

# Example applications of the **midata** programme

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## 'midata' Vignettes: Strategy Board Discussion Document

### Purpose of this document

This document is draft for discussion at the September 'midata' Strategy Board. It provides a set of vignettes to bring to life its sister document the 'midata' vision. Following discussion at the Strategy Board, it is anticipated that a similar paper be distributed to the Sector Boards as part of an information pack.

### Introduction

Figure 1 below illustrates some examples of what these services will do, under three main headings. Each of these is covered in more detail in this document:

- Getting stuff done: administrative chores, including managing relationships with organisations
- Making better decisions
- Managing life episodes such as 'move home' or ongoing processes such as 'manage my diabetes'.

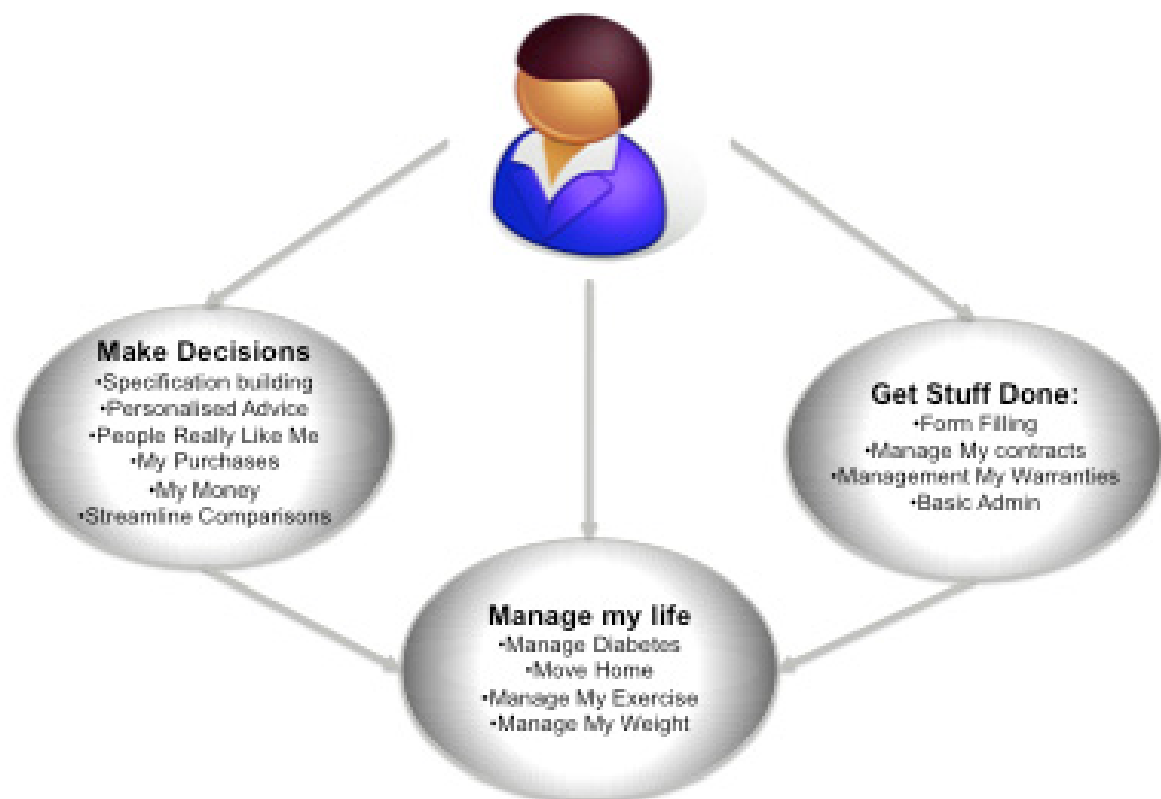


Figure 1: Examples of 'midata' at work

## Getting stuff done

### Form filling: Vignette

Sarah has just got a new job. It's a responsible position so quite rightly, her new employer wants lots of documentation from her: proof of her citizenship, that she is qualified to drive, that she has passed certain exams and achieved certain qualifications, that she has passed a CRB check, and so on.

Not long ago, proving these claims would have been a nightmare for Sarah: hunting around the house for lost pieces of paper; going to the post office to send registered letters, making photocopies – sometimes even travelling with paper documentation in hand.

This time round however, she did it all in less than a minute. She simply logged in to her personal data store, ticked on a series of icons called 'tokens of verification' and sent them through electronically.

Her employer is pleased too. On receipt of her message, the employer's systems can check the tokens automatically and a once laborious, expensive checking process is completed in no time at all, at very low cost.

### How 'midata' helps us get there

'mydata' enables individuals to have access to information held about them by organisations in a machine readable portable format. This provides the content for a new market of inline secure identity assurance tools that enable simplified form filling and personal admin. The Government's Identity Assurance programme envisages a competitive market for services providing individuals with identity credentials to prove they are who they say they are when dealing with an organisation.

Secure, encrypted, reusable electronic tokens of identity will be used to speed up online transactions while reducing costs and risks of fraud. But proof of identity is just one of many ways that individuals need to verify claims when dealing with organisations. Other examples include:

- I have a valid driving licence
- I have a current passport
- I am a qualified HGV driver (+ all other formal qualifications)
- I have passed my maths GCSE (+ all other educational qualifications)
- I am entitled to disability benefit (+ all other benefits and entitlements)
- I have an up-to-date CRB check
- I have valid, up-to-date car insurance (+ all other insurances)
- My credit reference rating is ...
- I am old enough to drink/enter these premises

Releasing a secure, date-stamped, non-tamperable verification token is a highly specific and simple way for organisations to return information to customers in a way that adds value.

This market for such tokens will save individuals significant amounts of time and hassle while reducing costs and risks for organisations. Automatic provision of such tokens of verification will become an 'expected part of the service' for individuals dealing with organisations, educational, qualification and other bodies.

## Basic Admin: Vignette

Sally is moving home. Not long ago, this would have created an administrative nightmare for her. She would have had to contact each one of her suppliers separately logging in to their websites or queuing to talk to someone at a call centre, dozens of time over. Even then, there would have been many suppliers she just forgot to inform.

This time round it's different. Sally simply logs into her personal data store, changes the details in the field called 'current address', and that's it – job done. With that one, simple change all her suppliers are informed instantly of her new address.

Sally is pleased. She's just saved herself hours of tedious work. Her suppliers are just as pleased. Keeping their records up to date is expensive and difficult. Now she's giving them exactly the information they need, when they need it, at very low cost. It's a tremendous win-win.

## How 'mydata' helps us get there

Currently, most customer databases suffer high levels of inaccuracy. According to the Office of National Statistics for example, the average database degrades in accuracy by 14% a year. In addition, an average of 11% of the database will be incorrect in some way: incorrectly entered or matched for example.

'mydata' helps tackle this problem by making it easy for customers to see basic data (such as address and contact details) held about them by companies, and to correct it if necessary. This is part of a phased approach for data release (though some companies are moving faster).

Phase 1: 'mydata' builds upon some of the existing 'My Account' services that some online retailers offer where customers can see and update basic information such as my postal address, my email address. By publishing a Personal Data Inventory (PDI) organisations enable individuals to see what data is held about them. Some fields will vary by sector but many will be common: for example, transactions, contracts, warranties. PDI also create common processes so that customers know how to access this information and where to find it, no matter which company they are dealing with.

Phase 2: In Phase 1 the individual is helping to curate many different organisations' databases separately. Under Phase 2, individuals can manage their core details (name, age, phone number etc) in a personal data store, with organisations 'subscribing' to access their data.

When individuals enter into a relationship with an organisation, they give permission to the organisation to access relevant, specified fields in their data store, ticking which details this particular organisation can have access to.

Under this 'subscribe to me' approach to My Details 1, the benefits to both sides multiply greatly. Individuals have a single convenient 'dashboard', which remains under their own control, where they can undertake core relationship management tasks quickly and simply. For example, if Sally is moving home, she simply changes the 'home address' field in her personal data store and all permissioned suppliers are instantly notified of this change.

Suppliers, in turn, are kept abreast of such changes as and when they happen (not six months later), thus improving the quality of their data while reducing their costs of data management.

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<sup>1</sup> A working prototype of a personal data store-based 'subscribe to me' service was tested in the [Mydex Community Prototype](#) in early 2011

## Manage my contracts: Vignette

Claudia is feeling frustrated. She remembers paying over the odds for a shiny new kettle some months ago. That designer look just happened to fit her new kitchen décor. But now it's stopped working and she can't remember when she bought it. Was it 11 months ago or just over a year ago? She's sure she kept the receipt somewhere but now she can't find it. Oh well, just go out and buy another kettle.

It's a year later and now her new toaster is on the blink! This time it's different however. Claudia's new 'Contracts and warranties dashboard' provides her with a record of all her recent purchases in one place, showing when their guarantees expire. She's in luck. Her toaster was purchased 11 months ago. She can take it back. And the number for her to ring is right there.

Retailers also like the new approach. Paper receipts are expensive to provide and add no real value. By moving to digital receipts retailers can shave these costs. Even better, call centre costs are beginning to fall because customers have the information they need to hand and no longer have to ring to find out.

## How 'mydata' helps us get there

Our current approach to receipts is a waste of time and money for both companies and customers. Most customers simply throw most receipts away. Many customers lose or struggle to find the receipts they mean to keep. Companies spend huge amounts of money supplying receipts that customers neither value nor use.

Some companies have started supplying electronic receipts in the form of emails or pdfs. This helps customers keep electronic records of purchases. But in this limited form there is not much more they can do with the information.

Under 'mydata' companies can provide electronic receipts to customers that can be downloaded and stored in the customer's own database in a machine-readable portable format. Thus, no matter who the customer buys the product or service from, critical bits of information are all made available for use. Receipts don't have to be limited to products. They can include mobile phone contracts, insurances, service contracts.

Individuals can use this database as a convenient way to manage renewals, returns, repairs, technical enquiries, service enquiries, buying spare parts, seeking accessories and upgrades, etc. Suppliers benefit from reduced call centre costs, as fewer customers phone to try and find out information they have lost.

Looking to the future, it also creates a springboard for new types of service such as 'power of attorney' price comparison services that, on the instruction of the individual, automatically seeks price comparisons for services whose renewal date looms.<sup>2</sup>

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<sup>2</sup> A prototype for such a 'power of attorney' service is being developed by The Customers Voice.

## Making decisions

### My Money: Vignette

Mary and John realise they need to bring more order to their financial affairs. They have two store cards (which also act as credit cards), two other credit cards, and three bank current accounts (one each for Mary and John's private spending and one for the household). They also have an online savings accounts which they transfer money in and out of, for holidays and other contingencies.

With all these different accounts and different providers, Mary and John struggled to get a rounded view of their financial affairs – until they signed up for their new My Money service. The service brings together information about all their transactions from all their accounts so that, for the first time, they see the complete picture.

Using it, they can:

- Get an automatic total of money in and money out across all their accounts
- Analyse their spend by chosen categories such as groceries, leisure travel, energy.
- Set budgets for category spending
- Tag spending on certain items under bespoke categories such as 'presents'.
- Link directly to comparison services telling them where they could save money.
- Compare their spending and budgets with people like them (same income, family, home)
- Seek personalised advice simply and safely – because they have all the necessary information.

Mary and John now feel they have much better control over their financial affairs. Their financial services providers are also enthusiastic. Previously to view the information customers had to log on to each account provider separately – much easier to pick up a piece of paper! With the new service customers are beginning to stop paper statements and the costs of providing paper statements has started falling fast. Additionally with Mary and Johns better financial management their credit rating has increased enabling financial service providers to responsibly lend to them thus growing their potential market.

Meanwhile, users like Mary and John have grown used to sharing this aggregated data with services they trust. This has given these service providers the opportunity to offer new financial planning and management services, to gain new insights into customer behaviours and needs, to make genuinely helpful and timely product and service offers – thus helping them improve customer satisfaction and reduce marketing costs.

### How 'mydata' helps us get there

For individuals to build an integrated view of their activities across many different suppliers they need to be able to integrate information from all of these suppliers. Many suppliers now offer customers electronic versions of statements. That's a start, but it means the information is divided up, organisation by organisation. This makes it difficult for the customer to see an integrated view of their activities as a whole.

Some 'money management' services go a step further – but only if the customer gives them permission to 'impersonate' the customer online by using the customer's passwords to access their financial records. Many people feel uncomfortable about this approach.

With 'mydata' individuals will be able to download data from all their different financial service providers in a machine readable portable format, so that the data can be mixed, matched, crunched and integrated in a variety of different ways. This helps individuals manage their finances across all of their accounts and creates the foundation for a wide range of added value money management, analysis and advice services.

## My Purchases: Vignette

A few years ago Claudia signed up to the new 'mydata'-inspired My Purchases initiative, which lets her automatically store data about all her purchases via e-receipts.

At first, she used it simply for big-ticket items, taking advantage of the specialist My Warranties Dashboard service. But over time, she started using it to collect information about all her purchases. The more purchases she made using plastic cards, online, via new mobile devices and contactless payment mechanisms, the more information she captured about her purchases. Nowadays, only a tiny number of low value purchases (such as an impulse purchase of a chocolate bar at a kiosk) slip through the net.

Over time, Claudia has got used to a range of new services that have changed her life in both important and subtle ways. She now regularly uses services to crunch her data to:

- Give her an overview of how much she spends on certain items.
- Give her an idea of how much she spends with particular brands and companies.
- Give her an overview of spending trends and patterns such as an increase on spend on clothes.

Claudia has taken this discovery one step further by signing up to a specialist new service (called My Wardrobe) that lets her see all her clothes purchases in one place. This has brought her a number of benefits:

- Some clothes shops have asked her for access to this data, offering her some hefty discounts in return for providing it. This is the first time they've been able to see a genuine 'single view' of customers' spending across the category as a whole.
- She uses a special outfit, building tool to visualise how different bits of her wardrobe may fit together for use on special occasions.
- She has shared this data with fashion advisors to get their recommendations for her 'next best purchase'.
- She's also started 'slicing and dicing' the information according to her personal needs and specifications e.g. 'my summer holiday' 'presents' to separate them out from 'routine' spending. She did this plan and managed the cost of Christmas, for example. She then discover that market researchers were prepared to pay her for access to this data, on an anonymous basis.
- She has used her database to inform more specific price comparisons: 'if I had purchased these products at another supplier how much less/more would it have cost me?'

Claudia's suppliers also like the new approach. Digital receipts are cheaper than paper receipts, and Claudia is now sharing new combinations and analyses of her data with some of them, so that they can provide recommendations, advice and offers. This is giving them insights and marketing opportunities they never had before.

## How 'mydata' helps us get there

Releasing data back to individuals in a portable, reusable form could happen in two ways: a) handing over a complete transaction history, and b) helping individuals build their own transaction histories over time by issuing e-receipts.

'mydata' facilitates this process by creating agreement between companies over standard data fields and by creating common approaches to data sharing so that receipt data can be automatically stored in a standard way.

Over time, the My Purchases database will grow to be the critical database that companies need to access (on a permission only basis of course), if they want to gain insight into their customers' needs and wants and to offer customers truly relevant, personalised services. Looking to the future, this might obviate the need for expensive loyalty card and other data capturing schemes, while allowing all trusted suppliers to gain access to rich, detailed information about customer behaviours, preferences and priorities.



## People really like me: Vignette

Mary and Peter want to save money and use energy in a greener way, but they're not sure whether their current energy bills are higher or lower than they 'should' be. They tried doing a few comparisons – looking at average energy consumption for a three bedroom terraced house like theirs. But then they realised this average wasn't telling them very much. One friend's energy bills were much lower than theirs: he's a single man who works long hours and tends to eat out, so he spends very little time at home. Another friend's energy bills were higher, but they had two kids and the wife stayed at home all day. Mary and Peter are different again. They have one school age child and Mary works during school terms.

What Mary and Peter really need to know is the energy consumption of people in a similar situation to them – similar home, similar lifestyle. Using their new specialist energy advice service they can do this just this.

First, they take details of their energy consumption, provided by their current energy supplier. Then they add details about their home and their lifestyle (without needing to divulge their name and address). The service then matches their data to data from people really like them: two adults, one kid, no one at home during school term. The service also adds 'what if' comparisons drawing on data about similar families with and without loft insulation, double glazing, solar panels etc.

Mary and Peter now feel they have a much better basis for making better decisions. For suppliers, the ability to identify 'people really like me' opens up a host of new opportunities for suppliers. These include the ability to:

- Gain new insights into customer needs, wants and priorities, including the development of new types of segmentation
- Offer truly personalised advice at much lower cost
- Build trust and cross-sell on the back of this personalised advice
- Improve customer retention by adding value to 'basic' services

## How 'mydata' helps us get there

So far, most existing 'people like you' services are rather crude. They tend to match just one or two points of data: 'a certain percentage of people who purchased this item also purchased that item', and they are restricted to narrow data silos: the data gathered by one particular retailer, not data about individuals across the marketplace.

'mydata'-based services will transform this situation by helping individuals build rounded, comprehensive pictures of their activities within particular markets, and by letting them add additional information that existing suppliers cannot access, such as Mary and Peter's current and planned lifestyle – they're planning to have another baby and would like to know what sort of impact this might have on their total costs, including energy bills. It is, of course, up to the individual to decide how much of this information they wish to share with which suppliers.

## Streamlined comparisons: Vignette

David and Jane are feeling the financial squeeze and have decided to look for cheaper options on their bills. They are slightly wary about using comparison sites. They tried once before. It was time-consuming filling in all those forms and on one occasion they put in the wrong information (what is my exact energy usage and what tariff am I on?). This led to unhelpful switching recommendations.

This time round it's much easier. Their current providers have provided them with all the information they need, and because they've done it in an electronic format they don't have to rekey the information into comparison service forms: they can populate the forms automatically.

This makes the process a lot easier – so easy that they tested a number of competing services to find the right deal for them.

## How 'mydata' helps us get there

Price and product comparison services are popular among consumers. However, not all consumers benefit from the services as they should. This is because they:

- Enter the wrong data, thereby generating the wrong 'best deal' recommendations
- Find the process of entering the data time-consuming and hasslesome.

'mydata' addresses these problems by:

- Getting cross-industry agreement on what data should be included in 'standard' or basic comparisons.
- Providing this data to customers in a 'foolproof' way, so that data entry errors are avoided (so that the customer knows the exact name of the contract or tariff, for example). One way of doing this is by facilitating automatic population of price comparison forms from the individual's database – the data in the database having been previously released to the individual by his or her supplier.

The first step is standardisation of data fields and descriptors. For example, in mobile, there is no common, standard approach to informing customers about roaming rates, international rates, end-of-contract date, information about actual text, voice and data used, the value of the annual contract (including related charges and fees). Some suppliers omit some of these details. All suppliers have different ways of presenting the information. Simply standardising what information is presented, how, can significantly improve customers' use of comparison services.

The next step is providing this data in common, electronic formats so that customers can 'squirt' the information automatically from their own databases into comparison engines to avoid errors and the need for re-keying.

## Personalised advice: Vignette

Betty is feeling the pinch on energy bills and wants to save money and become a greener consumer if she can. If she's honest however, she doesn't really understand a lot of what's said or claimed about energy saving options, and she doesn't know who to trust. The more she looks into it, the more complicated it seems to get.

Then a friend alerted her to a new service that had just been launched.

First thing the service does is look at her actual energy consumption as provided via Betty by her energy supplier based on the 'mydata' initiative. Then it compares her to 'people really like you', so that she can see how much others like her have saved.

The service also asks for, and provides, other bits of information. It asks her to provide more details of:

- the budget she's willing to invest, her life style (such as when she's in and out)
- what changes she is prepared to make (like using appliances at different times of the day)
- the exact state of her house (double glazing, wall cavity insulation, loft insulation, solar panels, etc).

The service then calculates the likely energy savings arising from different options (lifestyle changes, installation of double glazing etc), lists any grants that might be available to her, and a list of recommended suppliers (based on a mixture of expert ratings, peer reviews and price/product comparisons).

Once upon a time, providing this advice would have been very expensive: requiring a home visit by an expert and lots of manual form filling. But now virtually all the data is crunched automatically using tried and tested algorithms. This means Betty is able to 'play' with different options online to see how much she would have to invest, what impact it would have on her current energy consumption, and how long it would take her to recoup her investment.

At the end of the process, she makes her decision, confident that her chosen option really is based on her own circumstances and priorities.

For suppliers, the ability to offer truly personalised advice at low cost is key to improving customer satisfaction and customer loyalty, is a way of gaining new insights into customer needs, and often opens up new opportunities for increased sales.

## How 'mydata' helps us get there

Personalised advice is one of the holy grail of superior service. Until now, in many cases, it's been prohibitively expensive. But, starting with structured data about the individual's actual behaviours and usage, it's becoming possible to build new types of 'advice engines' that really do take individuals' circumstances, needs and priorities into account.

## Specification building: Vignette

Darren wants to find the best tariff for his mobile phone but he is confused by all the tariffs that are available. Sifting through one tariff after another seems unsatisfactory, but thankfully a new service helps him cut to the chase in no time. It simply asks for information about his current usage (provided to Darren by his current supplier) and then it matches current usage against what's on the market.

It also helps him assess 'what if' options. For example, Darren thinks he would like to increase his data downloads if he could afford it, so he has changed his specification to accommodate that.

It doesn't take Darren long to narrow down his options – and he feels much more confident that he's made a decision he'll be happy with.

## How 'mydata' helps us get there

Most of us have a fixed idea about how markets work. Suppliers bring their products and services to market and 'display' them in various ways: in shops, online, via advertising and so on. Customers then inspect the qualities and attributes of these offerings and make a choice.

Markets have worked in this way for thousands of years. But we could do it in a different, more customer-driven way, where customers build a specification of what they want and:

- publish this to the marketplace, requesting offers that meet or address the spec
- match and filter existing product attributes and qualities against the spec
- seek suppliers that can customise their offering to meet the spec perfectly.

If the data is highly structured - for example, "for my mobile phone contract I want to do this amount of texting, that amount of voice, this amount of data downloading, routinely, in these five countries" - the matching process can be automated.

Specification building has many potential benefits. It helps customers define, and get exactly what they want. It provides suppliers with a direct insight into what customers are looking for, because customers are telling them directly. It means they know exactly when to communicate with who, about what, thereby eliminating huge amounts of waste from the marketing process. By meeting customers' specifications, it helps them build brand reputation and customer satisfaction.

Over the next few decades, specification building will become one of the main ways consumers go to market.

The biggest challenge in spec building, however, is helping the customer build the specification in the first place. It can be about difficult trade-offs: Do I really want alloy wheels on my car? And a sun roof? Also, customers often struggle because they don't know what they currently do, and therefore need. For example, it's hard to specify your ideal mobile phone contract if you don't know what your current use of text, voice and data is.

By providing such data to their customers, 'mydata' companies will help kick-start a major marketplace innovation, driven by customers saying to potential suppliers "this is what I currently do, can you help me do it better/cheaper/quicker?" Companies participating in specification-driven markets will benefit greatly from the insights they glean, and the go-to-market efficiencies they generate.

## Life management services: Looking to the future

### Manage my diabetes: Vignette

Bill has late onset diabetes. It's a big change to his life and at times, if he's honest, he finds it difficult to cope. But things are getting easier, thanks to his new diabetes management service. At the heart of this service lies the integration of many different types of data via a special lightweight hand-held device that he carries around with him wherever he goes. The device:

- uses Bluetooth to automatically capture and record blood sugar levels and physical activity records
- helps Bill keep a record of medication times and doses
- helps Bill keep a record of his food intake. This, he does in two ways. First, he simply taps in time and description of meals and snacks, as many people are using the same service a lot of information about meal and food content has been developed and is growing. Second, he uses the e-receipts he gathers to keep from his food purchases. The neat thing about his new service is that, by linking to its product code, it automatically captures detailed information about the calorie and other content of each item of food purchased.
- helps Bill make a note of mood and day-to-day episodes (important meetings, rows, missing trains) which he's learned, can play havoc with his blood sugar levels.

Before, Bill found that capturing, logging and analysing all this information was such a chore that it never really happened. But now so much of it has been automated it's possible to see patterns and analyse trends: once a month Bill hands over the data to his doctor who uses it to a) compare it to people really like Bill and b) give much better personalised advice than he used to before, much quicker – thereby saving the health service money too.

Bill also shares some of the data on an online community. Doing so, he's found a number of people with a very similar condition/patterns to him: sharing notes with them has helped him manage his condition much better and gain much needed emotional support.

For medical researchers and providers Bill's new support service is a godsend. Chronic conditions like Bill's account for a very high proportion of their costs but now Bill is helping to reduce these costs in two ways: first by being more proactive in managing his condition, and second, because his condition is now much more stable, leading to radically reduced medical care costs for complications and emergencies. Meanwhile, his doctor is better placed to give Bill exactly the advice he needs.

### How 'mydata' helps us get there

Looking to the future, the same 'mydata' data will be used again and again in countless different ways, on countless different occasions as it gets integrated into the provision of increasingly sophisticated personal information management services.

These sophisticated life management services will help individuals plan and organise information-intensive life events and episodes such as 'get married' or 'move home' along with ongoing life processes such as 'manage my money' and 'manage my health'.

Because they are so useful to individuals, integrated into their daily lives, and because they create and are driven by rich new combinations of data that speak volumes about the individuals' lives, these services have now become central: to individuals' own lives; to how they relate to and interact with organisations; and to how organisations gain insights into their customers, develop products and services, and market these offerings to their customers.

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