SShoreTel®

ShoreTel Voice Switches

THE KEY BUILDING BLOCKS OF THE SHORETEL PREMISES PLATFORM

Whether delivered onsite or virtually, the switches deliver UC to organizations of every size.

Highly reliable and intelligent, these switches unify communications across multiple enterprise locations, supporting IP phones, analog devices, and a variety of trunk interfaces. ShoreTel Voice Switches manage ShoreTel IP Phones and analog lines, as well as PSTN and ITSP trunks.

BENEFITS
- Solid state construction with no spinning media
- Life cycle of 15 years compared to a server life of 3-5 years
- distributes intelligence across your entire network

	Voice Switch 90/ Voice Switch 90V	Voice Switch 90BRI/† Voice Switch 90BRIV/†	Voice Switch 50/ Voice Switch 50V	Voice Switch 30
Telephones				
IP phones	90	90	50	30
Analog phones	4	4	2	2
Analog Ports				
Loop start trunks*	8		4	2
DID trunks*	4		2	2
Extensions (telephones)	4	4	2	2
Digital Trunks				
Digital trunk channels		8 BRI channels		
Integrated CSU				
Line and payload loopbacks				
Facilities data link				
SIP Trunks				
SIP trunks without media proxy	90	90	50	30
SIP trunks with media proxy	12	12	6	4
Voicemail				
Voicemail storage	56 hours (90V only)	56 hours (90BRIV only)	22 hours (50V only)	
Mailboxes	90 (90V only)	90 (90BRIV only)	50 (50V only)	
Conference				
Make me conference ports	12	4	6	RJ-21X
Front Panel				
10M/100M ethernet (RJ-45)	2	2	2	
Analog	RJ-21X	RJ-21X	RJ-21X	
Audio input and output (mini)	•	•	•	•
T1/E1 (RJ-48C)				
T1/E1 monitor (RJ-48C)				
Maintenance (DB-9)	•	•	•	
Mechanical				
19" rack mount	•	•	•	
Dimensions	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm
Weight	5.3 lb (2.4 kg)	5.3 lb (2.4 kg)	5.3 lb (2.4 kg)	5.3 lb (2.4 kg)

*Loop start trunks on the ShoreTel Voice Switch 120 and DID trunks on all switches are supported in the US and Canada only.
† Product availability varies according to geography. Please contact your local ShoreTel Representative for availability in your area.

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	Voice Switch 90/ Voice Switch 90V	Voice Switch 90BRI/† Voice Switch 90BRIV/†	Voice Switch 50/ Voice Switch 50V	Voice Switch 30
Power				
Input voltage, frequency	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz
Input current	1A max.	1A max.	1A max.	1A max.
Consumption/dissipation	31/33 W max.	23/25 W max.	23/25 W max.	23 W max.
Environmental				
Operating temperature	0–50° C	0–50° C	0–50° C	0–50° C
Operating humidity	0–90% (non-condensing)	0–90% (non-condensing)	0–90% (non-condensing)	0–90% (non-condensing)
Storage temperature	-30–70° C	-30–70° C	-30–70° C	-30–70° C

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ShoreTel Premises   **Product Specifications—ShoreTel Voice Switches**

	Voice Switch 30BRI/†	Voice Switch 24A	Voice Switch T1k	Voice Switch 220T1/ Voice switch 220T1A
Telephones				
IP phone3	90			220
Analog phones	2	24		4 (220T1A only)
Analog Ports				
Loop start trunks*				2 (220T1A only)
DID trunks*				2 (220T1A only)
Extensions (telephones)	2	24		2 (220T1A only)
Digital Trunks				
Digital trunk channels	2 BRI channels		24/23B+D	24/23B+D
Integrated CSU			•	•
Line and payload loopbacks			•	•
Facilities data link			•	•
SIP Trunks				
SIP trunks without media proxy	30		24	220
SIP trunks with media proxy	4		30	20
Voicemail				
Voicemail storage				
Mailboxes				
Conference				
Make me conference ports		24		6 (220T1A only)
Front Panel				
10M/100M ethernet (RJ-45)	2	2	2	2
Analog	RJ-21X	RJ-21X		RJ-21X (220T1A only)
Audio input and output (mini)	•	•	•	•
T1/E1 (RJ-48C)			•	•
T1/E1 monitor (RJ-48C)			•	•
Maintenance (DB-9)	•	•	•	•
Mechanical				
19" rack mount	•	•	•	•
Dimensions	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	17.2 x 1.7 x 14.3 in. 43.6 x 4.3 x 36.3 cm	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm
Weight	5.3 lb (2.4 kg)	9 lb (4.1 kg)	5.3 lb (2.4 kg)	5.3 lb (2.4 kg)

*Loop start trunks on the ShoreTel Voice Switch 120 and DID trunks on all switches are supported in the US and Canada only.
† Product availability varies according to geography. Please contact your local ShoreTel Representative for availability in your area.

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	Voice Switch 30BRI/†	Voice Switch 24A	Voice Switch T1k	Voice Switch 220T1/ Voice switch 220T1A
Power				
Input voltage, frequency	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz
Input current	1A max.	2A max.	1A max.	1A max.
Consumption/dissipation	22 W max.	63 W max.	18 W max.	18/29 W max.
Environmental				
Operating temperature	0–50° C	0–50° C	0–50° C	0–50° C
Operating humidity	0–90% (non-condensing)	0–90% (non-condensing)	0–90% (non-condensing)	0–90% (non-condensing)
Storage temperature	-30–70° C	-30–70° C	-30–70° C	-30–70° C

*Loop start trunks on the ShoreTel Voice Switch 120 and DID trunks on all switches are supported in the US and Canada only.
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Product Specifications—ShoreTel Voice Switches

	Voice Switch E1k	Voice Switch 220E1	Virtual Phone Switch	Virtual SIP Trunk Switch
Telephones				
IP phone		220	1000**	
Analog phones				
Analog Ports				
Loop start trunks*				
DID trunks*				
Extensions (telephones)				
Digital Trunks				
Digital trunk channels	30B+D	30B+D		
Integrated CSU	•	•		
Line and payload loopbacks	•	•		
Facilities data link	•	•		
SIP Trunks				
SIP trunks without media proxy	30	220		
SIP trunks with media proxy	20	20		500**
Voicemail				
Voicemail storage				
Mailboxes				
Conference				
Make me conference ports			60**	
Front Panel				
10M/100M ethernet (RJ-45)	2	2		
Analog				
Audio input and output (mini)	•	•		
T1/E1 (RJ-48C)	•	•		
T1/E1 monitor (RJ-48C)	•	•		
Maintenance (DB-9)	•	•		
Mechanical				
19" rack mount	•	•		
Dimensions	8.4 x 1.7 x 14.9 in. 21.3 x 4.3 x 37.8 cm	17.2 x 1.7 x 14.3 in. 43.6 x 4.3 x 36.3 cm		
Weight	5.3 lb (2.4 kg)	9 lb (4.1 kg)		

*Loop start trunks on the ShoreTel Voice Switch 120 and DID trunks on all switches are supported in the US and Canada only.
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**ShoreTel will detect allocated hardware / VM resources. Insufficient resource allocation may result in a reduced capacity per virtual switch.

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	Voice Switch E1k	Voice Switch 220E1	Virtual Phone Switch	Virtual SIP Trunk Switch
Power				
Input voltage, frequency	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz		
Input current	1A max.	2A max.		
Consumption/dissipation	18 W max.	63 W max.		
Environmental				
Operating temperature	0–50° C	0–50° C		
Operating humidity	0–90% (non-condensing)	0–90% (non-condensing)		
Storage temperature	-30–70° C	-30–70° C		

*Loop start trunks on the ShoreTel Voice Switch 120 and DID trunks on all switches are supported in the US and Canada only.
† Product availability varies according to geography. Please contact your local ShoreTel Representative for availability in your area.

Features*

Telephone features
- 500 switches per system
- Answer
- Bridged call appearance
- Call barge in
- Call forward, busy
- Call forward, external
- Call forward, no answer
- Call hold
- Call join
- Call park/unpark
- Call pickup extension
- Call pickup group
- Call recording
- Call stack (1-16 calls)
- Call redirect
- Call transfer, blind
- Call transfer, consultative
- Call transfer, intercom
- Call transfer, mailbox
- Call transfer whisper
- Call waiting
- Caller ID name
- Caller ID number
- Caller ID blocking
- Conference (6-party)
- Conference blind
- Conference consultative
- Conference intercom
- Dial number (speed dial)
- Directory dialing
- Distinctive dial tone
- Distinctive ringing
- E911
- Group paging
- Handsfree
- Hang up
- Hold
- Hot key pad
- Huntgroups
- InstaDial
- Intercom
- Night bell
- Message waiting

- Missed call
- Multiple emergency numbers
- Multiple line appearance
- Music-on-hold
- Operator ("0")
- On hold reminder ring
- Office Anywhere
- Outbound caller ID
- Paging
- Park and page
- Paging extension in paging group
- Pick up night bell
- Redial
- Ringdown
- Ring tone selection
- Ring tone personalization
- Send digits over call
- Shared call appearance
- Silent monitor
- SIP
- Voicemail ("#")
- Whisper page
- Whisper page mute

Trunk types
- Analog loop start
- Analog wink start
- TBR 21 support
- T1 loop start
- T1 wink start
- T1 PRI
  - NI2
  - 4ESS
  - 5ESS
  - DMS 100
  - QSIG master
  - QSIG slave
  - CAS
- E1 PRI
- EURO-ISDN
  - QSIG
  - Hong Kong Variant
  - QSIG Basic Call

- E1 PRI
  - EURO-ISDN
- New Zealand Telecom
  - QSIG Basic Call
- SIP
  - RFC 3261 - SIP
  - RFC 2976 - SIP INFO
  - RFC 3891- SIP Replace
  - RFC 3515 - SIP Refer
  - RFC 2396 - URI
  - RFC 2388 - DTMF

Trunk features
- ANI
- Automatic trunk maintenance
- Caller ID name
- Caller ID number
- Caller ID blocking
- Centrex flash
- Dial-in prefix
- Dial-out prefix
- DID
- Digit translation
- DNIS
- Network call routing
- Network/User side PRI
- Off-system extensions
- SIP
- Tandem trunking
- Trunk groups

IP phone support
- MGCP
- SIP (RFC 2833)

DSP features
- Dynamic echo cancellation
- Dynamic jitter buffer
- Lost packet handling
- T.38 Fax
- Voice compression
  - BV-16 codec
  - BV-32 codec
  - Linear
  - G.711

- ADPCM
- G.722
- G.729a

System features
- Account codes
- ACD (workgroups)
- Admission control
- AMIS
- Auto attendant
- Backup auto-attendant
- Bridge call appearance
- Call permissions
- Extension length (3-5 digits)
- Fax redirection
- Feature permissions
- Integrated voicemail
- IP phone failover
- Media encryption
- Office Anywhere (on-net)
- Office Anywhere (external assignment)
- On-net dialing (1-7 digits)
- Power fail transfer
- PSTN failover
- SMDI
- SNMP

Hunt groups
- Simultaneous hunt
- Top down hunt
- Single or multiple calls per extension
- Busy out group
- Busy out extension
- 16 extensions max. per switch
- 5 groups max. per switch
- Call forward busy
- Call forward no answer
- Scheduled modes

* Not all features in this list are supported by every switch. Please contact your ShoreTel representative for more details.

ShoreTel. Brilliantly simple business communications.

ShoreTel, Inc. (NASDAQ: SHOR) is a leading provider of brilliantly simple IP phone systems and unified communications solutions powering today's always-on workforce. Its flexible communications solutions for on-premises, cloud and hybrid environments eliminate complexity, reduce costs and improve productivity.

ShoreTel®