i4 Automation Ltd
Innovative Solutions for Industry

Remote Samba access

Overview

Individual Samba PLCs at any one location would be connected to a Unistream PLC which would act as a Modbus master reading and writing to the Samba PLCs as required. This PLC would be a Unistream USC-B5-B1 with no IO of it's own, a USC-B10-B1 would be needed if viewing via a web browser is needed. Although this type of PLC does not need a physical HMI the operating system has a virutal HMI facility which allows it to be viewed by a VNC client.

Up to 64 Samba PLCs could be connected to any one Unistream PLC although the practical number would be limited by the traffic on the network, which is currently unknown. The Unistream PLC would then display data from the Samba PLCs on a large screen either via a web browser (USC-B10-B1 version only) or via a VNC connection (USC-B10-B1/USC-B5-B1 versions). The computer required to perform this operation, and the large screen, are not included in this proposal.

Each Samba PLC will need to be fitted with a V100-17-ET2 Ethernet card assuming that the comms option slot has not already had a serial or CANbus card fitted.

The user may connect to the UniCloud platform, either using a PC or a mobile device. Using a mobile only allows connection to the Main UniCloud Dashboard and connected pages, whereas a PC gives full access to all areas of UniCloud plus remote access to the hub PLCs.

There are three basic ways to remotely connect several Unitronics PLCs

1
Use the remote access only facility of the UniCloud platform to connect to the remote hubs which then have the individual Samba PLCs on a Modbus connection. A VNC connection to the hub would allow individual IO points on the Samba PLCs to be monitored and controlled.

Advantages: Lower cost as only the remote access licence (ULC-CRA-12-1-19) is required for the hub. Secure connection maintained along whole of route to hub.

Disadvantages: No data collection. No access by mobile devices.

2
Use the remote access and data collection functions of the UniCloud platform.

Advantages: Data collection and aggregation available. Mobile devices could remotely control some aspects of the hub PLCs via custom dashboards.

Disadvantages: Need to buy a UniCloud licence (typical 40 tags ULC-CB-12-1-9) to match number of tags required from the remote Samba PLCs, one licence is required per hub, so if additional Samba PLCs are added at a future date the licence may need upgrading.

3
Use a third party VPN connection to the remote hubs to allow for connection by Unilogic software and a VNC client.

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The list prices for the various items refered to in this document are:

V100-17-ET2	Samba Ethernet card	£ 86
USC-B5-B1	Hub PLC with VNC connection	£ 313
USC-B10-B1	Hub PLC with VNC and web browser connection.	£ 552
ULC-CRA-12-1-9	UniCloud 1 year remote access only licence.	£ 65
ULC-CB-12-1-9	UniCloud 1 year 40 tag licence.	£ 246

Further information on UniCloud may be found at https://unitronics.cloud

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