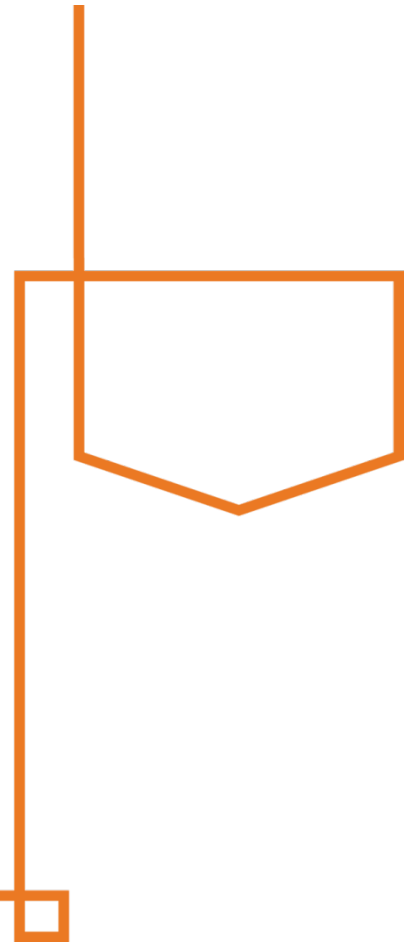




U.S. Bank Case Study

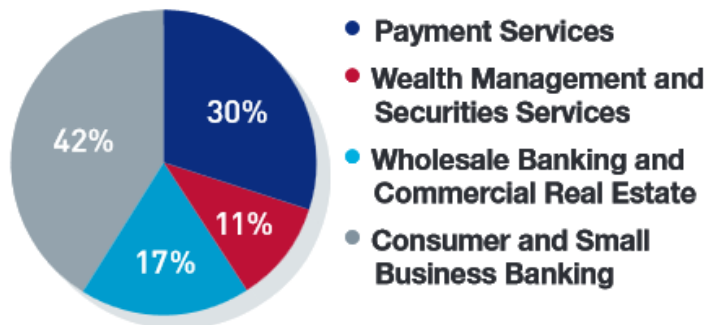
Beth Gallagher Dumke
Vice President, Product Development & Innovation
[@GallagherBeth](#)

U.S. Bank



U.S. Bank

Revenue mix by business line



Q2 2015 YTD taxable-equivalent basis, excluding securities gains (losses) net

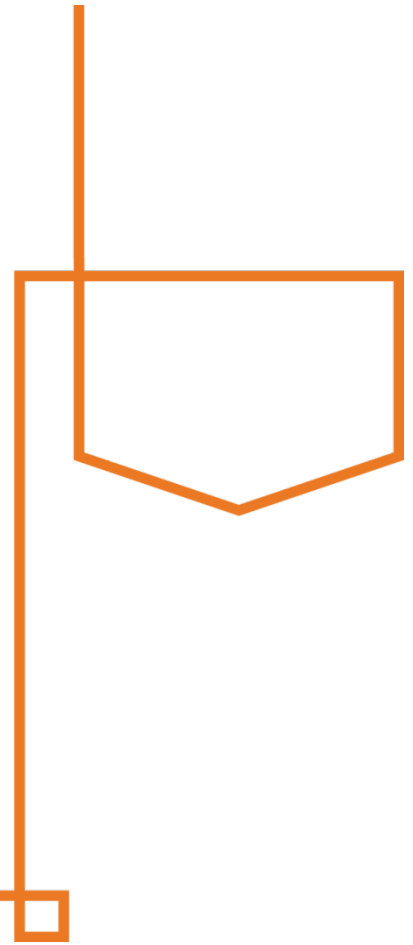
Revenue percentages exclude Treasury and Corporate Support

Second Quarter 2015 Performance

Ranking **U.S. Bank is the 5th largest U.S. commercial bank**

Period-end assets	\$419 billion
Period-end deposits	\$297 billion
Period-end loans	\$249 billion
Earnings per common share (diluted)	\$0.80
Return on average assets	1.46%
Return on average common equity	14.3%
Customers	18.5 million
Bank branches	3,164
ATMs	5,020
NYSE symbol	USB
Year founded	1863

Getting to Pilot



Mobile Banking Platform

- Used a platform designed specifically for credit card access
- Integrated the NINA SDK into one app on the platform
- Designed the placement of the NINA dialogue box as well as the microphone icon
- Out of scope was making any functional modifications to the app
 - Ultimately added transaction search functionality to the app as it was easy to perform with the NINA technology



Use Case Definition & Grammars

- Worked alongside Nuance to review the existing app and determine where/how to integrate voice capabilities
- Ultimately landed on three use cases: navigation, bill pay, transaction search
- Nuance mapped out each interaction and intent that could be performed within the app
- U.S. Bank team provided insight into the language used by customers for grammar and language models

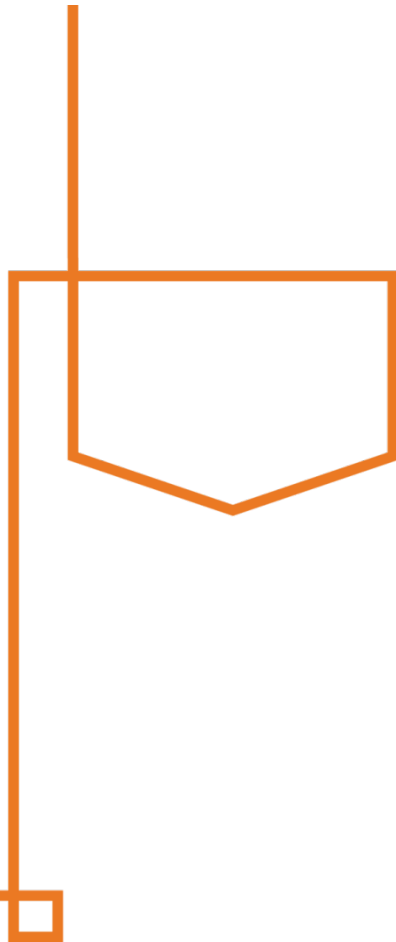


Pilot Scope

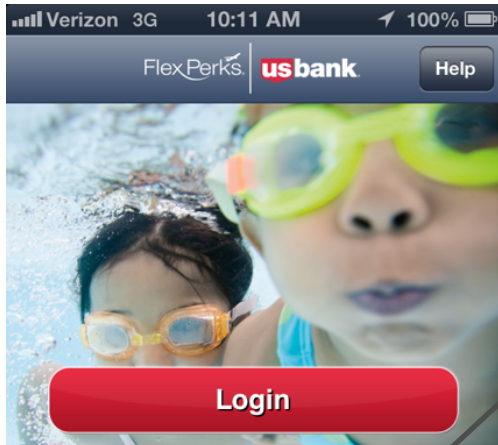
- Integrate the NINA SDK into our FlexPerks mobile banking app
- Employees only
- 12 week pilot
- Build out three primary use cases:
 - Navigation
 - Bill Pay
 - Transaction Search
- Limit the navigation options to 7 intents to keep a narrow scope



NINA



Meet NINA

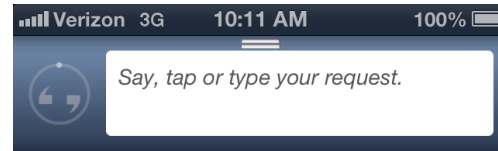


Account Opening Disclosures >

Exclusive Benefits >

My FlexPerks Visa® Account >

Say or type your request.



What are my account benefits?

How much cash back do I get on a purchase?

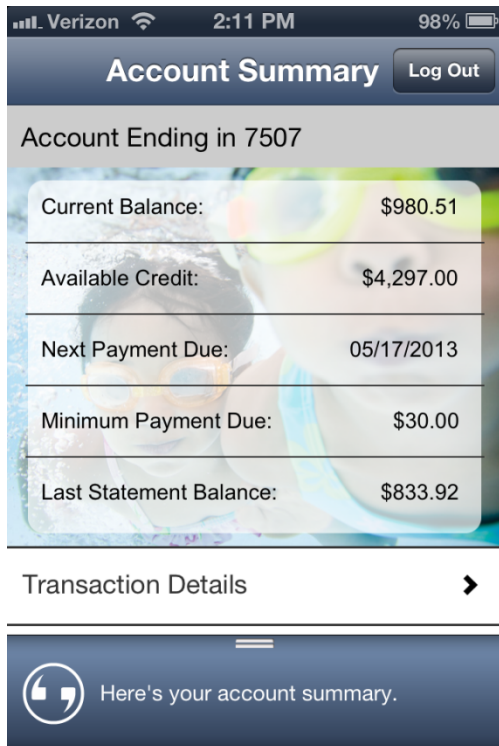
My card APR?

What are your fees?

Other FlexPerks products

Get a Personal ID

Navigation



Verizon 2:11 PM 98%

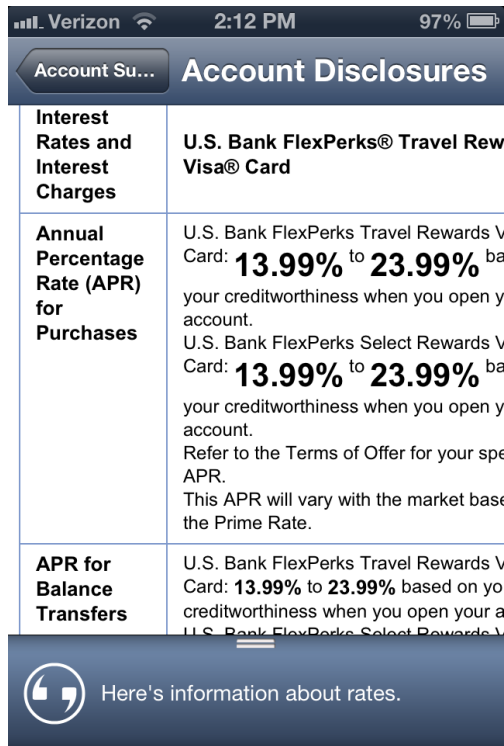
Account Summary Log Out

Account Ending in 7507

Current Balance:	\$980.51
Available Credit:	\$4,297.00
Next Payment Due:	05/17/2013
Minimum Payment Due:	\$30.00
Last Statement Balance:	\$833.92

Transaction Details >

Here's your account summary.

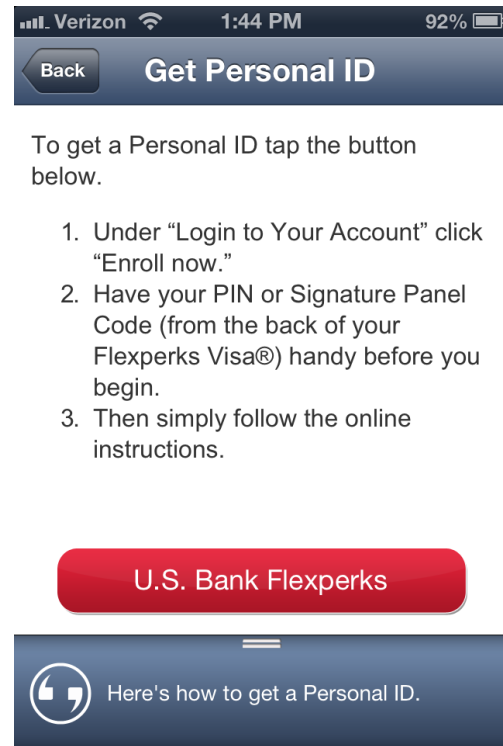


Verizon 2:12 PM 97%

Account Su... Account Disclosures

Interest Rates and Interest Charges	U.S. Bank FlexPerks® Travel Rewards Visa® Card
Annual Percentage Rate (APR) for Purchases	U.S. Bank FlexPerks Travel Rewards Visa Card: 13.99% to 23.99% based on your creditworthiness when you open your account. U.S. Bank FlexPerks Select Rewards Visa Card: 13.99% to 23.99% based on your creditworthiness when you open your account. Refer to the Terms of Offer for your specific APR. This APR will vary with the market based on the Prime Rate.
APR for Balance Transfers	U.S. Bank FlexPerks Travel Rewards Visa Card: 13.99% to 23.99% based on your creditworthiness when you open your account. U.S. Bank FlexPerks Select Rewards Visa Card: 13.99% to 23.99% based on your creditworthiness when you open your account.

Here's information about rates.



Verizon 1:44 PM 92%

Back Get Personal ID

To get a Personal ID tap the button below.

1. Under "Login to Your Account" click "Enroll now."
2. Have your PIN or Signature Panel Code (from the back of your Flexperks Visa®) handy before you begin.
3. Then simply follow the online instructions.

U.S. Bank Flexperks

Here's how to get a Personal ID.

Transaction Search

Verizon 11:59 AM 50%

Back Transactions Log Out

Account Ending in 7507

04/26/2013	- \$2.27
CUB FOODS, INC. APPLE VALLEY MN	
04/25/2013	- \$5.34
DUNN BROS C MS20351961 ST PAUL MN	
04/24/2013	- \$38.63
MARATHON PETRO155101 APPLE VALLEY MN	
04/19/2013	- \$0.00
ANNUAL MEMBERSHIP FEE	
04/19/2013	- \$50.59
CUB FOODS, INC. APPLE VALLEY MN	
04/18/2013	- \$502.00
US BANK NA 866-2243466 MN	
04/17/2013	- \$2.43
CARIBOU COFFEE CO # 17 MINNEAPOLIS MN	



Verizon 2:09 PM 98%

Back Transactions Log Out

Account Ending in 7507 (20 results)

04/03/2013 - 05/03/2013

05/02/2013	- \$25.00
MMA ADMISSIONS NEW YORK NY	
05/01/2013	- \$2.43
CARIBOU COFFEE CO # 17 MINNEAPOLIS MN	
04/30/2013	- \$11.00
ROF CALHOUN SQUARE LLC MINNEAPOLIS MN	
04/29/2013	- \$7.49
PANERA BREAD #1306 APPLE VALLEY MN	
04/29/2013	- \$52.00
US BANK NA 866-2243466 MN	
04/29/2013	- \$2.43
CARIBOU COFFEE CO # 17 MINNEAPOLIS MN	

Transactions for 04/03/2013 - 05/03/2013

Bill Pay

Verizon 2:10 PM 98%

Back Payment Log Out

Account Ending in 7507

From this Account:

Please select an account >

Payment Amount:

Other Amount - 30.00

Next Minimum Payment - \$30.00

Last Statement Balance - \$833.92

Current Balance - \$980.51

Submit

How much to pay?

Verizon 2:11 PM 98%

Back Confirm Payment Log Out

Account Ending in 7507

Please review your payment information before submitting

Payment Amount - \$20.00

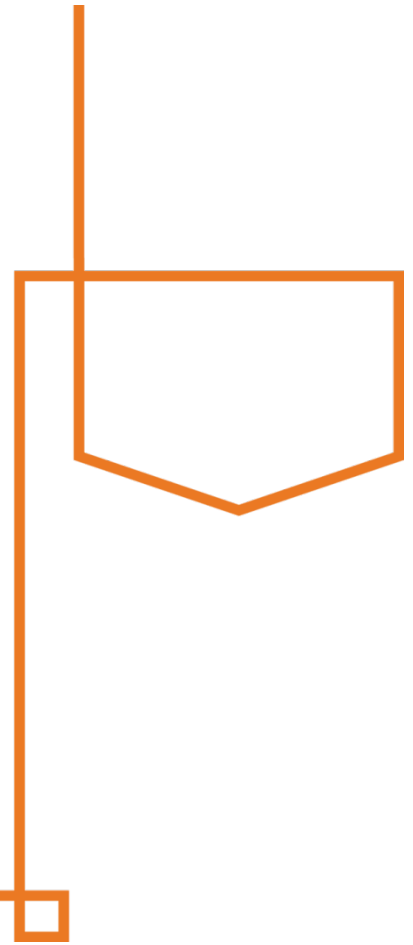
From Account - Savings Ending in 9464

Payment Date - 5/3/13

Submit

All set?

Pilot Goals



Learning Objectives

- Test the accuracy of using voice to navigate and perform tasks within the mobile app
- Understand if voice is a viable solution for navigation within the mobile environment
- Evaluate the user experience of using voice to interact with the mobile app in place of tapping/swiping
- Understand the perceived benefits or drawbacks to using voice from the user perspective

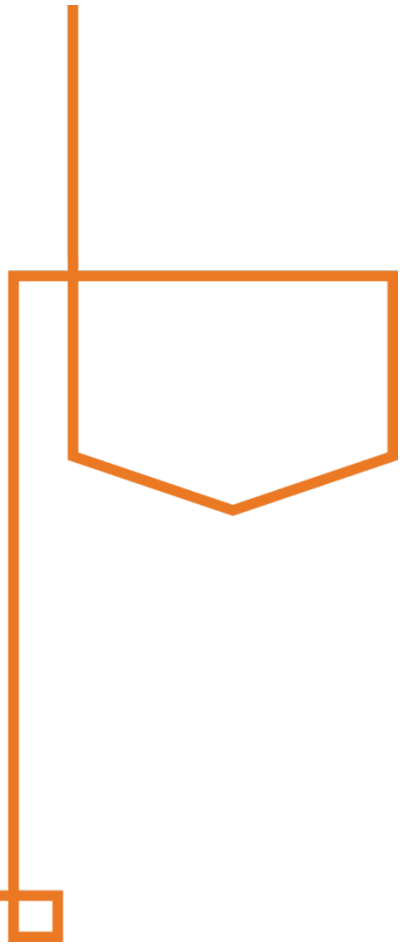


Measurement

- Quantitative measurement was provided by Nuance
- Qualitative measurement was captured through a series of online surveys
 - Surveys were sent weekly
 - Final survey sent at the end of the pilot



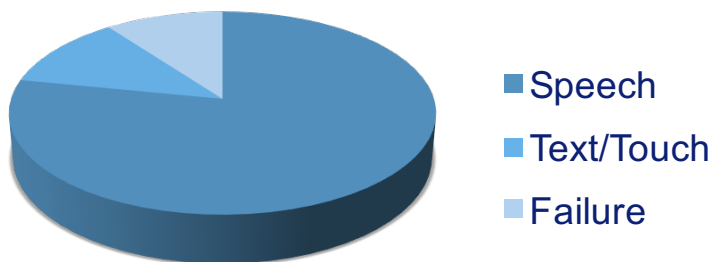
Results



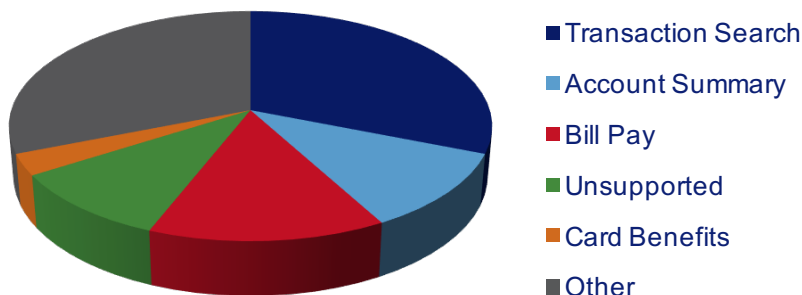
Final Results

- NINA was invoked 45% of the time
- Users provided an average of 5.11 inputs per NINA session
- NINA had an overall recognition rate of 90%
 - Recognition rate improved as users became familiar with the capabilities

Inputs



Destinations



Qualitative Results

- 87% of users were satisfied with the app overall
- 78% of users said having voice enhanced their app experience
- 76% of users were satisfied with the ability to use their voice

“I thought this would be a great innovation and I was not disappointed.”

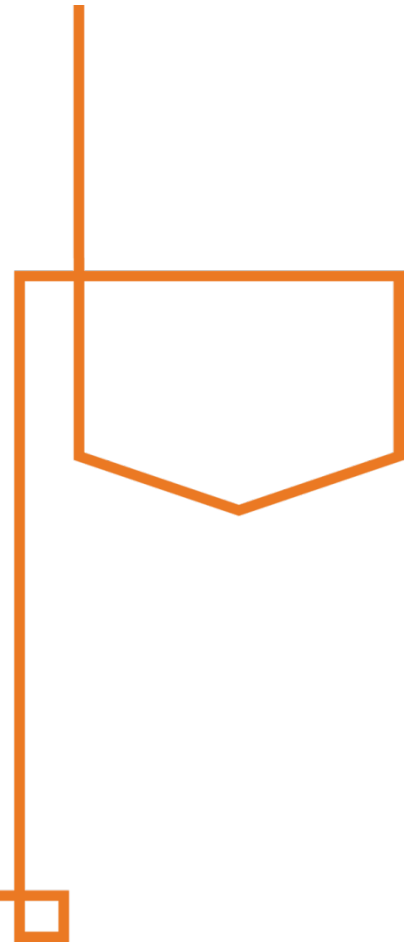
“It was able to distinguish what I wanted to do easily in various noise conditions. It was so simple to use”

“It was a lot more responsive than I expected. It had difficulty with a few tasks, but really good overall”

User Feedback



What's Next



Moving Forward

- Results have been shared widely throughout the organization
- Looking for solutions that cross channels to provide customers a cohesive customer experience
- Shortly after the NINA pilot, a pilot was conducted with Nuance Vocal Password (voice biometrics); the bank has put initial development focus on biometrics
- Voice biometrics will be available to mobile banking customers later this year with a full roll-out in 2016



Questions?

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