Big Data is the New Oil

Softheon

December 3, 2019

© 2019 Softheon Inc. and/or its affiliates. All rights reserved. Softheon is a registered trademark of Softheon, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Softheon's prior written permission. The information contained in this publication has been obtained from sources believed to be reliable. Softheon disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Softheon's research organization and should not be construed as statements of fact. The opinions expressed herein are subject to change without notice. Although Softheon research may include a discussion of related legal issues, Softheon does not provide legal advice or services and its research should not be construed or used as such.

Softheon

Dedicated to Making Healthcare Affordable, Accessible & Plentiful.

Why Softheon

- **Single-Tenant, HIPAA, PCI,** and **NIST** compliant **Health Insurance Distribution & Services Cloud** platform for individual and group markets for carriers, employers, financial institutions, and government agencies
- Selected by **Massachusetts Health Connector** as Exchange platform for billing, payment and enrollment operations
- First and only **Phase 3 Enhanced Direct Enrollment (EDE) Technology Partner by CMS**
- **200 Employees** located in Stony Brook University
- **100% US-based**
- **#1 Health Insurance eCommerce Site** with highest monthly active users
- **#23 Fastest Growing Company** in North America by **Deloitte Fast500**
- **#14 Crain's Fast 50**

Copyright 2019. Confidential and proprietary information.

Agenda

Big Data & APIs

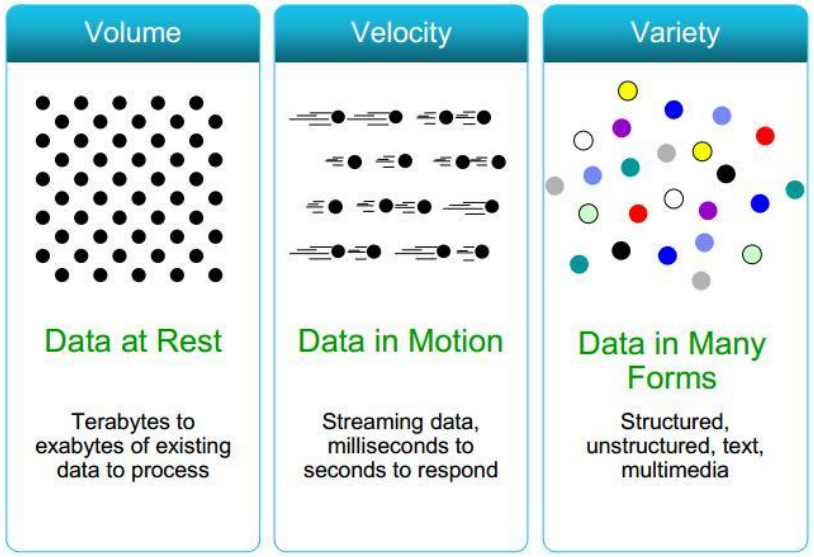
Case Study

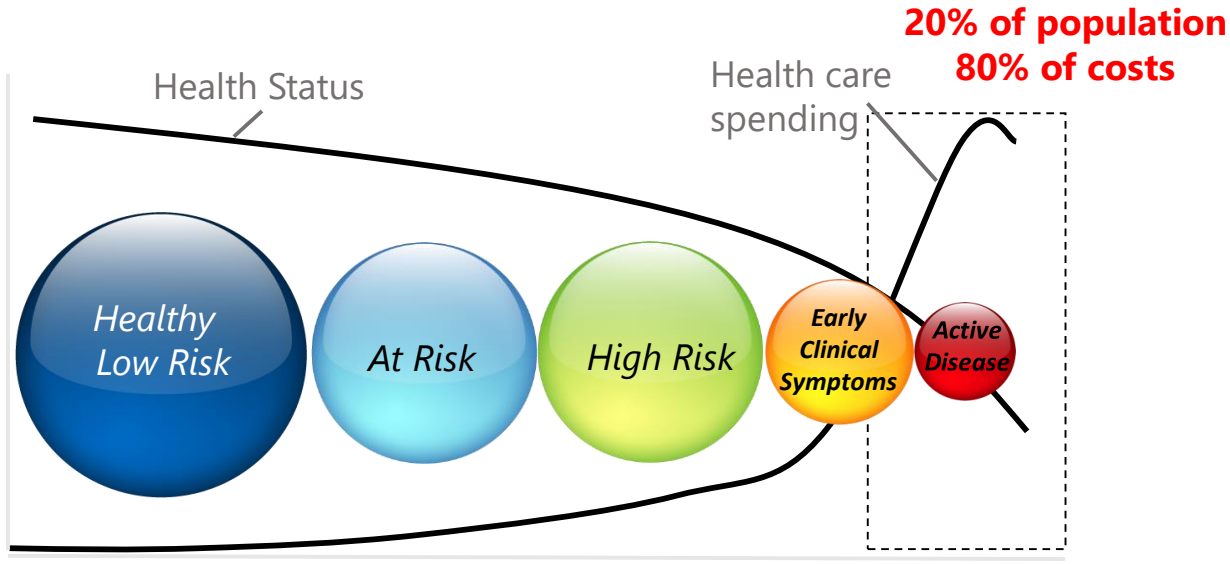
Next Steps

Copyright 2019. Confidential and proprietary information.

Big Data

Big Data is data whose scale, diversity, and complexity require new architecture, techniques, algorithms, and analytics to manage it and extract value and hidden knowledge from it…

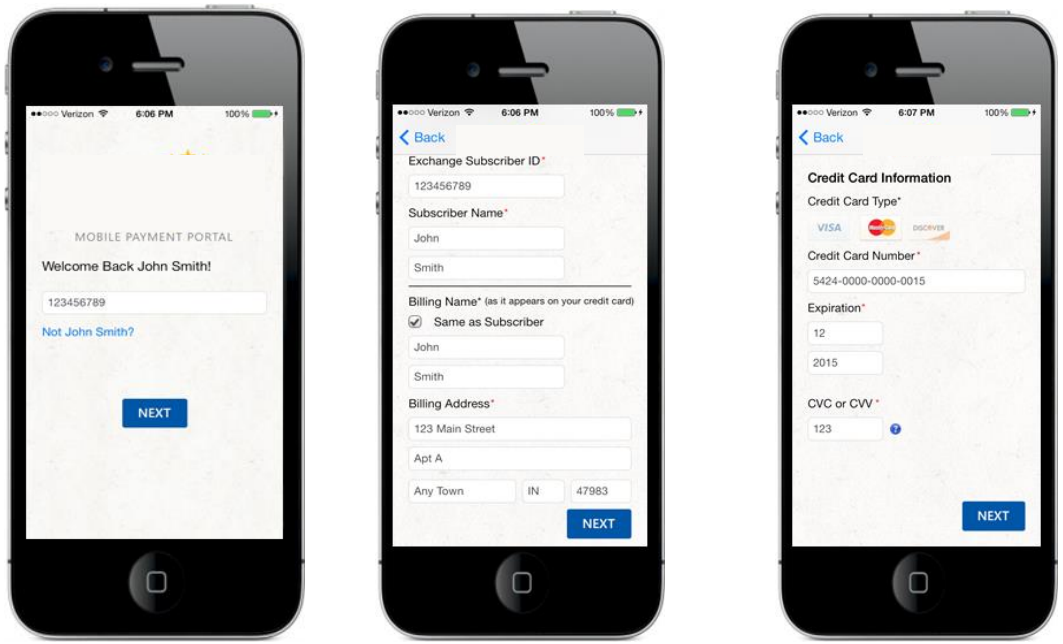




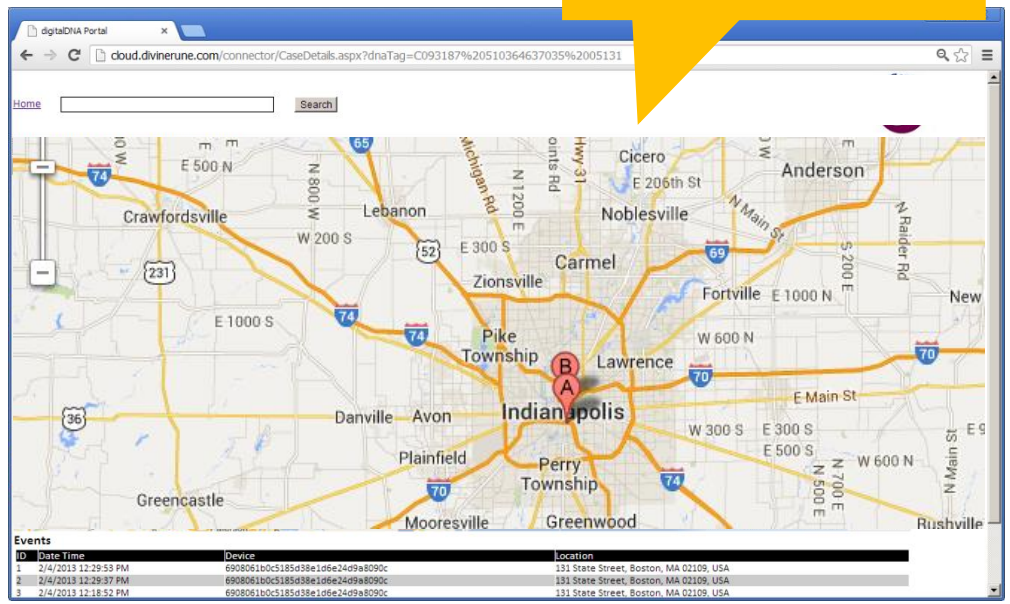
We can save 80% if we identify the 20% while they are Healthy

Copyright 2019. Confidential and proprietary information.

Big Data :: Mobile



Location Based Services

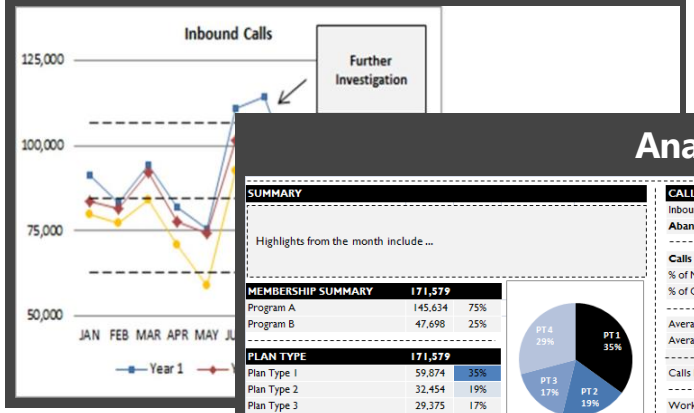


Copyright 2019. Confidential and proprietary information.

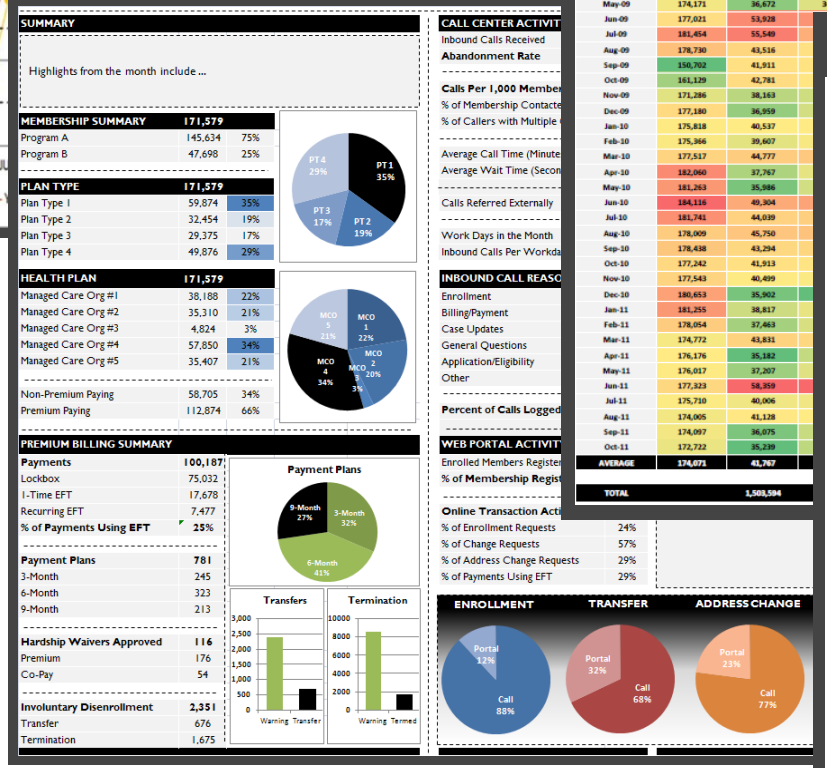
Softheon

Big Data :: Consumer

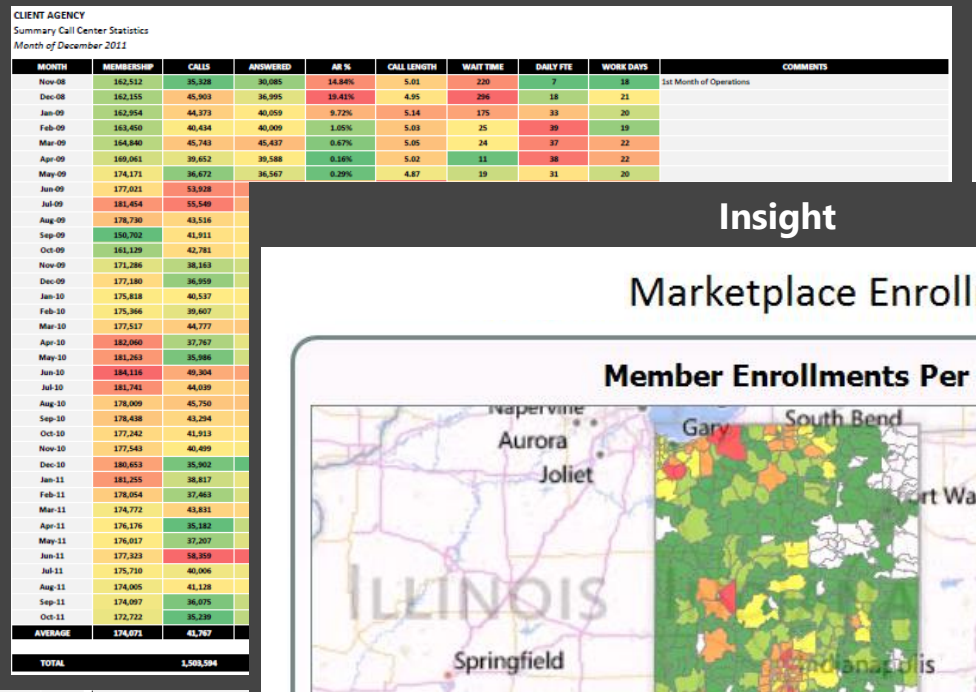
Metrics



Analysis



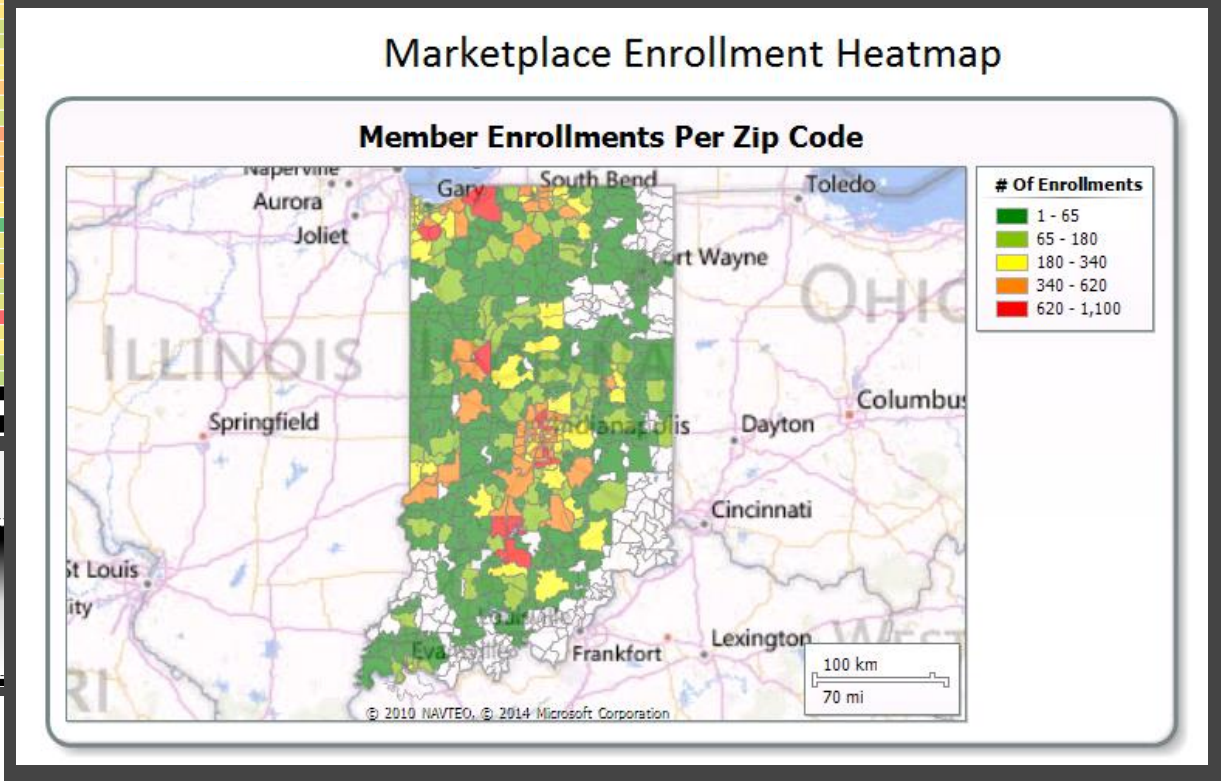
Intelligence



CLIENT AGENCY
Summary Call Center Statistics
Month of December 2011

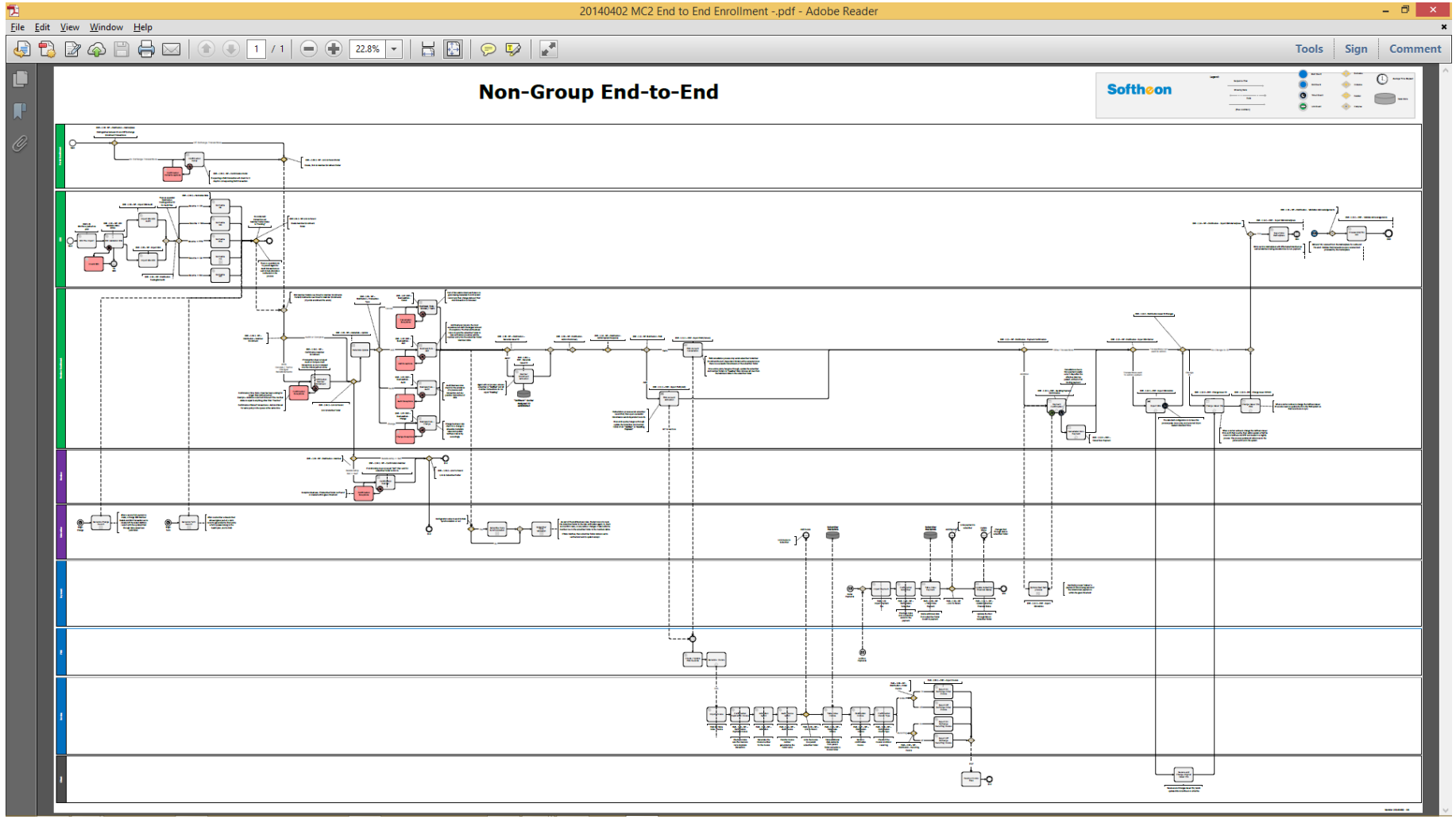
MONTH	MEMBERSHIP	CALLS	ANSWERED	AR %	CALL LENGTH	WAIT TIME	DAILY FTE	WORK DAYS	COMMENTS
Nov-08	162,512	35,328	30,085	14.84%	5.01	220	7	18	1st Month of Operations
Dec-08	162,155	45,903	36,995	19.41%	4.95	296	18	21	
Jan-09	162,954	44,373	40,059	9.72%	5.14	175	33	20	
Feb-09	163,450	40,434	40,009	1.05%	5.03	25	39	19	
Mar-09	164,840	45,743	45,437	0.67%	5.05	24	37	22	
Apr-09	169,061	39,652	39,588	0.16%	5.02	11	38	22	
May-09	174,171	36,672	36,567	0.29%	4.87	19	31	20	
Jun-09	177,021	53,928							
Jul-09	181,454	55,549							
Aug-09	178,730	43,516							
Sep-09	150,702	41,911							
Oct-09	161,129	42,781							
Nov-09	171,286	38,163							
Dec-09	177,180	36,959							
Jan-10	175,818	40,537							
Feb-10	175,366	39,607							
Mar-10	177,517	44,777							
Apr-10	182,060	37,767							
May-10	181,263	35,986							
Jun-10	184,116	49,304							
Jul-10	181,741	44,039							
Aug-10	178,009	45,750							
Sep-10	178,438	43,294							
Oct-10	177,242	41,913							
Nov-10	177,543	40,499							
Dec-10	180,653	35,902							
Jan-11	181,255	38,817							
Feb-11	178,054	37,463							
Mar-11	174,772	43,831							
Apr-11	176,176	35,182							
May-11	176,017	37,207							
Jun-11	177,323	58,359							
Jul-11	175,710	40,006							
Aug-11	174,005	41,128							
Sep-11	174,097	36,075							
Oct-11	172,722	35,239							
AVERAGE	174,071	41,767							
TOTAL		1,503,594							

Insight



Copyright 2019. Confidential and proprietary information.
Softheon

Big Data :: Process



Copyright 2019. Confidential and proprietary information.

Application Programming Interface (API)

THE WALL STREET JOURNAL.

The administration proposed extending the disclosure requirement to the $670 billion health-insurance industry. Insurance companies and group health plans that cover employees would have to disclose negotiated rates, as well as previously paid rates for out-of-network treatment, in file formats that are computer-searchable, officials said.

Insurers would also have to create a web-based tool for beneficiaries that discloses the list price, the negotiated rate, cost sharing and the amount left on a plan deductible, as well as allowable out-of-network rates, officials said.

The requirements for the negotiated-rate file could cost insurers an estimated $200 million to build based on projections in the proposal.

Trump Administration Releases Transparency Rule in Hospital Pricing

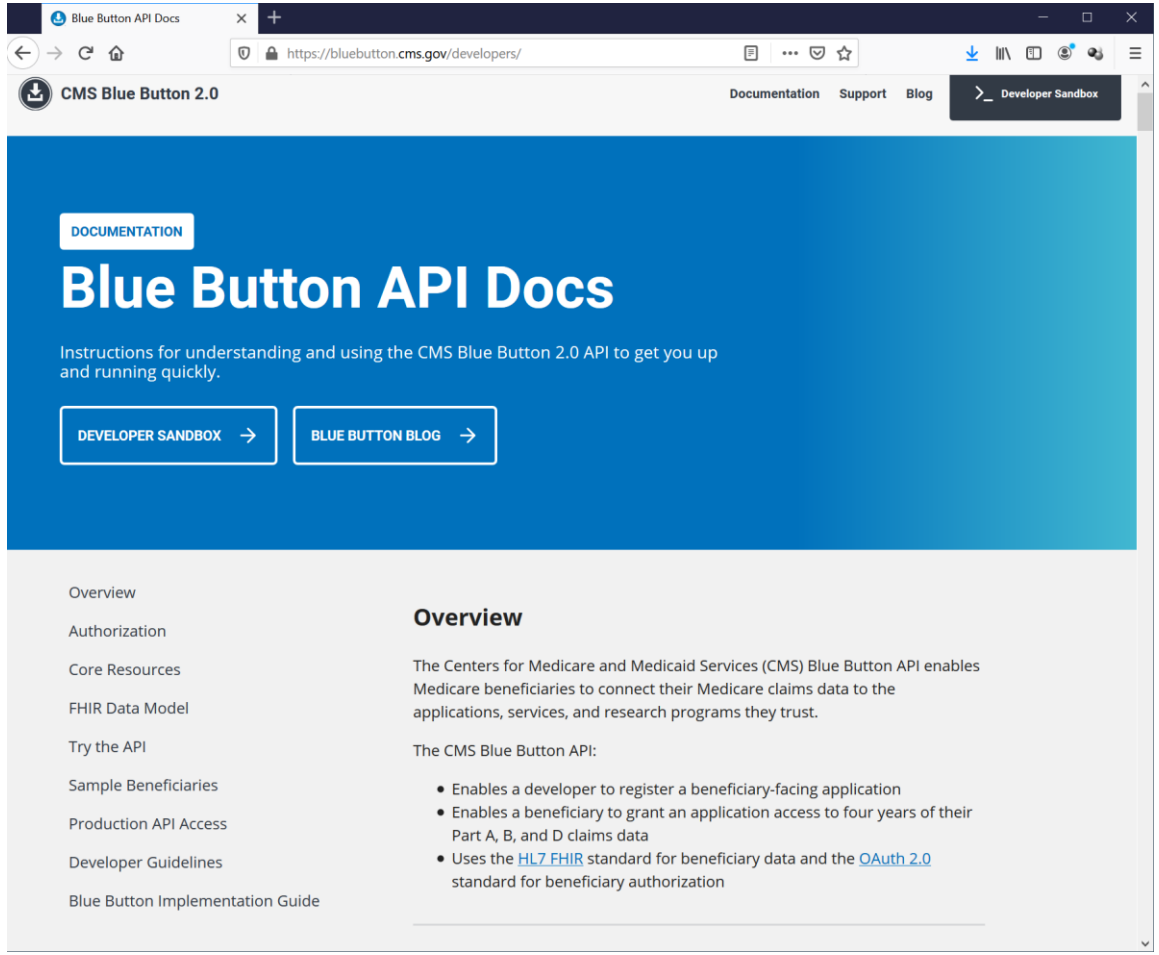
Plans to propose similar requirement for insurers; legal challenges are likely

Source: https://www.wsj.com/articles/trump-administration-releases-transparency-rule-in-hospital-pricing-11573825649

Copyright 2019. Confidential and proprietary information.

API :: Fast Healthcare Interoperability Resources (FHIR)

- Potential for Healthcare APIs to Revolutionize the Industry
- 5 Areas to Improve the Health IT Interoperability Experience
- Will FHIR, APIs Help or Hinder Health Information Exchanges?
- Why Health Data Interoperability is Setting EHR Vendors on FHIR
- 3 Programs Supporting Health IT Standard FHIR Development



Copyright 2019. Confidential and proprietary information.

Big Data & API :: Opportunities

Healthcare Executive Group (HCEG)

1.Costs & Transparency – Implementing strategies and tactics to address growth of medical and pharmaceutical costs and impacts to access and quality of care.

2.Consumer Experience – Understanding, addressing and assuring that all consumer interactions and outcomes are easy, convenient, timely, streamlined, and cohesive so that health fits naturally into the "life flow" of every individual's, family's and community's daily activities.

3.Delivery System Transformation – Operationalizing and scaling coordination and delivery system transformation of medical and non-medical services via partnerships and collaborations between healthcare and community-based organizations to overcome barriers including social determinants of health to effect better outcomes.

4.Data & Analytics – Leveraging advanced analytics and new sources of disparate, non-standard, unstructured, highly variable data (history, labs, Rx, sensors, mHealth, IoT, Socioeconomic, geographic, genomic, demographic, lifestyle behaviors) to improve health outcomes, reduce administrative burdens and support transition from volume to value and facilitate individual/provider/payer effectiveness.

5.Interoperability / Consumer Data Access – Integrating and improving the exchange of member, payer, patient, provider data and workflows to bring value of aggregated data and systems (EHR's, HIE's, financial, admin and clinical data, etc) on a near real-time and cost-effective basis to all stakeholders equitably.

6.Holistic Individual Health – Identifying, addressing and improving the member/patient's overall medical, lifestyle/behavioral, socioeconomic, cultural, financial, educational, geographic and environmental well-being for a frictionless and connected healthcare experience.

7.Next Generation Payment Models – Developing and integrating technical and operational infrastructure and programs for a more collaborative and equitable approach to manage costs, sharing risk and enhanced quality outcomes in the transition from volume to value. (bundled payment, episodes of care, shared savings, risk-sharing, etc).

8.Accessible Points of Care – Telehealth, mHealth, wearables, digital devices, retail clinics, home-based care, micro-hospitals; and acceptance of these and other initiatives moving care closer to home and office.

9.Healthcare Policy – Dealing with repeal/replace/modification of current healthcare policy, regulations, political uncertainty/antagonism and lack of a disciplined regulatory process. Medicare-for-All, single payer, Medicare/Medicaid buy-in, block grants, surprise billing, provider directories, association health plans, and short-term policies, FHIR standards, and other mandates.

10.Privacy / Security – Staying ahead of cybersecurity threats on the privacy of consumer and other healthcare information to enhance consumer trust in sharing data. Staying current with changing landscape of federal and state privacy laws.

Copyright 2019. Confidential and proprietary information.

Agenda

Big Data & APIs

Case Study

Next Steps

Copyright 2019. Confidential and proprietary information.

Case Study

Health

Life

Disability

Pet

Homeowners

Renters

Car

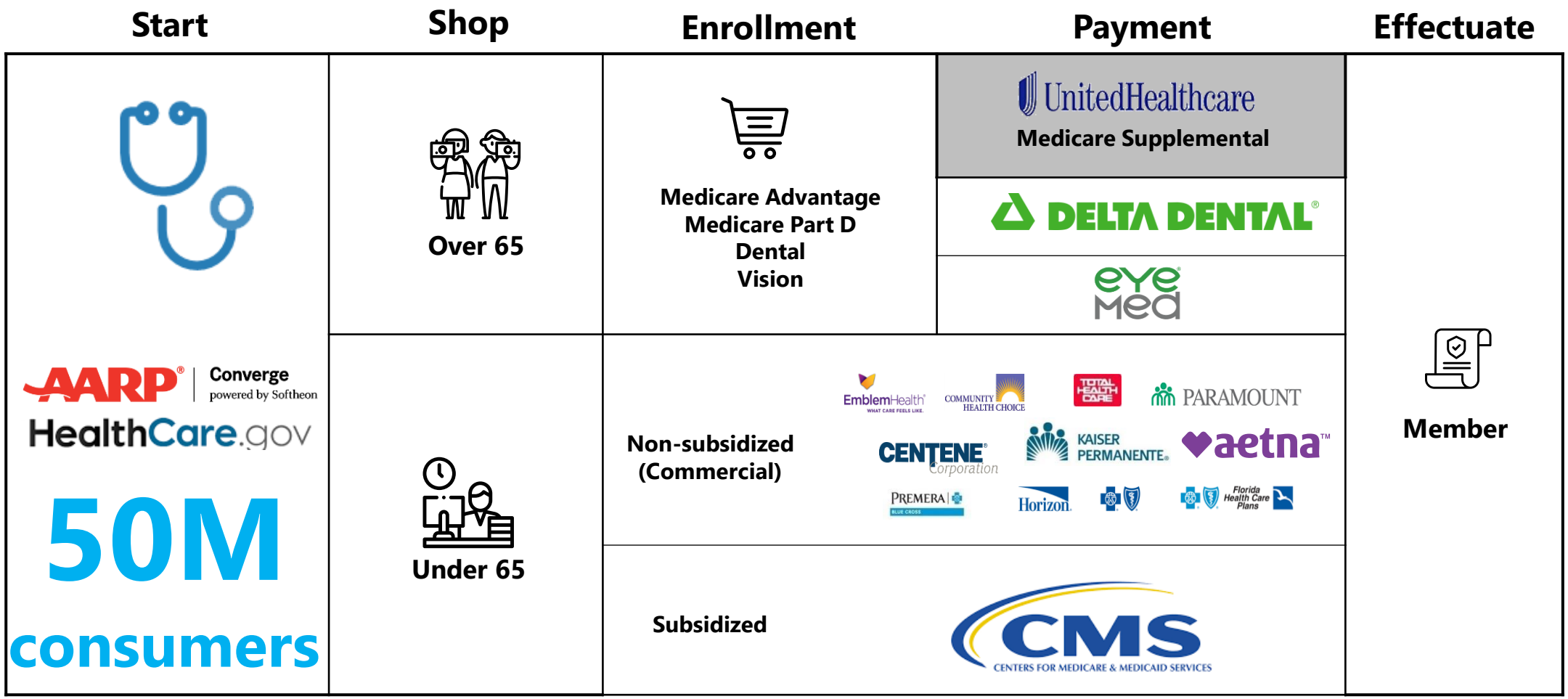
Investments

More

Softheon

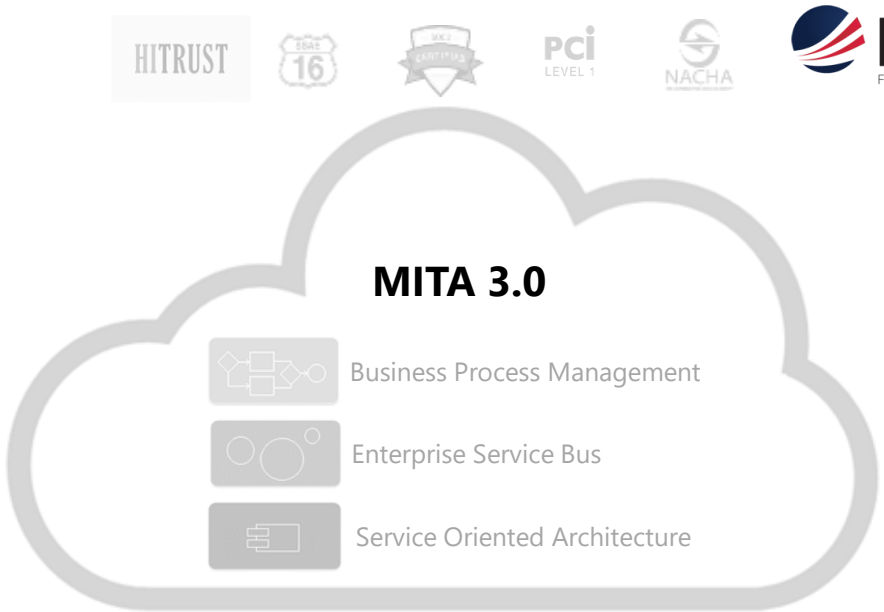
Copyright 2019. Confidential and proprietary information.

Case Study :: Softheon



Copyright 2019. Confidential and proprietary information.

Case Study :: Softheon :: IaaS & PaaS & SaaS



Gateway
X12 EDI & API Payload Management

Integration

Clarity
Account Management
Shopping

Individual, Employer, & Broker

Remedy
Enrollment
Underwriting

Individual & Family, Small Business

Equity
Premium Billing
Presentment Payment

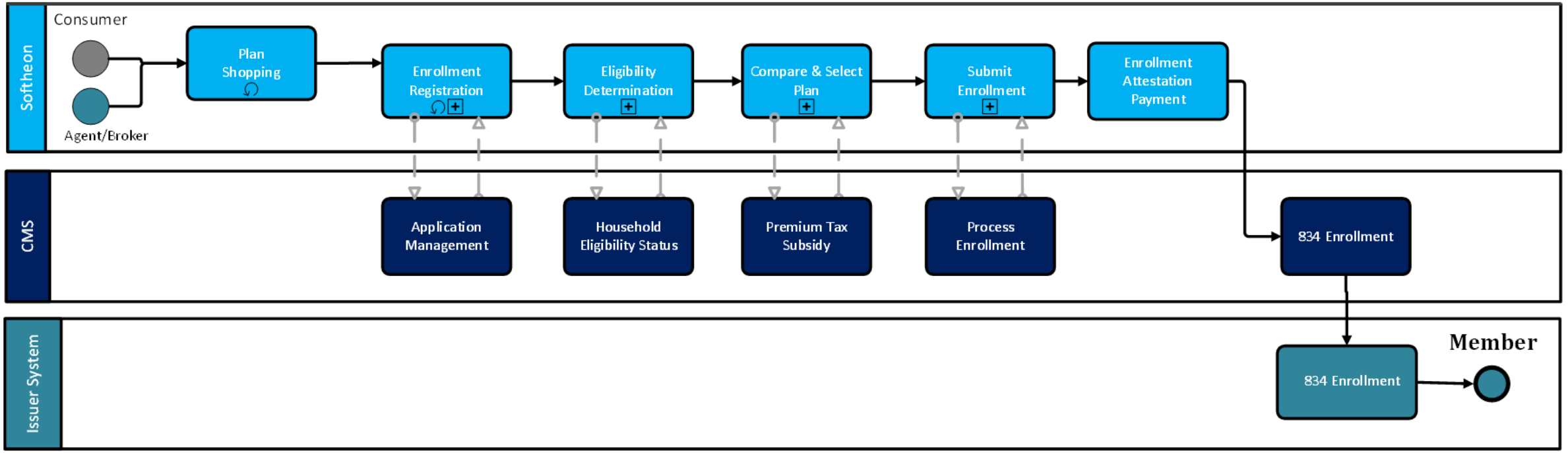
Premium Billing, Payment, & HSA

Foundry
Compliance
Analytics

Reconciliation, Business Intelligence

Copyright 2019. Confidential and proprietary information.

Case Study :: Softheon :: ACA



Real-time eligibility & enrollment

Copyright 2019. Confidential and proprietary information.

Case Study :: Softheon :: ACA :: Enhanced Direct Enrollment

The FFM **Enhanced Direct Enrollment (EDE)** API will provide partner websites access to FFM eligibility and enrollment business services through a combination of secure transfers of the consumer to and from the FFM website and web services.

Phase 1: Basic enrollment scenarios

Phase 2: More complex, students, pregnancy, stepchildren, non-U.S. citizens

Phase 3: ALL enrollment scenarios – American Indians, Alaskan Natives

- **24** different REST APIs with CMS
  - Identity proofing, Broker validation, DMI/SVI, Add/Remove Members, Submit Application, Document upload
- **250+** distinct UI questions based on user input

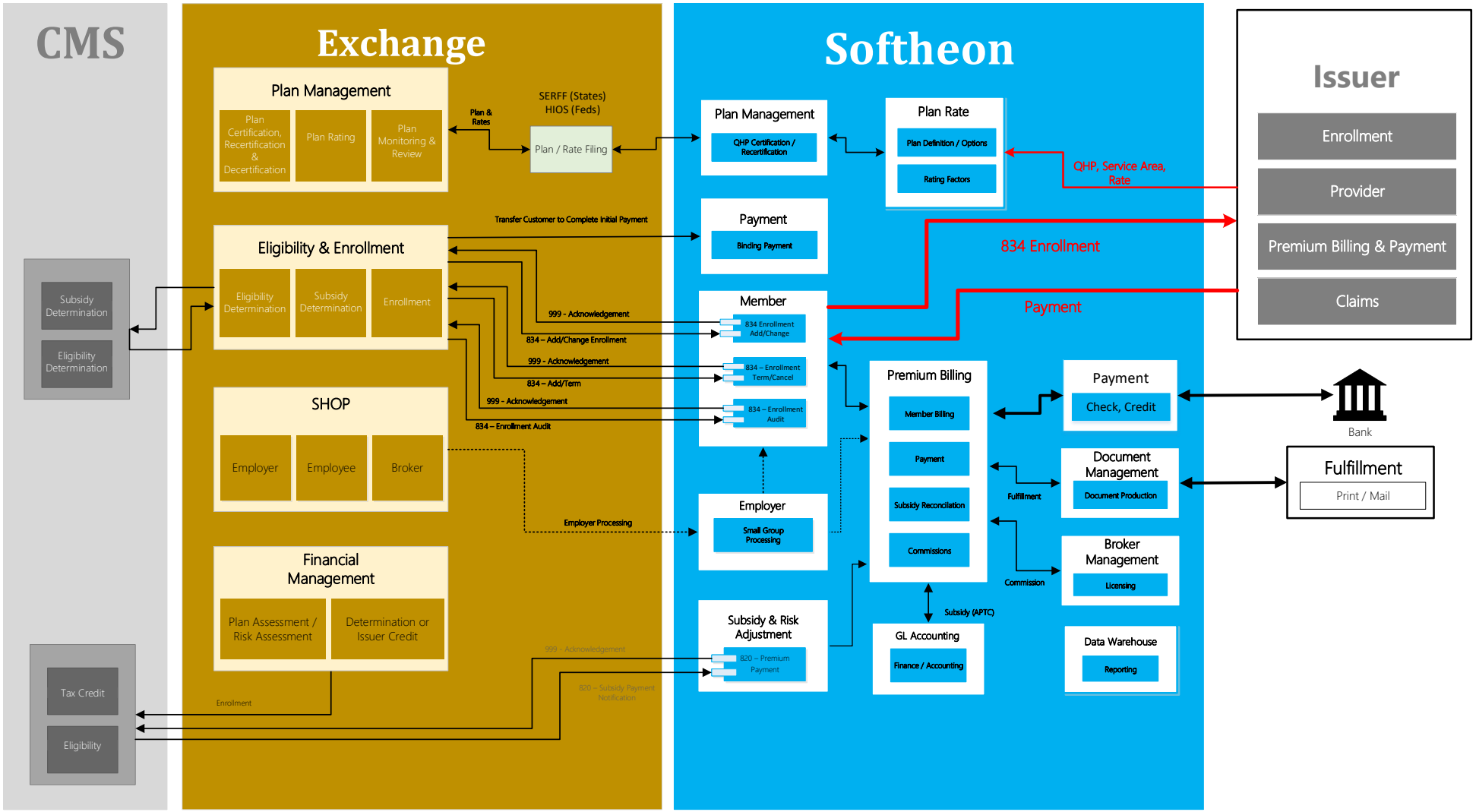
Centers for Medicare & Medicaid Services
Center for Consumer Information and Insurance Oversight
7500 Security Blvd
Baltimore, MD 21244-1850

Federally Facilitated Marketplace (FFM)
Direct Enrollment API for Web Brokers/Issuers
Technical Specifications

Contract Number: HHSM-500-T0012

Copyright 2019. Confidential and proprietary information.

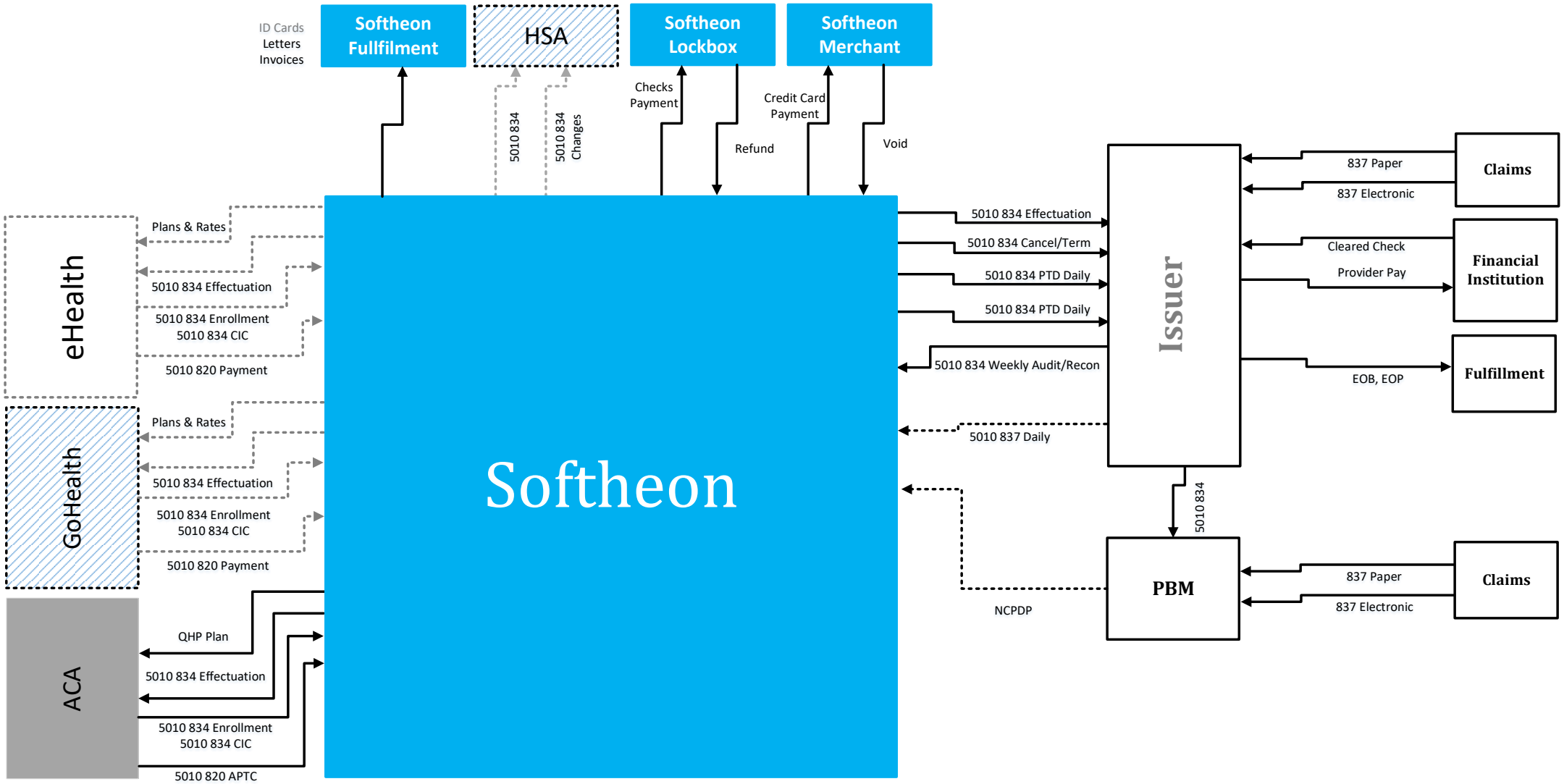
Case Study :: Softheon :: ACA :: APIs



Copyright 2019. Confidential and proprietary information.

Softheon

Case Study :: Softheon :: ACA :: APIs



Copyright 2019. Confidential and proprietary information.

Softheon

Agenda

Big Data & APIs

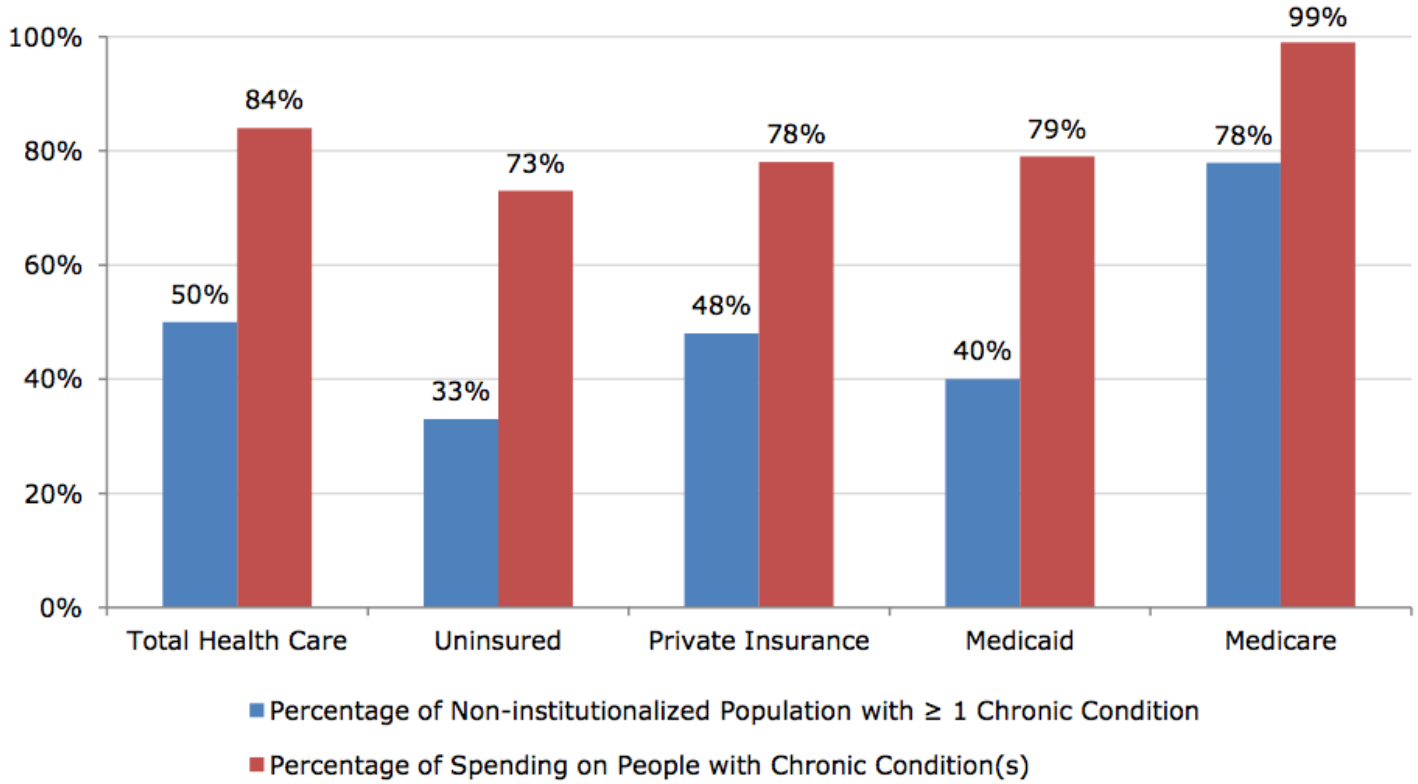
Case Study

Next Steps

Copyright 2019. Confidential and proprietary information.

Next Steps

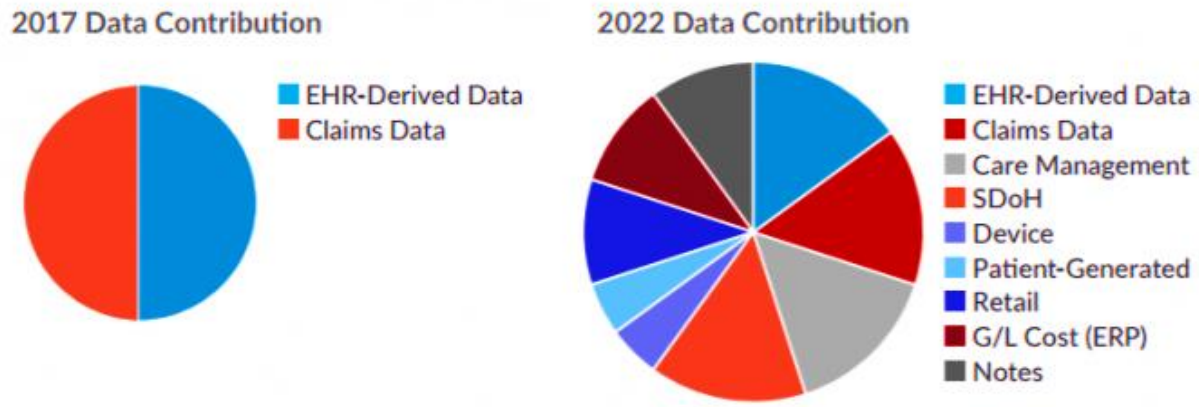
People with Chronic Conditions Account for 84% of National Health Care Dollars and 99% of Medicare Spending



Sources: Medical Expenditure Panel Survey, 2006 and
Robert Wood Johnson Foundation, Chronic Care: Making the Case for Ongoing Care, February 2010

Copyright 2019. Confidential and proprietary information.

Next Steps :: Big Data & APIs



Source: Chillmark Research

Healthcare data will experience a compound annual growth rate (CAGR) of 36 percent through 2025.

Despite its rapid growth, healthcare has room for improvement as well in data readiness. Survey results indicate blockchain will be important for the industry, but **nearly 60 percent lack a strategy** or have yet to implement any initiative.

Source: IDC White Paper *The Digitization of the World – From Edge to Core*

Copyright 2019. Confidential and proprietary information.

Next Steps :: The Future is Now

- What more will CMS allow access to?
  - Blue Button 2.0

- Understanding the whole person
  - Consumer Demographic
  - Financial Data
  - Claims & Clinical
  - SDoH

- Price transparency, real-time claims, billing and provider reimbursement

- ?

Copyright 2019. Confidential and proprietary information.

Kevin Deutsch
SVP, GM Health Plan Cloud
kdeutsch@softheon.com
(631) 682-9575