

Service Blueprinting: When Customer Satisfaction Numbers are not enough

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1. Abstract

As an executive, you closely monitor your weekly customer satisfaction data. Based on those numbers, things seem to be progressing smoothly on a critical new account. Yet, you are suddenly informed that this same customer is rather displeased. Now, your key customer is threatening to dissolve their contract with you. How can this be? Perhaps you did not understand your client's needs and perspective as completely as you thought. How can you build a more complete and truthful awareness into the health of your customer accounts? How can you improve your relationship with the customer?

This paper describes our enhancements to a method for addressing this concern called service blueprinting [1, 2]. Service blueprinting gives service providers a visual way to express their intentions and goals while linking them to customer's perceptions and needs as the service activity progresses. Just as architects use blueprints to communicate their designs to engineers, building occupants, and owners, service blueprinting can be used as a communicative tool between those who consume services and those who design, enable, track, and deliver services. The final blueprint presents a collaborative visualization that all stakeholders, including the customer, can recognize, discuss and debate.

Service designers play a key role in this collaborative process as they bring new insight to evaluating the service from the customer's viewpoint. Through service blueprinting they can introduce their insights for an improved customer experience using a clear and accessible format. It is with the input from a designer that we were able to enhance the blueprinting approach and format to include the finer human elements that supports a more attentive customer view.

This paper presents our research and approach for extending traditional service blueprinting. The paper is organized as follows: the elements of a traditional blueprint are reviewed in Section 2, and in Section 3 we introduce the initial motivation and the resulting format of the enhanced blueprint. The enhanced features are elaborated upon as they are applied to an actual scenario of a single service transaction in Section 4. Section 5 outlines the process for constructing a blueprint, section 6 discusses future work, and section 7 concludes.

2. The Traditional Blueprint Format

Service blueprinting was introduced by Lynn Shostack [3] as a method to model the service processes from the customer perspective. She organized the service activity in a way that is similar to that of a theater production. The top section, labeled the “onstage” area, considers what the customer actually sees, or is aware of, during their service experience. Here is where the customer’s journey is mapped out horizontally. The “backstage” area shows necessary and corresponding provider actions that the customer does not see. This area details the provider actions that they are trained or required to perform. The separation of these two areas has traditionally been marked by the line of visibility (see figure 1).

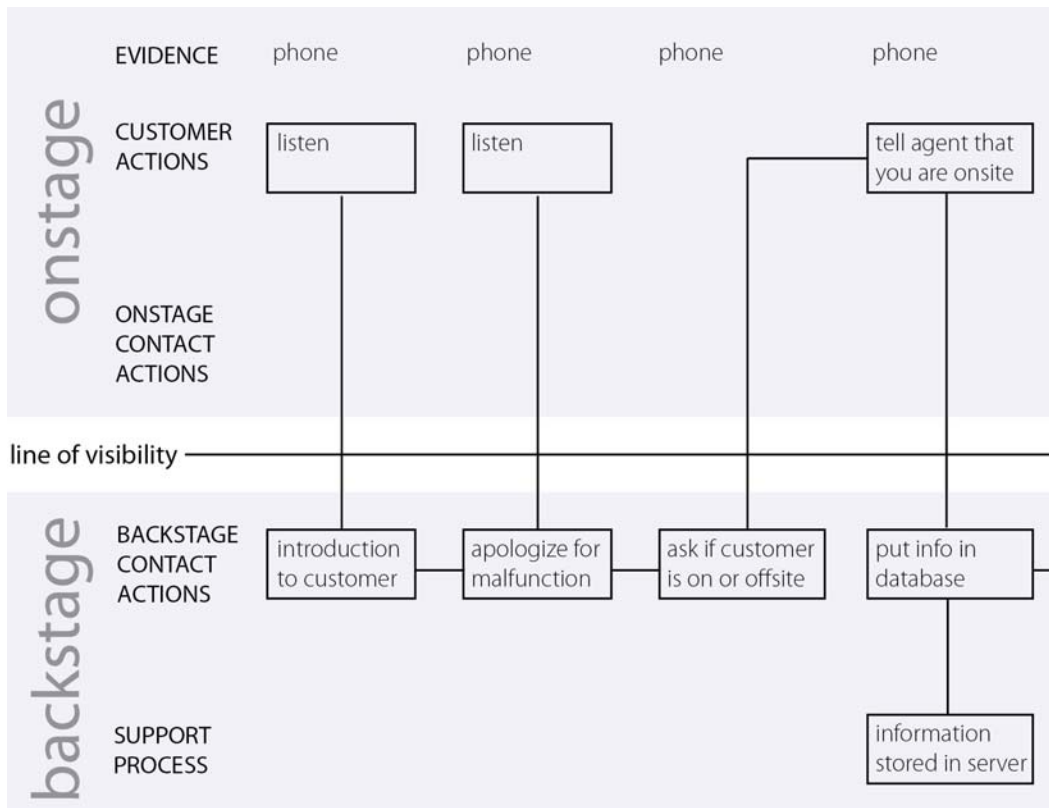


Figure 1: Traditional Blueprint Layout

In this figure we show a traditional blueprint segment for the early steps of placing a call to a contact center. This scenario will be elaborated upon for the test case used with our enhanced blueprint.

The line of visibility can be used as a conscious guide for determining which provider service actions the customer should see and be aware of during their service transaction. Care is taken not to burden the customer with unnecessary backstage actions or administrative details. At the same time,

backstage actions get triggered based upon on stage events. Both onstage and backstage activities need to be coordinated smoothly to produce a positive onstage experience.

The use of this line of visibility also directs us to consider the separation differently depending on the role of the onstage customer. Clients who *manage* the service account may not have the same level of awareness as the people who *consume* the service. For example, a contact center manager, may work directly with managing the terms and conditions of the service contract. Yet the service contract is most likely to be a backstage element for someone who actually makes a request to the contact center.

Another key component of the blueprint gives the provider a means for examining human interaction points in the midst of these organized events. Vertical lines are drawn between the customer and provider actions to show the moments when the two parties directly interact. One can design and plan for these moments, which hopefully will result in sustaining and improving the business relationship. Perhaps these interactions are not happening frequently enough according to the customer, or perhaps when they do happen the outcome is not as valuable or productive as the customer needs at that moment. Drawing out the interaction points can identify where there may be lapses or weaknesses at these moments.

Other features of the traditional blueprint are the service evidence and support processes. Service evidence is defined as the “tangibles that customers are exposed to that can influence their quality perceptions” [4]. This includes everything physical and tangible that contributes to the service. So for a hotel stay this would include: the bed in a hotel room, the guest check, a membership card, or the offering fresh squeezed lemonade upon arrival. All these elements are designed to reinforce the service of a comfortable hotel stay. Service evidence can also be purposely triggered to indicate progress or completion of a service element. A reservation confirmation notice is an example of progress evidence.

The evidence is one component of the service than can most readily receive design input. For the designer, it presents opportunities for introducing quality improvement, brand alignment and customer value reinforcement. Taking those design concepts to an IT service environment is challenging but equally as important especially when considering customer touch points that may not have a physical

embodiment, but may be a conversation, and explanation, or an interview. At times, additional service evidence may need to be created in order to complete the design for a positive service experience.

Support processes are the backstage operations that needed in order for the service to function. These processes usually take the form of a data bases, request systems, knowledge based systems, resource scheduling systems, or manufacturing systems that the backstage service employees depend upon in order to complete the service request.

The completed blueprint reveals how all these actions behave in concert with each other as the customer proceeds through their service experience. It may reveal an imbalance between how the customer perceives the onstage activities and how the provider tracks the backstage work. It may show how there is not enough onstage activities to give the customer a feeling of progress, certainty, or understanding over what they might expect from the service. Here is where the extensions that we introduce could shed some light on how the customer might be interpreting the service progress given the information with which they are deliberately shown and given the lack of awareness they have for the backstage events.

3. Motivations for an Enhanced Blueprint

Traditionally, service blueprints have been done entirely with lines and text boxes to depict anything from user actions to support processes. Our research explores how to introduce new elements to the blueprint for capturing the meanings or emotional qualities that the customer experiences during key moments of the service. Our motivation is to augment the listing of customer-provider actions with some working form of a bellwether that could be used to temper the ups and downs of the customer's relationship with the provider. Attending to this relationship is an important factor in maintaining and sustaining the customer base, as the customer's emotional state during the service contributes to their overall perception of the service.

There has been considerable research to support the connection between decision making and emotions. It seems that when designing, engineering, and managing services, one should consider these emotional values as well. "Our decisions depend a lot on what we perceive, on what our brain samples in the world and the way in which it connects the objects it perceives with the past" [5]. The customer

perceptions of the service may be established before they contact their service provider and certainly mature as the number of experiences they have with the service increases. In order to bring the offering closer to the actual customer need, while respecting their perceived needs, requires some consideration for their emotional state.

To create visual elements for the expected various human states in the blueprint, we employed the talents of an interaction designer. Designers have an empathetic eye that allows them to recognize moments during the service engagement that require more customer care. “Design is often an opportunity to go back to those assumptions that have become invisible and unnoticed... A designer looks for the real thing we are trying to accomplish, unvarnished by the residue of years of organizational habit” [6]. Now, our abstract ideas about the importance of emotions and business relationships were made more concrete as she was able to conceive and formulate the relevant visualizations for the blueprint process.

3.1 Enhanced Blueprint Format

As we started to play around with more customer-centric meanings using a test scenario of contacting an IT call center, we found that pictorial representations best captured the meanings we wanted to express. The most striking difference of the new blueprint at first glance is the predominance of visual icons (see Appendix A). Using icons and visual representations allowed us to expand the customer area of the blueprint so that they become the forefront. Textual information was kept for service steps, processes, and descriptions that were best depicted with words rather than images.

See Figure 2 for a detailed view of one service moment. Each moment consists of a step, customer icon, agent icon, agent script, and agent step and is shown on the blueprint as a vertical slice of onstage and corresponding backstage activities.

The new features include notations for relationship monitoring, a hazard line, and an emotion indicator. To monitor the health of the relationship, we took the notion of feeling close to someone as you get to know them better and mapped that to the length of the vertical interaction line. The proximity of the customer and provider icons is intended to indicate the customer comfort level throughout the call. The shorter the interaction lines are between the customer and the provider, the more comfortable and welcome the customer feels towards the provider and hence the greater their perception is that they can

trust that the provider is working on their behalf. This distance fluctuates throughout the service, which is visually apparent in the blueprint. In our call center example, described in the next section, it is the

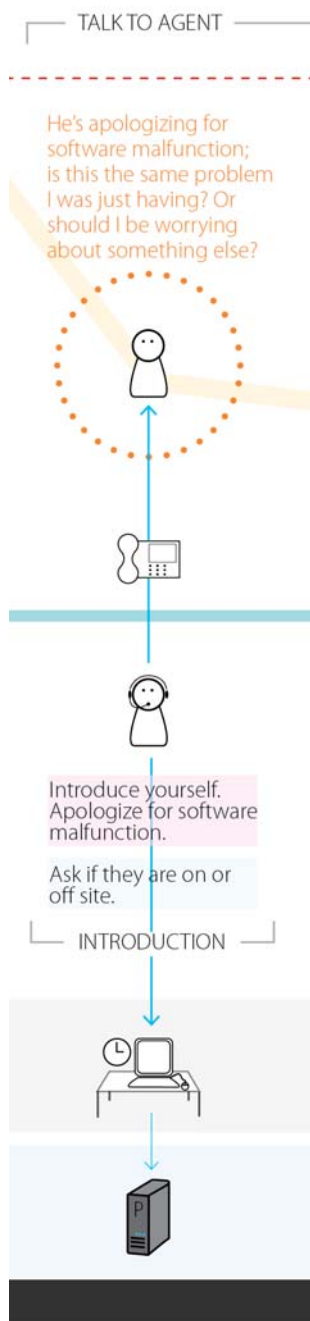


Figure 2: Enhanced blueprint slice

fluctuation that seems to define the business relationship, which should draw the provider towards the importance of presenting more consistent customer provider interactions.

Throughout the call to the contact center, frustration was the most pronounced and repeated emotion felt by the caller. So, we chose that as the emotion to monitor throughout the service transaction. To visualize this, we used a dotted circle or bubble that surrounded the head of the customer icon. The larger the circle, the more frustration the customer is feeling. Triggers for these frustration bubbles are annotated through the text floating on top of the circles. These circles are service specific and customizable; different service providers will want to map the emotions specific to their own service.

This instantiation of showing growing emotion with these large circles may not be broadly practical for all service engagements as the space required to show this might skew the interpretation of the blueprint with respect to time. When a bubble of frustration becomes large, like when a customer is put on hold, it occupies a good part of the space reserved for the customer journey. As we address annotations for time, this bubble format may conflict with that scale. But for the purposes of this first example – and in order to poignantly stress the importance of noting the emotional levels, we kept the bubbles with their varying diameters. In our future blueprints, this may evolve to simply using facial expressions, depending on who is creating the blueprints, and the intended use of the blueprints.

The dotted customer hazard line appears towards the top of the onstage customer journey section of the blueprint. It is there to specifically address the fact that any service runs the risk of being dropped by their customer, if they are not satisfied. Just where the provider sets that limit, that hazard line is a

function of the viable resources and practical measures that the provider can offer and sustain. As this is mapped in our enhanced blueprint, the closer the customer icon is to this hazard line, the more dissatisfied they are with the service - or in our call center example, the closer they are to ending the call before the service request is resolved.

For the enhanced blueprint, we considered changing the term “line of visibility” to “line of awareness”. As services have become more complex, since Lynn Shostack introduced the concept of a line of visibility, we needed to reevaluate this important separation. This was most pronounced as we worked through our scenario of placing a call to a call center. Certainly the customer can not see the call center agent, but they do have human interaction with the agent and they are aware of their presence and their actions during the call. Renaming this separation to a line of awareness seems more appropriate and has the potential of addressing a broader set of modern services. But as we apply blueprinting to more business services, with varying levels of complexities and constraints, we may need to modify this notion of visibility and awareness once again.

4. Test Scenario

To test whether the idea of mapping emotions throughout a business transaction is plausible, we charted one episode of contacting a call center to resolve an email account issue. Here is the decomposition of the service in terms of the intended and anticipated steps from the caller’s viewpoint:

1. Identify problem with mail and calendar synchronization
2. Place call to help desk
3. Navigate pre-recorded menu
4. Speak with agent – identify self and explain problem
5. Get problem fixed
6. End call

We show this decomposition as service steps laid out across the top of the blueprint. The service provider also has their own set of corresponding steps that they follow when responding to a call. With those steps is a script they follow to adhere to the business requirements of the service transaction. An example of such a script element is gathering the proper customer identification information to make sure

that the caller is eligible to receive the service. We show these scripts in the backstage activity area for the service provider.

After discussing the outcome of the call with the service customer who placed the call, we learned that their experience differed somewhat from their anticipated experience. Their experience for this call instance had more steps due to problems with the menu system, being put on hold while the agent figured out how to solve the problem, and collecting a ticket number after the problem was resolved. These three discrepancies affected the customer view of the service. While they were put on hold the connection they felt towards the service agent was remote. This moment is drawn on the blueprint with a large frustration bubble and an increased proximity to the hazard line. As the problem was being resolved these elements related to their emotional state improved. At the moment the mail synchronization was fixed, the customer provider relationship was close. We marked this on the blueprint with a very small frustration bubble and drawing the customer icon in close proximity to the agent.

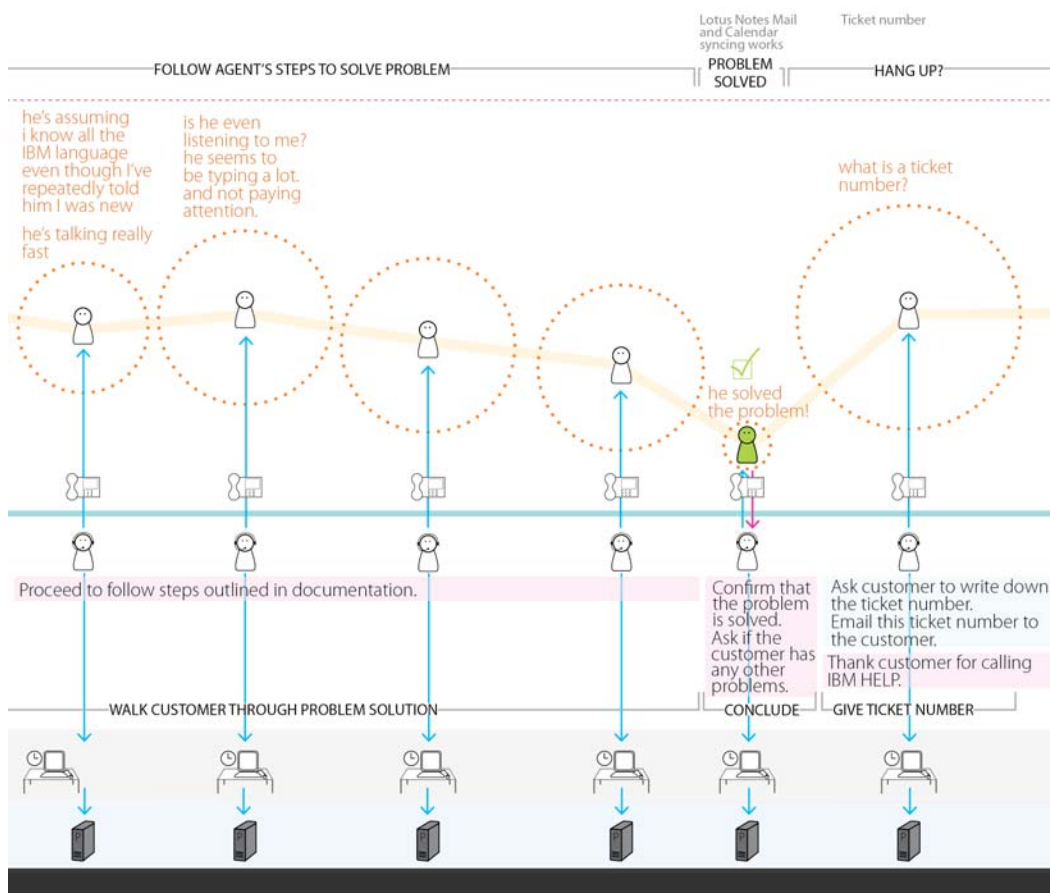


Figure 3: Last Five Steps of Enhanced Blueprint

The service had promise of ending on a positive note, but just as the customer was ready to end the call, the service agent gave her a ticket number for the transaction that just completed. Not understanding the need or value for this piece of service evidence left the customer confused. We marked this final moment of the customer journey with an increased vertical distance between the customer and the service agent, with an enlarged frustration bubble drawn around the customer icon (see figure 3).

It is fair to ask if this one episode is typical for all calls to this contact center. By blueprinting a series of call instances and monitoring the customer feedback on the call, service providers can be informed on the overall customer satisfaction with the contact center. Thus they can make discoveries and informed decisions to prevent careless or poorly designed service interactions that produce negative responses.

In our example, there was an initial hesitancy expressed by the customer right at the beginning of the experience because of their previous experiences with making such calls. So one might ask: did anything during this call change the customers view or perception towards using the call center service? As a service provider, each touch point with the customer is an opportunity to infuse values like trust, assurance, and responsiveness. By viewing the relationship flow depicted in the blueprint, a service designer could introduce new quality elements to the service engagement that may have previously been overlooked. So, for example, the agent's view of success for handling calls might shift from how fast the call was resolved, to how well they connected with the customer during the call. Small adjustments to the agent's manner and script may increase the customer's satisfaction with their call experience.

5. How to construct your blueprint

Important decisions need to be made before you start to draw the blueprint. First, decide what aspect of your service might benefit from the exercise of constructing a blueprint. We envision service blueprinting to be used in a variety of scenarios including: designing a new service, evaluating a service, preparing the client for their service engagement, training new service employees, and improving and maintaining a current service. Once the direction is set, the service itself needs to be decomposed into meaningful segments that will conform to the blueprint layout.

Next, consider answering some customer motivation questions. For example: Why is the customer contacting you? What is their state of mind? Are they acting on behalf of their organization or on their own? What do you need to do in order to quickly bring into alignment their needs and your service actions? With these answers in hand, the service moments you will address in your blueprint become more clearly identified.

With the motivations in mind, we consider the customer meaning to support throughout the service engagement. The customer meanings are linked to the customer emotional state that the provider is motivated to address. Examples of positive meanings are community, trust, closure, enlightenment, respect, and accomplishment. There are moments during the service when the customer's confidence in the service is at risk. For example, when they realize that their request will not be met in a timely fashion, the provider must readily give the customer options so that both the customer and provider can reach a resolution in a reasonable manner. If, however, at that moment the customer is left to linger and their sense of closure and trust dwindles, they may drop the service. As such, if at those moments some positive provider actions are introduced, then the risk of the customer crossing the hazard line is reduced.

Service engagements are often not straightforward or sequential. Multiple tasks can occur at the same time – for both the customer and the provider. Also there are many branching points throughout the service lifecycle. One blueprint can not support all branch points of your service – so which tracks gets mapped out should be the ones that are particularly troublesome or critical. A collection of blueprints for your service offering may also reveal patterns throughout your service that may require more consistency or redesign.

For each blueprint, the roles of the all providers required to perform the service need to be identified. These are the actors that will perform both the onstage and backstage activities. Sometimes a single person can perform multiple roles. In some cases this may present the actor with both onstage and backstage parts they need to perform. When service designers recognize this, they need to determine if the service agent can adequately support these multiple roles. The need for additional resources or innovative technology aids may be revealed here as the agent loads are considered.

Begin drawing the customer actions first, horizontally across the onstage area above the line of visibility. Then tie their actions with moments when they interact with the service provider. These onstage activities then trigger the backstage provider actions and requirements. It is important to begin drawing the customer journey first, followed by provider actions, to insure that is it indeed the customer needs that are driving and directing what the service provider must support and present.

Often services need to support numerous styles, constraints, and demands that impact the final delivery of the service. For example, first class airline passengers and standby passengers present two different approaches for a service offering. Each passenger wants to arrive at their final destination safely, but they experience elements of the service differently. Another example is demonstrated when a service operates under normal conditions compared to when it operates under stressed or overextended conditions. So for instance, an airline passenger may contact an airline to make a flight reservation, but their journey and emotional state is quite different when they call to seek alternatives and resolutions to their cancelled flight. How does your service handle such distinct scenarios? Does the customer traverse the same set of menu items of your telephone service in both cases? Does the first page on your web site change when oncoming weather conditions will result in multiple delays? Blueprinting your scenarios helps to build empathy towards the customer, coordinate onstage and backstage staff activities seamlessly, and realize areas for service improvement and customization.

6. Future Work

Additional features we would like to support in the enhanced blueprint include: showing one person with multiple roles, the backstage of the customer (things the *provider* does not see), and differentiating levels of service. Depicting branch points in a service is also a challenge. These may be customer or provider decision points. Such complexities require additional visualizations and blueprint construction considerations.

Currently drawing up a blueprint, as described here, is a manual process that produces a paper or electronic, static, two dimensional rendering. It would considerably broaden the possibilities of adoption and widespread understanding across an organization if an interactive tool was available for constructing and sharing blueprints.

We continue to explore how the enhanced blueprinting could be applied effectively with more use cases. Traditional blueprinting workshops have been constructively conducted in executive seminars held at Arizona State University [7]. But will the enhanced features introduced here also produce useful results? Is the notion of expressing the potential emotional state of the customer a welcome addition to the blueprinting exercise? Can the completed blueprint be used effectively as a means for presenting the service offering to a perspective customer? Are the methods for constructing a blueprint clear enough so that the service team could build one themselves – even if they don't have access to a service designer? These are just a few questions that we look towards our future engagements to answer. With further research on the use of the enhanced blueprint, we hope to improve the visualizations and the approach, so that the blueprint will communicate well to a broad audience who has the imperative to design their service thoughtfully.

7. Summary

Many factors contribute to why a customer chooses to employ a certain service. Service providers need to probe a little beyond the technically keen operational side of the service and consider what is happening from the customer's perspective. How can both backstage and onstage operations be better linked to produce a more attractive and memorable service experience? Service blueprinting provides tools and techniques both for focusing on the individual dimensions of the customer-provider relationship and for supporting an integrated view of all aspects of the relationship.

Services are hard to describe, represent, or communicate – particularly from the customer's view. For IT services, much of the description resides in a very dense, long, inaccessible contract. With a service, each transaction is unique. Service interactions may be a conversation, a reservation, a request for a new account, or information. Service designers are faced with managing a wide range of customer touch points throughout the service lifecycle. In addition, the delivery of services involves *teams* of customers and providers. Gaining a deeper understanding of what impacts customer satisfaction is a formidable challenge in this complex setting. Here is where service blueprinting can provide some traction to this vital task.

The contributions of a service designer, industrial designer, or interaction designer in tackling this task, cannot be understated. It is our experience that when their talents are employed the outcomes are surprising, revealing, and productive. As they come to the task with an unencumbered perspective, they are readily more amenable to sketching something quickly, testing it, tossing it out, and trying again. They turn constraints into possibilities. This skill allows them to take a blueprint of an IT service and introduce human elements to the representation with a fresh and open view.

Customer satisfaction with service performance is higher when services are deliberately designed and are designed well. It is suggested here that using our blueprint enhancements for considering business relationships, during a service engagement, is a viable method for creating, extending, and sustaining productive and enjoyable service experiences.

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Appendix A: Enhanced Blueprint for complete call center episode

