FOR T.G.I. FRIDAY'S UK, IT'S T.G.I. ARUBA NETWORKS

In modern retail, customer convenience and security are key, and UK restaurant chain T.G.I. Friday's relies on its Aruba wireless networks for both. That's because the vast majority of its sales are by credit or debit card, and all card payments are now processed wirelessly – and safely – at the customer's table.

The company chose Aruba over three rival bids, in large part for its relative simplicity. In particular, Aruba's Instant technology meant there was no need for a separate controller in each store; instead, the access points elect one of their number as a virtual local controller.

This also meant it was half the cost of heavyweight controller-based alternatives, says Jeremy Dunderdale, T.G.I. Friday's Head of IT. "Our business is providing great food and a great guest experience," he adds. "It's not about store managers being IT-savvy. We want as little equipment in-store as possible, that way we save on maintenance, space, cost, power and so on."

Equally important though, he says, was Aruba's strategy of working with experienced resellers who know how to build wireless systems into a wider IT infrastructure. A key win from choosing Aruba has therefore been the close relationship that the restaurant group has subsequently forged with its Aruba reseller, Astro Communications.

T.G.I. Friday's UK became independently-managed under Carlson in 2007. As a newly-lean and young organisation, T.G.I. Friday's UK now relies on Astro and Aruba to ensure that wireless systems can be rolled out to new sites rapidly and with a minimum of fuss – the company is growing steadily and expects to have 60 stores by the end of 2013, up from 45 in 2007.

"Astro is very much our business partner" Dunderdale says. "We pretty much have a package now. With a new store, Astro gets a copy of the plans and recommends a number of Aruba access points based on those.

"We have a minimum of three AP-105s in each store, with as many as seven or eight on some sites – we have about 300 access points overall. Then in our data centre, an Aruba Airwave server communicates with the individual stores for management and centralised reporting. It means we can install a bare device; Airwave then sends the configuration down and can reconfigure it subsequently."

He says that the switch to operational independence and the need to catch up on a period of under-investment in IT was not the biggest concern he faced in 2007. That was actually the need to comply with PCI, the Payment Card Industry's data security standard, which the company's previous wireless network could not do.

"When you look at the volume of card business we do, it has increased by over £3m a month over the last 12 to 18 months." he says.

As well as providing card transaction security over the wireless connection, Aruba provides necessary security for each store's entire wireless network. That is because Aruba's RAPIDS technology allows the store's access points to work as a Wi-Fi intrusion detection system (IDS), watching for potential wireless hackers.

"With Aruba RAPIDS I can dial into Airwave and list the neighbouring networks, including potential rogues, get alerts on attempts to hack in, see which local configurations are out-of-sync and so on – all that is important for PCI" Dunderdale explains.

The Aruba system brings other benefits too, such as the ability to support five securely separated wireless networks – SSIDs – on the same infrastructure. One of these is already deployed alongside the payment network as a business network for managers and visitors from HQ to use with laptops. The two others are reserved for future use, one for wireless order-taking (EPOS, or electronic point-of-sale) and the other for customer Wi-Fi.

Customer Wi-Fi is a work in progress, and Dunderdale says the Aruba equipment should make it simpler. "We did pilot guest Wi-Fi in a couple of stores a few years back, but that was with a single access point supplied by the wireless partner which meant additional power, equipment,

interference and so on" he adds. Busy locations such as London's Leicester Square and Westfield Stratford can already have over 100 foreign access points and networks within range, so the last thing he needs is more access points on site.

"Now we are looking at working with a wireless supplier to provide free guest Wi-Fi over the Aruba infrastructure. We could go down the Aruba ClearPass route, but then we'd have to manage it and the legal requirements of maintaining site access history etc. - we would prefer a partner to do that, they would then have their own ADSL and router to avoid sending guest traffic over our backbone network."

He continues: "We aren't generally using Wi-Fi for taking orders yet. We had hand-held devices a number of years ago but the challenge was the cost of maintenance, repair and replacement."

It would be nice to find a cost-effective modern equivalent, he says, but adds: "Our primary objective is to provide our guests with a great experience which includes a quick and secure card payment process and bill payment and receipt at your table; we worked with VeriFone and Micros to provide a PCI compliant integrated pay-at-table solution."

The Aruba gear is not the only IT equipment in the restaurant, of course. Each store also has its own EPoS equipment - tills to you and me – plus office computer and network equipment including router for the connection to the T.G.I. Friday's MPLS.

Dunderdale says he has two tips for anyone undertaking a similar project; don't over-specify your wide area network (WAN), and use tools such as RAPIDS to keep an eye on wireless performance.

"Instead of expensive, leased lines for every store, we use ADSL with 3G backup via a dongle in the router," he adds. "I can have a store lose its ADSL for a week, but the payment traffic still works – that's our number one priority, so it's the only thing that gets routed over the 3G connection.

"And your initial wireless scan was probably on an empty shell, so it is vital to do follow-on scans to take account of structural alterations and congestion from neighbouring networks – you can't manage what your neighbours do! We find that we might get a blip every three to four months, say, because someone around has changed channels, but with Aruba Airwave Manager we can see this centrally and troubleshoot with the assistance of Astro."

TECHNOLOGIES DEPLOYED:

- Aruba AP-105 access points with Instant virtual controller software
- ADSL routers with 3G backup
- Aruba AirWave management and reporting servers
- RAPIDS intrusion prevention and wireless scanning software

ISSUES RESOLVED:

- Low-cost local wireless coverage, centrally managed
- PCI-grade payments security
- Additional Wi-Fi networks for guest and business use
- Strong business partner relationship with the Aruba reseller