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Small Business, Big Data

Adopting Splunk for Small Enterprises

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ATB Financial

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Agenda

1. Discovering data

2. Understanding data

3. Incorporating data

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Introduction

Applying Enterprise Strategies to Small Business

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ATB Financial

Make banking work for people

Doing things other banks wouldn't do

- Being ever loyal to our customers
- Being relentlessly inventive
- Being steadfastly genuine in our pursuit of Albertans' greater good

Using banking to create happiness. Because good things happen when happiness becomes your purpose

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD1SL4FF10ADFF10 HTTP 1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FI-SW-01" "Mozilla/4.1..." 128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.Screen?product_id=FL-DSH-01&JSESSIONID=SD5SL7FF6ADFF9 HTTP 1.1" 404 3322 "http://buttercup-shopping.com/cart.do?action=purchase&itemId=EST-26&product_id=GIFTS..." ... 317 27.160.0.0 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-18&product_id=AV-CB-01&JSESSIONID=SD9SL4FF4ADFF7 HTTP 1.1" ...
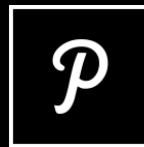
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Paradigm Technical Consulting Ltd.

A simpler, brighter IT solutions provider

Simple, elegant designs

▸ Applications & Systems inter-operations development

▸ Performance Analysis & Monitoring

▸ Big Data & Operational Intelligence

Simple designs are often the most elegant building blocks of technology

Commonalities

What do Big Enterprise and Small Business have in common?

Charter

▸ Sustainable business model

▸ Measurable output

▸ Accountable to stakeholders

Problems

▸ Most data is uncaptured

▸ Relationships between data points are often difficult to identify

▸ Diverse array of workflows and streams

Goals

▸ Provide structure

▸ Define clear objectives

▸ Growth

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"Big or small, Splunk tells the story of your business"

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Discovering Data

Finding and leveraging everyday counters

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Data Problems

A reciprocal relationship

Most Enterprise or Business data is uncaptured

Large Enterprises suffer from dimensionality and data overload

▸ Sprawling implementations

▸ Complicated workflows

▸ Exponential complexity

Most enterprises don't have much insight into their operations

Small Businesses suffer from data sparsity

▸ Fewer counters & less formality

▸ Data can be scarce or infrequent

▸ Less standardization

Most small businesses don't understand the value of small data

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Component Identification

What drives the business

Products and Services

Operations

Customers
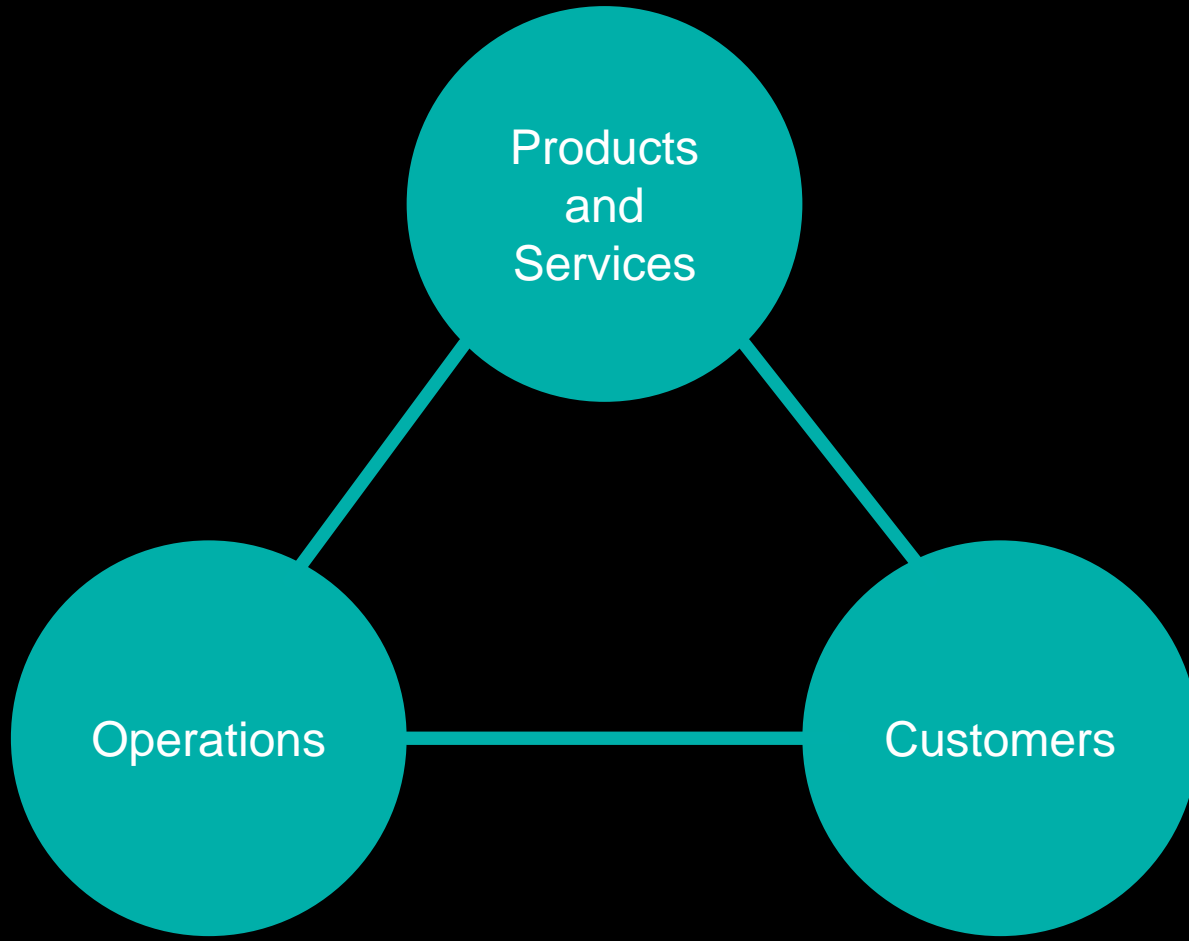
▶ Work from the top-down

- Understand the highest levels first
- Pick 2 – 3 counters that define a component

▶ Organize by key management areas

- Components encapsulate responsibilities

Understanding business components helps organize your data

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Looking For Good Data

Not all data is created equal

Know where to look

- Catalog daily operations
- Understand KPIs

Look at the data and identifiers that are already present

Understand workflows

- Identify core processes
- Plot the components

Identify the key business workflows and what conditions they require to be successful

Create new counters

- Aggregate existing data
- Metadata

Some of the most meaningful data will be between the lines

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Getting Data In
Strategies to find good machine data

▶ **Look for native connectors first**
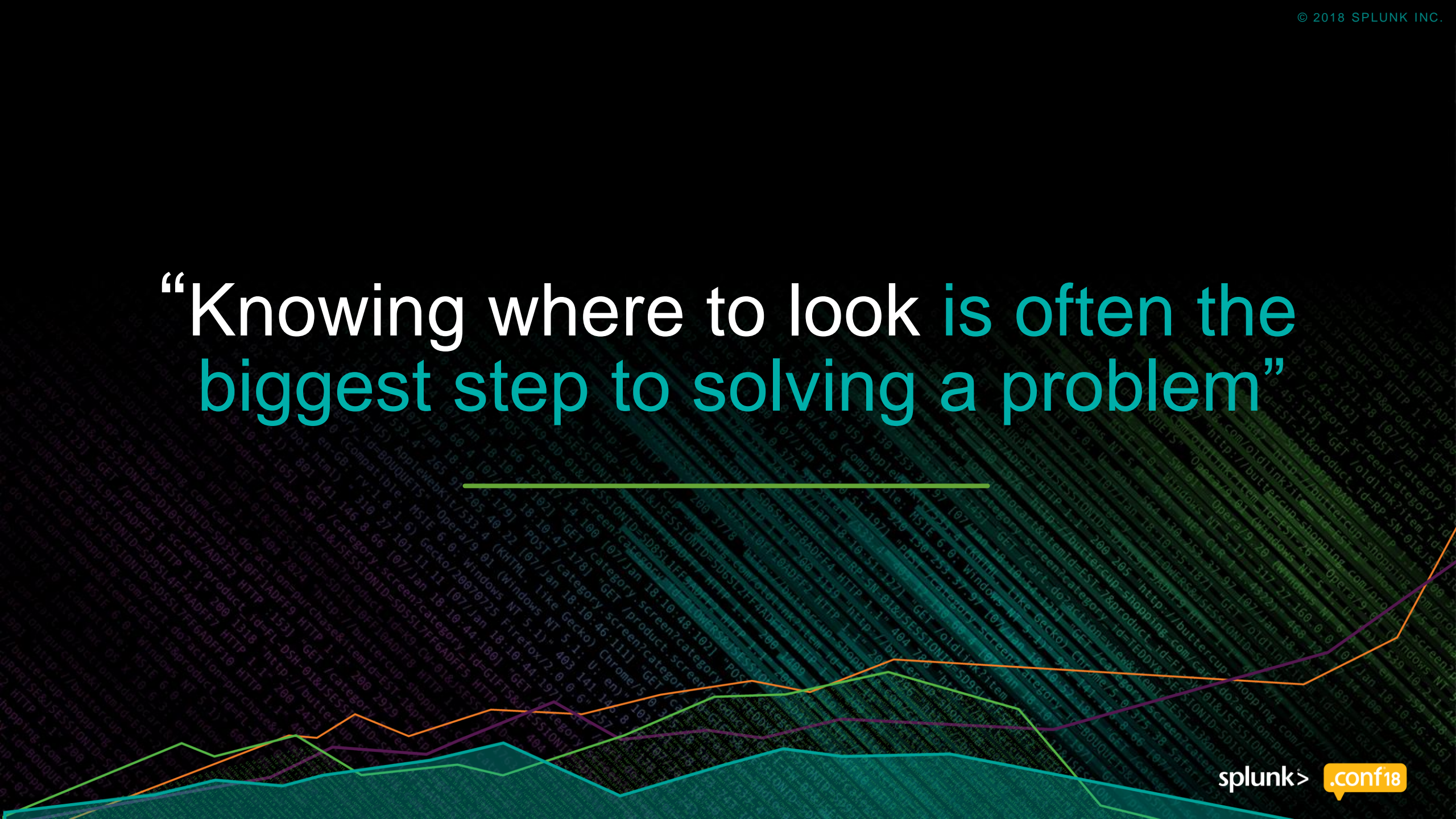
- Splunkbase apps
- File I/O
- TCP Streams

▶ **Capitalize on APIs**

- REST add-on
- HEC / JSON

▶ **Scripted / Modular Inputs**

- Printed results
- Custom Apps
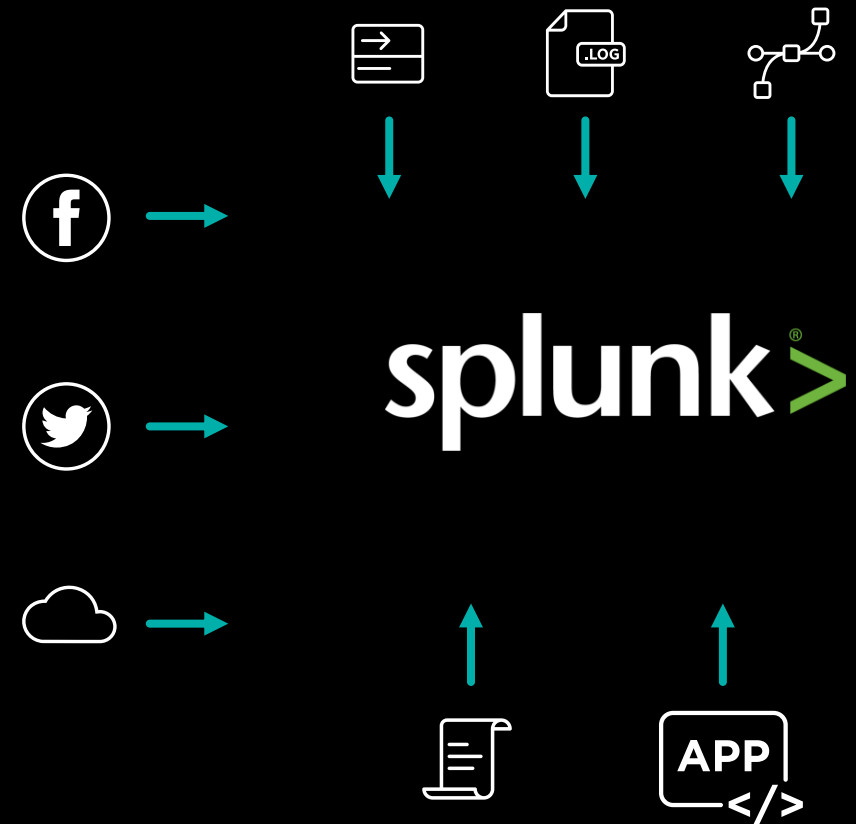
"Knowing where to look is often the biggest step to solving a problem"

Understanding Data

Drawing meaning from counters

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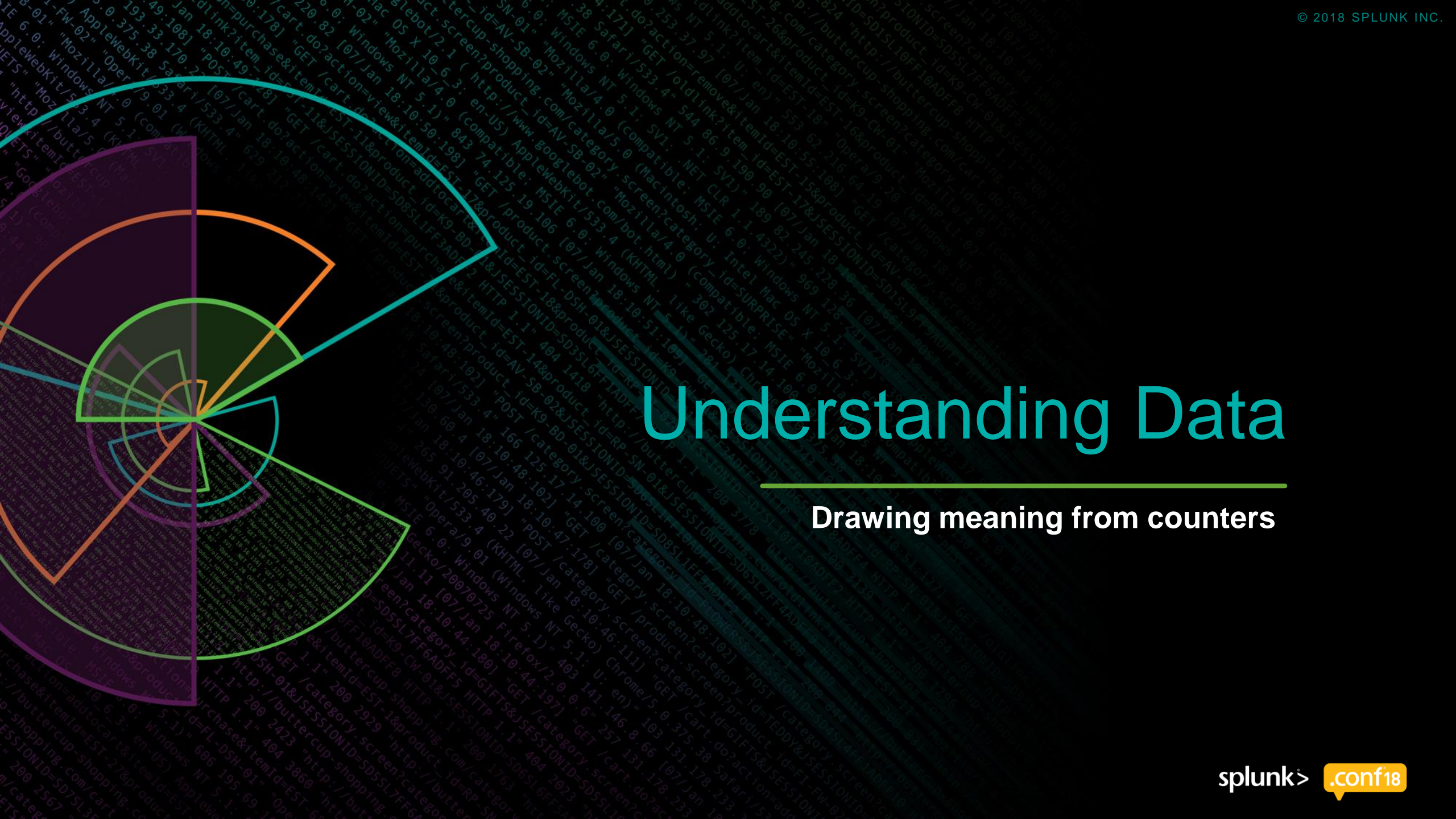
Types of Data

Getting the most out of your counters

Intrinsic data

▸ Encapsulated

▸ Self-described

▸ Tells its own story

Extrinsic data

▸ Derived from context

▸ Relationship based

▸ Co-dependent

	Intrinsic	Extrinsic
Web Logs	Error occurrence Shopping cart contents	Bounce rate Sales / returns Repeat customers
Social Media	Active communities Fraudulent access	Social permeability Topic trends / marketing
Accounting Services	Asset revenue Employee cost	Asset decay Employee efficiency

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Value of Data

▸ Depth of data
- Volume
- Granularity
- Polymorphic nature

▸ Veracity of data
- Accuracy
- Conformity
- Truthfulness

▸ Permeability of data
- Inheritability
- Degree of relationships
- Degree of entropy

## Value is established by meaning and utility

Creating Useful Dashboards

Getting the most out of your data

▶ ## What is being measured?

- Define specific value cases

- Is the counter quantifiable?

▶ ## What is actionable?

- Does the data provide meaningful information and direction?

- Is the data properly targeted?
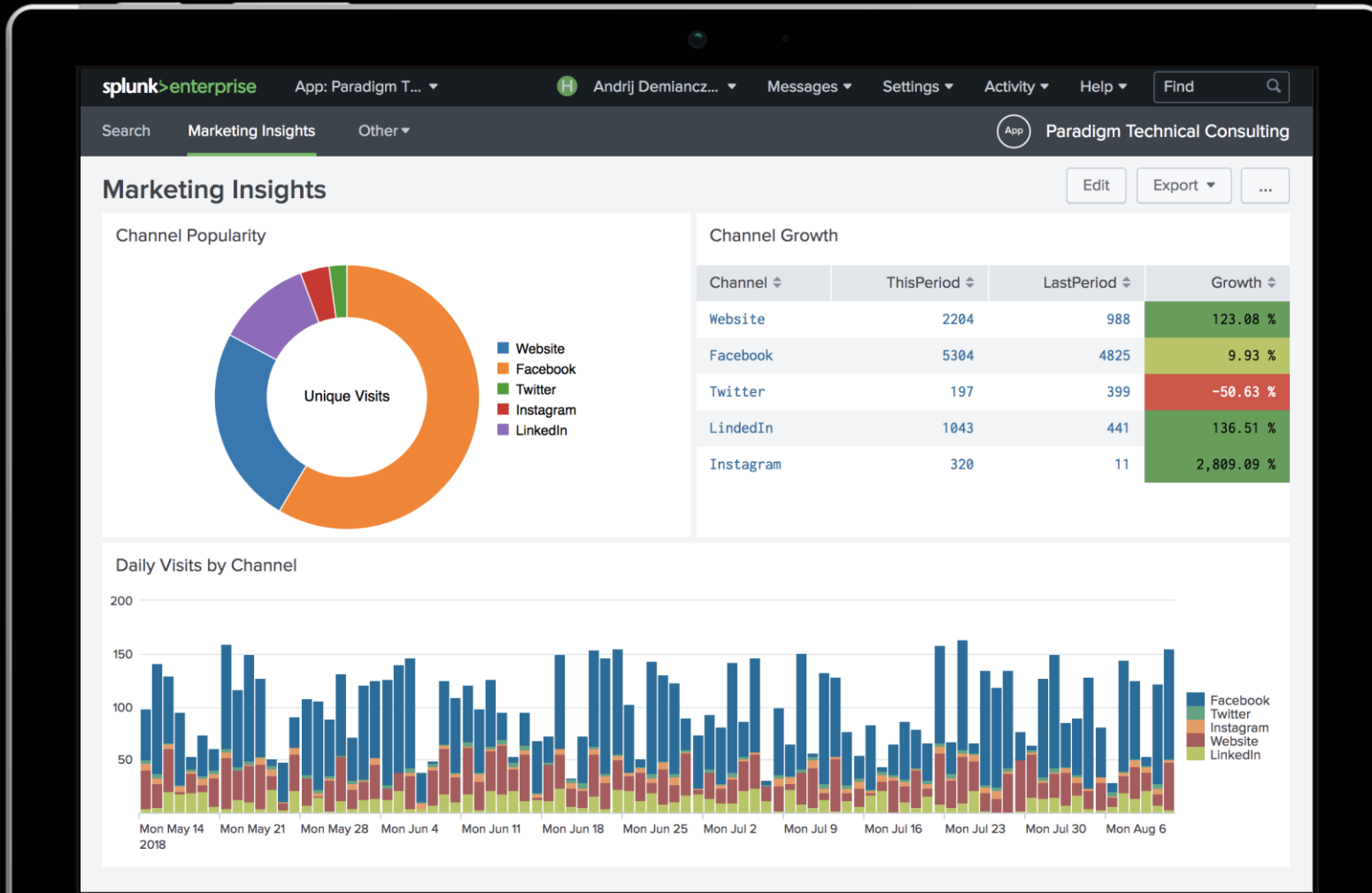
"Data is most meaningful when it's trusted, consistent and reliable"

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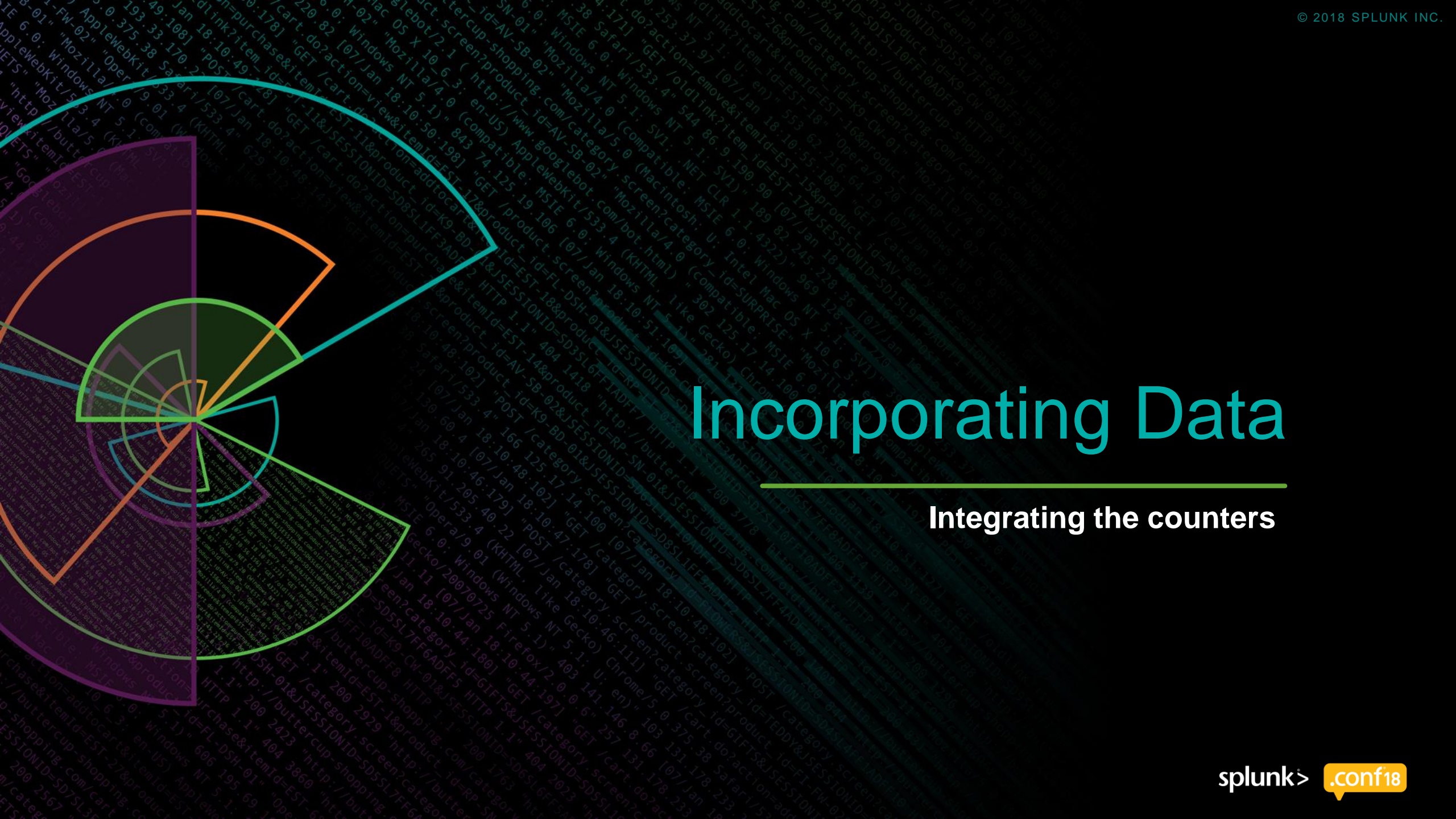
Incorporating Data

Integrating the counters

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Putting It All Together

▶ Design efficient workflows
- App organization
- Navigation techniques
- Lineage

Consider how users would expect to use a dashboard

▶ Compose meaningful dashboards
- Un-ambiguous
- Relevant
- Logical Flow

Dashboards should be generalized at the top, specific on the bottom

▶ Decide representations matter most
- Real-time vs. bucketed perspectives
- Inline & Historical context for reports
- User-friendly controls

Keep relevant data visible and hide what's not

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Build a Solid Framework

Setting a valuable precedent

Operationalization should be simple and extensible

– *Simple designs are maintainable*

Bring in as much data as possible and assign value to key counters

– *Prioritize your most important data*

Intelligence should be actionable, consistent and timely

– *Reliability is critical*

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Big Data, Big Value

▸ Provide value to the business

- Sustainable
  - Intelligence should evolve
- Measurable
  - Benchmarking statistics
- Accountable
  - Output must be measurable

Transition from business that drives data, to data that drives business

▸ Provide value to the customer

- Is it worth their time
  - Perceived value of a service
- Is it worth coming back
  - Rate of return
- Is it worth promoting
  - Impacts sustainment and growth

Customer satisfaction is the North Star

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"In any business, good data has big implications"

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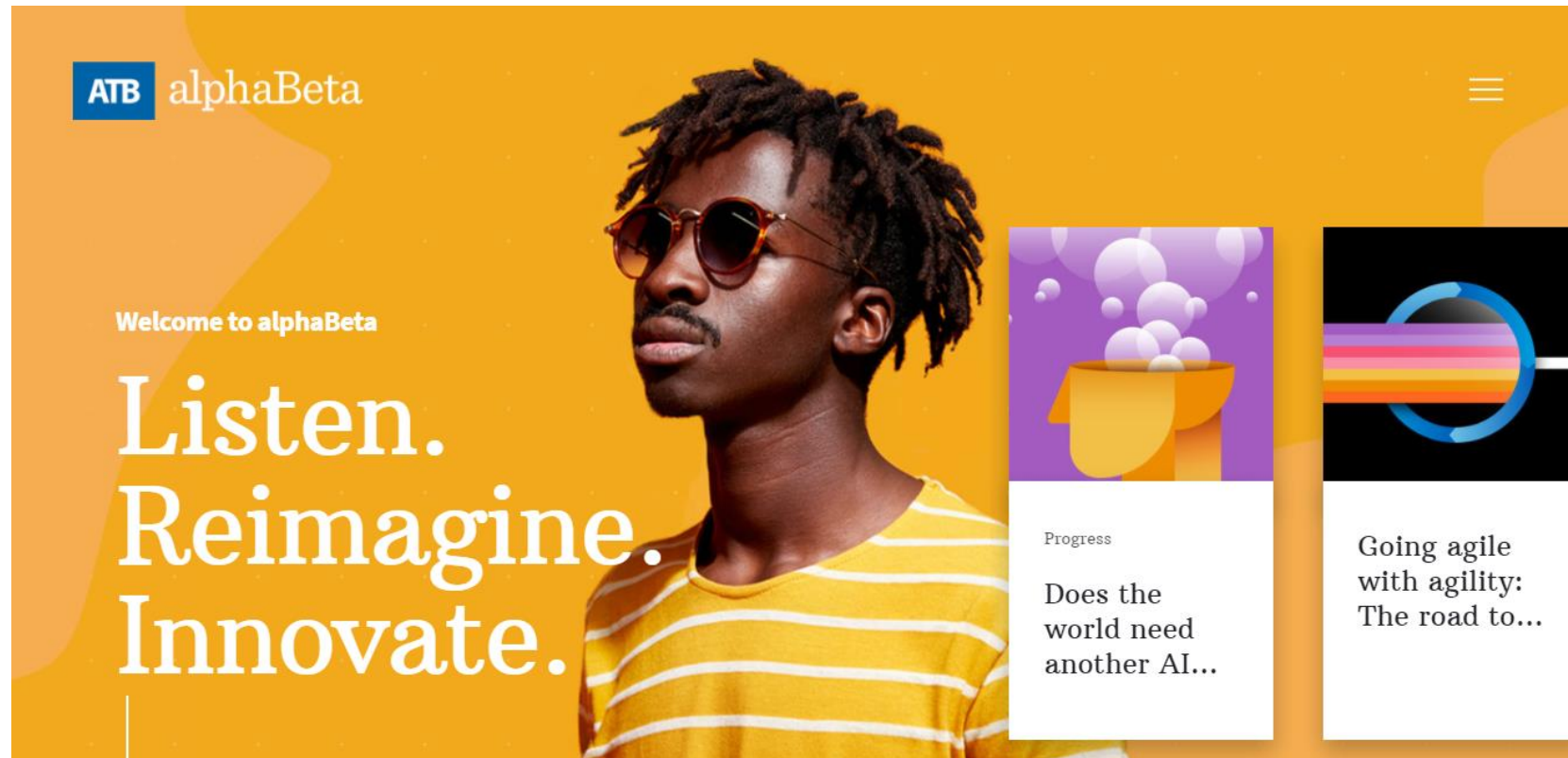
Key Takeaways

Summing it all up

1. Identify your key components, workflows and create new counters. Know where to look for data.

2. Understand the value of your data; how counters relate to one another.

3. Efficient, unambiguous workflows make data accessible.

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ATB alphaBeta

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