

# Z1 GEM Technical Specifications

Hardware	
<b>CPU</b>	Quad core Intel i7 4GHz
<b>Memory</b>	16GB DDR3
<b>Networking</b>	Two 1Gb/s interfaces
<b>USB</b>	Six USB2 sockets
<b>Disks</b>	Two SATA II, 7200rpm disks (up to 2000GB each) in hot swap enclosures. One off-site disk in protective carrier. Optional hardware AES-256 encryption (GEM/S)
<b>Power</b>	Internal 200VA PSU
<b>Cooling</b>	4 low noise cooling fans
<b>Hardware monitoring</b>	System/CPU/Disk temperature and fan status monitored/controlled by firmware.
<b>Size</b>	W:198mm H:212mm D:335mm

Email	
<b>SMTP</b>	SMTP server with virtual hosts, mail filters, SSL/TLS security, authentication
<b>POP3 Server</b>	SSL security enabled
<b>POP3 Client</b>	Downloads email from external mailboxes. Configurable mail filtering before download. Handles 'multi-drop' mailboxes.
<b>IMAP</b>	IMAP4 server with SSL/TLS
<b>WEBMAIL</b>	IMAP based, remote access with SSH tunnelling and encryption.
<b>Antivirus</b>	Filtering all emails before delivery, regular disk scans, virus database automatically updated twice a day
<b>Anti-SPAM</b>	Filtering all incoming mail, tagging or stopping emails when SPAM is detected. Can be customised for individual users.
<b>Email delivery</b>	Automatic delivery to local mailboxes, mail aliases and lists, configurable delivery filters, shared mail folders.
<b>Email archiving</b>	Automatic archiving of all emails in WORM structures, immediate access to full archive with IMAP clients including secure WEBMAIL.

Backup and Archiving	
<b>Control</b>	TripleA™ system
<b>File Backup</b>	Daily automatic disk-to-disk synchronization. Includes system and configuration making backup disk bootable copy of the main disk.
<b>Email</b>	Archives all incoming and outgoing mail in non-rewriteable files.
<b>Archival</b>	Files modified or deleted since last backup are archived with full version control. File retention policy may be applied for different types of files.
<b>Off site disk</b>	Backup disk is hot-swappable. A spare disk is provided to allow the backup disk to be moved off premises. The off-site disk is a fully working system disk and can be used in an off-the-shelf replacement server.
<b>Recovery</b>	Each of the three disks contains the full copy of the system, data and configuration. The system can be rebooted from any of the disks. If the server is not available, the spare disk will boot in the replacement server.

Note: Technical specifications are subject to change

Software	
<b>Operating System</b>	Linux
<b>File Sharing Configuration</b>	CIFS, NFS, WEBDAV WEB Interface
<b>WEB Server</b>	Apache 2.2 with SSL,PHP5,Python,CGI,WEBDAV,Virtual Hosts
<b>Virtualization</b>	KVM-QEMU

Networking	
<b>General</b>	Router with firewall and NAT
<b>WAN Configuration</b>	DHCP client or manual
<b>LAN Configuration</b>	Manual
<b>Firewall</b>	Stateful Packet Inspection, fully configurable
<b>NAT</b>	Configurable network address translation and port redirection
<b>DHCP</b>	Client on WAN, Server on LAN
<b>DNS</b>	Master DNS server

Security	
<b>Firewall</b>	Stateful Packet Inspection, fully configurable
<b>Secure Shell</b>	SSH server providing SSH1,SSH2, SCP and SFTP protocols. Public/Private key authentication. Browser based configuration.
<b>Secure HTTP</b>	SSL enabled WEB server
<b>Email security</b>	SMTP, POP3 and IMAP over SSL
<b>SSH tunneling</b>	SSH tunnels allow secure/encrypted remote access to any port/host on LAN based on Public/Private key authentication.
<b>File access</b>	Shared and private file shares, Role Based Access Control.

Compatibility	
<b>File Sharing</b>	CIFS, NFS, WEBDAV, Compatible clients: Windows 98/NT/2000/XP/7, MAC OS X, UNIX, Linux
<b>Configuration</b>	IE, Mozilla Firefox,Chrome etc.
<b>WEB Server</b>	HTTP, HTTPS/SSL, WEBDAV, SVN
<b>Email</b>	SMTP - SSL/TLS security and authentication IMAP4 - SSL/TLS security and authentication POP3 - SSL/TLS security and authentication
<b>Time server</b>	NTP
<b>File access</b>	SCP, SFTP, FTP, WEBDAV,SVN
<b>Shell access</b>	SSH2, Telnet
<b>Name Server</b>	DNS Master
<b>Workstation configuration</b>	DHCP

<http://www.zybert.co.uk/gem>

