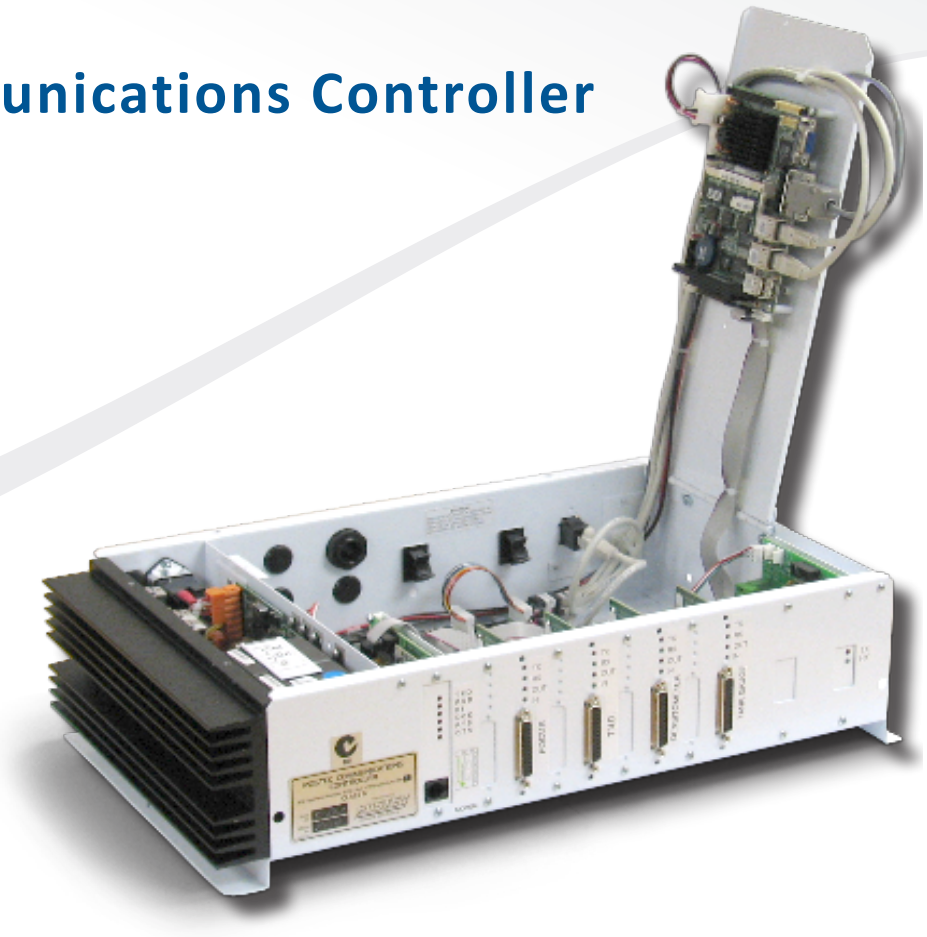
Postec Communications Controller



Overview

Today's fuelling environment is a low margin, volume based business with an increasing emphasis on technology. Oil companies are looking for ways to improve business efficiencies, increase system uptime and improve customer experience. At the heart of any fuelling environment, and core to the technology employed, is the forecourt controller.

The Postec Communications Controller, the PCC, is a highly reliable and scalable embedded device for connecting to a wide variety of devices used in the industry.

The PCC's modular hardware and software architecture facilitates a vast range of optional application add-ons including: Automatic Tank Gauging, Price Sign, Vending machines, Automatic Car Wash, Card Readers in Dispensers, Automatic Vehicle Identification, Attendant Tagging, Alarm Monitoring and Remote Communications.

Detailed information from the applications and devices on site is also accumulated by the PCC, from which a comprehensive range of reports can be extracted allowing you to make more informed decisions about your site.

Is it for you?

Retail site automation

Flexibility to deal with all forecourt devices found in retail service stations, and a requirement for maximum site uptime, makes PCC4 the first choice in forecourt controller for many retailers.

All on site devices such as dispensers and tank gauges, as well as indoor PC POS equipment, communicate via the PCC4. As the single point of connection, the PCC4 is able to store transaction level data for analysis and reporting. Off site systems such as HOS connect to the PCC4 to upload transaction data.

Commercial unmanned fuelling

With no staff on site, the system must control dispensers and interface to a Customer Authorization Terminal such as an OPT. High system uptime is critical to commercial fuelling, in these often remote locations, which is the key to the PCC's success.

Commercial fuelling includes Truck stops, Marinas and "offroad" Homebase sites.

Key features

Proven solid state technology

With over 9,000 units deployed already, the PCC product has been proven over the past 20+ years. Operating 24 hours a day, 365 days a year, the PCC operates all around the world, and has been installed in some of the harshest environmental conditions that exist in the petroleum industry.

Not reliant on mechanical disk drives and failure prone moving parts, the battery backed solid state PCC operates well even in regions where reliable and clean power is difficult to obtain.

Security

Be safety conscious when it comes to your data. With the PCC, the embedded nature of the technology ensures that your devices are not susceptible to PC hackers or viruses.

Modular and scalable

A range of communications control systems can be created by selecting from Postec's extensive library of modules and matching peripheral equipment. The enclosure has been designed with expansion in mind, with a back plane designed to accommodate a vast array of interface boards. The PCC can interface to most devices found on a forecourt right out of the box, even PC based equipment.

Built for supportability

New application software can be downloaded into the PCC's flash memory remotely, or locally on site from a PC or laptop. Extensive diagnostic monitoring, data logging and online access is built in to provide the highest level of support for trouble-shooting site related problems.

Head Office ready

The PCC4 is ready to connect with the Postec 4COM Head Office. When you need consolidated reporting accross your entire network, the PCC4 can send its stored data on deliveries and transactions to 4COM. PCC4 even stores site statistics which can be usedto generate exception reports.

Benefits to your business

Increased system uptime

Every time your system goes down, you lose money. Therefore you need a technology platform that you know will run 24/7. The PCC is highly reliable and designed to run in the harshest of environments, day after day for years – something you can't achieve with a PC based system.

Plan for future growth

With the PCC you can start with what you need, and add more functionality over time as your business needs grow. Rest assured that your investment is protected, while still giving you options for future growth.

Improve business efficiency

Not only will the PCC control the devices on your site, it will log data and provide a range of reports allowing you to make informed decisions about your business. It also automates many previously manual functions on site, freeing up staff to focus on your customer.

Improve customer experience

With the PCC, you can configure a wide range of operating modes. This allows you to provide a great customer experience, while still controlling your site and protecting your stock. For example, support for prepay and postpay; night and day modes.

Reduce your costs

Choose what functionality you need for your site from a wide range of options, but rest assured you will only pay for what you use.

Protect your investment

As a low margin high value good, fuel is important to you. With the PCC, you have a variety of tools at your disposal to protect and track the movement of your fuel. Even when the connected PC system is down, you can have confidence that the PCC is still online and actively monitoring all fuel transactions

How it works

Architecture

The PCC is an embedded controller in a standalone enclosure with its own power supply and battery backup. Universal Pump Interface cards (UPIs) are available to handle the wide variety of physical pump communication interfaces to enable the PCC4 to interface to the various dispenser makes. A variety of peripheral communication cards are available to extend the capability of the PCC4 and allow it to communicate with external devices, such as carwash, ATG and modems.

Automated Tank Gauging (ATG)

A critical component of site automation is managing your fuel inventory. Combining the PCC with an ATG provides the most accurate tracking of fuel deliveries to the site and fuel dispensed to customers. Without an ATG installed the PCC provides *logical tank gauging*, which involves manually entering tank deliveries and tank dips into the PCC. The PCC automatically, reconciles the data available and produces wetstock inventory reports.

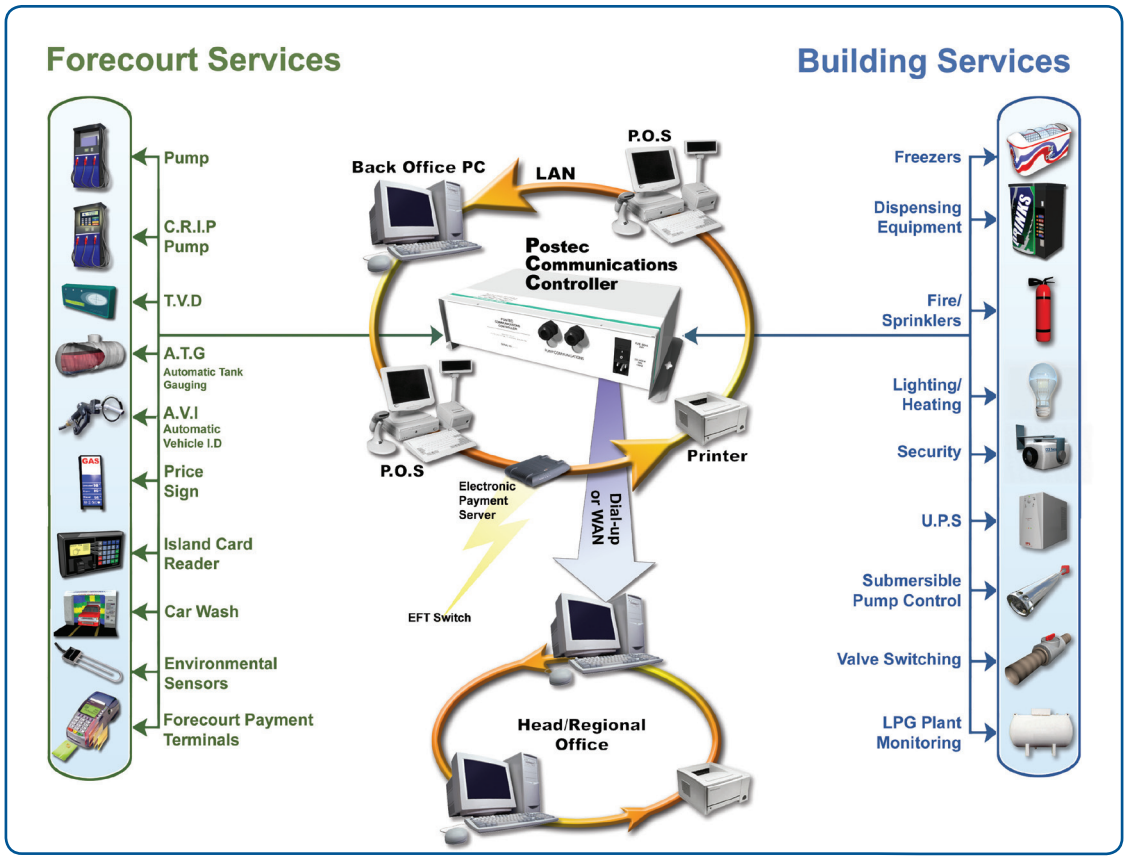
Remote communications

One of the real strengths of the PCC is the ability to reliably communicate offsite. When installed in a remote location, often hours from the nearest support staff, this provides a significant cost saving to your business.

With an onboard watchdog, the PCC can even restart the internal modem in case of failure. Now a remote head office or call centre can be contacted to upload data and send alarms when any errors occur onsite. In many instances, call centre staff are able to remotely dial into the site and correct problems without needing to dispatch anyone to site. A wide range of communication methods are supported, including traditional PSTN (dial modem), GSM and WAN connections.

PCC4 Extended

For a larger and more complex site, there is an increasing demand for sophisticated site functionality, such as full online credit/debit card acceptance on the forecourt. Enter the PCC4 Extended. Unlike many other suppliers, we cater for this increasingly complex technology environment without adding a PC and therefore introducing a new point of failure. PCC4 Extended adds a dedicated Single Board Computer (SBC) into the PCC4 enclosure, running off the same reliable power supply as the PCC4 and also completely solid state, which can run separate industry standard applications. Whether you need an Electronic Payment Server (EPS) application to enable interfaces to Outdoor Payment Terminals, or wish to host your own Loyalty program on site, the PCC4 Extended will more than meet these requirements now and into the future.



Forecourt Centric Architecture

Key to Postec's success is the Forecourt Centric Architecture. Built around the highly reliable PCC4 embedded communications controller, it provides a flexible and modular site architecture for the oil industry.

All forecourt devices, indoor PC equipment and even off-site systems connect to and communicate via the PCC4. As the single point of connection, the PCC4 is able to store transaction level data for analysis and reporting.

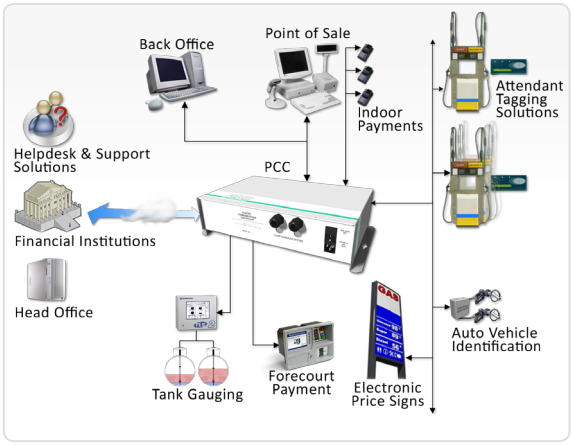
Off site systems connect to the PCC4 to upload transactions, as well as a full audit trail of site activity. The PCC4 is also able to send information and alarms off site to notify of any problems, for example connecting to a central service provider when an error condition occurs.

If you need to use 3rd party software to communicate directly with a device connected to the PCC4, the PCC4 can route the data through transparently.

Since a consistent interface is presented to all offsite systems, no matter the size or type of site you are always presented with the same format of data and functionality. Now any ERP system or Head Office can provide you with complete site data for your smallest entry level site, right on up to the largest premium site. Whether you're communicating with a retail or commercial site, you will have the same reports, even consolidated across the entire network.

Without a PC involved, uptime for your site is improved drastically. And in this day of PC hackers and viruses, a Forecourt Centric Architecture insures site security.

Forecourt Centric Architecture



Benefits of a solid state site server

- Highly robust with increased uptime
- No dependency on mechanical, error prone moving parts
- Modular and scalable, easily add new forecourt functionality
- All communications via the PCC
- Consistency of data format across networks of all types
- Transparent routing of message to 3rd party peripherals

OPTIONS

Attendant Tagging

Using a very secure contactless card reader and integrated display, the TVD is designed to mount on the side of a dispenser and communicate back to the PCC. If required, the pump will only be authorised to dispense fuel when an appropriate contactless device is presented to the reader. And with the integrated display

iWire

iWire provides a wireless connection for connecting your PCC and other forecourt devices such as dispensers and the TVD. No conduit available to lay cable? Don't want to cut up your forecourt? No problem. Install an iWire Master and iWire Slave at each end, and now the forecourt device can communicate wirelessly back to the controller.

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