



Secured Cellular Solution for Vending Machine Networking

>>> Background

-Currently, as vending machine becomes more and more popular, the problems come out for networking:

- How to install, manage and maintain thousands of vending machines?
- How to know if there're still enough goods in a vending machine?
- How to gather the payment information from all the vending machines which locate everywhere?
- How to ensure security of every trade?

-And the latest but the most important is how can we solve all these problems in a cost-effective way?

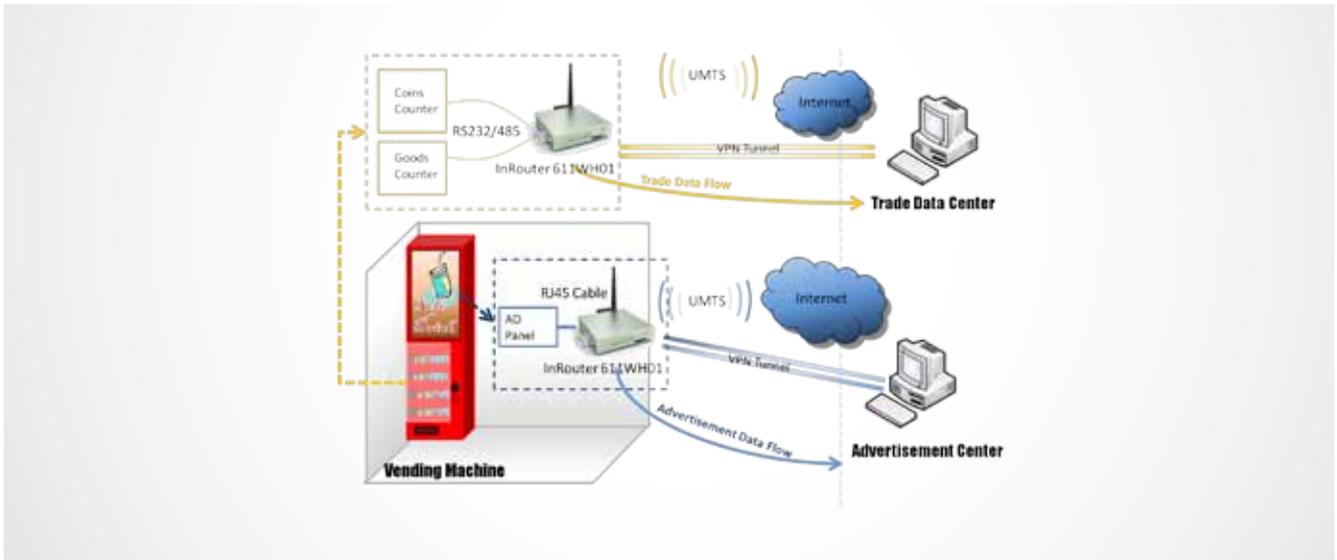
-Based on years of networking experience for financial self-service terminals, InHand Networks proposes cellular solution for vending machine networking.

InHand Products and Solutions

>>> Products



InRouter 601 series smart gateway



Network topology

>>> Description of solution

-At the remote site, there were a coins counter and a goods counter in each vending machine, and all these devices needed to transmit data to the trade data center of the customer. InHand Networks' InRouter 611WH01 (IR611WH01) connected with these devices by RS232 serial. After received the serial data from vending machine, IR611WH01 would trigger dialup to the internet by UMTS mobile network, build a secured VPN tunnel and send the packaged data to trade center through this tunnel. Then the center would know whether there were enough goods in the vending machine and how much money it received. Normally these reports would be sent every day, but in case that the vending machine was without goods, or it was damaged, the report would also be sent to the trade data center so that the goods could be updated in time.

-At some of the sites, a vending machine was installed with an advertisement (AD) panel. For security reasons, there should be two IR611WH01 smart gateways and one of which was used for data transmission of cash and goods, while the other was used for AD updating. After created the VPN tunnel between the AD panel and the AD center, the panel could download new ADs every Friday so that people can watch them on weekends. If the advertiser wanted to add subtitles during AD show time, he or she could type in the contents and send to every AD terminals by UMTS network.

>>>Features of Product and Solution

InRouter 6x1 series helps customer to centrally manage and control masses of vending machines. Based on InHand excellent solutions and perfect products quality, retailers save much labor costs and improve managing efficiency greatly:

- Wireless service makes it easy to deploy network, and when retailers want to remove vending machines to another place, there is no need to change network
- The only cost of communication is based on flow count and there's no need to spend money on renting an ADSL cable line, which is used only for several times per week.
- Reliable network and link auto-recovery can avoid data loss
- Support several VPNs (IPSec/PPTP/L2TP/GRE) to ensure security
- Compact design and small size make it easy to install InRouter 600 in the vending machine