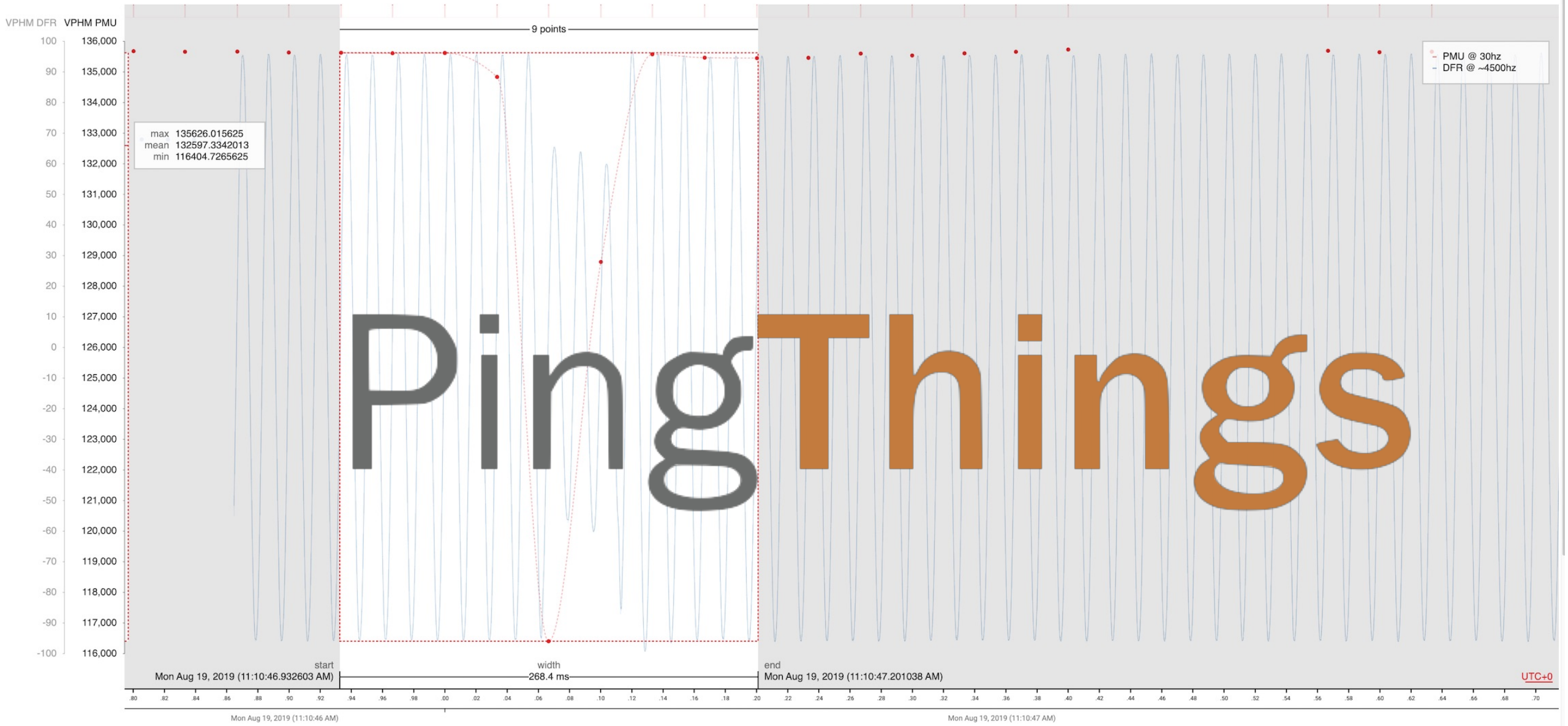


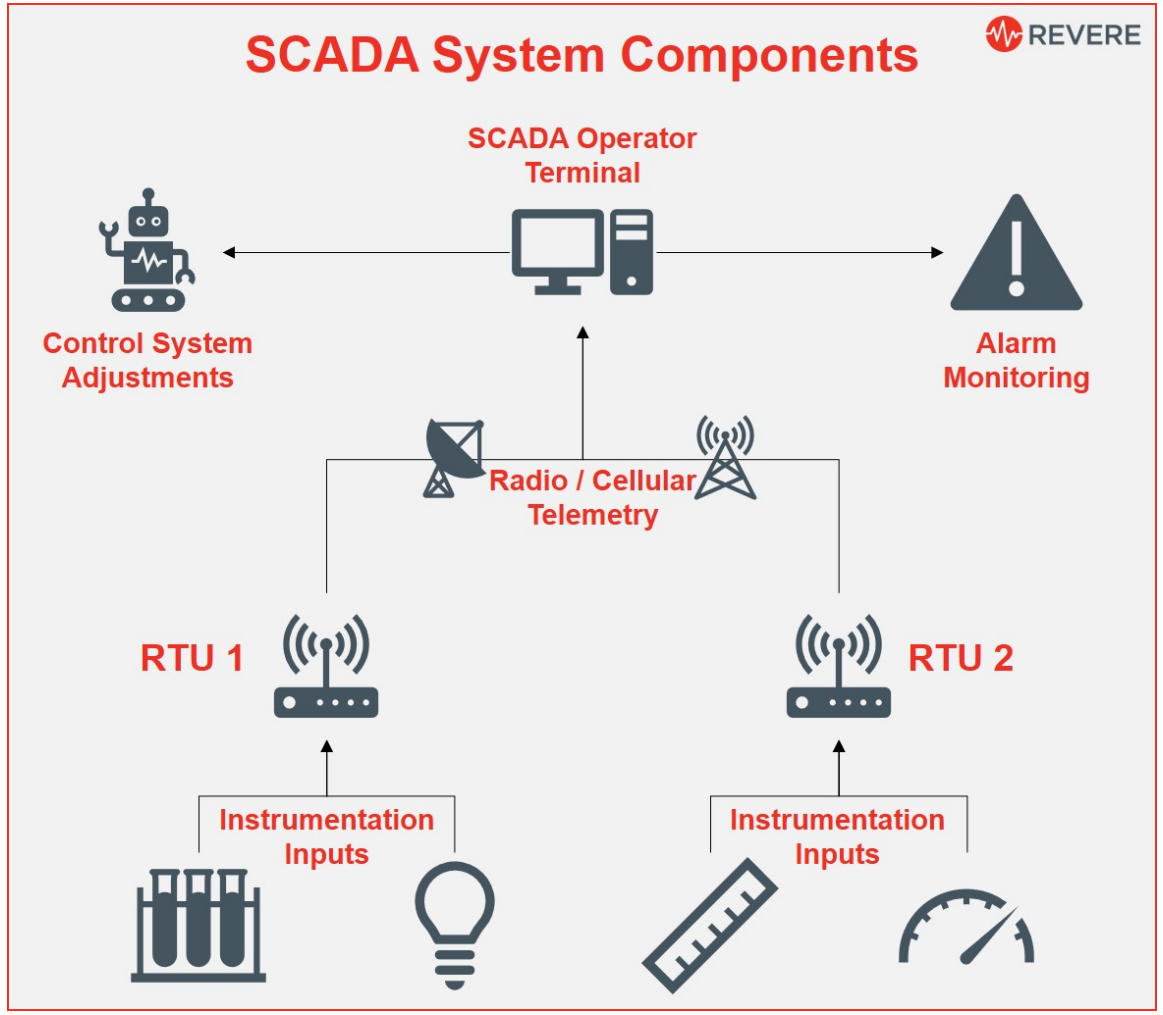
The Analytics and AI Platform for Time Series at Scale

Sean Murphy
sean@pingthings.io


THANK
YOU


MS1 Micro-Synchrophasor
GPS Pulse
GPS Power
Cross Trigger
PSL
microPMU
PM1 Power Manager
10/100
USB 2
USB 3


Q-PMU 9
PHASOR MEASUREMENT UNITS
Healthy
Comms
Clock Sync
Battery
Trigger
Alarm
Status 1
Status 2
Status 3
ENTER
QUALITROL


SCADA System Components
REVERE
SCADA Operator Terminal
Control System Adjustments
Alarm Monitoring
Radio / Cellular Telemetry
RTU 1
RTU 2
Instrumentation Inputs
Instrumentation Inputs


Honeywell
888.88.8
A B C D E
KWARh
SUM NET
DEL REC
TEST ALT
Honeywell
Electric Utility Meter - AMI
Serial #: 0123456789
ALPHA 4R
FM 2S Watthour Meter
CL200, 120V TO 240V
3W, 60Hz
Kh: 7.2 TA:30A
TYPE: A4RES-DE
HRCWB2AS10010
CAT# 012345
CUS#:01234567
123456789012

(timestamp, measurement)

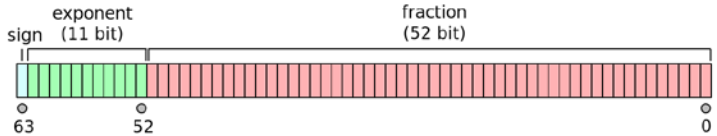
64-bit integer

$[-(2^{63}),\ 2^{63} - 1]$

Or

[-9,223,372,036,854,775,808, 9,223,372,036,854,775,807]

64-bit float



$$(-1)^{\text{sign}}(1.b_{51}b_{50}\ldots b_0)_2 \times 2^{e-1023}$$

PingThings PredictiveGrid™ Overview

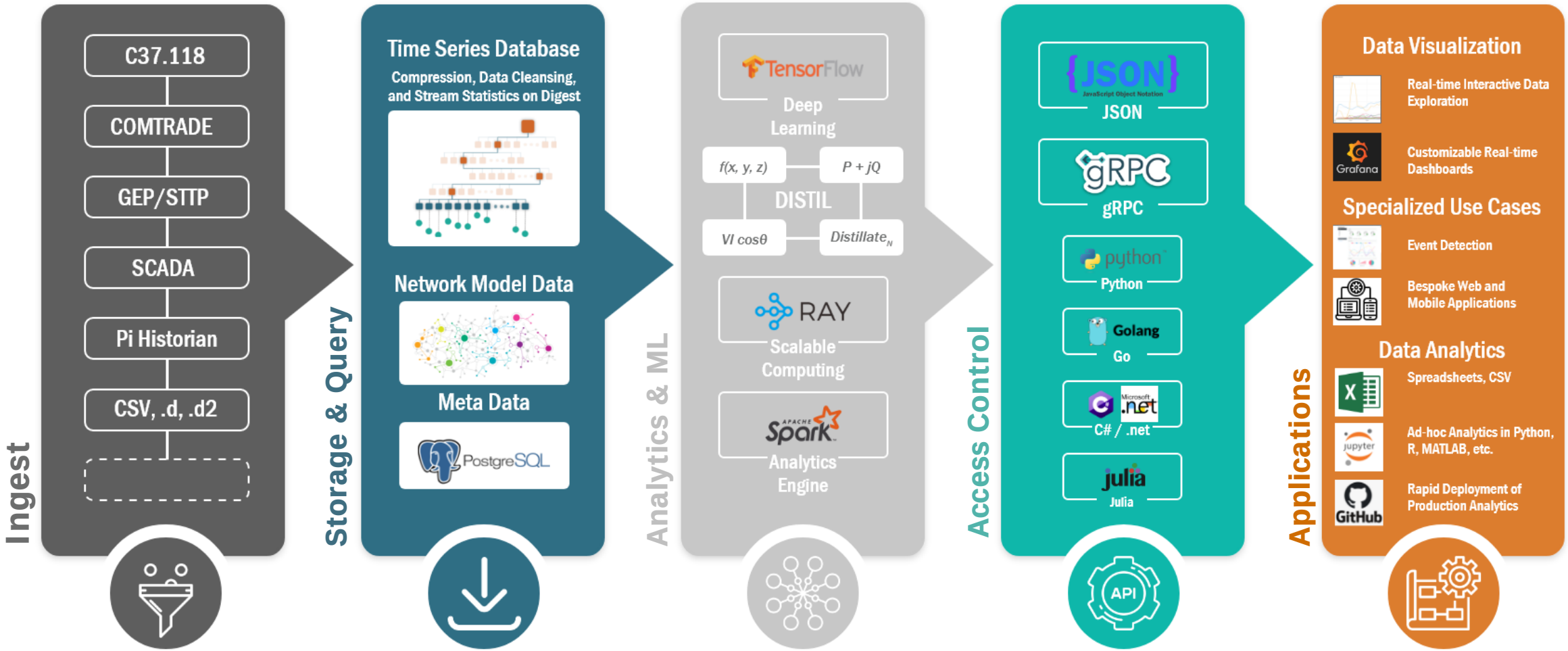
Asynchronous or streaming data ingest from any sensor, historian, file format, and more.

Horizontally scalable time series database complete with queries based on:
- Network topology
- Geospatial information
- Metadata

Integrated support for:
- Signal processing at scale
- Deep learning
- Big data analytics
- Scalable computing

Use the data in any way you can imagine with robust and precise access control in numerous languages.

Use our expanding suite of applications or build your own.



Competitive Dominance with Cost Effectiveness

More Scalable

Horizontal Scalability in Data and Analytics

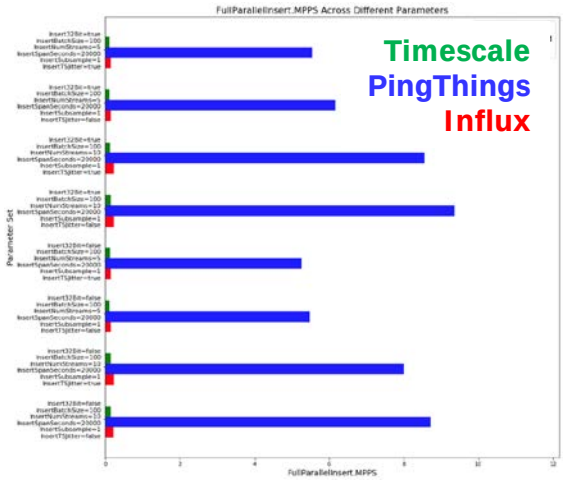
Scales to

- petabytes of data
- millions of streams
- MHz sampling rates
- 100's of millions of points/s

Faster

Blazing Fast Performance

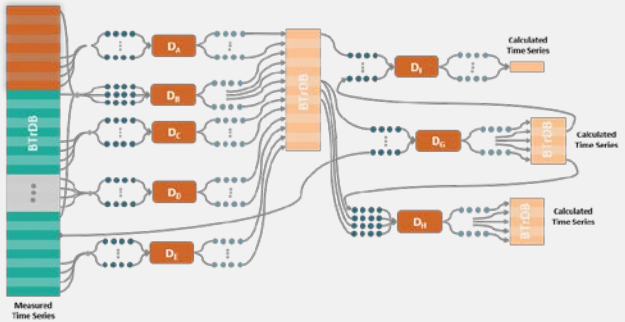
- >**10-1000x** faster
- Proven **10,000x** faster for common operations
- Log(n) aggregations
- Read 15M pts/s/node
- Write 30M pts/s/node



Built for Analytics

Analytics and AI at Scale

- Custom distributed signal processing framework
- Rapidly develop and operationalize use cases
- Integrates with leading big data frameworks



Cost Effective

Designed for ROI

- Scale compute and storage independently
- Leading data compression
- Intelligent storage tiering to optimize cost and performance
- Multiple levels of redundancy
- Fully containerized
- Horizontally scalable
- Intrinsically distributed
- Cloud agnostic

World Class Team – Quadrupled in Size

Sean Patrick Murphy

Chief Executive Officer

- Built million-dollar data consulting firm
- Senior scientist at JHU APL focused on time series analytics and high-performance computing

Dr. Michael Andersen

Chief Technology Officer

PhD, EE and CS, U. of California Berkeley

Dissertation: Practical Decentralized Authorization With Delegation

Described by UCB Dean as a "generational talent"









An Incredible Technical Team


THANK
YOU

Sean@pingthings.io