



Case Study :



Beonic Pty Ltd

About Highpoint Shopping Centre

Highpoint Shopping Centre is one of Australia's leading super regional shopping centres, located eight kilometers northwest of the Melbourne CBD in Maribyrnong.

Highpoint Shopping Centre is managed by The GPT Group on behalf of its three owners; the GPT Shopping Centre Fund; Highpoint Property Group and the GPT Group.

It is ranked as Australia's fourth highest performing retail destination in terms of total Moving Annual Turnover (MAT) in Shopping Centre News "Big Guns" 2009.

Trading since 1975, Highpoint retains an extensive shopper base in the diverse western suburbs of Melbourne and attracts customers from beyond the trade area including as far away as Ballarat.

Highpoint has a strong fashion focus and is a popular leisure and entertainment precinct anchored by a Hoyts cinema. Over 70% of customers indicate that Highpoint is their main centre for fashion shopping. For 34% of Highpoint's customers, fashion is the prime motivation of visitation.

Highpoint is now home to some of Australia's best known retail brands, including Saba, Country Road, Orotan, Mimco, Review, Ojay, Sportscraft, Kikki K, Oxford, Politix and T2. In addition, Highpoint is also home to international brands including G-star, Puma, Lonsdale, French Connection and L'Occitane.



The challenge that led to an investment in Beonic solutions

A major role of the centre's marketing department is to develop strategies that will differentiate the asset to deliver sustainable results to all key stakeholders with a customer focus that ensures long-term business growth and performance.

But how does the marketing department know that it is being successful? How does centre management know that 41% of fashion shoppers make a purchase when at Highpoint?

Key performance benchmarks for the Centre are customer traffic, MAT (Moving Annual Turnover) and sales per square metre (PSM). But there are many intermediate factors that need to be understood if the marketing departments are to succeed in driving up sales.

Visitation is an immediate gauge on how tactical and brand activities are performing and so counting the number of people who actually come into the centre is a key performance indicator of how well marketing programs are working. That's why traffic counters have been deployed at each of the 16 entrances to Highpoint Shopping Centre since the 1990s.

Mark Lawrence, Regional Operations Manager for The GPT Group was responsible for the first upgrade to the traffic counting systems in the year 2000. Before that time, the traffic counters were manually read each day and the figures were transposed onto a data sheet, and then transposed again into a spreadsheet for Centre Management analysis.

Mark recalls that the first major upgrade to the traffic counting regime was to automate the data collection process without changing the people counting mechanisms.

"We researched the market to find organisations that were willing to work with us to improve the way we were dealing with traffic data, and in doing so, came across Beonic. They were very willing to supply their software solution and tailor it to report the figures in the way we needed," he said.

Deciding upon the solution

In the early 2000s, automatic traffic counting was a relatively new field, and Beonic were spending a lot of time and money researching the area to improve the quality and ease of data capture.

At that time, Highpoint had single directional beams in place at each entrance.

To calculate the traffic count, the meter readings at the end of each day were halved to cater for entries and exits. Allowances also had to be made to account for known inaccuracies in beam counting – when two people enter or exit side by side, a beam system is likely to only increment the count by a single unit.

Mark Lawrence said centre management at Highpoint recognised the built-in inaccuracies with beams, and so every six months ran a manual count as a benchmark comparison to the meter readings. This way they were able to track the variations and make the necessary adjustments to publish counts that were as good as possible given the technology in place.



The Beonic solution

As part of the 2000 redevelopment, it wasn't the beam counting technology itself that was upgraded. The first technology upgrade aimed to eliminate the manual processes involved in giving centre management the information it needed.

"We implemented Beonic's Traffic Pro™ system to automatically consolidate the data captured by the counters, and began to utilise the power of the software to present the data in a form that was easy to read and useful for management's decision making purposes," Lawrence said.

Traffic Pro™ saved time on a daily basis because staff no longer had to physically check each of the 16 meters to read and transpose the figures. This upgrade also eliminated a source of error.

The software to produce specific traffic reports was a huge improvement over the existing Highpoint spreadsheets because Traffic Pro™ incorporated an integrated database and the ability to graph comparisons to benchmarks.



Highpoint upgrades

Improved technologies became available and in 2004 and Highpoint had the choice of installing new directional beams or video based counters.

Video technology was chosen to replace the beams because it promised a big advancement in accuracy. Video cameras are mounted overhead to the count zone and therefore have an uninterrupted view of each individual even if they are part of a group.

Beonic was confident that Highpoint could take advantage of the new technology to improve robustness and accuracy of the traffic counting process.

Peter Cohen, Beonic CEO, says that Beonic's business philosophy is to provide value to customers, and this commitment brings along accountability to deliver a solution to the client's stated business problem. *"We're not just order takers to deliver on the systems components a business selects, but to understand the client's business and to propose solutions to meet those business needs".*

"In the case of Highpoint Shopping Centre in 2004, we made a commitment to deliver video technology counting with a minimum of 95% accuracy. Our commitment actually was to deliver accuracy in the numbers," Peter said.

"Truthfully, we were faced with an environment where video technology just couldn't deliver what we had promised," he explained.

A number of the entrances were affected by direct sunlight and after expending a lot of research trialling various cameras and software upgrades, it became apparent that video technology just wasn't going to be accurate enough.

Areas bathed in high levels of direct sunlight during particular times of the year make shadows appear on the shopping mall's floor. Unfortunately, the cameras are fooled into thinking that the shadows are people walking through the count zone.

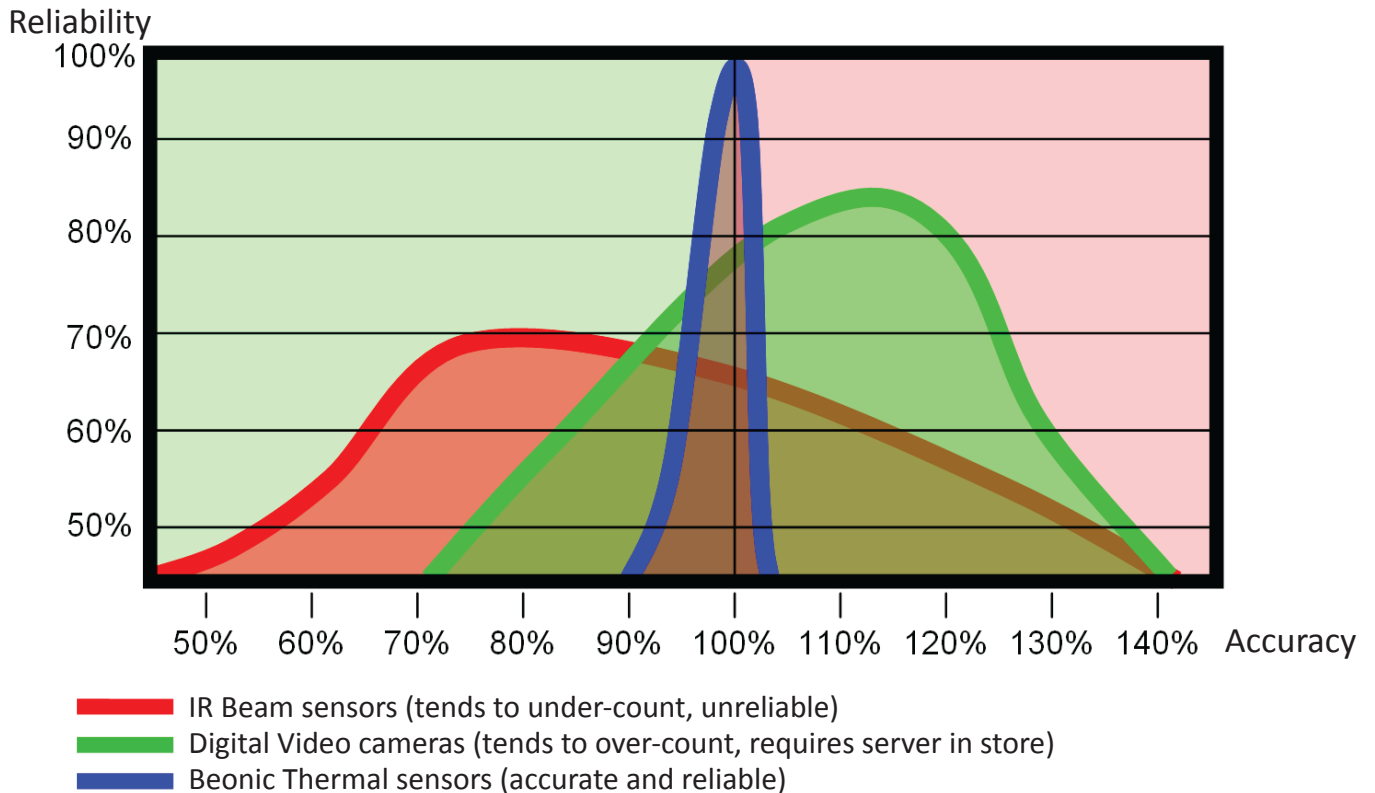
The implementation also showed that as the volume of people passing through the zone increased, the video-based counts became less and less accurate. This is caused by the high processing workloads placed on the computer chips by the video cameras. It's not a problem when you have small numbers of people going through the count zone at once, but volume remains a problem for video technology today.

Direct sunlight creates intense reflections that interfere with the amount of light entering the cameras and drowns out the ability to count people passing through the field of view.

Mark Lawrence from Highpoint said: *"To Beonic's credit, they never backed away from their commitment to solve these difficult issues, and at their own cost replaced our video-based systems with overhead Infra-Red thermal cameras."*

Thermal sensors recognise the heat differentials between people and their surrounds, and thereby eliminate the sunlight issues completely. Except in very unusual environments, thermal sensors are always considerably more accurate than video cameras for traffic counting applications.

Differences in accuracy for various counting technologies



The learnings from the experience

As discovered at Highpoint Shopping Centre, direct sunlight falling within the count zones at certain times of the year interferes with count accuracy.

In addition, it can be difficult for video cameras to differentiate between a person's head and a shopping cart or other non-human items, also thereby polluting the counts.

Beonic's research has proven that thermal cameras meet the required level of accuracy when video and beams do not. The Highpoint Shopping Centre case study proves this beyond doubt.

When asked how accurate the Highpoint counters are, Mark Lawrence says: *"Our audit report shows that over the 16 entrances, accuracy exceeds 95% as requested. We now have an accurate and very easy to use system that provides the indisputable facts about visitation to the centre."*