
Appendix B

Port number tables

Contents

This section contains information on the following topics:

- "Introduction" (page 197)
- "Call Server port numbers" (page 198)
- "Signaling Server port numbers" (page 200)
- "Voice Gateway Media Card (VGMC) port numbers" (page 203)
- "Media Gateway Controller (MGC) port numbers" (page 205)
- "Linux Element Manager (EM) and Enterprise Common Manager (ECM) port numbers" (page 206)
- "Linux Network Routing Service (NRS) and ECM port numbers" (page 207)
- "IP Trunk port numbers" (page 209)
- "Telephony Manager (TM) port numbers" (page 210)
- "IP Phone port numbers" (page 212)
- "Remote Office port numbers" (page 212)
- "CallPilot port numbers" (page 212)
- "Application Gateway (AG) 1000 port numbers" (page 216)
- "Contact Center 6.0 port numbers" (page 217)
- "TLAN subnet stateless packet filtering" (page 217)
- "TLAN subnet stateful packet filtering" (page 218)
- "ELAN subnet packet filtering" (page 219)

Introduction

This appendix contains port number tables for all Meridian 1 and CS 1000M VoIP products.

All ports specified in the following tables are "Listen" ports. That is, these tables specify the destination IP address and destination port number. The tables do not specify the source IP address or port.

The Task column specifies the software task listening on the specified port.

Call Server port numbers

where

MGMT = Management

SC = System Control

Table 39
Call Server port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	ESP	50	ELAN	IPSEC	
	SA	51	ELAN	IPSEC	
MGMT	TCP	21	ELAN	FTP	
	TCP	22		SSH	
SC	TCP	111	ELAN	sunrpc - portmapper for RPC	
	TCP	123	ELAN	NTP	
MGMT	TCP	513	ELAN	rlogin	used by TM
SC	TCP	1013	ELAN	proprietary	
SC	TCP	1017	ELAN	proprietary	
SC	TCP	1019	ELAN	proprietary	
SC	TCP	1022	ELAN	proprietary	
SC	TCP	2010	qu0	CEMUX related	
SC	TCP	3312	ipDB-	proprietary	
SC	TCP	3313	ipDB-	proprietary	
SC	TCP	7734	ELAN	DTP	
SC	TCP	8888	ELAN	elan / aml	
SC	TCP	15000	ELAN	cs link	
SC	TCP	15080	ELAN	Xmsg Server	for CS 1000 Element Manager
SC	TCP	32780	ipDB-	IPDB CLAN	necessary for IPMG only
SC	TCP	32781	ipDB-	SSD	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
SC	TCP	32782	ipDB-	Rx IPDB CEMUX	necessary for IPMG only
SC	TCP	32783	ipDB-	proprietary	
SC	TCP	32784	ELAN	IPDB TTY	necessary for IPMG only
SC	TCP	32784	ipDB-	IPDB TTY	necessary for IPMG only
SC	TCP	993	ELAN		
SC	TCP	996	ELAN		
SC	TCP	5007	ELAN		
SC	TCP	998	ELAN		
SC	TCP	1000	ELAN		
SC	UDP	67	ELAN	bootp	for IP daughter boards
SC	UDP	69	ELAN	tftp	
SC	UDP	111	ELAN	sunrpc - portmapper	
MGMT	UDP	161	ELAN	SNMP traps	
	UDP	161	ELAN	SNMP query	
	UDP	500	ELAN	IKE (Internet Key Exchange)	
SC	UDP	1003	ELAN		
SC	UDP	1004	ELAN	proprietary	
SC	UDP	1005	ELAN		
SC	UDP	1006	ELAN		
SC	UDP	1007	ELAN		
SC	UDP	1025	ELAN		
SC	UDP	1026	ELAN		
MGMT	UDP	1929	ELAN	DBA	
SC	UDP	2049	ELAN		
SC	UDP	5020	HSP	HSP stop and copy	
SC	UDP	5010	ELAN		
SC	UDP	5018	ELAN		
SC	UDP	15000	qu0	rudp	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
SC	UDP	17185	ELAN		
SC	UDP	32779	ELAN	IPDB HB	necessary for IPMG only

Signaling Server port numbers

where

MGMT = Management

sc = System Control

Table 40
Signaling Server port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
MGMT	TCP	21	ELAN	FTP Ctrl Link	
	TCP	21	TLAN	FTP Ctrl Link	
	TCP	22	ELAN/TLAN	SSH	
MGMT	TCP	23	ELAN	TELNET	
	TCP	23	TLAN	TELNET	
Firmware Download	TCP	69	ELAN	tftp	for firmware
	TCP	69	TLAN	tftp	
MGMT	TCP	80	ELAN	http	
	TCP	80	TLAN	http	
SC	TCP	111	ELAN	sunrpc - portmapper	
	TCP	111	TLAN		
MGMT	TCP	443 (configurable)	ELAN	https	
	TCP	443 (configurable)	TLAN	https	
MGMT	TCP	513	TLAN	rlogin	
	TCP	513	ELAN	rlogin	
SC	TCP	1009	any	proprietary	
SC	TCP	1024	ELAN	CS link	initiated connection on random port

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
SC	TCP	1313	ELAN/TLAN	database synchronization	NAT
VoIP Signaling	TCP	1720	TLAN	H.323	listens on TLAN IP address
VoIP Signaling	TCP	1720	TLAN	H.323	listens on node IP address
SC	TCP	4789	ELAN	Vterm	
	TCP	4789	TLAN	Vterm	
VoIP Signaling	TCP	5060	TLAN	SIP	SIP signaling ports
	TCP/SIP TLS	5061	TLAN	SIP Proxy	
	TCP	15080	ELAN/TLAN		xmsg server
	UDP	0	ELAN/TLAN		
SC	UDP	67	ELAN	bootp	for element management
	UDP	67	TLAN	bootp	for element management
	UDP	111	TLAN	RPC	for firmware
SC	UDP	111	ELAN	sunrpc - portmapper	for firmware
MGMT	UDP	161	ELAN	SNMP query	
	UDP	161	TLAN	SNMP query	it is recommended that you use ELAN
MGMT	UDP	162	any	SNMP trap	
VoIP Signaling	UDP	1718	TLAN	H.323	
	UDP	1718	ELAN	H.323	
VoIP Signaling	UDP	1719	ELAN/TLAN	H.323	
VoIP Signaling	UDP	4100	TLAN	UNISTim	IP Phone 2004

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
VoIP Signaling	UDP	5060	TLAN	SIP	SIP signaling ports
VoIP Signaling	UDP	5100	TLAN	UNISlim	IP Phone 2004
Firmware Download	UDP	5105	TLAN	UFTP	SIP signaling ports
VoIP Signaling	UDP	7300	TLAN	UNISlim	IP Phone 2004
VoIP Signaling	UDP	10000	TLAN	Echo Server	IP Phone 2004
SC	UDP	15000	ELAN	rdp to CS	
SC	UDP	15001	TLAN	pbxLink broadcast	
	UDP	15001	ELAN	pbxLink broadcast	
SC	UDP	16080	any	xmsg server	for element management
VoIP Signaling	UDP	16500	ELAN/TLAN	Network Connect Server	
SC	UDP	16540	any		
VoIP Signaling	UDP	16501	ELAN	Network Connect Server	main office listen for branch office
	UDP	16501	TLAN	Network Connect Server	
VoIP Signaling	UDP	16502	any	Network Connect Server	proprietary
SC	UDP	16550	ELAN	election	main office listen for branch office
	UDP	16550	TLAN	election	
SC	UDP	20000-29999	ELAN/TLAN	sntp	

Voice Gateway Media Card (VGMC) port numbers

where

MGMT = Management

SC = System Control

Table 41
VGMC port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	22	ELAN	SSH	
	TCP	22	TLAN	SSH	
MGMT	TCP	23	ELAN	Telnet	
	TCP	23	TLAN	Telnet	
SC	TCP	67	ELAN	bootp	
	TCP	67	TLAN	bootp	
SC	TCP	111	ELAN	sunrpc - portmapper	
	TCP	111	TLAN	sunrpc - portmapper	
SC	TCP	111	ELAN	sunrpc - portmapper	
	TCP	111	TLAN	sunrpc - portmapper	
	TCP	123	ELAN	NTP	
SC	TCP	514	ELAN		proprietary
	TCP	4100	TLAN	UNISlim	
	TCP	5100	TLAN	UNISlim	
	TCP	5105	TLAN		
	TCP	7300	TLAN	UNISlim	
	TCP	15080	ELAN	xmsg	
	TCP	15080	TLAN	xmsg	
	TCP	16501	TLAN		
	TCP	16502	ELAN		
	TCP	16540	ELAN		
	UDP	21	ELAN	FTP	
MGMT	UDP	21	TLAN	FTP	
Firmware Download	UDP	69	ELAN	tftp	for firmware

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
Firmware Download	UDP	69	TLAN	tftp	for firmware
MGMT	UDP	161	ELAN	SNMP query	
MGMT	UDP	161	TLAN	SNMP query	It is recommended to use ELAN
MGMT	UDP	161	ELAN	SNMP traps	
	UDP	514	TLAN		
SC	UDP	1006	ELAN/TLAN		proprietary
SC	UDP	1009	ELAN/TLAN		Initiated connection on random port
SC	UDP	1041	ELAN	cs link	
VoIP media	UDP (RDP)	5200-5246	TLAN	UDP (RDP)	even numbers ITGP
VoIP media	UDP (RDP)	5200-5262	TLAN	UDP (RDP)	even numbers Media Card
VoIP media	UDP (RTP)	5200-5390	TLAN	UDP (RTP)	
VoIP media	UDP (RTCP)	5201-5247	TLAN	UDP (RTCP)	even numbers 96 port MGC DSP Daughter Card
VoIP media	UDP (RTCP)	5201-5263	TLAN	UDP (RTCP)	even numbers 96 port MGC DSP Daughter Card
VoIP media	UDP (RTCP)	5201-5391	TLAN	UDP (RTCP)	
	UDP	10000	TLAN		
SC	UDP	15000	ELAN	UDP to CS	
SC	UDP	15001	ELAN		proprietary
	UDP	15001	TLAN		proprietary
	UDP	16501	ELAN		
	UDP	16540	TLAN		
SC	UDP	16550	ELAN	election	
	UDP	16550	TLAN	election	
	UDP	20000-29999	ELAN	SNTP	
	UDP	20000-29999	TLAN	SNTP	
SC	UDP	20001	ELAN/TLAN	SNTP	
SC	UDP	20777	ELAN/TLAN		

Media Gateway Controller (MGC) port numbers

where

MGMT = Management

sc = System Control

Table 42
MGC port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	20	ELAN		
x	TCP	21	ELAN		
	TCP	22	TLAN		
	TCP	23	TLAN		
	TCP	111	ELAN		
	TCP	513	TLAN		
	TCP	1006	ELAN		
	TCP	1009	ELAN		
	TCP	1019	ELAN		
	TCP	1021	ELAN		
	TCP	15000	ELAN		
	TCP	32781	ELAN		
	TCP	32782	ELAN		
	TCP	32784	ELAN		
	UDP	20	ELAN		
	UDP	21	ELAN		
	UDP	111	ELAN		
MGMT	UDP	161	ELAN	SNMP query	
MGMT	UDP	161	TLAN	SNMP query	It is recommended to use ELAN
MGMT	UDP	162	ELAN	SNMP traps	
	UDP	5200-5391	TLAN		
	UDP	15000	ELAN		
	UDP	32779	ELAN		
	UDP	32780	ELAN		

Linux Element Manager (EM) and Enterprise Common Manager (ECM) port numbers

Table 43
Linux EM and ECM port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	ICMP		ELAN/TLAN	ICMP ping	
	ICMP	7	ELAN/TLAN	ping	
	TCP	20	ELAN/TLAN	FTP	
	TCP	21	ELAN/TLAN	FTP	
	TCP	22	ELAN/TLAN	SSH	Base
	TCP	23	ELAN/TLAN	telnet	
	TCP	80	ELAN/TLAN	HTTP	
	TCP	199			
	TCP	389	ELAN/TLAN	LDAP	ports are adjustable
	TCP	389			
	TCP	443	ELAN/TLAN	HTTPS	
	TCP	443			
	TCP	513	ELAN/TLAN	rlogin	It is recommended to use ELAN
	TCP	636	ELAN/TLAN	LDAPS	
	TCP	636			
	TCP	1313			
	TCP	2100	ELAN/TLAN	sslftp	Base
	TCP	2812			
	TCP	4444			
	TCP	4445			
	TCP	4789	ELAN/TLAN	Virtual Terminal	
	TCP	15080	ELAN/TLAN	XMSG	
	TCP	58080	ELAN/TLAN	HTTP for SunAM	
	TCP	58081	ELAN/TLAN		
	TCP	58081			
	TCP	60504	ELAN/TLAN	Mule ESB (EM on ECM)	required in BCC fast sync

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	UDP	22	ELAN/TLAN	SSH	Base
	UDP	53	ELAN/TLAN	DNS	Base
	UDP	80			
	UDP	123	ELAN/TLAN	NTP	Base
	UDP	161	ELAN/TLAN	SNMP query	SNMP app
	UDP	162	ELAN/TLAN	SNMP trap used for BCC	
	UDP	500	ELAN/TLAN	Racoon	Base
	UDP	514	ELAN/TLAN	Syslog	Base
	UDP	1812	ELAN/TLAN	RADIUS	ports are adjustable
		6097			
		6112			
		6562			
		8868			
	UDP	33434-33524	ELAN/TLAN	traceroute	Base
		36928			
	UDP	Random	ELAN/TLAN	SNMP traps	SNMP app

Linux Network Routing Service (NRS) and ECM port numbers

Table 44
Linux NRS and ECM port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	21			
	TCP	22	ELAN/TLAN	SSH	Base
	TCP	22			
	TCP	80	ELAN/TLAN	HTTP	
	TCP	199			
	TCP	389	ELAN/TLAN	LDAP	ports are adjustable
	TCP	389			
	TCP	443	ELAN/TLAN	HTTPS	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	443			
	TCP	636	ELAN/TLAN	LDAPS	
	TCP	636			
	TCP	1313	TLAN	Database synchronization	NRS Application
	TCP	1720		H.323 Gatekeeper	NRS Application
	TCP	2100	ELAN/TLAN	sslftp	Base
	TCP	2812			
	TCP	4444			
	TCP	4445			
	TCP	4789			
	TCP	5060	TLAN	SIP Proxy	NRS Application
	TCP/TLS	5061	TLAN	SIP Proxy	NRS Application
	TCP	15080	ELAN/TLAN	XMSG	
	TCP	58080	ELAN/TLAN	HTTP for SunAM	
	TCP	58081	ELAN/TLAN		
	TCP	58081			
	UDP	22	ELAN/TLAN	SSH	Base
	UDP	53	ELAN/TLAN	DNS	Base
	UDP	80			
	UDP	123	ELAN/TLAN	NTP	Base
	UDP	161	ELAN/TLAN	SNMP query	SNMP app
	UDP	500	ELAN/TLAN	Racoon	Base
	UDP	514	ELAN/TLAN	Syslog	Base
	UDP	1718		H.323 Gatekeeper	NRS Application
	UDP	1719	TLAN	H.323 Gatekeeper	NRS Application
	UDP	1812	ELAN/TLAN	RADIUS	ports are adjustable
	UDP	5060	TLAN	SIP Proxy	NRS Application

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	UDP	16500	TLAN	Network Connection Server	NRS Application
	UDP	16501	TLAN	Network Connection Server	NRS Application
	UDP	16502	TLAN	Network Connection Server	NRS Application
	UDP	33434-33524	ELAN/TLAN	traceroute	Base
	UDP	Random	ELAN/TLAN	SNMP traps	SNMP app
	ICMP		ELAN/TLAN	ICMP ping	
		6097			
		6112			
		6562			
		8868			
		36928			

IP Trunk port numbers

where

MGMT = Management

SC = System Control

Table 45
IP Trunk port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
VoIP Signaling	TCP	1720	TLAN	H.225	
SC	TCP	6001	ELAN	DCHIP inter-card messaging	
SC	UDP	67	ELAN	BOOTP Server (on Leader Card)	
MGMT	UDP	161	ELAN	SNMP	
VoIP Media	UDP	5000	TLAN	Network QoS monitor port	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
VoIP Signaling	UDP	15000	TLAN	MCDN Call Independent Messaging	
VoIP Media	UDP	17300 - 17362	TLAN	RTP	(17300+TCID*2)
VoIP Media	UDP	17301 - 17363	TLAN	RTCP	(17300+TCID*2)
SC	UDP	2001 - 2002	TLAN	Inter-card communication	
VoIP Media	UDP	2300 - 2362	TLAN	RTP	(2300+TCID*2)
VoIP Media	UDP	2301 - 2363	TLAN	RTCP	(2300+TCID*2+1)

Telephony Manager (TM) port numbers

where

MGMT = Management

Table 46
TM port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	20		FTP: Corporate directory & DBA	Microsoft default port
	TCP	21		FTP: Corporate directory & DBA	Microsoft default port
	TCP	21		FTP: TM 3.0	Microsoft default port
	TCP	25		SMTP: Alarm notification	Microsoft default port
MGMT	TCP	80	any	HTTP web CS, Desktop Services, web telecom billing system	Microsoft default port
MGMT	TCP	135	any	Login	RPC, SCM used by DCOM
	UDP	135		Login	RPC, SCM used by DCOM

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
MGMT	TCP	139	any	NetBEUI: Windows client file sharing	Microsoft default port
	UDP	161		SNMP: Alarm management, maintenance	Microsoft default port
MGMT	UDP	162	any	SNMP: Alarm traps (LD117), maintenance window	Microsoft default port
	TCP	389		CND synchronization	Microsoft default port
	TCP	513		Rlogin: Session Connect, System Terminal, Station Admin, CPND, List manager, ESN.	Using netstat
	TCP	636		CND synchronization	Microsoft default port (CND SSL)
MGMT	TCP	1583	any	Btrieve	Station Admin
MGMT	UDP	1929-2057	any	DBA note: 1 port per session	Session ports
	UDP	2058-2185		Data ports	
MGMT	TCP	3351	any	Btrieve	Station Admin
MGMT	TCP	5099	any	RMI: TM 3.0 DECT	Using netstat command
MGMT	TCP	4789 - 5045 (based on default port of 4789)	any	Virtual System Terminal: Note - VT uses 1 port per session. Start with 4789	The base port can be changed from 4789
	TCP	8080		HTTP: web station	Apache Tomcat web server

IP Phone port numbers

Table 47
IP Phone 200x, 120xx, and 11xx port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	UDP	4100	Ethernet	UNISlim	is the TPS
	UDP	variable	Ethernet	RTP	specified by the TPS
	UDP	5000	Ethernet	Net 6	
	UDP	5200	Ethernet	RTP	src from phone
	UDP	5201	Ethernet	RTCP	src from phone

Remote Office port numbers

Table 48
Remote Office port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
Remote Office	TCP	12800	TLAN	signaling	
Remote Office	UDP/RTP	20480, 20482	TLAN	RTP	voice

CallPilot port numbers

Table 49
CallPilot port numbers

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	20		FTP	
	TCP	21	CLAN/ ELAN	FTP	
	TCP	25	CLAN/ ELAN	SMTP	
	TCP	80	CLAN/ ELAN	HTTP	WWW
	TCP	135	CLAN/ ELAN	RTP/DCOM	Location Service

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	UDP	135	CLAN/ ELAN	RTP/DCOM	Location Service
	TCP	137	CLAN/ ELAN	NETBIOS	Name Service
	UDP	137	CLAN/ ELAN	NETBIOS	Name Service
	TCP	138	CLAN/ ELAN	NETBIOS	Datagram Service
	TCP	139	CLAN/ ELAN	NETBIOS	Session Service
	TCP	143	CLAN/ ELAN	IMAP2	
	UDP	161	CLAN/ ELAN	SNMP	(if enabled)
	UDP	162	CLAN/ ELAN	SNMP trap	(if enabled)
	TCP	389	CLAN/ ELAN	LDAP	
	TCP	443	CLAN/ ELAN	HTTP	over SSL
	TCP	465	CLAN/ ELAN	SSMTP	(Secure SMTP)
	TCP	636	CLAN/ ELAN	LDAP	over SSL
	TCP	993		IMAP	over SSL
	TCP	1025	CLAN/ ELAN	MSDTC	
	TCP	1026	CLAN/ ELAN	MSDTC	
	TCP	1027	CLAN/ ELAN	Microsoft Distribute COM Services	
	TCP	1028	CLAN/ ELAN	Microsoft Distribute COM Services	
	TCP	1029	CLAN/ ELAN	Dialogic CTMS	
	TCP	1030	CLAN/ ELAN	Dialogic CTMS	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	1031	CLAN/ ELAN	Dialogic CTMS	
	TCP	1032	CLAN/ ELAN	Dialogic CTMS	
	TCP	1036	CLAN/ ELAN	CallPilot Middleware Maintenance Service Provider	
	TCP	1037	CLAN/ ELAN	CallPilot Call Channel Resource	
	TCP	1038	CLAN/ ELAN	CallPilot Multimedia Resource	
	TCP	1039	CLAN/ ELAN	CallPilot MCE Notification Service	
	TCP	1040	CLAN/ ELAN	CallPilot MCE Notification Service	
	TCP	1041	CLAN/ ELAN	CallPilot MCE Notification Service	established connection to local ports 2019
	TCP	1042	CLAN/ ELAN	CallPilot MTA	established connection to local ports 2019
	TCP	1045	CLAN/ ELAN	CallPilot Access Protocol	established connection to local ports 2019
	TCP	1046	CLAN/ ELAN	CallPilot SLEE	established connection to local ports 2019
	TCP	1047	CLAN/ ELAN	IIS	
	TCP	1048	CLAN/ ELAN	IIS	
	TCP	1095	CLAN/ ELAN	CallPilot Blue Call Router	

Task	L4 protocol (TCP/UDP)	Port number or range	Interface	Description	Comments
	TCP	1096	CLAN/ ELAN	CallPilot Blue Call Router	established connection to local ports 2019
	TCP	1148	CLAN/ ELAN	TAPI	established connection to port 8888 on the switch
	TCP	1499		ODBC for reporter database	
	TCP	2019	CLAN/ ELAN	Dialogic CTMS	established connection to local ports 1041, 1042, 1045, 1046, 1096
	TCP	2020	CLAN/ ELAN	Dialogic CTMS	
	TCP	5631	CLAN/ ELAN	pcAnywhere data	
	UDP	5000		Call Pilot AOS DCOM (RPC)*5	
	TCP	5000		Call Pilot AOS DCOM (RPC)*5	
	TCP	5631		pcAnywhere data	if installed
	UDP	5632	CLAN/ ELAN	pcAnywhere data	if installed
	TCP	7934	CLAN/ ELAN	IIS	
	TCP	8000	CLAN/ ELAN	Dialogic CTMS	
	TCP	10008	CLAN/ ELAN	CallPilot Access Protocol	
	TCP	38037	CLAN/ ELAN	msgsys Intel CBA-Message System	
	TCP	56325	CLAN/ ELAN	CallPilot SLEE	

Application Gateway (AG) 1000 port numbers

Table 50
AG 1000 port numbers

Application Protocol	L4 protocol (TCP/UDP)	Port number or range	Description	Comments
Telnet	TCP	23	Connection to Signaling Server obtain DN	Voice mail applications
SMTP	TCP	25	Connection to SNMP server for message forwarding	Visual voice mail
HTTP	TCP	80	HTTP service port	General
HTTP	TCP	80	Broadcast Server push port	Broadcast server
IMAP	TCP	143	Connection to IMAP	Visual voice mail
SNMP	TCP	161	SNMP service prot	
LDAP	TCP	389	Connection to LDAP server	Voice mail applications
LDAP	TCP	389	Message forwarding	Visual voice mail
HTTPS	TCP	443	Smart agent service port	Smart agent
Syslog	UDP	514	Syslog service port	
Proprietary	TCP	5000	RUDP/UNISTim port for signaling with phones	Voice office applications
HTTP	TCP	8080	Outbound connection to a proxy server	
HTTPS	TCP	9001	AG admin tool service port	General
Proprietary	TCP	9005	Design studio configuration port	General
HTTP	TCP	9998	Broadcast Server push port	
Proprietary	TCP	44443	GXAS service port	IP phone 2007
RTP	TCP	50004	RTP traffic for Broadcast Server	
RTCP	UDP	50005	RTCP receive port for monitoring RTP traffic statistics	Voice office applications
HTTP	TCP	9014, 9025	AG cluster communications port	General
RTP	UDP	20480-20511	RTP receive ports for visual voice mail	Visual voice mail and zone paging
Proprietary	TCP	configurable	Connection to property management system	Guest service

Contact Center 6.0 port numbers

For Contact Center 6.0 port numbers, refer to Symposium documentation.

TLAN subnet stateless packet filtering

Table 51 "TLAN subnet - Stateless packet filtering configuration" (page 217) describes a stateless packet filtering configuration. The primary intent of this configuration is to secure management access the CS 1000 system using the TLAN subnet.

These rules are for the TLAN subnet only. IP Phones are assumed to be deployed on client subnets throughout the IP network. All other TCP and UDP ports running on the TLAN network interfaces are for system control traffic which should not be sent through the packet filter. Optionally, drop all management traffic into the TLAN subnet.

Table 51
TLAN subnet - Stateless packet filtering configuration

Rule #	Task (App/Interface)	Source IP add.	Source TCP/UDP port	Dest. IP add.	Protocol type	Dest. TCP/UDP port	Action	Description
System Management								
1	System MGMT	MGMT	ignore	TLAN subnet	any	any	Forward	Allow MGMT System
2	System MGMT	any	ignore	TLAN subnet	TCP	21	Drop	FTP
3	System MGMT	any	ignore	TLAN subnet	TCP	23	Drop	Telnet
4	System MGMT	any	ignore	TLAN subnet	TCP	80	Drop	http Element Management
5	System MGMT	any	ignore	TLAN subnet	TCP	111	Drop	RPC
6	System MGMT	any	ignore	TLAN subnet	UDP	162	Drop	SNMP
7	System MGMT	any	ignore	TLAN subnet	TCP	513	Drop	rlogin
Firewall								
8	Default Rule	any	ignore	TLAN subnet	UDP	any	Forward	Default Action

TLAN subnet stateful packet filtering

Table 52 "TLAN subnet - stateful packet filtering" (page 218) describes rules for a stateful firewall only; they do not apply to a non-stateful firewall. IP Phones are assumed to be deployed on client subnets throughout the IP network. All other TCP and UDP ports running on the TLAN network interfaces are for system control traffic, which should not be sent through the packet filter. Optionally, drop all management traffic into the TLAN subnet.

Table 52
TLAN subnet - stateful packet filtering

Rule #	Task (App/Interface)	Source IP add.	Source TCP/UDP port	Dest. IP add.	Protocol type	Dest. TCP/UDP port	Action	Description
System Management								
1	System MGMT	MGMT	ignore	TLAN subnet	TCP	21	Forward	FTP
2	System MGMT	MGMT	ignore	TLAN subnet	TCP	22	Forward	SSH
3	System MGMT	MGMT	ignore	TLAN subnet	TCP	23	Forward	Telnet
4	System MGMT	MGMT	ignore	TLAN subnet	TCP	80	Forward	Element Manager
5	System MGMT	MGMT	ignore	TLAN subnet	TCP	513	Forward	rlogin
6	System MGMT	MGMT	ignore	TLAN subnet	UDP	162	Forward	SNMP
VoIP Signaling								
7	SigSvr / Gatekpr	any	ignore	TLAN subnet	TCP	1720	Forward	H.323 Signaling
8	SIP	any	ignore	TLAN subnet	TCP	5060	Forward	SIP Signaling (configurable)
9	Firmware Download	any	ignore	TLAN subnet	UDP	69	Forward	TFTP
10	H.323	any	ignore	TLAN subnet	UDP	1718	Forward	H.323 Signaling
11	H.323	any	ignore	TLAN subnet	UDP	1719	Forward	H.323 Signaling
12	TPS	any	ignore	TLAN subnet	UDP	4100	Forward	IP Phone 200x signaling
13	SIP	any	ignore	TLAN subnet	UDP	5060	Forward	SIP Signaling (configurable)

Rule #	Task (App/ Interface)	Source IP add.	Source TCP/ UDP port	Dest. IP add.	Protocol type	Dest. TCP/ UDP port	Action	Description
14	TPS	any	ignore	TLAN subnet	UDP	5100	Forward	IP Phone 200x signaling (configurable)
15	Firmware Download	any	ignore	TLAN subnet	UDP	5105	Forward	UNISTim FTP
16	TPS	any	ignore	TLAN subnet	UDP	7300	Forward	IP Phone 200x signaling
17	Virtual Office	any	ignore	TLAN subnet	UDP	16500	Forward	Virtual Office signaling (Network connect server configurable)
18	Virtual Office	any	ignore	TLAN subnet	UDP	16501	Forward	Virtual Office Signaling
19	SIP GW SPS	any	ignore	TLAN subnet	TCP	5061	Forward	SIP Signalling
VoIP Media								
20	SMC	any	ignore	TLAN subnet	UDP	5200-5263	Forward	RTP/RTCP voice media
Firewall								
21	Firewall	any	ignore	TLAN subnet	ignore	any	Drop	Default Action

ELAN subnet packet filtering

Table 53 "ELAN subnet - packet filtering" (page 219) describes a packet filtering configuration suitable for a routable ELAN subnet. These filters are effective for stateless and stateful packet filters.

Table 53
ELAN subnet - packet filtering

Rule #	Task (App/ Interface)	Source IP add.	Source TCP/UDP port	Dest. IP add.	Protocol type	Dest. TCP/UDP port	Action	Description
System Management								
1	System MGMT	MGMT	Ignore	ELAN subnet	TCP	21	Forward	FTP

Rule #	Task (App/ Interface)	Source IP add.	Source TCP/U DP port	Dest. IP add.	Protocol type	Dest. TCP/U DP port	Action	Description
2	System MGMT	MGMT	ignore	TLAN subnet	TCP	22	Forward	SSH
3	System Magma	MGMT	Ignore	ELAN subnet	TCP	23	Forward	Telnet
4	System Magma	MGMT	Ignore	ELAN subnet	TCP	80	Forward	http Element Management
5	System Magma	MGMT	Ignore	ELAN subnet	TCP	513	Forward	rlogin
6	System Magma	MGMT	Ignore	ELAN subnet	UDP	162	Forward	SNMP query
7	System Magma	MGMT	Ignore	ELAN subnet	UDP	1929-2185	Forward	DBA for TM
System Signaling								
8	System Signaling	CC6	ignore	Call Server	TCP	8888	Forward	CC6 AML Link
Note: Rule 8 applies only to a system with a Contact Center 6 system using a single network interface to the Nortel server subnet.								
Firewall								
9	Firewall	any	Ignore	ELAN subnet	ignore	any	Drop	Default action