An IT Help Desk case study

A Digital Expert navigates agents through complex technical help queries

A global technology company that specializes in technical infrastructure offers IT Help Services to customers with large workforces and complicated technical environments. This specialized support service is offered directly to end users. If the help desk is unable to resolve the issue remotely, a ticket is created for a technician to go resolve it onsite.

The cost of onsite support is high, and so the help desk was trained to troubleshoot more effectively, and to resolve more issues remotely. The level of skill required to do this meant that agents were dedicated to specific customers. When these agents left, the impact on the service team and the pressure on the SLAs was significant. This was before they decided to build a digital expert to augment agents and end users.

The challenge

The complexity of technical support varies dramatically. For basic support like password resets, the level of skill required is low. However, when issues are not obvious, and the root cause of a problem depends on multiple variables such as the specific hardware, the specific software version, and the technical infrastructure involved, working it out remotely takes a high level of skill and experience.

This takes time to develop. And it is also not that easy to transfer, especially when each company's set-up and context varies dramatically.

As a result, this IT Help Desk built up specialist teams that were dedicated to specific customers. It took many months for a new agent to learn everything they needed to know about a specific customer's IT environment and challenges. During this time, these agents tended to hand more complicated calls across to the more experienced agents, if they were available. If not, the agent would simply create a call-out ticket and rely on the in-field technician to resolve it.

The issue was the cost of each call-out, and the impact this had on SLAs and margins.

The requirement

The IT Support Desk needed to find a way to increase their agility while reducing their total cost to serve. Agility meant their ability to use their resources more effectively, without being stuck serving a named customer. From a cost perspective, the aim was to reduce the cost of salaries by hiring less technically-skilled staff, plus reducing the number of onsite call outs.

Key targeted measures included:

- Reduce the time (training and support) it takes to onboard a new agent
- Increase the First Call Resolutions (FCR)
- Reduce escalations and resulting call outs
- Enable agents to work across desks (not be stuck servicing a named customer)
- Improve quality scores, linked to SLAs
- Enable more digital self-service

The solution

A Digital Expert was built, one that could replicate the contextual logic current technical specialists apply when resolving all known technical queries.

To achieve this, a small team of hand-selected Subject Matter Experts was chosen by the executive to work with the automation team and to 'download' their expert logic.

This process involved a series of knowledge elicitation sessions where all known query types were defined, the context variables identified, and the business rules validated.

Within a couple of weeks, the first version of the digital expert was available for testing, and over a number of agile sprints, the team enhanced the logic and accuracy until everyone was comfortable that their digital expert could handle the scoped call types at the level of an expert.

The team then gave a few specialist agents access to the digital expert, and they were asked to use the digital expert to navigate them through every call (even if they knew how to do it themselves). Where errors were picked up, these were fed back instantly to the authoring team to improve on.

Within 10 weeks (from the start of the project), the digital expert was ready to get to work. Across all targeted specialist desks, agents were given access to the digital expert and their performance was monitored for a full 8 weeks.

The results

The pilot, conducted across a number of specialized help desks, showed the following results:

Specialist Desk		People Outsourcing Company	Insurance Company	Manufacturing Company	Mining Company
FCR	Baseline	46%	58%	86%	77%
	Digital Expert	98%	90%	88%	83%
	Result	**113% better**	**55% better**	**2% better**	**8% better**
Escalations	Baseline	0,13	0,83	0,28	0,04
	Digital Expert	0,07	0,12	0,27	0,02
	Result	**86% better**	**592% better**	**4% better**	**100% better**
QA	Baseline	88,32%	91,16%	90,02%	96,00%
	Digital Expert	99,15%	96,42%	90,96%	96,49%
	Result	**12% better**	**6% better**	**1% better**	**1% better**

These results were significant given the following pilot limitations:

- Current SLA's prevented the use of an inexperience agent within the pilot group. This would have illustrated how the digital expert can turn them into an expert without extensive training and support. As a result, pilot agents were highly experienced. This gave the digital expert less room to transform their performance.
- The digital expert was not integrated with existing systems during the pilot. This dramatically limited the digital expert's ability to speed up calls and reduce agent workload.

The benefits

Even with the pilot limitations, the results clearly showed the power of a digital expert, and the potential to transform the IT Help Desk's approach.
Future benefits included:

- **Speed to competence**: Allows new agents to handle complex calls in days, not months.
- **Improved resolutions**: Agents improve their ability to resolve tickets remotely. Phase 2 (digital self-service) allows end users to self-solve without calling the help desk.
- **Straight through automation**: Once the digital expert is paired up with digital workers, the ticket will be fully resolved automatically (no need for human intervention).
- **Compliance and reporting**: Every interaction is tracked, resulting in effective compliance reporting and analytics across channels
- **Multi-channel deployment**: The digital expert is able to support different staff and customers via different channels, adjusting the logic as required.