Real Time Business Management Using Splunk

Hamish Purdey

CEO, Intelliflo

Robert Walton

COO, Intelliflo

Introduction

Hamish Purdey

CEO

Robert Walton

COO

.conf2016

splunk>

Our Pure SaaS Background

FFastFill

- Multi Tenant SaaS
- Front / Middle / Back Office Derivatives Trading Critical infrastructure
- 100 customers (investment banks)
- Multiple Gbps real time data
- Extreme sensitivity to latency
- Highly regulated
- Publicly listed until acquisition

Intelliflo

- Multi Tenant SaaS
- Front to Back Office Financial Advice Management Platform
- >1,600 customers, 15,000 Users
- 8.6m Customers Advised
- $350m+ Assets Under Management
- Highly Regulated
- Growing quickly
- An industry that is currently 'Crossing the Chasm'
- PE Owned – HgCapital ($8.7bn Assets)

The business challenges are similar but different…

Key Business Challenges

Data is Everywhere

But information & insight is scarce

How do we manage SaaS Companies in real time?

Leading vs Lagging Indicators

How can we mitigate business risk?

We need to surface data so everyone can more accurately make the right decisions for the business

21st Century Software Company Management
= Art of the Possible

.conf2016

splunk>

Key Business Challenges

Using Splunk to analyse Technical Data

Using Splunk to analysis Business Data

Coalescing Business and Technical Data to drive key SaaS business metrics

Automation

Data Driven Ethos

1

Every decision we make should be initiated by, or qualified by, data…

Data Driven Ethos

2

Data needs to be accessible to everyone…

Data Driven Ethos

3

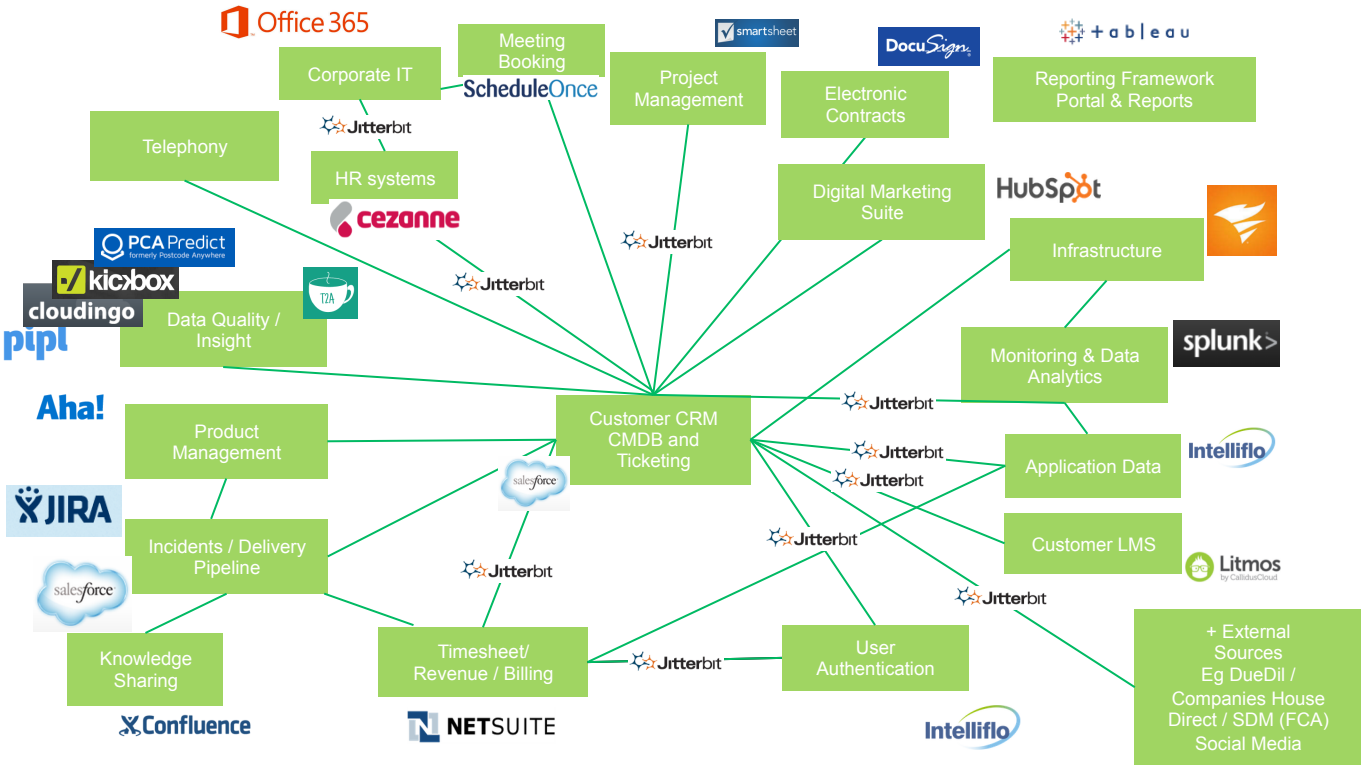
Truly effective business process automation is all about the art of the possible…

Strong Data Culture

Strong Sense of our Corporate Data Model 30+ tools/ 20+ APIs to manage our business

- **30+ tools / 20+ APIs to manage our business**
  - Salesforce / App Dynamics / Hubspot / Github / Jira / Confluence / Office 365 / Jitterbit / NetSuite / Tableau / DocuSign / CongaMerge / SmartSheet
  - Multiple APIs – email validation, industry data, data quality, social data, sales optimisation
- **Strongly believe integration delivers profitable growth**
  - Jitterbit incredible tool

SaaS Key Data Model



Splunk: Core To Our Culture

Democratisation of data is central to accelerating every aspect of our business; surmised in the following questions that challenge us on a daily basis:

- How can we surface information so that people can self-serve, thereby reducing friction of workflow?
- How can we provide people with the right information, in an easily absorbable way, that allows them to be more effective in their jobs?
- How can we reduce the risks of our business decisions without causing *analysis-paralysis*?
- What else can we automate off of a data defined criteria?

Splunk: Core To Our Culture

Phase 1

(Planting the Seed):

- We had very strong top down Executive buy-in
- Pull in Business Data in addition to the standard Techie Data
- Senior stakeholders and leaders drove Splunk as the solution to a lot of problems. Showing people the art of the possible and make them *feel* the benefits
- Training, training, training…

Phase 2

(Nurturing Adoption):

- Celebrate every success
- We have made Splunk part of the 'definition of done', especially in the Development pipeline
- When people ask 'Can Splunk do this?' and the answer is 'Yes', make sure it is delivered
- Expand down in to your next layer of 'Splunk' leaders. Ideally in to the non-techie teams
- More training…

Phase 3

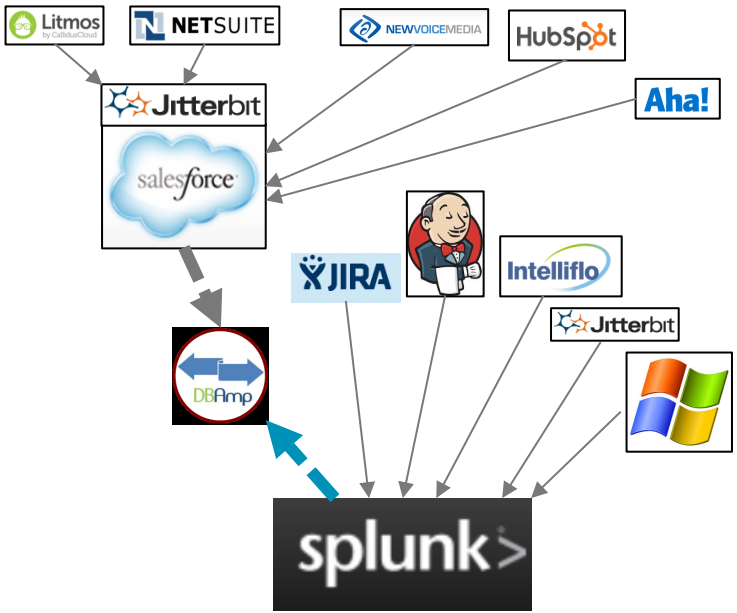
(Flourishing… where we are now):

- Now you have buy in, push for more profound and aggressive adoption of Splunk capabilities
- Challenge as to why Splunk wasn't the answer
- Push the Splunk Art of the Possible to every person in the company – we want to be flooded with requests for data, dashboards and training!
- More than 50% of users should be self-sufficient i.e. be able to create and share their own dashboards

Splunk: The Point Of Data Coalescing

Splunk is the point where we coalesce our data for analytical and predictive tasks, and also to drive automation.

This is typical Splunk 'Techie' data and Business Data:



Splunk: The Point Of Data Coalescing

Business Data:

- SalesForce is our golden source of *business* data and acts as the aggregation point before Splunk
- We use the SalesForce DBamp service which allows a full local copy of our SF instance where Splunk can read from
- Support Cases, Sales pipeline, Telephone logs, Finance information, Product Management, customer survey response, marketing information, training…

Service, Infrastructure and Pipeline (Techie) Data:

- This is typical Splunk data (for a SaaS business anyway…) – application and infrastructure
- EVERY action and click by our customers is logged by the application and pushed in to Splunk
- All Windows events
- Performance data
- Infrastructure data i.e. Firewall logs
- CD pipeline

Splunk: Managing The Service Platform

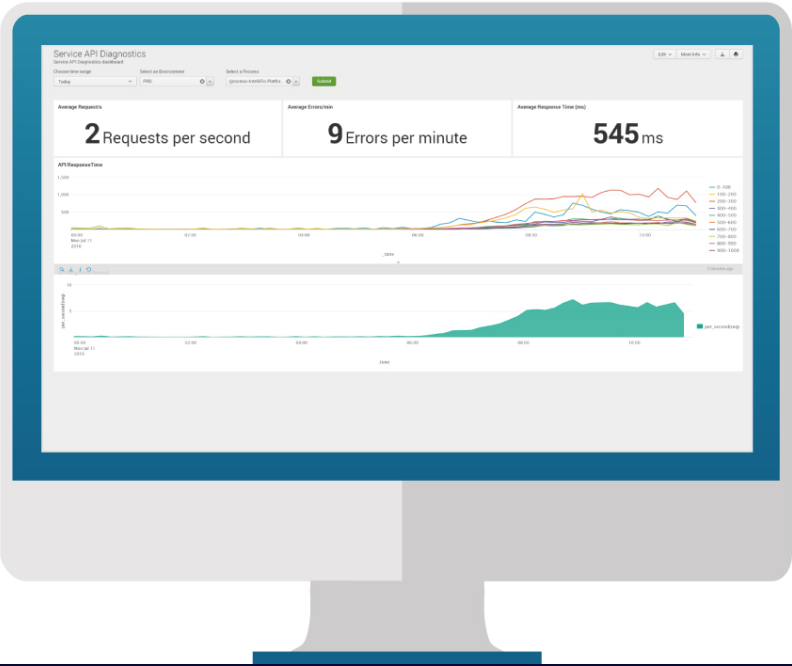
ITSI

- Has allowed us to reduce a proliferation of monitoring tools.
- Enabled us to easily correlate metrics across the stack.
- Provide meaningful Service Health and Performance views to non-technical staff
- Trigger automation

Splunk: Managing The Service Platform

Instrumenting of the Application

- Splunk is part of the definition of done for application related work.
- We are migrating to a DevOps structure in line with a rearchitecting of our application from monolith to microservice and the roll out of CD.
- Developers focus on instrumenting the platform.
- Developers build dashboards for Support

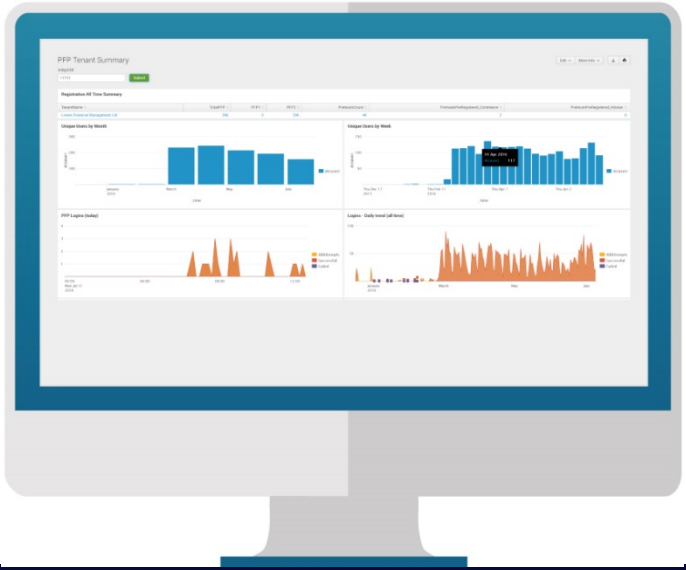


Splunk: Surfacing Information For Self-service

We now have a **Pull AND Push** culture for the generation, and adoption, of dashboards.

Pull

- A Pull generated dashboard is where someone has a need and requests a dashboard, creates their own dashboard and/or requests data to be made available
- This dashboard was created by one of our Customer Success teams to allow them to quickly appraise the status of clients they are working with to drive adoption of our services

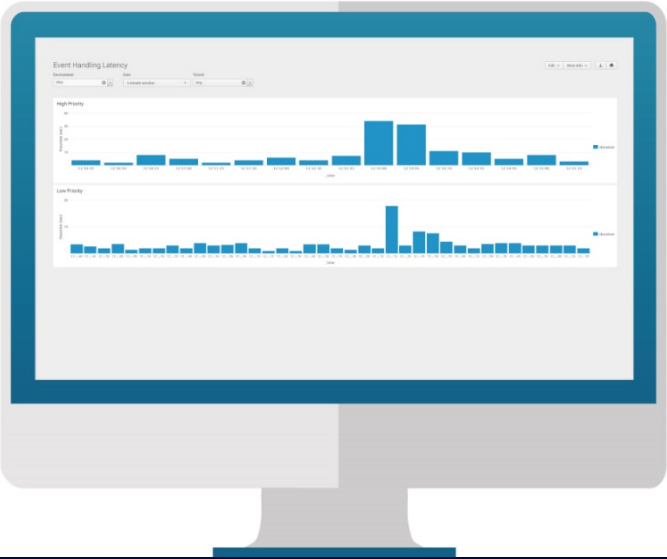


Splunk: Surfacing Information For Self-service

We now have a **Pull AND Push** culture for the generation, and adoption, of dashboards.

Push

- A Push generated dashboard is where someone is repeatedly asked by others (in the company) for information or insight, they create a dashboard that promotes self-service
- This dashboard was created by a developer for the support team to allow diagnosis of performance issues in a specific functional area of the system. Something that would have required technical resource to undertake initial triaging is now done at the interface with the client. Increasing incident resolution flow
- As part of the development definition of done, we look to deliver these as part of new releases



Key Saas Metrics: We Need To Understand And Impact

Two key metrics of a SaaS business that heavily impact valuation and, as an exec team, we need to do everything we can to minimise (the 1st one) and maximise (the 2nd one)

1. Churn

- This is about users, or revenue, that choose to stop using your service over the accounting year. Typically sub-classified as avoidable and unavoidable.
- According to the 2015 Pacific Crest Securities SaaS survey, the median user churn is 10% and median revenue churn is 7%.

2. Net Dollar Retention (NDR)

- NDR is the amount of revenue you generate, at the end of the year, from those customers you had at the start of the year. More than 100% indicates you are upselling at a greater rate than you are churning. Anything above 110% is world class.
- According to the 2015 Pacific Crest Securities SaaS survey, across all cohorts of revenue sized SaaS businesses, top 50% of fastest growing firms generate a greater % of their new recurring revenue from upsell to existing customers than the bottom 50%. NDR is a BIG indicator of business health and potential.

Using Splunk To Derive Key Business Data

New Business Onboarding (PS)

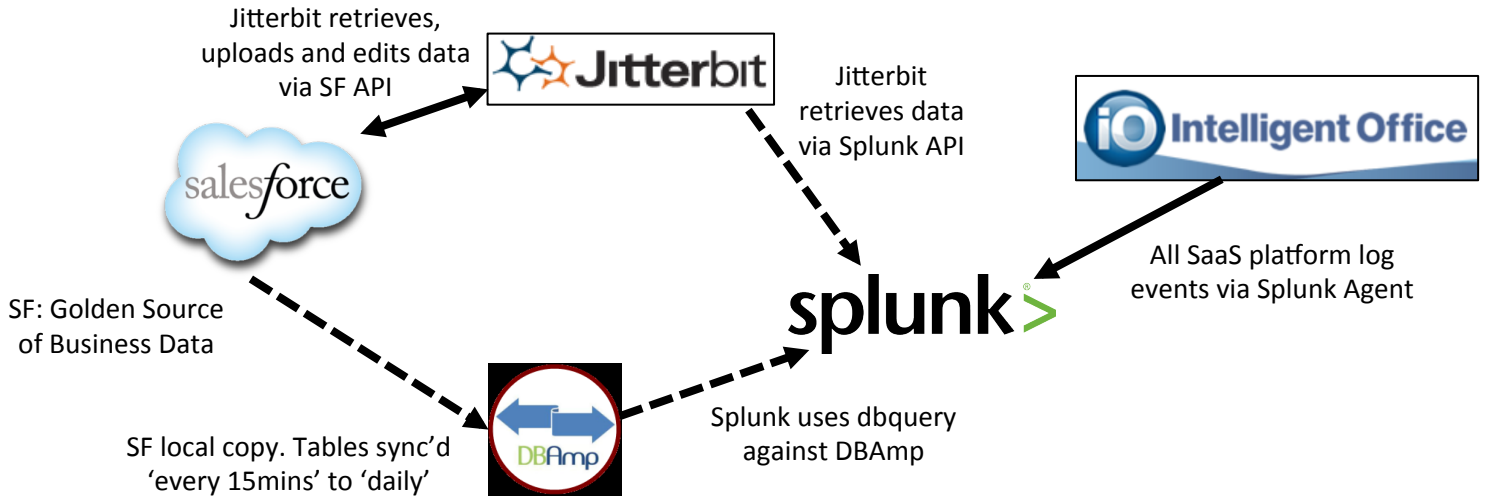
Capacity Management

- **T+1 Sales pipeline driven capacity model**
- **Gives a 12 month view of our key resourcing concerns across different discipline teams:**
  - Do we have enough resource to meet our market opportunity?
  - Do we need to hire/move/train staff?
  - Uses weighted probability based on current stage or sales pipeline

- **Used by:**
  - Sales team
  - Onboarding Team
  - COO
- **These charts are reported to the Intelliflo Board**

Using Splunk To Drive The Key Saas Metrics

Huge value has been derived when we have used Splunk to coalesce Business AND Technical Data



Intelliflo Customer Health Model

Reducing Churn

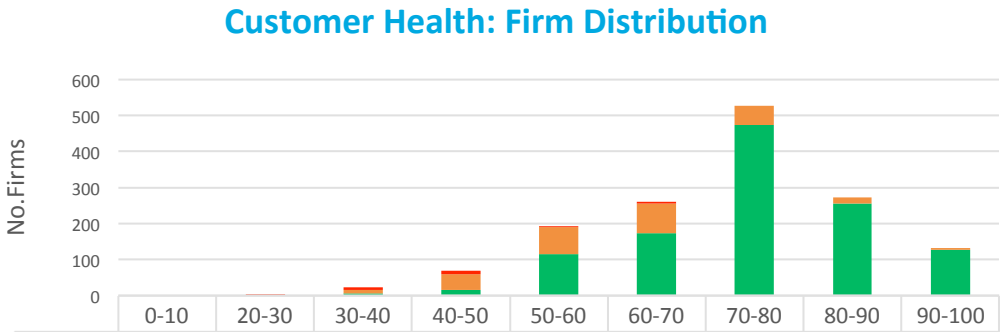
Using Splunk we have built a customer health model to predict which accounts are likely to churn. This is designed to help our Account Management group to focus their efforts to minimise overall churn. The model uses the following metrics

1. **Engagement Ratio** – Function of Application and Business Data – maximum 20 points
2. **License Usage** – Function of Application and Business Data – maximum 10 points
3. **RAG Status** – Business Data – maximum 20 points
4. **Support Backlog** – Business Data – maximum 20 points
5. **Service Defect** – Business Data – maximum 20 points
6. **NPS Scores** – Business Data – maximum 10 points
7. **Recurring Upsell** – Business Data – maximum 20 points

Intelliflo Customer Health Model

Reducing Churn

- Firms have a score out of 100 calculated
- CH score = (number of accrued points/120)*100%
- Identified a very strong correlation whereby as CH score reduces the ratio of unhappy firms (within a CH bucket) increases, denoted by RAG status



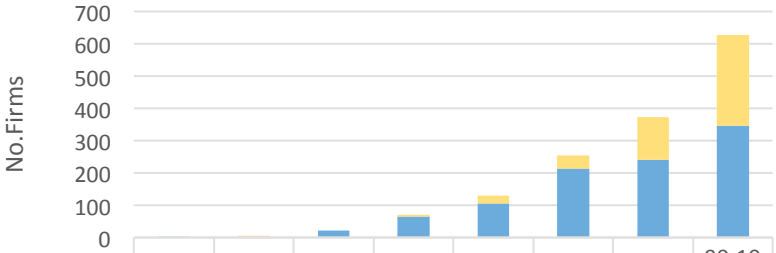
	0-10	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Red		1	6	8	3	5			
Amber	1	2	11	44	74	83	52	17	5
Green			6	16	116	173	474	255	127

Intelliflo Customer Health Model

Maximising NDR

The NDR model uses all of the same metrics with the exception of the Recurring Upsell score.

- **Firms have a score out of 100 calculated**
- **CH score = (number of accrued points/100)*100%**
- When we look at which firms contracted for more recurring services in the past 9 months we found a very strong correlation in that, the greater the cohort score the greater ratio of firms in that cohort had been upsold to… happy customers buy more stuff, who knew!!
- **Account Managers use this data to:**
  - Targets firms they should try to upsell i.e. firms with high scores who have not bought from us recently
  - Target firms they should work with to improve their scores for future upsell possibilities



	10-19	30-39	40-49	50-59	60-69	70-79	80-89	90-100
Sold		1		4	24	41	132	282
Not Sold	1	3	22	66	105	213	240	345

Definition Of Done – Business And Technical

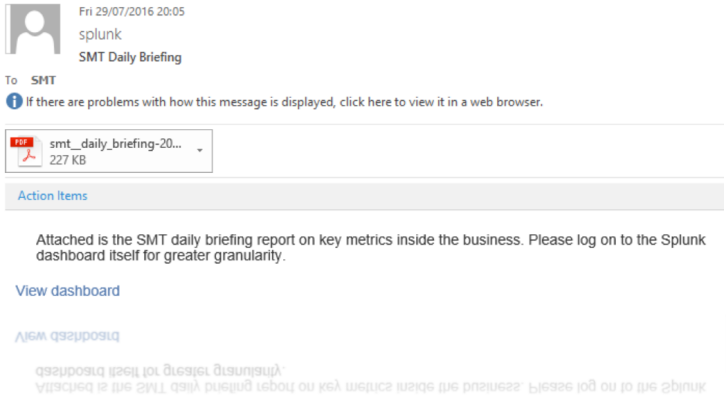
Definition of done applied to newly launched service allowing firms to query and validate contact addresses.

- Comprises business data, opportunity analysis across the pipeline of firms signing up for the new service
- Includes a wealth of technical data that allows support to ascertain performance and investigate issues
- Coalesces business and technical data to allow us to drive automated billing

Executive And Board Engagement

Data provided to C-Suite daily:

Total Assets under management by our clients, bulk valuation analysis, number of firms and users logged in over last day and 30 days, Historical user trends by week and month, Total ACV in pipeline, Total Addressable Market data, latest NPS data, ACV Sales by customer cohort type and sales type (new label or upsell) as YTD figures and by historical month, Customer Success profile, analysis of customer ideas logged in community, new business onboarding capacity analysis, eLearning platform last week and trends, Support data i.e. number of tickets by type, current status, system area, number of calls, call waiting times – all current values, daily and monthly historical trends, Net Dollar Retention and Churn



Executive And Board Engagement

We have given access to a number of business reports to our PE owners via the Splunk Mobile app

Using Data Effectively In The Enterprise

1. *Understand your data model*
2. *Understand everything is underpinned by data quality and consistency across platforms*
3. *Make data truly accessible… in every sense*
4. *Build a data driven culture across your org that understands the art of the possible...*

THANK YOU

splunk>