

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Windows 8 Apps for Smart Appliances

The Capstone Experience

Team Whirlpool

Robert Carpenter

Kathy Cummings

Zachary Pauley

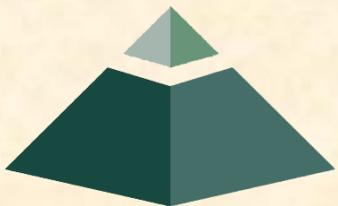
AJ Sundheimer

Chris Thomas

Department of Computer Science and Engineering

Michigan State University

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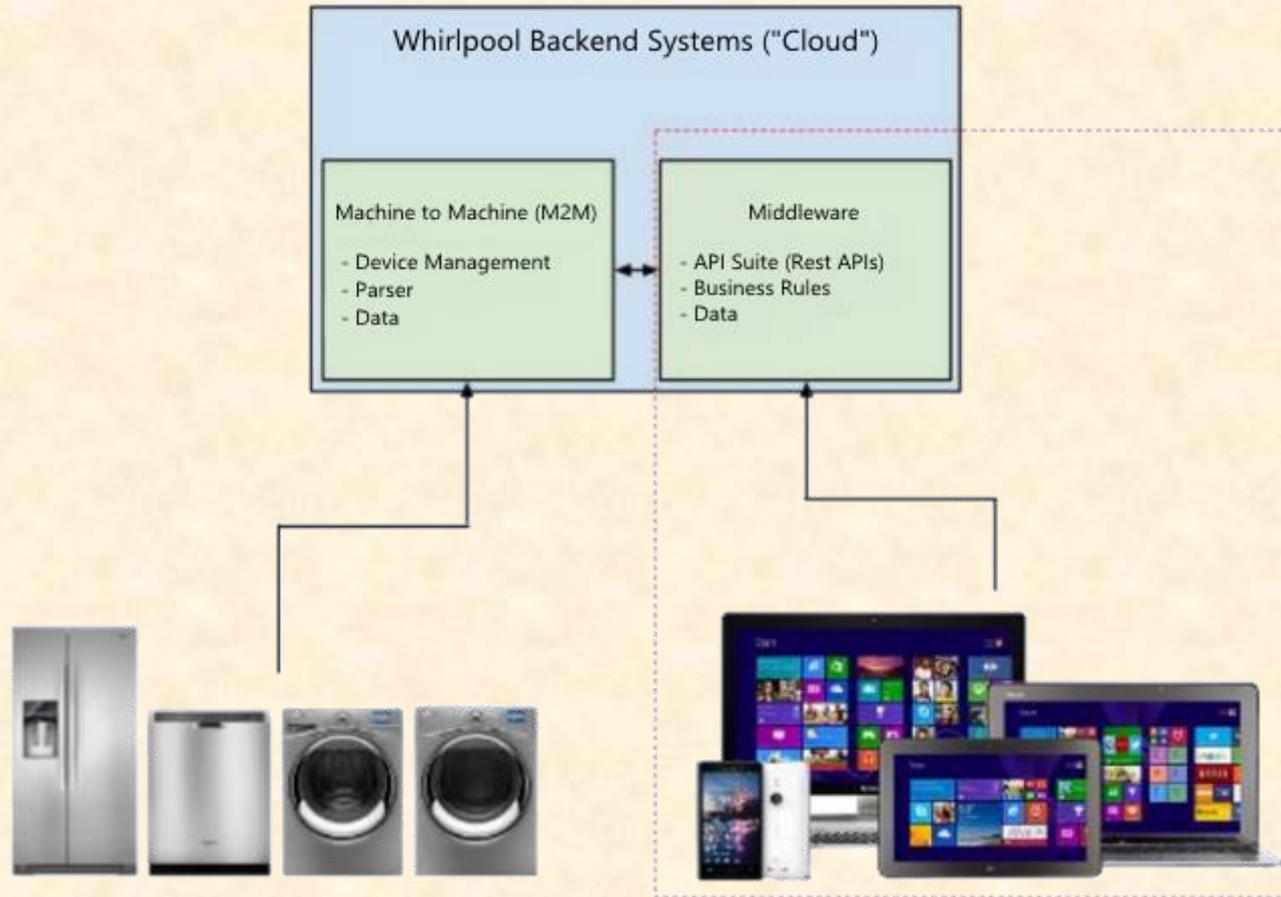
*From Students...
...to Professionals*

Project Overview

- Windows 8 application for desktops, tablets and phones
- Remotely control Whirlpool Smart Appliances
- Monitor appliance status and condition
- Report to users energy information and usage history



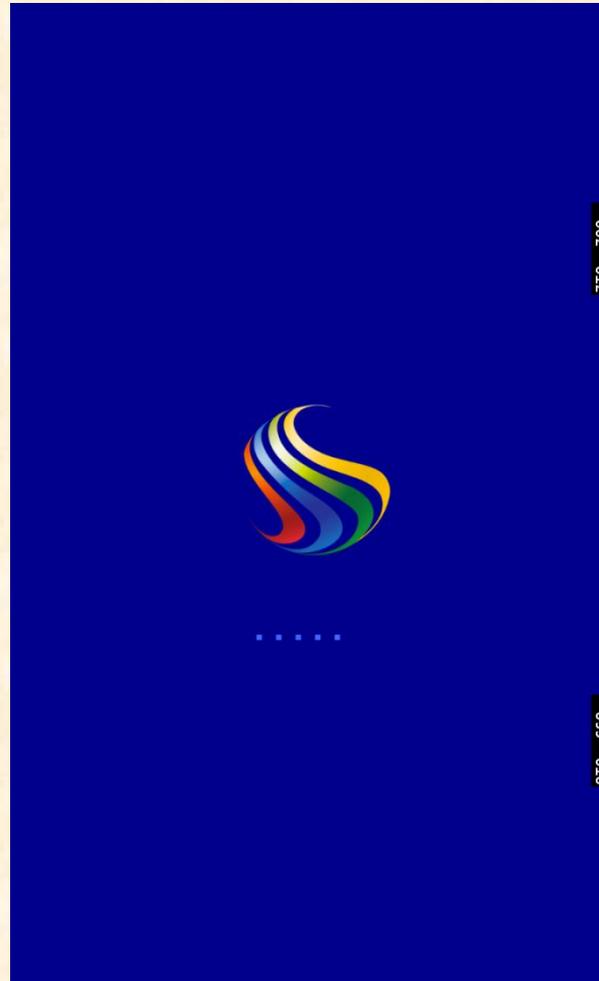
System Architecture



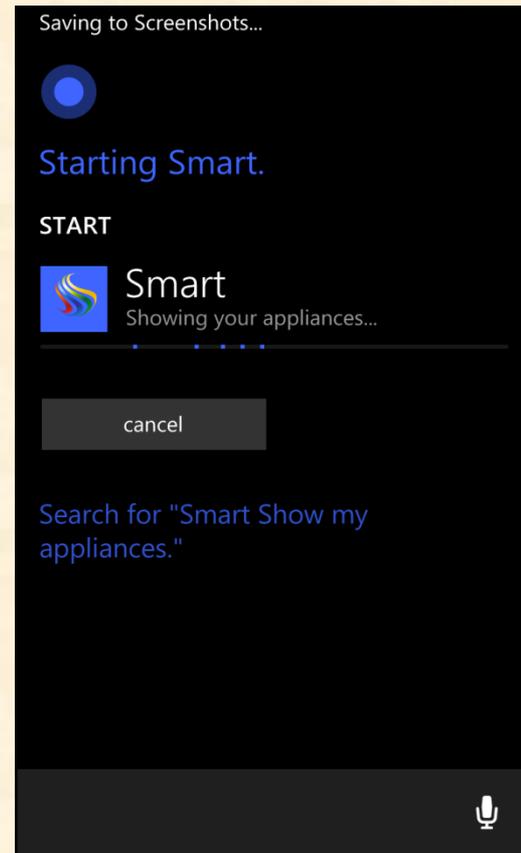
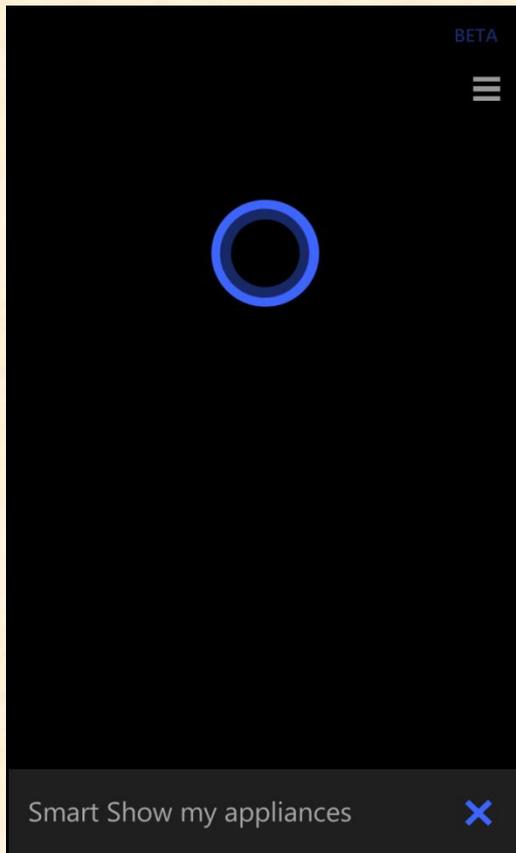
Live Tiles



Loading Screen



Cortana



Account Settings and Appliances

Settings

Account About

Name

Team

Whirlpool

Account Email

teamwhirlpool498@gmail.com

Change Password

New Password

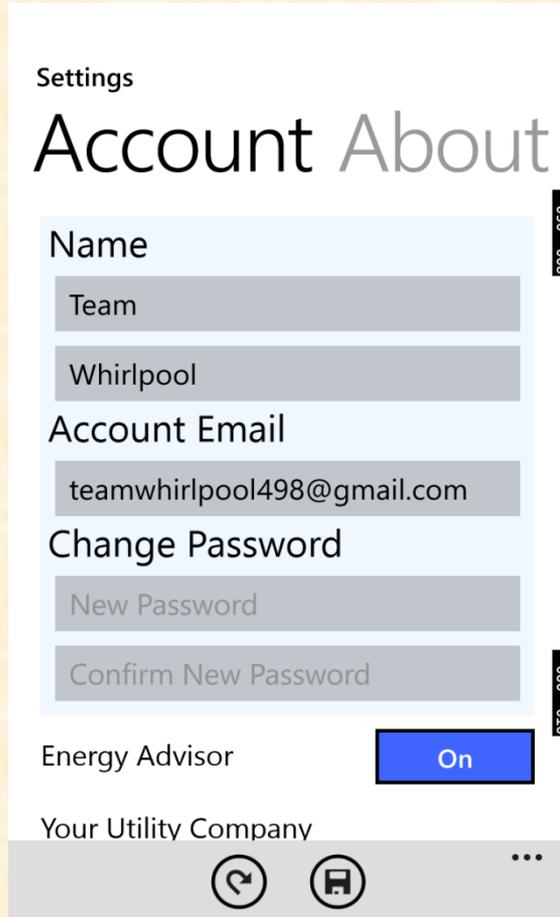
Confirm New Password

Energy Advisor On

Your Utility Company

030 008

060 016

A mobile application screen titled 'Settings' with a sub-header 'Account About'. It contains several input fields: 'Name' with 'Team' and 'Whirlpool', 'Account Email' with 'teamwhirlpool498@gmail.com', and 'Change Password' with 'New Password' and 'Confirm New Password'. There is a toggle for 'Energy Advisor' set to 'On' and a field for 'Your Utility Company'. The bottom navigation bar has icons for home, account, and settings.

Smart

Appliances Energy

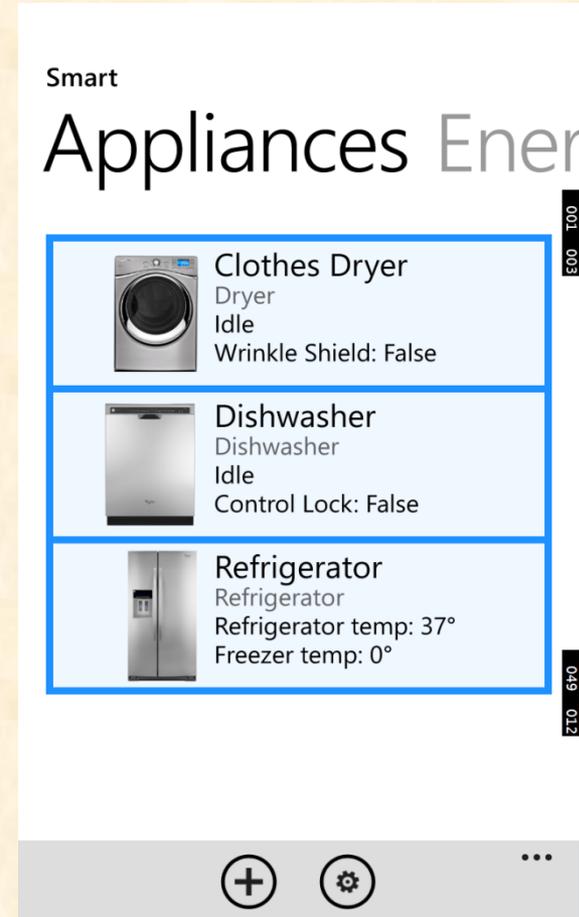
Clothes Dryer
Dryer
Idle
Wrinkle Shield: False

Dishwasher
Dishwasher
Idle
Control Lock: False

Refrigerator
Refrigerator
Refrigerator temp: 37°
Freezer temp: 0°

001 003

049 012

A mobile application screen titled 'Smart' with a sub-header 'Appliances Energy'. It displays three appliance cards: 'Clothes Dryer' (Dryer, Idle, Wrinkle Shield: False), 'Dishwasher' (Dishwasher, Idle, Control Lock: False), and 'Refrigerator' (Refrigerator, Refrigerator temp: 37°, Freezer temp: 0°). Each card includes a small image of the appliance. The bottom navigation bar has icons for home, account, and settings.

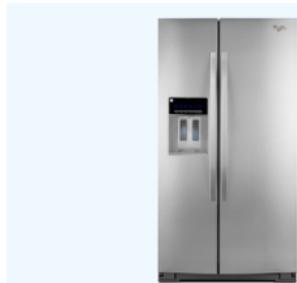
Account Appliances and Settings

Smart Appliances



Clothes Dryer

Idle Wrinkle Shield: False



Capstone Fridge

Fridge: 38° Freezer: 0°

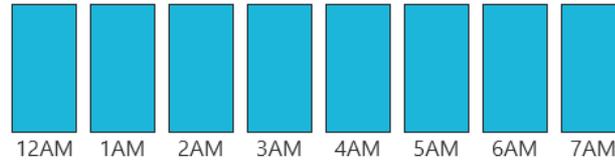


Dishwasher

Idle Control Lock: False

Energy

Rate Revealer



Time

← Account



Team

Whirlpool

teamwhirlpool498@gmail.com

New Password

Confirm New Password

Energy Advisor

On

Your Utility Company

Consumers Energy Co

Save

Delete Account



Energy

Smart Energy Appliance

Rate Revealer



Legend:

Off-Peak Rates: ■ Peak Rates: ■

Energy Reports



Refrigerator Specific Page

Refrigerator

Refrigerator Energy



Vacation Assistant
Off

Alerts

- Door Not Ajar ✓
- Filter Status ✓

Temperatures

Fridge	←	37°	→
Freezer	←	0°	→

Fahrenheit

Navigation icons: Home, Settings, Location, More

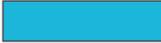
Refrigerator

Energy Report

Average Daily Usage **1022 W**

-54161

Energy History

11/3/2014		1293 Wh
11/2/2014		1391 Wh
11/1/2014		1388 Wh
10/31/2014		1439 Wh

Navigation icons: Home, Settings, Location, More

Refrigerator

Options Refrigerator

Refrigerator 

Notification Preferences

	Push	Email	SMS
Door Ajar			
Filter Bad			
Power Off			
Power On			

Smart Appliance ID
333336NMB5

Appliance Serial Number
R31004960

Navigation icons: Home, Settings, Location, More

What's left to do?

- Refine UI
- Push Notifications
- Bug Fixes
- Exception Handling

