

user and customer experience

UX Design

Agent Facing

Lessons Learned and Best Practices



Purpose and Scope

This deck provides the UI, user experience and usability wherewithal to engage customers and potential customers and provide optimal agent-facing solutions: Presales, POC, Improvement, and Implementation.

It is based on a vast repository of customer engagements, design UX and usability work, which is best encapsulated in our success with [CSP Name].

In addition, a comprehensive map and links to training material is provided in the “Training and Reference Material” section while for convenience, a summary of UX/Usability activities and services is provided in the “UX Activities & Services” section

This deck is for purposes of awareness, reference and training

Contents

UX & Usability – Agent Facing

Introduction and Background

Lessons Learned and Best Practices *(Focus on [CSP Name])*

UX Activities & Services

Training & Reference Material

Introduction and Background

Congratulations, [CSP Name]!

[Solution Name] has now been rolled out to 14,000 agents, with a total of 22,000 agents expected to be using it within a year. AHT (Average Handle Time) is actually about 57 seconds better than they [Company Name] predicted it would be in their business case.

[Solution Name] is definitely a nuke for [CSP Name] and provides a quantum leap for our agents and customers
[CSP's CTO Name]

Note: 2015

The solution was productized and rolled out to tens of CSPs worldwide and used by > 500K agents. It is the baseline for the new version release

[Solution Name] – from [CSP's Name] Perspective

Agents are staying in [Solution Name] and are not automatically switching to [Old App Name] when they encounter new or difficult situations. **This is a good thing!** Agents are showing excitement as they use [Solution Name] and delight in discovering new functionality, actively sharing [Solution Name] stories and discoveries with each other

Actual agent quotes:

- ✓ Was this system designed by agents?
- ✓ iCare improves my performance by 220%
- ✓ The system is just wonderful
- ✓ ...you could have not done it better
- ✓ Swaps are so easy
- ✓ Anyone can change a plan now
- ✓ I can't mess this up
- ✓ It does all the work for you
- ✓ It told me what to do next
- ✓ That WAS easy
- ✓ This is awesome (*completing a price plan change*)
- ✓ Do not make me go back into that dreaded [Old App Name]

[Solution Name] Results

- ✓ Improves the customer experience because agents can answer customer calls faster, resolve service issues on the first call and significantly reduce errors
- ✓ Provides a single and intuitive interface for managing all customer interactions
- ✓ Provides contact center agents with the right information at the right time
- ✓ Makes customer-facing process much more efficient and faster
- ✓ Improves efficiency of handset swap process by 68%, cutting screens by 50% from eight to four and clicks from 13 to 6
- ✓ Increases price plan change efficiency by 72%, cuts screen numbers by 50% from 10 to 5 and clicks from 27 to just 9

Good Usability Is Good For Business

Today, we know what we assumed and suspected then...

Customer Experience Depends On User Experience*

Usability improvements for internal applications correlate to improved business outcomes. We tested this correlation using a Forrester survey. Results showed that improving the customer service agent experience has a direct result on the service outcome:

- ✓ 46% of respondents said this correlation held true > 80% of the time
- ✓ 47% said that this correlation held true between 50% and 80% of the time
- ✓ 1% said that there was no correlation between a good agent experience and service outcome

* Forrester: Improving The Agent Experience Helps Move The Needle On Customer Satisfaction - 2011. Study commissioned by Amdocs

Correlation between Agent Experience and Customer Experience

Choose which statement best describes your ability to correlate an improved agent experience to better customer satisfaction? We can correlate a good agent experience to good customer satisfaction ratings:

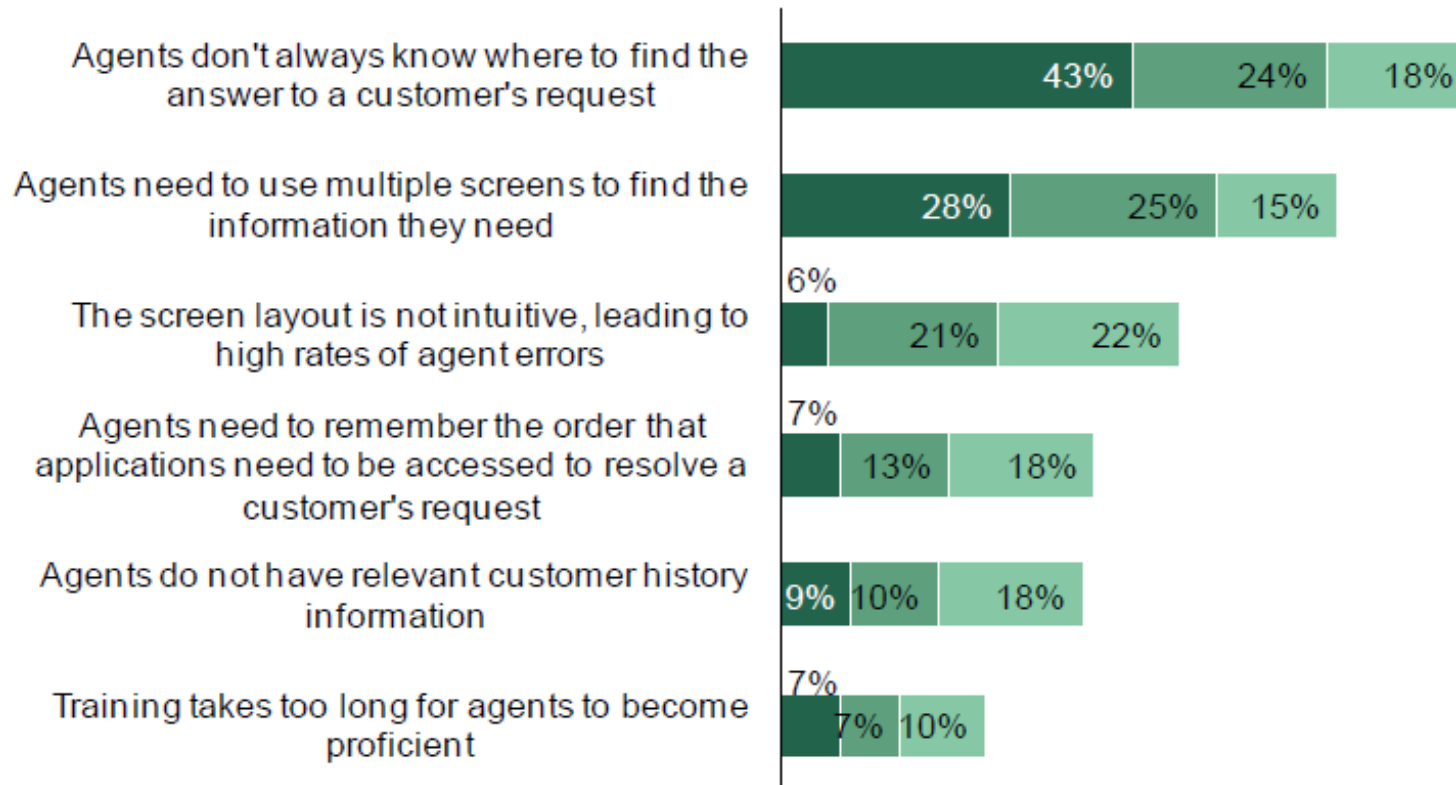


This correlation is important and drives quantifiable business results that explain why companies are focusing on improving the agent experience as one of their top goals for contact centers to move the needle on the overall customer experience

Contact Center Agents – Major Challenges

Thinking about your contact center software, what are the 3 most important challenges that your contact center agents face? (please pick and rank your top 3 challenges from 1 (most important) to 3 (third most important))

■ Most important ■ 2nd most important ■ 3rd most important



Some History... Where it all began

CSP Name] was very unhappy with [Company Name]...

- [CSP Name] agents were using [Old App], which was a customized CRM for web client. It was slow, cumbersome and unintuitive!
- Most of the agents' work was being performed in [Old App] which was launched in context from [Old App]
- Agents would typically have multiple applications running simultaneously – even up to 23 applications! 'Bouncing around' between apps and copy/paste was the order of the day. And these apps weren't even in synch with each other!
- Complex flows like price plans swaps for multiple subscribers were error prone and were labor intensive requiring a steep learning curve
- Money was being lost in unnecessary high average handling times, many call transfers instead of high first call resolution, lack of integration, too complicated, lack of system guidance & automation, high training costs, dissatisfied agents and an outdated user interface



They needed to move forward “ahead of the pack”, but were losing faith...

FIX IT! - The Business Imperative

- ✓ Navigation is not intuitive: *data driven and not task driven*
- ✓ Cumbersome UI, expensive to train and maintain
- ✓ Automating complex business processes cost prohibitive
- ✓ Lack of automation negatively impacted call center KPI's
- ✓ Outdated UI not considered appropriate platform
- ✓ High rep turnover and training costs
- ✓ Expensive to change and maintain
- ✓ Cluttered screens (Visual “noise”, extraneous information, not scannable)
- ✓ User experience is not a simple, uniform, seamless, integrated experience



7 Important Lessons Learned

| | | |
|--------|---|-------------------|
| ✓ LL 1 | Be Prepared! | UX Infrastructure |
| ✓ LL 2 | First impressions open the door! | Business PoC |
| ✓ LL 3 | UX “Tiger Team” | “Peopleware” |
| ✓ LL 4 | Presale Activities | Presale |
| ✓ LL 5 | Usability metrics driven business case | Business Case |
| ✓ LL 6 | Users: the highest authority on application usage | Site Visits |
| ✓ LL 7 | Design & Usability Integrity and Validation | Design |

#1: Be Prepared

- ✓ When first engaged, we decided to use a high-frequency, existing end-to-end (E2E) flow - *Swap Equipment*, and demonstrate our proposed solution in the form of a detailed proof-of-concept

Scenario-driven: The E2E flow is the unit of measure (UX perspective)

- ✓ 'CRM Usability' was product managed by CM PdM (*Mark Weinberg*) and a CRM Usability PRD including Design Strategy, Framework and the desired end-state was complete
- ✓ Design and UX methodology for improvement projects was also in place including applicable design processes and artifacts: deliverable templates, tools, stencils, references, etc.

#1: Be Prepared – UX Goals

UX Goals reflect the tagline:

Meaningful Actions in Context

1. Context - Customer Centric

Agents must focus on customers and customer requests
- **not on applications**

2. Action Driven

It should be obvious to agents what to do, and how to do it, in order to address customer requests to the satisfaction of customers

3. Simple and Intelligent

The FE solution should be as simple as possible
Which would imply that it be as intelligent as possible

#1: Be Prepared – UX Strategy in support of goals

■ Frequency of Use

- ✓ Design for the probable case of use; Provide for the possible case of use

■ Simplicity

- ✓ Most direct, obvious, intuitive customer interactions (optimal visual affordance)
- ✓ What You See Is What You Need (WYSIWYN) – where and when you need it!

■ Knowledge in the System & Automation

- ✓ Use knowledge of customers ; their equipment, history, usage, behavior patterns, needs and expectations to anticipate and offer agents appropriate and relevant responses and choices
- ✓ Represent business priorities and rules as part of a “built-in” solution

■ Encapsulate the Real World

- ✓ Approximate/Validate the needs & expectations of real customers
- ✓ Real-world scenarios and most frequent/important flows

■ Flexibility, Resilience & Scalability

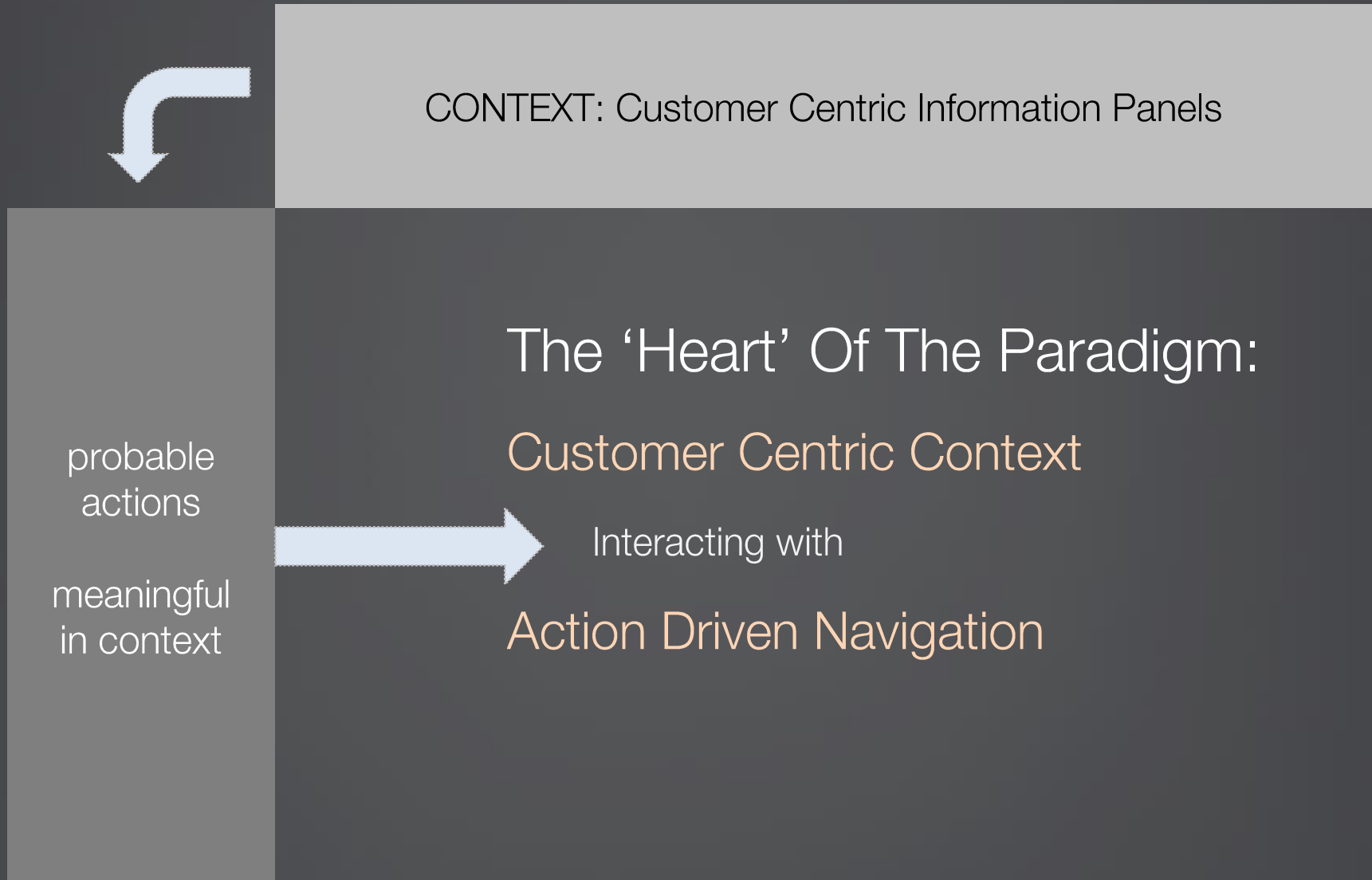
- ✓ Reuse of framework, structure, components and patterns

#1: Be Prepared – UX Tactics

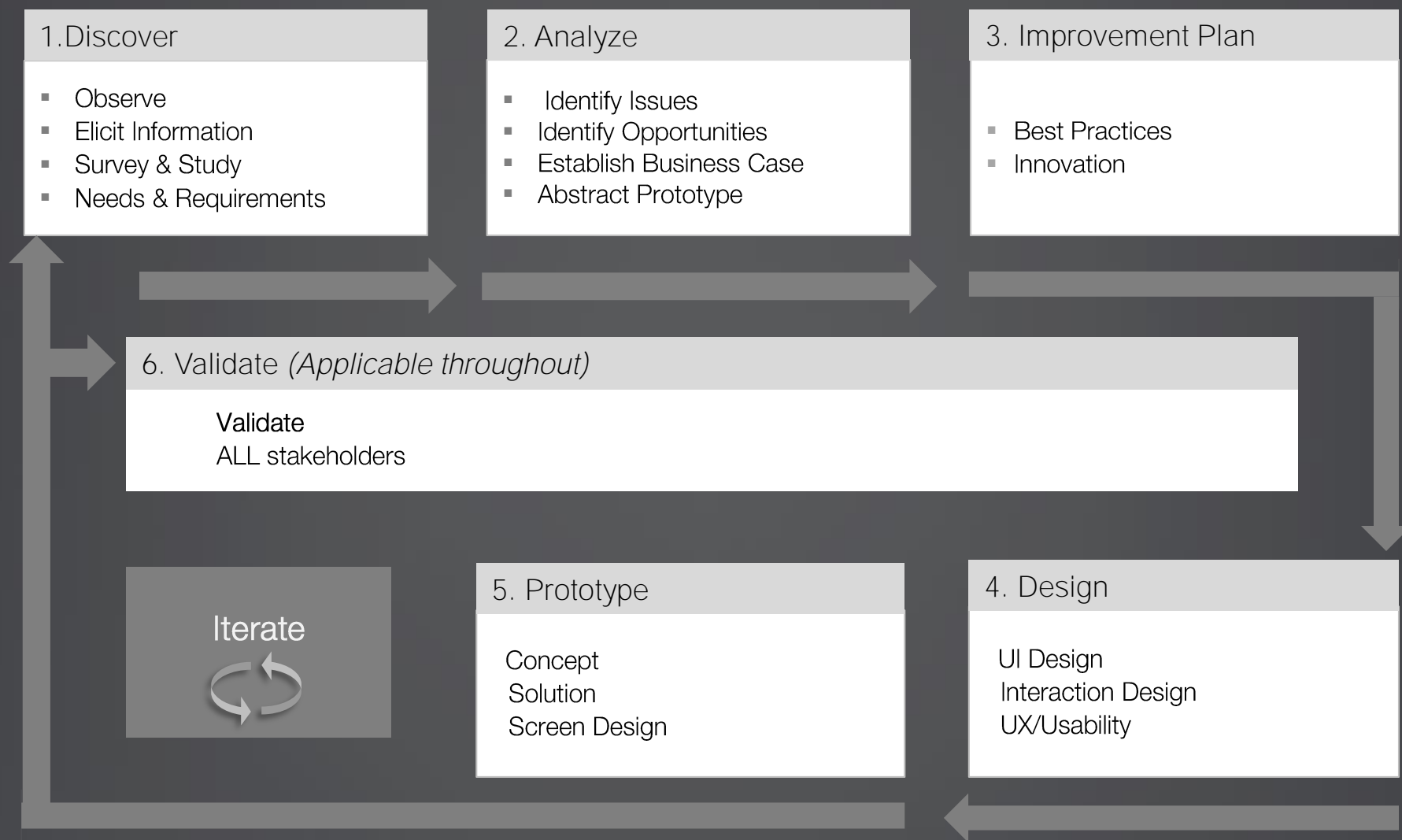
Strategy to tactics

| UI Framework | Actions In Context |
|---------------------------|--------------------------------------|
| → Visual Enhancements | Information Architecture |
| → Structural Enhancements | Customer Centric (Toolbar2Toolbox) |
| → Navigation Optimization | Task Driven (Reason1/2 Optimization) |
| → Desktop Consolidation | Guided and Optimized Flows |

#1: Be Prepared – UI Framework *meaningful actions in context*



#1: Be Prepared – UX Improvement Process



#2: First Impressions – Business PoC

The initial prototype reflected the framework, structure and behavior, but was aimed at being fully implementable - factoring in things like technological constraints, business requirements, etc.

BIG MISTAKE!

“[CSP Name]don’t want to know what we can’t do; they want to see what we can do” “Make it screamingly simple!”

You only have one shot at getting your “foot in the door” and to that end, focus MUST be placed on the desired end-state (within reason) and NOT on known constraints

The Iteration of initial prototype was a big success and was compelling

#2: First Impressions – Showcase the End State

- ✓ The initial prototype (sometimes called the “business prototype”) conveys the concept, framework, behavior and ‘look & feel’
- ✓ It must showcase the framework/paradigm and it must include at least one frequent end-to-end task (*from caller ID to wrap up*)
- ✓ The initial prototype must be accompanied by a presentation and supporting work products that demonstrate the expected efficiency increase between the current system/s and the proposed solution (before vs. after)

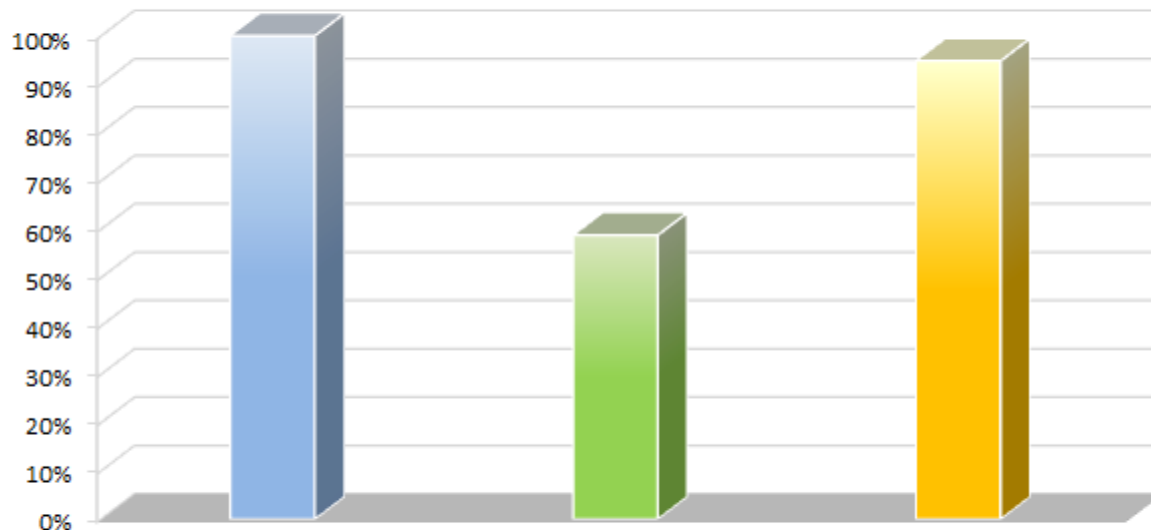


#2: First Impressions – Demonstrate ROI

Expected efficiency increase (AVG) of 5 most frequent care scenarios **61%**

ALL TASKS - Summary

| Phase 2 | Current | Phase 1 | Increase - Efficiency Current to Recommended |
|---------|---------|---------|---|
| 100% | 59% | 95% | 61.0% |



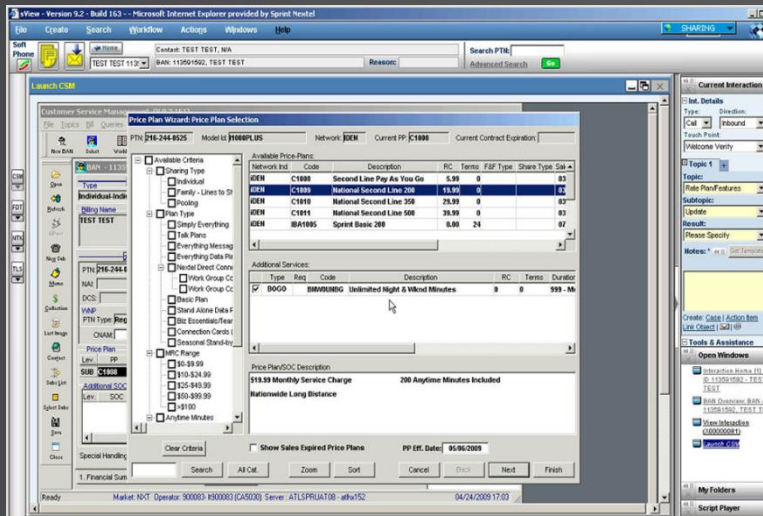
| | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|--|
| 37 Steps 79.8% average visibility | 63 Steps 50.4% average visibility | 39 Steps 77.7% average visibility | Decrease - GOMS Time Current to Recommended |
| GOMS 1 minute 40 seconds | GOMS 2 minutes 18 seconds | GOMS 1 minute 43 seconds | 25.3% |

#2: First Impressions - POC for Simple E2E Change PP Flow

Application Centric

11 Screen Changes
2 Systems
17 user actions

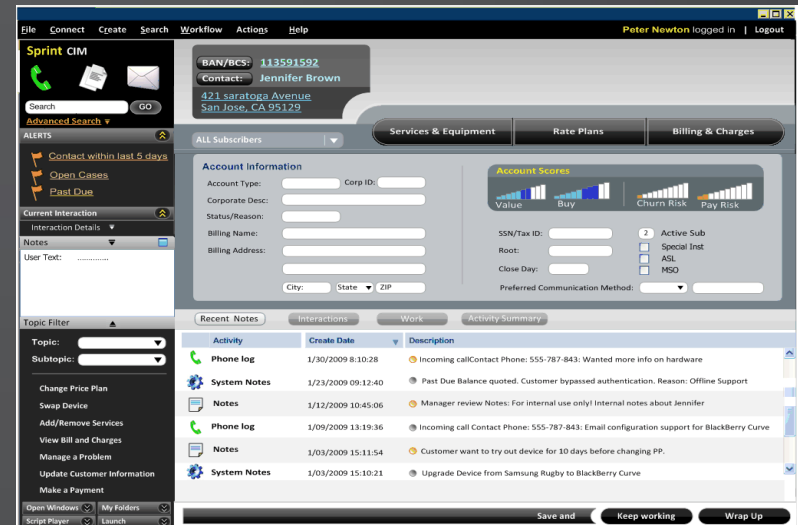
- Not Intuitive
- Not cohesive
- Data/Object Driven
- User Guides the System
- Far too much extraneous info



Customer Centric

6 Screen Changes
1 System
10 user actions

- ✓ Intuitive
- ✓ Cohesive
- ✓ Action Driven
- ✓ System Guides the User
- ✓ WYSIWYN



#2: First Impressions – The Wow effect

FileConnectCreateSearchWorkflowActionsHelp

Peter Newton logged in | Logout


Sprint CIM



Advanced Search ▾

ALERTS

 [Contact within last 5 days](#)

 [Open Cases](#)

 [Past Due](#)

Current Interaction

Interaction Details ▾

Notes ▾

User Text:

Topic Filter

Topic: ▾

Subtopic: ▾

Swap Equipment/Flip-Flop

Add New Equipment

Add/Remove Services

Change Price Plan

Make a Payment

View Bill and Charges

Manage a Problem

Open Windows ▾ My Folders ▾

Script Player ▾ Launch ▾

BAN/BCS: 113591592

Contact: Jennifer Brown

421 saratoga Avenue

San Jose, CA 95129

Equip. SN: 334282424

Services: [Wireless Access](#)

[PC Card Access](#)

Equipment

Rate Plans

Billing & Charges

ALL Subscribers

For PTN: Network: CDMA NAI: X76744043011@SPRINTPCS.COM

Resource 1 (Active)



Resource Type:

Dealer:

SIM/IMEI/ESN: ☐ Lost/Stolen

MSN: ☐ Lost/Stolen

WiMax Mac ID:

ItemID:

Manufacturer:

Model:

2G_3G_dual:

Possesion:

☐ SIM ☐ IMEI ☒ ESN

Attributes

☒ WLPN ☐ PTT ☐ PR

Resource 2

PTN:



Resource Type:

Dealer:

SIM/IMEI/ESN: ☐ Lost/Stolen

MSN: ☐ Lost/Stolen

WiMax Mac ID:

ItemID:

Manufacturer:

Model:

2G_3G_dual:

Possesion:

☐ SIM ☐ IMEI ☒ ESN

Attributes

☒ WLPN ☐ PTT ☐ PR

▼ Resource Allocation

Lesson #2: First Impressions – The Wow effect

The screenshot displays the Sprint CIM interface for a subscriber named Jennifer Brown. The interface is divided into several sections:

- Header:** Includes navigation links (File, Connect, Create, Search, Workflow, Actions, Help) and a user status bar indicating "Peter Newton logged in | Logout".
- Left Sidebar:** Contains icons for phone, documents, and email, a search bar, and a list of alerts (Contact within last 5 days, Open Cases, Past Due). It also has a "Current Interaction" section with a dropdown for "Interaction Details" and a "Notes" section with fields for "System Text" and "User Text".
- Top Section:** Displays key subscriber information: BAN/BCS: 113591592, Contact: Jennifer Brown, and address: 421 saratoga Avenue, San Jose, CA 95129. It also shows equipment details (Equip. SN: 334242424), services (Wireless Access, PC Card Access), and billing information (Last Bill Amt: \$127.77, Payments: \$00.00, Total Due: \$287.23, Due Date: 07/15/2009).
- Central Section:** Features a "BAN Information" form with fields for Account Type, Corporate Desc, Status/Reason, Billing Name, Billing Address, City, State, and ZIP. It also includes "BAN Scores" for Value, Buy, Churn Risk, and Pay Risk, and a section for SSN/Tax ID, Root, Close Day, and Preferred Communication Method.
- Bottom Section:** Contains a "Recent Notes" tab, a table of activities, and a "Save and" button.

| Activity | Create Date | Description |
|--------------|--------------------|--|
| Phone log | 1/30/2009 8:10:28 | Incoming callContact Phone: 555-787-843: Wanted more info on hardware |
| System Notes | 1/23/2009 09:12:40 | Past Due Balance quoted. Customer bypassed authentication. Reason: Offline Support |
| Notes | 1/12/2009 10:45:06 | Manager review Notes: For internal use only! Internal notes about Jennifer |
| Phone log | 1/09/2009 13:19:36 | Incoming call Contact Phone: 555-787-843: Email configuration support for BlackBerry Curve |
| Notes | 1/03/2009 15:11:54 | Customer want to try out device for 10 days before changing PP. |
| System Notes | 1/03/2009 15:10:21 | Upgrade Device from Samsung Rugby to BlackBerry Curve |

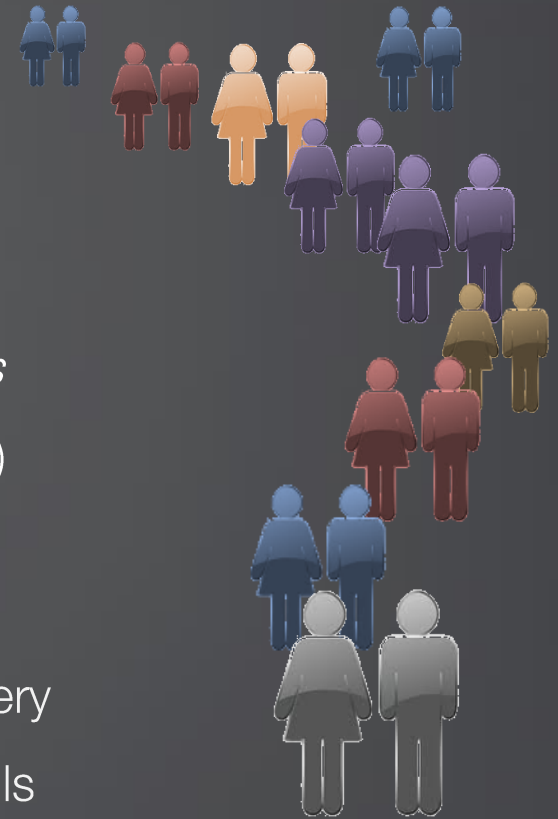
#3: UX Presale Tiger Team

A “Tiger Team” that could be trusted was put together for this mission-critical task that required excellence, integrity, professionalism, speed, creativity, innovation, risk-taking and

above all, rich hands-on experience and domain knowledge.

UX “Tiger Team” members remained with the project beyond the presale (*Functional & Business Requirements sessions, Impact Assessment Documentation, UI Design*) and worked as part of the account delivery team

In addition, training on the job between Design and Delivery provided developers with UI/Screen Design tools and skills



#3: Anatomy of a UX Presale Tiger Team



Customer
IT/Business



Account Team



App Dev
Team

Roles

Description

Leader

The “glue” that holds everyone together and to the customer
Enables, ensures and inspires the realization of objectives

PdM

Business & Functional Requirements; Customer study
Input to [Company Name Virtual Agent & Predictive Analytics]

Design/UX

Design Concept, Customer/User Study. New solution, analysis, design, flow optimization, medium fidelity Prototype

Architect/SE

Working POC
Platform , automation, process management, high fidelity prototype

Usability

Eliciting, gathering & analysis of data and information, call log analysis, diagnostics, inferences for predictive analytics

Business Analyst

Business & Functional Requirements, BP Flows and alignment between Customer & [Company]

Lessons Learned #4: Presale Activities

Output/Presale Deliverables

[CSP Name] were interested in our initial proof-of-concept and wanted to proceed. We requested that **they** formulate twelve detailed end-to-end scenarios (“*To Be Scenarios*”) from inbound call to wrap up for different agent types. We agreed to the following:

- ✓ 4 Scenarios would be developed and presented on our demo environment – connectivity and all!
- ✓ 8 scenarios would be presented in 8 UI documents (“white papers”)
 - Detailed screen designs per scenario
 - Task Flows / Screen Flows
- ✓ Presentation and worksheets that demonstrate expected efficiency increase between existing and proposed (before vs. after metrics) for all 12 flows

Lessons Learned #4: Presale Activities

Example Scenario: Adding Services - Multiple Subscribers

Customer calls in to add Any Mobile Any Time (linked SOC), Mobile To Office, 6PM Nights and weekend, and 200 Overage Relief Minutes for 1 month (BOGO SOC Back-dated); Lost Stolen SOC also needs to be removed on one of the subscribers - Customer is currently on Shared Plan - Everything Data 1500 - with 4 subscriber.

1. Authenticate call
2. Are there any Urgent Account Notifications (This example should have a HPN)
3. Agent must check the Repeat Call Indicator
4. Identify transaction to be performed (SOC Changes)
5. Agent checks for Add on Services Offers - (In flow of selecting Add on's, offers will be displayed to the Agent. If selected the offer should be automatically applied, and should be dispositioned)
6. Make SOC changes on 4 subscribers
 - a. Any Mobile Any Time added to all 4 subscribers
 - b. Mobile to Office to all 4 subscribers. (Add the M2O numbers)
 - c. 6 PM Nights and Weekend added to 2 of the 4 subscribers
 - d. 200 Overage Relief Minutes for 1 month (Always Backdated) added to 1 subscriber
 - e. Remove Lost Stolen SOC from one subscriber
7. Check Next Bill Estimate
8. Note account
9. Wrap up and end call

Lessons Learned #4: Presale Activities (Input)

Ideally, site visits aimed at observing agents at work and eliciting information is desired as part of the initial input. However, [CSP] first needed more confidence in our proposed direction and solution.

Due Diligence (*receivables*)

- ✓ Study of current system and applications
 - [CSP Name] walked through their 12 detailed scenarios
 - We received recordings “click-throughs”, screen captures and relevant documentation
- ✓ Operational Statistics
 - Inbound calls by reason codes (for a 2-month period nationwide)
 - Call Frequencies, Transfers, Volume

Lessons Learned #4: Presale Activities Deliverables

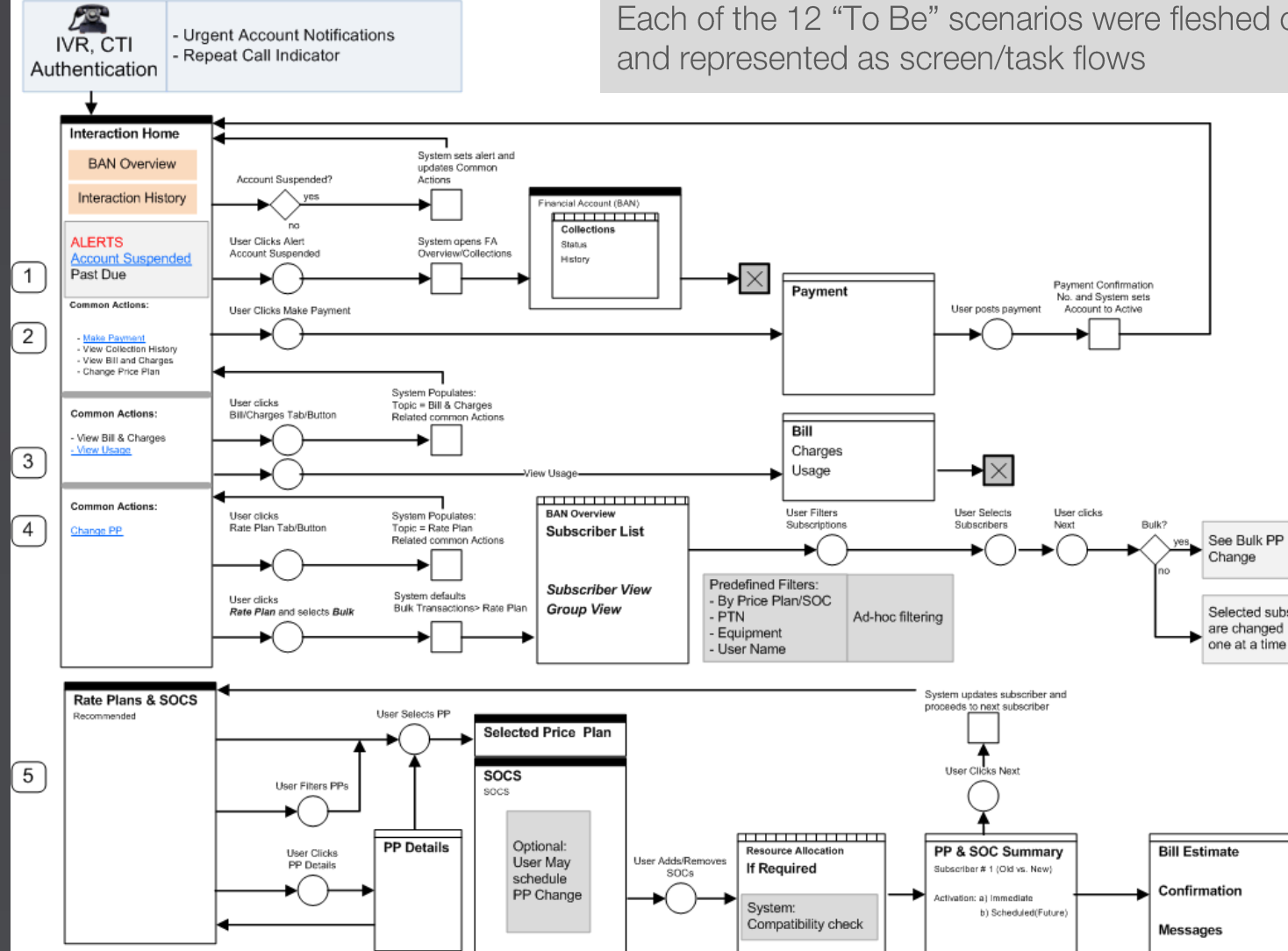
Each of the 12 “To Be” scenarios were analyzed alongside our optimized flow (Use Case & Task Analysis). Task Efficiency and Task Visibility were measured and compared

| Task: In order of Frequency | Phase 2 | TV | Current sView/CSM | TV | Recommended | TV |
|--------------------------------|---|-----|--|-----|---|-----|
| 3. Change Price Plan | Starting from the Customer Interaction Home: The default view at the start of a new customer interaction includes the history grid (half expanded) showing 8 records | | Reason Codes (Topic 1) ~ Acct Management ~ Bill Inquiry ~ Cancellation/Deactivation ~ Equipment ~ Lost/Stolen ~ Offer Presentation ~ Other ~ Rate Plan/Features ~ Services ~ Troubleshooting ~ Not Authenticated | 0 | Starting from the Customer Interaction Home: The default view at the start of a new customer interaction includes the history grid (half expanded) showing 8 records | |
| | 1. <u>Optionally</u> : User clicks History Type and selects a filter | 0.5 | 1. User clicks Topic 1 dropdown and selects Rate Plan/Features | 0 | 1. <u>Optionally</u> : User clicks History Type dropdown and selects a filter | 0.5 |
| | | | 2. User clicks Topic 2 dropdown and selects Update | 0.5 | | |
| | | | 3. User clicks CSM Launch In Context icon (dropdown) and selects Subscriber Agreement | 0 | | |
| | Interaction Notes is persistent in the Interaction Home | | System Launches CSM (on first use) on Citrix Client | | Interaction Notes is persistent in the L_Home | |
| | 2. User enters interaction notes | 1 | 4. User clicks the current price plan in the Price Plan Grid (Part of the Price Plan Group in the Agreement Tab - very crowded!) | 1 | 2. User enters interaction notes | 1 |
| | | | System opens the price plan wizard popup window | | | |
| | | | 5. User filters search on Available Criteria checkbox "tree" (or clicks "Search") to view Available Price Plans. When no criteria are specified in the search, the current PP is defaulted | | | |
| | | | 6. User selects new price plan | | | |
| | | | 7. User Clicks "Next" | | | |
| | | | 8. User selects additional services and clicks Insert (and related features in a grid below and clicks Include/Exclude) User may also relate the PP to a dealer | | | |
| | | | 9. User Clicks "Next" | | | |
| | | | System displays Services and usage Overview page | | | |
| | | | 10. User clicks Finish | | | |
| | | | System returns to the Agreement Tab of the BAN (in CSM) | | | |
| | | | 11. User clicks Refresh icon | | | |
| | | | System refreshes view and displays new price plan | | | |
| | | | 12. User clicks the Save icon | | | |
| | | | System commits changes to DB | | | |
| | | | 13. Wrap Up : User clicks results dropdown and selects result | | | |
| | | | 14. User adds interaction (Topic) notes | | | |
| | 3. User clicks Save | 1 | 15. User Clicks End | 1 | 3. User clicks Save | 1 |
| Total Steps | 3 | | 6 | | 3 | |
| Task Efficiency (EE) | 100.0% | | 50.0% | | 100.0% | |
| Task Visibility (TV) | 83.3% Avg. per step | 2.5 | 41.7% Avg. per step | 2.5 | 83.3% Avg. per step | 2.5 |

Lessons Learned #4: Presale Activities Deliverables

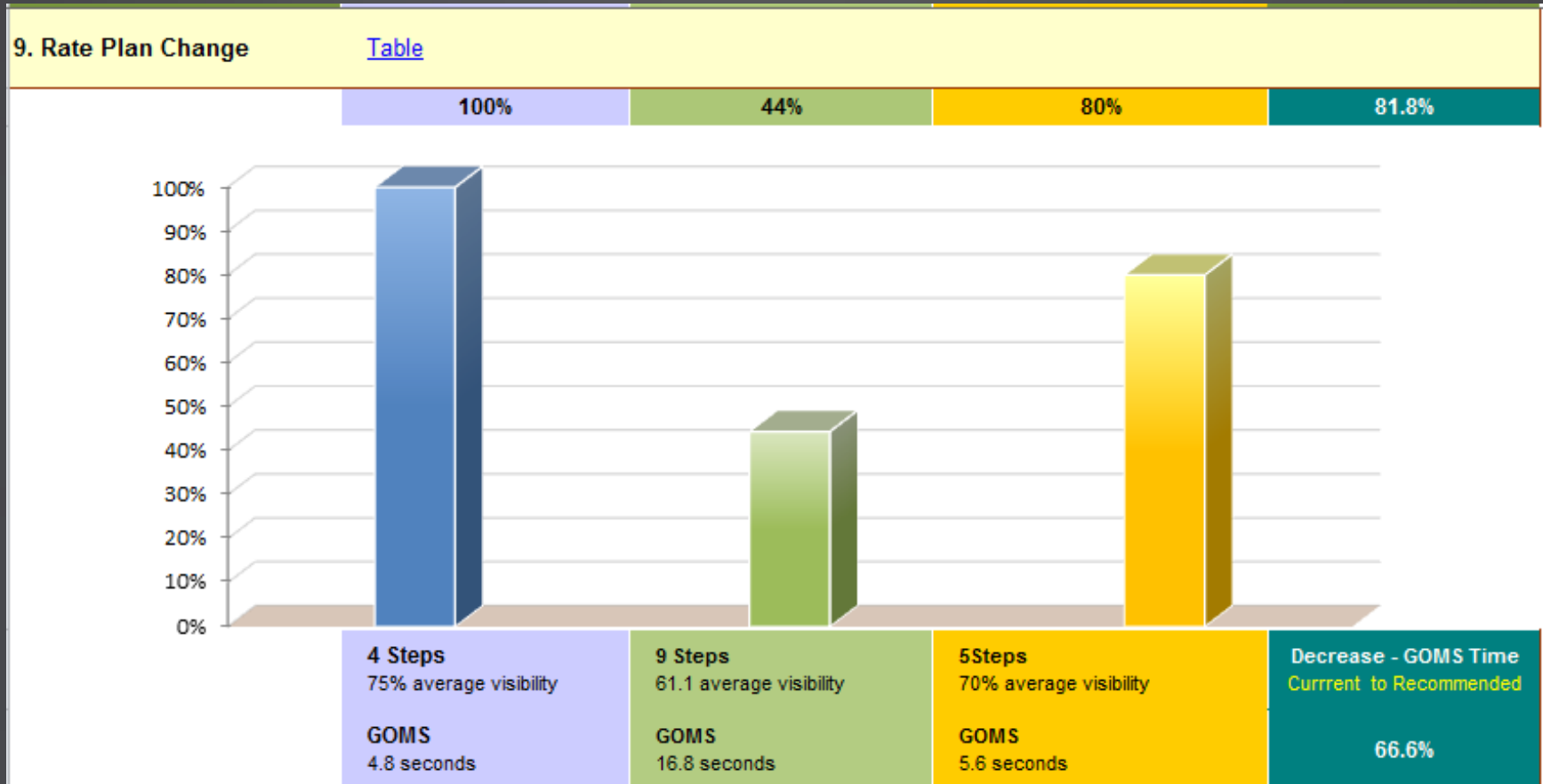
Plan Fit Analysis with Price Plan Change with Payment

Each of the 12 “To Be” scenarios were fleshed out /analyzed and represented as screen/task flows



Lessons Learned #4: Presale Activities Deliverables

Each of the 12 “To Be” scenarios were fleshed out alongside our optimized flow noting the expected overall efficiency increase per end-to-end flow



Lessons Learned #4: Presale Activities Deliverables

Detailed screens for 8 of the “To Be” scenarios were mocked up (Visio) and reviewed
Total of about 40 screens

Amdocs Customer Interaction Manager

Sprint CIM

File Connect View Create Search Workflow Actions Help

Equipment and Services

Search Now Unsaved Search

| Part No. | Description | Starts with | Primary Resource | First Name | Last Name | Serial No. | Subtype Eligibility |
|----------|-----------------|-------------|------------------|------------|-----------|------------|---------------------|
| Palm Pre | Sprint Palm Pre | Starts with | Manchester | Manchester | | | |

Equipment Details

Resource Type: SIM/IMEI/ESN: Dealer: MSN: 3G Voice Feature Phone Non Routable IP 3G Date Picture Mail Payload Capable Handset WLAN Compliance

WiMax Mac ID: Item ID: Manufacturer: Model: Possession: WLAN PTT PR

Save and Keep Working End and New End Cancel

Amdocs Customer Interaction Manager

Sprint CIM

File Connect View Create Search Workflow Actions Help

Equipment Details

Search Now Unsaved Search

| Part No. | Description | Starts with | Primary Resource | First Name | Last Name | Serial No. | Subtype Eligibility |
|-----------------------|-----------------------|-------------|------------------|------------|-----------|------------|---------------------|
| BlackBerry Pearl 8130 | BlackBerry Pearl 8130 | Starts with | Manchester | Manchester | | | |

Equipment Details

Resource Type: SIM/IMEI/ESN: Dealer: MSN: 3G Voice Feature Phone Non Routable IP 3G Date Picture Mail Payload Capable Handset WLAN Compliance

WiMax Mac ID: Item ID: Manufacturer: Model: Possession: WLAN PTT PR

BlackBerry Pearl 8130

Slip into a sleek and stylish Smartphone

Interactive videos

Make uploads, downloads and everything in between happen at the speed of light with Sprint Mobile Broadband. Our BlackBerry Pearl Smartphone is the fastest available today because it's rated for SprintSpeed™. Get free shipping and free activation when you purchase a device with a new line of service online.

For this phone to work and to get your mail-in rebate, you'll need a plan with data or qualified data add-ons. See plan details.

Highlights

- 2MP camera and media player with external memory card slot
- Personal information management with calendar, contact and email

Key Features

- 3G speeds where available
- Music capable
- Sprint TV®
- GPS Navigation enabled
- Web browsing capable
- Email capable
- Camera
- Bluetooth® Wireless
- Memory card slot
- Voice activated dialing

Cancel Previous Step Next Step

Lessons Learned #4: Presale Activities Deliverables

4 of the “To Be” scenarios were developed as live connected prototypes

The image displays three overlapping screenshots of the Amdocs Customer Interaction Manager (CIM) interface, which is branded with the Sprint logo. The interface is designed for customer service and equipment management.

Top Screenshot (Main View): Shows a customer profile for "Tom Giesel" (Contact: 2 Embarcadero Ctr, San Francisco, 94111). Key details include: Equipment: Palm Pre, Serial No: 4154330756, PP: Everything Msg Family 3000, Cell: Everything Messaging Family 3000 Sprint, Exp: 08/12/2011, Last Bill Amount: \$ 265.00, Payments: \$ 00.00, Total Due: \$ 265.00, Bill Due Date: 12/30/2009. The left sidebar contains navigation options like "Alerts", "Last Week Calls", "Open Cases", "Bill Due", "Interaction Toolbox", "Notes", "Quick Actions", "More Topics", "Top Offers", "Open Windows", and "My Folders".

Bottom Left Screenshot (Equipment List): Titled "Interaction Home - Equipment and Services", it shows a table of equipment for the selected customer. The table has columns for "Device", "First Name", and "Last Name". The listed equipment includes: LG LX 290 (Haley Giesel), Samsung Rant (Samantha Giesel), and HTC Snap (Karen Giesel). Below the table, "Equipment Details" for the LG LX 290 are shown, including Resource Type, SIMMEI/ESN, Device, and Description.

Bottom Right Screenshot (SOC Configuration): Titled "SOC Configuration", it shows a table of service configuration items. The table has columns for "SOC Desc/Price Plan", "Starts with", and "Network". The listed items include: LSCS95, Unlimited Nights and Wknd Nights & Weekends - 7P..., REOCER, BKD/Mag/Amer Roam/Sprin..., VMCMA2, TEP (\$3 Ins premium +...), Mobile-2-Mobile, CST200100, 200 Coverage Relief M..., and MO60PICE, Mobile-to-Home/Offic... The bottom of the screen features buttons for "Add Subscriber", "Remove Subscriber", "Undo Rem...", "Collapse All", "Expand All", and a "Subscriber Selection" section with "Cancel", "Previous Step", and "Next Step" buttons.

Lessons Learned #5: UX Business Case

Measurable Objectives and Reliable Predictions

The UX business case is directed at demonstrating the efficiency increase and hence, the user productivity increase.

This is achieved by measuring end-to-end tasks
And UI visibility for existing systems against
[Company] recommended solutions

Once task efficiency has been measured, it is
Applied to KPIs



Lessons Learned #5: UX Business Case

The units of measure for task efficiency

1. Essential Efficiency

$$EE = 100 \cdot \frac{S_{essential}}{S_{enacted}}$$

Measures the efficiency of user steps (intention/action) of a use case or task as a ratio of the essential length (simplest, most straightforward interaction) to the actual enacted length

User Steps

- Entering data into one field
- Selecting a field, object, or group of items (click, double-click, drag, etc.)
- Selecting a field with a keystroke
- Switching from keyboard to pointing device and vice versa
- Triggering an action
- Selecting from a menu or menu item
- Shortcut key or action via menu
- Dragging & dropping
- Scrolling
- Mental act of routine thinking or perception

Lessons Learned #5: UX Business Case

2. Task Visibility

$$TV = 100 \cdot \left[\frac{1}{S_{total}} \cdot \sum_{\forall i} V_i \right]$$

Where,

V_i = feature visibility (0 to 1) of enacted step i

S_{total} = total number of enacted steps

Measures the fit between the visibility of features and the capabilities needed to complete a given task or set of tasks

Visibility Rules

- **Hidden** = 0
(Entering a shortcut in the absence of a visual prompt or cue; Choice is neither obvious nor evident based on visible information)
- **Suspending** = 0
(Switching to another page; Launching another application, window, page, etc.)
- **Exposing** = 0.5
(Dropdown; Menu; Right-Click; Popup; Drill-down; Opening Tool/Palette/Toolbox; Switching to another part of the screen/page like a tab)
- **Direct** = 1
(Direct Action, where choice is evident)

Lessons Learned #5: UX Business Case

AHT Reduction

- The UoM for AHT is the end-to-end task time (CTI to Wrap-Up) per task
- Clicks alone are NOT a reliable, responsible UoM
- $AHT = \text{User Actions} + \text{Research \& Listening} + \text{Talking} + \text{Time in Error} + \text{System Processing}$
- For static usability metrics, we only consider User Actions + Research & Listening
- We therefore apply Overall Efficiency to AHT/2

Example:

Given:

The AHT for making a one-time payment (E2E) in Bell Single View is 6 minutes (360 seconds)

Current EE is 62.5%

Recommended EE is 100%

Current TV is 56.3%

Recommended TV is 80%

Therefore:

Affected AHT is 180 seconds $(360 / 2)$

Current Avg EE *TV is 59.4%

Recommended Avg EE*TV is 90%

Efficiency increase is 51.5% $(90 - 59.4) / 59.4$

New Time is 87 seconds $180 - (180 \times 51.5\%)$

Finally: AHT reduction for a one-time payment (E2E) is from 6 minutes to 4 minutes 27 seconds

Note on KPIs:

- AHT applies to First Call Resolution (FCR) calls
- AHT weight is halved for Retention calls (Saved Accounts)

Lessons Learned #5: UX Business Case

| EXAMPLE | Control | Current | Recommended |
|-----------------------|---------|---------|-------------|
| Steps | 1 | 5 | 1 |
| Screens | 1 | 3 | 2 |
| Task Visibility (TV) | 100% | 80% | 50% |
| Task Efficiency (EE) | 100% | 20% | 100% |
| Overall Efficiency | 100% | 50% | 75% |

For the task: View previous bills (3 months):
Recommended is 50% more efficient than current

Note

1. We afford equal weight to Essential Efficiency and Task Visibility: $(EE+TV) / 2$
2. We apply Overall Efficiency to 50% of AHT to calculate AHT reduction (*Next Slide*)

Lessons Learned #5: UX Business Case

Operational Statistics are our guarantee!

- ✓ Inbound calls frequency by reason codes
 - Most frequent reason 1's become main level panels
 - Most frequent reason 2's become probable actions in context
- ✓ AHT per task
- ✓ Call Transfers (vs. FCR)
- ✓ Repeat Callers
- ✓ Call Volumes

Lessons Learned #6: Site Visits

At [CSP Name] we conducted 7 site visits (12 days onsite and > 200 calls observed) covering:

- ✓ Care (Houston)
- ✓ Account Services (Elmsford)
- ✓ Technical Support (Oklahoma)
- ✓ Back Office (Temple)
- ✓ Retention (Fort Worth)
- ✓ Prepaid (Bakersfield)
- ✓ Financial Services (Denver)

The essential purpose of a site visit includes:

- ✓ Familiarization with agents' operational contexts
- ✓ Insight as to how current call center software application is used in production
- ✓ identify potential areas where process and/or user interface (e.g. screen flow) improvement may be applied to increase call center efficiency.
- ✓ Identify key capabilities and improvements that the next-generation of customer service and billing products must address to improve call center performance

Lessons Learned #6: Site Visits

Site Visit Objectives

- ✓ Elicit Information from site visit (*observations , Interviews & Survey*)
- ✓ Evaluate usability of existing applications
- ✓ Identify usability improvement opportunities (short & long term)

Input

- ✓ Guided Tour of Call Center
- ✓ Meetings/Interviews with Call Center Management
- ✓ Observations/Side By Sides (CSRs at work)
- ✓ Call Logs
- ✓ Subjective Usability Surveys
- ✓ Task Analysis
- ✓ Operational Statistics

Deliverables

- ✓ Data Analysis (usability Excel worksheets - embedded)
- ✓ Findings & Executive Report

Lessons Learned #6: Site Visits

Site Visit Work Products

- ✓ Site Visit Plan and Procedure
- ✓ Subjective Survey (SUS)
- ✓ Usability Questionnaire
 - Management
 - Agents

- ✓ Data Collection and Analysis
 - Call center information and KPI related data
 - Call logs
 - Identified issues
 - Recommendations
 - Task Analysis

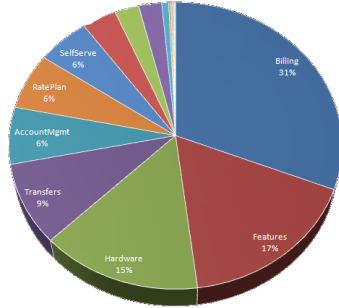
Lessons Learned #7: Design: Best Practices

- ✓ UI and UX framework scales across business units
Care, Prepaid, Collection, Finance, Technical Support, Retention
- ✓ Traversing from any source to any destination is no more than 2 clicks
- ✓ Prototypes are driven by scenarios provided by the customer
- ✓ Requirements, Functional and Design Reviews include all stakeholders including users of the system, business, IT, etc.
- ✓ A UX/Usability expert is present at all reviews
- ✓ Establish feedback loop between customer implementation and product development
- ✓ One size does not fit all!

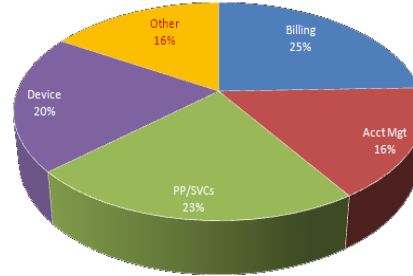
Inbound Calls

By frequency and accounting for 75% - 85% of calls

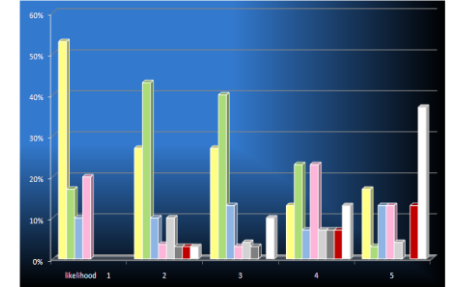
CONTEXT



Over 11,000 calls logged
(signal tracker)



51 calls were logged at recent call
center 'side-by-sides'



30 consumer care agents
were asked to rank the 5 most
frequent tasks

Billing &
Payments

31%

Rate Plan &
Services

23%

Hardware &
Device

15%

Accnt /Sub
Mgt

6%

TOTAL:

75%

25%

23%

20%

16%

84%

Very High

1

High

2

Medium-High

4

High

3

Customer Context

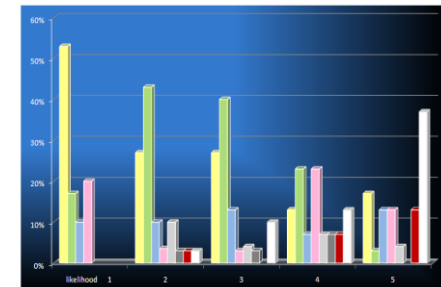
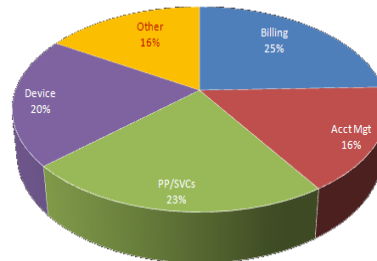
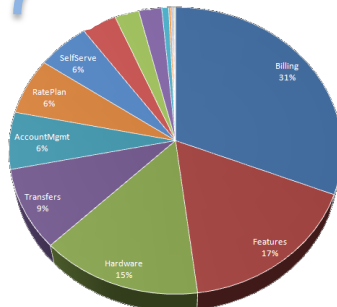
Customer Info Panels

Account /
Subscriber Mgt

Hardware &
Device

Rate Plan &
Services

Bill, Charges &
Usage



Actions In Context

Current Reason Codes

Interaction Toolbox
Notes:

Topic

New

Remove

☐ Collapse Topic Reasons

Reason 1:

Account Management

Please Specify

Account Management

Billing

Dropped Calls

Features

Hardware/Network

Policy

Rate Plans

Retention

Special Tracking

Self Service

Transfer

Other

Reason 2: Account Mgt

Status Change

Update Account Attributes

Reason 2: Billing

Account Balance

Disputes

Explanation/Inquiry

Payments

Reason 2: Features

Add

Explanation/Inquiry

Password Reset

Remove

Reason 2: H/W Network

Broken Hardware

Device Training/Info

Explanation/Inquiry

Outage

Reason 2: Policy

Dispute

Fulfillment

Hardware Upgrade

Pricing

Privacy

Reason 2: Rate Plans

Change

Explanation/Inquiry

Reason 2: Retention

Cost of Hardware

Cost of Service

Economy

Explanation/Inquiry

Irate/Poor Service

Hardware

Network/Coverage

No Need

Out of Service Area

Account /
Subscriber Mgt

Hardware &
Device

Rate Plan &
Services

Bill, Charges &
Usage

| | | | |
|--|--|--|--|
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Interaction Home #

Contact: Caller:

Alerts & Indicators

Past Due 24 days

Previous Call: 5 Days Ago

Interaction Toolbox

Reason Codes | Show Topics

Actions

Troubleshoot Device
View Bill & Charges
Make Payment
Change Price Plan
Add/Remove Service
Explain - Billing
Update Account Attributes

Interaction Notes

Open windows

My Folders

Account Hierarchy

Toolbox Options

Account: [1] JOE SMITH ID: 12323456 Status: Open Type/Subtype: Consumer/Personal Validated

Subscriber: Joe Smith
100 Yonge St
Toronto, ON M5C 2W1
416 525 5236

Equipment: BlackBerry Bold
ESN/CIM: **415433075612**
Model No.:

PP: Smartphone 50
Voice: 100 minutes
Data: 500 MB
EXP: 9/28/2012 1:36:08 PM

Past Bill Amt: **\$ 296.68**
Total Due: **\$ 296.68**
Due Date: **01/01/2011**
Spend Cap: **\$ 200.00**



Subscribers

Hardware/Device

Rate Plan & Services

Billing & Charges



Interaction Toolbox

Topic

Reason 1:

Reason 2:

Result:

[Link Object](#)

UX Study (what we need to know to design optimal solutions)

- **Observation & Subjective Study**

- ✓ Observing actual users in their real-world operational environments
- ✓ Interviews and Surveys (*users, supervisors, managers, executives*)
- ✓ Measuring user satisfaction (*SUS*)

- **Diagnostic**

- ✓ Expert Usability Review (identify issues and defects; recommend solutions)
- ✓ Task Analysis and Flow Optimization
- ✓ Standards and Best Practices
- ✓ Information Architecture (navigation, structure, taxonomy & visualization)

- **Summative**

- ✓ Usability Metric Study (Task Efficiency, Task Visibility, Layout Uniformity)
- ✓ Operational Statistics (e.g. task frequency, repeat caller, etc.)

- **Validation**

- ✓ Demonstrating improvements (before vs. recommended)
- ✓ Simulated scenarios of use with actual users (testing recommended solutions)

1. Elicit Information

■ Observe (*contextual inquiry*)

The most reliable input is observing actual users in their real operational environments (“side-by-sides”)

■ Elicit Information

- ✓ Operational statistics (inbound calls by lines of business)
- ✓ User guides and training material
- ✓ Business process flows
- ✓ Data Model and System Architecture

■ Surveys & Interviews

- ✓ Subjective Usability Scales (SUS) – scale of user satisfaction
- ✓ Structured management and agent interviews
- ✓ Online structured surveys

■ User Needs & Requirements

- ✓ User profiles and personas
- ✓ User-driven use cases of frequent and important tasks

2. Analyze

- Analysis

- ✓ User-driven use case analysis (*use case list & narratives*)
- ✓ Analysis of operational statistics

- Expert Usability Review

- ✓ Heuristic Evaluation (*Identify usability defects and issues*)
- ✓ GUI Inspection (*standards, consistency, information architecture*)
- ✓ Usability testing (*low ROI*)
- ✓ Recommendations

- Business Case

- ✓ Establish usability goals and design heuristics
- ✓ Derive design strategy from business KPIs
- ✓ Identify opportunities
- ✓ ROI (*cost/benefit analysis*)

3. Improvement Plan

- Findings Report

- ✓ Usability issues and recommendations (*by priority, severity, effort, “low hanging fruit”, longer term optimization*)
- ✓ Executive summary presentation

- Improvement Plan

- ✓ End-to-end scenario development (*or storyboards*)
- ✓ Identify screens and flows
- ✓ Estimates (*effort, time, screens*)
- ✓ Staged improvement plan (*“evolution or revolution”*)

- Proof Of Concept (*end state*)

- ✓ High-end graphic prototype (*Flash, HTML, static screens*)
- ✓ Innovation
- ✓ Best practices
- ✓ Before and after screens (*comparative analysis*)
- ✓ Efficiency improvement (*usability and KPI metric study*)

4. Design

■ Abstract Prototype

- ✓ Based on use case analysis and end-to-end scenarios
- ✓ Factor in technological and other constraints/requirements
- ✓ Factor in business process flows
- ✓ Functional requirement review and validation

■ Formalize GUI Style Guide

- ✓ Industry standards
- ✓ project style guide
- ✓ UX patterns (*tabs, accordions, grids, wizards, etc.*)
- ✓ Screen Design templates and stencils

■ Detailed Design

- ✓ Interaction design
- ✓ Task and screen flows
- ✓ Site map
- ✓ Content management

5. Prototype

■ Detailed Screen Design

- ✓ Innovation
- ✓ Best practices
- ✓ Physical Screens
- ✓ error handling
- ✓ Style sheet (CSS)

■ Screen Element Table (*detailed element annotations*)

- ✓ Type
- ✓ Label
- ✓ Valid values
- ✓ Defaults (values, states)
- ✓ Data source & destination
- ✓ Business rules
- ✓ Tab order
- ✓ Comments
- ✓ Alternate flows and exceptions

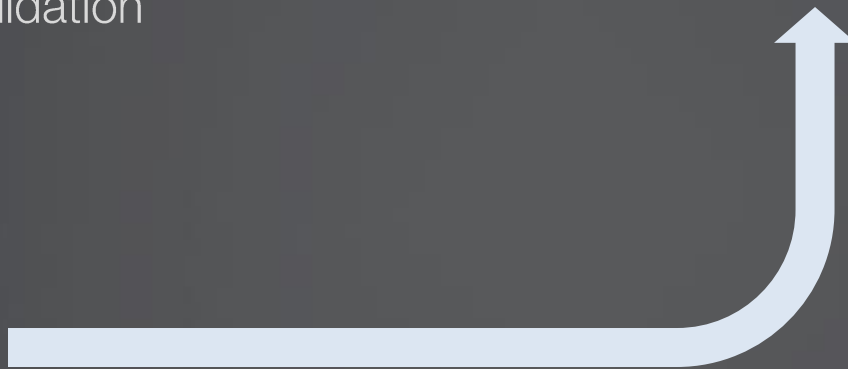
6. Validate

Customer & User Validation

- ✓ UAT (*not recommended unless demanded*)
- ✓ Walkthrough & reviews with ALL stakeholders
- ✓ Validation



Iteration



Sign Off / Delivery Support

UX and Usability Services

■ Observation & Subjective Study

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Catalog of UX Services

- **Business Case & Presale**

- ✓ Operational Efficiencies & KPIs
- ✓ Proof Of Concept / Demo (Scenario Driven)
- ✓ Statistical Analysis & Metrics
- ✓ Before Vs. After Assessment
- ✓ UX and UI Improvement Plan

- **Expert Usability Review**

- ✓ Problems, Defects and Issues
- ✓ GUI Inspection / Information Architecture
- ✓ Standards & Consistency
- ✓ Heuristic Evaluation
- ✓ Improvement Recommendations

- **Detailed Design**

- ✓ Task & Screen Flows
- ✓ Screen Wireframes (E2E)
- ✓ Style Guide Development

- **Graphics Development**

- ✓ High End Graphics Prototypes & Demos
- ✓ GUI optimization
- ✓ Branding
- ✓ Iconography

- **Customer Engagement & Site Visit**

- ✓ Call Center Visit
- ✓ Subjective Study
- ✓ User study
- ✓ Call Logs (side-by-sides)
- ✓ Findings & Recommendations

- **Functional & Task Analysis**

- ✓ Use case Analysis / Business Processes
- ✓ Abstract Prototype
- ✓ Existing vs. Recommended end-to-end flows
- ✓ Task Efficiency & Usability Metrics
- ✓ Interaction Design Solutions

- **General**

- ✓ User Needs Analysis
- ✓ Business Needs Analysis
- ✓ Design, Usability & UX Training
- ✓ UX / Usability Consultation

- **UX Service Order**

Subjective Study

Benefits

- ✓ Reliable indication of user satisfaction
- ✓ Industry best practice
- ✓ Involving users as stakeholders driving design

| | |
|-----------------------------|---|
| SUS | <p>ISO 9241-11 suggests that measures of usability should cover:</p> <ul style="list-style-type: none">• effectiveness (the ability of users to complete tasks using the system, and the quality of the output of those tasks),• efficiency (the level of resource consumed in performing tasks)• satisfaction (users' subjective reactions to using the system). <p>SUS, which is a usability industry standard, provides this type of high-level subjective view of usability by yielding an overall usability score and is thus often used in carrying out comparisons of usability between systems.</p> |
| Interviews & Questionnaires | <ul style="list-style-type: none">• Subjective Survey (Like, Dislike, Would do differently)• User interviews• Management and executive interviews |
| Demographics | <ul style="list-style-type: none">• Agent tenure and churn• Application and business background |

User Study / Observation

Benefits

- ✓ Ensures that design approximates the real world of actual users
- ✓ Understand the user context
- ✓ Observe issues as they happen
- ✓ Elicit valuable information from users

| | |
|-----------------------------|---|
| Observation (side by sides) | <p>Observing agents doing their work</p> <ul style="list-style-type: none">• Total Task Time• Hold time• Call volume handled• Transfers• Screens (and systems) traversed• User actions• Identify issues and defects |
|-----------------------------|---|

Task Efficiency

Benefits

- ✓ Reliable means of predicting performance improvements
- ✓ Excellent tool to optimize tasks and process flows
- ✓ Diagnostic tool to identify defects and issues
- ✓ Essential UX aspect of the business case

| | |
|---|--|
| Task flow analysis (E2E Flows) | User intentions (steps) and system responsibility (displays) Similar to use case narratives (including alternates and exceptions) |
| Efficiency and Task Visibility metrics | <ul style="list-style-type: none">• Essential Efficiency measures actual steps vs. optimal• Task Visibility measures the fit between the visibility of features and the capabilities needed to complete a given task or set of tasks• Task Efficiency = (Essential Efficiency + Task Visibility)/2 |
| Expected efficiency improvement | <ul style="list-style-type: none">• Comparison between current efficiency vs. proposed efficiency• Expected % improvement• Task Efficiency is applied to AHT (factoring in system processing time, talking to customer, user thinking time, etc.) |

Statistical Analysis

| | |
|-------------------------------|---|
| Transfer Rates | <ul style="list-style-type: none">• Senior agents and supervisors• Managers• Finance, Back Office, Collection• Tech Support• Retention• Retail Store |
| Inbound Calls by reason codes | <ul style="list-style-type: none">• Reason 1 / Reason 2• Frequency of use• Call Volumes (per defined period)• Abandonment Rates |
| Repeat Callers | As defined by the business (e.g. 7 calls in one month) |
| Handling Times | <ul style="list-style-type: none">• AHT per task• First Call Resolution (Done in One) |

Expert Usability Review

Benefits

- ✓ Identify most issues (all major issues) with low overhead
- ✓ Ensure optimal visualization
- ✓ Ensure standards, consistency and best practices

| | |
|----------------------|--|
| Heuristic Evaluation | Diagnostic review driven by design heuristics. Examples: <ul style="list-style-type: none">• User Control And Freedom• Maximize Automation• Simplicity• Etc. |
| GUI Inspection | Information Architecture: <ul style="list-style-type: none">• GUI Visualization• Standards and consistency• Perceived Visual Affordance• Navigation and Taxonomy• Structure and Layout |

Thank You