## **Target Scenarios**



#### **Hardware Failure**

Protection from the failure of basic server hardware components such as...

- Processor
- RAM
- Storage
- Power Supplies



#### Platform Failure

Protection from unexpected issues within Windows, IIS, SQL and TrakSYS due to single server environmental conditions.



### **Hardware Updates**

Allow for upgrading the solution's underlying infrastructure and hardware without significant interruption in the application's business function.



### **Platform Updates**

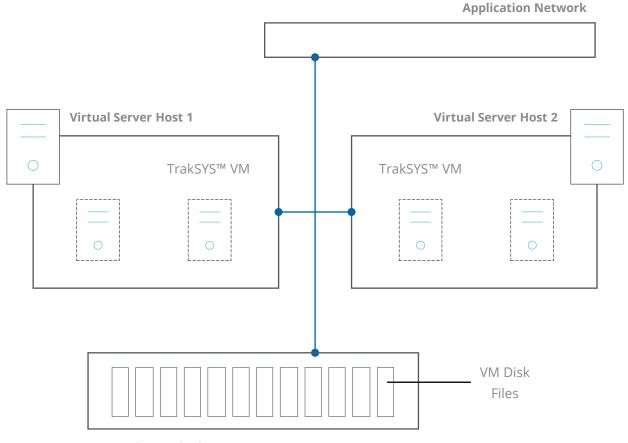
Allow for the patching, updating and upgrading of the base platform technologies such as Windows, IIS and SQL Server, without significant interruption in the application's business function.



# **Hardware Redundancy**

### High Availability / Fault Tolerance via Virtualization

- Abstracts Hardware to Windows and TrakSYS
- Provides Total Hardware Redundancy
- Requires 3<sup>rd</sup> Party Virtualization Layer Licensing





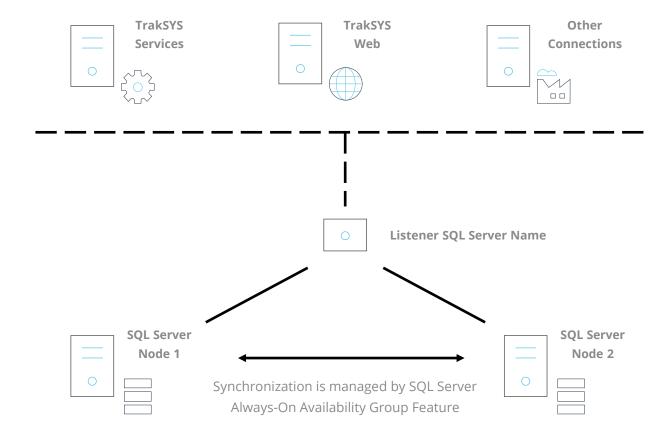


## **Database Redundancy**

#### **SQL Server Always-On Availability Groups**

Abstracts all connections to the database and distributes them to one server or another, or both depending on the configuration.

- Requires SQL Server Enterprise
- Requires Windows Server Failover Cluster

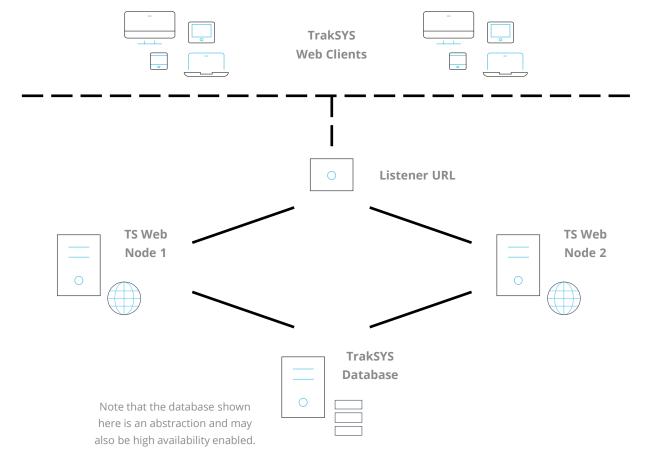




# TS Web Redundancy

### Windows Server IIS Network Load Balancing

Abstracts all connections to the web application distributes them to one server or another, or both depending on the configuration.

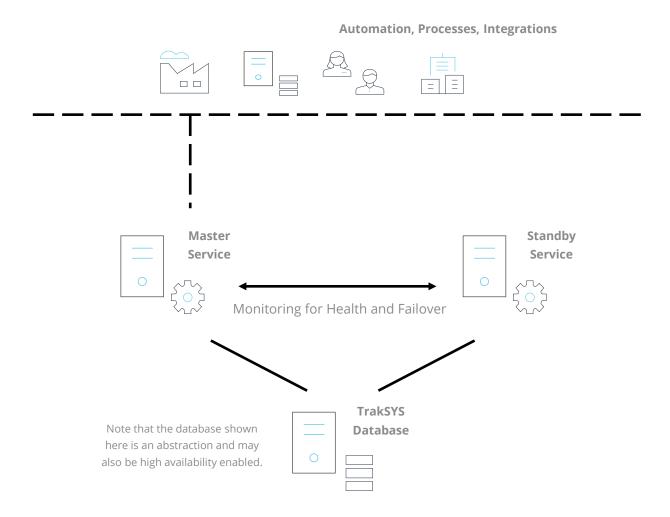




# **Service Redundancy**

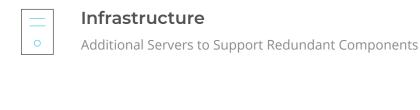
### **TrakSYS Service Redundancy**

When a Service failure occurs for any reason (platform, software or hardware), the Standby Service starts and resumes operations.





## License Considerations





### **Windows Clustering**

Windows Server Licenses for additional Cluster Nodes



#### Virtualization

High Availability Licensing (Platform Dependent)



### **SQL Server Always-On**

SQL Server Enterprise Licenses for Always-On Nodes



### TrakSYS High Availability

TrakSYS High Availability License Feature to enable additional Web Applications and Services

