

CEO Strategies 2017



Where everyone's a teacher, and everyone's a student



CEO School helps CEOs understand what they should be thinking about when it comes to getting the most from their investments in technology and our network



A Second Shot at CEO School Every Year



Mid-Year CEO School: Not Just for CEOs

During this day-long training event, which welcomes all credit union staff, CU*Answers Asterisk Intelligence Vice President Keegan Daniel and his team of experts will share insights into what credit union executives need to understand about data. Participants will examine CU*BASE dashboards and statistical-analysis tools that can help them identify new opportunities and achieve strategic goals.

Date

March 14

Location

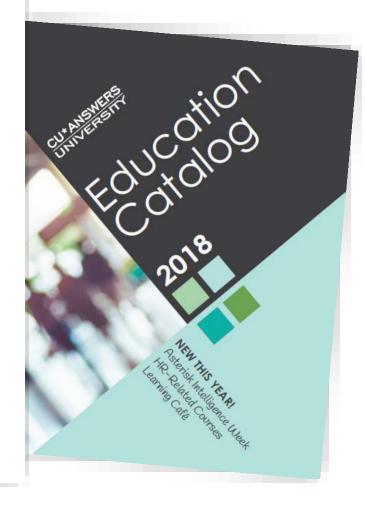
This event will be held at the CU*Answers corporate office: 6000 28th St. SE, Grand Rapids, MI.

Registration

Visit cuanswers.com/resources/edu/courses/syllabi/?course=SE.2 to register for Mid-Year CEO School.

Schedule

| Time | Event | | |
|---|--------------------------------|--|--|
| 9 AM – 12 PM | Morning Training Session | | |
| 12 – 1 PM | Lunch (courtesy of CU*Answers) | | |
| L – 4 PM Afternoon Training Session, Open Q&A | | | |



Remember our new rhythm for this year's interactions...

And as other thoughts occur to you over the next few weeks, go to the CEO Strategies page and leave a comment!

For each topic:

- **1)** Briefing targeted to CEOs
 - Randy will introduce the topic
- 2) Presentation by marketplace experts
 - Tactical responses to the topic from our technical or other teams (including software demos, etc.)
- 3) CEO discussion/brainstorming
 - A TNT session designed to bring out CU leaders ready to Teach, Negotiate and Tell their point of view

Today's Focus

Data in action

What does it mean to double down on all of our investments over the past decade? Will CUs do the same?

What does data mean to an Internet Retailer?

Projects CEOs should consider – not just for your *consumers*, but also for your *volunteers How can we make this a headline in CU business plans?*

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What does it mean to add a data administrator to your organizational chart?

What if you as a CEO had to add these new duties to your daily work? Building teams that will change your future

CEO School Part 1

Data in Action

What does it mean to double down on all of
our investments over the past decade?Will CUs do the same?

A Decade of CEO School

| 2007 | What a CEO Should Know about Member Data; Leading Meetings; Driving the Buzz With Your Membership; Understanding Service Income; Networking Credit Unions for Growth; Working Under the Best Contracts | |
|------|---|--|
| 2008 | What CEOs Should Have On Their Radar: Achieving the lowest cost of going active with innovation; Having the lowest cost in the industry for compliance; Being known as one of the most aggressive mortgage servicing networks | |
| 2009 | Getting a Handle on Automated Service Income; Pinning Down the "Duh" Statistics; Learn From a Peer; Reviewing CEO Dashboards | |
| 2010 | Putting on your Developer Hat; Introducing the Analytics Team; A new style/template for analysis; Micro-awareness vs. Micromanagement; Pushing the buttons (or assigning someone to push them for you) | |
| 2011 | Building Solutions With the Spirit of Collaborative Venture Capitalists : What a CEO Needs to Know (pushing the buttons or having someone push them for you); CEOs as Solution Designers; CEOs Inspiring Your Teams to be Developers; CEOs Creating an Innovator's Culture | |
| 2012 | A Community Focused On Driving Opportunity: Actionable Analytical Approach; Making Ownership Real; Do You Have an Online Channel Strategy? | |
| 2013 | Responding to the Challenges of Big Data : Actionable Analytical Approach 2.0; Patronage Databases; Big projects where CEOs need to lead the way | |
| 2014 | A Day of Mentoring and Coaching around Using CU*BASE Tools: Actionable Analytical Approach 3.0; Moving Data to the Edge of Your Cooperative; Retooling for the Next Decade at CUs & Our CUSO | |
| 2015 | A Day of Mentoring and Coaching around Using CU*BASE Tools: Data 2016, Behind the Firewall; Data 2016, Out in the Open, Extended for the World to See; Building a Collaborative Bench of Data Analysts | |
| 2016 | Engaging a Data Focused World: Executive Awareness Of Data and Trends, Internal Tools Moving Outside of CU*BASE, What are your employees doing?, Virtual Contact Channels | |

that data is the key to answering the riddles that perplex every business . . . but what is intuitive is not always simple to act on At CU*Answers,

It's intuitive

At CU*Answers, we're pushing our network and customerowners to crack the riddle

A DEVELOPMENT ROADMAP FROM 2006 THAT CONTINUES TO EVOLVE TODAY

Ask

- We started with polling users on what questions they would **ask** of data
- We built dashboards and Query approaches so that questions were stored, ready to automate
- We are now searching to embed questions in interactive data engagements with members, instantly

Ask more, See more, Act faster, and Profit more

A DEVELOPMENT ROADMAP FROM 2006 THAT CONTINUES TO EVOLVE TODAY

See

- We started with **reports** and tried to engage an audience with color, graphs, and better presentation
- We pushed hard for CU end-users to generate their own versions for presentation
- We are now searching to let *everyone* (members, employees, regulators, etc.) see in every delivery channel and every engagement

Ask more, See more, Act faster, and Profit more

A DEVELOPMENT ROADMAP FROM 2006 THAT CONTINUES TO EVOLVE TODAY

Act

- We focused on education and training methods so CUs could act
- We automated member communications (email contacts, online messages, etc.) and built shared resources like Xtend so we could all act together
- We are now on the cusp of creating the ability for members to act on their own, with the computer, instantly

Ask more, See more, Act faster, and Profit more

A DEVELOPMENT ROADMAP FROM 2006 THAT CONTINUES TO EVOLVE TODAY

Profit

We still leave that up to you

Ask more, See more, Act faster, and Profit more

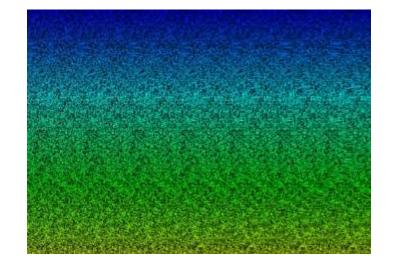
"I see it, but I'm not sure I see what to do"

ASTERISK INTELLIGENCE IS AN EFFORT TO SHORTEN THE GAP BETWEEN 'SEE' AND 'ACT'



Remember those Magic Eye pictures from the 90s? You could see a picture, but not everyone could see the *true* picture inside – and if they couldn't, then they missed the *value* of the picture

Analysts help you with the value in what you see



Data in Action



ASTERISK INTELLIGENCE WILL DRIVE A MONDAY-FRIDAY, 8 HR/DAY FOCUS

- What does it mean for all network participants now that the CUSO is committed to a data analyst business line and a new data warehousing technology platform?
- How might credit union CEOs think about this for their 2018 and 2019 business plans?
- Will these new business lines be the next breakout CUSO for CUs to consider making equity investments? Or will these new lines simply be new department offerings for the next couple of years?
 - As CEOs, how do you make the call? In what direction should we move?



These are the questions for this section

We'll brainstorm and think about the actions after some presentations from our teams

Data in Action



CAN ASTERISK INTELLIGENCE MONETIZE DATA FOR OUR NETWORK?

□ For our network to succeed with data monetization, it needs:

- Vision. Executives who understand the potential for monetizing data and allocate their time, energy, and trusted lieutenants to execute the vision.
- Team. A close-knit team of product managers, data architects, analytics specialists, application developers, and sales and marketing professionals who turn data into dollars.
- Data. Voluminous data with lots of attributes that is clean, consistent, and timely. Product usage data and customer transaction and interaction data are good candidates.
- Analytics. Analytics that provides shape and meaning to the data through categorization, calculations, summarizations, benchmarks, and models. Data becomes more valuable the more it is processed and analyzed.
- Processes. A development process that tailors data and analytics to target customers and go-to-market processes that price, sell, market, service, and enhance the data product throughout its lifecycle.
- Delivery. A delivery system that distributes analytics to users. It can be as simple as a PDF document delivered by email, or as sophisticated as an embedded analytic service within a cloud application.

Excerpt from **"A Guide to Monetizing Data:** How to Create Intelligent Applications and Products"



www.eckerson.com

Now for the tactical presentations...

Data in Action

Tactic #1: Continue to enhance dashboard toolkits

IMPROVE THE COMPETENCY OF CUS: WHAT THEY ASK AND HOW THEY SEE THE ANSWERS

Our standard for CU*BASE dashboards:

- 1. Select a group of records with something in common (loan apps processed in Oct, new members last year, checking accounts opened last month)
- 2. See the list and use various options to work the records, one at a time (approve the app, send TIS disclosures, order a debit card)
- **3.** You are also presented with a set of analyses that show pertinent facts about that group of records (# of apps still pending, new members by age and gender, checking accounts opened by a specific employee)
- Step 1 is like a report, Step 3 is like the totals or summary section on a report, but Step 2 creates a unique palette of opportunity to work and analyze at the same time

Embedded in these dashboards is the ability to **go active**, right now, every time...and all you have to do is plan to do so

Have you created a communication manager and assigned them regular dashboard activities to ensure a low-cost reach-out to your members?

Tactic #1: Continue to enhance dashboard toolkits

IMPROVE THE COMPETENCY OF CUS: WHAT THEY ASK AND HOW THEY SEE THE ANSWERS



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Session 1 CU*BASE GOLD - Primary Data Sources

| Files/Tables | MSHIST | MBRBAL | |
|----------------|---------|-----------|--|
| Fields/Columns | BRANCH | EOMBALOCT | |
| | MBRDESG | EOMBALNOV | |
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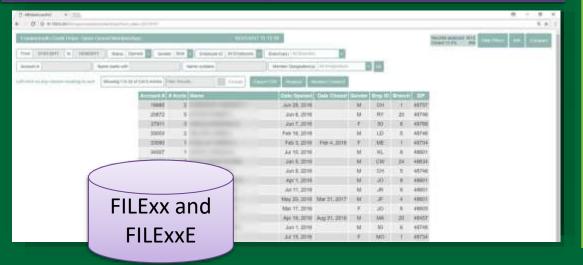
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CU*BASE users will continue to push us to development more dashboards and improve features inside dashboards for years to come... But the big move is to think of dashboards as *repeatable analytical approaches*

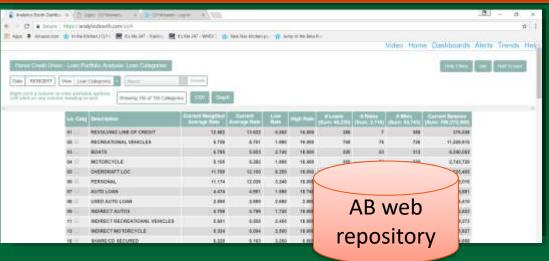
Tactic #2:

Develop presentations with two audiences in mind

Private / Browser



Web / Browser



Private member data



Tactic #3:

Create excitement around the See-to-Act gap

MATCH THE DIVERSITY OF THE AI APPROACH WITH THE TALENTS OF YOUR CU

AI has a broad and diverse business plan designed to include as many stakeholders as possible

Looking at data for insight:

- Analytics Booth <u>cuanswers.com/solutions/asterisk-intelligence/analytics-booth</u>
- Custom Analytics <u>store.cuanswers.com/product/custom-analytical-request</u>
- Asterisk Intelligence Store <u>store.cuanswers.com/product-category/asterisk-intelligence</u>

Creating ways to store data for insight:

Data Warehousing - <u>cuanswers.com/solutions/asterisk-intelligence/data-warehousing</u>

Arming a data management leader or team with tools:

- Unique Data Management <u>store.cuanswers.com/product/unique-data-management-udm-custom-data-fields</u>
- CU Self-Directed Data Floods <u>cuanswers.com/resources/kitchen/cu-directed-data-floods</u>

Do your homework to see the value prop here – as a user, and someday as a potential investor

Now let's do some CEO-to-CEO brainstorming...

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view"



What does it mean for all network participants now that the CUSO is committed to a data analyst business line and a new data warehousing technology platform?
 How might credit union CEOs think about this for their 2018 and 2019 business plans?
 Will these new business lines be the next

breakout CUSO for CUs to consider equity investments? Or will these new lines simply be new department offerings for the next two years?

As CEOs, how do you make the call? In what direction should we move?

Now let's do some CEO-to-CEO brainstorming... What did you hear in Randy's briefing that interested you? What did you disagree with?

What tactical options did you see that you weren't aware of?

What tactics did you wish you'd seen?
 What tactics are you already working on related to these ideas?

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view" As other thoughts occur to you over the next few weeks, go to the CEO Strategies page and leave a comment!

CEO School Part 2

What does data mean to an Internet Retailer?

Projects CEOs should consider – not just for your consumers, but also for your volunteers *How can we make this a headline in CU business plans?*

Prioritize these environments and your future investments

WHICH ARE MOST IMPORTANT TO YOUR FUTURE? IN WHICH WILL YOU INVEST THE MOST?

When you left the Leadership Conference this year, did you sit down and prioritize these member experiences? In what order did you rank them? Did you assign any budget numbers to these priorities?

- Retailing face-to-face in the same space
- Retailing via phone and remote face-to-face experiences
- Retailing via the Internet without a face-to-face experience
- Retailing via the Internet with classic desktop interactions
- Retailing via the Internet with smart phones and tablets
- Retailing via a third party's network
- Retailing a holistic relationship vs. an account relationship



Can you define yourself as a retailer? It's a big project

Overwhelming

"Used to describe something that is so confusing, difficult, etc., that you feel unable to do it"

Only a CEO can describe where you wish to go

Retail

"The sale of commodities or goods in small quantities to ultimate consumers; *also* the industry of such selling"

Only a CEO can demand a new narrative

Cultures

"The characteristic features of everyday existence shared by people in a place or time"

Only a CEO can force a new default reaction

As a CEO, can you tackle culture change and win?

WE HAVE TO MOVE FROM INTERNET SERVICE TO A NEW SET OF GOALS FOR INVESTING IN NEW ECONOMIES

You do not change culture by selling a set of philosophical ideas about how great it'll be when you get there

You change culture by

- Declaring the need for a new reality
- Repeatedly making small, symbolic investments that support where you want to go
- Enforcing the default reaction from your organization, creating new muscle memory so that people are acting in new ways, without even thinking about it

INTERNET RETAILING

- 24x7 member experiences
- Break down everything that is the CU value proposition into small consumables, sold via Internet interactions with members
 - Consumer value exchanges
 - Owner value exchanges
 - At-large market value exchanges
 - 3rd-party stakeholder value exchanges

It's a little different with members and the outside world

THE OUTSIDE WORLD HAS TO INTUITIVELY FEEL THE CULTURE CHANGE THROUGH INTERACTIONS AND DATA

In other words, you have to prove it to them as you're interacting with them

From the consumer's standpoint

- Does your culture blend with how consumers interact with today's retail market players?
- Do not trust that everything old is new again unless you're looking for a nostalgic niche...or not

From the owner's standpoint

 Data, data, data – the currency of letting people know their ownership is important

From everyone else's standpoint

 Making it easy to work with you and convenient to know you

INTERNET RETAILING

24x7 member experiences

- Break down everything that is the CU value proposition into small consumables, sold via Internet interactions with members
 - Consumer value exchanges
 - Owner value exchanges
 - At-large market value exchanges
 - 3rd-party stakeholder value exchanges

Now for the tactical presentations...

What does data mean to an Internet Retailer?

Tactic #1: Create the 24x7 member experience

24 HOURS A DAY, 365 DAYS A YEAR, AND A DATA FOOTPRINT THAT PROVES IT TO YOUR MEMBERS

- Flipping the script: CU*Answers will now default to 7-day/week processing, and CUs will have to opt out
- Eradicating the idea of stand-in processing by individualizing the process in a condo stack
- Time zone processing looking local no matter where your host computer resides
- In the past, lobby hours defined your service...now it is a patchwork of services that defines your daily hours
- Adding time to our ops cycle, and adding new data transfer cycles around the clock

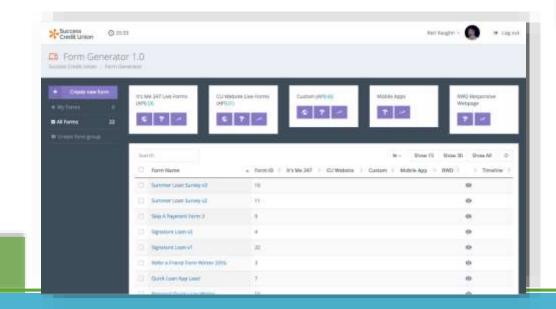


It was a great year for our OpsEngine Production Center development, and in 2018, you'll get to know why

Tactic #2: Continuity across Internet delivery channels

NEW SERVICES THAT WILL ALLOW CUS TO CUSTOMIZE AND STANDARDIZE CHANNEL APPROACHES

- The It's Me 247 Request Center: Drop a form into a website, a mobile app, desktop banking, and a micro-sales site – all via one process
 - Respond to all of these delivery channels from a single fulfillment center



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The success of both forms and the fulfillment center will be a compass to what's next via CU*BASE and CU*Answers Internet channels

Tactic #2: Continuity across Internet delivery channels

NEW SERVICES THAT WILL ALLOW CUS TO CUSTOMIZE AND STANDARDIZE CHANNEL APPROACHES

API95 will support consistent multichannel development

 In Feb 2018 we plan for both mobile apps and desktop banking to use the same authentication API – what does this mean to you as a CEO?





From the 2017 Leadership Conference

API project phase 1*

THE OBT WILL DO THE HEAVY LIFTING ON THE WAY TO A NEW ONLINE BANKING REALITY



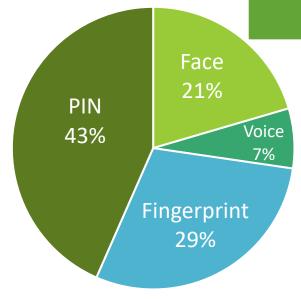
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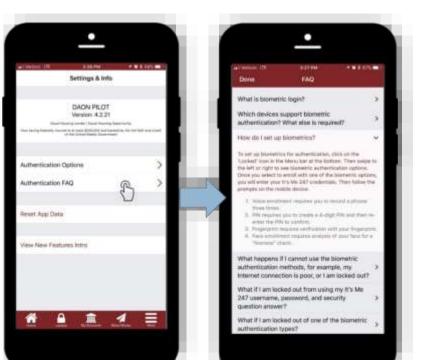
CUs need to be in the business of tactical authentication styles, security, and innovation

2017 Daon Authentication Beta Project

| Total # of users | 918 | 26% of these are active |
|--------------------------------|-------|------------------------------|
| # of authentications attempted | 7,409 | 95% of these were successful |

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Tactic #2: Continuity across Internet delivery channels

NEW SERVICES THAT WILL ALLOW CUS TO CUSTOMIZE AND STANDARDIZE CHANNEL APPROACHES

TA Online19 will merge websites and CREDIT UNION interactive online banking via website ATA authentication approaches Student-Run Credit Union When your member visits the lobby, is backl how do you log them in? New all Rates 4.75% 10.40% Xtend CREDIT UNION Branch Locati CREDIT UNION \$ My Accounts ent-Rur Ch Pay & Travalar Share Summary ø Student-Run Apply for Loons it Union Actual 55.00 S. New Accounts Credit Union P Text Barning o back is backl 5 My Documenta Envoltere Analyzer: \$0.00 10.40% () . Info Cantad 0 Actual: 10.10 • **View all Rates** 4.75% 10.40% O Device Compatibility Tests **Lorings/Checking** 0 C Custart Us Vew Clouind Chack 0 0 Charle Store Descent 0 0 10.40% • 32 Guick Transfer 0 0 Schedule New Transfer Schulland Transfers Lin 0 Restly for Loans

Shift from service to the heavy lifting needed to be a retailer

BUILD SERVICES ON THE 'NET THAT ALLOW YOU TO ELIMINATE SERVICES IN THE LOBBY

Add new virtual closing rooms to desktop/mobile

How would this change in-person closings?

Tactic #3:

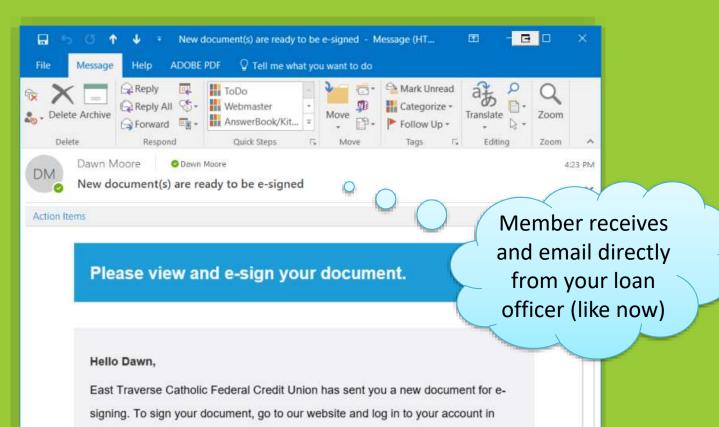
oms to desktop/mobile

Success

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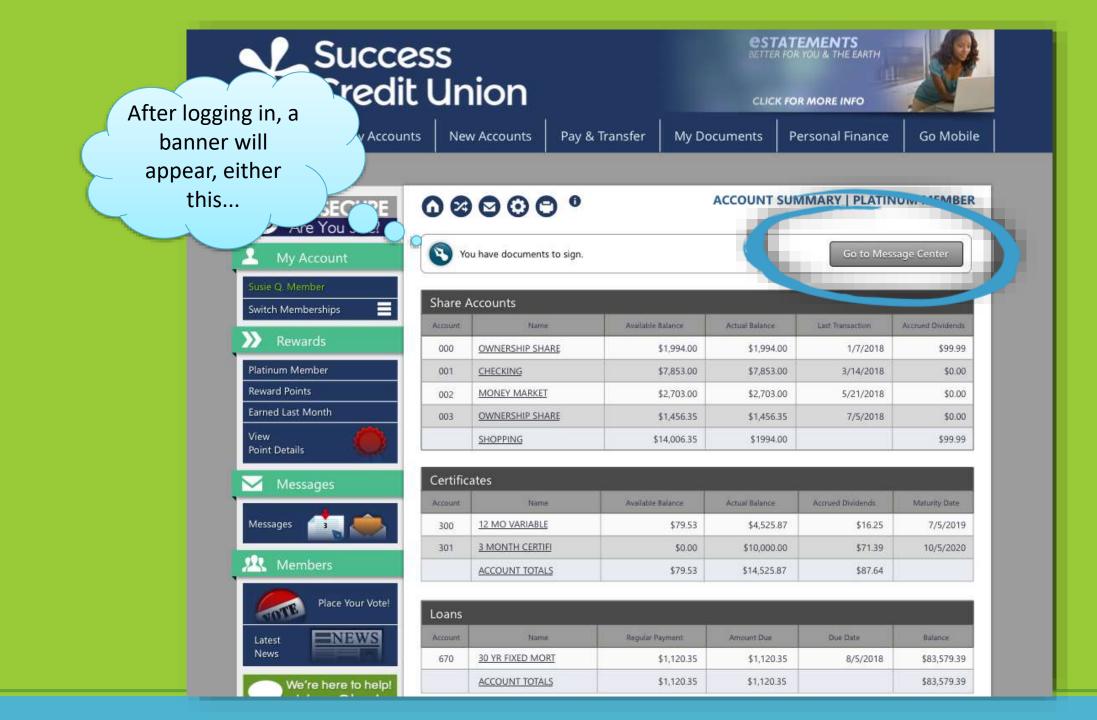


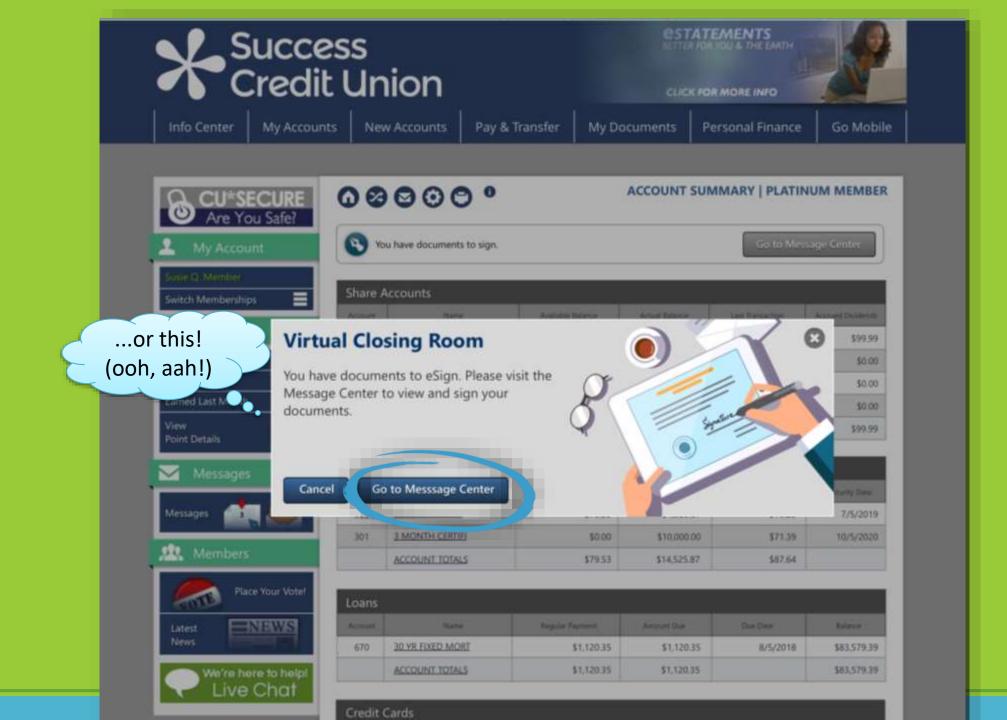
Instead of a link to the document, the email tells the member to log in to their account

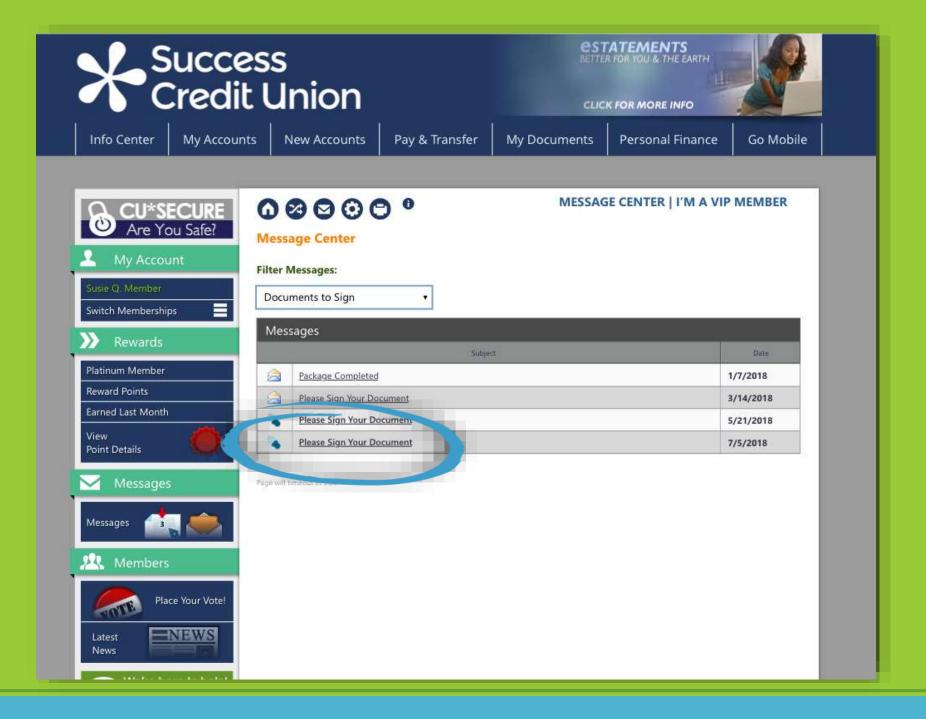


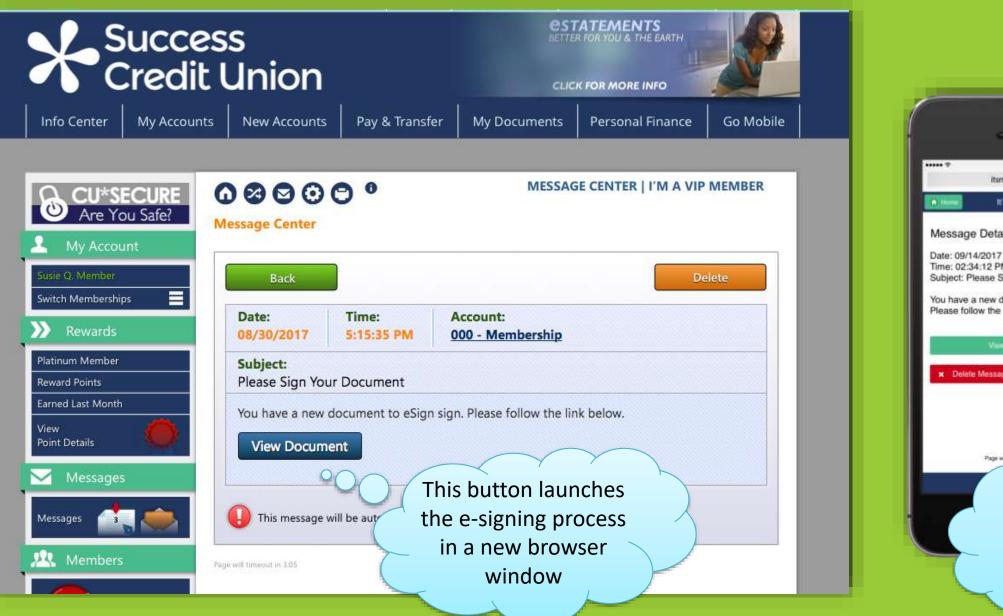
online banking, then follow the link in the message. (If you don't see the message when you first log in, hover over Info Center and choose Message Center.) You can securely sign your document on your computer, tablet, or other mobile device. This message was sent to you by Dave using eDOCSignature® powered by It's Me 247 Online/Mobile Web Banking. If you do not want to sign your document electronically or have questions about the document or the signing process, please contact Dave at dave@0860bd.com

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9-41 AM 100N 📟 C itsme247.com It's Me 247 1 LUU Message Details Date: 09/14/2017 Time: 02:34:12 PM Subject: Please Sign Your Document You have a new document to eSign sign. Please follow the link below. * Delete Message Page will innext in 13.2 Same flow if a member logs in via a mobile device

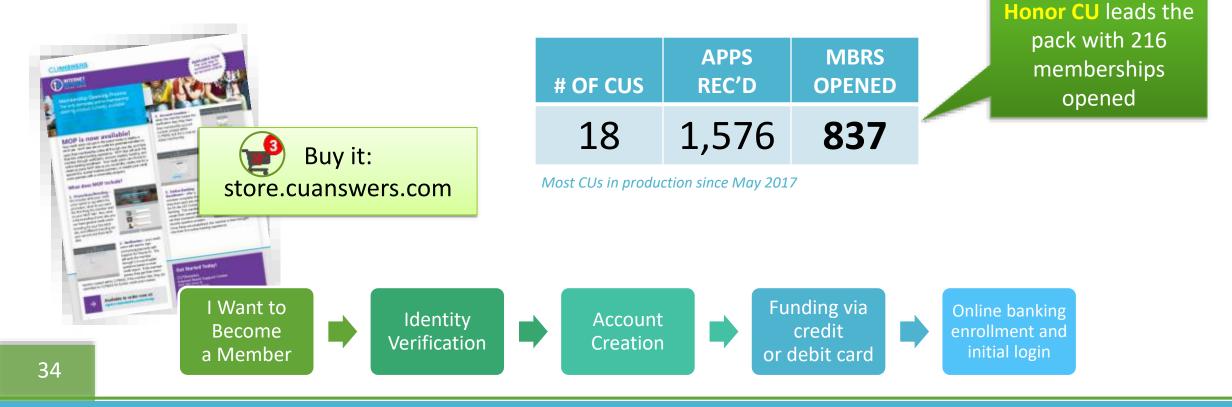
Shift from service to the heavy lifting needed to be a retailer

BUILD SERVICES ON THE 'NET THAT ALLOW YOU TO ELIMINATE SERVICES IN THE LOBBY

□ When will MAP/MOP sites overwhelm your in-person membership openings?

How would this change your budget for supporting outlets in decline?

Tactic #3:



Not a lot planned for MAP/MOP in 2018, other than increasing usage

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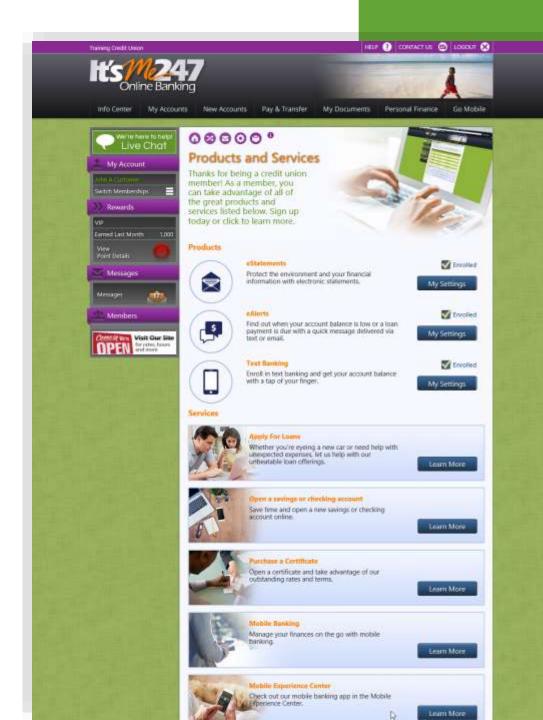
We will push for images and signatures – what else would you have us do?

| Success Credit Union | | | | | | | |
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Moving from MAP/MOP to AAP/AOP

(Account Application & Opening)

- As retailers, we need to move from just selling a relationship to greatly increasing our effectiveness and options for selling accounts
 - Leverage funding for deposits and payments
 - Rethink indirect outlets for more than loans
 - Should we have AAP/AOP micro-sites outside of It's Me 247?
- What have we learned so far from MAP/MOP that sets the roadmap for improving our AAP/AOP processes?
 - Is it too early? Or should we get started?

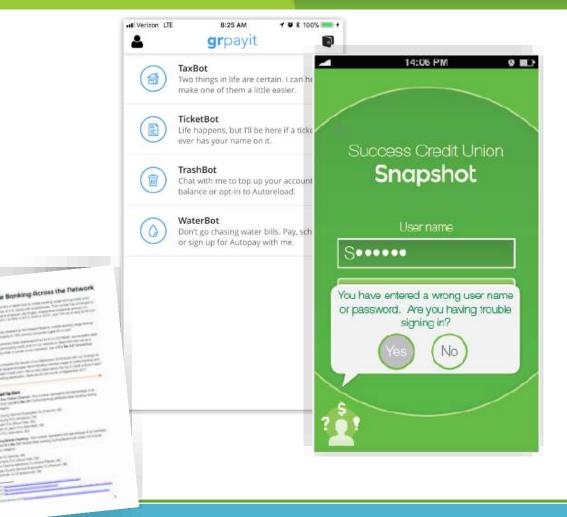


Tactic #3:

Shift from service to the heavy lifting needed to be a retailer

BUILD SERVICES ON THE 'NET THAT ALLOW YOU TO ELIMINATE SERVICES IN THE LOBBY

- So far, most of mobile banking development has been catching up with desktop banking, and recreating services from other channels
- Even RDC and Daon authentication don't strike us as innovations towards redefining a phone from a service device to a retail interaction with members
- We need to sell things, significant things, and transfer our retail investments from old channels to the mobile device

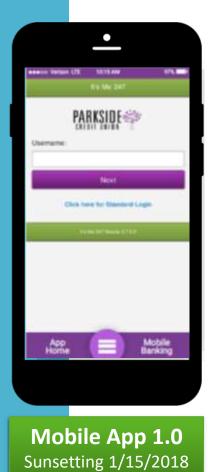


What data are we collecting that could be used in our own version of an AI chatbot?

With APIs, this is possible. And this doesn't only have to be for mobile apps.

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| routing number? Where is the nearest ATM? | routing number? | I forgot my password to It's Me 2 | CU*Talk 24-Hour Banking | What if my Credit or Debit/ATM C lost or stolen? | I call? | | | |
| How do I apply for a loan? | Where is the nearest ATM? | What if I can't make it to a branch in hours? | No-Fee ATM Finder | During regular business hours, please After hours please call 800-528-2273. | | | | |
| What is Honor Credit Union's ma | How do I apply for a loan? | We have tons of ways to serve you! | Partner - Branch Locator | 103404 502 38 Sec. 67 | Collect / 27:50/0-4001 | | | |
| 2 | | Make an appointment, our appointmen | Lost-Stolen-Denied Card | Wire Transfer Instructions | | | | |
| What are your current rates? | What is Honor Credit Union's ma | customized to better fit your needs, an normal walk-in hours. SBCU employees | Dispute Credit Debit | Why am I locked out of online ba | | | | |
| How do I setup a Travel Form? | What are your current rates? | with families and lives outside of the cr | ACTION STREET PRIMA | | | | | |
| What if I'm locked out of my onlir | How do I setup a Travel Form? | probably won't meet with you at midnig pretty flexible. | Activate Debit Card | | | | | |
| What is the number for CU*Talk? | What if I'm locked out of my onlir | Call us or Skype us, we also have video | Change Debit Card PIN | | | | | |
| What if my debit or credit card ha | What is the number for CU*Talk? | available. | MasterCard Secure | | | | | |
| stolen? | Lines out the user get it of terris the | | Send Mail to FCU | | | | | |
| A A 🟛 | What if my debit or credit card by | | | A A 🏛 | ☆ ☆ ☆ ∢ Ξ | | | |
| Home Locked My Accounts | Home Looked My Accounts | Fome Looked My Accounts | Home Looked My Accounts (| Home Looked My Accounts | Home Looked My Accounts Mave Money Mare | | | |

Mobile App 1.0 will be sunset in January – where will you go?





Mobile App 2.0 1.0 + RDC





Tactic #3: Shift from service to the heavy lifting needed to be a retailer

BUILD SERVICES ON THE 'NET THAT ALLOW YOU TO ELIMINATE SERVICES IN THE LOBBY

Focus on the disengaged member

How will low- or no-impact authentication allow you to work more effectively with indirect members?

bie Check Dep

62 Take Party

- My Der Liter

13 Take Print

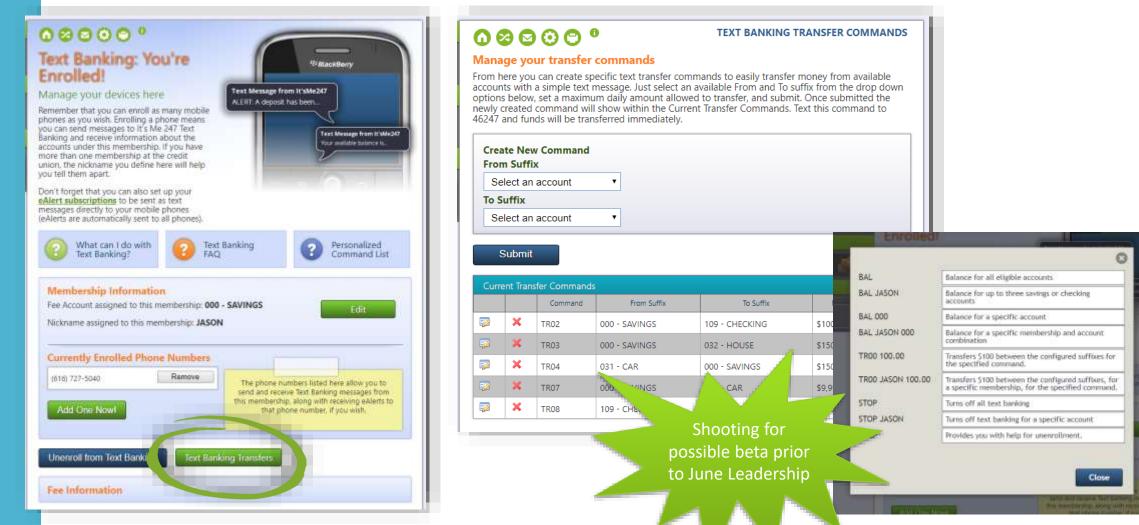
Can micro-apps allow you to run two channels when you are running two membership models?

| Art Car Loan T4,377.92 5.9% Paced Safety States S76.35 Sept 19,2017 Paced Safety Safety | Pay Now Pay Now Provide Amount Security Security Security Security Security Security Security | ante | Car Loan S14,377.92 S2% Tailof Salaria S28,329 Salaria S28,35 Salaria S28,35 Salaria S29,391 | Motele Check Cepost |
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| P | AY NOW VIA TRANSFER | | ΡΔΥ | NOW VIA CHECK DEP |

Creating solutions without heavy authentication

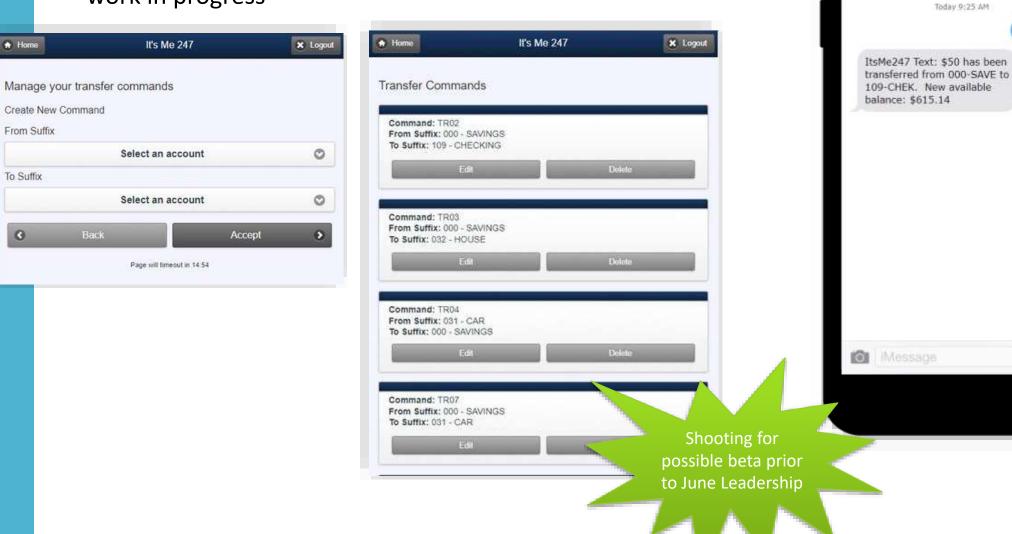
Text transfers – a solid concept but the look and feel is still a work in progress

41



Creating solutions without heavy authentication

Text transfers – a solid concept but the look and feel is still a work in progress



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Now let's do some CEO-to-CEO brainstorming...

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view"



Do you need a new cultural response to your members and their needs? Do you think it will be black and white (an organized process, declared and tracked) or will it happen organically? We're about to be 20 years into the new century – do you have a choice as you watch the world change around us?

 What was once an interesting alternative for retailers will soon redefine everything for employees and customer-owners Now let's do some CEO-to-CEO brainstorming...

What did you hear in Randy's briefing that interested you? What did you disagree with? What tactical options did you see that you weren't aware of? What tactics did you wish you'd seen? What tactics are you already working on related to these ideas?

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view"



As other thoughts occur to you over the next few weeks, go to the CEO Strategies page and leave a comment CEO School Part 3

What does it mean to add a data administrator to your organizational chart?

What if you as a CEO had to add these new duties to your daily work? Could you? Should you? Building teams that will change your future

Data, data, data: A competency you must secure

DO YOU NEED A PERSON? DO YOU NEED A TEAM? HOW DO YOU BUILD NEW COMPETENCIES?

Data competency is not like choosing to enter a new business

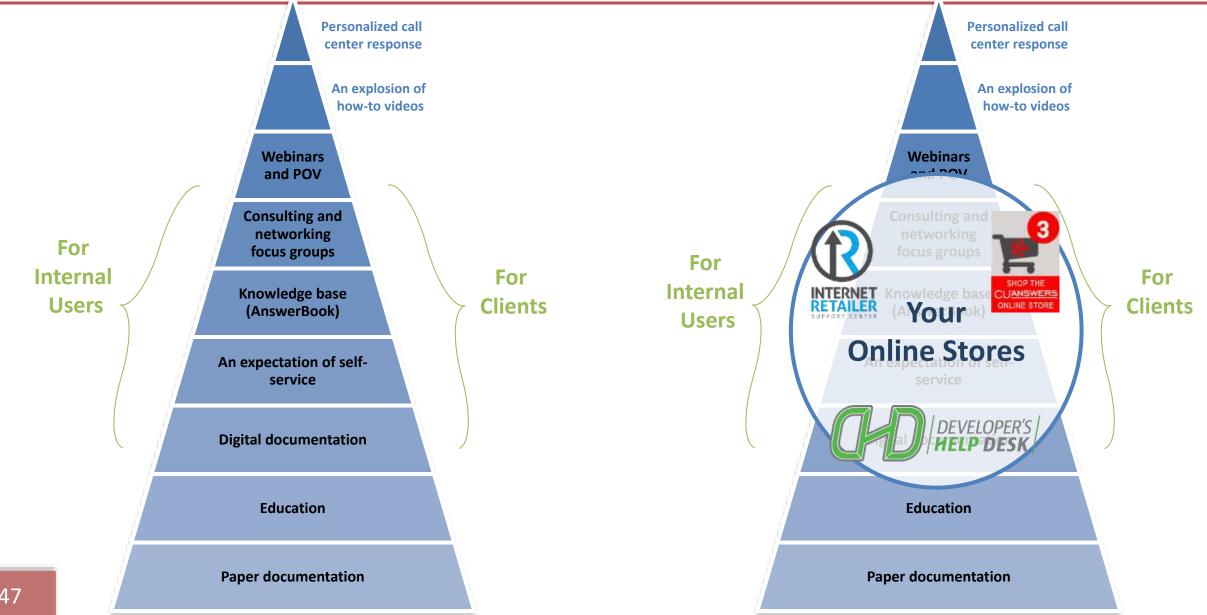
- For example, adding mortgage loans as something new to sell
- In every business today, there is an intuitive belief that everyone, providers and consumers, need to be better at data
 - Better at finding digital content
 - Better at consuming digital content
 - Better at acting on content to solve a problem
 - Better at navigating a world based on content that is instantly available

Who is leading this charge at your credit union?

- What job title do they have today? What will it be tomorrow?
- What external team might you engage with your internal resources?



Digital content is not the same as statistical analysis – specialize in both



Why all of this is a CEO project (and problem)

ONE MORE THING FOR YOU TO CONSUME, OR TO BAKE INTO YOUR ORGANIZATION'S RESUME

Competency Name: Data Governance. Competency Definition: Explain how an organization manages its data assets, including business rules, policies, practices, procedures, roles, and responsibilities 1. Competency Indicators: Describe data governance in an organization (e.g., industry standards for data loading).



Database administrator



Database administrators use specialized software to store and organize data. The role may include capacity planning, installation, configuration, database design, migration, performance monitoring, security, troubleshooting, as well as backup and data recovery.

The Team

Data analysts translate numbers into plain English Every business collects **data**, whether it's sales figures, market research, logistics, or transportation costs. A **data analyst**'s job is to take that **data** and use it to help companies make better business decisions.



Digital Content

Digital content is any type of content that exists in the form of digital data. Also known as **110111100** digital media, digital content is stored on either digital or analog storage in specific formats. Forms of digital content include information that is digitally broadcast, streamed or contained in computer files.

What is the expectation for the work product from your business intelligence team?

WHAT KIND OF ANALYSIS WILL YOU GET FOR YOUR INVESTMENT IN INFRASTRUCTURE AND TOOLS?

Types of analysis

(From "Six Types of Analyses Every Data Scientist Should Know" by Dr. Jeffrey Leek, Assistant Professor of Biostatistics at John Hopkins Bloomberg School of Public Health", <u>https://datascientistinsights.com</u>)

- **Descriptive** (least amount of effort): The discipline of quantitatively describing the main features of a collection of data. In essence, it describes a set of data
- **Exploratory**: An approach to analyzing data sets to find previously unknown relationships
- Inferential: Aims to test theories about the nature of the world in general (or some part of it) based on samples of "subjects" taken from the world (or some part of it). That is, use a relatively small sample of data to say something about a bigger population
- Predictive: The various types of methods that analyze current and historical facts to make predictions about future events. In essence, to use the data on some objects to predict values for another object
- **Causal**: To find out what happens to one variable when you change another
- Mechanistic (most amount of effort): Understand the exact changes in variables that lead to changes in other variables for individual objects

Now for the tactical presentations...

What does it mean to add a data administrator to your organizational chart?

Tactic #1: Build the data warehouses...and the mentality

SO YOU'VE HIRED A DATABASE ADMINISTRATOR – WHAT WILL THEY ADMINISTER?

- Today, most CUs have key vendors who have data, and have assigned key leaders in the CU to specialize in understanding this data
 - In other words, who knows the data that's important to your credit union via your relationship with CU*Answers?
- A database administrator sees the forest, not the trees
 - Sooner or later, they'll want a warehouse that gives the forest perspective, as a central place from which to work



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Coste Chell Union (such see Ta Albien, see promour Face, -Dial) realized for read for an entryprice usual to integrate, wildes, and take full absorbing of everyproving memory data. Credit union face pain facility of

Database administrator



Database administrators use specialized software to store and organize data. The role may include capacity planning, installation, configuration, database design, migration, performance monitoring, security, troubleshooting, as well as backup and data recovery.

Data warehouses are simply places where people store data

A Share

But getting your hands around the data that is stored in dozens of places can be a daunting task, and sooner or later, a data administrator will a special storage place Database Admin.

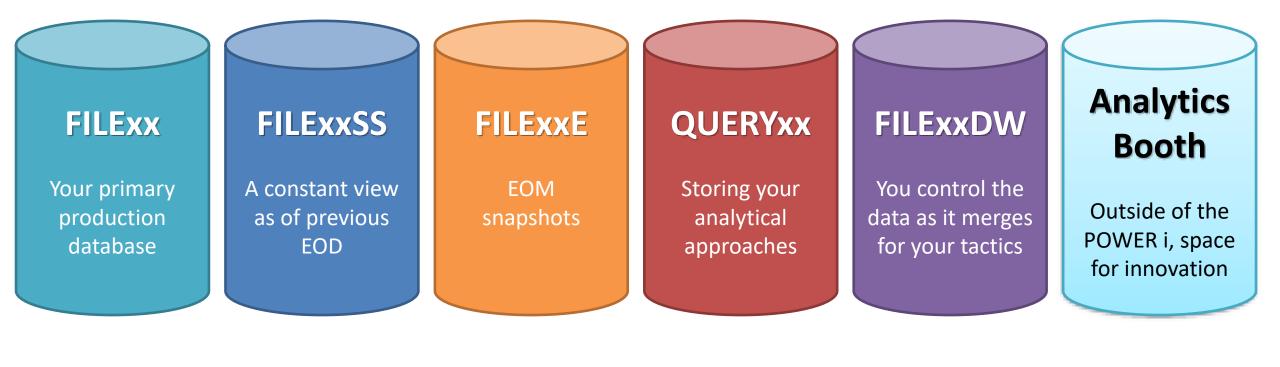
The Team 📿

CO0

CIO

Why these people get excited about data warehouse strategies

ANALYSIS IS INTANGIBLE, DATA AND DATA WAREHOUSES ARE TANGIBLE (AND BUYING IS FUN)



What will you buy, and how will you use it?

ASTERISK INTELLIGENCE IS ENTERING THE DATA WAREHOUSING BUSINESS

When you complete your due diligence you may want to use our data warehouse and create your own data lake

You may want to do neither, but after you send someone to learn about it, they'll want you to make the call

Data warehouse

A Share

Data Warehouse

In computing, a data warehouse (DW or DWH), also known as an enterprise data warehouse (EDW), is a system used for reporting and data analysis. DWs are central repositories of integrated data from one or more disparate sources. They store current and historical data and are used for creating analytical reports for

knowledge workers throughout the enterprise.

Data warehouse - Wikipedia

Data lake

A **data lake** is a large storage repository and processing engine. They provide "massive storage for any kind of data, enormous processing power and the ability to handle virtually limitless concurrent tasks or jobs".

Data lake - Wikipedia, the free encyclopedia

Remember this: you have already paid for two-thirds of the data in the CU*Answers data warehouse, and the fees for the final third are low and based on participation

PART OF THE TWO-THIRDS YOU'VE ALREADY BOUGHT

In 2017:



- We doubled the amount of transaction history retained by CU*BASE
- We added UDM (Unique Data Management)
 - Data customized by your CU
 - For accounts and general membership information

In 2018:

- Envisioning new CU self-directed data flood features
- Additional files for UDM
- CU self-directed floods for UDM data



UNIQUE DATA MANAGEMENT

PART OF THE TWO-THIRDS YOU'VE ALREADY BOUGHT

In 2017:



- Daily snapshot of the prior day's activity
- Data transfer programs are now being migrated to the FILExxSS library

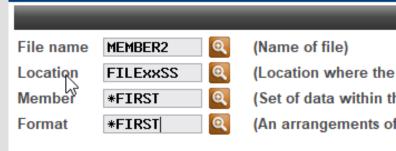
In 2018:

A constant view as of previous EOD

FILExxSS

Introduce FILExxSS as a CU-employee accessible file for Query

Specify File Selections

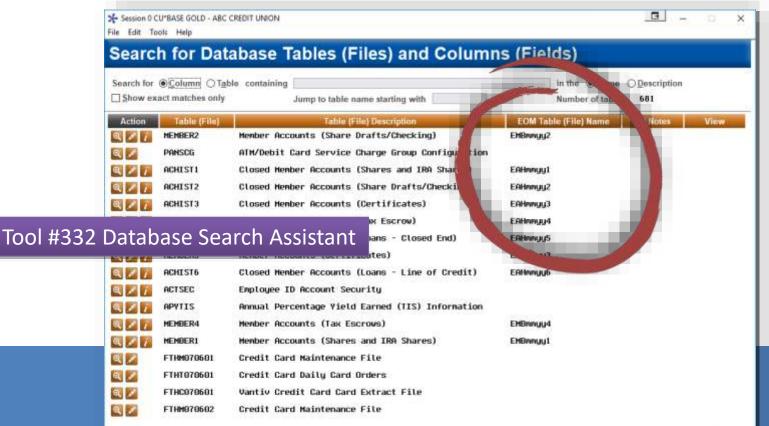


PART OF THE TWO-THIRDS YOU'VE ALREADY BOUGHT

In 2017:



Doubled the number of month-ends available to online clients, from 3 to 6



PART OF THE TWO-THIRDS YOU'VE ALREADY BOUGHT

In 2017:

Added a new Library Dashboard to analyze the database files your teams create via Query

In 2018:

Add another premium tool for Query and presentation

| Library DY Search for des Date created: Last changed: | and a second | | TH To | 1.17.1 | 1. | MDDYYYY] MDDYYYY] | | Cre | ated by | | | |
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QUERYxx

Storing your

analytical

approaches

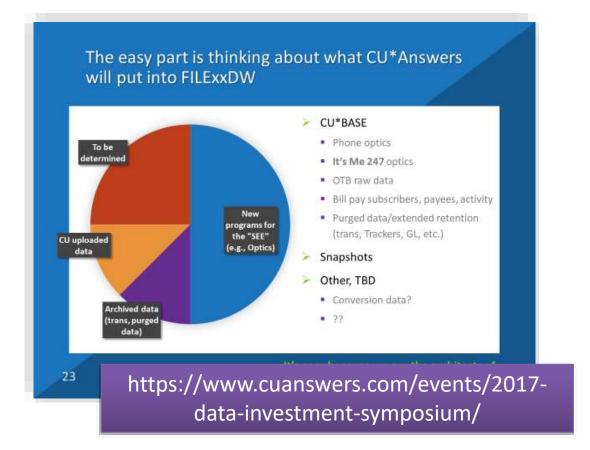
Tactic #2: FILExxDW as a new frontier

WORKING WITH CU ARCHITECTS, BUILDING THE DATA WAREHOUSE THEY WISH TO HAVE

- Today, CUs want to design their own approach and value propositions for the data they put into their individual warehouses
 - Share someone else's computer (coming in 2018)
 - Have your own (selling turn-key in 2019)

Our FILExxDW warehouse will be a CU-directed space

- The only data in it will be what you tell us to put there
- We'll create unique data opportunities for CU*BASE users, but CUs will choose whether or not to put that data into their warehouse



WILL START SLOW, BUT BASED ON THE ATTENTION CUS ARE GIVING TO DATA WAREHOUSES, WILL PICK UP SPEED

In 2017:

Created the Library Authority Management tool

FILExxDW

You control the data as it merges for your tactics

In 2018:

- Rolling out to clients late 2nd half of 2018
- CU-defined data
 - About 80% sourced from CU*BASE data warehouses
 - About 20% sourced from third-party sources
- Priced based on CU sign-ons + space used
- Premium tool for Query and presentation
- Developing DEX (Data Exchanges) with analytical warehouses as a transfer approach

| | Session 0 CU*BASE GOLD - ABC CREDIT UNION | | | | | | | |
|----|---|--|--|--|--|--|--|--|
| | | | | | | | | |
| | Library | Authority Management | | | | | | |
| | Library DW | Data Warehouse | | | | | | |
| | User Name | Description | | | | | | |
| | AHAWKES | Annalyn Hawkes - Earnings Edge | | | | | | |
| То | Tool #1981 Library Authority Management | | | | | | | |
| | ROBERTC | Robert Colburn - Programming | | | | | | |
| | ROBERTC2 THULL | Bob Colburn - CUA Testing Thomas Hull - Earnings Edge | | | | | | |
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ANALYTICS BOOTH WILL BECOME A HYBRID: PRESENTATION + DIRECT ANALYSIS + WEB REPOSITORY

In 2017:

- Sanitized database, safe for external web users
- Time-sliced based on short feedback loops
- Browser-based presentation



Analytics Booth

Outside of the POWER i, space for innovation

- Accessible anywhere WiFi or Internet services are available
- Foundation for audience expansion for both CU*Answers as a CUSO and for CUs and their communities

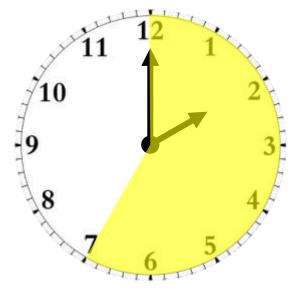
In 2018:

- Add ability for analysts to sign on directly to the AB database and work with their own presentation tools and skills
- Expand sales of AB from the CU*Answers network to any CU in the country, independent of their core processing solution

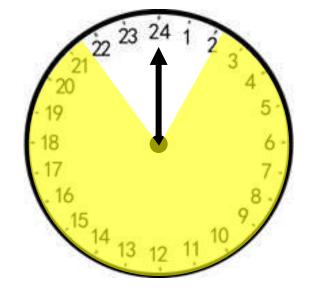
Tactic #3: **Develop a data transfer business**

WHAT IF DATA TRANSFER ROUTINES INCREASED BY 10X?

We would have to build a new machine



Daily Operations Limited time window before CUs are open for business



Data Transfers (FILExxSS) Unlimited time window for data transfers and other vendor interactions



- DEX is a transfer protocol and service from CU*Answers that will grow from 1x today (2 CUs) to 10x or more in the next two annuals
- DEX moves data to analytical databases where CU administrators and analysts do their work
- Today, DEX is a technical setup, tomorrow it will be an AI setup, and the day after that, it will be a self-service tool for a database administrator

Now let's do some CEO-to-CEO brainstorming...

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view"



How will you build data competency in your organization?

Who will lead the effort? Will it be a team? Or will it be an external resource?

How will you be accountable?

This has been our most tactical presentation: put your best people on this project, with a budget that expresses it as a priority

Can you do it? Will you do it?

How can CU*Answers help?

Now let's do some CEO-to-CEO brainstorming...

"A TNT session designed to bring out CU leaders ready to **Teach, Negotiate** and **Tell** their point of view" What did you hear in Randy's briefing that interested you? What did you disagree with?

What tactical options did you see that you weren't aware of?

What tactics did you wish you'd seen?
 What tactics are you already working on related to these ideas?

As other thoughts occur to you over the next few weeks, go to the CEO Strategies page and leave a comment



Wrap-up

Things I wish I would've had time for...

- □ A deeper dive on DHD and the development of a DIY movement at CU*Answers
- More time with you to get into the nuances of retail stores on the Internet
- A project update on card controls and a new push notification engine, coming to CU*Answers in 2018
- A project update on the development of our second auto-decision engine, and what it might mean to how we do credit reports
- Why Daon means more about how we think, than about the cool gadgets we'll promote to members
- A deeper dive on ten other things from the Leadership Conference
- □ Your top 10 CEO issues, if you had time to give me a list

We're all busy, but we don't meet often enough wearing our CEO hat, focused on one thing: the art of leading cooperatives

The value of stage fright to a CEO

Do you get on stage often enough to inspire you to excel? Where do you prove to the marketplace that you have grasp of your situation?

Where do you prove that your focus on execution results in big things?
When was the last time you feared

that a board event wasn't enough to impress?

When was the last time you tried to impress your staff?

Get on stage

Try as hard with others as you do with regulators and examiners (I know you have stage fright when *they* come to town)



Also in your packet...





67





Topic for tonight's networking session





How many of you saw this movie? I think it's wonderful imagery for what the CU industry faces today

■ You are the leaders of our industry and network

- Because local is where all big things start
- You face the project of what to take to the future

Your ark is a business plan – what do you plan to take to the future? When will you pack?



CEO Strategies 2017

Thanks for the day!

See you in the morning for even more focused CEO-to-CEO interactions

