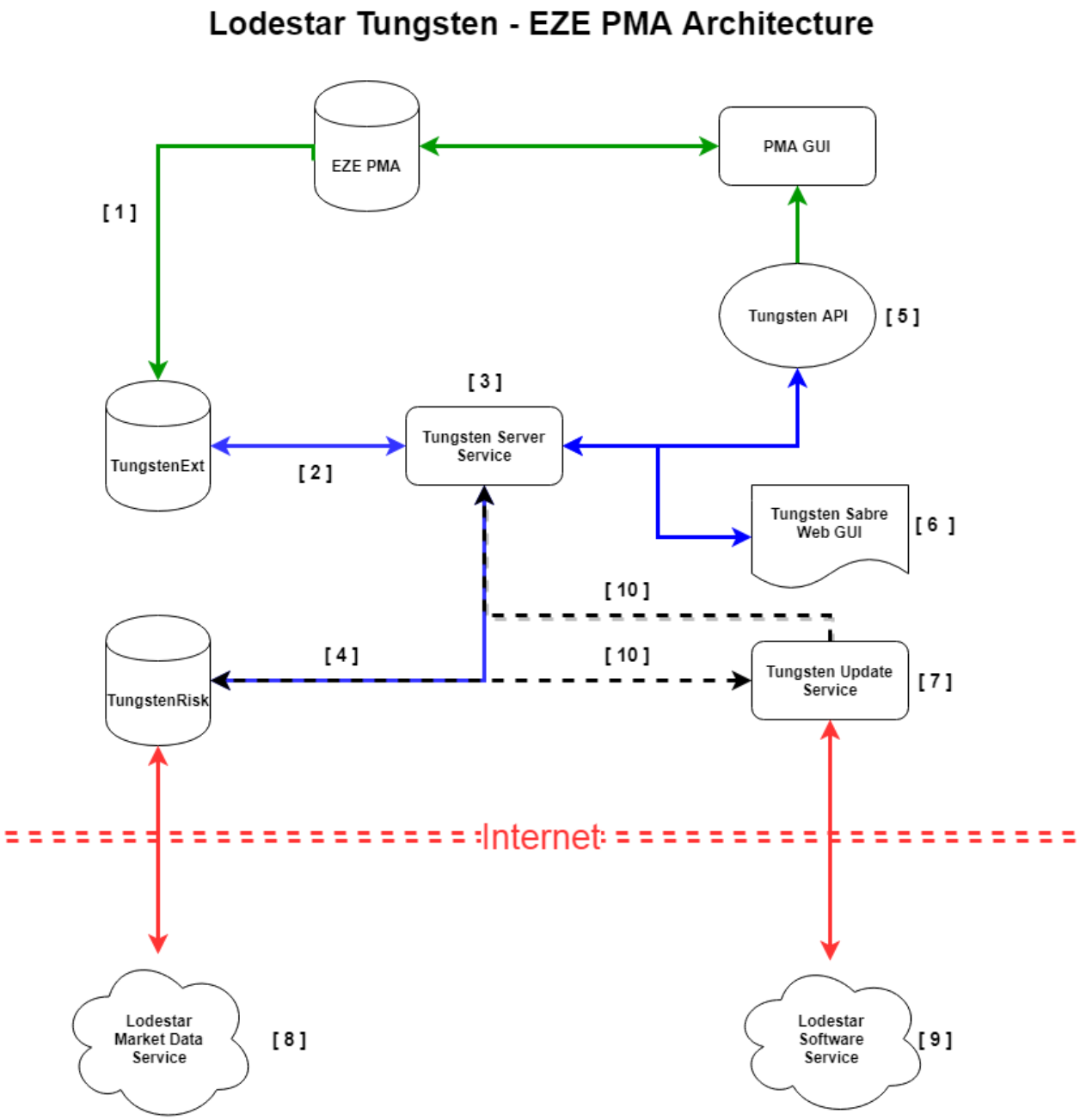

The above diagram depicts the Lodestar Tungsten and SS&C EZE PMA Architecture.

The EZE PMA database **[1]** is feeding data to the TungstenExt database via Risk owned functions. Key information such as static security,P&L and NAV data are flowing into the TungstenRiskExt database which in turn enters the **TungstenRisk database [4]** via the **Tungsten Server Service [3]**. The TungstenRiskExt “abstraction layer” gives Tungsten the ability to be backward compatible with versions of TradarBE from 2009 and onwards.

The Tungsten Risk Server does not need to be running on the same server as the Tungsten Risk database allowing for better resource distribution. The **TungstenRisk** database is normally installed on the same server as the Eze database server, however for larger funds (> 1,000 positions) it is advisable to install **TungstenRisk** database on a dedicated server to reduce the load on the PMA server.

The **Tungsten Risk service [3]** is the main process that calculate all risk data such as **Value At Risk**, **Exposures**, **Scenario Analysis**, and realized **P&L analysis.** This service is also the main point for the **Tungsten Sabre web GUI [6]** and the **Tungsten API [5]**. Risk data flows back into PMA database via the Tungsten Risk API.

Tungsten is always installed on the client's local servers. The only communication outside of the firm local network is the **Tungsten Update Service [7]** that check the current version of the Tungsten Risk databases and the Tungsten Server Service. If there is a new version that needs to be installed, the system automatically downloads the SQL version and/or the Tungsten Service service **[10]** from the Lodestar software distribution cloud **[9]** and installs it locally. There is no need for a Lodestar/Eze personnel to logon to to do the installation/upgrade.

If the client has opted to use the **Lodestar Market Data service [8]** the system will continuously supply the ticker universe to the Lodestar market data server which in turn is mapped to a time series and uploaded to the client TungstenRisk database. The market data is only used in Tungsten Risk system and not in the PMA system.