

## TITLE : How do we reduce the cost of service-calls

When you consider all of the different systems & services in a typical customer's business it all adds up to a pretty complicated picture of CCTV, phones, door-access controllers, building sensors, and more.

With that range of equipment, service-calls have become a fact of life for a facilities manager and a large customer is going to have a number of service engineers visit them each week.

As service suppliers we need to have teams of field-engineers ready to go out to make these service-calls. And a big part of our resources get spent keeping the service-teams trained & equipped to handle the repairs. This makes it an expensive job to send an engineer out to a customer. So we want to do everything we can to eliminate the unnecessary call-outs, and save our teams for the calls where they can make the most impact.

It is pretty safe to say that everyone wants to reduce unnecessary service-calls. So what can we do to help ?

We can aim to design, build or re-fit our customer's systems to maximise the levels of Serviceability.

Taking a look at a typical service-call. We can see they usually split into 3 phases :

1. Diagnose the fault or faults.
2. Make the repairs – and securely fit any replacement parts.
3. Re-test & recommission the system.

Naturally, the 3 parts of each call will be a different duration depending on what the particular problem is.

When an engineer begins the service-call, sometimes it may be obvious what is wrong but it is not unusual to spend the majority of the visit trying to find out the cause of a complex problem.

If we can build diagnostic capabilities into the customer's system then we can tell the facilities team where the fault lies and also give the engineer a head-start.

The repair phase often requires a swap-out of faulty components along with a few configuration changes to accommodate the swap, followed by a repair of the original unit back at the engineer's office.

If we build a few extra components into the system, we can help the customer and the service-team move towards safe & secure DIY servicing for a significant percentage of the equipment. When we design a system for serviceability we make it possible for the on-site facilities team to safely swap-out faulty 'edge' devices like broken phones, cameras, sensors, and card-readers.

This already happens to some degree but even so there usually remains sizable friction that slows down the swap-out, as it often needs a trained technician to handle the IT 'provisioning' process.

This *provisioning* is an important step that can't be skipped as it makes sure the replacement unit is an authentic replacement and that it is authorised to be added to the system.

Without these checks-and-balances, we let chaos into the system. It opens up the potential for legitimate safe equipment to be swapped for fake insecure devices that have been tampered with for eavesdropping or worse. Without provisioning, we will get an un-stable service when extra unauthorised devices stretch the limits of the core data networks.

Not everything in the system is as easy to be serviced on a DIY basis. Any equipment that is part of the system's core or has complicated wiring & integration will still need a field-engineer. But we can do more to ensure the service-call is as stream-lined as possible. If we build diagnostic capabilities into the system, then the engineer will arrive knowing what needs replacing and make sure ahead of time that the right spares are available in the engineer's van.

Where possible, we want the engineer to minimise the time spent on-site doing fault diagnosis and reduce the amount of repetitive work to re-integrate replacement parts.

We can choose to add these capabilities into the system at any stage in it's life-cycle or build them in from the start. We can obtain a good level of diagnostic intelligence if we start by adding fault-finding capabilities to the core of the system. And then continue the roll-out in a phased approach by extending coverage to all parts at the natural pace of equipment upgrades to handsets & better resolution cameras.

So if we build a combination of monitoring & diagnostic capabilities into our customer's systems then we can find the faults faster, make repairs quicker, and keep the downtimes shorter.

And that lets us as suppliers help more of our customers with the same size service-team. It all helps to deliver the service at a lower price to the customer.

There will always be a demand from the customer for suppliers to deliver a lower-cost service and help them deliver a better Return on their Investment. Anything we can do to reduce the cost of servicing can make the difference between a viable business model and a business that fails to make a profit.

If servicing is too expensive the customer may decide to forego the repairs, and they will leave the system in a degraded state. This will give the service users a negative opinion of the service, tarnish their view of us as suppliers, and create a poor view of the whole idea of Smart Buildings and their modern IT based services.

So we want to do better for the sake of our customer's profitability and for our own reputations & future business.

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