SIEMENS

PTC Back Office Server (BOS)

One of the core functions of PTC is to be able to determine the precise location, direction and speed of various trains and compare this with restrictions on track use, eventually warning operators of potential conflicts or changes in operating conditions and bringing the train to a stop, automatically if necessary. One of the key elements of this functionality is a reliable Back-Office Server (BOS) to gather/store all the information and transmit it to the locomotive.

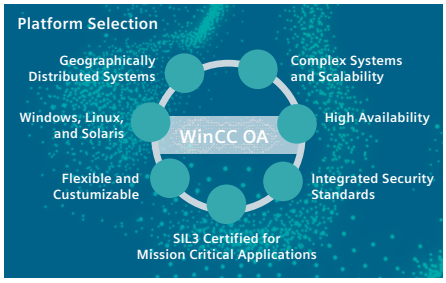
Thanks to Siemens' experience working in different mission-critical industries around the world, including scientific laboratories, gas pipelines and water processes, our nation's largest railroads and subways are able to benefit from a proven, open architecture platform with decades of reliability amidst a whole host of different kinds of challenges. The result? A proven, reliable architecture that ensures fast, reliable business continuity scenarios and redundancy.

The Siemens Mobility Back Office Server (BOS) has been developed specifically as a software solution for railroads that helps process the multitude of PTC messages that are delivered to a train's onboard computer, ensuring railroads keep running without delay. It is built off a SIL-3 certified architectural platform with multi-tier architecture providing flexibility, robustness, and ensuring 99.9999% availability.

Importantly, Siemens Mobility's BOS utilizes the renowned, ultra-reliable Siemens digital WinCC OA – a flexible open architecture platform proven in mission-critical industrial applications, and now with the nation's largest railroads and subways that need to keep running 24/7.

Furthermore, the platform can increase its scalability to handle future capabilities, like moving block and autonomous solutions. It also provides reliable load balancing as new PTC subdivisions are added to system.

With WinCC OA providing ultimate reliability as its platform, the flexible BOS architecture provides end-user customization and continual BOS instance connectivity, enabling advanced data collection and functional migration at run-time with no operational impact, allowing software updates with no downtime.



The flexible BOS architecture is enabled by Siemens' proven WinCC OA open architecture platform.