

Deployment Guide

IntelliFlex I/O Central Network Controller Remote Access

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Introduction

The IntelliFlex I/O Central Network Controller allows the control system to be configured and monitored. Remote access to these devices will allow for more flexibility in the commissioning schedule for the initial setup of the system and faster response to issues that may arise after it is in use. Using remote access, Draper is able to make changes to the system operation based on feedback from the occupants without the cost associated with a site visit.

Central Network Controller

The Central Network Controller (CNC) is a Linux based embedded device built on the Raspberry Pi platform. It has both Wi-Fi and wired Ethernet capabilities, which allow for flexibility in how it is connected into a network. From the CNC, a Draper technician is able to configure all functionality of the system and view log files to help diagnose issues that may arise during operation.

If the CNC has direct internet access, it can be configured to automatically download and install new security patches for the operating system as they are released. The authentication for the web interface is a simple stored password on the device, it does not implement LDAP or any other standard security protocol. The server software runs on Java Runtime Environment version 1.8.

Network Connections

The CNC is capable of being configured to connect to building networks using either the Wi-Fi or wired Ethernet connections. IP addresses can be obtained using DHCP or set statically as needed.

Remote Access Options

The following options are available for remote access to the CNC.

Internet Connection

The CNC comes standard with DW Service configured for remote access if connected to the internet. The port needed for this connection is TCP port 443. While a constant internet connection is most convenient, this access can be restricted to just the times when remote access is requested by the owner if that is preferred.

VPN Connection

If internet access is not available, the CNC can be accessed through a web interface on TCP port 80. This interface can be used when VPN access is given to Draper to the network that the CNC is connected to.

Virtual Machine

In some cases, owners prefer to set up a virtual machine (VM) in their network and grant Draper remote access to that. From this VM Draper can access the web interface on the CNC to monitor and configure the system.