Experian teach-in

22 January 2020
Agenda

Welcome

Technology update

Experian Health

Consumer Information North America

Ascend demo and CI + DA Q&A

Craig Boundy

Barry Libenson

Jennifer Schulz

Alex Lintner

Alex Lintner / Robert Boxberger
Experian North America: Strategic priorities and ambition

Craig Boundy

CEO, North America
Experian - global strategic focus areas

For Consumers

Make credit and lending simpler and faster

Empower consumers to improve their financial lives

Help consumers control their data and verify identity

Remove complexity and increase transparency in underserved verticals

For Businesses

Enable businesses to find, understand and connect with audiences
# North America
We have an ambitious strategy for growth

<table>
<thead>
<tr>
<th>Consumer and commercial lending</th>
<th>Consumer empowerment and inclusion</th>
<th>Identity and fraud</th>
<th>Customer acquisition</th>
<th>Adjacent markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help lenders offer frictionless credit products, make insightful lending decisions and optimally manage their portfolio</td>
<td>Empower consumers to control their data and make informed decisions for their financial betterment</td>
<td>Help businesses verify their customer’s identities and guard against identity fraud</td>
<td>Help businesses efficiently find new customers and grow their relationships</td>
<td>Remove complexity and bring transparency to the automotive, healthcare, insurance and mortgage markets</td>
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</tbody>
</table>
Our clients are operating in a dynamically changing environment, we help them succeed

**Seeking efficiencies**

Clients are looking to **leverage data, analytics and software** – we have the solutions they need.

**Drive for automation**

Manual processes drive stress on our clients’ margins – we help them **automate key processes**.

**Consumer focus**

**Consumer centricity helps our clients** grow – we have the tools to help them on this journey.

**Business fundamentals**

Our clients focus on business fundamentals – we help them **drive profitability in their business**.
Our leading data assets and strong track record for innovation has played a key role in our customers’ success.
Our consumer strategy is uniquely differentiated and allows us to help our clients in innovative ways.

The consumers’ bureau

**KNOW**
Financial Profile
Experian Financial Profile helps you see how lenders view you and your credit.

**IMPROVE**
Experian Boost
For the first time, you can instantly improve your credit.

**SHOP**
CreditMatch
CreditMatch intelligently matches you to lower rates and better offers.

**PROTECT**
Identity Protection
Experian helps protect your credit and data from the dark web, hackers and theft.

Our direct relationships with consumers at scale help us drive new revenue streams. Our One Experian approach has been critical to realizing this success.
One Experian underlies our ability to expand in vertical markets

**Health**
Our technology and insights help health systems simplify the financial and administrative aspects of healthcare and better manage the financial position of their organization.

**Automotive**
We power the key decisions made in automotive customer acquisition and retention enabling consumers and the automotive industry to have better visibility during the vehicle buying, selling and owning processes.

**Insurance**
Our unique data assets and insights transform insurers’ underwriting and claims practices for the digital world, improving speed and accuracy across the entire insurance policy lifecycle to benefit consumers and businesses.

**Mortgage**
Our focus on the mortgage market, specifically in the pre-application phase, allows us to empower consumers and unlock the modern mortgage with data and analytics.
Our priorities going forward will enable our growth

**Strong consumer focus**
We help our clients as their traditional business models are being influenced by the consumer's expectation for increasingly personalized experiences and frictionless transactions.

**Differentiation through data**
Exponential growth in consumer and business data is enabling us to deliver solutions that improve business processes and business decisioning.

**Common platforms and strategies**
Our digital environments leverage our platform-based open infrastructures that can extend across sectors and borders.

**Top talent drives top performance**
We continue to attract the right talent, retain the best talent and develop our teams – this is as a competitive advantage in our market.

**Regulatory changes create opportunity**
Regulatory and legislative changes impose incremental cost and operational pressure on our clients, and we help them manage growth through this dynamic change.

**Technology as a competitive advantage**
Our technology modernization initiatives enable us to deliver on our client's expectation of real-time solutions, rapid product innovation and customized experiences.
Technology update

Barry Libenson

Global Chief Information Officer
4 years of major technology change

2015
- Implement a global, 'follow the sun', development and operational model

2016
- Begin driving global standards for re-use and more rapid innovation. Major security emphasis and investment, driving best in class security performance

2017
- Productization of Experian’s Data Fabric and Platform as a Service (PaaS) environments as standard building blocks based on Open Source and Hybrid Cloud development. Implement an API/Microservices framework around the globe based on the Apigee platform. Build anywhere, deploy anywhere, becomes the standard for all development

2018
- Begin the migration of the enterprise to Agile and DevSecOps as a way of working with global standardization, leveraging the Large-Scale Scrum (LeSS) Agile framework

2019+
- Continued global deployment
- Continued "modernization" of the portfolio
Benefit for customers

1. High level of confidence in Experian’s ability to keep its data secure.

2. Increase in the release of innovative products such as Ascend, Boost, and modernized bureaus, e.g. Colombia and India

3. Ability to run applications in any cloud, public or private, as well as incorporate customer data regardless of location, leveraging technology such as AWS Direct Connect

4. Increased application reliability based on newer hardware as well as newer architecture

5. Flexibility in how customers consume data, including API data access as well as programmatic access
Security, a closer look

1. We have a multi-tiered approach to security:
   - Prevention – stopping bad actors from entering the estate
   - Detection – knowing if a bad actor has entered the estate
   - Mitigation – minimizing a bad actor’s ability to extract anything of value if they do enter the estate

2. Global Security Operations Center (SOC) coverage with ‘follow the sun’ capabilities, based in the US, UK and Malaysia

3. Major emphasis on automation and tools to improve efficiency, speed and efficiency

4. Move to DevSecOps increases the velocity of development while ensuring a robust security discipline is followed
Deployment and development strategy

1. Applications can be deployed into any operating environment including, but not limited to:
   - Any public cloud – AWS, Azure, GCP, Oracle Cloud
   - On-prem – in the customer’s data center, in an Experian data center/private cloud, in a co-located facility
   - Hybrid – Any combination of the above (via Docker containers and orchestration)

2. Applications can combine Experian and customer data seamlessly while maintaining confidentiality

3. Code is developed using Experian’s PaaS environment based on OpenShift to drive consistency, re-usability and portability

4. Code is deployed using containers to facilitate scaling and portability
By the numbers

We typically deploy 20,000+ containers a day. From an overall metrics perspective, this is leading-edge and dramatically accelerates application testing by creating multiple test environments that are ephemeral. This reduces testing time from hours to minutes.

We are operating one of the largest global Kubernetes development clusters in the world with over 12TB or RAM. Running a single global cluster provides both financial and operational efficiency.

Over a third of Experian’s software developers are now doing 100% of their work using the Platform as a Service (PaaS) environment, which we call AppCanvas. By the year end, we expect more than half of our developers to be up and running on AppCanvas.

API Calls exceed 30 million/month.
Data Fabric and Oxygen global adoption
Data Fabric - global cluster growth

Average node capacity – 24 vCPU, 256 GB memory and 40 TB storage
Total Capacity (approx.) – 7500 vCPU, 80 TB memory and 12 PB storage
Data Fabric – early results

**Business Information**
- 60x ingestion volume
- 12x ingestion performance improvement
- 300x attribute calculation performance boost
- 98.7% match prediction

**Decision Analytics**
- >10x throughput and response time
- Model build and recalibration

**Colombia Bureau**
- 54 million consumer profiles every 6 hours
- 20 mSec real-time ingestion
- New data source ingested in days opposed to weeks

**Brazil Positive Data**
- 47x ingestion volume
- Billions of events ingested in hours
- 15x performance improvement

- Positive Data
- Colombia Bureau
- Brazil

- New data source ingested in days opposed to weeks
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Speed to market

• US – Decision Analytics pipeline configured and operationalized in 3 weeks

• Brazil – positive data basic pipeline configured in 4 weeks or 2 Agile Sprints

• Colombia – new data sources configured for ingestions, linking and profile creation in 3 to 5 days

• Australia – SAS replacement MVP – the overall processing time reduced from almost 2 days to a couple of hours
Positioning Experian for the future

• Customer obsession - introduce new data products that delight customers, rapidly and at a low cost

• Speed of execution - bolt-on alternative data sources, link identities, generate insights through configuration, not coding

• Data accuracy - improve data accuracy through stochastic, artificial intelligence/machine learning and high-throughput algorithms
Experian Health

Jennifer Schulz

Group President, Health, Auto and Marketing Services
The American healthcare system is ripe for disruption, and a number of trends are driving the need for payers and providers to evolve and change.

US healthcare spend, estimated at US$3.65 trillion in 2018, represents ~18% of US GDP.
Experian’s role in healthcare

In many industries, we use data and analytics to drive efficiencies in credit, payments, and fraud prevention. Healthcare has encountered the same market dynamics, with Experian fulfilling similar needs...

Similar market dynamics

As healthcare advances along the maturity curve, Experian’s expertise enables us to connect the ever-increasing volume of data and simplify healthcare for all...

How we help in Health

We increase efficiencies across financial and administrative tasks to make smarter business decisions, boost bottom lines, and strengthen patient relationships

- Verify and manage identity, reducing fraud and errors
- Drive better decisions with our data and, unique to our health business, drive better processes with smart workflow software
- Help our customers get paid by their customers, with an improved consumer financial experience

Unparalleled knowledge of the consumer powers everything we do — from superior identity management and optimized collections strategies to personalized consumer experiences across the healthcare journey.
Our mission
To use data-driven insight to connect and simplify healthcare for all
Where we win

- Experian Health offers **front- and back-end products** primarily to **large hospitals and medical groups**; over 60% of all US hospitals use at least one Experian solution.
- Our RCM solutions help providers manage the **financial and administrative aspects of the healthcare journey**.
- No single competitor has capabilities at scale across revenue cycle (front – mid – back); incumbents and disruptors are working to **move upstream to front-end** to the start of the patient relationship.
- We are uniquely positioned — with strong front-end patient access offerings — to own the **patient relationship from the beginning of the healthcare journey** through to collections. Experian’s broad capabilities will allow us to move even further upstream, as we leverage targeting and consumer (patient) acquisition expertise.

**Hospital revenue cycle management workflow**

**Front end**
- Patient registration
- Eligibility
- Prior authorization
- Payments and estimates
- Financial counseling

**Mid cycle**
- Charge capture/audit
- Charge Description Master (CDM)
- Coding/validation

**Back office**
- Claims and billing mgmt
- Denials mgmt
- Self-pay
- A/R and collections

**Leading vendors**
- Experian, Epic, Phreesia, OPTUM, TransUnion, Change Healthcare, Availity

**Clearinghouse connectivity**
- PriorAuthNow, Cerner, Waystar, Premier Financial, Change Healthcare, TransUnion, Availity

*This is a condensed, illustrative list of leading vendors and in no way encompasses the entire market*
The Experian advantage

It is the combination and quality of our data and our deep analytics capability where clients benefit from tremendous gains in intel and insight—driving greater productivity within health systems’ workflows.

Our data and analytics
- Credit bureau data
- Business data
- Marketing services data
- Experian Data Quality functionality
- Decision Analytics
- Healthcare data (via clients)

Our software solutions
- Revenue Cycle Management
- Identity Management
- Patient Engagement
- Care Management

Unmatched results
- 1.7bn eligibility verification transactions processed
- 15m patients identified for charity funding assistance
- US$3.1bn in additional collections from patients
- US$2.3bn captured in card payments, cash, and checks
- US$5.8bn of corresponding charges where we found coverage
- c. 328m unique patient identifiers assigned

The right data can transform healthcare—from leveraging credit data to create a personalized, nearly invisible, payment experience for patients, to having consumer data insights into how and when to reach patients to improve the quality of care and their overall healthcare experience.
Experian’s unmatched view of the patient

With the backing of Experian’s robust platforms and data assets, we can deliver the most comprehensive view of today’s health consumer.

**Identity Management**
- Identity Verification and Matching
- Latest demographic information and address verification

**Fraud**
- Precise ID and Digital Risk Score leveraged as patient logs on to patient portal

**Social Determinants of Health**
- SDOH qualifications leveraging all Experian data
- Does he live alone or have access to transportation?

**Patient Payment Profile**
- Propensity to Pay incorporates payment data and verified patient incomes
- Payment Plans and Collections Strategy based on patient’s unique financial position

**Patient Engagement**
- Patient communication preferences and tailored messaging

**Care Coordination**
- Leveraging ADT feeds (admission, discharge, and transfers) and scheduling capabilities for effective care coordination across delivery sites

John
Age: 25
Lives alone
Unemployed
Ins. coverage?
Delivering an improved consumer experience

Modular digital platform helps providers improve their customer experience—while helping consumers navigate the financial and administrative aspects of their health journey.
Experian Health: Vision for FY24

Experian Health’s mission is to use data-driven insight to connect and simplify healthcare for all.

Where we are now…
- Leading products in both front-end and back office RCM
- Customer reach of over 60% of US hospitals

Where we are going…
- Value-added solutions fueled by data and analytics
- The patient identity connector in the health ecosystem
- Broader customer mix of providers, payers, and pharmacies

How we get there…
- Evolve: Core RCM Business
- Innovate: Offerings around Key Growth Opportunities
- Diversify: with Targeted Strikes in New Markets

All three components bring a heightened focus on consumerism and data – learning from the data we have and acquiring data assets to drive future innovation for our customers.
Consumer Information
North America

Alex Lintner

Group President
Consumer Information Solutions – strategy for North America

US$9bn market opportunity

MISSION: BE THE CONSUMER’S BUREAU

STRENGTHEN THE CORE
- Maintain Industry-Leading Data Accuracy and Consumer-Friendly Support Services
- Give Consumers More Control and Ability to Contribute
- Continue to Strengthen Our Market Position

GROWTH THROUGH INNOVATION
- Deliver New Products on Ascend Data and Technology Platform
- Enrich the Credit Profile Report
- Unlock Synergy Growth through Clarity
- Build More Mortgage-Focused Products
- Evolve Prescreen and Prequalification competency to Digital Credit Marketing
- Establish New Models for Verification Services

DELIVER ADVANCED ANALYTICS
- Ascend Platform to Extend Our Lead in Analytical Consulting
- Provide Additional Data through our Alternative Data Strategy
- Deploy Artificial Intelligence and Machine Learning

ENABLERS: Technology, People, Productivity and Acquisitions Driving Competitive Advantage and Margin Growth
In the past four years, US$250m+ organic CIS North America revenue growth PLUS successful M&A

CIS North America business grows through three levers

1. Core market execution
   - Mortgage Profiles
   - Core Profiles
   - MLA Profiles

2. New products/innovation
   - Prequalification
   - Ascend Marketing

3. Inorganic investments (Acquisitions)
   - Verification Services (similar to UK affordability)
   - Data Integrity Services
   - Ascend Data Platform
   - Trended Data

   - Clarity Services
Ascend data and technology platform allows us to stay one step ahead of the competition

We have established first mover advantage with a superior analytical sandbox and continue to add further differentiation

1. Data management in big data technology
2. Ingestion of multiple data sources
3. Linking / matching / pinning
4. Advanced analytics and artificial intelligence

Industry expertise

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Adding six additional data elements, four of which enable expansion to four strategic vertical markets.
Not only one product, FOUR Ascend products built on the platform

Ascend Technology Platform
Products built to-date (as of December 2019)
We’re already delivering high-value production workflow solutions for two major clients

<table>
<thead>
<tr>
<th>A financial services company with more than:</th>
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<tbody>
<tr>
<td>• US$30bn in revenue</td>
</tr>
<tr>
<td>• 33k employees</td>
</tr>
<tr>
<td>• 12m customers</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>A consumer financial services company with more than:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• US$18bn in revenue</td>
</tr>
<tr>
<td>• 16k employees</td>
</tr>
<tr>
<td>• 80m customer accounts</td>
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</tbody>
</table>

**Account review**

<table>
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<tr>
<th>Results</th>
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<tbody>
<tr>
<td>✓ Increased efficiency in account review by 97%</td>
</tr>
<tr>
<td>✓ Integrated decisioning environment</td>
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</table>

**Marketing/prospecting**

<table>
<thead>
<tr>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td>✓ 12% increase in response rates with first campaign</td>
</tr>
<tr>
<td>✓ Achieved 120% of goal (accounts booked) with first drop of second campaign, far exceeding expectations</td>
</tr>
<tr>
<td>✓ Scheduled additional campaigns for Nov and Dec 2019</td>
</tr>
</tbody>
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*Account Review = Ascend + PowerCurve Integration*
Update on Ascend platform rollout

In market:
- Ascend sandbox PX and PXE
- Ascend Account Review
- Ascend Marketing
- Ascend Data Services
- Ascend Sandbox SX (mid market)

Future modules to come

Ascend is live in US, UK, Brazil and Italy; launching in five additional countries in FY20

Total Contract Value (cumulative)

- FY18 Q2 launch
  - US$50m
- FY18
  - c. US$100m
- FY19
  - US$150m
- H1 FY20
  - US$270m

1 As at 31 October 2019.
Experian’s alternative data strategy

Vision
Enable more complete credit decisions and greater access to credit for millions of Americans by integrating historically fragmented data sources to reduce the time, cost, and effort of leveraging alternative credit data in traditional credit decisions.

Solutions & capabilities
• Clarity Credit Attributes – Alternative Financial Services trade and inquiry attributes
• Clarity Fraud Solutions – Alternative Financial Services fraud and risk attributes
• Experian Lift – Supplemental alternative data risk score
• RentBureau – Rental history credit bureau
• Finicity – User permissioned
Artificial intelligence and machine learning opening client opportunities through advanced analytics differentiation with our unique data sets

<table>
<thead>
<tr>
<th>Attribute packages</th>
<th>Generic scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trended 3D</td>
<td>• VantageScore</td>
</tr>
<tr>
<td>• Premiers</td>
<td>• In the Market Models</td>
</tr>
<tr>
<td>• Alternative Financial Services (AFS)</td>
<td>• Extended View Score</td>
</tr>
<tr>
<td></td>
<td>• Precise ID</td>
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<table>
<thead>
<tr>
<th>Analytical services</th>
<th>Decision services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Custom Models</td>
<td>• PowerCurve platform</td>
</tr>
<tr>
<td>• Machine Learning</td>
<td>• CrossCore platform</td>
</tr>
<tr>
<td>• Benchmarking</td>
<td></td>
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### Predictive power of machine learning and unique data

- **Fintech Client A**
  - No T3D
  - T3D

- **EVS v1.0**
  - No Hit/Call only
  - No recent
  - Thin File

- **EVS v2.0**

- **15% lift** (T3D)
- **20% lift** (EVS v2.0)
- **17% lift** (EVS v2.0)
- **14% lift** (EVS v1.0)
Ascend Sandbox use cases

**Existing**

**Robust benchmarking**
- On-us vs. off-us
  - Reject inferencing
  - New accounts past performance metrics
  - Portfolio performance vs. best-in-class

**Cross-sell relationship status**
- Wallet share analysis (balances and available spend)
- Relationship performance (accounts opened on-us vs. off-us)

**Credit risk strategy**
- Exploration of credit data and attributes
  - “Always on” strategy development / enhancement
  - Market segment and new market targeting

**Model development, with or without AI/ML**
- (Traditional) attribute development
- Machine learning models
- Custom models

**Future**

**Enterprise risk modeling**
- CECL accounting
  - Compliance and reserve calcs
- BASEL
  - Minimum capital requirements
- D-FAST and CCAR
  - Stress testing

**Marketing analytics**
- Forecasting and selection
- Campaign design
- Attribution and reporting
Experian teach-in

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