Design for digital

A business vision to prepare communications service providers for the cognitive era

Get started

5. Impact on operational models

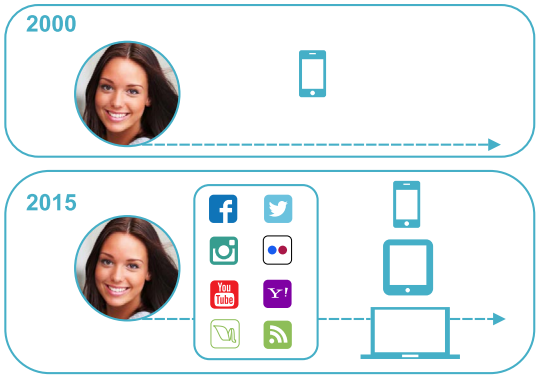
Many things are changing, so what should CSPs focus on as they look to transform themselves into Digital Services Providers (DSPs)? IBM believes there are three critical areas of change—customers, products and partners.

5.1 Customers are "out of control"

The traditional CSP business model is essentially a "control" model, particularly for customer management. CSPs have determined when, where and how customers interact with them. Their preference has been for call centre and retail store interactions. Customers are seen as units to be handled efficiently from the point of view of a CSP's internal processes. Typical key performance indicators focus on call handling time and single-touch interactions. These may be incidentally beneficial to the customer but the main driver is operational efficiency and keeping down costs.

The control model starts with the call centre, where customer service representatives (CSRs) are ideally given a holistic 360° view of the customer and access to every possible transaction. It progresses to the retail store, where slightly less information and slightly fewer transactions are typically available, then to the dealership where still less is made available because dealers are not under the same degree of control by the CSP. Finally the CSP has an online presence, where the absolute minimum amount of information and transactional capability is made available to the customer. Finally all of these channels are managed separately with conflicting incentive programs. The control model is at the heart of CSPs' difficulties in establishing a harmonized cross-channel experience for customers.

The problem is that the number of customers who enjoy interacting with call centres is approximately zero. Customer preference is for online transactions without a call centre or even a retail store - and this trend is growing. With their expectations based on experiences with Amazon, Apple and others, customers expect to buy, consume and service products when and where **they** want.



One of the results of this mismatch between CSP and customer preferences is that CSPs are losing control of perhaps the single most important touch point with their customers — the point of customer acquisition. Increasingly, customers prefer to buy phones online and their main choice centres on the phone itself rather than the carrier. They feel they are buying a product from, say, Apple or Samsung. Their primary focus is probably on features that have nothing to do with the CSP - the camera, the screen resolution, the app store. The "utility" Telco is often selected as a necessity with the choice being determined almost entirely on price. This is a dangerous development for CSPs because, if the emotional connection is lost with the customer, it becomes harder to extract the lion's share of value from the transaction.

5.2 Simplify how products are bought and consumed

Digital products have to be designed to be simple, easy and enjoyable for the customer to buy, consume and service. In other words they have to be designed from the customer's point of view rather than from the CSPs.

Many CSPs have, or have had, product simplification projects, but these have rarely if ever been focused on the customer experience. More often they are focused on reducing the number of products from tens of thousands down to a few hundred (housekeeping) or on product standardization or modularization (internal process improvement). These are not bad things to do, but they are not enough to turn a CSP into a DSP.

Design based on how products are experienced by the customer is critical. There is no fixed answer to what this will mean, but certain things are clear for now. Products have to be designed for online consumption first, servicing the

way empowered customers want to be dealt with. If customers can self-serve at all stages of the customer lifecycle, the DSP has designed the products well.

This online first mentality also provides the key to multi-channel harmonization. It reverses the current order by giving the online customer the maximum amount of information and control to achieve everything needed. It is then relatively easy to provide this same experience to dealers, retail stores and call centres. There will always be some transactions that the DSP will keep in its control - unlimited customer credits spring to mind — but these should be treated as the exception and relegated to the back office rather than determining the whole process.

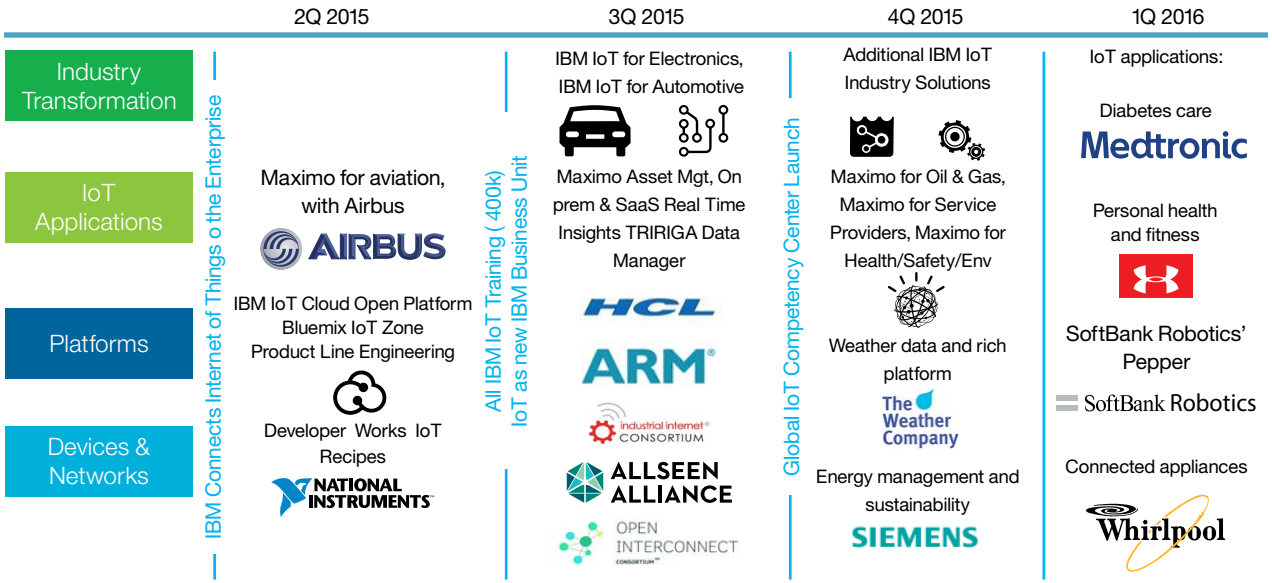
5.3 "Work with partners" instead of just "managing suppliers"

As part of the control business model, CSPs traditionally had end to end control of the value chain. They might buy components from suppliers but essentially the products they sold were entirely their own. This is definitely not true for DSPs. Digital products are primarily applications that use the network as an enabler but they have features that are brought in from other industries. So a DSP sells mobile security, mobile healthcare, mobile finance, M2M logistics and an increasingly wide variety of multi-disciplinary products.

These new products require active partners such as banks, healthcare providers, automobile manufacturers and security companies. These partners will compete for ownership of the customer relationship. Do you buy mobile health monitoring from the doctor or the mobile carrier? There is no single answer, but whoever owns the customer relationship will usually extract the most value.

The partners themselves need a network for their products but they have a choice. A successful DSP needs to be attractive to potential partners and make onboarding and servicing a partner easy and fast.

IBM formed an alliance with Japanese telecommunication giant SoftBank, in February, 2015. As part of the alliance, IBM is teaching Watson to speak, and think, in Japanese, one of most difficult languages for a computer to navigate. Together with SoftBank, we will explore new ways to deliver Watson's cognitive and natural language capabilities, including through mobile, tablet, and robots.



The new IBM Watson Internet of Things Center in Munich is the first European Watson innovation center and represents IBM's largest investment in Europe in more than two decades. In another example of IBM's continuous transformation, we are now developing the emerging Internet of Things (IoT) opportunity into a real business based upon an ecosystem of partners.

In the second quarter of 2015, IBM announced a $3 billion investment in a new business unit that will make IoT a truly relevant component of digital disruption. The steps we have taken to develop this include:

- Opening the global headquarters for Watson Internet of Things (IoT) and launching along with ecosystem partners a series of new offerings and capabilities designed to extend the power of cognitive computing to the billions of connected devices, sensors and systems that comprise the IoT. These new offerings will be available through the IBM Watson IoT Cloud, the company's global platform for IoT business and developers.
- Launching eight new IoT Client Experience Centers worldwide
- Introducing Watson API Services for IoT on the IBM Cloud
- Acquiring The Weather Company's B2B, mobile and cloud-based web properties.
- Teaming with Siemens Building Technologies in the digitalization of buildings for energy management and sustainability.
- Highlighting Watson innovation, including diabetes care with Medtronic, personal health and fitness with Under Armour, robotics with SoftBank Robotics' Pepper; and connected appliances with Whirlpool.
- Opening the new IBM Watson IOT Center in Munich, which will drive collaborative innovation with clients, partners and IBM researchers and data scientists to create new opportunities for growth in IoT.

The campus environment will bring together 1,000 IBM developers, consultants, researchers and designers to drive deeper engagement with clients and partners, and will also serve as an innovation lab for data scientists, engineers and programmers building a new class of connected solutions at the intersection of cognitive computing and the IoT.

5.4 New approach to architecture

Transformation to a customer-centric organisation also requires a new way of thinking about the traditional technology architecture. We identify three major components of the new IT systems paradigm:

Systems of Engagement are user-centric systems for the customer, employee or partner, and are geared to enable collaboration and focused on providing convenience to the user

Systems of Record are data-centric systems providing business support

Systems of Insight are analytics based systems resulting from the integration of systems of record and systems of engagement.