Oracle RAC Best Practice on Sangfor HCI

Oracle database is widely used in government, health, enterprise, education and other verticals as core business system in the data center. Adopting Oracle RAC (real application cluster) is a typical approach to ensure the reliability and stability of systems like core ERP in large enterprises, key business systems in government, HIS in hospitals and other core systems.

As one of the most popular cloud data center solutions in recent years, use scenarios of hyper-converged infrastructure have been widened since the technology's being widely recognized. At least 3 nodes are needed to implement Oracle RAC on HCI, and there are several other factors to be considered:

1. Database availability.
2. Database disk configuration and data reliability.
3. Database performance guarantee.

Let's take a deeper look at these 3 aspects.

Database Availability Design

- ✧ Create 2 VMs with Oracle service on Sangfor HCI platform and assign them to 2 different physical hosts. HCI offers mutex policy for VMs within RAC to effectively avoid single point of failure on one single node.

- ✧ In the event of a physical host failure with Oracle service on it, application level failover will be achieved by RAC mechanism. In the meantime, Sangfor HCI will pull up the Oracle VM which were previously failed with the physical host to rebuild the RAC health.

- ✧ To cope with sudden peak access, Sangfor HCI provides DRS and DRX features to hot-add resources to the Oracle VM automatically in case of performance bottleneck caused by database peak access.

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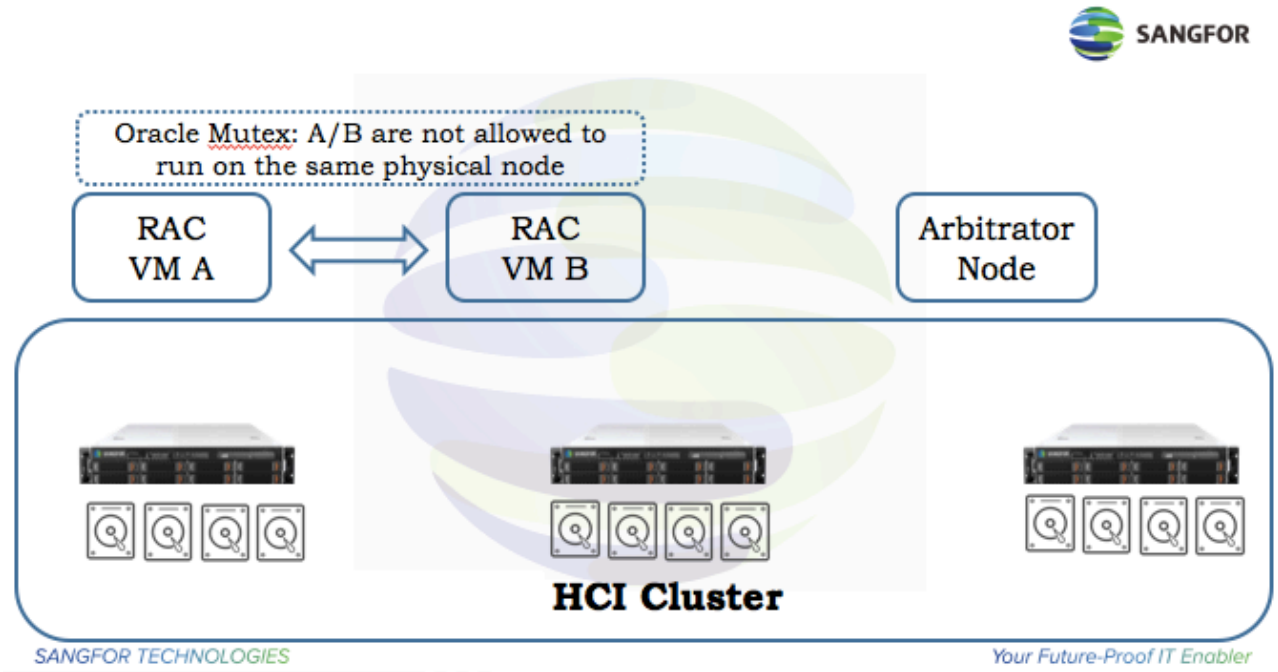

Oracle RAC Business Environment

Database Disk Configuration and Data Reliability Design

- ✧ All the Oracle VMs access one unified shared storage to ensure data consistency in RAC. Sangfor HCI offers dedicated Oracle shared disk option while creating Oracle virtual disk.
- ✧ Sangfor HCI employs distributed storage architecture so that there are multiple copies of data in the disks. Shared disk data of Oracle will be written and distributed to different disks on different physical nodes to ensure data reliability.
- ✧ HCI also provides scheduled backup policy to avoid any data loss by error.

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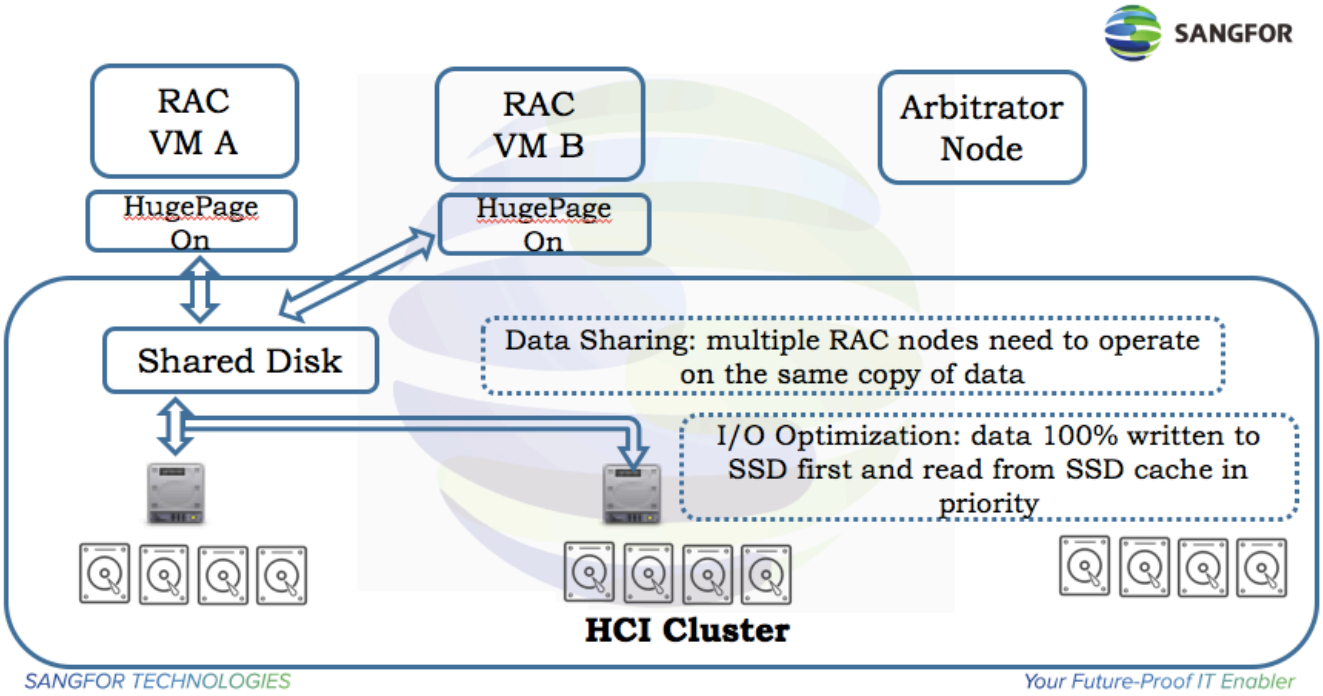

Oracle RAC Business on HCI

Database Performance Design

- ✧ Sangfor HCI provides hybrid disk deployment with SSD and HDD to significantly boost disk IO performance so that Oracle RAC business can achieve high performance launch.

- ✧ Through HugePage combined with Linux kernel feature, Oracle RAC transaction performance can be hugely increased under the pressure of large business concurrency.

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