



# Smart Meter Texas: Navigation Analysis

Shannon Graf | Confidential & Proprietary, 2013

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Summary of Research & Objectives



Quick Wins



Proposed Solution



# Summary of Research

## Background

In an effort to improve the overall user experience (UX) of the Smart Meter Texas business processes, Solutions Cube Group, on behalf of Smart Meter Texas, commissioned an evaluation of 3<sup>rd</sup> Party processes, including overall navigation.

## Methodology

The evaluation consisted of an overall assessment of the user experience and user interface (UX / UI) storyboard flow and navigation against industry standards to enable SMT to optimize their processes through the SMT portal.

Both business objectives and customer needs were factored into the evaluation to determine next steps toward enhancing the overall processes which impact both 3<sup>rd</sup> Party and Customer user types.

## Results

The evaluation resulted in strategic overview, recommendations based on industry best practices with assigned severity ratings, and proposed solution for the key stakeholders to consider.

# Key Takeaways: Quick Fixes & Proposed Solution

## Quick Fixes solve for...

- Addressing key issues that are a barrier to success in the existing portal
- Reducing cognitive load currently required during each step from registration to management
- Consolidating the steps needed to register, view, and manage agreements

## Proposed Solution solves for...

- A simplified process which aims to reduce overall cognitive load and increase efficiency for all user types
- Organization of processes in modal windows by critical tasks
- Visual representation of key data to help users identify at-a-glance: pending agreements, overall usage, updates / notifications, and entry points to action items, (i.e. 3<sup>rd</sup> party agreements)

## Caveat for Recommendations

- The recommendations in this report are offered to give direction. These are not the only solutions and are not intended to creative direct your application.
- It is highly recommended that the Proposed Solution is fleshed out by a UI design / development team and tested to validate user needs.
- Prior to prototyping / fully developing the Proposed Solution, it is recommended to conduct either:
  - Concept focus groups to assess the process and identify any missing needs that the existing solution does not solve for, in order to inform further user experience, exploration and / or design direction;
  - One-on-one UX research with individual users from each segment to evaluate their thought process as they walk through the UX flow with a Moderator.
- Finally, any key changes should eventually be tested to ensure they address and do not add to the existing issues.

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# Severity by Topic: Industry Standards

Topic	Description	Recommendation
Phase I high level findings and recommendations	 Phase I identified key ways in which the existing infrastructure can be simplified to enhance the overall organization, ease of use, and navigation.	Addressing the overall infrastructure under which business processes operate is critical to meeting the business objectives; at minimum, Phase I recommendations should be considered.
Visual and relevant content	 Content that is prioritized by relevancy to the user types (3 <sup>rd</sup> Party, Residential, Business), on a visual dashboard once they have logged in, will assist in quick identification of key information.	Implement interactive dashboard functionality that allows users to drill down into more information, (i.e. 3 <sup>rd</sup> Parties can view pending agreements at a glance via a content management system or CMS module).
Consolidate and Group Like Content	 As an example, Customer Meters, Agreements, HAN Device Messages, My Profile, Company Profile, Manage Users, and Pending Approvals are related to 'My Account', but are not strategically linked to a flow.	Regroup these options based on critical tasks: <ul style="list-style-type: none"> <li>• Evaluate (profile, information and messages)</li> <li>• Create / Initiate (agreements)</li> <li>• Manage (modifications to user accounts)</li> </ul>
Contextual Help	 Data entry fields that are industry-specific (i.e. not the standard name, address, email, phone) often become points of confusion and disrupt a process for users, particularly if they are unclear as to whether or not they have completed a step or the process in its entirety.	Instead of excessive links to additional pages of content, provide guidance inline, particularly alongside data entry fields.  Additionally, provide confirmation at the completion of a key step, as to what users have just achieved, (e.g. 'Registration Completed! Click on the to the Messages tab to access your confirmation.').

# Overall Implications: Registration Process

- The users' intent of registering an account with SMT, whether Business / Residential Customers or 3<sup>rd</sup> Party is productivity
  - Business and Residential Customers want to quickly login, view their usage, and manage their corresponding agreements
  - 3<sup>rd</sup> Party users want quick access to customer data and efficient management tools
- Three factors play a significant role in establishing users' experience with the site and brand: Relationship, conversation, and appearance.

## Implication:

The ability to identify the benefits of registering, and easily access the entry point into the view / management process is key to gaining registrants as a 3<sup>rd</sup> Party.

Streamlining the existing process by creating a consolidated experience apart from the site itself, and reorganizing the content throughout will contribute to an efficient user experience.

As a customer's first step toward engaging with SMT and 3<sup>rd</sup> Parties, registration establishes the relationship, creates dialogue, and the aesthetics can impact the tone and perception of the brand.

# Registration: New Users and Login

The screenshot shows a website header with a navigation menu (Home, About Us, Contact Us, FAQs, Help, Security) and a search bar. Below the header is a 'New Users' section with radio buttons for 'Business' and 'Residential', a 'Create Account' button, and a 'Login to your account' section with 'User ID' and 'Password' input fields and a 'Login' button. The main content area features a 'Business' heading, a list of links (Manage..., View Usage..., Save..., Learn More), a large placeholder for 'Relevant imagery here' with a play button and 'Click for virtual tour' text, and a 'Green Button' at the bottom.

The screenshot shows a Skype sign-up form. It includes a dropdown menu for 'How do you intend to use Skype?' with 'Select' as the current value. Below this is a 'Skype Name\*' input field containing 'justin'. A message below the input field states 'Skype Name not available'. Underneath, there are 'Suggestions' for alternative names: 'justin52114', 'justin91859', and 'justin45950'. A tooltip is visible over the input field, titled 'What is my Skype Name?' and containing the text: 'Your Skype Name is your unique username for Skype. It must be between 6-32 characters, start with a letter and contain only letters and numbers (no spaces or special characters).' A note at the bottom reads: 'Note: only choose a name you have a right to use.'

## Observations

- Users need a clear access point to login or to create a new account.
- Creating a new account is visually tedious in the existing process and can be improved.

## Recommendations

- The entry to account creation within Phase I recommendations (Top left) adheres to best practices for clear distinction between existing users and those who need to create an account.
- It is recommended that the process consist of a guided assistance format, including a progress indicator and grouping data entry fields by category (See example left: Skype sign up).

# Registration (cont.): Account Creation

The screenshot shows the Yahoo! account creation process. At the top, it says "YAHOO!" and "Hi, Jay | Sign Out | Help". Below that, it prompts the user to "Get a Yahoo! ID and free email to connect to people and info that you care about." There are two options: "Sign In" and "Can't access my account." The main form is divided into several sections: 1. "Name" with fields for "First Name" and "Last Name". 2. "Gender" with a dropdown menu "Select One". 3. "Birthday" with dropdowns for "Month" and "Year", and a "Day" field. 4. "Country" with a dropdown menu "United States" and a "Postal Code" field. 5. "Select an ID and password" section with a "Yahoo ID and Email" field (with a dropdown for ".yahoo.com"), a "Check" button, a "Password" field, and a "Re-type Password" field. 6. "In case you forget your ID or password..." section with an "Alternate Email" field, two "Secret Question" dropdowns, and two "Your Answer" fields. 7. A CAPTCHA section with the text "Type the code shown" and a box containing the code "M7BUBF", with a "Need audio assistance?" link and a "Try a new code" button. At the bottom, there is a "Create My Account" button and a small disclaimer: "By clicking the 'Create My Account' button below, I certify that I have read and agree to the Yahoo! Terms of Service, Yahoo! Privacy Policy and Mail Terms of Service, and to receive account related communications from Yahoo! electronically." The footer contains copyright information: "Copyright © 2013 Yahoo! Inc. All rights reserved. Copyright Policy | Terms of Service | Guide to Online Security" and a notice: "Data verification technology developed in collaboration with the CapScribe Project at Carnegie Mellon University. NOTICE: We collect personal information on this site. To learn more about how we use your information, see our Privacy Policy." A small note at the very bottom states: "Data is provided for informational purposes only, and may not be accurate. Yahoo! shall not be liable for any errors or omissions in the content, or for any actions taken or reliance on these findings."

## Observations

- Grouping like content makes for easier readability, quicker comprehension, and cognitively breaks down the process – making it feel simpler, even if there are multiple steps.

## Recommendations

- Consider a format similar to Yahoo's account sign up as a baseline for 3<sup>rd</sup> Party and Customer account registration.
- Enabling autocomplete functionality will streamline the personal / business profile portion of the process as well.

## Overall Implications: View and Manage Agreements

- Upon receiving an agreement, users need clear access points to each; if terminology is redundant, industry-speak, and are given too many options, they can experience difficulty navigating to the appropriate sections.
- Users should also be able to easily digest information at-a-glance.
  - If the process of accessing and understanding an agreement is cumbersome, users may not have a clear understanding as to why they should / should not accept.

### Implication:

Any expected engagements or actions on the customers' part may go unnoticed if the ability to access and interpret their agreements is unclear.

SMT and 3<sup>rd</sup> Parties risk customer satisfaction and overall engagement if they are unsuccessful with viewing and managing their agreements.

# Menu Navigation: View and Manage



## Observations

- Currently, menu items are conflated and redundant. For example, 'My Account' contains a sub-nav option for 'Customer Meters', as does the 'Usage' option.

## Recommendations

- Group menu items by critical tasks users are logging in to take action on:
  - Evaluate: profile info, messages, usage data
  - Create: initiate agreements
  - Manage: modifications to accounts

## Overall Implications: Agreement Invitation

- It is important for Business / Residential Customers to grasp the intent of each agreement prior to being presented with each.
  - Introducing detailed agreements during a registration process can be cumbersome, as it breaks up the flow and disrupts the user's mindset: registering their account.
- It is also important to keep the process of reviewing the agreements separate from the actual portal to maintain focus, and without having them leave the site.

### Implication:

Intended outcomes of a registration process can be impacted if users are caught off guard and lack the context they need to make an informed decision during next steps.

3<sup>rd</sup> Parties risk lower registration completions or agreement acceptance rates if users have significant difficulty comprehending the terms of the agreement, particularly if they become confused amidst a process, and if there is more than one agreement in question.

# Agreement Invitation: Consolidate and Group Like Content

Smart Meter Texas – Invitation for Energy Data Agreement 03/15/2012 10:15

From: Smart Meter Texas Team <SMTAdmin@smartmetertexas.com>  
To: ChrisAkin@ibm.us.com  
Cc: customerservices@acmeservice.com

**SMART METER TEXAS™**  
A very **smart way** for Texans to manage electricity!

This is an invitation from <3rd Party> to extend an Energy Data Agreement for you to review and accept/reject.

<3rd Party name> would like to extend your Energy Data Agreement.

Agreement # <XXXXXXXXXXXX>  
•Your current agreement expires on <end date>  
•You still maintain the right to terminate this agreement  
•This extension allows < 3rd Party name> to extend your agreement  
•Your energy usage data can be seen and discussed with <3rd Party name>

Neither Smart Meter Texas nor any regulator has reviewed the terms of their privacy policy before it was published. <Their privacy policy>

Neither Smart Meter Texas, your Transmission Provider, or any other party involved in the delivery of electricity has reviewed the terms of their privacy policy before it was published. <Their privacy policy>

3rd Party Company Name: <3rd Party Name>  
3rd Party Email: <3rd Party Email>  
3rd Party Phone Number: <3rd Party Phone Number>  
3rd Party Contact: <3rd Party Contact>  
3rd Party Privacy Policy: <3rd Party Privacy Policy>  
3rd Party Website: <3rd Party Website>  
3rd Party Customer Rating: <3rd Party Customer Rating>  
Comments: <3rd Party Comments>

Customer First Name: <customer first name>  
Customer Middle Initial: <customer middle initial>  
Customer Last Name: <customer last name>

24/7 Customer Service 1-877-927-2332

**Zappos** VIP  
POWERED BY SERVICE

365 Day Return Policy In other words, 1 full year! FREE Shipping Both Ways It's always on the house!

SHOES CLOTHING BAGS & HANDBAGS NEW ARRIVALS CLEARANCE BRANDS ALL DEPARTMENTS

Use the Zappos mobile app!  
GET IT FOR YOUR DEVICE

Thank You For Your Order!

Here Is Your Order Number:

Hi Travis!

Ooh... You like us! You really like us! Thanks for placing an order on VIP.Zappos.com! We couldn't be happier about this (unless, of course, there was ice cream involved). At any rate, all the details of your order are below.

Give us a ring if you have any questions... 1-877-927-2332.

XOXO,  
VIP.Zappos.com

P.S. Be on the lookout for a shipping confirmation. We'll send it once your order leaves the warehouse. Mwah!

Your Purchasing Information

Your Order Information:  
Item Ordered: 1  
Total: \$100.00

Your Shipping and Billing Information:  
Shipping Method: Next Day Shipping  
Date Ordered: Fri Feb 22 05:57:10 PST 2013

## Observations

- The text-heaviness of the invitation is overwhelming at-a-glance; while it is grouped, there is no visual indication as to how it's grouped and thus information can go unnoticed.

## Recommendations

- Add visual separation including bold labeling that clearly indicates the intent of each section, (see Zappos example) calling attention to key information users will want to reference before accepting / rejecting the invitation.
- Separate the purpose statement (in the green banner) from the header and position it as a title above the content, as it currently blends and goes unnoticed.
- Avoid redundancy such as the two stacked lines which state 'extend Energy Data Agreement'.

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## Proposed Solution

- The following mockups are intended to communicate the streamlined process, not to dictate specific design / content elements within the pages.
- This assumes:
  - Content within the Agreements has been streamlined per the previous recommendations
  - Content will then be consolidated into the proposed dashboard and buckets to simplify overall navigation
- The intent is to adopt a modal window flow, which overlays atop the website.
- Modal windows separate the completion of a data entry or review process (actions) from the site (informational), for the following:
  - 3<sup>rd</sup> Party Creates New Agreement
  - Customer (Authenticated / Unauthenticated) Accepts / Rejects
  - Customers View / Manage
  - 3<sup>rd</sup> Parties View / Manage

# Dashboard Home: 3<sup>rd</sup> Party

[Home](#) | [About Us](#) | [Contact Us](#) | [FAQs](#) | [Help](#) | [Security](#)

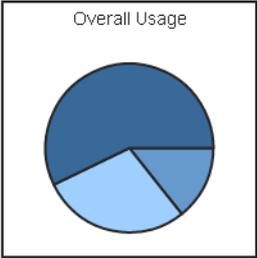
LOGO

Welcome, Pam! [Logout](#)

## My Dashboard

My Profile | My Tasks | Customer Accounts

Overall Usage



Agreements Completed



Messages (13)



🔍 229876

Account #22987654	James Smith
Account #22987676	Pam Albert
Account #22987690	Bob Hernandez

## Recommendations

- On login, the user is presented with a dashboard GUI, customized to their organization.
- Here, they can navigate by drilling down into the modules displayed in the snapshot that defaults on their 'My Profile' page for more information pertaining to their profile.
  - If they select messages, it will take them into their profile to review them.
  - They can also see visually how many agreements are pending, then can click into the module which takes them to 'My Tasks' to view more information on pending agreements.
- 'Customer Accounts' is where they can access information on Customer Accounts.
- They can also use the automated search field to locate account information from their dashboard.

# Process Flow: 3<sup>rd</sup> Party

The screenshot displays a web application interface with a modal window titled "Start Energy Data Agreement". The modal window has a progress indicator at the top with four steps: Step 1 (selected), Step 2, Step 3, and Step 4. The form contains the following fields:

- Customer Information
- Account Authorization Code: AYT74393
- Account Authorization Code: AYT74393
- 3rd Party Contact Info
- Company Name: NAME

A "Go To Step 2" button is located at the bottom right of the modal. The background shows a dashboard with a "LOGO", navigation links (Home, About Us, Contact Us, FAQs, Help, Security), a user profile (James Smith, Pam Albert, Bob Hernandez), and a "My Dashboard" section with a pie chart labeled "Overall Usage".

## Recommendations

- To initiate a process, the 3<sup>rd</sup> Party user would access the templates from 'My Tasks'.
- This engages the modal window flow, where clicking 'X' to close at any point in the process will 'Save' and allow users to return to where they left off.
- The progress indicator lets users know where they are and how many steps they have remaining.
- There is a clear title atop the window to let users know in which process they are engaged.
- The modal window can be utilized for data entry forms and documentation which requires an action, this way users remain in the context of the SMT site, but are separating their actions from navigating the rest of the site – it is clear where they are and what they are trying to accomplish.
- They should be able to go back a step, but can not progress until all required fields are complete.

# Dashboard Home: Customer

LOGO [Home](#) | [About Us](#) | [Contact Us](#) | [FAQs](#) | [Help](#) | [Security](#)

Welcome, Pam! [Logout](#)

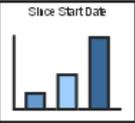
## My Dashboard

My Profile | Message Center | My Data

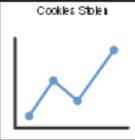


- Name
- Account#
- Date Registered

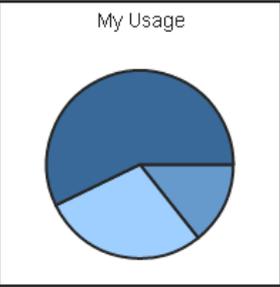
Slice Start Date



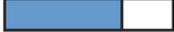
Cookie's Stiles



My Usage



Pending Agreements



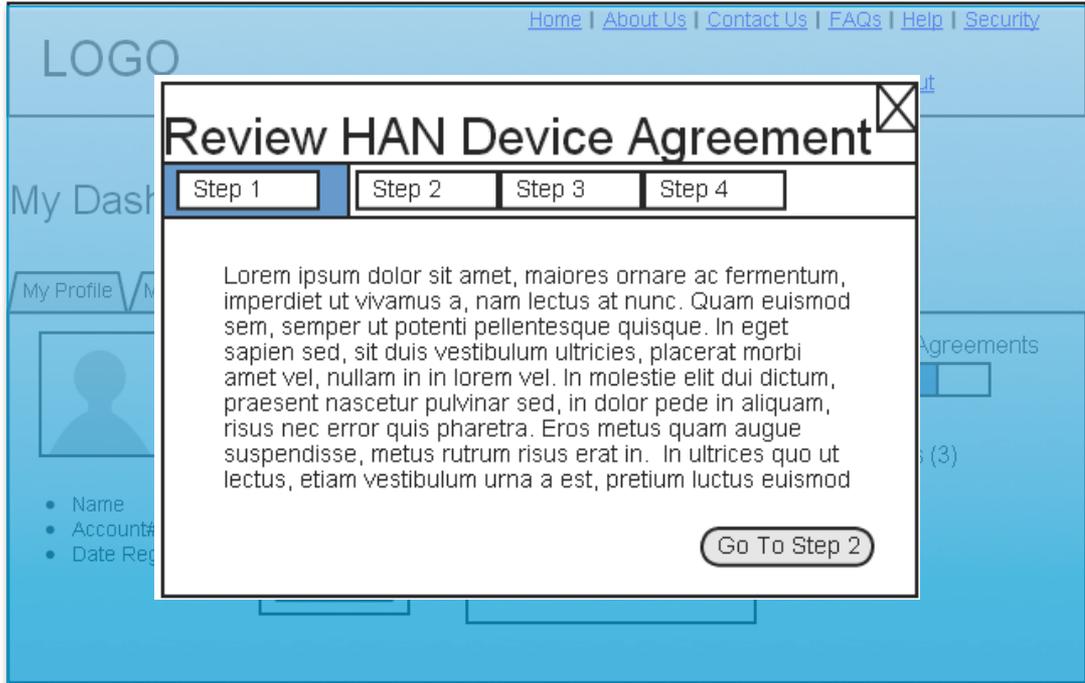
Messages (3)



## Recommendations

- On login, the user is presented with a dashboard GUI, customized to their organization or household.
- Here, they can navigate by drilling down into the modules displayed in the snapshot that defaults on their 'My Profile' page for more information pertaining to their profile.
  - If they select messages, it will take them into 'Message Center' to review.
  - They can also see visually how many agreements are pending, then can click into the module which takes them to 'Message Center' to review, accept / reject pending agreements.
- 'My Data' is where they can access information on their usage, friends' usage, and request reports over time.
- They will receive notifications in their 'Message Center' and can opt to push modules from their 'My Data' to the dashboard homepage for quick reference.

# Process Flow: Customer



## Recommendations

- To initiate a process, access Agreements or other notifications for review within 'Message Center'.
- This engages the modal window flow, where clicking 'X' to close at any point in the process will 'Save' and allow users to return to where they left off.
- The progress indicator lets users know where they are and how many pages they have remaining.
- There is a clear title atop the window to let users know which document they are reviewing.
- The modal window can be utilized for data review, remaining in the context of the SMT site, but are separating their actions from navigating the rest of the site – it is clear where they are and what they are trying to accomplish.
- The step-by-step format allows for easier consumption and enables them to go back and forth between steps before they 'Accept' or 'Reject' in the final step of the review process.



# Thank You

**Questions or Comments?**

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