The Weather Company
An IBM Business™
One of the Largest IoT Platforms in the World
It is the Perfect Moment for a New Kind of Platform

- **IoT**: 17B devices by 2020
- **cognitive**: 7.5B
- **web**: 3.4B users
- **mobile**: 2.8B users
- **social**: 2.5B users

- **1990**: web
- **1993**: mobile
- **2002**: social

- **25 devices per person**
We are a Decisions Platform.

We power new possibilities of decision making,

informed by billions of data sources

and enabled by the world’s best cognitive technology.
The world’s essential businesses are platforms.

discovery platform $690B

crm platform $65B

Buying/selling platform $450B

real-time info platform $18B

decisions platform ?
MILLIONS OF CONNECTED DEVICES MEANS BIG DATA AND BIGGER CHALLENGES.
At The Weather Company, we’ve embraced the complexity of big data.
Processing more location and weather-based information than any other company.
Let’s take a look.
FIRST:
We disrupted how we predict the weather.
MOBILE WAS THE FORCE BEHIND CHANGE.
We expect immediacy, but...
2 yrs ago

weather forecasts were updated every 6 hours
We expect local relevancy, but...
Historically forecasts were typically provided for the nearest airport.
THE NEAREST AIRPORT, 4X A DAY WASN’T CUTTING IT.
We acquired Weather Underground and now have access to 350,000 Personal Weather Stations worldwide.
Then we mapped the atmosphere.
WE NOW HAVE WEATHER INFORMATION FOR EVERY LATITUDE-LONGITUDE COMBINATION ON EARTH.
2.2B

LOCATIONS FORECASTED EVERY 15 MINUTES.
There are about 3.5B Google searches each day.

Weather averages 15B forecast queries daily.
AS WINTER STORM JUNO POUNDED THE NORTHEAST.

26B forecasts
20 TERABYTES, EVERY DAY.
We disrupted how we translate the weather.
WEATHER IMPACTS EVERYONE

WEATHER IMPACTS
People And Assets At Risk

WEATHER MOVES
Markets

WEATHER AFFECTS
Operational Efficiency

WEATHER SHAPES
Consumer Behavior

WEATHER ENABLES
Situational Awareness

Travel & Transport
Media, Telco Entertainment
Retail CPG
E&U Oil & Gas
Insurance Fin’l Services
Agriculture
Government
WEATHER IMPACTS INDIA AND ASIA

Heavy rain causes chaos in Klang Valley
Malaysia warns of continuing drought as Malacca sounds water shortage alarm
Poor drain maintenance causing floods in the city
El Nino may return soon, hit Asian rice crops

Floods, uprooted trees leave trail of havoc
Storm causes traffic mayhem in KL
Worst flood in 20 years, say Hulu Kelang residents
Blackout hits parts of Sarawak
India on average suffers an economic loss of US$7 billion each year because of floods, according to the United Nations.

Mumbai floods caused an economic loss of over US$1.5 Billion

Chennai floods caused an economic loss of over US$3 Billion
The TWC IoT Platform

- A cloud-based data platform that ingests large volumes & types of data
- Delivers insights from precise weather data combined with location and other data sets
- Enables companies to embed weather insights into decision support platforms to take action

- 24+ Terabytes compressed ingested per day in production
- 100s Petabytes in data lakes analyzed and stored
- 26 Billion API requests handled per day
- >100 data types supported today
OUR STORY IS ABOUT
DATA AT SCALE:
INTERNET OF THINGS

>250,000 personal weather stations

>50,000 flights per day

162 forecast models serve as inputs to our forecast

Atmospheric data from

>50,000

flights per day

>40 Million Pressures reading from mobile devices

329

>40

Million

Pressures reading from mobile devices

PRECISION
100x greater coverage @500m Resolution

ACCURACY
Rated No. 1 By Independent Co. Forecast Watch

SPEED
Forecast updates every 15 minutes
How does this... …help answer this?

How do I optimize the traffic flow for my city? And where do I start?

Electricity use rises rapidly in hot weather. How do I increase reliability for my customers?

Which of my citizens will be impacted by the flashflood? Let proactively alert them and send resources for recovery.

A storm is coming. When will we need to close the ramp and divert flights due to lightning?
Strategy 1: Provide daily/weekly “next best recommendation” to farmers on mitigation strategy and optimal harvest time.

Strategy 2: Prepare marketing campaign focused on other agriculture in portfolio.

Strategy 3: Work with local farmers or tier II suppliers to increase crop yields.

Perform analysis on crop yields

Predicting significant market supply shortage in the next 6-12 months.
WEATHER PREDICTS EMOTION AND BEHAVIOR

Right message

PRODUCT PROMOTION
CREATIVE MESSAGE & TONE

Right time

Right screen
Mining equipment manufacturer increases mine site efficiency with annualized savings in millions of dollars by leveraging weather analytics

- Hyperlocal weather forecasts with greater accuracy
- Greater visibility of expected mine closures: lead time, duration and severity.
- Improve overall equipment availability and mine profitability

Predictive Maintenance

Logistics Management
Weather Data At Scale – Leading Digital Players today have Weather Data from The Weather

Apple iOS

Google

SAMSUNG

TV Weather

Yahoo
xtLytics – Alerts for Health Care basis diseases with Weather Changes

Unique Approach: 360° Data (including Weather)

- 360° Data (Including Weather)
  - Patient Journey
  - SP Drivers
  - Patient Matching
  - Predictive Algorithms and Interventions

Medical Data
- Claims Data (Including Medicare
- Pharmacy Data
- Physician Referral data

Other Data
- PubMed
- Patients like me
- Drugs.com
- WebMD
- Survey Data
- Socio-Economic data

Weather Data
- Only dataset with high accuracy forecast

Social Media Data

Unique Approach: 5P Drivers

- 360° Data (Including Weather)
  - Patient Journey
  - SP Drivers
  - Patient Matching
  - Predictive Algorithms and Interventions

- Patient
  - Patient Segment
  - Patient Profile
  - Patient Journey

- Product
  - Market Map
  - Untapped Market
  - Drug Side Effect & Efficacy

- Payer
  - Payer Mix % (by drugs and location)
  - Drug Reimbursement Patterns

- Physician
  - Prescription Habits
  - Physician Influencer Map

- Pharmacy
  - Pharmacy Geo Map
  - Drugs by Distribution Channel
  - Drug Supply Chain
Travel – Weather Aware

1. Where are you travelling?
2. Do you know what kind of clothes to pack?
3. What if we tell you what to pack?