

## **2.1 Application**

The S5-135U/155U programmable controllers comprise a central controller (CC) and, if required, one or more expansion units (EUs). You need EUs when there are insufficient slots in the CC for the modules to be used.

Various interface modules (IMs) are available for communication between the CC and the EUs and between the EUs. It is therefore possible to install an EU or EUs in the immediate vicinity of the CC (centralized configuration) or at some distance (distributed configuration). A combination of both types of configuration is also possible by connecting additional EUs in a centralized configuration with a distributed EU (see Figure 2-5).

This is clarified on the following pages.

## 2.2 Centralized and Distributed Configuration

You can install a PLC in centralized or distributed configuration according to your application.

IF ...	THEN ...
You wish to position the modules as closely as possible to the CC and can accept longer cable runs to the process,	choose the centralized configuration
You wish to position the I/O modules as closely as possible to the process and can accept longer cable runs to the CC,	choose the distributed configuration

With the centralized configuration, you can install the CC and EUs in the same cabinet or in adjacent cabinets. Data transmission is parallel. Shown in the following figure is a centralized configuration.

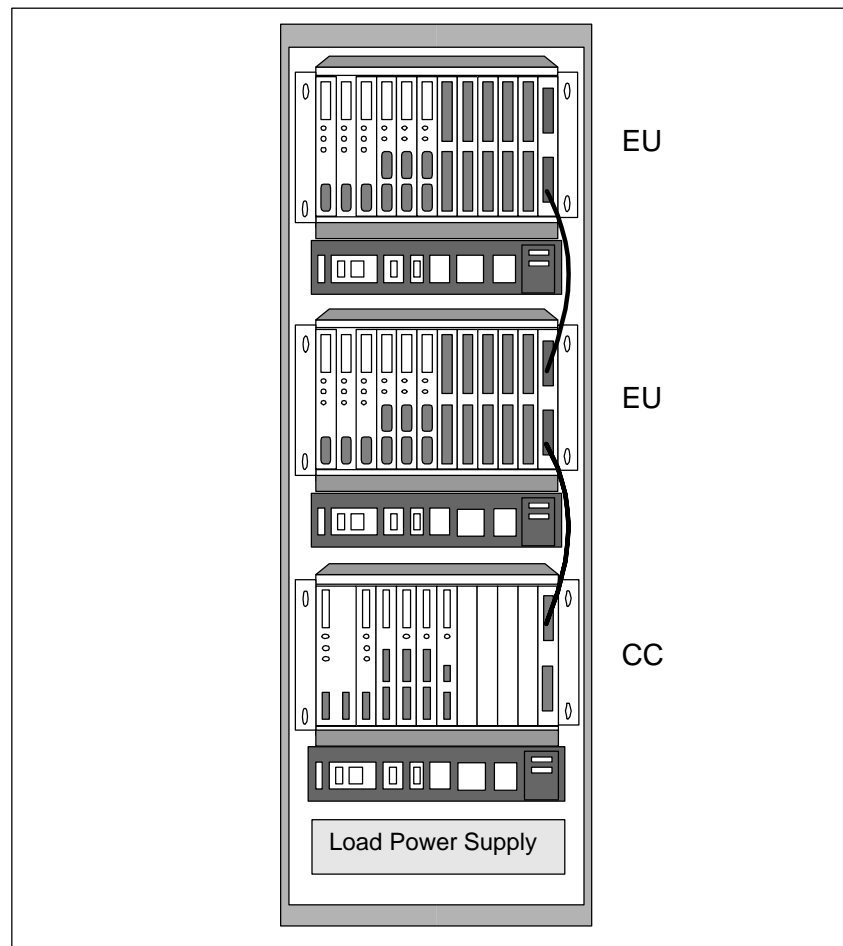


Figure 2-1 Centralized Configuration