



3G Embedded Multi-WAN Router Case Study

The background of the lower half of the page is a vibrant landscape. It features a bright sun on the left side, creating a lens flare effect across a blue sky filled with white, fluffy clouds. Below the sky is a lush green field of grass with several white daisies scattered throughout.

farmfoods

THE FROZEN FOOD SPECIALISTS

Farmfoods retail chain installs 3G failover system to guarantee EPOS uptime

Major food retailer rolls out Billion 3G/ADSL failover routers to its 300+ outlets

Frozen food specialist, Farmfoods, has over 300 retail outlets across Britain. As with all retailers, Farmfoods aims to ensure customer card payments made through the EPOS system are authorized as quickly as possible; this enhances the customer experience, maintains the reputation of the business and increases staff productivity.

One major threat to ensuring a seamless payment process is a break in the telecommunication line between the store and the bank. To address this threat, Dacoll Ltd, IT consultant to Farmfoods, recommended a specific Billion 3G-failover product that would guarantee a consistent and secure working EPOS system even if the fixed line communications went down. The solution also needed to be able to cope with dynamic IPs, on both ADSL and 3G networks, across different geographic locations with varying signal strength.



The BiPAC 7800GZ was chosen to be installed as a trial run for 30 retail outlets over a six month period - during which time the units proved themselves on several occasions when ADSL failed. After a successful installation and review of the trial, Dacoll has rolled out this solution to all of Farmfoods' 300+ stores across the UK. Each outlet's EPOS system can now be assured of: data security; automatic failover to 3G and back again; instant communication to Farmfoods HQ of failover activation via email alerts.



The 3G failover system also ensures each outlet can still communicate via email if the fixed line infrastructure fails. Mark Haggerty, IT Manager at Farmfoods explains: "The BiPAC 7800GZ provides Farmfoods with a simple 3G backup to DSL communications. It is vital our stores maintain IP connections for processing payments, but it is also important to be able to send orders and keep in touch by email; if a problem arises, we need a router that reacts without user intervention – the Billion units fulfil this requirement, leaving our staff to concentrate on delivering the best service to our customers."

Any solution needed to be flexible and fully-featured to deal with different networks and geography. Given the varying outlet locations across the UK, including rural and city sites, signal strength was a potential issue. However with the external 3G antennas of the BiPAC 7800GZ (detachable for fitting antenna extensions if required in future) the unit coped admirably. Unit installation is simple and was carried out by Farmfoods field staff. The Billion support process was straightforward, given a negligible failure rate, and any replacements were promptly supplied.

In the past, Farmfoods kept a small stock of 3G routers at HQ that could be deployed for prolonged outage; however these took time to be delivered to the affected store, required manual setup and were also comparatively expensive. The new system means each individual outlet is equipped and ready to handle any ADSL failure 24/7 cost-effectively, with no user intervention.

Farmfoods uses three different mobile networks, with the network provider with the best coverage selected for each location. All outlets use Dynamic IP on the SIM with ADSL as the fixed line infrastructure.

The failover system provides peace of mind both to outlet staff and HQ. Edward Kung, MD at Billion UK, explains: "We're delighted to have worked with Farmfoods and Dacoll on this extensive project. The BiPAC 7800GZ is perfect for retail chains to ensure card payment systems' uptime whether using ADSL or 3G – staff can rely on them 24/7. It is very flexible, able to cope with different mobile networks and fixed infrastructure, challenging geography and fixed or dynamic IP"

Key Features of BiPAC 7800GZ

• Always-On Connection

The BiPAC 7800GZ features triple-WAN interface allowing users to connect to the Internet via either wired connectivity of ADSL, or broadband connectivity, such as cable or BT Infinity (FTTC) by configuring one of the Ethernet ports as a secondary WAN, or via 3G connections via inserting a 3G / HSPA SIM card into its built-in SIM slot. The auto fail-over feature ensures maximum connectivity and minimum interruption by quickly and smoothly connecting to a 3G network in the event that the ADSL line fails. The BiPAC 7800GZ will then automatically reconnect to the ADSL connection when it's restored, minimizing connection costs. These features are ideal for retail and office situations where constant connection is paramount.

• Feature-Rich

The BiPAC 7800GZ is tried and tested in the field - proven to be a robust, flexible and easily user-configured unit. It uses high tech components, including the top of the range Broadcom ADSL chip and Sierra Wireless 3G embedded module. Not only can it send email alerts if a failover occurs, but also alerts of 3G data usage figures. In addition, the embedded 3G module provides a more robust design, instead of external dongle attachments which have been known to become knocked, broken or missing.

• High Security

The BiPAC 7800GZ supports embedded IPSec VPN (Virtual Private Network) protocols, allowing users to establish encrypted private connections of up to 4 simultaneous tunnels over the Internet. With a built-in DES/3DES VPN accelerator, the router enhances IPSec VPN performance significantly - so users can access a card payment system or corporate intranet and transmit sensitive data between branch offices and remote sites anytime, thus enhancing productivity.

About Farm Foods

Farmfoods are frozen food specialists. Our roots are embedded in the distribution and handling of frozen food. We firmly believe in the benefits of frozen food and take great care to bring it to you in the best possible condition. In short, we take frozen food very seriously.

Farmfoods originated in Aberdeen in 1955 and has around 300 shops throughout Great Britain. Today you'll find your local Farmfoods selling a wide range of frozen food of the best quality at prices you'll find nowhere else!

For more information, please visit us at www.farmfoods.co.uk.

About Dacoll

Dacoll Ltd is an award-winning provider of strategic technology and business solutions to the private and public sector. Our services are organised in four areas: Information technology Solutions; Strategic Communications and Storage solutions; Engineering Technical services and Program Management, Operations, and Support. Our clients praise our work, customer service and innovative solutions.

As a Service Delivery Business with over 20 certifications, Dacoll is committed to excellence and creating innovative and flexible solutions for our clients.

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About Billion Electric Co., Ltd.

Billion Electric Co. Ltd. (Taiex: 3027, trading as BILLION) was founded in Taiwan in 1973 and has grown to be one of the leading providers of network equipment and power supply products in the Asia Pacific. With the establishment of the Communication Division, Billion has reinforced its commitment to developing next-generation network equipment and Internet access devices to meet the needs of home users, telecommuters, SOHOs and SMBs around the globe. Billion has received a number of awards for its networking products and has acquired a considerable customer base across Europe, America, the Middle East, Africa and the Asia Pacific. Since March 2009, Billion's Power Division has invested in R&D and manufacturing of Smart Grid business applications in addition to power supply products. This division has been officially renamed the "Power and Energy Management Division" (PEM Division) to illustrate Billion's long-term focus on "green" product development. With the development of Smart Grid to reduce carbon emissions resulting in more energy-saving products, Billion aims to contribute to environmental protection for a greener planet. For more information, please visit us at www.billion.uk.com.