Cloud Community Project

KVM & Node Manager Installation Process

GCP)

Checking IOMMU

Checking Nvidia setting and

PCIe

Download Ubuntu Cloud Image and customize the Root File system

Install KVM and Start when the system bootup

Configure Host Docker Context

Configure Iptables

Install Node Manager as Systemd service

Installation Finished

If needed:

Reboot to the change Linux

Bootloader to unload Nvidia Driver

User sign in provider program in Dashboard and fill out related payment info Create a machine on Dashboard and generate the machine ID/UUID User download the installation script (host on **Installation Started** Show Readme Install libvirt

This KVM installation require the following setting in the host machine"

- "1. Enable IOMMU in host machine's BIOS"
- "2. Enable AMD (AMD-V/AMD-Vi) or Intel (VT-x/VT-d) virtualization in host machine's BIOS" "3. The host machine should at least have two GPUs (one iGPU and one or more NVIDIA dGPU), one iGPU for host
- and one or more NVIDIA dGPU for KVM" "4. The host machine should not connect to the monitor via NVIDIA GPU and should connect to the monitor via
- "5. Installing NVIDIA driver in the host machine is not recommended"
- "6. All the NVIDIA dGPU should be bound to vfio-pci driver and will be used in KVM"
- "7. The host machine should have a stable internet connection with at least 100Mbps download speed"
- "8. The host machine should have at least 8 CPU cores"
- "9. The host machine should have at least 16GB of RAM"
- "10. The host machine should have at least 100GB of free disk space"
- "11. The host machine OS only support the Linux OS and should be newer than Ubuntu 22.04 LTS distribution"
- "12. The same Nvidia dGPU (video/audio PCIe) should be in the same IOMMU group"

GPU Rental Operation Diagram

