The SNCF-operated T4 has lots in common with its other French tram-train cousins, as all involved the conversion of heavy-rail suburban services to light rail operation, substituting trams for eMU or dMUs. All of the lines tend to offer similar services, but there are sufficient differences between the tram-trains in Paris, Lyon, Nantes and Mulhouse to make them interesting in their own right. For example, although the rolling stock of each operation is outfitted with equipment to allow current to be gathered from overhead carrying either of two voltages, with one always being 750 v DC—for present or future operation over the local tramway— the SNCF infrastructure requires the other to be 1,500 v DC in Lyon while it’s 25,000 v AC in the other locations. The manufacturer and model of the cars in Paris and Mulhouse is Siemens Avanto, while in Lyon and Nantes it is Alstom Citadis Dualis. The tram-train operation in Paris is a suburban feeder service for two suburban rail lines at either end, while in the other three cities the tram-trains provide a direct ride to the city centers. The most important difference, however, is that only in Mulhouse does the operation fulfill the principal intent of the model (that was initiated in Karlsruhe, Germany) by providing single-seat distribution of suburban passengers to a multitude of central area destinations via downtown streets. It should be pointed out however, that a separate objective, the lowering of operating costs, is fulfilled in all four versions. In fact in Paris, one of the T4’s tramcars is also used by the SNCF on its short shuttle line between Esbly and Crecy. I am hopeful that at some time in the future the tram-trains that now terminate at railway stations will be extended over urban-style trackage.

**Paris Line T4: Operated by SNCF**

**Length:** 5 miles  
**No. Stations:** 11  
**Year Opened:** 2006  
**Rolling Stock:** 15 Siemens Avanto Dual-Voltage

The T4 in Paris was the first tram-train in France, opening in 2006, and had some teething problems that have apparently been resolved. Among them was the Siemens rolling stock, but it is still annoying that the before the doors open at stations, an extension from the carbody has to slide out to minimize the gap between car and platform. Similarly, time is wasted as the cars cannot start up until these extensions are rolled back after the doors close. This is conceptually similar to the operation of LRVs on the surface of Main Street in Buffalo.
Other than the rolling stock, the major changes made when the line was converted to tram operation involved the replacement of gates at grade crossings with traffic lights and the conversion from left to right hand running. For the most part the line is still fenced to discourage unauthorized access to the right-of-way. The voltage in the overhead remains at 25,000 AC.

The SNCF (Transilien) administers the fares on the T4, but the zones are integrated with those of the RATP, operator of the other tram lines, through a Paris regional umbrella agency (STIF), which means that intermodal journeys are totally transparent to passengers.

**Photos and captions:**

The photos are sequenced from north to south, Aulnay sur Bois (RER line B) to Bondy (RER line E).

The Rougemont Chanteloup stop, just after the line turns east-to-south from the RER line to De Gaul Airport.
A view just south of the Henri Sellier station.

The most built-up area on the line is adjacent to the Gargan stop. A 4-mile long branch of this line to the community of Montfermeil is in advanced planning.
The right-of-way of SNCF’s eastern suburban line can be seen in the lower right portion of the photo. A Siemens Avanto unit is shown heading to the tram-train’s terminal at Bondy, where its track is integrated into the station.