JI Technology

Founded in 2008 to provide solutions and business development for MNO, MVNO, System Integrators & Service Providers, these solutions include charging, messaging, gateway applications and service control solutions. Our current & past engagements include Prepaid, Loyalty, Multi Payment Channel service, IOT, SMS gateways, EPC for sXGP/private networks/EDGE, Fintech consulting & others.

INTERNET OF THINGS
We are mapping out IOT value for those who are ready to act

PRIVATE EPC
Complete solutions for the enterprise, integrators, for service providers

SXGP
Reducing the cost of telecommunications services and improving the stability of wireless communication services

BESPOKE SOLUTIONS
Competitive & agile. Presales through delivery

HA and DR for EPC for private & local 4G|5G environments

HA (High Availability) strategies deal with small, more localized failures or faults. DR (Disaster Recovery) is about having a plan for when the system or network goes down, and the results of a system or network failure must be dealt with. Most sXGP/local 4G/5G networks are mission critical meaning they should be available at all times even in the event of a some application / system / network failure.

Why JIT HA / DR solution?

The JITsvrHA (High Availability) is a cluster management solution that supports Active/Active, Active/Warm-Standby (Active-Passive), Active/Cold-Standby processes to ensure continuous availability, Local redundancy, geo-redundancy & Disaster recovery.
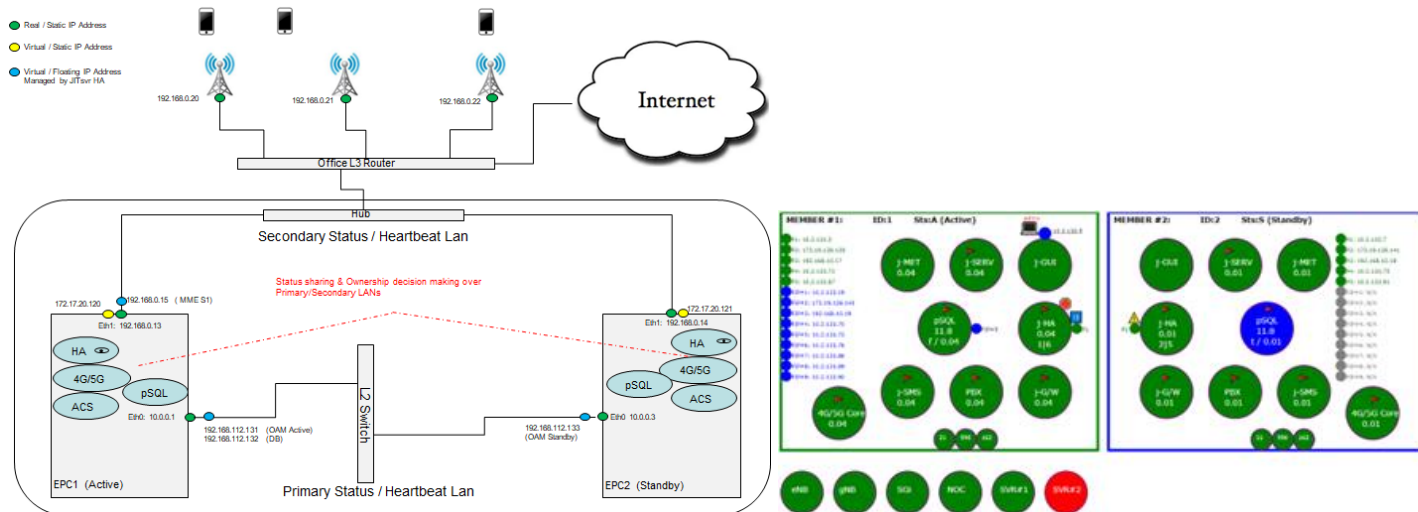
- Application agnostic. Supports monitoring and management of any applications. For example: JIT applications, Private 4G/5G core, Apache & other webservers, Tomcat applications, any database etc.
- Manual Failover supported or routine maintenance scheduling
- Color coded GUI status monitoring & Control Command Line Interface
- Fail over logging (log file and in GUI)
- Failover for flagged processes, Flagged VIP addresses
- Automatic handshaking to determine Active Node & Node priority
- Scales to support Multi node (distributed) clusters
- Scales to support an N+2 model

JITsvrHA & sXGP Solution details

The JITsvrHA is a single process per cluster member. The JITsvrHA process performs roles of member status management & application/status management. If a failure is detected, then the failover functions are performed.

- Easy to stop/start/pause/resume the High Availability manager via CLI & GUI
- Easy to monitor the status of the HA manager and each of the members via CLI & GUI
- Cluster scales to multiple members. Min cluster size is 2 members.
- Confirmed for at least single point of failure availability management
- Options to use dedicated heartbeat LAN or share common LAN using virtual IP.
- Handles power down on both servers in a dual node cluster
- Verified with the sXGP/Local 5G environment (Private 4G/5G core, Multiple eNB vendor, Multiple UE Vendor, uSIM/eSIM)
- Verified with X86 Clusters
- Monitor multiple floating virtual IP addresses
- Monitor static IP addresses
- Linux Process checking
- Process heartbeat checking (check process is responding)
- Logging of failures
- Auto-syncing of PostgresDB
- Configurable Hooks to call local failover scripts for stopping/starting/restarting/syncing applications
- Private 4G/5G core specific hooks to ensure VoLTE is handled by passive node when it changes to Active
- Coupled with the JTIsvrACS, an attach delay time to stagger attach attempts when all UE re-attach at the same time following a failure
- Configurable interval timers for checks monitored members, local process status, IP status etc
- Visit us at http://www.jitechnology.com