IBM Cloud - Design Decision Tool - Compute

Use this tool to evaluate potential advantages and disadvantages of each option as you design your solution.

Option	Considerations	Caveats
Virtual Servers: Public / Public cloud	Quick provisioning time; often within 15 minutes	No network link redundancy for the private or public networks
	Supports 10 Mbps, 100 Mbps, or 1 Gbps network connections	Primary disk options are limited; only two disks local for shared I/O and single links for each of public, private, and management VLANs
	Available for use with Auto Scale UI/API	Multitenant environments may provide challenges for attaining regulatory compliance
	Deployable from a large selection of operating systems	
	Local or SAN-based storage	
Virtual Servers: Private / Private cloud	All the advantages of Virtual Servers: Public	No network link redundancy for the Private or Public networks
	Single tenant	Primary disk options are limited; only two disks local for shared IO and single links for each of public, private, and management VLANs
	Can be used in different regulatory requirements	Subsequent "private virtual servers" will be colocated on the same physical hypervisor server
	Available for purchase as either Dedicated Instances or Dedicated Host	It is only possible to use Auto Scale via the Auto Scale APIs
Dedicated - Physical server/Bare metal server (monthly deployment)	Single tenant	Longest provisioning times
	The most flexible hardware configuration options of any instance type	No Auto Scale capability
	Redundant power and network options	
	Network speeds up to 10 Gbps	
	Can reach full PCI compliance (and other compliance standards)	
Dedicated - Bare metal/ Bare metal server (hourly deployment)	Short provisioning times; often, less than one hour	Fixed configurations; only orderable with preset hardware combinations
	Single tenant	No upgrades to RAM or disks after provisioning
	Can reach full PCI compliance (and other compliance standards)	Can't select specific network VLAN when deployed
		No Auto Scale capability
Dedicated - POWER8 Bare Metal Server (monthly deployment)	Single tenant	Available in specified IBM Cloud Data Centers
	Spans high performance and cost sensitive applications	
	Up to 2x better performance per core for Big Data and Cognitive workloads	
	Low cost per VM/Container, memory intense applications (100GB per core)	
	Ideal platform for Analytics, Video Compression/Transcoding (>100TB)	