2.5. NETWORK LOAD BALANCING

The F5 appliances form a redundant cluster that can perform load balancing for web applications in any VLAN on EMSA network. The design of any new system or application should preferably implement load balancing with node fail detection on this equipment.

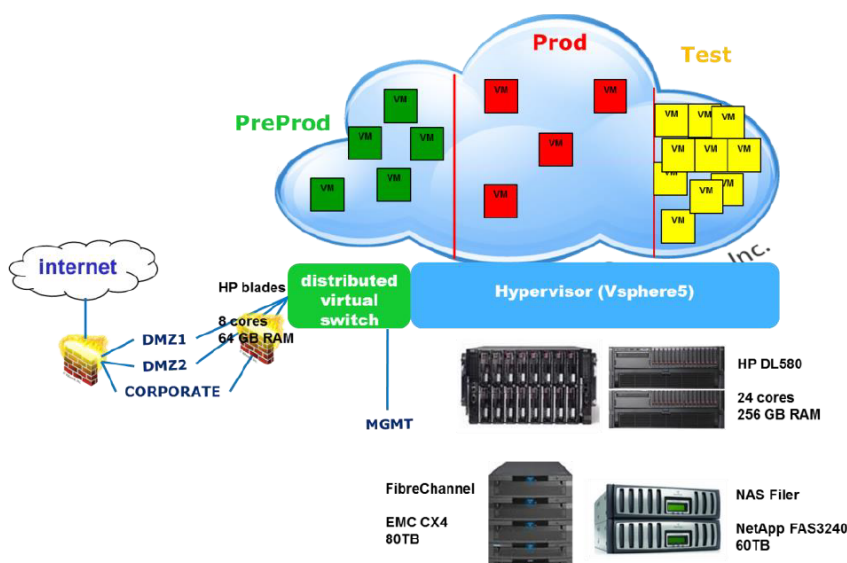## 2.6. HIGH LEVEL VIRTUAL INFRASTRUCTURE SCHEMA

Figure 3 - High Level infrastructure

2.7. VIRTUAL INFRASTRUCTURE SERVICES

The following services are offered to VMs and application environments:

- Basic monitoring with Nagios;
- Performance monitoring with vCenter Operations;
- VM-level backup with Networker or Netapp SnapMgr for Virtual Infrastructure. Exceptionally also Networker agent-based backup can be implemented.
- Deployment of a VM or environment[1];
- Cloning of a VM or environment;
- Snapshotting of a VM or environment[2];
- Exporting as OVF a VM or environment;
- Hardware resource allocation changes[3];

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[1] Subject to being included in the EMSA Template catalogue, currently including:
- Linux Red Hat Enterprise Server or CentOS in version 7;
- As above, with WebLogic or with Oracle DBMS;
- Latest Microsoft Windows servers.

[2] Subject to the following policy: the snapshot must be rolled back, or removed, in one week time to avoid performance penalties;