



CabinetOffice

CHANNEL STRATEGY GUIDANCE

Part 2: Case Studies

August 2009

A large, thick, blue wavy graphic that starts from the left edge of the page and curves upwards towards the right, ending near the top right corner.

**Making
government
work better**



Contents

1. Introduction	3
2. Case Study: Companies House	4
3. Case Study: HMRC Online Services	10
4. Case Study: DVLA	15

1. Introduction

These case studies provide a behind the scenes look at major channel projects in the public sector. They show the challenges three organisations overcame to achieve success and the lessons for teams undertaking similar endeavours.

Read them to find out:

- How **Companies House** used a deep understanding of their customers, channels and services to shift the filing of companies' annual returns online
- How **DVLA** established their Electronic Vehicle Licensing service and uncovered some interesting user behaviour in the process
- How **HMRC** drove take up of their Self-Assessment Online service and provided the necessary infrastructure along the way

Thanks to Companies House, DVLA and HMRC for sharing this information.

2. Case Study: Companies House

An information exchange

All limited companies in England, Wales and Scotland are registered at Companies House, an Executive Agency of the Department for Business, Innovation and Skills. There are more than 2.5 million limited companies registered in Great Britain, and more than 300,000 new companies are incorporated each year. Companies House operates on a cost recovery basis. It does not control the type of information companies have to submit, which is determined by the Companies Act and related legislation.

Companies House defines itself as an “information exchange” and aims to make it easy, cheap and secure for companies to submit their information and the public to search it. The priority is driving customers to low-cost, self-service channels, which in reality means moving services online.

Shifting to online channels

Companies House has a vision of putting its services 100% online – both inputs and outputs. That encompasses all the inputs from companies, such as annual returns and company accounts, and all the outputs, namely the publicly searchable company data. However some offline channels will remain for customers with different accessibility needs.

“The key to driving customers online is offering good online experiences, good customer service and outputting good information.”
Tim Moss, Director of Corporate Strategy

The channel shift team secured executive buy-in early in the process and the aim of providing 100% online services is now embedded in the Companies House Strategic Plan.

Over 99% of output has been electronic for a number of years through the Companies House Direct¹ and WebCheck² online services. The toughest channel shift challenge for Companies House has been getting the input online. Businesses are used to paper filing and need a strong proposition with clear benefits to move online. The annual return was identified as the form for which channel shift online was most likely to succeed.

The channel shift team at Companies House comprised representatives of product management, customer care, marketing, customer insight and corporate strategy. Together they identified a 5 stage process for moving filing of the annual return online:

¹ <http://direct.companieshouse.gov.uk/>

² www.companieshouse.gov.uk/webcheck

1. Developing an online service which usability testing proved to be effective and easy to use
2. Raising awareness, so companies and advisors know that online filing is available
3. Using targeted educational communications to ensure that the benefits of online filing are understood
4. Introducing a cost-recovery based fee differential of £15 to encourage further adoption
5. Phasing out the automatic delivery of paper annual return forms and making these available only on request.

Moving the annual return online

Online filing of annual returns through [WebFiling](#)³ began in December 2003. In March 2004, 1% of annual returns were being filed online. By March 2009, 89% were being filed online. How did Companies House drive this shift?

Companies House knows its customer

The customer insight team took the lead on the research front. In summer 2004, Companies House the first of their annual major quantitative surveys of companies who file their forms themselves, and advisors who file on companies' behalf (accountants and solicitors). This survey is complemented by over 20 focus groups around the country and a rolling customer satisfaction survey.

This research underpins communications, service design and policy across Companies House. In the case of moving annual returns to filing online, it revealed these triggers to behaviour change:

- Companies have to pay a fee to file documents with Companies House. Lower fees would drive people to use online channels.
- Companies had to request a letter confirming that their document had been filed. Getting an automatic email acknowledging receipt of an e-filed annual return would encourage people to file electronically.

The marketing team took the lead on using these triggers in communications to their target audience. The ideas were built into an advertising campaign beginning in February 2006 (an example of which is shown below) targeted at business owners and advisors, which played with the idea of paper forms being outdated by using a dinosaur image. This was backed up by a series of case studies in the regional press featuring accountants and solicitors with successful stories about filing online.

³ <https://ewf.companieshouse.gov.uk/>

File online and paper forms become a thing of the past.



WebFiling is the easy and secure way to file your company information online.
It costs less too – file annual returns online for half the price of filing on paper, only £15. You can file almost all of your company information online, free of charge and without leaving your desk.

WebFiling is the most secure way to file information with us. And, for added peace of mind, we send you a confirmation email to let you know it's arrived, safe and sound. With no paper, postage or palaver it's little wonder so many are evolving.

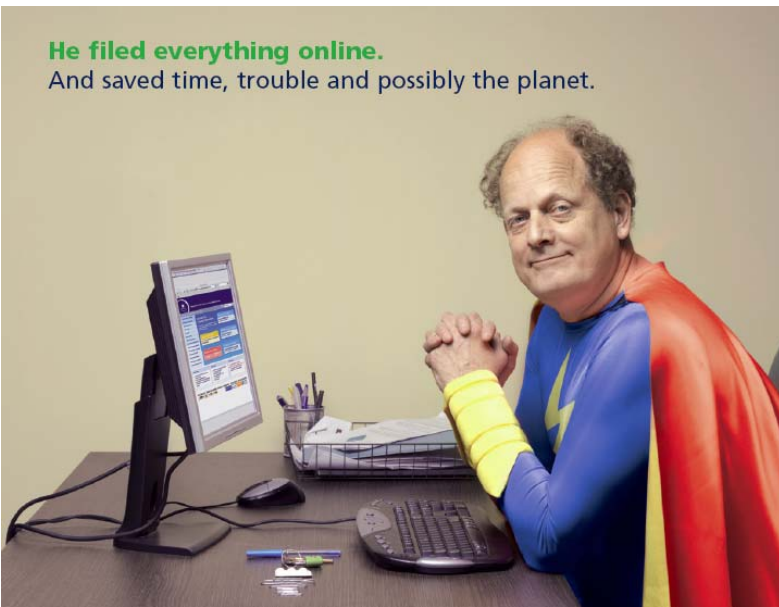
See how easy it is. For information and a step-by-step demo on how to file online, visit www.companieshouse.gov.uk/revolve

dft
A DTI SERVICE



The communications campaign was evaluated to assess its effectiveness and establish improvements for future campaigns. A second promotional campaign ran to target operational finance staff within accountancy practices after research revealed that these individuals were often responsible for filing annual returns and other documents at Companies House. The campaign's central message was to file everything online (rather than just selected documents). The theme used the idea of finance staff being “heroes” for saving time and money for their company, and contributing to the green agenda. An image from the campaign is shown below.

He filed everything online.
And saved time, trouble and possibly the planet.



Advertising and direct mail concepts were tested with customers before being selected, giving Companies House confidence that the new advertising would be effective. Customer feedback obtained at this stage was also used to fine tune copy and imagery used in the campaign.

Companies House knows its channels

Before online filing was introduced, Companies House had made paper filing as easy as possible. A paper form pre-populated with all the information Companies House already held was sent to each company. They just had to update the form to reflect changes in the past year, write a cheque and post it back. It was so easy that many customers with no objection to online filing, still chose the paper option. Accountants in particular were attached to using a paper annual return form that they could get their clients to check and sign-off.

Companies House knew they had to make the online system easier than the paper channel. The channel shift team made several changes to the system to incentivise customers to go online:

- A one page reminder letter was sent to the company's registered address instead of the pre-populated multi-page form. The new letter directed people to the online system and invited them to request a paper form if they needed one. There are savings here because the amount of paper, printing and postage is greatly reduced.
- The online form was fully pre-populated and the pre-populated paper form was gradually phased out.
- An authentication code was sent with the letter to make gaining access to the WebFiling system quicker. Two codes are required to file online for security. The first is emailed to the user upon registration. The second is sent by post to the company's registered address. This causes a delay for first time filers, which has been eliminated by including the second code in the reminder letter. The letter is sent to the company's registered office address so this does not compromise security.
- All the company's current annual return details may now be obtained from the WebFiling service as a PDF. Accountants and other agents can email (or post) these to their clients for checking before filing an annual return online.

Companies House takes an integrated approach to public sector channels, and WebFiling became the first transactional service available on BusinessLink.gov.uk in 2009.

Companies House knows its services

The roll-out schedule for the new system was based on analysis of how services are used already. This understanding was used to structure a phased roll-out, in order to encourage uptake whilst managing the risk of the contact centre being flooded with calls and requests for a paper form.

The roll-out ran across five stages, with the existing paper channel running in parallel.

1. Pilot test
2. Companies that had filed online before (data mining revealed that over 90% of companies that had e-filed their annual return the previous year, were choosing to e-file it again)
3. One year old incorporated companies (that had not yet developed paper filing habits)
4. Two year old companies (that had not developed entrenched paper filing habits)
5. The remaining 30% of companies

Results and evaluation

89% of companies now file online and there has been no back lash from dissatisfied paper-lovers. Overall customer satisfaction has actually improved, proving the benefits of online filing over paper filing. Using the online channel also results in a saving of over 11 tonnes of paper forms per month – that's the equivalent of nearly 200 trees or over a million sheets of A4 paper.

However, gaps remain. Some companies are not filing online, leaving small audiences that Companies House must target.

Challenges

The shift to online filing of the annual return was not all plain sailing. Companies House had been using paper filing for over a hundred years. Members of staff – many of whom have been working at Companies House for long periods - were used to working with paper and the technology underpinning their work was designed with paper in mind.

Getting buy-in at the front line

The move to electronic channels was perceived in some places as a threat to jobs on the front line, leading to some suspicion of the changes. Furthermore, the first stage of channel shift coincided with media speculation about public sector job cuts. Moving online took some Companies House employees out of their comfort zone – with some simply not believing it would happen.

To ease staff fears, the channel shift team undertook an internal communications drive to reassure employees about their future at Companies House. Members of the board spoke to all staff to explain the improvements that online filing would bring to their working environment, and show how using online channels would actually make their jobs more interesting.

Upgrading technology and educating users

The technical requirements for moving the annual return online were substantial. Inside Companies House, the legacy, mainframe system needed replacing and a concurrent project was underway to replace the organisation's database.

Outside Companies House, many of the people who would be filing online needed training to handle the new technology. Like Companies House employees, they were used to using paper. The Companies House events team began to educate their users through regional seminars, targeting small accountancy firms who filed accounts regularly for a number of clients, and one to one sessions with SMEs.

Remaining paper channel

A 2006 survey of Companies House filing customers revealed that only 4% of D-I-Y company filers did not yet have access to email or the internet. An alternative channel for them to file annual returns was still required. The paper service remains for them. Companies House will shortly be undertaking a review of the costs involved in providing the paper service. It is possible that the charge for the paper channel will go up to reflect the smaller number of people using it and the higher unit cost of maintaining the service.

Plateaux

Uptake of online filing rose in fits and starts. For example, introducing the price differential drove online filing from 5% of all filing to 30% but then the increase in online filing reached a plateau. The channel shift team had to return to the drawing board at these points to create new ways to drive further online uptake.

The next challenge

Having secured high levels of take-up for annual returns, the next challenge for Companies House is to improve take-up levels for other document types and ultimately to shift all organisations to file all their documents online. Company accounts are perhaps the biggest challenge of all. Company accounts information is submitted to Companies House in multiple formats, unique to each company, unlike the standard annual return form. To better understand their customers' approach to accounts, Companies House is conducting a customer journey mapping project covering the whole process that accountants go through in preparing and producing company accounts. The team understands that the interaction with Companies House is a small part of the accounts process and wants to learn where filing fits into the wider process to see how channel shift can be triggered.

Tips for channel shift teams from Lynn Lynch, Marketing Director, Companies House

1. Get the board involved. Their support will help push through the channel shift programme and provide support when you need to influence colleagues.
2. Ground your channel shift strategy in a solid understanding of the benefits the new channels will provide to your customers.
3. When running campaigns to drive channel shift, concept test your marketing materials; evaluate throughout the process and be prepared to change your plans.

3. Case Study: HMRC Online Services

HM Revenue & Customs (HMRC) is responsible for the administration and collection of tax in the UK, and its Self Assessment service is a big operation within the Department.

Self-Assessment is a means of collecting tax from individuals whose tax affairs are more complicated than most for a variety of reasons (e.g. they may be self-employed, they may be Company Directors, or have foreign income). It ensures they pay the right amount of tax.

Self Assessment involves completing either an online or paper tax return and while not everyone needs to complete one, about 9 million people do.

Increasing use of HMRC online services

Low take-up of online services

The Self Assessment online service was introduced in 1999/00 and take up was initially low with just over 39,000 returns submitted online. By 2005/06, usage had grown to nearly 25% of all returns. Take up across other online services offered by HMRC was relatively low, although the range of services available was equal to that offered by the best overseas international tax authorities⁴.

In order to resolve this issue, the Government asked Lord Carter to suggest measures to increase the use of HMRC's key online services, to ensure sustainable and efficient service delivery for taxpayers, while continuing to support compliance. The final report set a challenging target of universal electronic delivery of tax returns from businesses and IT literate individuals by 2012⁵.

Initial focus on Self Assessment returns

While take-up had grown to 25% by 2005/06, this was still low compared to take-up in the US where over 50% of personal tax returns were being submitted electronically. The US tax system is quite different in that it requires everyone with an income to complete a tax return, but nevertheless the comparison showed the scale of change that was possible.

⁴ Review of HMRC Online Services, Lord Carter of Coles, 2006 <http://www.hmrc.gov.uk/budget2006/carter-review.pdf> (opens document as PDF)

⁵ *ibid.*

The first challenge - developing a system to cope with increased usage

A history of encouraging non-paper channels

By the time of the Carter Review, HMRC already had a history of attempting to move self assessment returns away from paper channels. In 1999/2000, HMRC created a CD-ROM which made it possible for people to complete their tax return on their PCs and then submit it electronically. And from 2002 online tax returns hosted by HMRC were made available – however this system would have struggled to cope with large scale take-up.

Creating a robust infrastructure

Before attempting to drive significant numbers of tax returns online, HMRC needed to re-build their infrastructure to make it more robust and more resilient. One step taken to achieve this was to create a disaster-tolerant, two data centre model to ensure continuity if one centre shuts down.

However, the key challenge was finding a way to cope with sharp increases in traffic at peak times. Currently, about 11,000 tax returns are filed online every day. During the peak day in January 2009, HMRC received 390,155 returns, with 37,524 received in the busiest hour, or 625 per minute. Peaks of this scale place considerable processing and memory demand on HMRC's filing portal, which hosts the online return.

How third-party software products help HMRC cope with the Self Assessment peak

It would not be cost effective to scale the HMRC portal-based system to cope with the full demands of the Self Assessment peak. In order to manage the volumes that are submitted close to the 31 January deadline, HMRC has built a very important partnership with the software industry. This partnership provides tax agents and accountants with the means to fill in and submit tax returns electronically using third party software, rather than the HMRC product. Third party software has richer functionality than the HMRC product, which is really aimed at individuals completing their own returns, rather than tax agents. It sits on the user's PC or network, so returns submitted bypass the HMRC portal and only create a load on the infrastructure as they are submitted.

In order to make this possible, HMRC works closely with third party software vendors, providing technical specifications, a testing service and a support team for software vendors building integrations with self-assessment online.

Third party software now accounts for 75% of tax returns filed electronically, so this approach has greatly helped to manage the load on HMRC systems.

"Look for alternatives to a hosted service if you're doing an online service, for example industry partnerships where that works for your users."

John Harrison, Head of Online Customer Contact, HMRC

The second challenge – encouraging take-up

Changing deadlines

The Carter Review recommended differential filing dates for paper and online returns. In 2008/09 HMRC moved forward the deadline for paper returns to 31st October, and kept the 31st January deadline for online returns.

Encouraging individual users to file online

The role of customer insight

A long-standing channel strategy based on customer insight work was critical to increasing take-up among individuals.

At the heart of the strategy was an attitudinal segmentation, which was used to target and tailor approaches to different user groups. For example, the large group of people who shop online, but didn't file self-assessment online, were targeted in HMRC's marketing strategy by Direct Marketing. HMRC used messages about the online service and how register to encourage this group to move to online filing. The segmentation was used to identify groups that were unlikely to convert and they were targeted with messages about the new paper filing date.


Using the segmentation and the insight it provided meant that the approach taken was grounded in user needs as well as government priorities.

“Drive channel shift from customer insight – don't just aim to provide an online service. Don't be seduced by the latest technology because this should be led by customer needs. For example, if people are already using the phone, an automated phone service might be a better, more cost effective solution than a new online service.”

John Harrison, Head of Online Customer Contact, HMRC

Making the online system easier to use


Rather than simply producing an online replica of the paper form, HMRC has made the online tool simpler to use, and made it possible for users to tailor the return to their needs. The product also does tax calculations for the user, enabling them to self assess far more easily than on paper. The product design is a key factor in giving users extra reasons to file tax returns online.



31
Jan

““
Don't forget to do your Tax Return
online at [hmrc.gov.uk](https://www.hmrc.gov.uk)””

self assessment | tax doesn't
have to be taxing

 HM Revenue
& Customs

An extract from the marketing campaign to encourage take up of online filing.

Encouraging tax agents to file online

Abolishing 'paper-substitute' forms

A key issue was that many agents were using third party software to produce tax returns, but were not filing them online. Instead, they would print out the form, take it to their client to sign, and file it on paper, because they liked having this paper record.

To encourage filing online, HMRC abolished the option of using 'paper-substitute' forms for most customers (forms created electronically, but submitted on paper). This means that users broadly now have to choose between filing online and filing hand-completed paper forms.

Results

5.75m people filed their Self Assessment returns online by the deadline of 31 January 2009. This represents a 52% increase in filing online since 2007/08.

What's next?

Having successfully increased take-up of online self assessment returns, HMRC's focus has turned to Corporation Tax returns, VAT returns and PAYE returns.

Lessons learned in moving Self Assessment online are being applied in re-building these systems. For Corporation Tax returns, HMRC's intention is to move away from a system which relies heavily on a hosted, web-based product. Instead, HMRC is developing a downloadable form that can be saved, moved around a company and filed online once it is complete.

HMRC is also tailoring the corporation tax product to SMEs who are filing for themselves. For more complex customers, HMRC's strategy is to ensure that their needs are met by third party products, ensuring that resources are not wasted on developing complicated software that the market can better provide.

4. Case Study: DVLA

About the Driver and Vehicle Licensing Agency and Electronic Vehicle Licensing

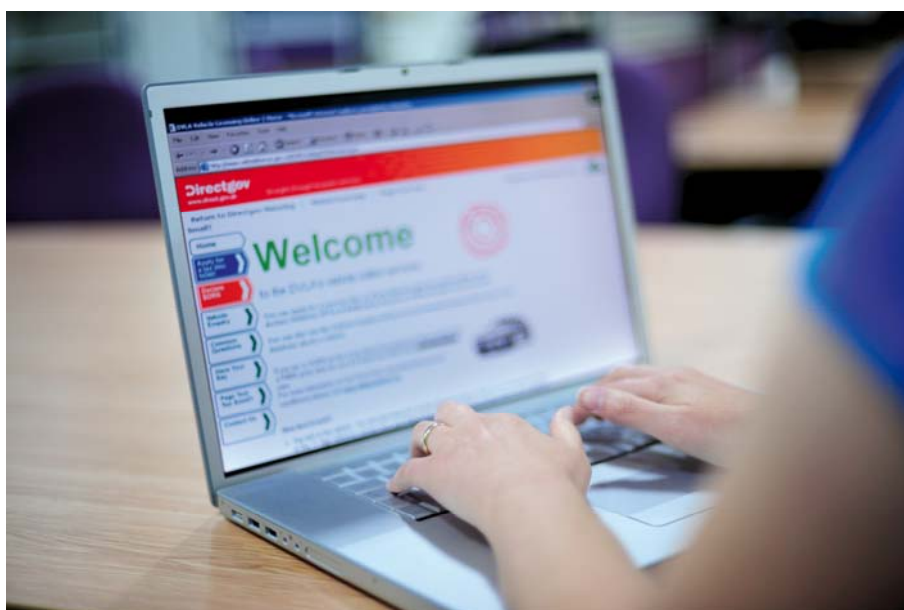
The Driver and Vehicle Licensing Agency (DVLA) is an Executive Agency of the Department for Transport (DfT). DVLA operates as a Trading Fund.

DVLA was set up to underpin road safety and law enforcement by maintaining central, accurate registers of drivers and vehicles, and collecting Vehicle Excise Duty.

DVLA's Electronic Vehicle Licensing service (EVL) was launched nationally in 2006. It provides online and automated phone channels for people to apply for a new tax disc or declare Statutory Off Road Notification (SORN) if they intend to take the vehicle off the road. EVL is available 24 hours a day, 365 days a year. The service is available at www.direct.gov.uk/taxdisc.

DVLA issues a reminder to all motorists when their licence is due to expire, containing a reference number which motorists quote online, or over the phone. DVLA electronically checks insurance and MOT validity via external databases, and the tax disc is issued via the post.

DVLA was awarded the Marketing Strategy of the Year Award at the National Business Awards 2008 for the innovative promotion tactics used for EVL. In April 2009 they were awarded the Bigmouthmedia Marketing Strategy of the Year Award at the European Business Awards, presented at a prestigious ceremony in Rome.



Results

Over 44 million customers have used the EVL service to date, making it the one of the most successful online services in the UK.

Currently 48% of vehicle licensing is carried out using EVL, and DVLA aims to hit 60%. The service is high volume (148,000 transactions a day) and 50% of transactions are outside normal working hours. The electronic channel is 30% cheaper than the traditional paper channel.

However, the strategy is not about getting everyone online. Lots of people prefer the phone because of the verbal prompting that directs them through the process.

There is a re-purchase rate of 98% among EVL users, so investment in EVL is providing “lifetime savings” for the Agency. Reducing failure demand is crucial in making these savings, both because of the high volume of transactions and because word of mouth plays a large role in uptake.

Background to EVL

EVL was developed alongside the Government’s drives for e-government and, through the Gershon Review, efficiency. All parties involved in the service – DVLA, the Department for Transport and service users - were looking for a sensible way to improve the licensing service because it has such high volumes of use.

EVL is a big and early example of channel shift and shows the benefits of reducing cost to serve. In this case, costs were reduced without reducing headcount and in fact jobs have been created by EVL, particularly in call centre support.

Internal change

Establishing marketing

To promote EVL, DVLA formed a Central Marketing and Market Research team and recruited their first Marketing Manager. This team purchased geo-demographic profiling tools and set up a new procurement framework. Several members of the marketing team studied for the IDM certificate in Direct Marketing alongside the project.

The arrival of in-house marketing changed the way DVLA presented itself, with a shift from policy-driven to customer-driven communications.

Re-configuring infrastructure

Channel shift required DVLA to change its operating patterns. In the words of Andrew Rhodes, Director of Products and Services, “You can’t underestimate the difference it has made to the way we work”.

DVLA had operated on the standard timetable of 9am-5pm, Monday to Friday but now it needed to support a 24/7 service. This required change in working patterns internally and externally, including:

- New shifts for printers making tax discs
- New IT support schedules
- New “twilight” operating systems

Building new architecture

DVLA required an entirely new architecture for EVL. Even the large IT contractors DVLA worked with had not come across a challenge of this scale.

A limiting factor in the roll-out of the new architecture was the need for a computerised MOT. When the service was first rolled out, only 18% of customers could use EVL. By April 2007, everyone had a computerised MOT so EVL could be used widely.

Driving take-up based on customer understanding

DVLA built take-up of the service on blocks, structured by a segmentation built using data from the Target Group Index (TGI) market research database. TGI data was used because of the broad sample and EVL has a large audience 44 million renewals per year. This is supplemented by DVLA’s own research (focusing on why customers choose not to use EVL, what would make them more likely to, preferred payment methods and reasons for cancelling a transaction), plus testing and re-testing the proposition on audience segments.

Segmenting audiences

The following groups were identified within the audience and targeted one-by-one:

1. The first 30% were early technology adopters and busy professionals. They are web-savvy and independently seek opportunities to transact electronically. They were targeted by search engine optimisation, pay-per-click online advertising and banner advertisements in websites.
2. The next 10% of users were the rest of the busy professionals group and the easy to convert group. Pre-reminder postcards were sent to this group.
3. The next target group is people in their late 40s and 50s who are web enabled but nervous about using online services, with particular concerns about security and data protection. Targeted direct mail was used to combat security concerns.

The remaining groups are harder to convert, with resistance to technology if it is seen as complex. The group most unlikely to convert are typically members of an older generation. They prefer paper channels and use Post Offices regularly.

Prize draw

DVLA identified a need to shift C2, D and E socio-economic groups to EVL.

TGI data showed that these groups were likely to respond to a prize draw to win one of three cars per month (in fact the prize draw produced an uplift across demographics). To the best of DVLA’s knowledge, this is the first time a prize draw incentive scheme has been used by a Government

Agency and 33 cars were given away in the first year. The prize draw incentive was awarded the Marketing Strategy of the Year Award at the National Business Awards 2008 and the European Business Award in 2009.

The process for obtaining the cars was complex and the prizes had to be absolutely “at no cost to the taxpayer”. In giving away cars with CO2 emissions less than 120g/km, DVLA also highlighted the secondary message that changing to a low emission car could save customers money as well as helping the environment.

Coronation Street and Christmas Day

The biggest learning for DVLA is this understanding of the way their customers behave. The team has learned some interesting things about how the British population uses online services. For example, there is a spike in demand for the service during the breaks in Coronation Street. 6,600 people used the system on Christmas Day. The busiest time was lunchtime, and the quietest was during the Queen’s speech!

Such special occasions aside, the daily pattern on Mondays-Saturdays sees busy periods at 9:30am, lunchtime and 4-10pm. Sunday is quiet until lunchtime, then busy in the afternoon and evening.

This tracking data is used by EVL support teams, IT suppliers and service partners to ensure the system meets the needs of users. There are regular meetings to forecast trends and the impact marketing activity will have in increasing use of the service.

Challenges

The channel shift team in DVLA had to overcome several challenges to establish EVL as it is today, not least changing the law to make sure the service met customer needs and save taxpayers’ money!

Loyalty to the Post Office

DVLA undertook research with groups who had not converted to EVL to understand the barriers to them using the service. Research revealed that 40-50% of non-users held the belief that, by renewing their car tax at their local Post Office, they are playing a vital role in ensuring the branch stays open. In reality there has been no change in the number of Post Offices issuing tax discs and the number supporting DVLA has remained at around 4,600.

DVLA found that renewing car tax may be one of just a couple of transactions these customers make at the Post Office per year. These customers have a philanthropic attachment to the Post Office and believe car tax renewals form a much greater proportion of the Post Office’s business than they actually do. These customers keep using the paper channel, rather than use the more efficient online channel, because they believe doing so will play a crucial role in keeping their local Post Office open. Contractually DVLA cannot tell prospective EVL users about the benefit of not having to queue at the Post Office, which means this very powerful marketing message is out of bounds.

Extending service availability to save taxpayers' money

This data has already shown the need to extend the service to 24/7 availability. Initially, transactions were only allowed from the 15th of the month. This was widened to the 11th and then the 5th with a reduction in customer complaints.

Ministerial permission was needed to move the service to the 5th. This was secured and demand in peak times was reduced by a third. This removed the need to procure and install new architecture, saving the taxpayer money.

Changing the law to drive channel shift

Under existing regulations, a new car tax disc had to be displayed on the first day of the month. A significant number of people wanted to pay for car tax on the last day of the month and display the new disc the next day.

The online service wouldn't allow this turnaround so users were driven to more costly paper channels. DVLA addressed this blocker by changing the law to give a cushion of 5 working days to display the tax disc.

Now DVLA markets the service at the end of the month because this is a peak time.

Top tips for channel shift from Andrew Rhodes, Director of Products and Services, DVLA

1. Really get to know your customer base and how to reach them – even if it involves using marketing tactics unusual for the public sector.
2. Understand customers' barriers to using the new service through research and insight. Do whatever it takes to overcome the barriers!