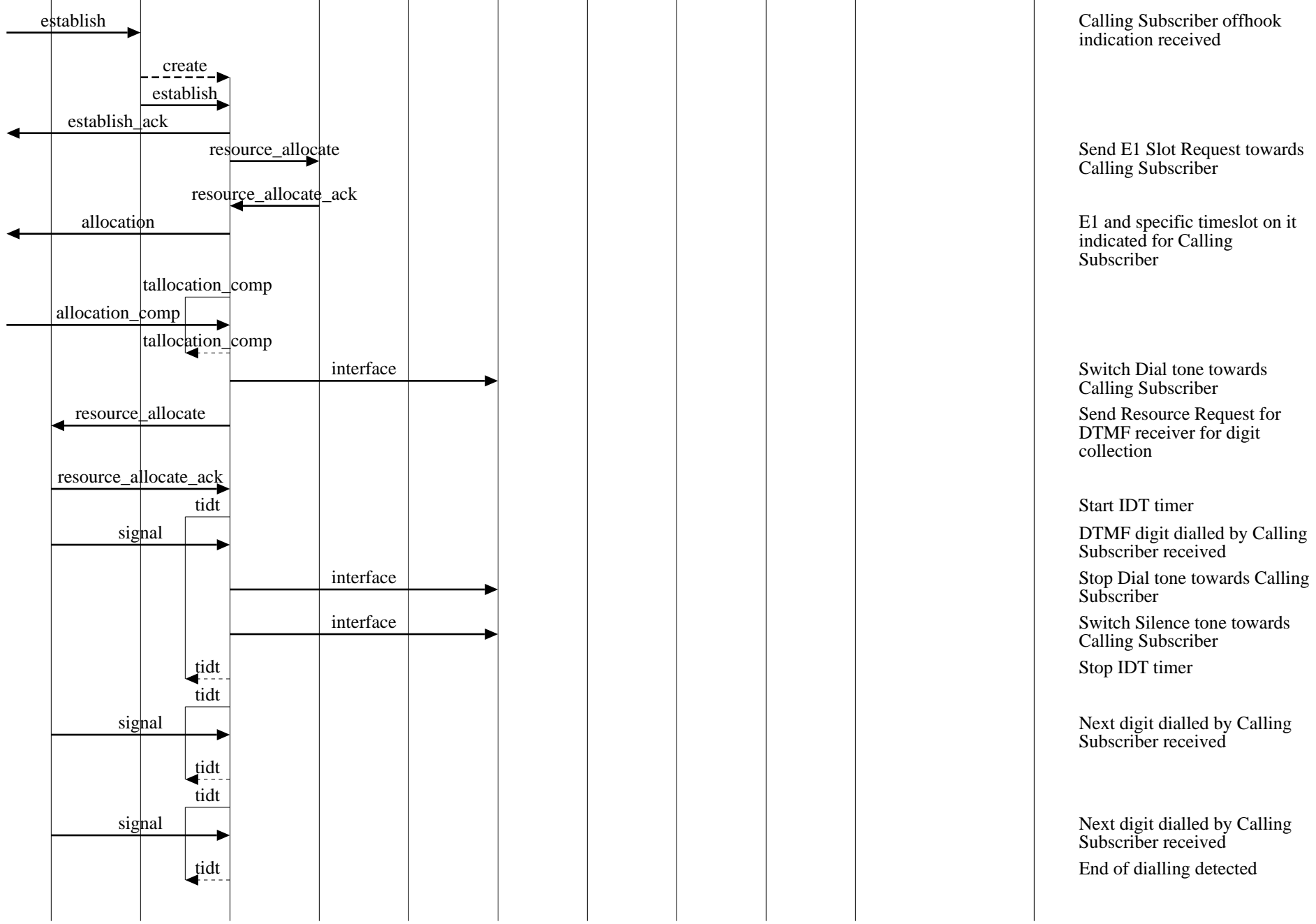
Start RLC timer

RLC in ISUP received from next exchange



Stop RLC timer  
 Send Call Over indication for  
 Outgoing Trunk

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Calling Subscriber offhook indication received

Send E1 Slot Request towards Calling Subscriber

E1 and specific timeslot on it indicated for Calling Subscriber

Switch Dial tone towards Calling Subscriber

Send Resource Request for DTMF receiver for digit collection

Start IDT timer

DTMF digit dialled by Calling Subscriber received

Stop Dial tone towards Calling Subscriber

Switch Silence tone towards Calling Subscriber

Stop IDT timer

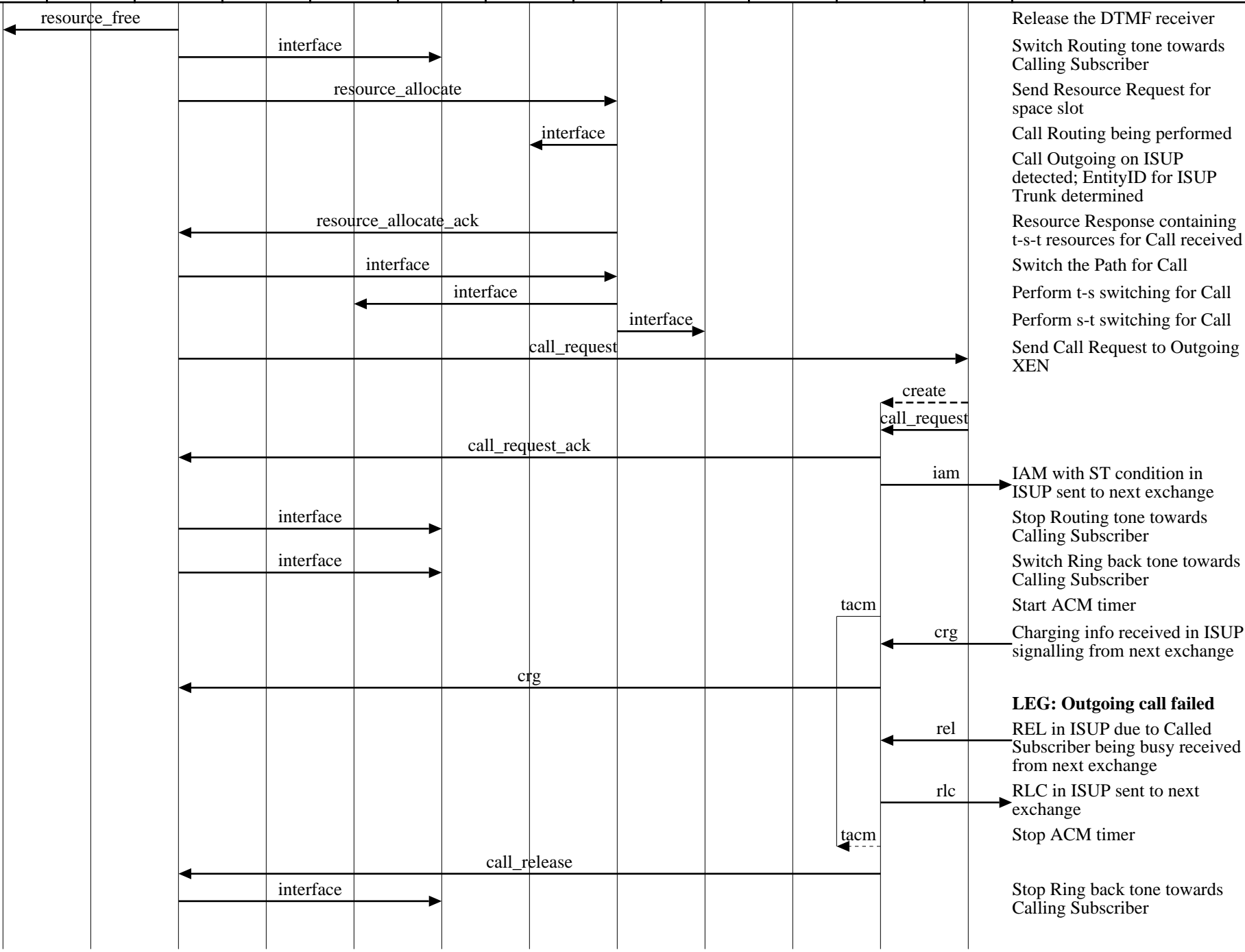
Next digit dialled by Calling Subscriber received

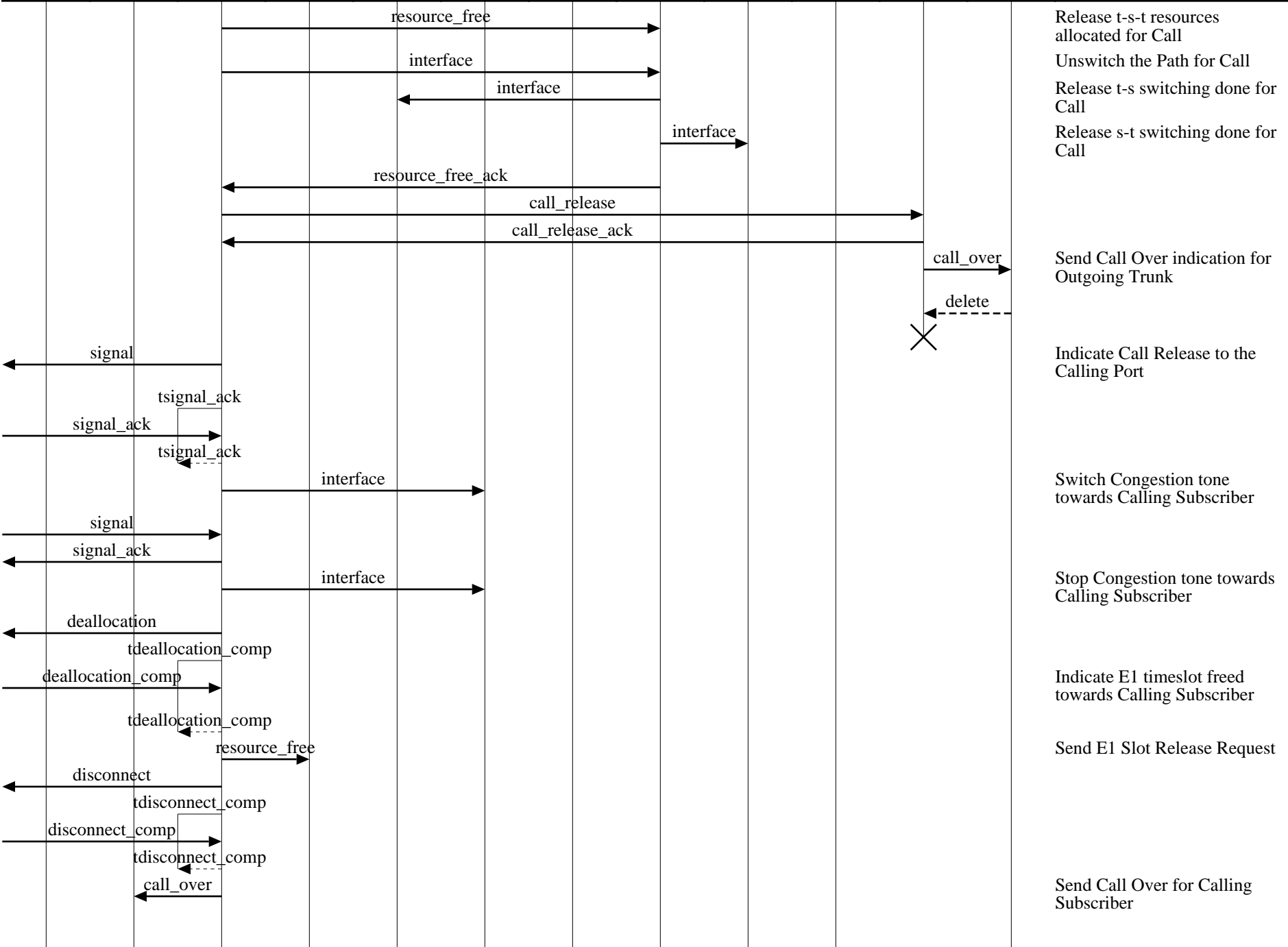
Next digit dialled by Calling Subscriber received

End of dialling detected

**Xenon Switch Call Outgoing on ISUP (V5.2 - ISUP: Outgoing call failed)**

xenon										EventStudio 1.0.2		
xen1					cas		xen2					22-Oct-00 19:27 (Page 47)
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	ts mgr2	tone mgr2	isup call2	isup mgr2	





Release t-s-t resources allocated for Call  
 Unswitch the Path for Call  
 Release t-s switching done for Call  
 Release s-t switching done for Call

Send Call Over indication for Outgoing Trunk

Indicate Call Release to the Calling Port

Switch Congestion tone towards Calling Subscriber

Stop Congestion tone towards Calling Subscriber

Indicate E1 timeslot freed towards Calling Subscriber

Send E1 Slot Release Request

Send Call Over for Calling Subscriber

<b>Xenon Switch Call Outgoing on ISUP (V5.2 - ISUP: Outgoing call failed)</b>												
xenon										<b>EventStudio 1.0.2</b>		
xen1					cas			xen2				
dsp1	v5 mgr1	v5 call1	E1 mgr1	ts mgr1	tone mgr1	rout mgr	ss mgr	ts mgr2	tone mgr2	isup call2	isup mgr2	22-Oct-00 19:27 (Page 49)

