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: TTA-V-N-04-003-CC11

:

SIP VoIP Gateway TTA Verified

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SIP VoIP

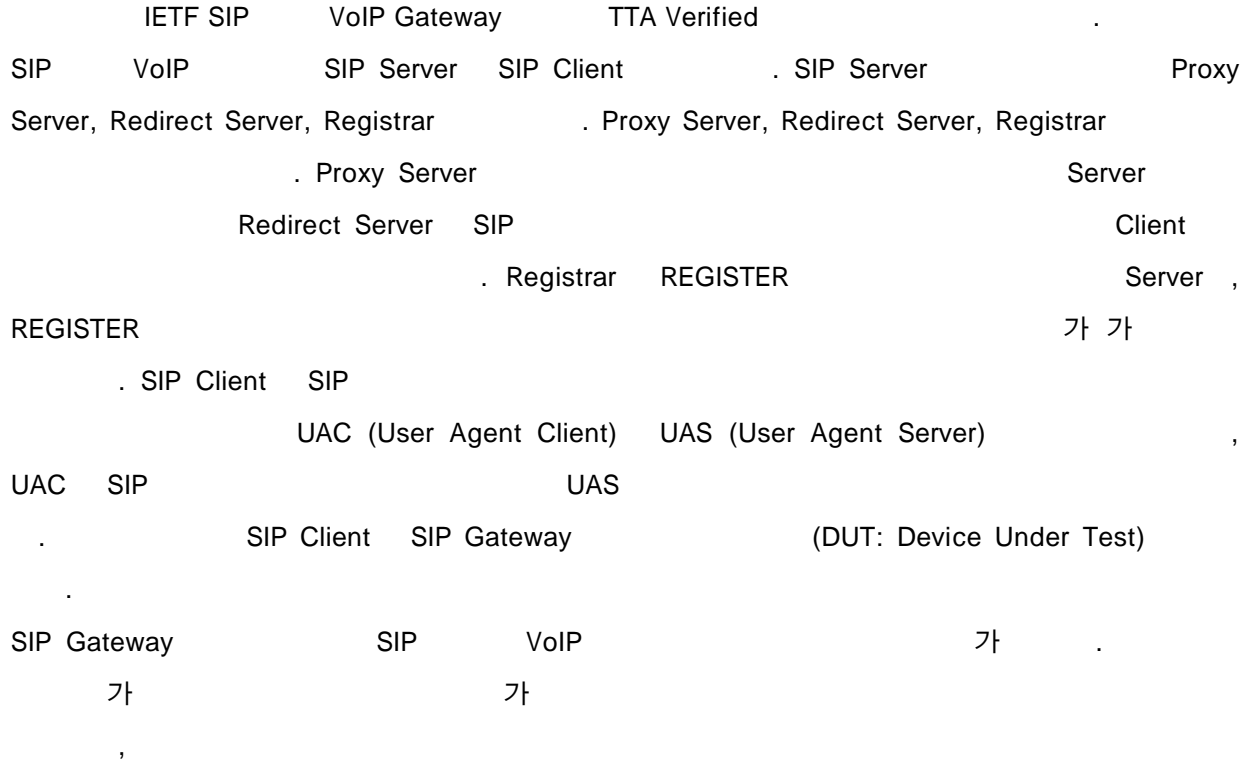
TTA Verified

00	2004.05.24.		•
01	2006.07.25.		•

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1.	4
2.	4
3.	5
4.	9
5.	10
6.	14

1.



2.

- [1] IETF RFC3261, SIP: Session Initiation Protocol, June 2002.
- [2] IETF RFC3262, Reliability of Provisional Responses in the Session Initiation Protocol (SIP), June 2002.
- [3] IETF RFC3263, Session Initiation Protocol (SIP): Locating SIP Servers, June 2002.
- [4] IETF RFC3263, An Offer/Answer Model with the Session Description Protocol (SDP), June 2002.
- [5] ETSI TIPHON DTS03018, Interface Protocol Requirements Definition: Implementation of TIPHON architecture using SIP, September 2002.
- [6] IETF-draft-ietf-sipping-basic-call-flows-01, SIP Basic Call Flow Examples, October 2002.
- [7] VoIP Forum SIP WG, SIP - ().
- [8] IMTC SIP SIG Activity Group, SIP Interoperability Scenarios Test Plan Draft, June 2000.

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: TTA-V-N-04-003-CC11
: 2006.07.25 :
: 2004.05.24. : 5/14

3.

		(User at Home)	
	Contact address	Contact address 가	
		Contact address	
		Contact address	
		Contact address	
		Multicast	
		Direct Communication	
		Call Redirection	
		Proxy	
		Redirect	
		Record - Route	
		Proxy	
	BYE		
		(CANCEL)	
	SDP Capability	OPTIONS	
		re-INVITE (Modifying an Existing Session)	

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: TTA-V-N-04-003-CC11
: 2006.07.25 :
: 2004.05.24. : 6/14

	Transport protocol	TCP		
		UDP Reliability		
			Auto negotiation	
			(G.711, G.729/G.729a, G.723.1)	
			Comfortable noise	
			Echo cancellation	
				FXS-1
		DTMF (Out of band)		
		DTMF (In-band)		
		FAX (T.38)		FXS-1
		Locating a SIP Server		
		Inbound		FXS-1 E1
		Inbound/Outbound Prefix 가/		
	PSTN	E1, FXS PSTN (FXO)		
	IP	10/100Mbps Ethernet		
	SNMP MIB			
			FXS-1	
	S/W			

: TTA-V-N-04-003-CC11

: 2006.07.25

:

: 2004.05.24.

: 7/14

SIP VoIP

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	가	2 Stage		FXO	
		Last digit			
		VoIP	PSTN (PSTN Backup)		
		Tone			
		LLO(Line Lock Out)		E1	
				E1	
		(, ID)			
			RS - 232C	FXS - 1	
			Restore		FXS - 1
			Secondary Proxy Server		FXS - 1
					FXS - 1
		xDSL, Cable Modem, , Ethernet		FXS - 1	
		DHCP, NAT		FXS - 1	
(MOS)					

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: TTA-V-N-04-003-CC11
: 2006.07.25 :
: 2004.05.24. : 8/14

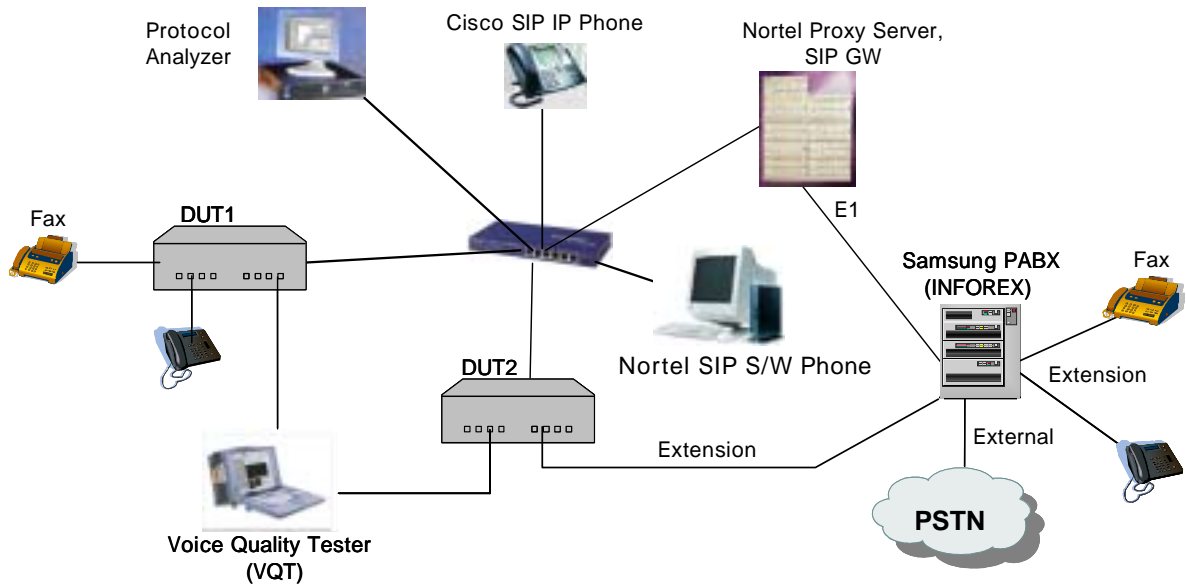
가		Speech Delay	
		(24)	

SIP VoIP
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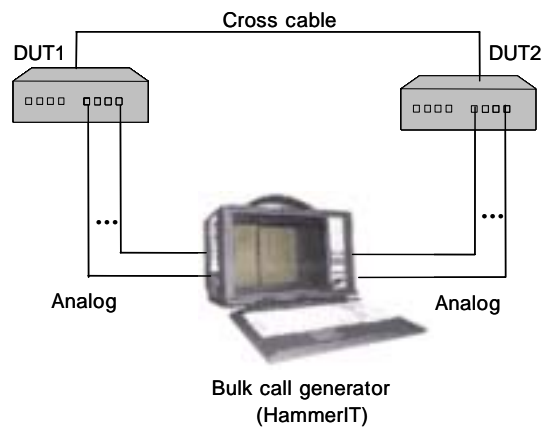
4.

1

2



(1)



(2)

5.

(User at Home)	DUT가 Proxy (Registrar)
Contact address 가	DUT Proxy(Registrar) contact address 가(add)
Contact address	DUT Proxy(Registrar) contact address (delete)
Contact address	DUT Proxy(Registrar) Expiration time interval (Refresh)
Contact address	DUT Proxy(Registrar) contact address (Retrieve)
	DUT Proxy(Registrar)
Multicast	REGISTER 가 sip multicast address(224.0.1.75)
Direct Communication	DUT Gateway 가 DUT
Call Redirection	UAS가 Redirect redirect DUT 1 DUT 2 DUT 2가 DUT 3 가
Proxy	Proxy
Redirect	Redirect
Record - Route	Proxy , Record - Route Proxy INVITE 180 Ringing, 200 OK Record - Route
Proxy	Proxy Proxy 가 INVITE
	BYE
	BYE

(CANCEL)	CANCEL
OPTIONS	capability 가 OPTIONS Request
re-INVITE (Modifying an Existing Session)	re-INVITE 가 re-INVITE
TCP	UDP가 TCP
UDP Reliability	UDP Reliability Mechanism UDP Reliability Mechanism (: INVITE request 500ms interval 7 2 가 7 user error).
Auto negotiation	IP S/W DUT Auto negotiation , DUT IP S/W Auto negotiation 가
(G.711, G.729/ G.729a, G.723.1)	DUT가 (G.711 A-law/U-law, G.723.1 5.3k/6.3k, G.729 /G.729a)
Comfortable noise	CNG On/Off 가
	VAD On/Off
Echo cancellation	Echo Canceller On/Off . Echo On/Off Echo Free Rate 가
	가 2 . (8)
DTMF (Out of band)	DUT IP INFO DTMF

DTMF (In-band)	DUT IP RTP(In-band) DTMF
FAX (T.38)	DUT GW Fax 가
Locating a SIP Server	DUT가 SIP Server DNS Server A-Record, SRV-Record, NAPTR-Record
Inbound	DUT 가
Inbound/Outbound Prefix 가/	DUT Prefix 가/
E1, FXS PSTN (FXO)	E1 FXS , E1 (PRI/MFC-R2) , FXS PSTN PSTN FXO , PSTN FXO
10/100Mbps Ethernet	IP 가 10M 10/100M
SNMP MIB	SNMP VoIP MIB
	Telnet HTTP DUT / 가
S/W	Local Remote tftp S/W
2 Stage	2 Stage . 2 Stage IVR
Last digit	PDD last digit #
VoIP PSTN (PSTN Backup)	VoIP PSTN 가

SIP VoIP

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Tone	Dial tone, Ring back tone, Busy tone, Congestion tone
LLO(Line Lock Out)	, LLO
	: 404(), 480(가), 486(), 487(), 488().
(, ID)	, ID
RS-232C	RS-232C 가
	DUT (, ,) 가 가 ,
Restore	(: User Provision Data) 가 , 가
Secondary Proxy Server	Failure Secondary
	가 , (, , , , ,)
	가 DUT 가
	CDR
xDSL, Cable Modem, , Ethernet	가 xDSL, Cable Modem, , Ethernet

DHCP, NAT	DHCP server IP가 , I P NAT server IP가 , LAN 가 , DHCP Server NAT Server , VoIP LAN PC 가
(MOS)	DUT G.723.1 MOS 3.5
Speech Delay	DUT G.723.1 Speech delay가 150 ms
(24)	DUT Bulk Call pattern, Call duration 10 , Inter-call duration 3 , G.723.1 24 95 %

6.

