Cost saving in new RS485 network structure

（TWIN485 BOX to replace ND6520＆ND6510 BOX）

In Fig. 1 you can find the traditional RS485 network structure. When you need to support more RS485 nodes and cover more RS485 network area. You need BRIDGE box between different RS485 segment. So we need ND6510 BRIDGE box between RS485 segment A, B, and C. And we need ND6520 CONVERTER box for RS232 device to connect in RS485 network.

In Fig. 2 you can find the new RS485 network structure to use TWIN485 CONVERTER and BRIDGE box. We need TWIN485 box between different RS485 network. TWIN485 box can support 2 RS232 device to connect in RS485 network. Because the cost for TWIN485 box is similar as ND6520 or ND6510 box. So we can say you just need half cost in new TWIN485 based RS485 network.

For example, we need one application environment to have one PC RS232 COM port to control 20 RS232 devices in each segment of 3 RS485 segments. In Fig. 3 you can find that we need 2 ND6510 boxes and 61 ND6520 boxes. For maintenance purpose you need to prepare ND6510 and ND6520 box in stock.

In Fig. 4 you can find that we just need 32 TWIN485 boxes. For maintenance purpose you just need to prepare TWIN485 box in stock. So you just need about half cost for initial invest and maintenance requirement. When you need to modify your RS485 network later. You may need to extend your cover distance. Then you need to buy extra ND6510 BRIDGE box in traditional structure. In new TWIN485 structure you don't need to buy any box to meet your requirement. Any TWIN485 box in stock can be used as CONVERTER or BRIDGE.

Note：ND6520 and ND6510 are ADLINK’s product name。

Fig.1 Traditional RS485 Network：ND6520 Converter＆ND6510 Bridge is different Box.

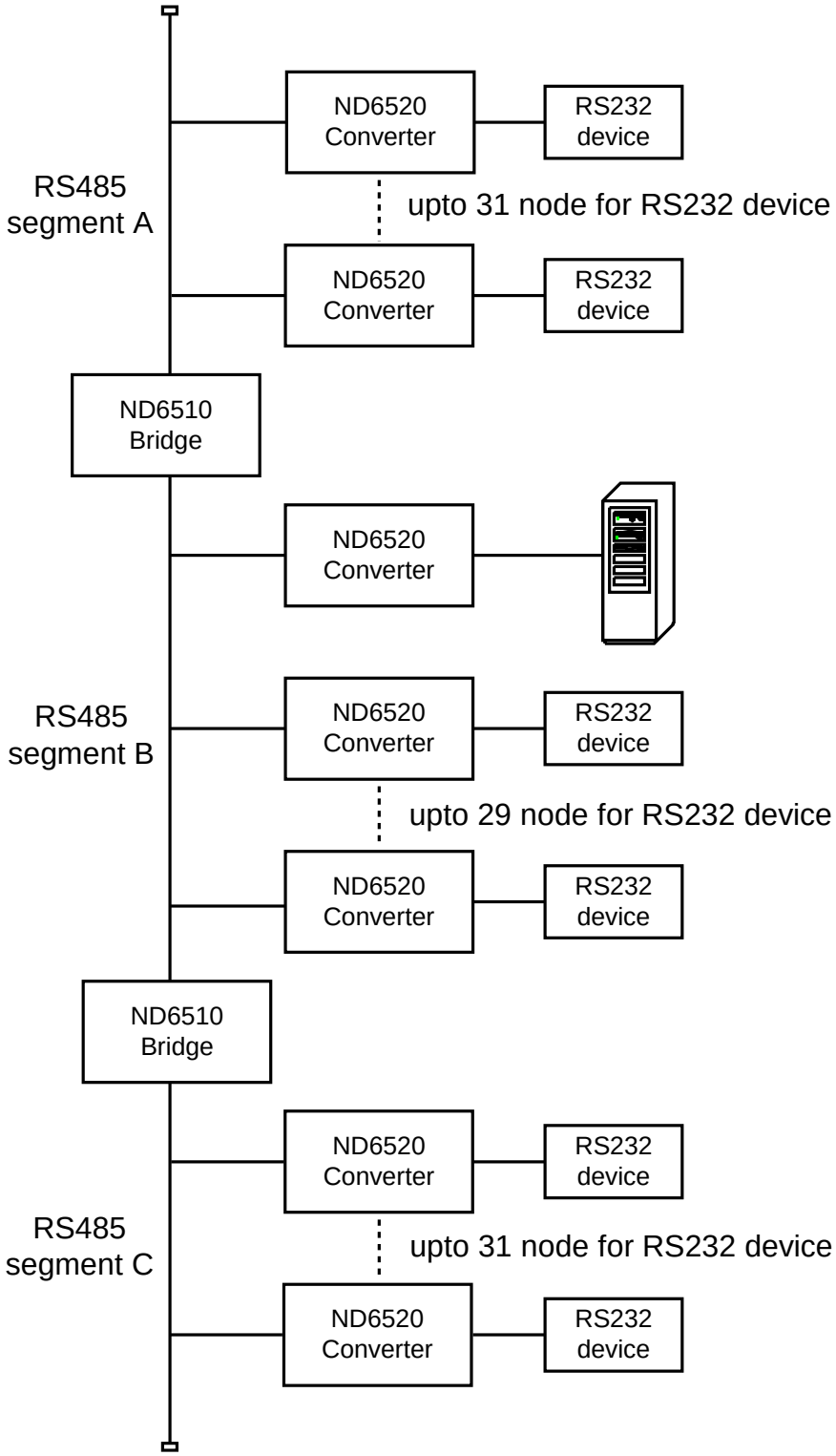


Fig.2 New RS485 Network：TWIN485 Converter＆Bridge in one Box.

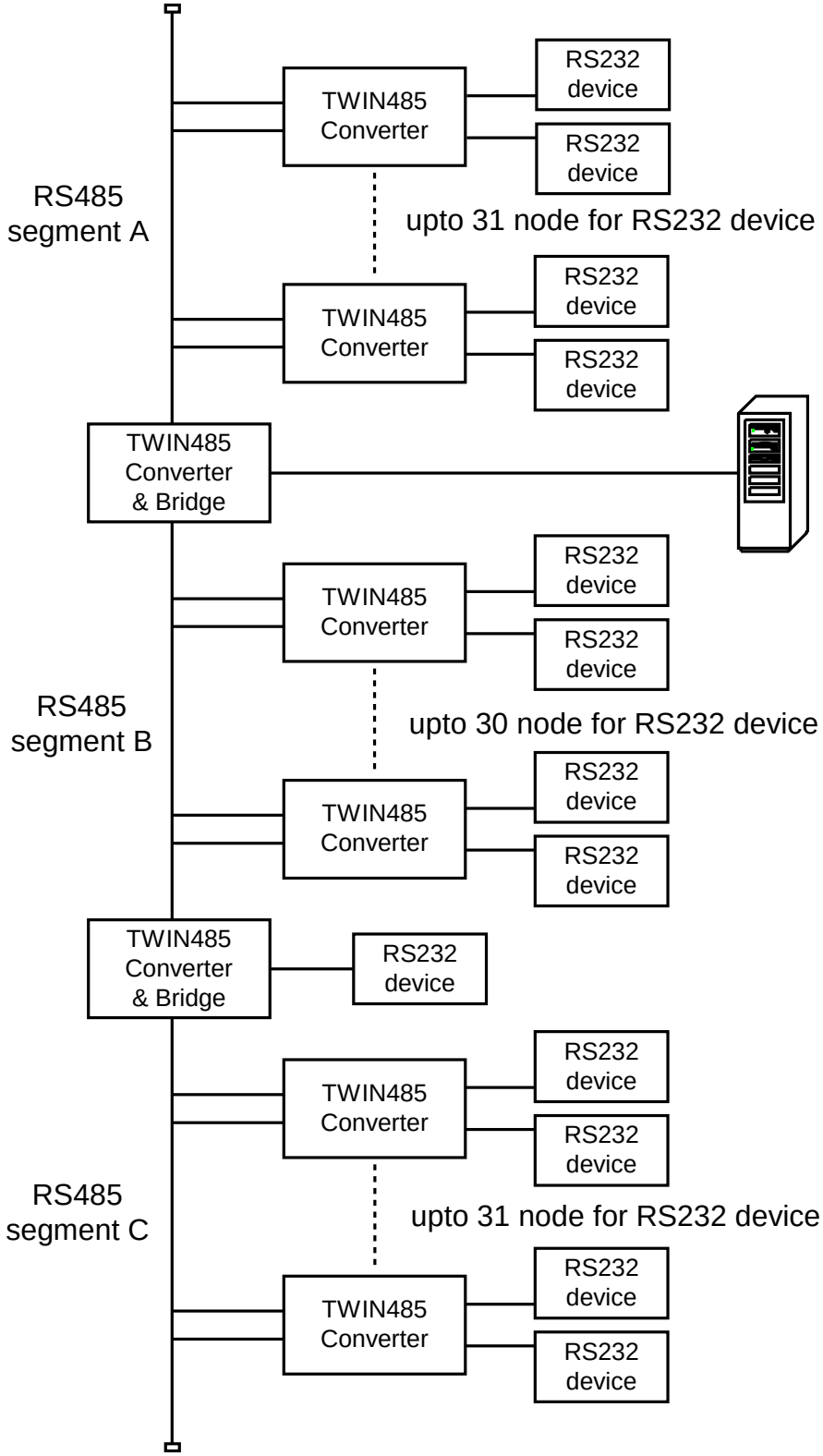
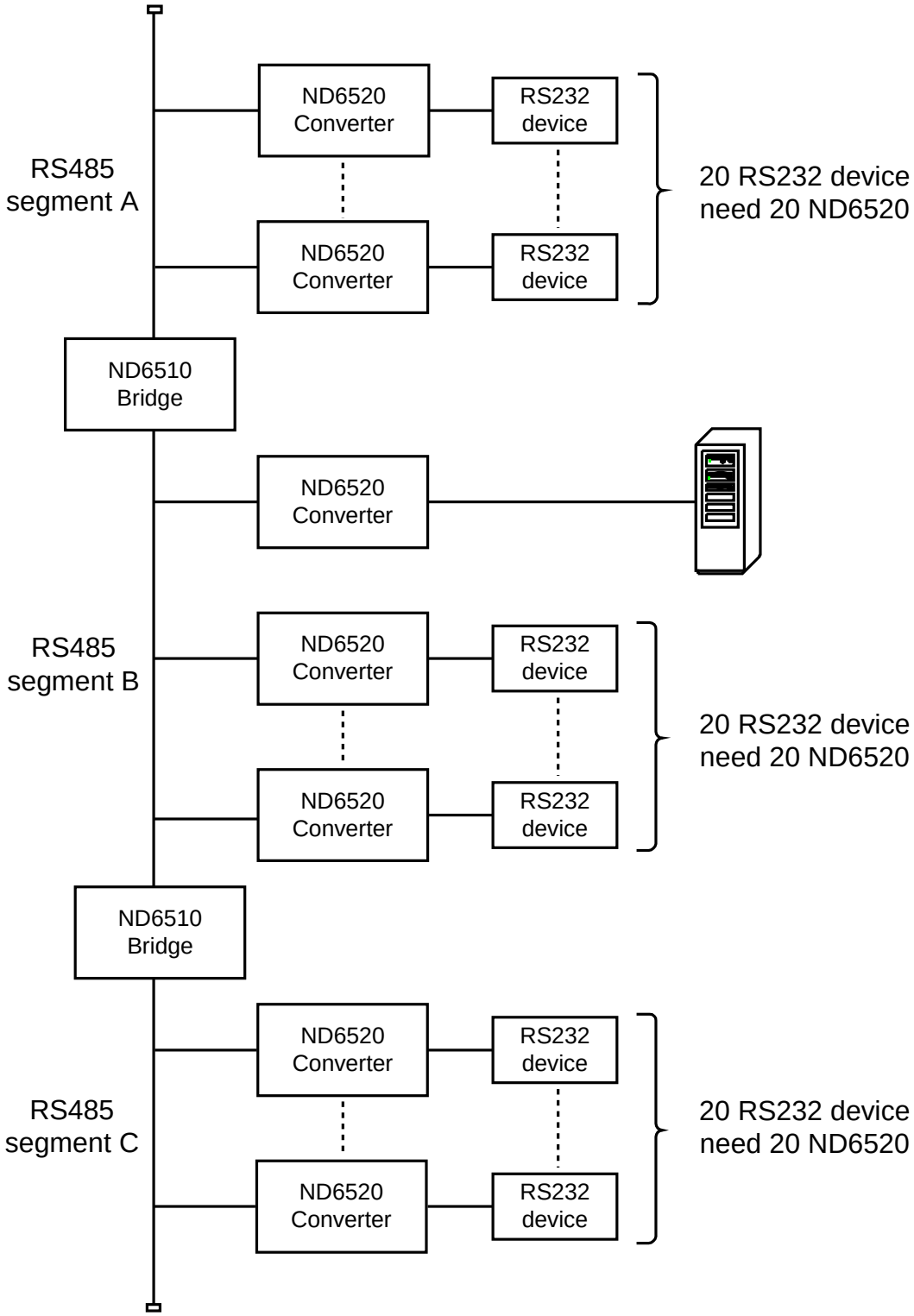
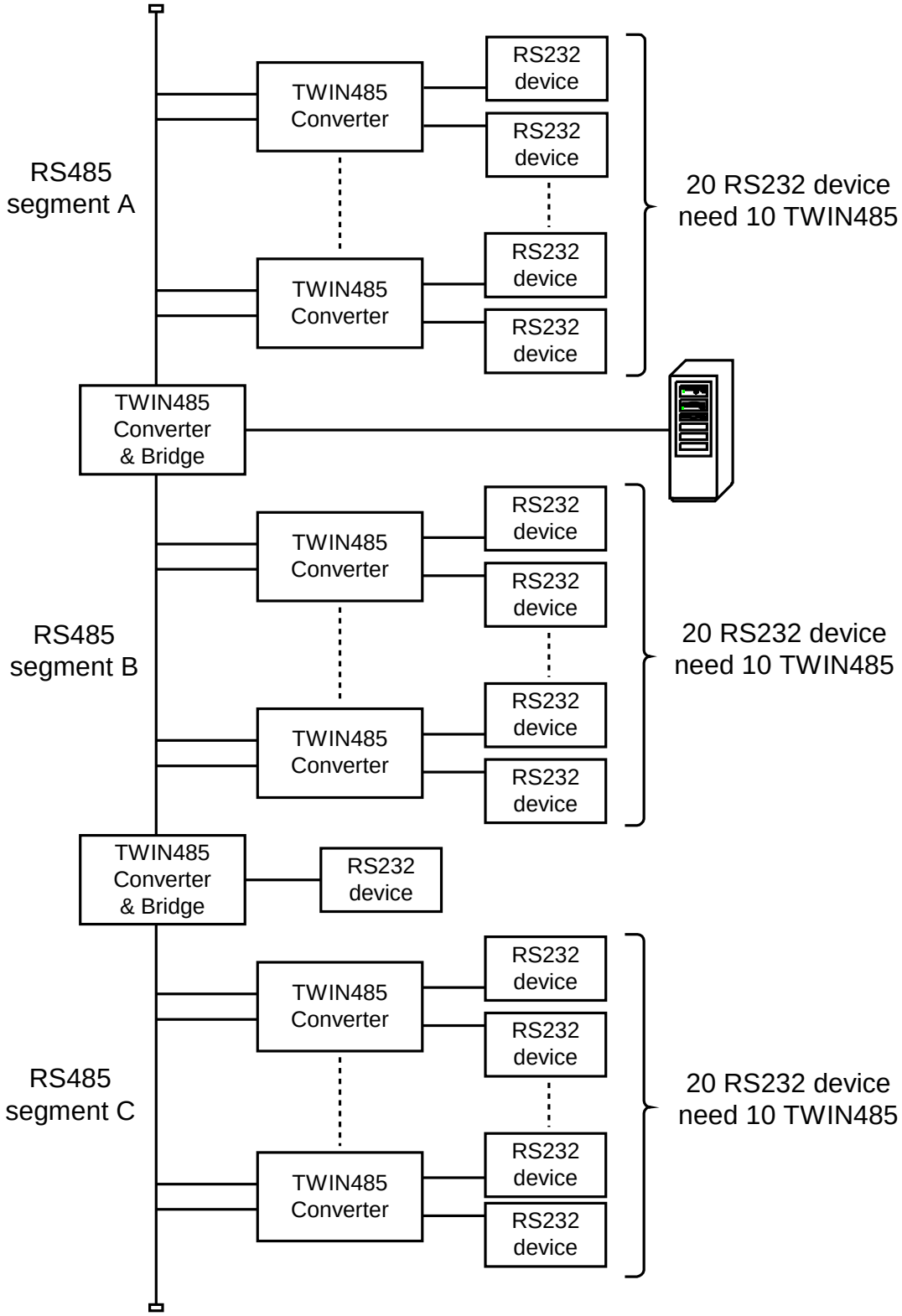


Fig.3 Traditional RS485 Network to handle 20 RS232 device in each segment from one PC RS232 Com Port.



- In above structure you need 2 ND6510 Bridge and 61 ND6520 converter。
- For maintenance purpose you need to prepare ND6510 and ND6520 in stock。

Fig.4 New RS485 Network to handle 20 RS232 device in each segement from one PC RS232 Com Port.



- IN above structure you need 32 TWIN485 Box only.
- For maintenance purpose you just need to prepare TWIN485 in stock.