2. TAU-36/72.IP

TAU-36/72.IP , .

, TAU-Main, , .

.2 .

.3 VoIP ( ).

.4 ().

.5 .

1 VoIP

TAU-72/36.IP – IP-, IP- IP/Ethernet.

, , IP-.

TAU-72/36.IP IP- .

TAU-72/36.IP TDM NGN IP-.

TAU-36/72.IP , .

2 . TAU-72/36.IP

TAU-72/36.IP , IP-. Softswitch SIP-. /SIP-.

2.1

2.1 – TAU-72/36.IP

, TAU-72/36.IP, .

, .

2.2 VoIP

2.2 –

(L1 OSI), , L1 OSI, IP- -TDM VoIP.

, , TAU-72/36.IP L2 OSI (. 2.3).

2.3 – (SIP, RTP, SNMP)

, -TDM, IP-.

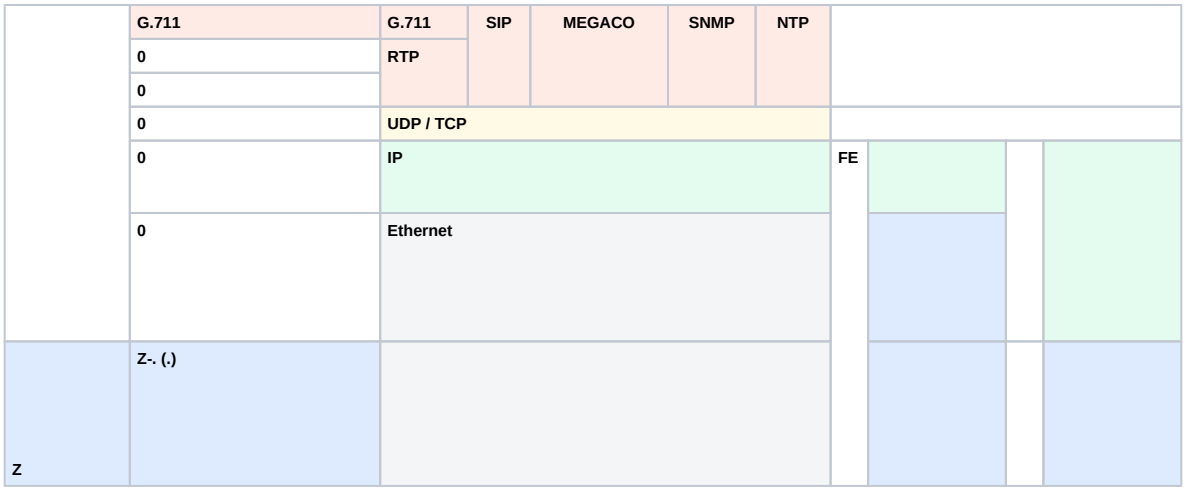
L2 (VLAN – IEEE 802.1p/Q), IP-.

, , , TAU-72/36.IP, Softswitch SIP-.

2.3 TAU

2.4 – TAU .

TAU-36/72.IP		
	IP-	



2.5 – C TAU

TAU-72/36.IP (IP-), , TAU-72/36.IP (OSI L1,), , TAU-Main, .

, , :

1. TAU TDM , , Z- VoIP-, IP- , IP-.
2. TAU IP.

TAU , IP-.

, , RS-232, Web-, IP- (*192.168.1.2*).

, IP-, , IP-, , Web-.

2.6:

2.6 – TAU-72/36.IP.

3 TAU-Main. TAU-72/36.IP

TAU-Main .

TAU-Main.	TAU-72/36.IP
1.	**P.001.**
2. IP-	**P.2.**
3. VoIP ( )	**P.3.**

:

- **(P.xxx)** – , ;
  - – , ;
  - – , ;
  - – , ;
  - – ;
  - – (,).

3.1 P.001.

,

.

(CLI), P.001.C, Web-, P.001.W.

TAU 4 Web-:

1. – admin
2. – supervisor
3. – operator
4. – viewer

P.001.						
P-001.C. CLI (6.4) [14]				**P-001.W.** Web (5.1 5.1.6.6) [14]		
1. : - - COM-port «Consol» TAU-72/36.IP - Ethernet- Ethernet-		COM-port telnet		1. TAU Web , : Firefox, Internet Explorer		
2. .		, putty.exe		2. IP- TAU - 192.168.1.2 255.255.255.0		IP-
3. : - COM-port: telnet:		115200, 8 , , 1 , IP- 192.168.1.2, 23.		3. : *admin*, : *rootpasswd*		Web- TAU 4
4. Enter. : ********** TAU-72 FXS Gateway ********** fxs72 login: **admin**				4. , TAU (System info). (5.1.6.6) [14]		**Web -**: Web- : *"(Ru)" " (En)".* Web- ()
5. **passwd**. : > passwd Changing password for admin New password:				5. Web -: Web- , (TAU-72.IP/TAU-36.IP Web configurator) *		* * , flash * , flash

6. , <enter>, , <enter>. : > passwd Changing password for admin New password: Retype password: Password for admin changed by admin Oct 15 10:25:50 tmip auth.info passwd: Password for admin changed by admin		**!**		6. Web- , * , , flash		
7. , passwd. : - linux-, **shell**, - *joe*. admin «».		, . , <ctrl^c>, ctrl^(kx): joe /tmp/etc/passwd : admin::0:0: admin:/ admin:/bin/sh . : admin::x:0:0: admin:/ admin:/bin/ sh.		7. Web- – Password (5.1.6.6) [14]. TAU . TAU 4 Web-: 1. - *admin*; 2. - *supervisor*; 3. - *operator*; 4. - *viewer*		«» («*Passwords*») « » Web-. : ***admin*** – ; ***supervisor*** – « »; ***operator*** – , , , , ; ***viewer*** –
8. **save**				8. (admin, operator, viewer)		. 5.1.6.8 « » [14]
9. **reboot -f.**						

IP-, , , IP- (« »).

3.1.1 – Network settings

TAU-72/36.IP

4 « » [14] 5 « » [14], Web- Web- TAU-72/36.IP [14].

, TAU-72/36.IP.

VoIP- (. 2.2 2.4), IP- 5.1.1 « – Network settings» [14].

« – Network settings»

:

- IP- (IP-, ,);
- ( ) VoIP IP- VLAN-;
- DNS, SNMP, Syslog, NTP, ACS, .

– . 2.1.

2.1 –

(engl)	**(ru)**	
Network settings		
Network		
VLAN conf	VLAN	VLAN
Route		
Hosts	DNS	DNS-
SNMP	SNMP	SNMP-

Syslog		syslog-
Firewall		IP-
NTP	NTP	NTP
ACS	ACS	TR-069
Autoupdate		

3.2 P.2. IP-

«» IP- (IP-, VLAN, ..), (SNMP, .).

.2 IP-, :

- IP- (, , . , « IP-»);
- IP- (DNS, DHCP, NTP .);
- VLAN (VID, ,).

, , :

- IP-. , , ;
- IP-;
- Ethernet;
- VLAN.

P.2xx. « (Network settings)» Web- TAU-72/36.IP.

, , VLAN, , DHCP, NTP .

P.200. IP-.								
(engl)		(ru)						
Network						5.1.1.1		P.210.
VLAN conf		VLAN		VLAN		5.1.1.3		P.220.
Route						5.1.1.4		P.230.
SNMP		SNMP		SNMP-		5.1.1.6		P.250.
NTP		NTP		NTP		5.1.1.10		P.280.

3.2.1 P.210. IP-

IP- (DHCP-), IP- ( ).

IP- , . ( ) DHCP.

(5.1.1.1) [14], [15].

IP- 5.1.1.1. [14].

IP- !

P.210. IP-

P.211. :						
		DHCP:		/		/ IP-
		, DHCP:		/		
		:		IP-		
		DNS :		IP-		
		DNS :		IP-		
P.212. DHCP:						
		60:		/		/
		60:				
		82. :				
		82. :				
P.213. IP- WAN:						IP- WAN,
		IP-:		IP-		
		:				
		:		IP-		
P.214. :						
		TELNET:		/		
		SSH:		/		
		STP:		/		
		WEB:		/		
		WEB :				- 80
P.215. :						PPPoE
		:		/		
		:				
		:				
		VLAN:		/		
		VLAN:		1 4095		VID, , VLAN
P.216. LLDP:						LLDP ,
		LLDP:		/		
		LLDP:		0 65535		

3.2.2 P.220. VLAN

VLAN , , . , / , CoS.

VLAN , VLAN , , VLAN, IP- , VLAN.

1 – « VLAN», 5.1.1.3 [14].

, Ethernet (MAC) VLAN (IEEE 802.1p/Q) 4 (. 1.15 1), (, ,) (VLAN) .

VLAN (VID) .

3 CoS , , , .

VLAN 5.1.1.3 [14].

VLAN , VLAN.

IP-, WAN, VLAN .

, 192.168.1.6 192.168.2.199 255.255.240.0 , 255.255.255.0 – .

VLAN !

P.220. VLAN						
P.221. VLAN 1		:		/		VLAN 1
		VLAN:		1 4095		VID , VLAN
		DHCP VLAN:		/		
		, DHCP:		/		
		IP :		IP- VLAN 1		IP- VLAN 1
		VLAN:		VLAN 1		
		VLAN:		IP-		
		(802.1p):		0 7		,
P.222. VLAN 2		:		/		VLAN 2
		VLAN:		1 4095		VID , VLAN
		DHCP VLAN:		/		
		, DHCP:		/		
		IP :		IP- VLAN 2		IP- VLAN 2
		VLAN:		VLAN 2		
		VLAN:		IP-		
		(802.1p):		0 7		,
P.223. VLAN 3		:		/		VLAN 3
		VLAN:		1 4095		VID , VLAN
		DHCP VLAN:		/		
		, DHCP:		/		
		IP :		IP- VLAN 3		IP- VLAN 3
		VLAN:		VLAN 3		
		VLAN:		IP-		
		(802.1p):		0 7		,
P.224. VLAN						VLAN
		RTP:		VLAN		
		(SIP/H.323):		VLAN		
		(Web/Telnet):		VLAN		

3.2.3 P.230.

.230 IP- .

IP- IP- .

, IP-, IP- , .

1 (« IP-. , , » « IP-»), [14] (5.1.1.4).

5.1.1.4. [14].

P.230.						
P.231.						« » («Route»)
		/IP (Network)		IP- IP-		IP-
		(Mask)				Network IP-, 255.255.255.255
		(Gateway)		IP-		, (IP-);
		VLAN (Vlan)		1 4095		VLAN ID. , IP- IP- ,

«» («Save»).

TAU 2.7:

2.7 – TAU IP-

, TAU SIP-, :

1. SIP- IP- 172.24.0.12 172.24.0.0.
2. Softswitch (ECSS-10) IP- 10.10.0.20 10.10.0.0.

IP- TAU eth0.

, , ESR-200 c IP- 172.24.0.1.

, *« » («Route»)* (5.1.5.2 [14]).

:							
( )					**Ref**	**Use**	
172.24.0.0	0.0.0.0	255.255.255.0	UGH	0	0	0	eth0
10.10.0.0	172.24.0.1	255.255.255.0	U	0	0	0	eth0

:

- *(Destination)* – ;
- *(Gateway)* – , , , ;
- *(Genmask)* – ;
- *(Flags)* – . :
  - U – ;
  - G – ;
  - H – , . , ;
  - D – ;
  - – ;
- *(Metric)* – , . , ;
- *Ref* – ;
- *Use* – , IP;
- *(Iface)* – , .

3.2.4 P.250. SNMP-

.250 SNMP-, VoIP-. , , EMS.

TAU-72.IP/TAU-36.IP , , SNMP.

1 (« IP», « SNMP», «MIB. , , », « MIB»), [14] (5.1.1.3).

SNMP , SNMP MIB.

() , , Eltex.EMS.

«SNMP» SNMP-. SNMPv1, SNMPv2c, SNMPv3.

Trap MIB, .

SNMP- 5.1.1.6 [14].

P.250. SNMP-

P.251. SNMP						«SNMP»
		SNMP:		/		
		Trap:		IP- EMS-		IP- ( )
		Trap:		V1/V2		
		:		TAU-36_IP		
		:				(SysContact)
		:		Russia		(SysLocation)
		:		public		(roCommunity)
		:		private		(rwCommunity)
		Trap:		trap		Trap (trapCommunity)
P.252. SNMP v3						«SNMP»
		:		//		
				/		

3.2.5 P.280. (NTP)

.280 NTP–, . NTP , , .

NTP – , , , , NTP-.

RTP/RTCP « IP- – IPTD » « – IPDV» (. « IP-» 1).

1 (« »), [14] (5.1.1.10).

NTP 5.1.1.10 [14].

P.280. (NTP)						
P . 280. NTP						«NTP»
		NTP:		/		TAU NTP. TAU ,
		NTP :		91.226.136.136		IP- NTP-
		:		/		
		, :		300		
		:				
		:		/		

, IP-, , (IP-,).

3.3 P.3xx. VoIP

VoIP (, RTP/RTCP, SIP .), VoIP.

– TDM- ( ), IP- (VoIP SIP .323).

TAU IP- (IP-PBX) .

, PBX.

VoIP :

- VoIP;
- . ;
- IP-. QoS.

«PBX» (5.1.2 [14]), VoIP:

- SIP/H.323,
- QOS (Quality of Service),
- ,
- ,
- .

P.3xx. VoIP.								
(engl)		**(ru)**						
Main				TAU		5.1.2.1		P.310.
SIP/H323 Profiles		SIP/H323		SIP/H.323		5.1.2.2		P.32.
TCP/IP		TCP/IP				5.1.2.3		P.33.
Ports						5.1.2.4		P.34.

3.3.1 P.310. ,

5.1.2.1. [14].

« » («Main» - 5.1.2.1) TAU, : , , .

, .

, , 01, 02, 03 .

.

P.310. (Main)						
P . 310.						«PBX/main»
		(Device name)		. . : tau-72_nsk		, SYSLOG-
		(SIP-T) (Use prefix (SIP-T))				Use prefix (SIP-T) Prefix (SIP-T) SIP-T
		(SIP-T) (Prefix (SIP-T))				
		(Start timer)		10…300		, «»
		– (Duration timer)		10…300		. ,
		– (Wait answer timer)		40…300		. ,

3.3.2 P.32x. SIP/H.323

5.1.2.2. [14].

« SIP/H323» («SIP/H323 Profiles») SIP H.323. , SIP .

TAU-36/72.IP 8 (SIP), .

. P.32x.

SIP/H.323 5.1.2.2 [14].

P.32. SIP/H.323								
(engl)		**(ru)**						
SIP Common		SIP		SIP		5.1.2.2.1		P.321.
Profile 1..8		1..8				5.1.2.2.3		
SIP Custom		SIP		SIP		5.1.2.2.3		P.323.
Codecs						5.1.2.2.4		P.325
Dialplan						5.1.2.2.5		P.326

3.3.2.1 P.321. SIP (SIP Common)

5.1.2.2.1 « SIP (SIP Common)» [14].

, SIP, , SIP-.

SIP, , «SIP » («SIP Common»).

SIP UDP, , , TCP, , .

UDP SIP SIP SIP 1 (. « SIP»).

SIP 1.

SIP UDP INVITE T1, .

T1 – , (RTT).

T1 – 500 .

.

(1, , 100 Trying) , .

P.321. SIP (SIP Common)						
.321. SIP Common						
		Enable SIP:				SIP
		Invite initial timeout (ms):		500		1 () (Invite initial timeout (ms)) – INVITE , INVITE (, ..)
		Invite total timeout (ms):		**64*1**		INVITE-. , . INVITE, SIP-proxy – 1000
		Short mode:				SIP, –
		Transport:		– **UDP (), TCP (udp(preferred),tcp)** – UDP, , UDP ; – **TCP (), UDP (tcp(preferred),udp)** – UDP, , ; – **UDP (udp only)** – UDP-; – **TCP (tcp only)** – P-		, SIP (UDP TCP)
		SIP UDP MTU (for "udp(preffered), tcp" mode):		**1300**		SIP , UDP (RFC3261 1300)
		Port registration delay (ms):		500		– . , SBC

TAU () , Proxy- , IP- STUN-, / /.

3.3.2.2 P.323. SIP (Profile N SIP Custom – SIP)

5.1.2.2.3 « SIP – Profile N SIP Custom» [14].

SIP . TAU-36/72.IP 8 , SIP-, Softswitch .

SIP-proxy.

SIP-proxy Parking Homing . SIP-proxy .

SIP-proxy Parking Homing : INVITE SIP-proxy, – REGISTER.

Invite total timeout SIP-proxy 503 505, INVITE (REGISTER) SIP-proxy, , SIP-proxy .. SIP-proxy , .

, , :

1. *parking* SIP-proxy SIP-proxy, (« !»). SIP-proxy SIP-proxy . SIP-proxy , ;
2. *homing* SIP-proxy: OPTIONS, REGISTER INVITE . INVITE SIP-proxy, , , .. , , SIP-proxy , , SIP-proxy.

TAU SIP- (Softswitch).

P.323. SIP (Profile N SIP Custom – SIP)						
.321. SIP Common						
		Proxymode:		– (Off) – ; – Parking – SIP-proxy SIP-proxy; – Homing – SIP-proxy SIP-proxy		(Proxy mode) – SIP- (SIP-proxy)
		Proxy / Registrar / Useregistration 1:		IP- SIP- 1		, , – 5060
		Proxy / Registrar / Useregistration 2:		IP- SIP- 2		
		Proxy / Registrar / Useregistration 3:		IP- SIP- 3		
		Proxy / Registrar / Useregistration 4:				
		Proxy / Registrar / Useregistration 5:				
		Homeservertest:		INVITE OPTIONS REGISTER		(Home server test) – homing INVITE, OPTIONS REGISTER
		Change-over:		: INVITE REGISTER REGISTER		(Change-over) – ,
		Keepalivetime (s):		60		() – OPTIONS REGISTER
		Full RURI compliance:		RURI – , URI (user, host port – , IP- UDP/TCP-).		URI . , (user),
		SIP-Domain:		SIP-		«host» SIP URI from to
		Use domain to Register:		SIP- – Request URI		Request URI «REGISTER», «INVITE», «SUBSCRIBE», «NOTIFY», «OPTIONS». «OPTIONS», SIP (Home server test)
		RegistrationRetryInterval (s):		30 .		REGISTER () – SIP- , (, «403 forbidden»)
		Inbound:		Inbound – SIP-proxy, – .		, SIP-proxy, proxy («305 Use proxy»,)
		Outbound:		– (**off**) – ; – (**on**) – SIP-proxy; – «» (**with busy tone**) – SIP-proxy		– Outbound – SIP-proxy. - , (**with busy tone**) «»
		Dial timeout:		– (Outbound), . Dialplan table		, « (Stop dial at #)»

		Expires:		1800		(Expires) –
		Authentication:		– (global) – SIP- ; – (user defined) – SIP- , «PBX/Ports»		(Authentication) – TAU
		Username:				global
		Password:				global
		Alert-Info:				Alert-Info – Alert-Info INVITE
		Ringbackatanswer 183:		« » «183 Progress»		«» , 183 183 SDP
		Ringback at call waiting:		, : 180 Ringing 182 Queued), «» (180 Ringing), (182 Queued)		CW (Ringback at callwaiting) – 180 182 Call waiting. («») ,
		Remote ringback:		– **RTP (Don't send ringback in RTP**) – «»; – **180 (Ringback with 180 ringing)** – «» - . SIP «180 ringing»; – **183 (Ringback with 183 progress)** – «» -		(Remote ringback) – , « » («») . SIP «183 progress»
		DTMF MIME Type:		– **Application/ dtmf** – DTMF application/dtmf (* # 10 11); – **Application/ dtmf-relay** – DTMF application/dtmf-relay (* # * #); – **Audio/telephone-event** – DTMF audio/telephone-event (* # 10 11)		MIME, DTMF INFO SIP. **DTMF**
		Hook flash MIME Type:		– **DTMF (As DTMF)** – MIME, DTMF MIME Type. , application /dtmf-relay, flash signal=hf, application/dtmf audio/telephone-event, fl ash 16; – **Application/Hook Flash** – flash Application/ Hook Flash (signal=hf); – **Application/Broad-soft** – flash Application/ Broadsoft (event flashhook); – **Application/sscc** – flash Application/ sscc (event flashhook); , flash		MIME Flash (Hook Flash MIME Type) – MIME, Flash INFO SIP
		Escape hash uri:		– # %23 (Escape hash uri) – («») SIP URI escape "%23", – "#"		user=phone («») "#", Escape hash uri;
		User=Phone:		– User=Phone (User=Phone)		User=Phone SIP URI, – .
		Remove inactive media:		– (Remove inactive media) – SDP-		, RFC 3264 ( )
		P-RTP-Stat:				– P-RTP-Stat – BYE P-RTP-Stat RTP-
		CT with replaces:		– replaces (CT with replaces) – replaces Call Transfer ( ), –		refer-to, , , , replaces, DIALOG ID (Call-ID, totag, from-tag) . replaces SIP-, SIP- ,
		100rel:		– **supported** – ; – **required** – ; – **(off)** –		(100rel) – (RFC 3262)
		Enable timer:		timer RFC4028 (Enable timer) – SIP- (RFC 4028)		UPDATE ( ) re-INVITE
		Min SE:		90 1800 , 120 .		– Min SE –
		Session expires (0 – unlimited session):		90 80000 ., - 1800 , 0 –		Session expires – , ,

3.3.2.3 P.325.

5.1.2.2.4 – N, (Profile N Codecs) [14].

TAU-72.IP/36.IP , / , .

: G.711A, G.711U, G.729, G723.1, G.726-32.

.

, . .

. «», «».

. .

P.325.						
.325.1. Codecs configuration:		List of codecs in preffered order				
		Use G.711A				, (/)
		Use G.711U				
		Use G.726-32				
		Use G.723				
		Use G.729A				
		Use G.729B				
.325.2. Packetcode rtime:		- G711 Ptime		10, 20, 30, 40, 50, 60		**« » («Packet coder time»)** , () , RTP. .
		- G729 Ptime		10, 20, 30, 40, 50, 60, 70, 80		
		- G723 Ptime		30, 60, 90		
		- G.726-32 Ptime		10, 20, 30		
		G.726-32 PT		– 96 127		G.726-32 – G.726-32
.325.3. Features						
		DTMF Transfer:		– **(inband)** – , RTP; – **RFC2833** – RFC 2833 RTP; – **INFO** – . SIP INFO, DTMF MIME		DTMF (DTMF Transfer) – DTMF. DTMF ; , DTMF
		FlashTransfer:		– **(disabled)** – flash ; – **RFC2833** – flash RFC 2833 RTP; – **INFO** – flash SIP/H323. SIP INFO, flash		Flash (Flash Transfer) – Flash. flash IP- , flash - Transmit
		FaxDetect Direction:		– **(no detect fax)** – , (,); – **(Caller and Callee)** – , . CNG FAX . V.21 ; – **(Caller)** – . CNG FAX ; – **(Callee)** – . V.21		(Fax Detect Direction) – , ,
		FaxTransferCodec:		– **fax transfer G.711A** – G.711A . G. 711A ; – **fax transfer G.711U** – G.711 U . G. 711 U ; – **T.38 mode** – .38 . .38		(Fax Transfer Codec) – /,
		SlaveFaxTransferCodec:		– **fax transfer G.711A** – G.711A . G. 711A ; – **fax transfer G.711U** – G.711 U . G. 711 U ; – **T.38 mode** – .38 . .38 ; – **(Off)** – /		(Slave Fax Transfer Codec) – /, . , **/**

		ModemTransfer:		– **(Off)** – ; – **G.711A VBD** – G.711A . G.711A VBD CED; – **G.711U VBD** – G.711U . G.711U VBD CED; – **G.711A RFC3108** – G.711A . SIP VAD , RFC 3108: a=silenceSupp:off - - - - a=ecan:fb off -; – **G.711U RFC3108** – G.711U . SIP VAD , RFC 3108: a=silenceSupp: off - - - - a=ecan:fb off -; – **G.711A NSE** – CISCO NSE, G. 711A; – **G.711U NSE** – CISCO NSE, G. 711U		(Modem Transfer) – Voice band data (V.152). VBD (VAD) (CNG), . **Cisco NSE: NSE 192 VAD, NSE 193 -**
		RFC2833 PT:		– 96 127		RFC2833 (RFC2833 PT) – , RFC2833. RFC2833 DTMF Flash RTP-.
		Decoding RFC2833 with PT from answer SDP:		, . , RFC 3264		RFC2833 (Decoding RFC2833 with PT from answer SDP) – DTMF RFC2833 ,
		Silencesuppression:		(VAD) (SSup), –		– (Silence suppression) RTP ,
		Echocanceller:		(- 128)		
		NLP disable:		- NLP		NLP (NLP disable). , , NLP.
		Comfortnoise:				– (Comfort noise) Silence compression (VAD),
.325.4. «RTCP configuration»		**« RTCP»**				
		RTCP timer:		RTCP		RTCP (RTCP timer) – , RTCP
		RTCP control period:		5-65535 c. : RTCP timer* RTCP control period .		RTCP (RTCP control period) – . (RTCP timer), RTCP . – cause 3 no route to destination.
		RTCP-XR:				RTCP-XR – RTCP Extended Reports RFC 3611
.325.5. «Cisco NSE configuration»		NSE PT		96 127		NSE – , NSE
.325.6. «38 configuration»		**« .38»**				
		MaxDatagramSize:		, 0, , SIP T38MaxDatagram , 512 . 0 , 272 .		(Max Datagram Size) – . , .38

		Bitrate:		9600 14400		(Bitrate) – . . 14400, 9600, 9600 . , , 9600, 14400, ,
.325.7. **«Jitter buffer configuration»**		« **-»**				
		I				
		(Delay)		0 200 .		(Delay) – -,
		Mode:				(Mode) – -
		Delaymin:		0 200 .		(Delay) – - ( ) -
		Delaymax:		Delay 200 .		(Delay max) – ( ) -
		Deletionthreshold:		Delay max 500 .		(Deletion threshold) – .
		Deletionmode:		«SOFT» , . «HARD» , ,		(Deletion mode) – . , .

« » («Undo All Changes»).

« » («Defaults») (, ,).

« » («Submit Changes»).

«» («Save»).

3.3.2.4 P.326.

5.1.2.2.5. [14].

– .

– , – VoIP, :

- (– ,) VoIP.
- IP-, IP- , IP-.

.

« N/ » («Profile n/Dialplan») .

TAU-72.IP/36.IP . , . , , , . «».

(5.1.2.2.5.1 [14]), (. 5.1.2.2.5.4 [14]).

, (). . ITU-T [4] 1 – .

.

P.326.						
P.221. **()**						
		(Protocol)		.323 SI		I-. .323 1
		L				, , ,
		S (S-timer)				, , ,

		(Rule)		1 I 2 I .. I N = L{} S{} prefix@optional		(1000)*

3.4 TAU-36/72.IP

3.4.1 1

TAU IP-PBX IP- 192.168.1.5 3- (2), , SIP- ( ) IP- 192.168.1.6 3- (3):

() TAU-36/72.IP, :

L10S5 (2xx@192.168.1.5|3xx@192.168.1.6)

L10S5 (2xx@{local}|3xx@192.168.1.6)

3.4.2 2

2.8, TAU-72, 200-235, 300-335.

4 Proxy- .

IP- Proxy- .

2.8 – 1

() TAU-36/72.IP ( ), :

L10S5 (2xx@192.168.1.5|3xx@192.168.1.6|4xxxxx@192.168.1.200|8x.@ 192.168.1.200)

, 2 I - 192.168.1.5, , 3, I - 192.168.1.6, , 4, I - 192.168.1.200. , 8 I - 192.168.1.200.

, , SIP-proxy 192.168.1.200.

:

L10S5 (2xx|3xx|4xxxxx|8x.)

3.4.3 3

2.9, TAU-72.IP, 200-235, – 300-335.

SMG.

11 . SMG.

IP- .

2.9 – 2

() TAU-36/72.IP, :

L10S5 (2xx@192.168.1.5|3xx@192.168.1.6|11xxx@192.168.1.40|8x.@ 192.168.1.40)

, 2, I- TAU-4 (192.168.1.5).

, 3, I- TAU-5 (192.168.1.6).

, 11, I- 192.168.1.40 SMG, .

, 8 I- 192.168.1.40 SMG, .

3.4.4 4

(. 2.10), TAU (IP- 172.24.0.5,) 300…335.

SIP- (IP- 172.24.0.12,) 500…599.

() 7- (269), SMG, -7 (1) EDSS1 (PRI).

8. Softswitch (ECSS-10) IP- 10.10.0.20.

2.10 – SIP-

(TAU-36/72.IP, SIP , SMG 1016, Softswitch ECSS-10).

TAU-36/72.IP:

L10S5 (3xx@172.24.0.5|5xx@172.24.0.12|269xxxx@10.10.0.20|8x.@10.10.0.20)

:

1. , 3, TAU, I- 172.24.0.5.
2. , 5, I- 172.24.0.12 SIP-. .
3. , 269, I- 10.10.0.20 SSW ECSS-10. .
4. , 8, I- 10.10.0.20 SSW. .

, , :

L10 S5 (3xx @ 172.24.0.5 | 5xx @ 172.24.0.12 | 269xxxx @ 10.10.0.20 | 8x. @ 10.10.0.20)

(. 5.1.2.2.5.4)

L10	**S5**	**(**	**3xx**	**@**	**172.24.0.5**	**|**	**5xx**	**@**	**172.24.0.12**	**|**	**269xxxx**	**@**	**10.10.0.20**	**|**	**8x.**	**@**	**10.10.0.20**	**)**
																IP- Softswitch		
															8x.			
													10.10.0.20	IP- Softswitch				
											269xxxx							
									172.24.0.12	IP- SIP-								
								@										
							5xx	SIP-										
						|	-											
					172.24.0.5	IP- TAU												
				@														
			3xx	TAU														
		(																**)**
	S	5 ( ) – 5 , . 8x. @ 10.10.0.20																
L	10 ( ) – 10 , , . , .																	

, IP- TAU:

L10 S5 (3xx @ { local } | 5xx @ 172.24.0.12 | 269xxxx @ 10.10.0.20 | 8x. @ 10.10.0.20)

3.4.5 5

, 5, TAU Softswitch ECSS-10, – ECSS-10 (Softswitch, Call-).

(TAU-36/72.IP, SIP , SMG 1016, Softswitch ECSS-10).

, () TAU-36/72.IP :

L10S5 (3xx|5xx|269xxxx|8x.)

:

1. , I- 10.10.0.20 (SIP) SSW. .