



PATIENT CARE TEAM

Igal Vainer, Senior Director, Head of Enterprise Solutions Lab, EPAM Systems

Diagnostician



Nurse

Allergist



Patient



Surgeon

Dentist



Physician

A hand is shown typing on a laptop keyboard. The image is partially obscured by a teal-to-green gradient overlay that covers the center and right portions. The text 'EPAM QUICK FACTS' is centered in white on this overlay. The background shows the laptop screen with some data tables and the keyboard keys.

EPAM QUICK FACTS

EPAM OVERVIEW



Fast-growing, sizeable opportunity in a global market



Deep talent pool of highly-skilled professionals delivering solutions through best-in-class engineering combined with strategy, consulting and innovation services



Ability to deliver a broad range of software engineering, digital engagement, consulting and IT services with a strong focus on innovative and scalable software solutions



Industry solutions for Financial Services, Travel and Consumer, Life Sciences and Healthcare, Media and Entertainment, and Software and Hi-Tech



Serving clients in over 25 countries across North America, Europe, Asia, Australia and Central and Eastern Europe



Proven ability to grow and sustain a strong profitability model



WHO WE ARE

We are consultants, designers, architects and engineers who enable our customers to be competitive and disruptive in the marketplace through

INNOVATIVE TECHNOLOGY SOLUTIONS

while helping them to navigate successfully through multiple waves of technology change.

We help our customers be more competitive by delivering **solutions** through best-in-class engineering combined with strategy, design, consulting and innovation services.

We adopt a **global growth strategy**, thinking and acting like start-ups, working in multidisciplinary teams and delivering results. Relentlessly.

FACTS

FOUNDED IN

1993

US HEADQUARTERED
PUBLIC COMPANY
(NYSE:EPAM)

FY 2016
REVENUE

\$1.16B

2017 REVENUE
GUIDANCE

\$1.4B



20+%

YOY CONSTANT
CURRENCY ORGANIC
GROWTH

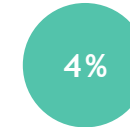
REVENUE BY GEOGRAPHY*



NORTH
AMERICA



EUROPE



CIS

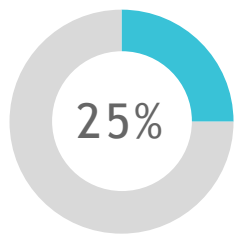


APAC

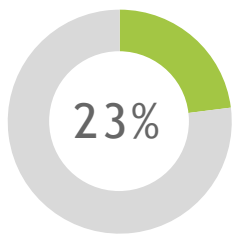
25+ COUNTRIES

20,400+ Engineers | 24,000+ EPAMers

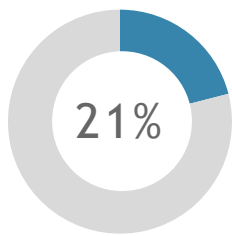
VERTICAL FOCUS*



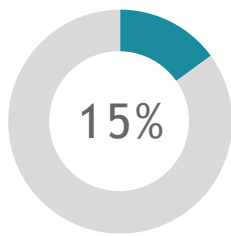
FINANCIAL
SERVICES



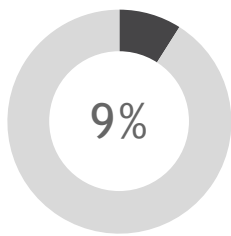
TRAVEL &
CONSUMER



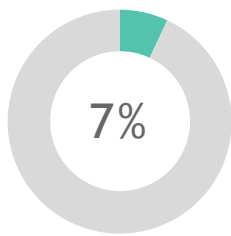
SOFTWARE
& HI-TECH



MEDIA &
ENTERTAINMENT



LIFE
SCIENCES &
HEALTHCARE



EMERGING

SERVICE MIX

SOFTWARE ENGINEERING & PRODUCT/PLATFORM DEVELOPMENT

QA AND TEST AUTOMATION

MANAGED SERVICES

INFRASTRUCTURE & LICENSING

DIGITAL BUSINESS

PRODUCT ENGINEERING

MANAGED SERVICES

CONSULTING

* Data represents FY 2016 Earnings





CARE TEAM:
PROBLEM
STATEMENT
AND KEY
FEATURES

USER EXPERIENCE ISSUES. PROBLEM STATEMENT.



Patients are usually unaware of the size of their care team and the names of the staff that are treating them



Hospital executives lack a comprehensive view of patient/staff interactions and resource utilization within the hospital



Clinical staff cannot quickly identify other relevant and available staff members in emergencies or for questions.

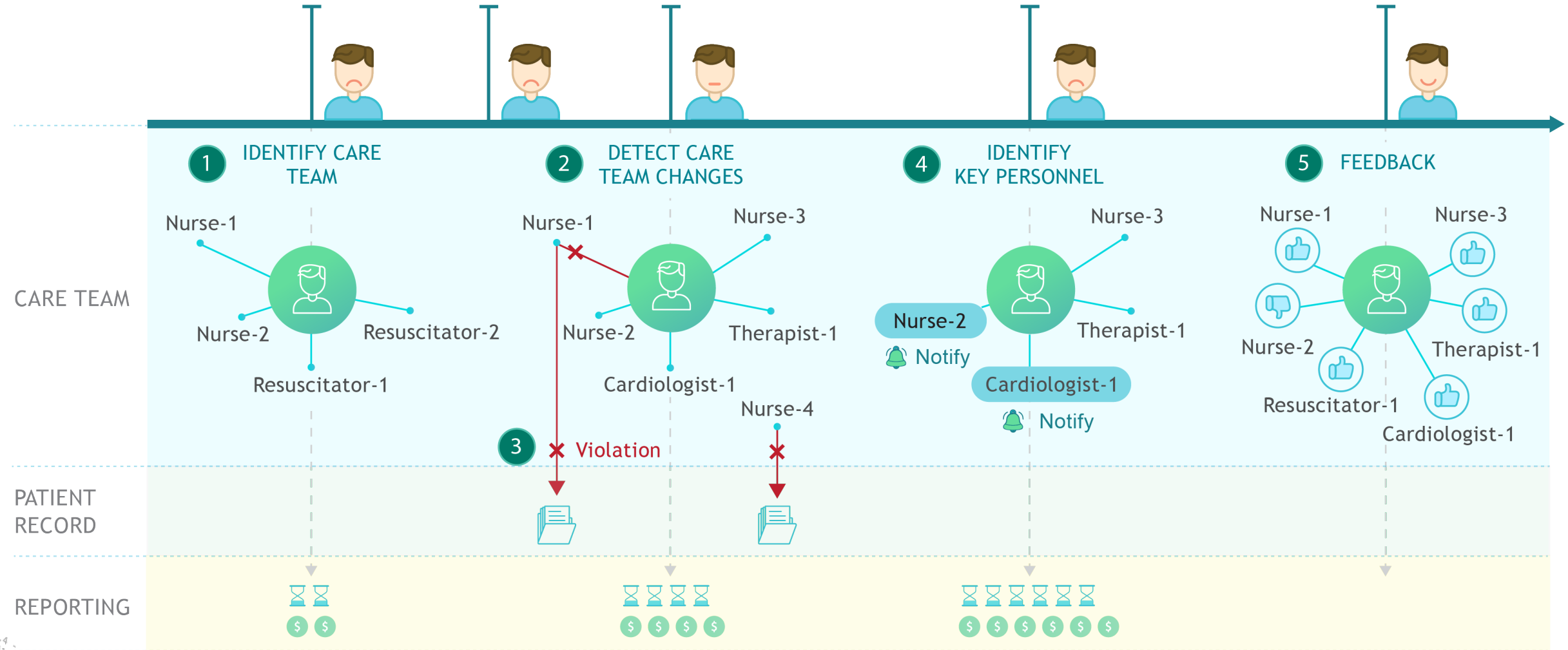


Compliance departments do not have a real-time view as to whether a staff member's patient record access is relevant to their job



IDEA OF CARETEAM

Emergency room Admission Care team change Worsening Conditions I'm healthy now!



130.60.4
128.241.220.82
317 27.160.0.0
ows NT 5.1; SVI:
itemId=EST-16&product_id=RP-LI-02"
do?action=purchase&item_id=EST-16&product_id=RP-LI-02"
07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&SESSIONID=5D55L4FF10ADFF10 HTTP 1.1" 404 720
[07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSH-01&SESSIONID=5D55L4FF10ADFF10 HTTP 1.1" 200 1318
[07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&SESSIONID=5D55L9FF1ADFF3 HTTP 1.1" 200 125.17 14
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=5D55L9FF1ADFF3 HTTP 1.1" 200 2885
[07/Jan 18:10:55:187] "GET /category.screen?category_id=FLOWERS&SESSIONID=5D55L9FF1ADFF3 HTTP 1.1" 200 2885
[07/Jan 18:10:55:108] "GET /category.screen?category_id=FLOWERS&SESSIONID=5D55L9FF1ADFF3 HTTP 1.1" 200 2885

WHY WE CHOSE SPLUNK?



1. SINGLE TECHNOLOGY STACK

- Some HC vendors already use SPLUNK
- All-in-one solution



2. RAPID DEVELOPMENT

- Fast TTM (Time To Market)
- Relatively low cost of implementation



3. INTEGRABILITY

- Out-of-the-box integration patterns



4. MAINTAINABILITY & EXTENDIBILITY

- Out-of-the box mature maintenance solution
- Easy to maintain code.
- Fast and easy to extend functionality



5. SECURITY

- Out-of-the-box Authorization and Authentication mechanisms
- Support all modern and reliable approaches (SAML, LDAP, ..)



6. SCALABILITY

- Proven scalability approach on both indexer and search head sides



7. CUSTOMIZATION

- Deeply customizable on UI side

FACTS

Implementation Efforts

~300
man/days

Team of
6
people

- 2 Splunk developers
- UI developer
- UI designer
- BA
- Architect/DM

Time To Market

3.5 months

Healthcare
Domain

File Formats ADT, ORM, CCD, RTLS log files

Custom generators to generate input data

4
user roles

8
entries (dashboards)



Jenkins

as an orchestration tool to build, deploy and validate system on Splunk envs in 15 mins.

~20
lookups

>30
saved searches

Data-Driven Documents

BACKBONE.JS

Extensive customization on UI side

<2s response time

3 search heads







Full-functional application

which is easy to maintain and extend.

PHI data masking.

Mutable (KV Store) and Immutable (Index) data

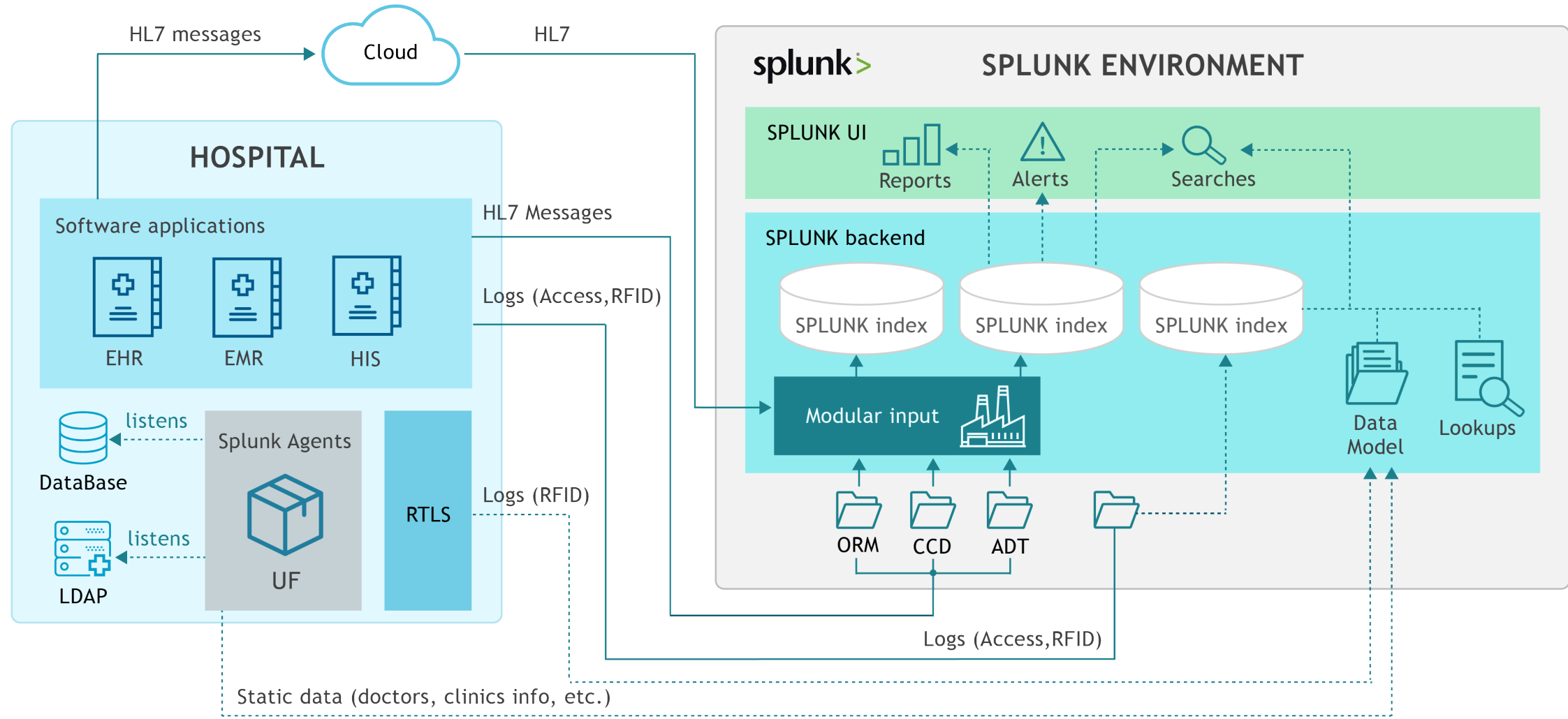
SPLUNK TEAM SUPPORT IN PRODUCT IMPLEMENTATION

Architecture/ Delivery Management	 <p>Proper storage selection for mutable data (KV store was chosen)</p>	 <p>Application packaging best practices (applnspect utility)</p>	 <p>Solution review & GA</p>
UX/UI Design		 <p>Global UI customization (Proprietary code modification, tips and tricks)</p>	
Development	 <p>Business Rules processing add-on.</p>	 <p>Performance optimization advices (replace joins with stats,stats with tstats, queries acceleration, ...)</p>	
SOLUTION DESIGN & POC		CARE TEAM UC & CARE GAP & ANALYTICS IMPLEMENTATION	PERFORMANCE TESTING



DATA SOURCES AND ARCHITECTURE

HIGH LEVEL ARCHITECTURE



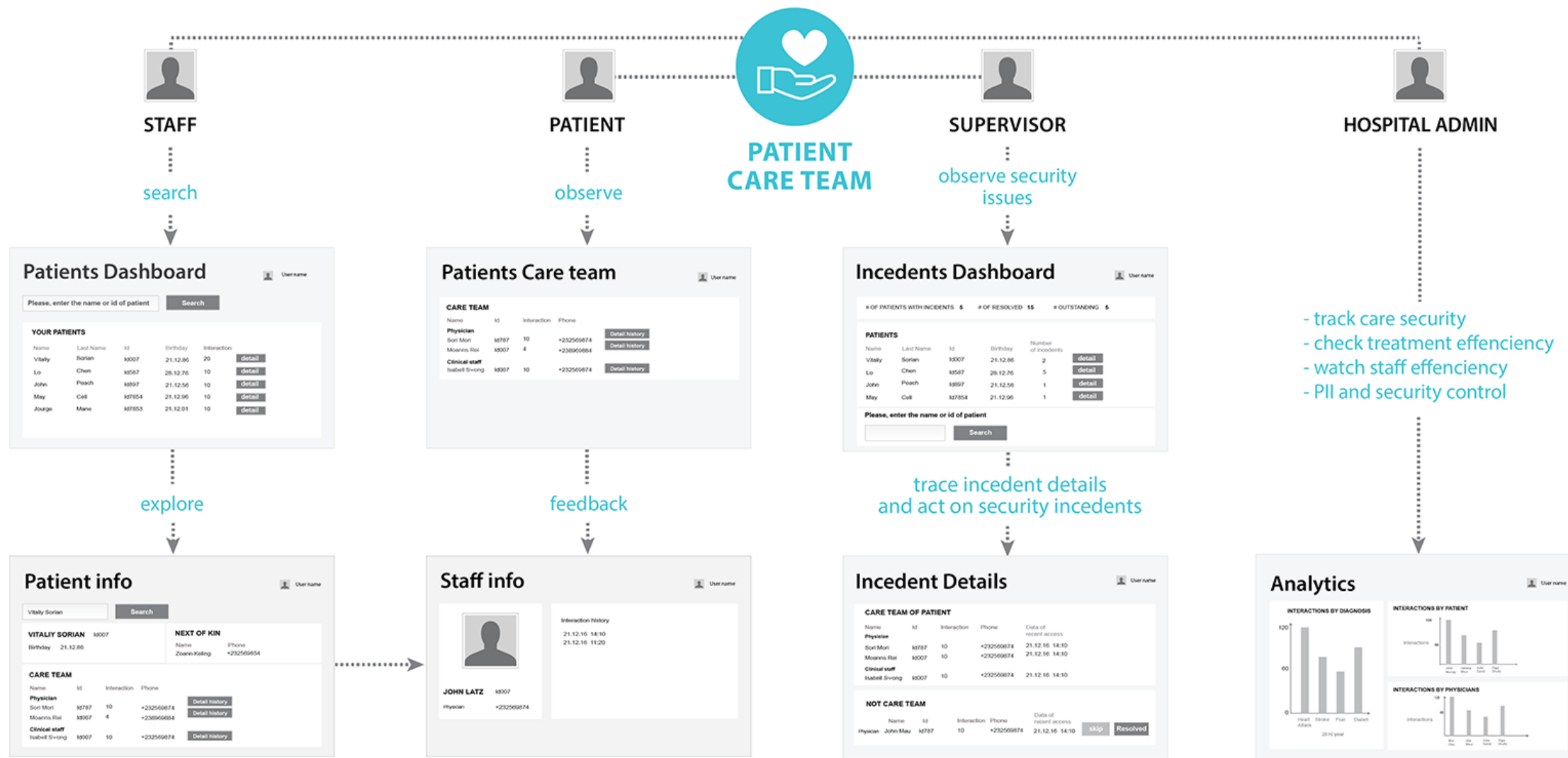
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128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSH-01&SESSIONID=SD55L7FF6ADFF9 HTTP 1.1" 404 3322 "http://buttercup-shopping.com/cart.do?action=purchase&itemId=EST-3&product_id=K9-CW-4"
317.27.160.0.0 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
107.107.107.107 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
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107.107.107.107 - - [07/Jan 18:10:56:156] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
107.107.107.107 - - [07/Jan 18:10:56:156] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
107.107.107.107 - - [07/Jan 18:10:56:156] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
107.107.107.107 - - [07/Jan 18:10:56:156] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
107.107.107.107 - - [07/Jan 18:10:56:156] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3"
  
```




SOLUTION OVERVIEW

APPLICATION SITEMAP



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 107/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSH-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-1&product_id=AV-CB-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 2865 "http://buttercup-shopping.com/cart.do?action=buy&itemId=EST-3&product_id=F3-SW-03"
 107/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSH-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-1&product_id=AV-CB-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 2865 "http://buttercup-shopping.com/cart.do?action=buy&itemId=EST-3&product_id=F3-SW-03"
 107/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSH-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-1&product_id=AV-CB-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 2865 "http://buttercup-shopping.com/cart.do?action=buy&itemId=EST-3&product_id=F3-SW-03"
 107/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSH-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-1&product_id=AV-CB-01&SESSIONID=5D51L4FF10ADFF10 HTTP 1.1" 200 2865 "http://buttercup-shopping.com/cart.do?action=buy&itemId=EST-3&product_id=F3-SW-03"


CARE TEAM IDENTIFICATION

Care team based on
full admissions history

Care team based on
most recent diagnosis

Breakdown by specialty

PATIENT INFORMATION


 DATE OF BIRTH
 1/8/1975

GENDER
 Male

DIAGNOSIS
 Salter-Harris Type II physeal fracture of lower end of right tibia, subsequent encounter for fracture with nonunion

Arthur, Morris

NEXT OF KIN

LAST NAME	FIRST NAME	RELATIONSHIPS	CONTACT
Lane	Daniel	First Cousins	420-(797)108-5570
Woods	Shawn	Siblings	81-(914)800-8839
Fuller	Fred	Parents	86-(704)277-4407

CURRENT CARE TEAM | **ENTIRE CARE TEAM** Select a time range

PHYSICIANS

FIRST NAME	LAST NAME	JOB TITLE	INTERACTIONS	CONTACTS
Charles	Hart	Diabetologist	16	221-(855)833-9373
Gary	Peterson	Cardiologist	16	48-(674)346-4885

CLINICAL STAFF

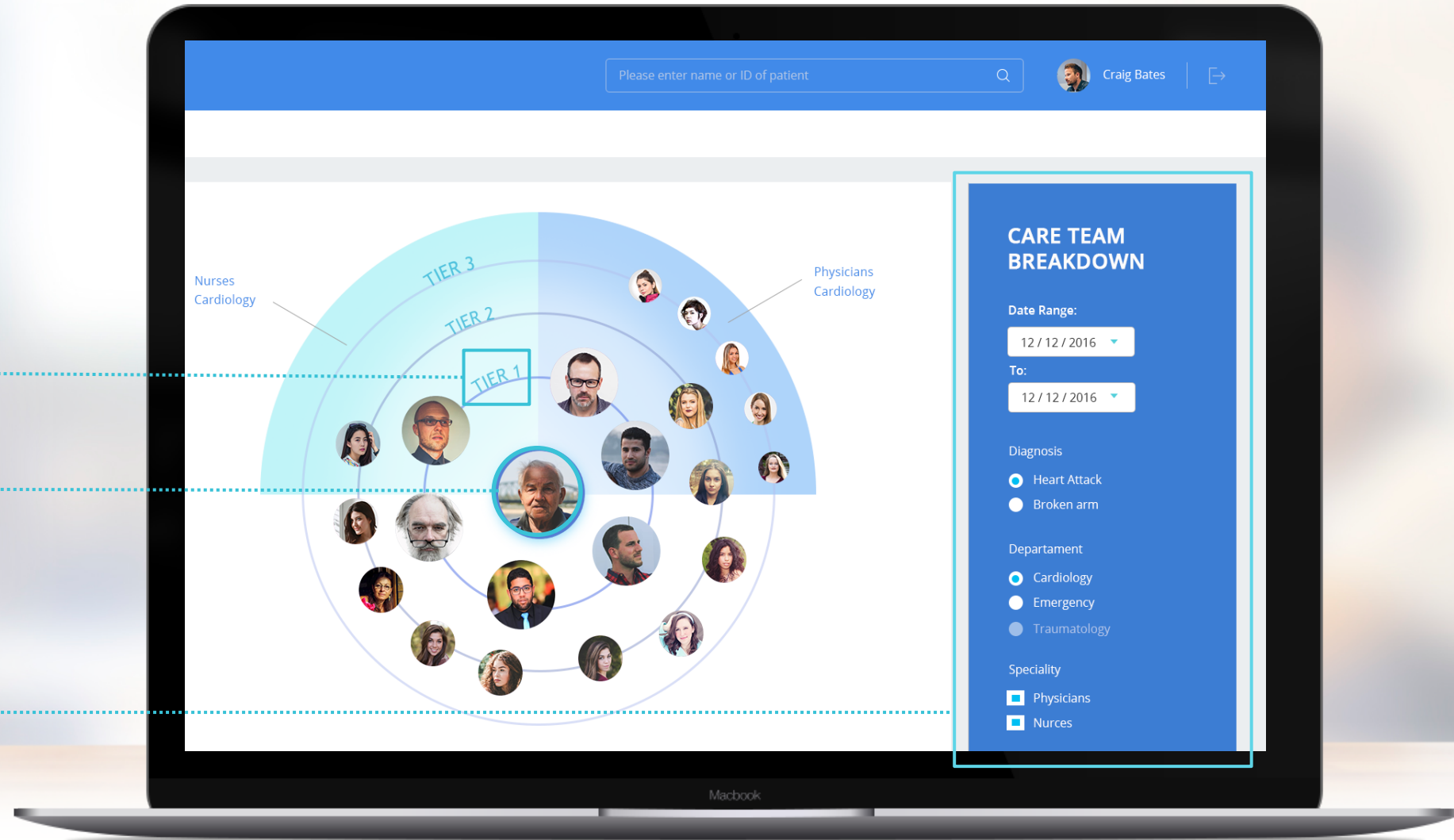
FIRST NAME	LAST NAME	JOB TITLE	INTERACTIONS	CONTACTS
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IDENTIFY KEY PERSONNEL

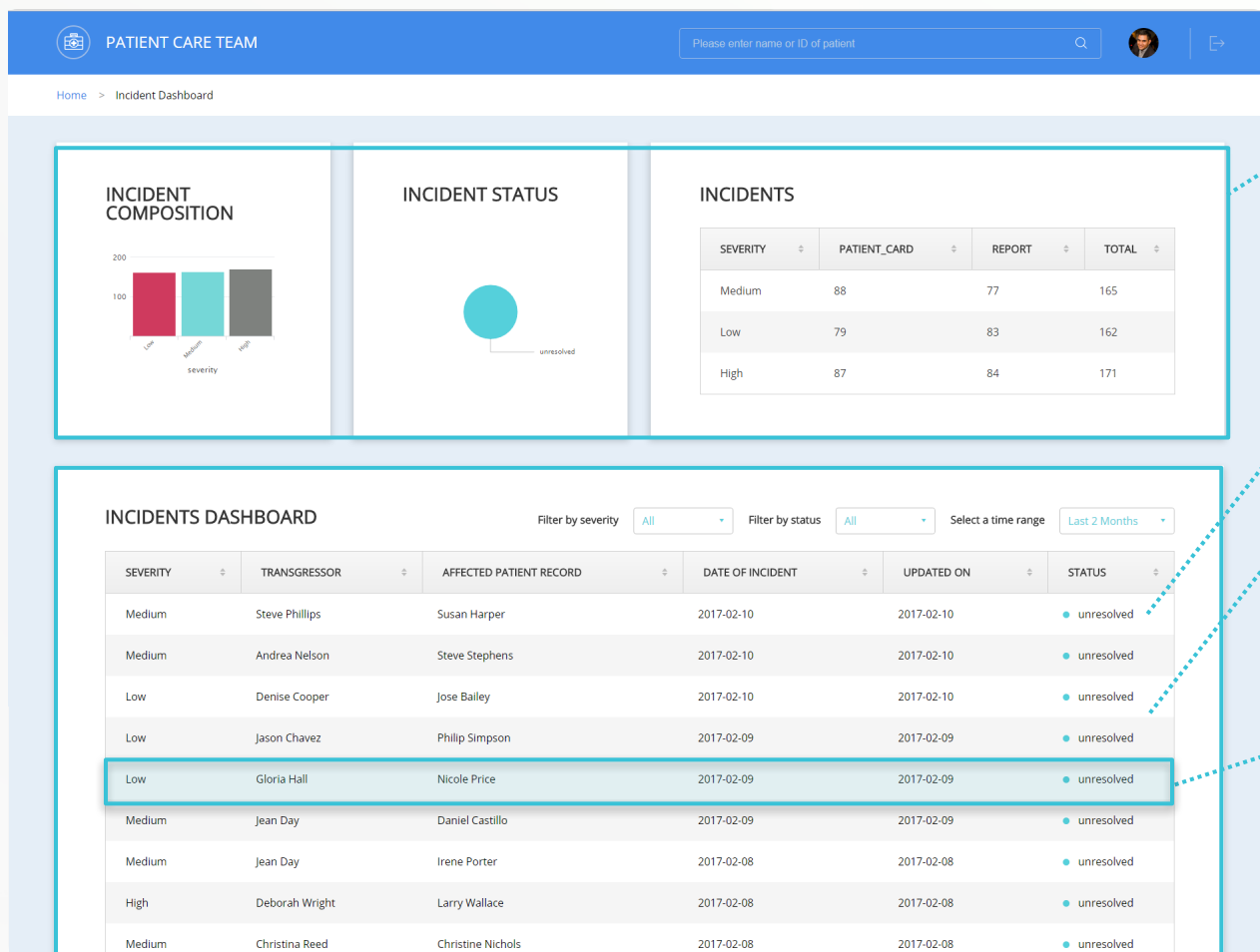
Key personnel
(tier-1)

Patient

Smart filtering



COMPLIANCE



Incidents summary & drilldown

Patient room access violation

Patient record access violation

INCIDENT DETAILS

INCIDENT ID 1486688280-DCTR0045

STATUS unresolved

TYPE report

EVENT TYPE edit

TIMESTAMP

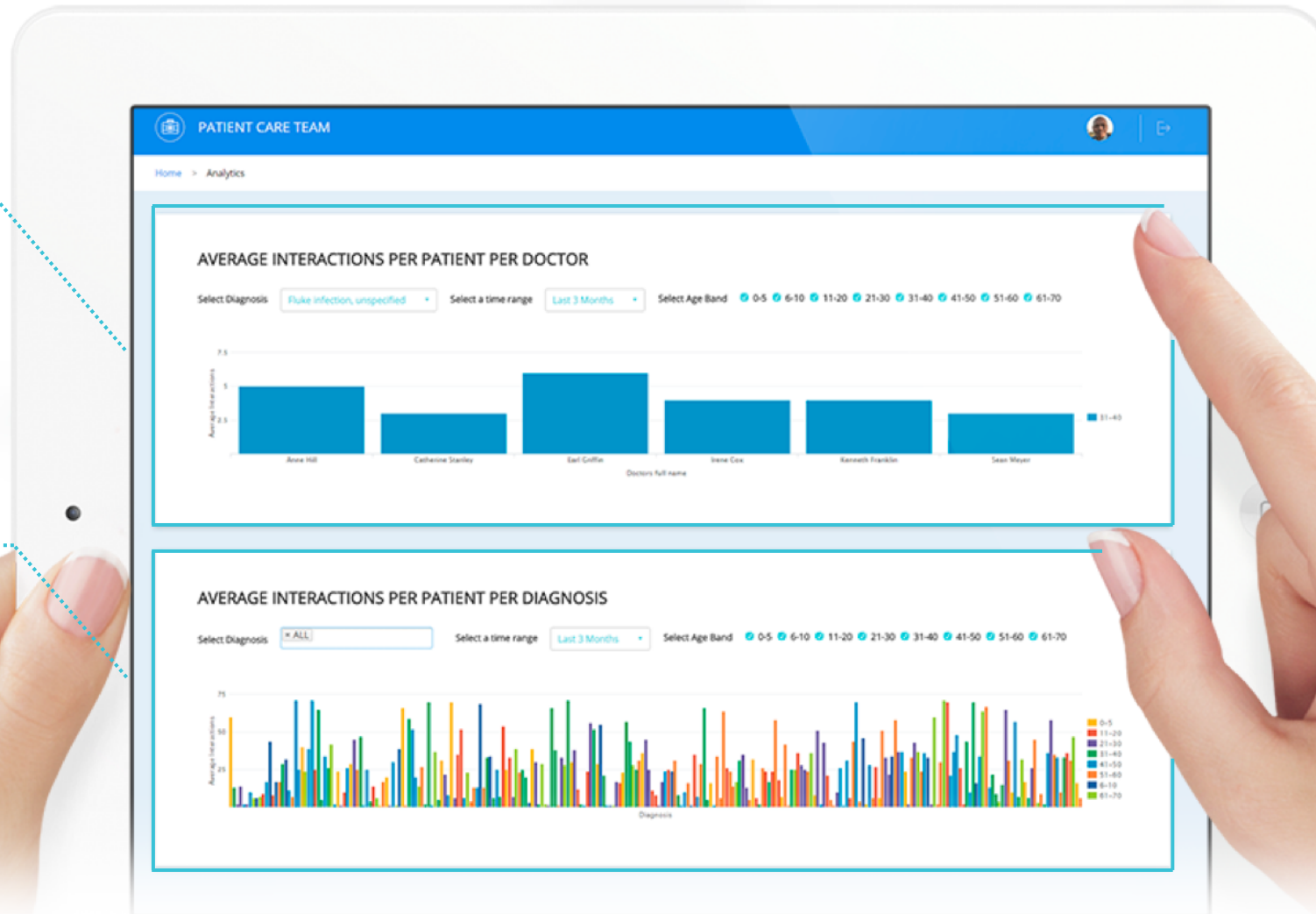
APPLICATION ID 129 CLIENT IP 127.111.217.42

START PROGRESS

REPORTING

Interactions report

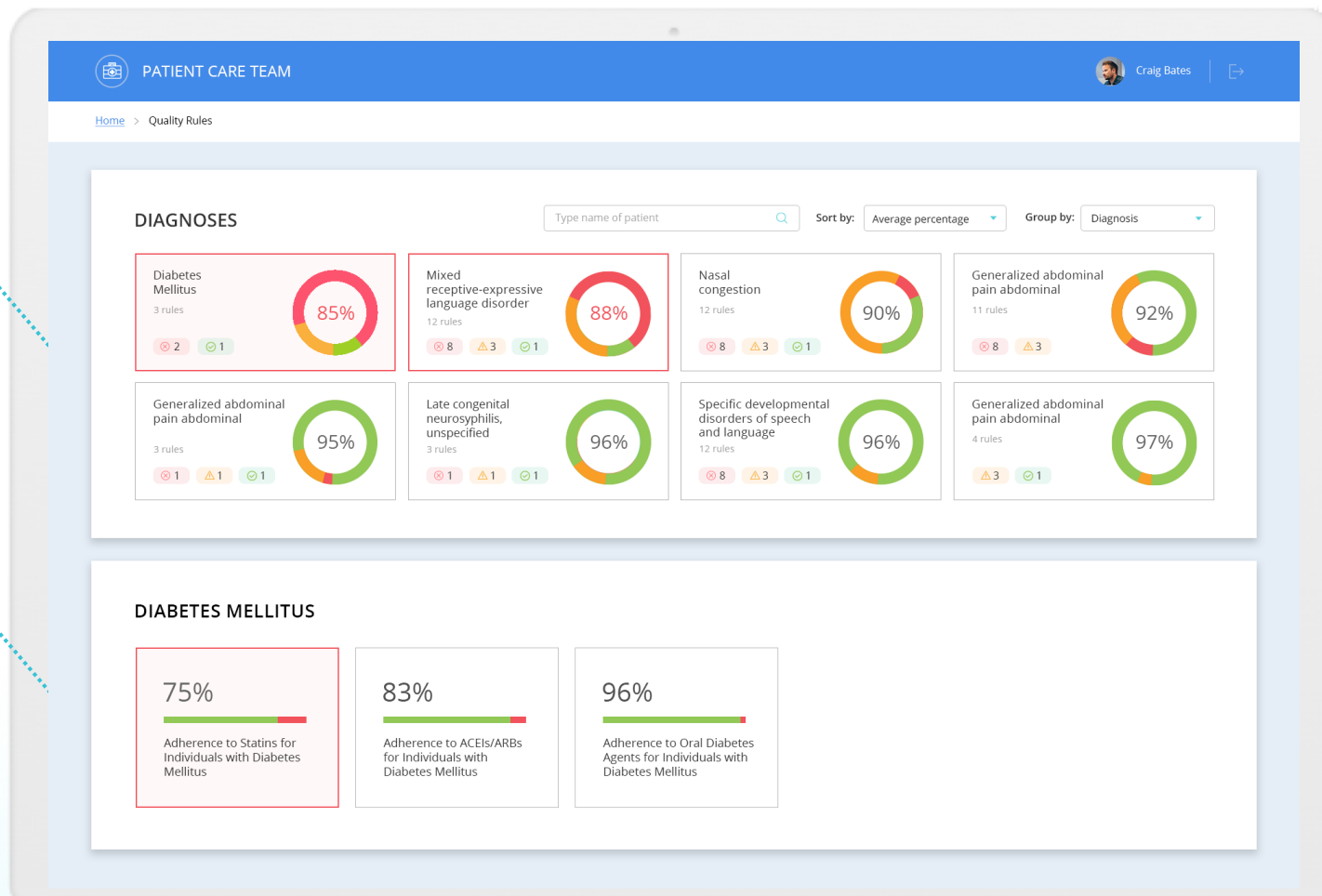
Interactions insights per diagnosis



Log entries: [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&SESSIONID=SD51L4FF10ADFF10 HTTP 1.1" 404 720
[07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSH-01&SESSIONID=SD55L7FFGADF9 HTTP 1.1" 404 3322
[07/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSH-01&SESSIONID=SD55L7FFGADF9 HTTP 1.1" 200 1318
[07/Jan 18:10:56:189] "GET /cart.do?action=changequantity&item_id=EST-6&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865
[07/Jan 18:10:56:189] "GET /category.screen?category_id=FLOWERS&SESSIONID=SD55L9FF1ADFF3 HTTP 1.1" 200 3865

CARE GAP DETECTION

Care Gap Overview

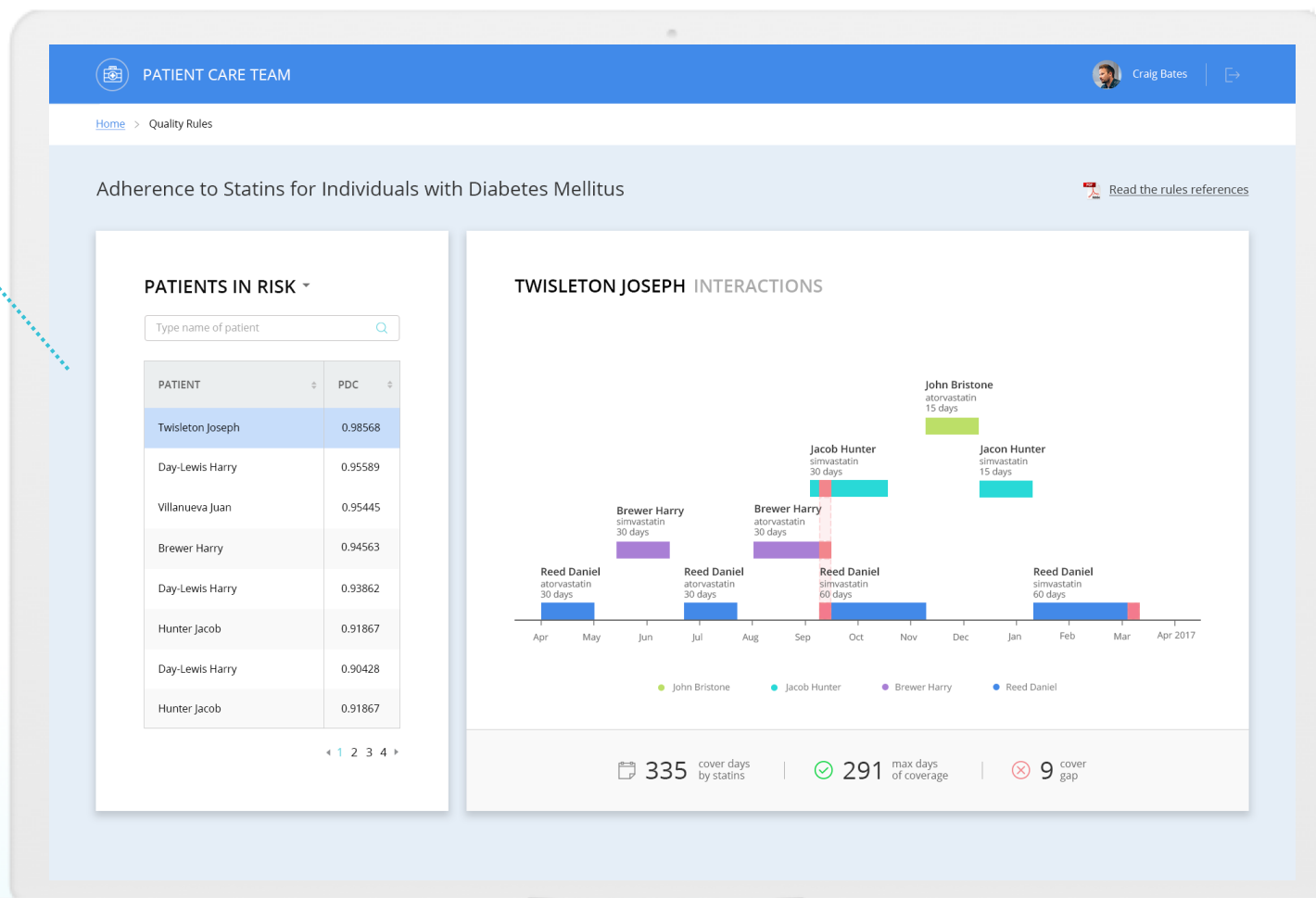


Care Quality Rules

<https://www.cms.gov>
Centers for Medicare & Medical Services

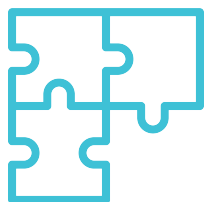
RULE LEVEL DETAILS

Patients at risk that fall under specific rule



130.60.4 - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&SESSIONID=5D15L4FF10ADFF10 HTTP 1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&item_id=EST-68&product_id=F3-SW-03"
 128.241.220.82 - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSM-01&SESSIONID=5D55L7FFGADFF9 HTTP 1.1" 404 322 "http://buttercup-shopping.com/category.screen?category_id=EST-36&product_id=K9-CW-01"
 317.27.160.0 - [07/Jan 18:10:56:156] "GET /oldlink?product_id=FL-DSM-01&SESSIONID=5D55L7FFGADFF9 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=changequantity&item_id=EST-18&product_id=AV-CB-01&SESSIONID=5D16L8FFZADFF9 HTTP 1.1" 200 2423 "http://buttercup-shopping.com/cart.do?action=changequantity&item_id=EST-6&SESSIONID=5D16L8FFZADFF9 HTTP 1.1" 200 2865 "http://buttercup-shopping.com/cart.do?action=changequantity&item_id=EST-189" "GET /category.screen?category_id=FLOWERS&SESSIONID=5D16L8FFZADFF9 HTTP 1.1" 200 1895 "http://buttercup-shopping.com/cart.do?action=remove&item_id=EST-149"
 107.171.187.100 - [07/Jan 18:10:56:189] "GET /category.screen?category_id=EST-189" "GET /category.screen?category_id=EST-108" "GET /category.screen?category_id=EST-108" "GET /category.screen?category_id=EST-108"

POTENTIAL AND FUTURE ENHANCEMENTS



AREAS FOR FURTHER DEVELOPMENT AND IMPROVEMENTS

- Commercialization.
- Additional features (quality of service, care circles detection, cost effectiveness, extended and detailed fraud detection analytic).
- Visualization improvements (drilldowns and multi-dimensional searches).
- Robust model for all X12 transaction types. Processing and ad-hoc data processing



EPAM + SPLUNK COOPERATION FOOTPRINT

- Ability to deliver SPLUNK - based solutions from within EPAM labs.
- Help in testing, prototyping, verification of early versions of Splunk products.
- Ability to deliver EPAM vertical industry solutions based on Splunk products and EPAM domain knowledge.
- Collaborative knowledge and key assets will be shared with Splunk community.

LESSONS LEARNED



1. PERFORMANCE:

- Scheduled searches for alerts usually impact performance so separate search head for them worth consideration.
- Roles isolation (in our case patient/doctor) on Search head level was also very helpful and useful.
- Use Job inspector for queries profiling. (It's the basic one to detect performance problem)
- Tstats command was very useful along with “walklex” cli command for efficient queries optimization.
- Data Models should be used not only for further acceleration but even to keep your data in more structured way.

2. DEVELOPMENT:

- UI. It was very useful to first concentrate on development using simple/extended Splunk dashboards. UI customization should be done only after prototype is working.
- Use command line tools. Especially “btool”. It could take enormous amount of time to detect which config went wrong.
- Data “mutability” with KV store for storing user interactions was really neat.

LESSONS LEARNED



3. SPLUNK CAN BE USED:

- Splunk can be used much beyond its natural log aggregation and full-text search.

4. COST-EFFICIENCY:

- Always plan for expected data load.

5. HEALTHCARE SPECIFICS:

- PHI data masking for HIPAA compliance is supported out-of-the box
- Documents of HL7 v. 2.x can be successfully parsed and processed via Splunk Modular Inputs.



THANK YOU!

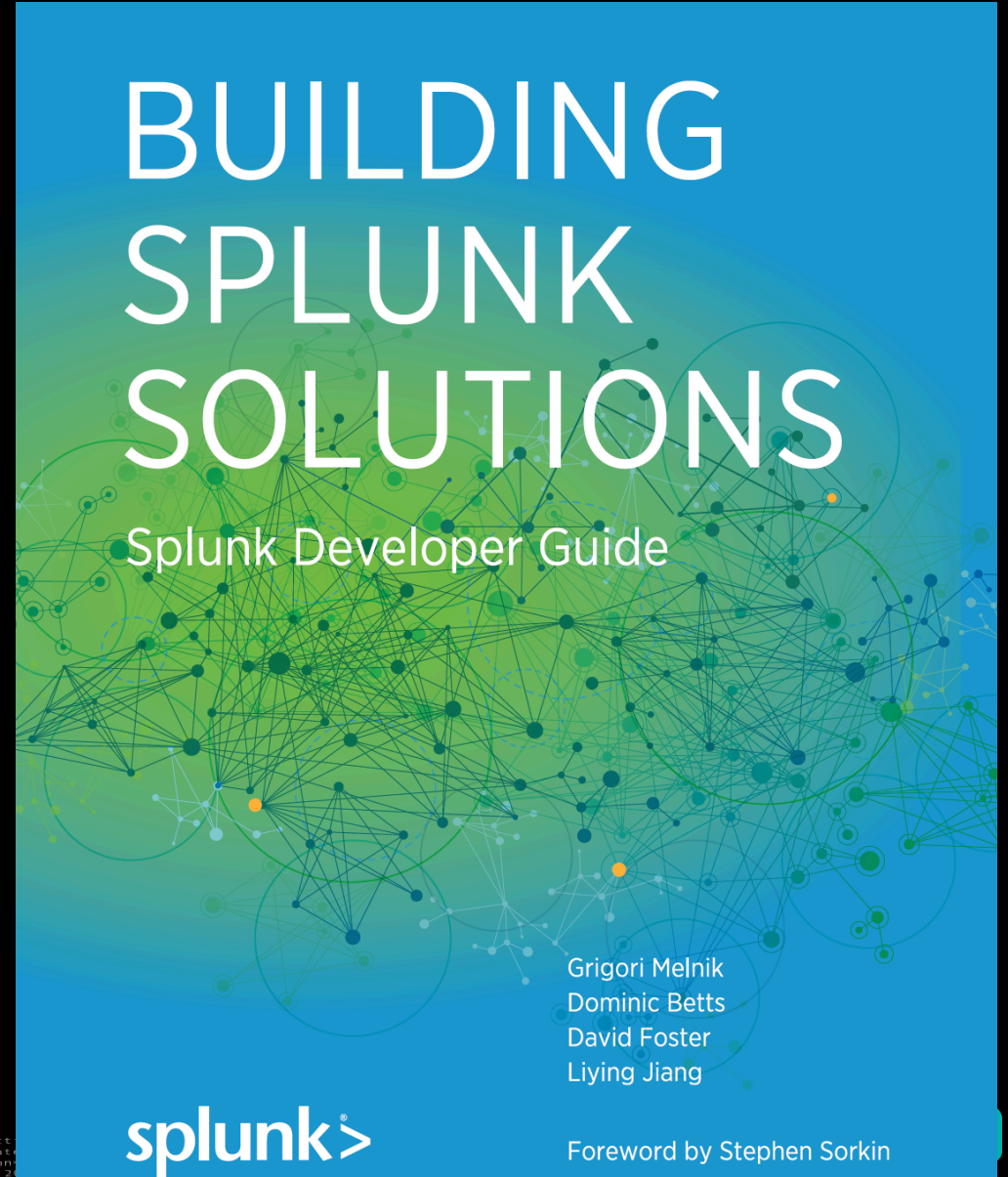
Patient Care Team The Journey

What did Splunk learn?

Getting Started

How did EPAM get started?

- ▶ Building Splunk Solutions ebook
 - <http://dev.splunk.com/view/dev-guide/SP-CAAEE2R>
- ▶ Dev.splunk.com for examples, tutorials
- ▶ New Quick Start
 - Guided “your first app” experience



Getting Started

New Quick Start bridges the gap

- ▶ <http://dev.splunk.com/view/quicks>
- ▶ Guided “your first app sequence”
- ▶ Certification with Splunk
- ▶ Best practices

Quick Start

Welcome to Quick Start: Developing your first Splunk app.

This Quick Start walks you through the process of creating an app using Splunk Web and explains how configuration files work together to create an app.

QUICK START

Quick start

Your First AppInspect

When developing an app, consider whether you want to have it [Splunk Certified](#). When Splunk certifies an app, other users know that the app meets Splunk's rigorous certification criteria. Your app will also be featured more prominently in search

QUICK START

Use Macros To Avoid Index Dependency

In [Report on data](#) in this tutorial, the search you used in your dashboard referenced a specific index. However, as a recommended practice, you shouldn't include index definitions with your app. You could remove the specific index from your search, but then you'll have to include "index=*" in your searches instead. If your users want to restrict your app to searching in a specific index, they'll need to modify every search.

To work around this issue, you can use a macro that includes a default index to search, helping administrators to configure your app. For development, you can also set up a local version of the macro to reference your development index.

For more about macros, see [Use search macros in searches](#) in the *Knowledge Manager Manual*.

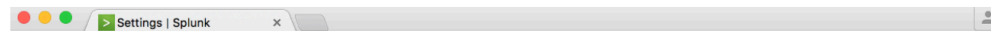
For a general description of using macros to avoid dependency on indexes, see [App Design Patterns - Creating Indexes](#) on Splunk Blogs.

Let's start out by creating a macro. In this macro, you'll specify an index that your app should look in for sendmail_syslog events.

1. In Splunk Web, click **Settings**, then click **Advanced search**.
2. Next to **Search macros** click **Add new**.
3. Under **Destination app** make sure your app is selected.
4. Under **Name** provide a name for your macro.
5. Under **Definition** enter:

```
index=hello_index
```

Your macro definition should look something like this:



QUICK START

Quick start

Before you begin

Create your first app

Add data

Report on data

Visualize data

Change navigation

Extras

Set \$SPLUNK_HOME

Your first AppInspect

Use macros to avoid index dependency

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Splunk > .conf2017

Test Data

How did EPAM test the Patient Care Team app?

- ▶ Started with Splunk EventGen
 - <https://github.com/splunk/eventgen>
- ▶ Built their own data generator for testing
- ▶ Saw bigger value with anonymized, real data
- ▶ SimData
 - Generate real-looking test data without samples
 - Here at Conf: “Fake Data for Real Apps”
 - Tuesday, 2:15 PM – 3:00 PM

Test Data

SimData

- ▶ Generate
- ▶ Demonstrate
- ▶ Create data

```

1  simulation webtraffic
2
3  entity WebServer(server_name) {
4      self.alive = true
5      self.capacity = 10.0
6      self.load = 0.0
7      self.ticks = 0
8      self.pages_served = 0
9  action serve_page(page_name, ip_address) {
10     page = one_of(Page[page_name=page_name])
11     self.pages_served = self.pages_served + 1
12     load_modifier = self.load + 1
13     response_time = page.service_duration * random(0.8, 1.2) * load_modifier
14     user = one_of(User[ip=ip_address])
15     tell user response(page_name)
16     timer {
17         name: "webserver.response_time.{{self.server_name}}.{{page_name}}"
18         value: response_time
19     }
20     log {
21         sourcetype: "weblog"
22         host: self.server_name

```


Getting Data In

How did EPAM get data in?

- ▶ Built inputs for each data source
- ▶ Focused on data pipeline

Splunk Add-on Builder

- ▶ Getting data in should be easy
- ▶ Getting your app certified should be easy
- ▶ Here at Conf: “: “From API to Easy Street Within Minutes Using Add-on Builder”
 - Wednesday, 1:10 PM-1:55 PM

```

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD1SLAFF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01" "Opera/9.80.
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/category.screen?category_id=GIFTS" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6; rv:53.0) Gecko/2010089 Firefox/53.0"
ows NT 27.160.0.0 - - [07/Jan 18:10:56:150] "GET /oldlink?item_id=EST-26&JSESSIONID=SD5SL9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD10SL9FF2ADFF9 HTTP/1.1" 200 2423 "http://buttercup-shopping.com/cart.do?action=purchase&itemId=EST-20&product_id=K9-CU-01" "Opera/9.80.
/buttercup-shopping.com/product_id=RP-LI-02" 468 125.17.14.101:80 [189] "GET /cart.do?action=remove&itemId=EST-108" "GET /category.screen?category_id=FLOWERS&JSESSIONID=SD5SL7FF6ADFF9 HTTP/1.1" 200 3865 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS" "Opera/9.80.
opping.com/purchase&itemId=EST-20" "Opera/9.80.
/buttercup-shopping.com/oldlink?item_id=EST-26&JSESSIONID=SD5SL9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD10SL9FF2ADFF9 HTTP/1.1" 200 2423 "http://buttercup-shopping.com/cart.do?action=purchase&itemId=EST-20&product_id=K9-CU-01" "Opera/9.80.

```

Getting Data In

Splunk Add-on Builder

- ▶ [http:](#)
- ▶ Build
- Mo
- Ale
- Fie
- CIP
- Ad
- ▶ Valid

Hello World! | **Validate & Package** | Manage Source Types | Extract Fields | Map to Data Models | Create Alert Actions

Splunk Add-on Builder

Validate & Package

Click **Validate** to validate your add-on against best practices and other rules, and to determine whether your app is ready for Splunk App Certification. When you have finished creating your add-on, click **Download Package** to create and download the SPL package file. [Learn more](#)

App Precertification

Overall Health Report

Ready for certification

Congratulations, your add-on is ready to submit to Splunk App Certification.

0 **0** **86**

Error **Warning** **Pass**

86

App Precertification

Validation Results

Thank You

Don't forget to **rate this session** in the
.conf2017 mobile app

splunk> .conf2017