

Smart Business Communication Services - Used Ports

Updated: 17.06.2022

Service	Protocol	Clients		Platform (Core)		Description
		Device	Ports	Device	Ports	
SIP Phones	SIP	Yealink, Mitel, Panasonic, Mediatix	UDP/TCP >1024	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 5060, 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Yealink, Mitel, Panasonic, Mediatix	UDP/TCP >1024	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
	XML	Yealink, Mitel	HTTPS	bcs.join.swisscom.ch	TCP 443	
	XSI	Yealink, Mitel, Panasonic	HTTPS	was3.join.swisscom.ch	TCP 443	
TAPI CTI (S.D.7.xxx or higher)	OCI-P/C	Estos ECSTA	TCP Socket	was3.join.swisscom.ch	TCP 8012, 443	This is used to access the internet from a PC (data functions).
Router Centro Business for ATA, SIP TA, ISDN TA	SIP	Centro Business	UDP/TCP >1024	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 5060 UDP/TCP 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Centro Business	>1024	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
	TR-069	Centro Business	HTTPS	rms.bluewin.ch	TCP 8443	This is used to synchronize the device-configuration.
Business Communication App/Client (Telephony)	SIP	Business Communication App/Client	UDP/TCP	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy).
	RTP	Business Communication App/Client	UDP/TCP 8500 - 8598	phone.join.swisscom.ch sphone.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
	XSI	Business Communication App/Client	HTTPS	was1.join.swisscom.ch	TCP 443	Is used for authentication and configuration transfer.
	HTTPS	Business Communication App/Client	OUT	imp*.join.swisscom.ch	TCP 443	Is used for presence information (presence).
	Secure-DNS	Business Communication App/Client	OUT	Google-DNS-Server and Provider-DNS-Server	TCP 853	Secure DNS-Port TCP853 will be used for future versions of Cisco/Broadworks-Client (23.9.18 <x)
Enterprise Telephony App	SIP	Enterprise Telephony App	UDP/TCP	softphone.join.swisscom.ch ssoftphone.join.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy).
	RTP	Enterprise Telephony App	UDP/TCP 8500 - 10000	softphone.join.swisscom.ch ssoftphone.join.swisscom.ch	UDP/TCP 10000 - 65000	This is where voice transmission takes place (voice protocol from router to voice server).
	XSI	Enterprise Telephony App	HTTPS	was1.join.swisscom.ch	TCP 443	This is used to access Broadworks Features & Broadworks Directory
	XSI-Proxy	Enterprise Telephony App	HTTPS	sipproxy-het prod.scapp.swisscom.com	TCP 443	This is used to access Broadworks Features & Broadworks Directory
	Swisscom adrexbbook	Enterprise Telephony App	LDAPs	svc.gold.labba.swisscom.ch	TCP 636	Used to access Swisscom adrexbbooks for Enterprise Telephony App
	STUN	Enterprise Telephony App	UDP 3478	stun.join.swisscom.ch	UDP 3478	STUN - Simple Traversal of UDP through NAT
	HTTPS	Enterprise Telephony App	TCP 9012	v-str-push-0101.sharefit.ch	TCP 9012	This is used for the push module
	HTTPS	Enterprise Telephony App	TCP 9012	v-str-push-0102.sharefit.ch	TCP 9012	This is used for the push module
	HTTPS	Enterprise Telephony App	TCP 9010	was4.join.swisscom.ch	TCP 9010	Used for the Softclient Push login
	HTTPS	Enterprise Telephony App	TCP 9210	was4.join.swisscom.ch	TCP 9210	This is used for the Softclient login
	HTTPS	Enterprise Telephony App	TCP 8082	was4.join.swisscom.ch	TCP 8082	This is used for the Softclient login
	Business Communication App/Client Chat / Instant Messaging	XMPP	Business Communication App/Client	OUT	imp*.join.swisscom.ch	5222/tcp
Federation		Business Communication App/Client	IN/OUT	imp*.join.swisscom.ch	5269/tcp	Used for Federation Protocol connections
HTTPS		Business Communication App/Client	OUT	dts*.join.swisscom.ch	8443/tcp	Used for desktop sharing connections
Guest Client (WebRTC)	HTTPS	Chrome Browser	OUT	was2.join.swisscom.ch	443/tcp	Secure user access for guest access
	SIP/Secure web socket	Chrome Browser	IN/OUT	wrc.join.swisscom.ch	8070/tcp	Here the session is established (from the router to the SIP proxy).
	Media, RTP, STUN	Chrome Browser	IN/OUT	wrc.join.swisscom.ch	1024-65535/udp	This is where the voice transmission takes place (voice protocol from the router to the WebRTC router).
	BOSH	Chrome Browser	OUT	imp*.join.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections
	HTTPS	Chrome Browser Desktop Sharing	OUT	dts.join.swisscom.ch	8443/tcp	Used for desktop sharing connections
Receptionist	XSI	Receptionist	HTTPS	was2.join.swisscom.ch	TCP 443	Internet access from PC to Internet for the Receptionist application (data functions)
	BOSH	Receptionist	OUT	imp*.join.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections
Techn. Admin. Portal	Browser	HTTPS	KUCE	TCP 443		
EndkundenPortal	Browser	HTTPS	KUCE	TCP 443		
Trunk eSBC	SIP	Cisco 881 und ISR4321	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	TCP/UDP 5060, 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Cisco 881 und ISR4321	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
Trunk direct	SIP	Mitel 400	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	TCP/UDP 5060, 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Mitel 400	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
Trunk over IP+	SIP	Mitel 400; Cisco 881; ISR4321	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	TCP/UDP 5060 TCP/UDP 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Mitel 400; Cisco 881; ISR4321	UDP/TCP >1024	trunk.join.swisscom.ch strunk.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
Time Sync	NTP	Yealink, Mitel, Panasonic, Mediatix, Cisco	NTP	bwntp*.bluewin.ch ch.pool.ntp.org	NTP	Is needed to synchronize the time with the time server of Swisscom (time synchronization).
Config/Firmware, Upgrade	HTTPS TR-069	Yealink, Mitel, Panasonic, Mediatix, Trunk	HTTPS	bcs.join.swisscom.ch	TCP 443 TCP 8443	This is used to synchronize the device-configuration.
	HTTP	Yealink, Mitel, Panasonic, Mediatix, Cisco Trunk	HTTP	het-cds.swisscom.ch	TCP 80	Required to access the internet for firmware upgrades
Device Redirection Server	HTTPS	Yealink, Mitel, Panasonic	HTTPS	https://rcs.aastra.com https://rps.yealink.com https://provisioning.e-connecting.net	TCP 443	Internet access for specific initial provisioning of the terminal device
Protocols						Devices
SIP	Session Initiation Protocol (signalling)					Mitel 6730/6731/6739/6753/6755/6757
RTP	Real Time Transport (voice transmission)					Mitel 6863/6865/6867/6869
HTTP	Hypertext Transfer Protocol (Internet)					Yealink T43G/T46G/T48G/T42S/T46S/T48S
HTTPS	Hypertext Transfer Protocol Secure (secure internet)					Yealink CP860/CP920/W608
NTP	Network Time Protocol					Medias Mediatix 2 /16
TFTP	Trivial File Transfer Protocol					Panasonic KX-TCP950/KX-TGP600
TR-069	Data transfer between provisioning-server and terminal device					Panasonic KX-UDS124
XSI	Extended Services Interface - platform specific protocol					Business Communication App/Client (Softclient)
XML	Extensible Markup Language (markup language for presentation)					
OCI-P/C	Open Client Interface Protocol - platform specific protocol					
Firewall	<ul style="list-style-type: none"> - No need to open ports from WAN to LAN - All connections are opened from the terminal device (LAN to WAN) - Reserved IP Range (SIP and RTP) 194.209.29.192/27 - Reserved IP range with IP+ (SIP and RTP) 193.135.14.128/27, 193.135.14.160/27, 193.135.14.192/27 - Switch off SIP ALG - SIP Media Timeout / UDP Timeout must be configured to over 180s - Firewall URL functions (e.g. SSL/TLS inspection, DNS filter, etc.) must be switched off for SBCON terminal devices 					

Managed Business Communication Services - Used Ports

Updated: 17.06.2022

Service	Protocol	Clients		Platform (Core)		Description
		Device	Ports	Device	Ports	
SIP Phones	SIP	Yealink, Mitel, Panasonic, Mediatrix	UDP/TCP >1024	sip.join.swisscom.ch ssip.join.swisscom.ch	UDP/TCP 5060, 5061	Here the session is established (from the router to the SIP proxy).
	RTP	Yealink, Mitel, Panasonic, Mediatrix	UDP/TCP >1024	sip.join.swisscom.ch ssip.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
	XML	Yealink, Mitel	HTTPS	acs.join.swisscom.ch	TCP 443	
	XSI	Yealink, Mitel	HTTPS	was3.join.swisscom.ch	TCP 443	
TAPI CTI (5.0.7.xxx or higher)	OCI-P/C	Estos ECSTA	TCP Socket	was3.join.swisscom.ch	TCP 8012, 443	This is used to access the internet from a PC (data functions).
Business Communication App/Client (Telephony)	SIP	Business Communication App/Client	UDP/TCP	sip.join.swisscom.ch ssip.join.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy).
	RTP	Business Communication App/Client	UDP/TCP 8500 - 8598	sip.join.swisscom.ch ssip.join.swisscom.ch	UDP/TCP 16384 - 65535	This is where voice transmission takes place (voice protocol from router to voice server).
	XSI	Business Communication App/Client	HTTPS	was1.join.swisscom.ch	TCP 443	Is used for authentication and configuration transfer.
	HTTPS	Business Communication App/Client	OUT	imp*.join.swisscom.ch	TCP 443	Is used for presence information (presence).
	Secure-DNS	Business Communication App/Client	OUT	Google-DNS-Server and Provider-DNS-Server	TCP 853	Secure DNS-Port TCP853 will be used for future versions of Cisco/Broadworks-Client (23.9.18 < x)
Enterprise Telephony App	SIP	Enterprise Telephony App	UDP/TCP	softphone.join.swisscom.ch ssoftphone.join.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy).
	RTP	Enterprise Telephony App	UDP/TCP 8500 - 10000	softphone.join.swisscom.ch ssoftphone.join.swisscom.ch	UDP/TCP 10000 - 65000	This is where voice transmission takes place (voice protocol from router to voice server).
	XSI	Enterprise Telephony App	HTTPS	was1.join.swisscom.ch	TCP 443	This is used to access Broadworks Features & Broadworks Directory
	XSI-Proxy	Enterprise Telephony App	HTTPS	xsiproxy-het-prod.scapp.swisscom.com	TCP 443	This is used to access Broadworks Features & Broadworks Directory
	Swisscom adressbook	Enterprise Telephony App	LDAPS	svc.gold.abba.swisscom.ch	TCP 636	Used to access Swisscom adressbooks for Enterprise Telephony App
	STUN	Enterprise Telephony App	UDP 3478	stun.join.swisscom.ch	UDP 3478	STUN - Simple Traversal of UDP through NAT
	HTTPS	Enterprise Telephony App	TCP 9012	v-str-push-0101.sharedit.ch	TCP 9012	This is used for the push module
	HTTPS	Enterprise Telephony App	TCP 9012	v-str-push-0102.sharedit.ch	TCP 9012	This is used for the push module
	HTTPS	Enterprise Telephony App	TCP 9010	was4.join.swisscom.ch	TCP 9010	Used for the Softclient Push login
	HTTPS	Enterprise Telephony App	TCP 9210	was4.join.swisscom.ch	TCP 9210	This is used for the Softclient login
	HTTPS	Enterprise Telephony App	TCP 8082	was4.join.swisscom.ch	TCP 8082	This is used for the Softclient login
	Business Communication App/Client Chat / Instant Messaging	XMPP	Business Communication App/Client	OUT	imp*.join.swisscom.ch	5222/tcp
Federation		Business Communication App/Client	IN/OUT	imp*.join.swisscom.ch	5269/tcp	Used for Federation Protocol connections
HTTPS		Business Communication App/Client	OUT	dts*.join.swisscom.ch	8443/tcp	Used for desktop sharing connections
Guest Client (WebRTC)	HTTPS	Chrome Browser	OUT	was2.join.swisscom.ch	443/tcp	Secure user access for guest access
	SIP/Secure web socket	Chrome Browser	IN/OUT	wrc.join.swisscom.ch	8070/tcp	Here the session is established (from the router to the SIP proxy).
	Media, RTP, STUN	Chrome Browser	IN/OUT	wrc.join.swisscom.ch	1024-65535/udp	This is where the voice transmission takes place (voice protocol from the router to the WebRTC router).
	BOSH	Chrome Browser	OUT	imp*.join.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections
	HTTPS	Chrome Browser Desktop Sharing	OUT	dts.join.swisscom.ch	8443/tcp	Used for desktop sharing connections
Receptionist	XSI	Receptionist	HTTPS	was2.join.swisscom.ch	TCP 443	Internet access from PC to Internet for the Receptionist application (data functions)
	BOSH	Receptionist	OUT	imp*.join.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections
Techn. Admin. Portal		Browser	HTTPS	Extranet	TCP 443	
EndkundenPortal		Browser	HTTPS	Extranet	TCP 443	
Time Sync.	NTP	Yealink, Mitel, Panasonic, Mediatrix	NTP	bwntp*.bluewin.ch ch.pool.ntp.org	NTP	Is needed to synchronize the time with the time server of Swisscom (time synchronization).
Config/Firmware, Upgrade	HTTPS TR-069	Yealink, Mitel, Panasonic, Mediatrix	HTTPS	acs.join.swisscom.ch	TCP 443 TCP 8443	This is used to synchronize the device-configuration.
	HTTP	Yealink, Mitel, Panasonic, Mediatrix	HTTP	het-cds.swisscom.ch	TCP 80	Required to access the Internet for firmware upgrades
Device Redirection Server	HTTPS	Yealink, Mitel, Panasonic	HTTPS	https://rcs.aastra.com https://rps.yealink.com https://provisioning.e-connecting.net	TCP 443	Internet access for specific initial provisioning of the terminal device

Protocols	
SIP	Session Initiation Protocol (signalling)
RTP	Real Time Transport (voice transmission)
HTTP	Hyper Text Transfer Protocol (Internet)
HTTPS	Hyper Text Transfer Protocol Secure (secure internet)
NTP	Network Time Protocol
FTP	File Transfer Protocol
TR-069	Data transfer between provisioning-server and terminal device
XSI	Extended Services Interface - platform specific protocol
XML	Extensible Markup Language (markup language for presentation)
OCI-P/C	Open Client Interface Protocol - platform specific protocol

Devices
Mitel 6865/6867/
Yealink T4.2G/46G/14.2S/146S
Yealink CP960/CP920
Media5 Mediatrix 2/16
Panasonic KX-TGP500/KX-TGP600
Panasonic KX-UD5124
Business Communication App/Client (Softclient)

- Firewall
- No need to open ports from WAN to LAN
 - All connections are opened from the terminal device (LAN to WAN)
 - Reserved IP Range (SIP and RTP) 194.209.29.192/27
 - Switch off SIP ALG
 - SIP Media Timeout / UDP Timeout must be configured to over 180s
 - Firewall UTM functions (e.g. SSL/TLS inspection, DNS filter, etc.) must be switched off for SBCON terminal devices

Smart Business Communication Services - Used Ports on EAPP

Updated: 17.06.2022

Service	Protocol	Clients		Platform eAPP		Description	
		Device	Ports	Device	Ports		
SIP Phones	SIP	Yealink, Mitel, Panasonic, Mediatix	UDP/TCP >1024	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 5060, 5061	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Yealink, Mitel, Panasonic, Mediatix	UDP/TCP >1024	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 16384 - 65535		
	XML	Yealink, Mitel	HTTPS	bcs.join.swisscom.ch	TCP 443		
	XSI	Yealink, Mitel	HTTPS	was3.joineapp.swisscom.ch	TCP 443		
	TARP CTI (S.D.7.xxx or higher)	OCI-P/C	Estos ECSTA	TCP Socket	was3.joineapp.swisscom.ch	TCP 8012, 443	This is used to access the internet from a PC (data functions).
Router: Centro Business for ATA SIP TA ISDN TA	SIP	Centro Business	UDP/TCP >1024	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 5060 UDP/TCP 5061	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Centro Business	>1024	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 16384 - 65535	This is used to synchronize the device-configuration.	
	TR-069	Centro Business	HTTPS	rms.bluewin.ch	TCP 8443		
Business Communication App/Client (Telephony)	SIP	Business Communication App/Client	UDP/TCP	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Business Communication App/Client	UDP/TCP 8500 - 8598	phone.joineapp.swisscom.ch sphone.joineapp.swisscom.ch	UDP/TCP 16384 - 65535	Is used for authentication and configuration transfer.	
	XSI	Business Communication App/Client	HTTPS	was1.joineapp.swisscom.ch	TCP 443	Is used for presence information (presence).	
	Secure-DNS	Business Communication App/Client	OUT	Google-DNS-Server and Provider-DNS-Server	TCP 853	Secure-DNS-Port TCP853 will be used for future versions of Cisco/Broadworks-Client (23.9.18 <=)	
Enterprise Telephony App	SIP	Enterprise Telephony App	UDP/TCP	softphone.joineapp.swisscom.ch ssoftphone.joineapp.swisscom.ch	UDP/TCP 5075, 5076	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Enterprise Telephony App	UDP/TCP 8500 - 10000	softphone.joineapp.swisscom.ch ssoftphone.joineapp.swisscom.ch	UDP/TCP 10000 - 65000		
	XSI	Enterprise Telephony App	HTTPS	was1.joineapp.swisscom.ch	TCP 443	This is used to access Broadworks Features & Broadworks Directory	
	XSI-Proxy	Enterprise Telephony App	HTTPS	xsiproxy-eapp-prod.scapp.swisscom.cor	TCP 443	This is used to access Broadworks Features & Broadworks Directory	
	Swisscom addressbook	Enterprise Telephony App	LDAPs	svc.gold.abba.swisscom.ch	TCP 636	Used to access Swisscom addressbooks for Enterprise Telephony App	
	STUN	Enterprise Telephony App	UDP 3478	stun.joineapp.swisscom.ch	UDP 3478	STUN - Simple Traversal of UDP through NAT	
	HTTPS	Enterprise Telephony APP	TCP 9012	v-str-push-0101.shareit.ch	TCP 9012	This is used for the push module	
	HTTPS	Enterprise Telephony APP	TCP 9012	v-str-push-0102.shareit.ch	TCP 9012	This is used for the push module	
	HTTPS	Enterprise Telephony APP	TCP 9010	was4.join.swisscom.ch	TCP 9010	Used for the Softclient Push login	
	HTTPS	Enterprise Telephony APP	TCP 9210	was4.join.swisscom.ch	TCP 9210	This is used for the Softclient login	
	HTTPS	Enterprise Telephony APP	TCP 8082	was4.join.swisscom.ch	TCP 8082	This is used for the Softclient login	
	Business Communication App/Client (Chat / Instant Messaging)	XMPP	Business Communication App/Client	OUT	imp*.joineapp.swisscom.ch	5222/tcp	This is used for standard messaging and Presence Protocol (XMPP) connections.
		Federation	Business Communication App/Client	IN/OUT	imp*.joineapp.swisscom.ch	5269/tcp	Used for Federation Protocol connections
HTTPS		Business Communication App/Client	OUT	dts*.joineapp.swisscom.ch	8443/tcp	Used for desktop sharing connections	
Guest Client (WebRTC)	HTTPS	Chrome Browser	OUT	was2.joineapp.swisscom.ch	443/tcp	Secure user access for guest access	
	SIP/Secure web socket	Chrome Browser	IN/OUT	wrc.joineapp.swisscom.ch	8070/tcp	Here the session is established (from the router to the SIP proxy).	
	Media, RTP, STUN	Chrome Browser	IN/OUT	wrc.joineapp.swisscom.ch	1024-65535/udp	This is where the voice transmission takes place (voice protocol from the router to the WebRTC router).	
	BOSH	Chrome Browser	OUT	imp*.joineapp.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections	
	HTTPS	Chrome Browser Desktop-Sharing	OUT	dts.joineapp.swisscom.ch	8443/tcp	Used for desktop sharing connections	
Receptionist	XSI	Receptionist	HTTPS	was2.joineapp.swisscom.ch	TCP 443	Internet access from PC to internet for the Receptionist application (data functions)	
	BOSH	Receptionist	OUT	imp*.joineapp.swisscom.ch	5281/tcp	Used for bidirectional streams over synchronous HTTPS connections	
Techn. Admin. Portal	Browser	HTTPS	KUICE	TCP 443			
EndkundenPortal	Browser	HTTPS	KUICE	TCP 443			
Trunk eSBC	SIP	Cisco 881 und ISRA4321	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	TCP/UDP 5060, 5061	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Cisco 881 und ISRA4321	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	UDP/TCP 16384 - 65535		
Trunk direct	SIP	Mitel 400	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	TCP/UDP 5060, 5061	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Mitel 400	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	UDP/TCP 16384 - 65535		
Trunk over IP+	SIP	Mitel 400; Cisco 881; ISRA4321	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	TCP/UDP 5060 TCP/UDP 5061	Here the session is established (from the router to the SIP proxy). This is where voice transmission takes place (voice protocol from router to voice server).	
	RTP	Mitel 400; Cisco 881; ISRA4321	UDP/TCP >1024	trunk.joineapp.swisscom.ch strunk.joineapp.swisscom.ch	UDP/TCP 16384 - 65535		
Time Sync.	NTP	Yealink, Mitel, Panasonic, Mediatix, Cisco	NTP	bwntp*.bluewin.ch ch.pool.ntp.org	NTP	Is needed to synchronize the time with the time server of Swisscom (time synchronization).	
Config/Firmware Upgrade	HTTPS	Yealink, Mitel, Panasonic, Mediatix, Trunk	HTTPS	bcs.join.swisscom.ch	TCP 443 TCP 8443	This is used to synchronize the device-configuration.	
	HTTP	Yealink, Mitel, Panasonic, Mediatix, Cisco Trunk	HTTP	het-cds.swisscom.ch	TCP 80	Required to access the internet for firmware upgrades	
Device Redirection Server	HTTPS	Yealink, Mitel, Panasonic	HTTPS	https://cs.aastra.com https://ps.yealink.com https://provisioning.e-connecting.net	TCP 443	Internet access for specific initial provisioning of the terminal device	
Protocols							
SIP	Session Initiation Protocol (signalling)						
RTP	Real Time Transport (voice transmission)						
HTTP	Hyper Text Transfer Protocol (internet)						
HTTPS	Hyper Text Transfer Protocol Secure (secure internet)						
NTP	Network Time Protocol						
FTP	File Transfer Protocol						
TR-069	Data transfer between provisioning server and terminal device						
XSI	Extended Services Interface - platform specific protocol						
XML	Extensible Markup Language (markup language for presentation)						
OCI-P/C	Open Client Interface Protocol - platform specific protocol						
Devices							
	Mitel 6730/6731/6739/6753/6755/6757						
	Mitel 6853/6865/6867/6869						
	Yealink T42G/T46G/T48G/T425/T46S/T48S						
	Yealink CP9860/CP920/W608						
	Mediatek Mediatix 0716						
	Panasonic KX-TGP500/KX-TGP600						
	Panasonic KX-UDS124						
	Business Communication App/Client (Softclient)						
Yellow marked ones are for Advanced, but not yet in use							
Firewall							
- No need to open ports from WAN to LAN							
- All connections are opened from the terminal device (LAN to WAN)							
- Reserved IP Range (SIP and RTP) 194.209.25.192/26							
- Reserved IP range with IP+ (SIP and RTP) 193.135.14.128/27, 193.135.14.160/27, 193.168.135.14.192/27							
- Switch off SIP ALG							
- SIP Media Timeout / UDP Timeout must be configured to over 180s							
- Firewall UTM functions (e.g. SSL/TLS inspection, DNS filter, etc.) must be switched off for SBCON terminal devices							