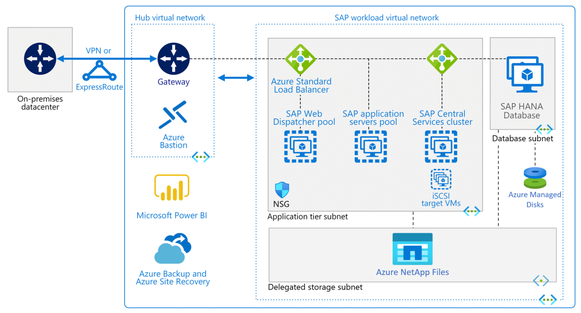
SAP on Azure

Reference Architecture - Small-scale production environment of SAP BW/ 4HANA



- Azure VNet
- Azure VM - Linux OS
- Availability Set
- Azure Load Balancer
- Azure NSG
- Azure Managed Disks
- Azure NetApp Files
- Power BI
- Azure Site Recovery

Maintain & Monitor SAP on Azure

- Optimize Performance & Cost
  - HANA Virtual Hardware Cost / Azure HLI
  - measure network latancy
  - measure storage cost, Resize VM as needed,
  - HANA Hardware and Cloud Measurement Tools (HCMT)
- Monitor SAP on Azure
  - Using Azure Monitor for SAP Workload
  - using Azure Log Analytics
  - Monitor Networking

Design and Implement HA and DR

- High Availability/Disaster Recovery
  - Azure VM / HLI
    - Azure Site Recover Strategies
    - Hana System Replication
    - Availability Set / Zone / Load Balance Strategies
    - Regions
    - SLA
- Automated Deployment
  - HA/ DR Implementation
    - Configure Azure Site Recovery
    - Configure Clustering
    - Configure Backups
    - Configure Storage Level Replication
    - Test DR
    - Perform Back & Restore
  - SAP Deployment Automation Framework on Azure

Azure Infrastructure for SAP

- Compute Solution for SAP on Azure
  - Azure VM vs HANA Large Instance (HLI)
  - Azure VM Extension for SAP
  - Install OS using Image / Custom Image
  - OS Using ARM Template
  - VM Availability Set / Zone
  - Azure HLI
    - Connect with HLI
    - Configure HLI
    - OS Updates for HLI
  - Configure Snapshots
- Network Topology for SAP On Azure
  - SAP Zone / Subnet
  - Configure Proximity Placement Group
  - HLI Networking
  - Express Route
  - Load Balancing / Reverse Proxy
  - Network Security
  - Virtual Network
  - Subtopic 7
- Storage Solution for SAP on Azure
  - Storage Option
    - Managed
    - Premimum
    - Ultra Disk
  - Space
    - SSD
    - Netapp files
    - Azure Shared Disk
  - Storage Security
  - Caching
  - Encryption

Key

- System Components
  - Web Dispatcher
  - Application Server
  - ASCS
  - Database
  - SAP Shared Files
    - Azure NetApp Files
    - Azure Files
    - Azure Shared Disks
- Consideration
  - Scalability
  - Availability
  - Disaster Recovery
  - Security
  - Automation

Migrate SAP Workload to Azure

- Requirements for Targeted Infrastructure
  - Virtual Machine
    - Size
    - Scaleset
  - Azure Database
    - Size
  - Network
  - Subscription
    - Quota Limit
    - Subscription Model
  - License
    - Pricing Model
  - Support Model
  - Early Watch Alert (EWA)
    - Quick Sizer
  - Additional Components
    - Power BI
    - Data Lake
    - SAP Cloud
    - Azure Data Factory
- Authentication and Authorization
  - Access Control
  - Authentication
  - Roles / Permission
- Migration Strategies
  - Lift and Shift
  - Lift and Shift Migrate
  - Lift and Sift Migrate To HANA
  - Green Field Implementation
- Implement Migration
  - Identify Targeted Infrastructure
  - Choose Migration Strategies
  - Implement SAP Migration

@abhijitjana https://abhijitjana.net