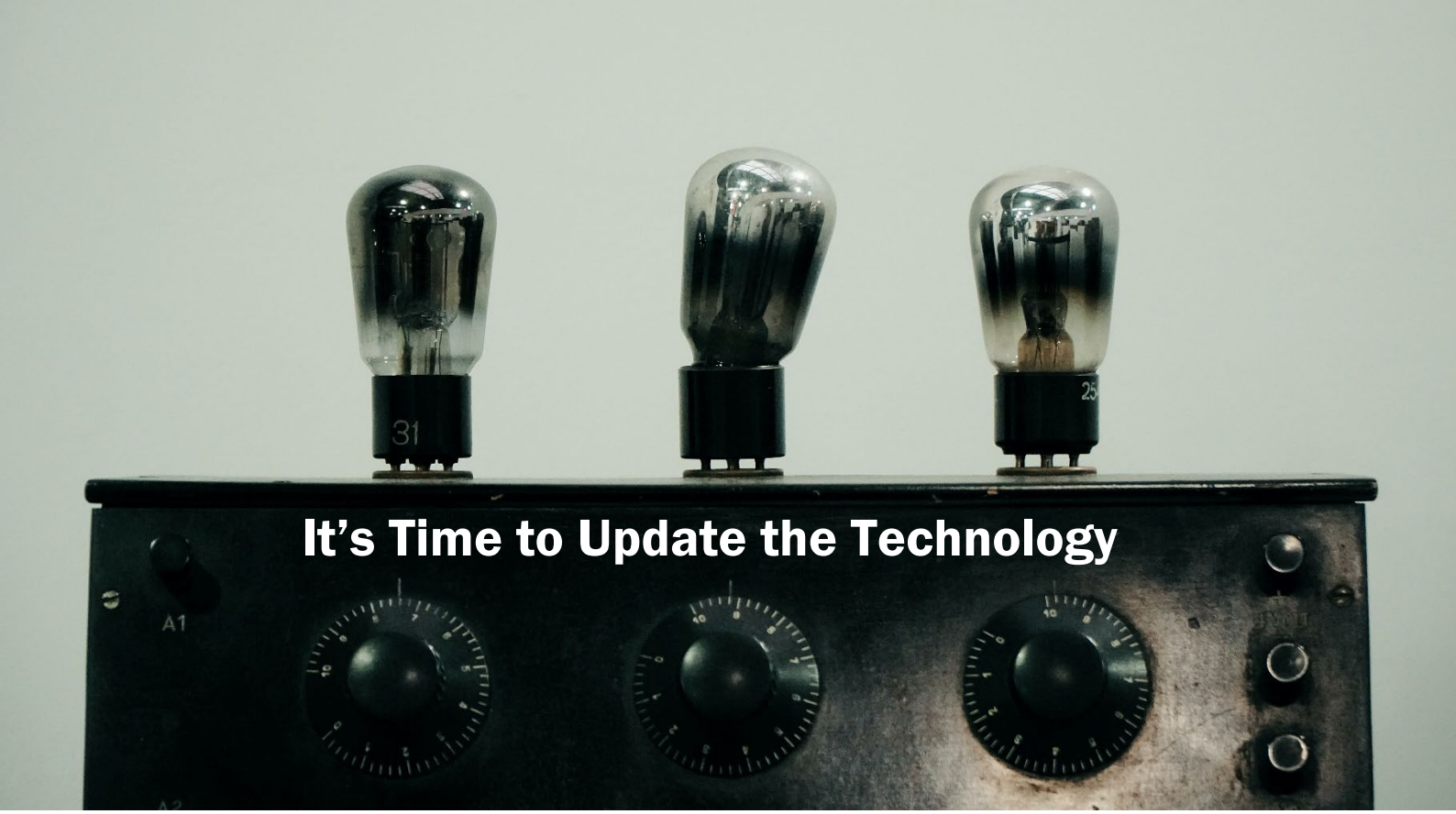

Rethinking Networks & Wi-Fi

Slash Costs – Embrace Simplicity

A Guide for Operators of Small and Medium Sized Flexible Space

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Rethinking the Network

In this paper, we examine recent changes affecting network management in Flexspace. That is, the technology that connects users (Wi-Fi and Switches), and the simpler way customers now use their connections. The impact on costs, operations and the viability of smaller types of Flexspace becomes clear.

How we got here – 25 years of Internet in Flexible Space

Some 25 years ago, shared space had a problem. Internet and network equipment then did not easily cope with multi-tenancy. Sharing hardware resources across independent occupiers had not been anticipated.

Worse, IT vendors assumed owners would have a highly qualified engineer in constant attendance, and that it was OK to spend days to facilitate simple changes.

So in response, new products from boutique vendors emerged to satisfy this challenge. Special user interfaces for centre managers were developed, custom hardware designed, and industry-aware service teams created. And it worked well.

But this approach is expensive. Flexspace is still only 5% of CRE, so it's not a huge market against which to recover development and operational costs.

Equally the scale of the vendors' investments can make these solutions inflexible, over complex, and slow to change.

The Wrong Technology? Most Occupier Needs have Changed

The recent **Work From Home** exercise exposed a truth that many had suspected: most office workers need just a laptop and a good secure Internet connection.

Step back 10 years and every office was equipped with servers, firewalls, email systems and many printers. Cables and cabinets run amok.

Today workers? Mostly they just need a good connection. Usually over Wi-Fi, so no wires required.

If that's the case, what's the point of investing in network infrastructure that designed to connect up complex networks...that no longer really exist?

Hardware's in The Cloud Now

Just as 'In the Cloud' is where the average office worker works, so hardware is now also managed from the cloud. That change makes life a lot simpler for operators.

A network is really just made up of 3 components: Wi-Fi access points, switches to wire up to when needed, and a firewall which handles security

and bandwidth. Connect together and these cloud-controlled devices will configure and manage themselves.

Of these, it is Wi-Fi Access Point technology that has changed most – there have been huge improvements in speed, security and reliability recently, as well as the ability for all APs to work together as a system to keep users connected.

The other great technology change is in application analysis. Portals provide extremely fine detail on what each connected device is doing, it's connection quality and history. Because we know more, diagnosis of issues can be very rapid, and provision of detailed security and threat management becomes viable.

The key point: these devices today all have cloud portals that make them so much easier to configure and manage. Overall they need less support.

The impact is that we can build our Flex Space networks from just standard hardware. Customisation and automation, where needed is online.

Simplicity Slashes Costs

Simplifying your network equipment, and using standard components, can slash costs.

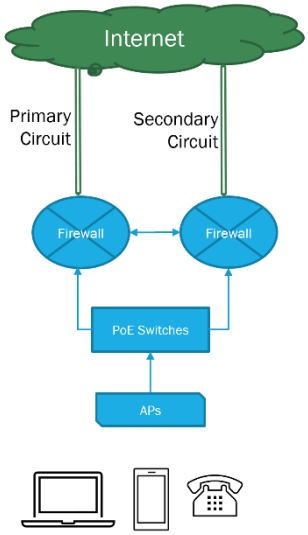
Simple processes save money and improve experiences. So ensure your users are onboarded – and offboarded – fast. Handle change requests quickly by simplified processes.

Simplifying your connection products to have fewer options means fewer changes and a lower staff load. And who needs special training and a special user interface if the default services work in 95% of cases? For the rest, a good support contract can handle the few remaining non-standard cases.

TFI is working on creating automation for everyone. In the future this will mean that you don't ever need to retype, and changes can be triggered automatically from your sales, contracts or business platform.

Spend on Performance and Resilience

What builds a reputation? Performance and Resilience. In other words a delightful and reliable customer experience.



Internet costs have never been cheaper and a 1 Gbps service is becoming standard. Traditionally bandwidth was rationed (and this was an expensive thing to do). Now you can be liberal with bandwidth and make margin through reduced costs and quality services.

Resilience is simpler too. Remove single points of failure and you'll never have an office full of non-working and thus angry customers.

For core functionality – where failure means an entire site is offline – we use failovers, Typically this means 2 circuits and 2 firewalls, configure to failover if something fails.

For the rest we use the fact that modern hardware autoconfigures. That is, faulty units can be replaced with a spare on site – without requiring an engineering visit.

Worked Example – 15,000 sq ft Location

In this case study we have a 15,000 sq ft location with 160 revenue earning desks plus meeting rooms and a club space.

This network will require 4 or 5 large switches, 10-12 Access Points (if on one floor), a firewall and a support contract.

We use the 3-year Total Cost of Ownership model as this best handles capex -v- opex pricing. So costings include support, spares, licences but excludes Internet costs

For the simple, low-cost model we use Ubiquiti Access Points and Switches, everything else is Cisco. Where the network is procured is 'Space as a Service', this will be charged per sqft, per year, plus setup.

Low Cost Model	£12k – 15k
Conventional Turnkey Provision	£45k to £60k
"Space as a Service" Provision	£60k to £80k

The purchase savings are clear. An even bigger saving can be reductions in staff time spent resulting from the simplification exercise.

The Enterprise Customer

Of course, you may be marketing somewhat larger spaces to enterprise-type customers. Some of these may wish to extend their networks into your building, or need different security.

While satisfying this customer could require a different, or higher grade of system, or indeed need a more technically qualified support company, the overall approach is similar. Advice is available.

Rethink Possible Space Opportunities – All those Empty Malls!

Low cost, cloud-managed hardware also creates new space opportunities. Previously, the overhead cost of network systems made small locations uneconomic. Unstaffed locations were expensive and awkward when things went wrong.

Now it is possible to make very small locations work. Shopping malls are full of small units with landlords desperate to generate foot-fall. Whether it's a work pod, a small cowork, a meeting suite or a branded workspace, these spaces are now easier to enable for work.

Cloud-manage networks connect cloud-managed door access and cloud-managed cameras. And there's booking and management software to automate this, which is also cloud-managed.

TFI helps Operators Rethink the Network

TFI is a technology design and development consultancy for Flexspace. We don't resell anything and we take no commissions from vendors. Our advice is based solely on your needs.

We have 25 years of experience deploying new technology in Flexspace, with stacks of ideas to develop your business.

We have conducted due-diligence on a number of technology vendors, and have developed some new entrants into the industry with young ideas and who are keen to compete.

We invest in developers especially in the area of integration, APIs and automation and we will make our advances available to the industry by licensing approved vendors and sharing intellectual property.

Think we could help you? Call for a chat or two, which may sometimes lead to a review, and ultimately a technology roadmap. Or we might just fix your supplier problem. Call anyway!

Tony Freeth Informational (Freeth Technical Marketing)

Tel	0203 404 4982
Email	info@freeth.info
Web	freeth.info
Twitter	@TF_Inform
LinkedIn	linkedin.com/in/tonyfreeth/