**Preparation/ preinstall phase - Mostly hardware**

* 1. **Cloud planning (considerations?)**
     1. **Hardware choices support matrix finalizing still certifying 3rd party hardware ulf Bauman 3rd pary and HP**
     2. **Capacity considerations minimums very soon. Can begin. Advice beyond minimum. Size control plane based on requirements - Thom**
     3. **Data storage considerations both block and object storage will have them identify nodes – simple one type complex more node types compute nodes different from storage nodes, etc.**
     4. **Identify types of nodes you will have. Can discuss soon**
     5. **Network separation and zones. Can begin now**
  2. **Data center prep Yes. Physical networking, and underlay L2-L3 how boxes wired into switches which nics routing into various networks. Greater flex now.**
  3. **Physical node prep**
     1. **OS? Or HLM can do it by default.**
     2. **BIOS vm prep yes stays the same**
     3. **Firmware: storage, bios, and NIC firmware. Still to come. Probably generic wording about having latest firmware but to be decided (also hp upsell poss)**
     4. **Redundancy covered above**
     5. **Hardware? Covered above**
     6. **Support Matrix? Will change**
     7. **Control plane/footprint possibilities changing? Yes smaller options**
     8. **Config and attach and partition local storage**

**Pre HLM deploy – what you need before beginning**

1. **What does customer need to have on hand? Depends on use defaults HLM uses or not. Larger customers have own imgaing and tooling they want to use. So we need to tell them what they need to have ther systems do. Can write now.**

**HLM must take over after hLinux is installed but can do the hlinux install. 2.0 only hLinux. Oly the customer’s mehod of install is different if they want. Still hLinux**

**After hLinux:**

* 1. **MAC addresses? If HLM is doing OS install**
  2. **IP ranges yes for HLM but more complex…multiple IP ranges, for example.**

**If cust is doing os install, they provide list of IP addresses**

**It can be one file or per rack or however customer wants**

**For HLM mostly all is needed to be known ahead of time:**

* 1. **Number of nodes?**
  2. **storage allocation?**
  3. **Which services they plan to deploy?**
  4. **Any particulars about data storage config?**
  5. **Zones, network config?**
  6. **Certs/keys?**
  7. **Other deployment/config-specific data?**

**HLM**

1. **OS install – what gets installed? ~~Your Linux flavor here?~~**
   1. **What is “output from install”? mac adresses and ip but HLM will take care of it**
   2. **MAC addresses?**
   3. **Ports? These are automatically generated? No user intervention needed?**
   4. **Cloud architecture huge config possibiolities. Will indicate which scenarios are tested and work well and which do not work. White list and black list and gray area. And need to be clear and carefull about mesaging here.**

**Size, topology, config, will be criteria. High level discussion now with more to come later**

* + 1. **Topology defined by customer. Not fixed control plane so what do they need to know and what are the upper and lower bounds**
    2. **How many availability zones possible?**
    3. **Physical server assignement**
  1. **service config has defaults that can be overridden or accepted**

**tenant/network separation via vxlan and other virtual networking? Tested vs supported config provider vlan vxlan are the primary supported tenant encapsulation**

1. **How does user get their config data into the installer?**
2. **Services deployment** 
   1. **how are services installed?**
   2. **What do users need ahead of time?**
   3. **How are changes made to services later? How are they installed?**
   4. **Sounds like HLM is ony going to deal with hardware?**

**Any news on a UI or still just command line?**

**hLinux on baremetal on each server**

**compute nodes get VMs**

**storage control plane nodes no VMs just hLinux and HOS software**