IT REQUIREMENTS - LOGICAL LAYOUT

institute of mine seismology

Data Transfer (24/7 real time connections)			
IP	DNS Name (URL)	Port	Protocol
120.29.244.52	portal0.imseismology.org	5080 50443	http https
120.29.241.81	portal5.imseismology.org		
196.44.37.99	portal1.imseismology.org	80 443	
41.0.209.203	portal2.imseismology.org		

Software Update Centres			
IP	DNS Name (URL)	Port	Protocol
196.44.37.98	updates.imseismology.org	80	http
	devupdates.imseismology.org		
	software.imseismology.org		
	downloads.imseismology.org		
	www.imseismology.org		
120.29.244.52	software0.imseismology.org		
120.29.241.81	services.au.imseismology.org		
	updates5.imseismology.org		
	devupdates5.imseismology.org		
	software5.imseismology.org		
	downloads5.imseismology.org		

Other IMS servers			
IP	DNS Name (URL)	Port	Protocol
120.29.244.52	licensing0.imseismology.org	8005	http
196.44.37.100	licensing1.imseismology.org		
41.0.209.204	licensing2.imseismology.org		
120.29.241.81	licensing5.imseismology.org		
196.44.37.100	issues.imseismology.org	80	http
196.44.37.101	myservices.imseismology.org	443	https
41.0.209.203	mobile4.imseismology.org	8010	https

Remote Access				
Option 1) Direct ssh access restricted to IMS public IPs				
	Source IP	DNS Name (URL)	DestinationPort	Protocol
	120.29.244.52	access0.imseismology.org	22 or other configured remote port	ssh
	196.44.37.100	access1.imseismology.org		
	41.0.209.204	access2.imseismology.org		
	120.29.241.81	access5.imseismology.org		
Option 2) VPN setup to customer network				
	VPN account allowing access to all the ports of the seismic server			

IMS Firewall

Internet

Firewall / Proxy Server / VPN server

Customer Workstations (PC)

Communication between Workstations and Seismic server		
Function	Port	Protocol
SSH connection between server and equipment	22	ssh
Remote administration	80	http
Ports to interface Software application with seismic server	8001 - 8020	http
VNC Remote viewer ports	5901, 5902	tcp
No Machine Remote viewer ports	4000	tcp
File Sharing	137, 138, 139, and 445	UDP, TCP, SMB, CIFS

Seismic Server

Communication between Seismic Server and Seismic Equipment		
Function	Port	Protocol
Remote administration	80	http
Communication protocol between seismometers and seismic server	8001-8003	http
	8989	udp, tcp
SSH connection between server and equipment	22	ssh
Telnet session between server and equipment	23	telnet
File transfer	69,20-21	tftp, ftp
Communication protocol between 3rd party communication equipment and seismic server	4000-4002	tcp, udp
Timing protocols to seismic equipment	123,319-320	udp,ntp,ptp
- PTP system require IP multicast		

Network Time server		
IP or URL	Port	Protocol
Internal or external Time server address	123	udp,ntp

Seismic equipment (incl. IMS branded devices)

Customer

Non-IMS external sources			
IP	DNS Name (URL)	Port	Protocol
137.254.120.26	updates.netbeans.org	80	http
Country specific	archive.ubuntu.com	80	http
Country specific	ntp.ubuntu.com	123	ntp

Outbound connections from customer to IMS

Outbound connections from customer to non-IMS source

Inbound connections to customer from IMS

Local traffic in customer network

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