

## Gluware System Instance

The following are base configuration guidelines which should be scaled appropriately to match your network needs. We currently recommend the following minimum Gluware Control attributes:

Component	Specifications	
Disk Space	64 GB (OS and applications need a minimum of 20GB, the rest is intended for data)	
Memory	16GB	
CPU	4 CPU, 2.4 GHz	
Operating System	CentOS 7.3	
Open Ports	<b>Port</b>	<b>Use</b>
	80/443 TCP	gluware_control
	1812-1813 UDP & TCP	RADIUS (if using Gluware RADIUS)
	465	Outgoing SMTP mail over SSL
	123	NTP (if using Gluware NTP)
	25	SMTP non-encrypted
	22	SSH
Other	SSL Certificate and Private Key (optional); you may also use a self-signed certificate	

## Standalone Gluware Engine

We currently recommend the following minimum Gluware Control attributes for Standalone Gluware Engines:

Component	Specifications	
Disk Space	64 GB (OS and applications need a minimum of 20GB, the rest is intended for data)	
Memory	4GB	
CPU	2 CPU, 2.4 GHz	
Operating System	CentOS 7.3	
Open Ports	<b>Port</b>	<b>Use</b>
	80/443 TCP	gluware_control
	22	SSH