



EMS

Managed Services

Client

Nortel Networks

Location

Poland, Slovakia, Hungary

Installation and Commissioning

CH2M HILL has been supplying installation and commissioning to Nortel Networks as a managed service. The service has been supplied using CH2M HILL's skilled resources located in the Krakow Delivery Centre, and has covered the whole territory of Poland and Slovakia. The Polish team has also delivered services in Hungary and worked as consultants for the client's teams in Russia.

CH2M HILL's primary activity was to undertake the site surveys. We allowed sufficient time prior to the installation start date to identify the readiness of each site. Any necessary actions resulting from the surveys were clearly documented with responsibilities and time scales. Once all required actions were addressed, we confirmed with the site owner that the installation could proceed.

After the equipment cleared Polish customs, we received the equipment into our regional warehouse, where we checked it to ensure it was in good working order. Then, we coordinated equipment delivery with all appropriate regulatory bodies (traffic police, tenants, and other parties) and an inventory-tracking system to confirm the location of equipment at any time to Nortel Networks.

CH2M HILL was fully responsible for all details surrounding delivery of the Nortel equipment to each site, including the signage required by regulatory bodies or requested by tenants and landlords, as well as the means to physically deliver the equipment (e.g., cranes, boom trucks, pallet jacks, and forklifts). If necessary, we de-assembled and then re-assembled equipment to facilitate delivery.

Once the equipment was in its final position and attached securely to a bracket, frame, I-beam, wall, or other secure mounting structure, the installation was completed by connecting the following items:

- AC or DC power cable from demarcation point to equipment
- Ground cable from ground point to equipment
- PCM cable from demarcation point to equipment
- Alarm cable from demarcation point to equipment
- Run all equipment interconnect cables

As part of the installation as-built package, CH2M HILL provided the Nortel Networks Project Manager duplicate photographs of all installed equipment, including antenna locations with placards showing sector/site number, date, and direction. Specifications were redlined to identify the final "as-built" configuration, and we provided model and serial numbers of all equipment to identify the final configuration.

We performed local and integrated (online) tests in accordance with Nortel Network procedures. Tests were completed once all the diagnostics were passed successfully and the equipment was in proper working order and remained so for a 7-day "soak" period.