

BING LEE

Everything's Negotiable

Bing Lee

Founded in Fairfield, NSW, in 1957 by Bing Lee and his son Ken as a fruit and vegetable shop, Bing Lee has grown from doing electrical repairs on the side to becoming one of the largest family-owned electrical retailers in Australia, comprising 39 retail outlets from Armidale to Belconnen.

Bing Lee's central distribution centre services all 39 stores, with next day direct home deliveries to the Sydney Metro area, as well as coordinating stock transfers to all stores – leading to a number of logistical and technical challenges. Initially operating manual paper run sheets, it was clear a more efficient system was needed to improve stock accuracy and track and trace all products and orders for home deliveries direct to customers. With stock being lost or misplaced, it was also apparent stock transfers needed improving, from warehouse to store, and store to store, from the time of an order to the time of signed proof of delivery on receipt by the customer.

In 2007 Bing Lee required a new warehouse management system for their newly built retail superstore and distribution centre. Gamma Solutions began discussions with Bing Lee to provide a wireless bar code system comprising of Intermec CK3 hand-held terminals and a Cisco wireless infrastructure. During this time, Paperless Warehousing (a software partner of Gamma Solutions) developed and implemented an innovative warehouse management system for the distribution centre which went live in 2008.

Based on the successful warehouse management system and Gamma's familiarity with Bing Lee's terminology and operating practices, it was a natural progression for Gamma Solutions to develop a technology solution to address their 'track and trace' delivery needs. In short, Bing Lee required a direct from

DC to consumer solution that could be used for its online and retail operations.

"Our first step was introducing Paperless Warehousing to a partner of ours, Interdev, who specialise in mobile software solutions" said Glenn Batten Northern Region Sales Manager of Gamma Solutions

"The system deployed includes a proprietary host, Intermec's CN50 devices and Interdev Xmotion software, with Paperless Warehousing's warehouse management system integrating with the new solution." said Michael Atallah Managing Director of Gamma Solutions.

This modern mobile delivery system replaces the manual paper run sheets that were used by warehouse staff, contract delivery and transfer drivers, with Intermec CN50 handheld computers. These communicate with existing RF access points to allow data to be sent via WiFi to devices within the warehouse utilising the 3G network from the road – providing accurate information dynamically.

"Mobile computing using the Intermec CN50 allows us to dramatically reduce stock losses by accurately tracking and tracing stock movements within the supply chain, as well as digitising the proof of delivery process – ensuring greater accuracy," said Bing Lee's Warehouse Manager, Ken Poole

Industry: Retail

Applications: Distribution Tracking, Mobile Delivery System, Warehouse Management

Products: Intermec CK3, Intermec CN50, Interdev Xmotion software, Paperless Warehousing's Warehouse Management Software



Bing Lee staff using the Intermec CN50

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Bing Lee's stock delivery system works by drivers scanning all items for their run onto their truck. The application then warns the driver if they have not scanned all items or if they scan items which are not meant for their load, increasing the accuracy in the loading process. If a driver is unable to load an item (due to damage or limited availability etc.), they select an "unable to load" reason from a dropdown list. A built in safeguard requires a warehouse supervisor to enter their unique authorisation PIN to confirm.

After loading, drivers on home delivery runs will enter a delivery window (two hour blocks selected from a dropdown list) against each delivery location. Once loading is complete, the driver then selects "depart warehouse" and all loading details are sent back to the DC's system.

Drivers arrive at each delivery location, scan off items, collect signature proof of deliveries and depart. Again, the DC's system is dynamically updated as this occurs.

Drivers can also record that they were unable to deliver items. On selecting "end of day" the warehouse management system is informed of the "unable to deliver" items and they are then rescheduled for delivery another day.

When loading store transfer items, the driver can select that they are going to deliver the item to its destination store (because they are intending to visit that store on their current run) or they can select that they are in fact going to return it to the warehouse for delivery out to the correct store on a run the following day.

On return to the warehouse, the driver must unload all items on their truck (the application knows what is on-board due to non-deliveries and pickups entered into the system). If an item is not there for unloading, the driver must select an "unable to unload" reason and have a warehouse supervisor enter their authorisation PIN. When scanning items to unload the application communicates directly with the back end system (which also knows exactly what is

on board the truck due to the dynamic updating throughout the day) and the driver is told which bay to unload the item into – based on the runs created in the system for the next day.

The greater visibility of drivers from the DC also means that Bing Lee staff can provide far greater customer service. Real time information on problems encountered by drivers is available, as well as estimated times of arrival through the dynamically updated vehicle movements. Staff members have found that they are more readily equipped to answer questions around failed or unsuccessful deliveries as the data logging is more comprehensive and up to date.

“The system has provided large benefits by reducing the number of stock losses

“While we invested in a mobile delivery system primarily to enable greater visibility of stock movements, much of the ROI comes in the form of customer service benefits, which are difficult to put a dollar figure on. The system has provided large benefits by reducing the number of stock losses we incur, as well as reducing labour costs associated with looking for proof of deliveries on manual run sheets.” said Mr Poole.

In the future, Bing Lee plans to expand the level of return they get from the solution, and has already received an increased profile from its state of the art technology implementation, winning the Supply Chain and Logistics Association of Australia's (SCLAA) NSW Supply Chain Management Award.

“The data reporting is still being developed,” said Mr Poole, “There are many areas that remain untapped and we're expecting the full benefits of the system to be realised as we begin to investigate how we can use all the information that is being gathered.”

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