## WE NEED TO TALK ABOUT LEGACY IT ARCHITECTURES.

Unlike their challenger bank siblings and fintech cousins, incumbent banks have one particular problem to solve if they are to remain viable and competitive. That problem is high cost to income ratios of (typically) around 60%. Compare that figure to fintech firms engaged in 'unbundling the bank' who even when fully operational are operating at ratios as low as 20%.

A large part of the difference in costs is the cost of operating and supporting legacy system architectures. Other factors include the cost of branch networks, and the (over) staffing implications of functionally divided organisations. High IT infrastructures costs in large banks arise from significant duplication and hidden redundancy; poor integration; high complexity; poor systems documentation and knowledge; a lack of agility / flexibility / adaptability; old fashioned interfaces and reporting capabilities; difficulties integrating with newer models such as cloud computing and mobile devices; being difficult to monitor, control and recover; and, susceptible to security problems.

Getting old and new applications, systems and data sources to work seamlessly can be difficult, verging on impossible. This lack of agility means that legacy systems in their existing configuration can be barriers to improved customer service, satisfaction and retention.

In regulated sectors they can also be a barrier to achieving statutory compliance. Pressure to replace these systems can be intensified by new competitors who are able to deploy more modern technologies from day one.

One radical approach to solving the infrastructure issue is to design and implement a new, more modern architecture using a radical clean-slate or blueprint-driven approach.

Amusing analogies have often been used to encourage audiences to take such an approach, including the analogy of legacy infrastructures resembling an unplanned house that has been extended many times. But how easy is it to design and implement a new IT architecture in a large mature organisation with an extensive IT systems estate?

Rather than the unplanned house analogy, a better analogy might be a ship at sea involved in a battle. Imagine if you were the captain of such a ship and someone came onto the bridge to suggest that everyone stop taking action to evade the enemy and instead draw up a new design for the ship that would make evasion easier once implemented. You might be forced to be uncharacteristically impolite for a moment before getting back to the job at hand.

The temptation to start again is enormous, but big-bang approaches to legacy IT systems replacement can be naive, expensive and fraught with risk. At some point, many large organisations have attempted the enterprise-wide re-design approach to resolving their legacy systems problems. Yet so many initiatives have been abandoned when the scale of the challenge or the impossibility of delivering against a moving target become clear.

Time has a nasty habit of refusing to stand still while you draw up your new blueprint. Re-designing an entire architecture is not a trivial undertaking, and building / buying and implementing replacement systems will take a long time. Long before a new architecture could ever be implemented the organisation will have launched new products and services; changed existing business processes; experienced changes to regulations; witnessed the birth of a disruptive technology; encountered new competitors; exited a particular business sector and entered others.

All of these things conspire to make the redesign invalid even before it's live. If you are lucky, you may realise the futility of the approach before too much money has been spent. Furthermore, the sort of major projects required to achieve the transformation are the sorts of projects that run notoriously high failure rates.