

# Important reminders

Plan your  
tomorrow in the  
app by 11 a.m.

- Only add sessions if you plan to attend
- Rooms will be assigned the evening prior
- Win cool prizes!

Make room

- Avoid leaving empty seats
- Please move to the middle

Share your  
feedback

- Complete each session's in-app survey



# Lights On Network: improving your organizational performance with data-driven action

Nick Culver

*Lead Solution Strategist, Lights On Network*

10/9/2018



# Organizational Health

## Capabilities

- Peer Comparison
- Real-time monitoring
- Email & Alerting
- Before & After Analysis
- Customization
- Multi-Dimensional
- Accessible from Anywhere

## VALUE OUTCOMES

- Quality
- Safety
- Financial Performance

## WORKFORCE EXPERIENCE

- Adoption
- Time in EMR
- Alert Fatigue

## SOLUTION HEALTH

- Responsiveness
- Configuration
- Stability

## SYSTEM ARCHITECTURE

- Performance
- Scalability
- Network Latency



# Model Experience Alignment

An objective approach to help you easily identify and prioritize opportunities to align with the Model Experience that will yield the greatest value to your organization.



**Outcomes  
Excellence**



**Application  
Experience**



**Process  
Alignment**



**Guided  
Practice**



## Patient Access

Insurance verification  
No show rate  
Patient schedule



## Perioperative

On-time starts  
Cases Cancelled  
Procurement Costs



## Emergency

Length of stay  
Arrival to triage  
Left without being seen



## Nursing Care

Incidence of falls  
Central line days  
Overdue tasks



## Radiology

Requested to complete  
Complete to final



## Meds Process

Med verification time  
Discharge meds reconciliation  
Rescue drug utilization



## Revenue Cycle

Daily revenue  
Discharge not final billed  
Accounts receivable



## Laboratory

CBC turnaround time  
Troponin turnaround time  
BMP turnaround time



## Women's Health

Primary C-section  
Breastmilk feeding  
Inductions < 39 weeks



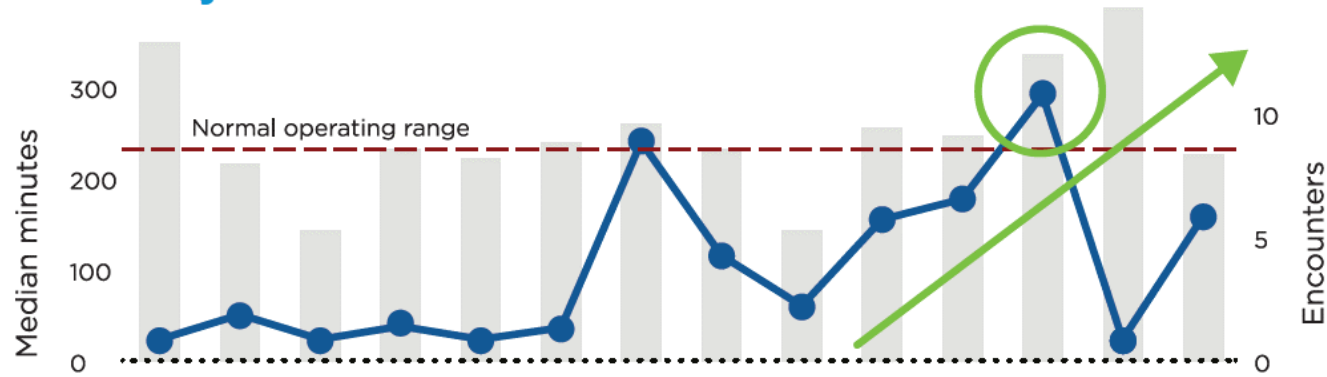
## Health Information Mgt

Deficiencies  
Deficient Charts



# Take Action to Achieve Outcomes

## Identify



Monitor performance trends day over day

## Analyze



Compare facilities, positions, nurse units, and providers to identify areas for improvement

## Align



Locate opportunities to align to the Model Experience

# Solution Health

☰

Topics

✓

ACTION ITEMS

Compliance

Configuration

Recommendations

📊

SOLUTION HEALTH

Adoption

Availability

Performance

Security

⚙️

SYSTEM ARCHITECTURE

Database

Network & Devices

Nodes & Servers

👤

VALUE MEASUREMENT

Financials

Outcomes Excellence

Regulatory

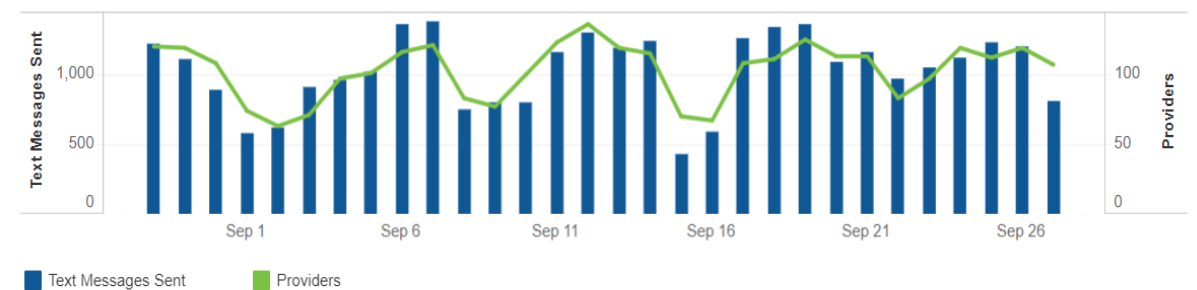
Workforce Experience

## CareAware Connect Adoption

- Track adoption of provisioned users
- Analyze usage patterns across providers, facilities, and roles
- Evaluate consistent solution versions across enterprise and personal devices

### How much is CareAware Connect used?

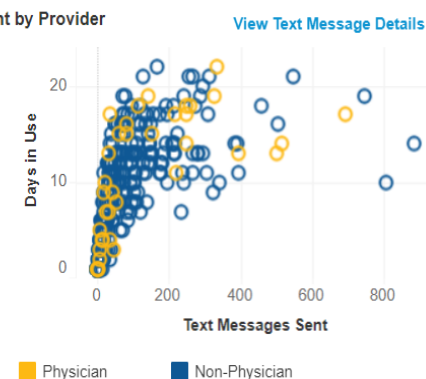
Trend of Text Messages Sent  
select to filter



### Who is using CareAware Connect?

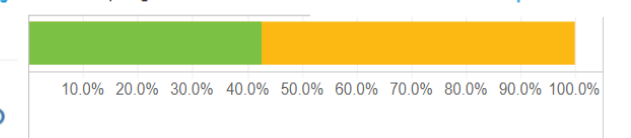
Text Messages Sent by Provider

View By  
☒ Provider  
☐ Facility  
☐ Position

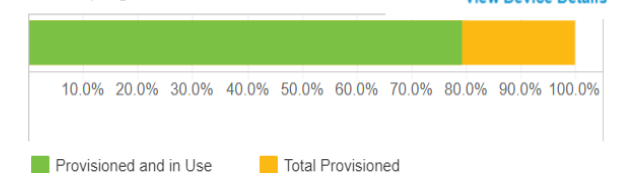


### Are provisioned accounts and devices used?

Providers | August 2018



Devices | August 2018



# Solution Health

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Topics

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📈

SOLUTION HEALTH

Adoption

Availability

Performance

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⚙️

SYSTEM ARCHITECTURE

Database

Network & Devices

Nodes & Servers

🏆

VALUE MEASUREMENT

Financials

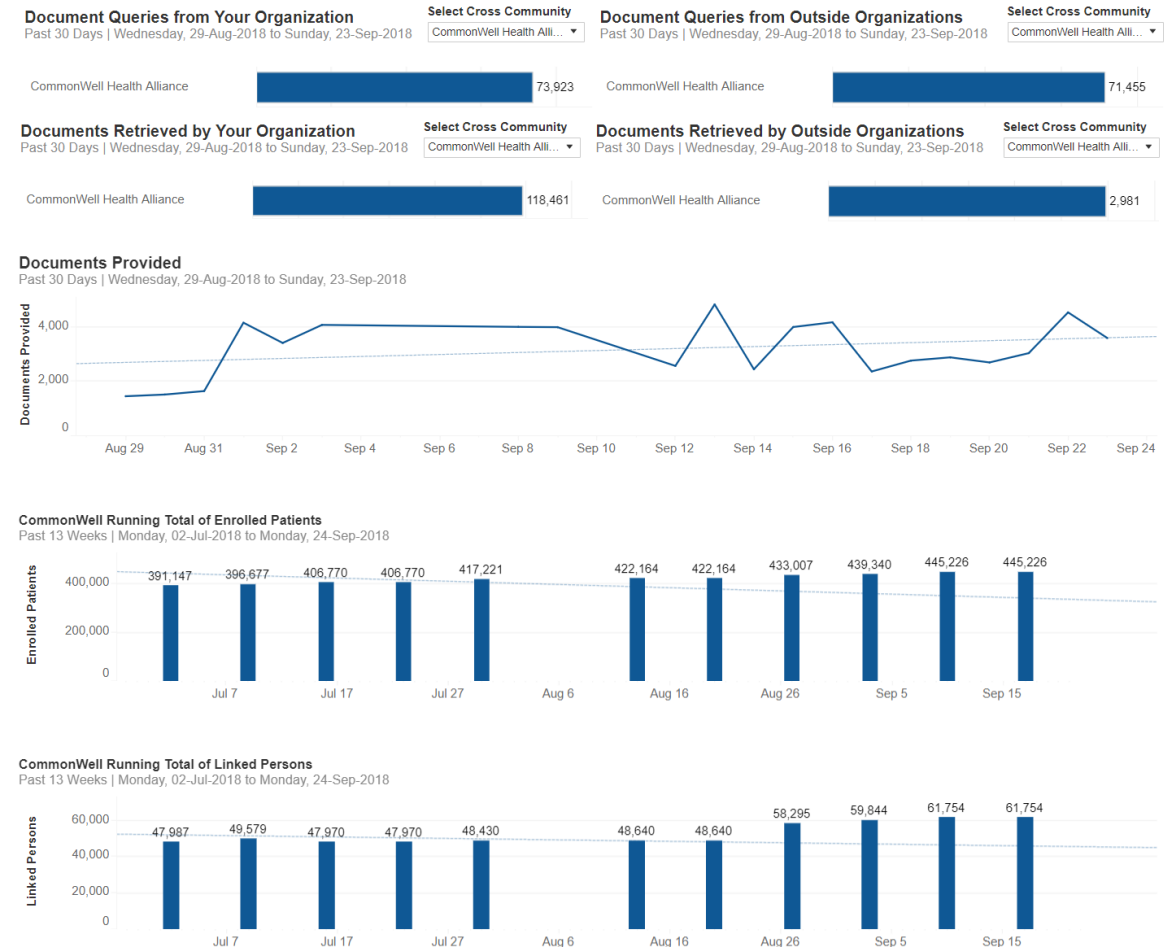
Outcomes Excellence

Regulatory

Workforce Experience

## CommonWell and Resonance

- Track patient enrollment
- Transparency to documents exchanged via CommonWell
  - Provided
  - Queried
  - Retrieved





# System Health

☰

Topics

✓

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⚙️

SYSTEM ARCHITECTURE

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🏆

VALUE MEASUREMENT

Financials

Outcomes Excellence

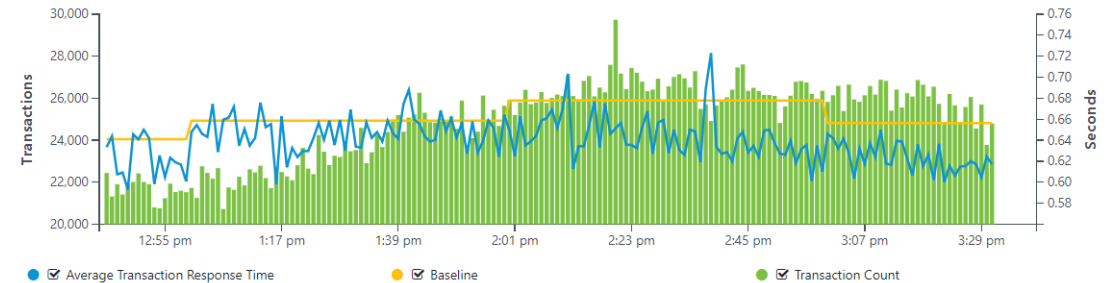
Regulatory

Workforce Experience

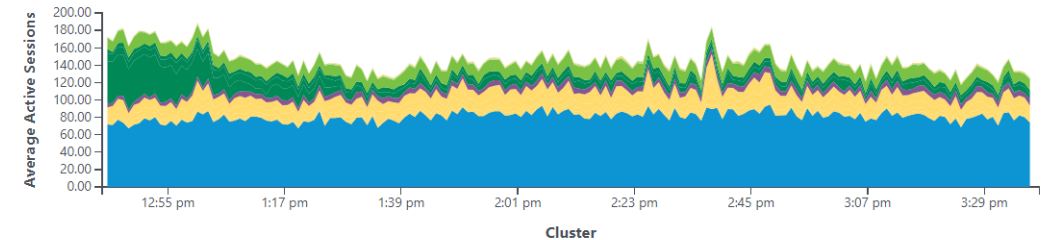
## Technology Performance Evaluation

- Real-time monitoring of performance abnormalities
- Integrated analysis across the technical stack

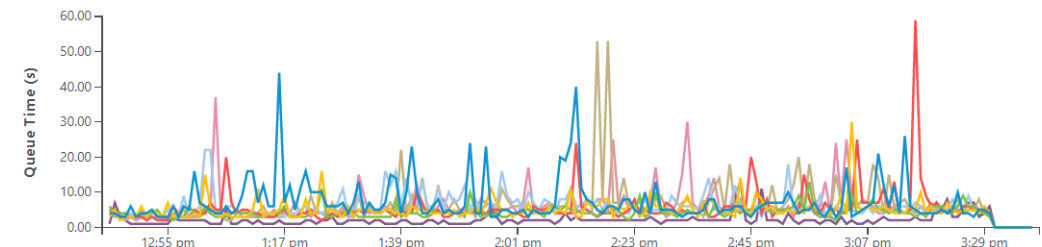
Average Transaction Response Time



Millennium Database Wait Events



Millennium Application Shared Service Request (SSREQ) Time by Node



# System Health

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Topics

✓

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Recommendations

📈

SOLUTION HEALTH

Adoption

Availability

Performance

Security

⚙️

SYSTEM ARCHITECTURE

Database

Network & Devices

**Nodes & Servers**

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VALUE MEASUREMENT

Financials

Outcomes Excellence

Regulatory

Workforce Experience

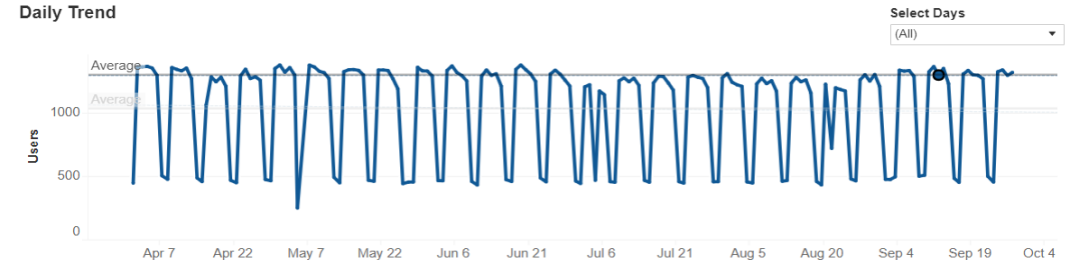
## Citrix Concurrent Users

- Track peak concurrent Citrix users per month, day, and hour
- Analyze user sessions by type per node

Monthly Trend



Daily Trend



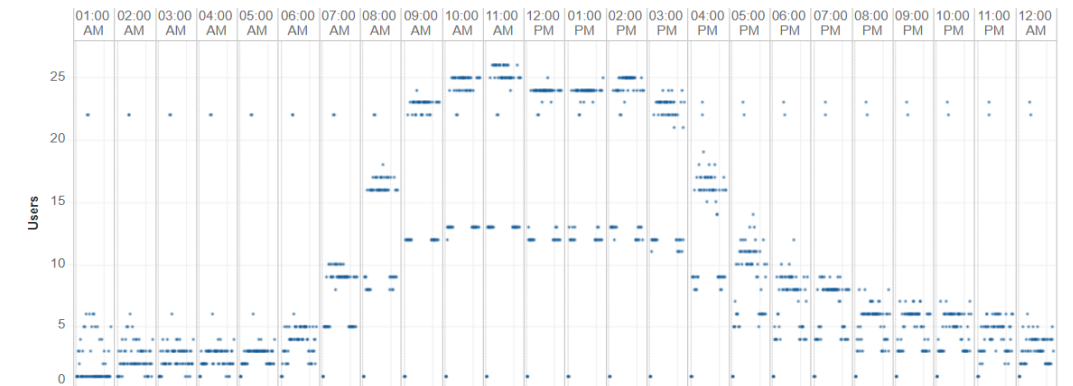
[Download Overall List of Users](#)

Single Day Node Trend | Wednesday, 12-Sep-2018

Includes data for all session types  
(note: select date above to view)

Select Node(s)

(All)





Drive  
outcomes



Know the user



Support  
application  
experience



Improve  
workflows



Quality &  
safety

Role

Days  
worked

Responsive

Configuration

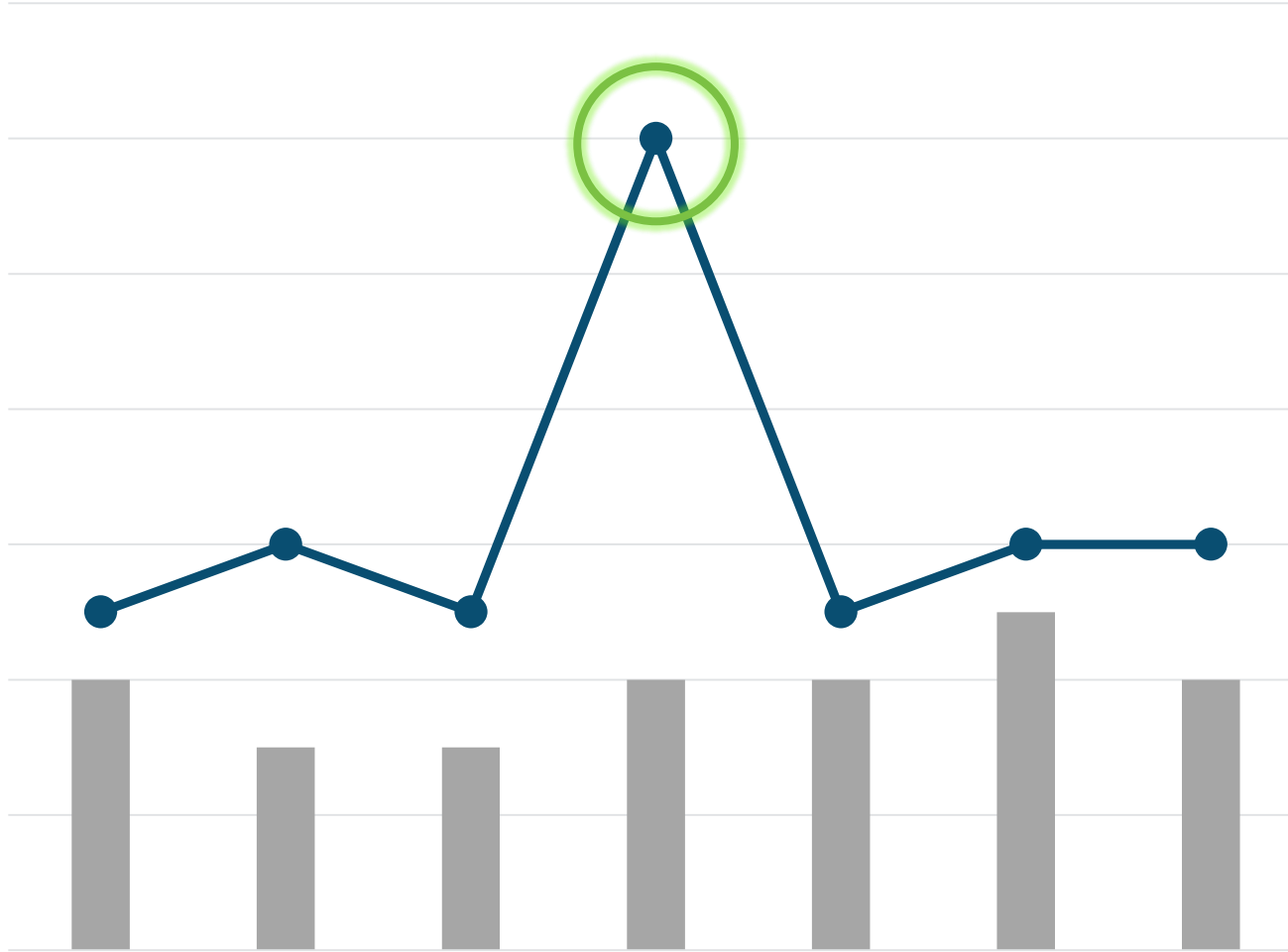
Adoption

Efficiency

Patient  
satisfaction



# Event Tracking



What happened?



View change events



Add context



# Event Types

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- **Solution**
  - **Upgrade**
    - Millennium Package Installations
    - **Solution Version**
  - **Configuration**
    - Oracle Initialization Parameters
    - Physician and Nursing Standards (prefs/privs)
    - **Model Experience Alignment checks**
  - **Workflow**
    - **New solution and capability usage**
- **Technology**
  - **Upgrade**
    - Nodes and Servers
    - **Layered Software Version**
  - **Configuration**
    - Compliance Checks
- **Other** (manual only)
- **Services**
  - **Consulting Engagements**
    - **Facility Go-Live**
    - **Continuous Advancement Project**
- **Incidents**
  - **Outage**

# Event Tracking

## Event Sources

System  
Detected

Manually  
Entered

External  
Integration



Processing Engine



## Event Outputs

Event  
Calendar

Impact  
Report

Data  
Correlation

Machine Learning

Prescriptive  
Guidance

Predictive  
Analysis

Proactive  
Support

# Lights On Network

Transforming Data into Knowledge and Action

[\*https://lightson.cerner.com\*](https://lightson.cerner.com)

# Provider Profile

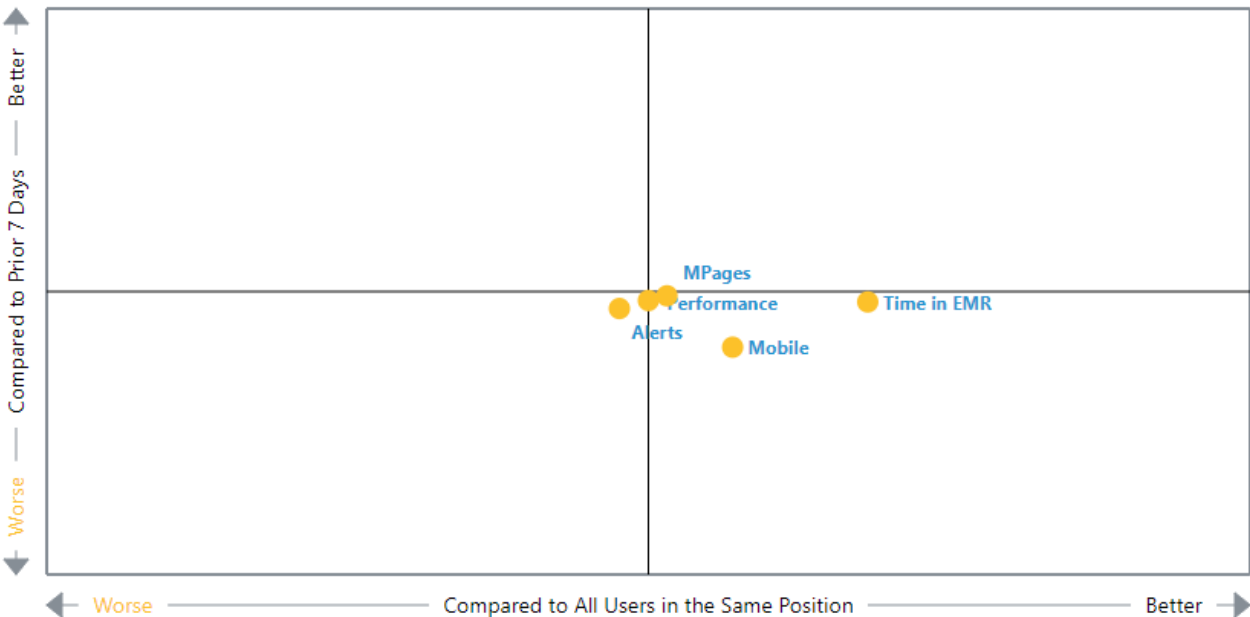


Smith, John

Physician | Physician - Primary Care

Tuesday, 11-Sep-2018 to Monday, 17-Sep-2018

Yesterday | Past 7 Days | Past 30 Days



## Provider Search



## Profile

### Physician - Primary Care

Position

### Family Medicine

Specialty

### MD

Title

### Family Health

Primary Facility

### Ambulatory

Primary Venue

### D70YN7M2

Primary Device

### JSMITH (active since 2016)

Millennium User Name

### Active

(account expires on Friday, 31-Dec-2100)

Millennium Status

## Solution Performance

Category	All Users in the Same Position	Prior 7 Days
Performance	0%	↓ 3.8%
MPages	→ 3.4%	↓ 1.8%
Ignite	N/A	N/A

## Mobile Performance

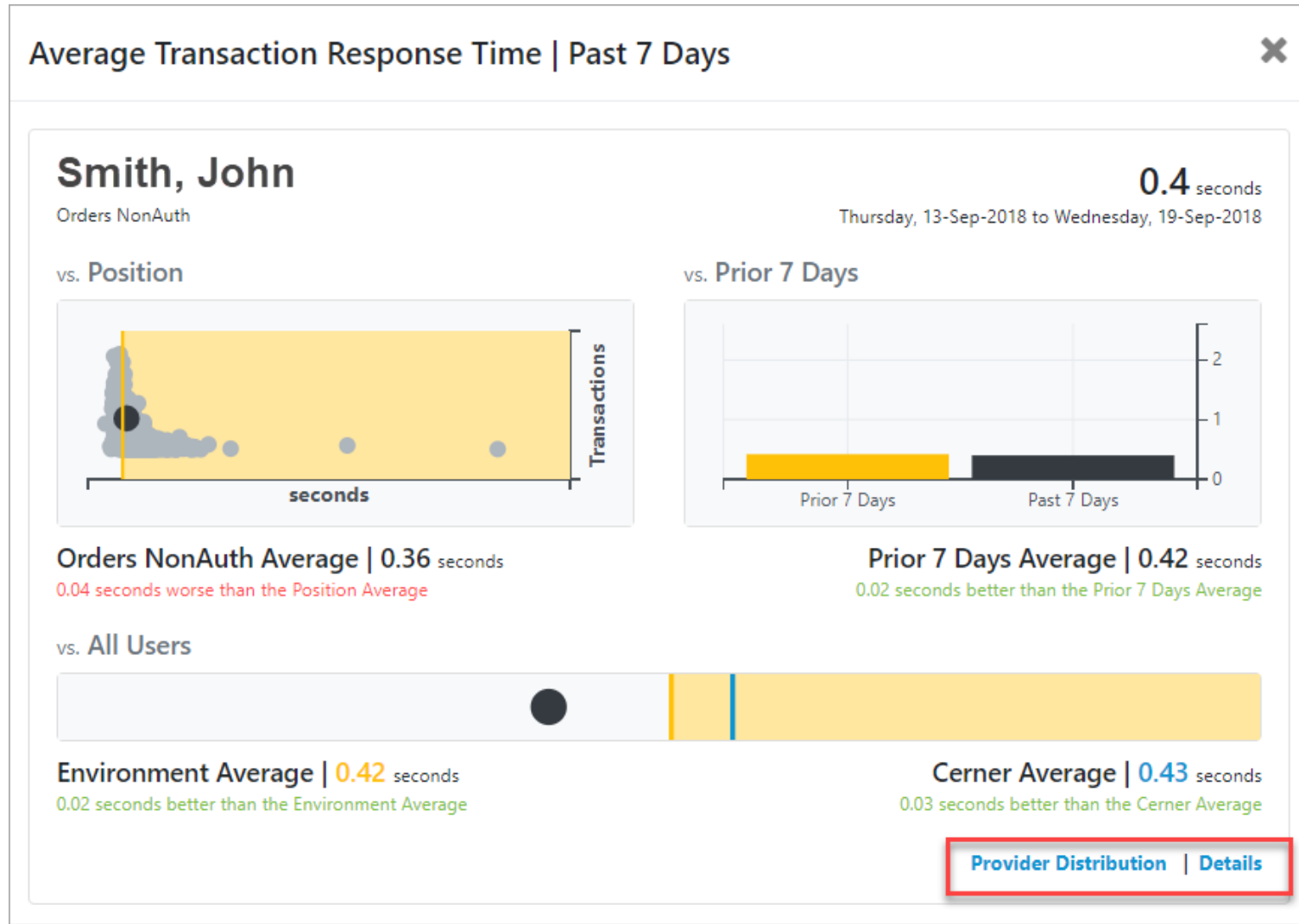
Category	All Users in the Same Position	Prior 7 Days
Mobile	→ 15.4%	↓ 23.6%

## Workforce Experience

Category	All Users in the Same Position	Prior 7 Days
Time in EMR	→ 40.1%	↓ 4.4%
Alerts	← 5.3%	↓ 7.2%



# Peer Comparison



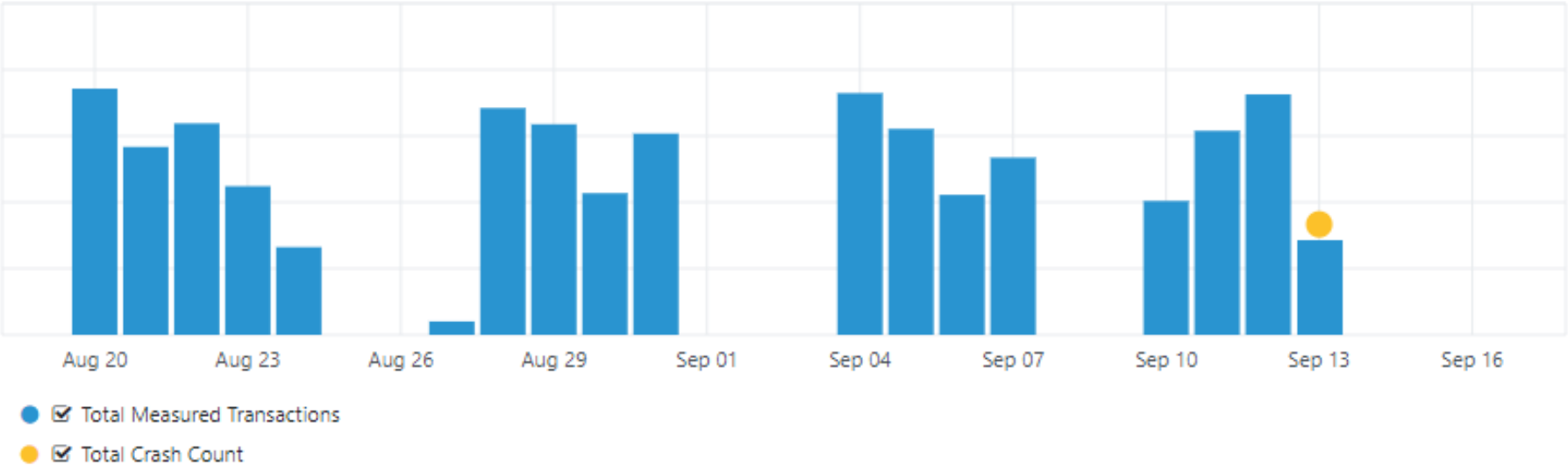
# Days Worked & Disruptions

## Days Worked | Past 30 Days

17  
Days with Activity  
Past 30 Days

1  
Day with Crashes  
Past 30 Days

1  
Crash  
Past 30 Days



## Crashes | Past 30 Days

[View Details](#)

- **Solution Crash** | Thursday, 13-Sep-2018, 8:55 AM



# Event Tracking

Monday, 16-Nov-2015 to Friday, 28-Sep-2018  
All Events Date Range

37  
Manual Events

103  
Total Events

**Find Events**

Date Range

Past 90 Days

Beginning Date

Saturday, 30-Jun-2018

Ending Date

Friday, 28-Sep-2018

Apply

CLEAR FILTERS

Search

By Category

Showing All Categories

By Type

Showing All Types

Event Source

LightsOn

+ Add Event

Manual events may be added for your organization to help track important non-system generated events.

8 of 17 Events

Sort By: Newest to Oldest

September

21  
Friday

Compliance Checks

Technology | Configuration

9  
Changes

September

20  
Thursday

Compliance Checks

Technology | Configuration

26  
Changes

September

20  
Thursday

Physician Standards

Solution | Configuration

65  
Changes

September

19  
Wednesday

Compliance Checks

Technology | Configuration

11  
Changes

September

19  
Wednesday

Physician Standards

Solution | Configuration

65  
Changes

September

18  
Tuesday

Compliance Checks

Technology | Configuration

17  
Changes

September

18  
Tuesday

Physician Standards

Solution | Configuration

152  
Changes

September

17  
Monday

Compliance Checks

Technology | Configuration

7  
Changes

# Event Tracking Details

September

23

Sunday

▼

Compliance Checks

Technology | Configuration

4

Changes

Start Date: Sunday, 23-Sep-2018

End Date: Sunday, 23-Sep-2018

View Current State

Download Table

Name	Status	Before	After
CWXPI 3484 SQL*Net.ora encryption for data in transit   ORACLE	Modified	PASS	FAIL
CWXPI 3858 Enable CareAware Notifications in iBus   PIAUDIT	Modified	PASS	FAIL
CWXPI 492.1 Front-end Server Uptime Stability   PIAUDIT	Modified	PASS	FAIL
Purge Template 904425945 - Workflow Task Queue Hist Purge   PURGE	Modified	FAIL	PASS

Collapse Detail





# Manual Events

+ Add Event

Add a Manual Event

Add your historical event below to track along with auto-generated events. Note: Manual events may be removed by the author of the event.

Event Name \* (max 50 characters)

Event Category \*

- Select Category -

Event Type \*

- Select Event Type -

Start Date \*

End Date \*

Description \* (max 500 characters)

500 characters left.

\*Required Field

Cancel

Add Event

September

18

Tuesday

▼

Provider Training

Solution | Other

Jessica Andersen

Cerner

Senior Solution Specialist

Start Date: Tuesday, 18-Sep-2018

End Date: Tuesday, 18-Sep-2018

Entered On: Friday, 28-Sep-2018

Description:

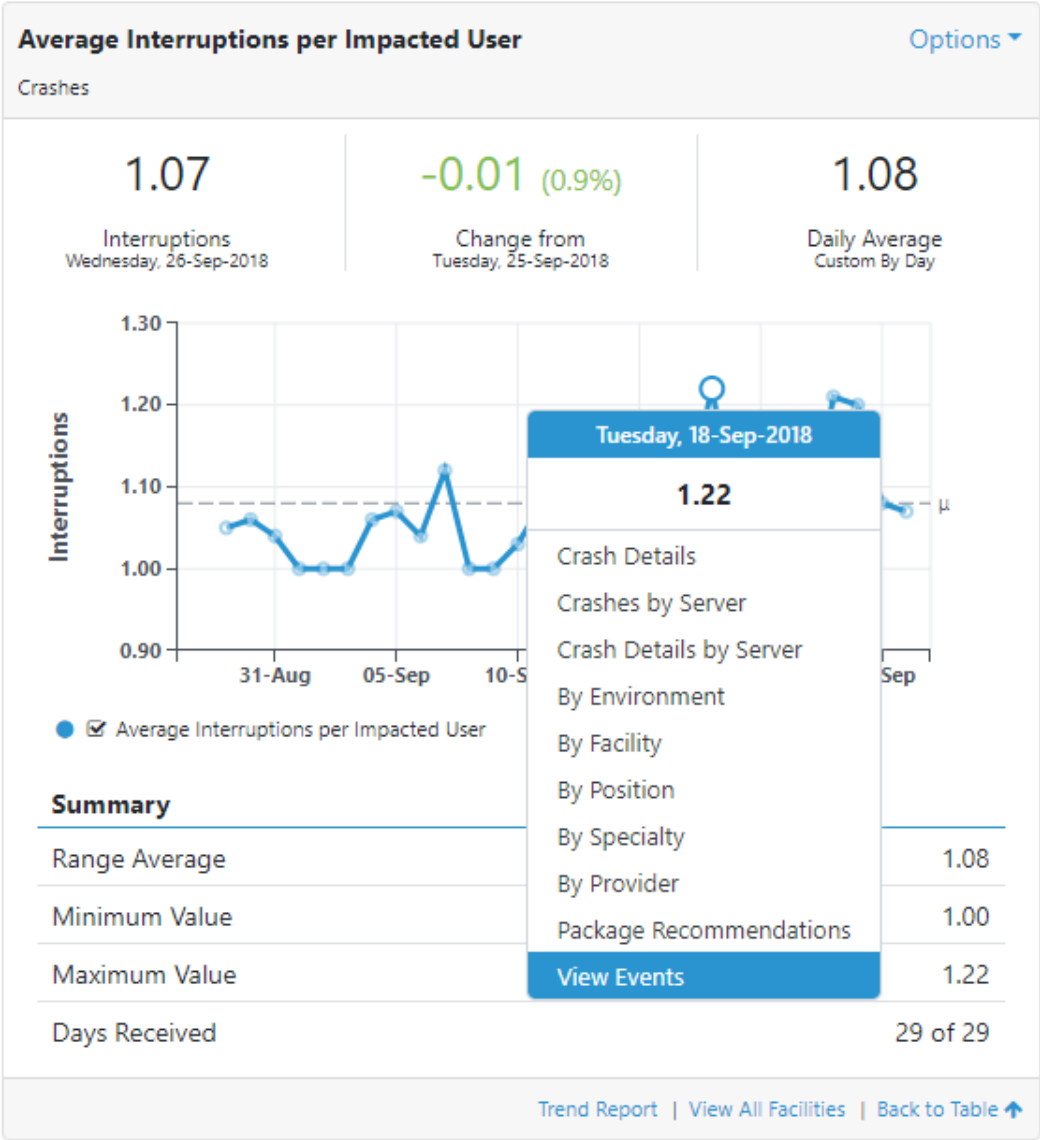
We held provider training at Baseline West to help increase adoption of Dynamic Documentation. 13/15 providers attended the event. Need to capture comparison numbers in 1 month.

Remove Event

Collapse Detail



# Event Analysis

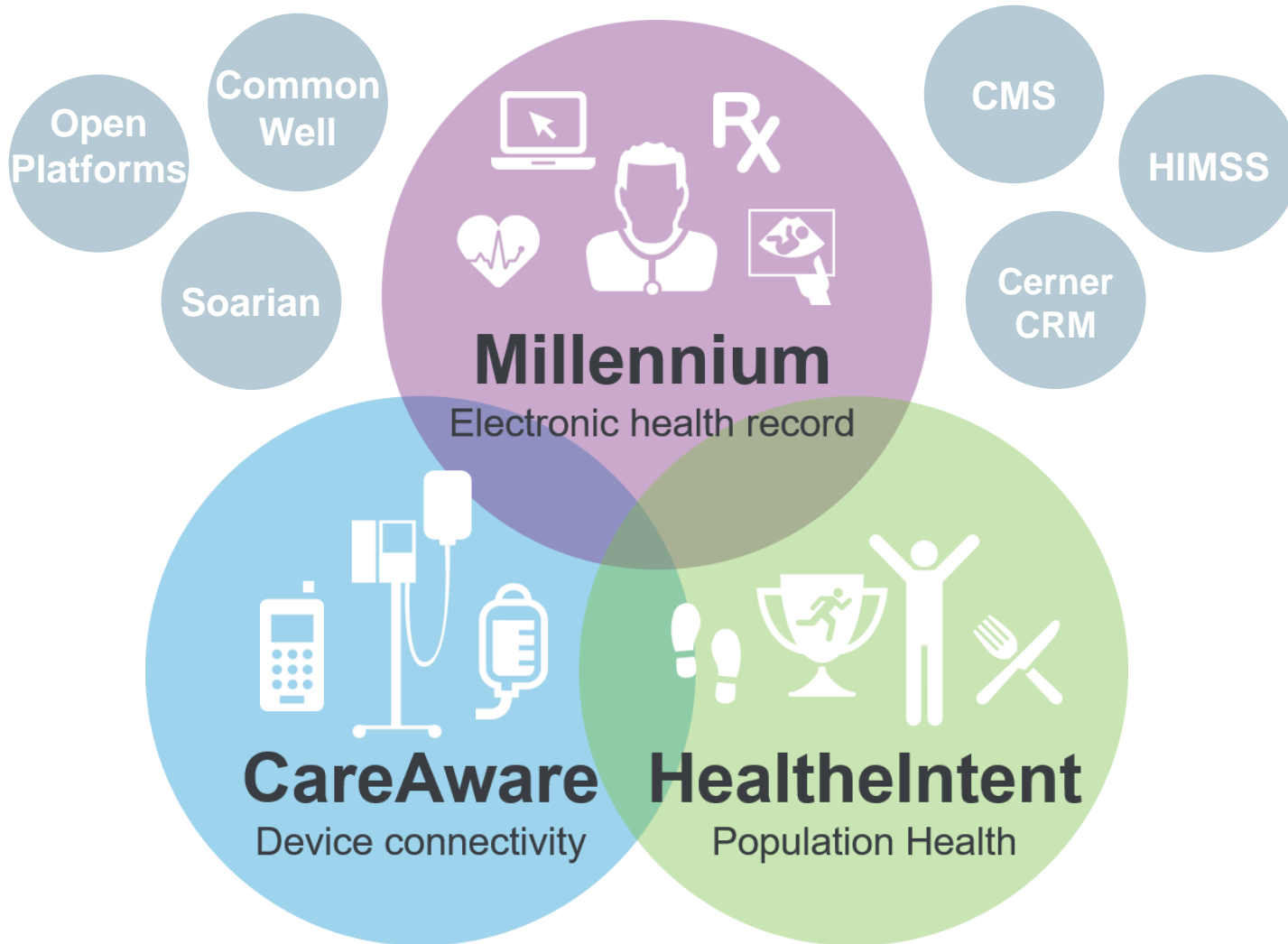


# What's Next

## Themes for 2020 & Beyond



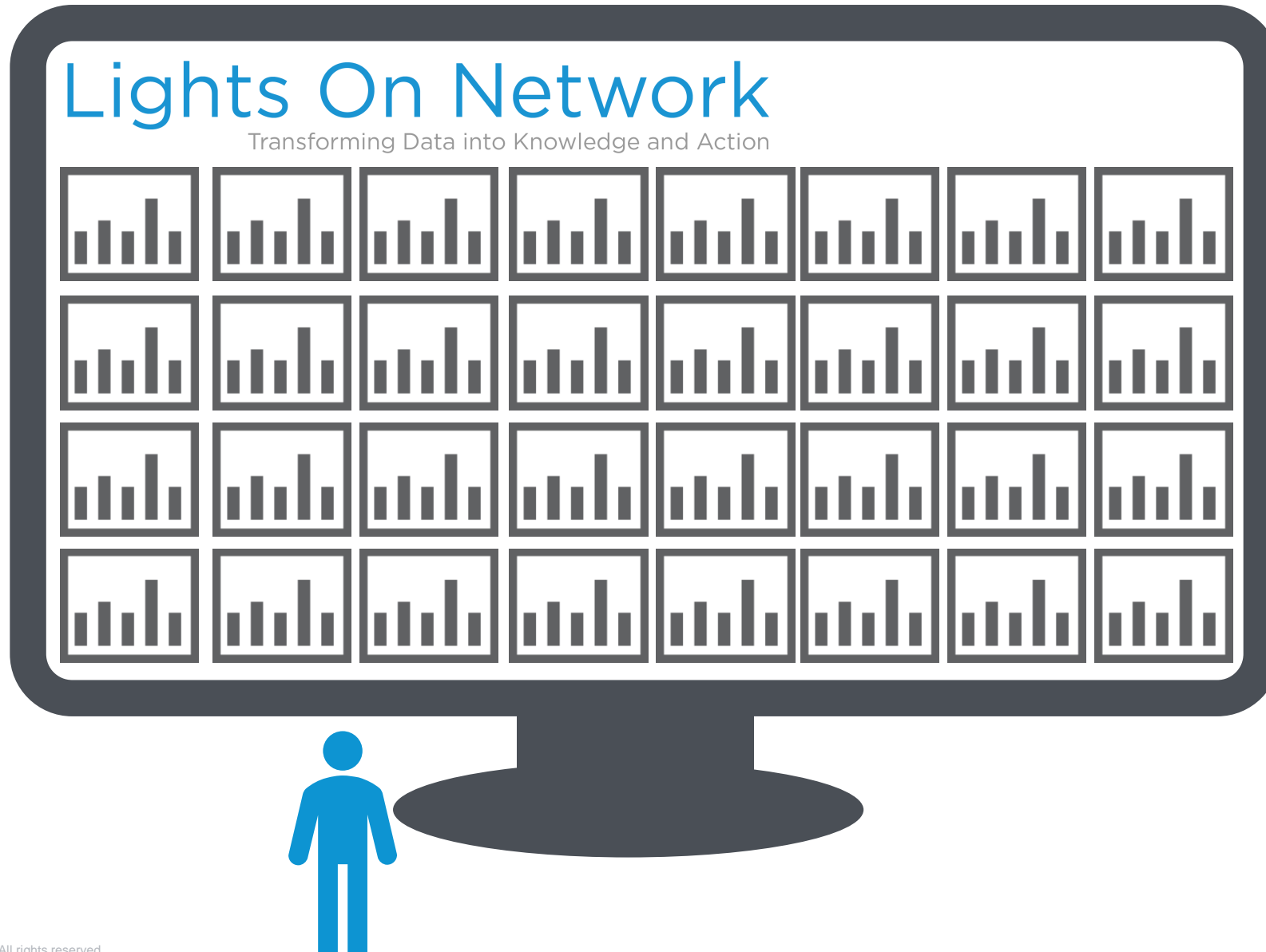
# Unified transparency across platforms



- Transparency across Cerner's core platforms for integrated analysis
  - Millennium
  - CareAware
  - HealthIntent
- Additional organizational context through external sources



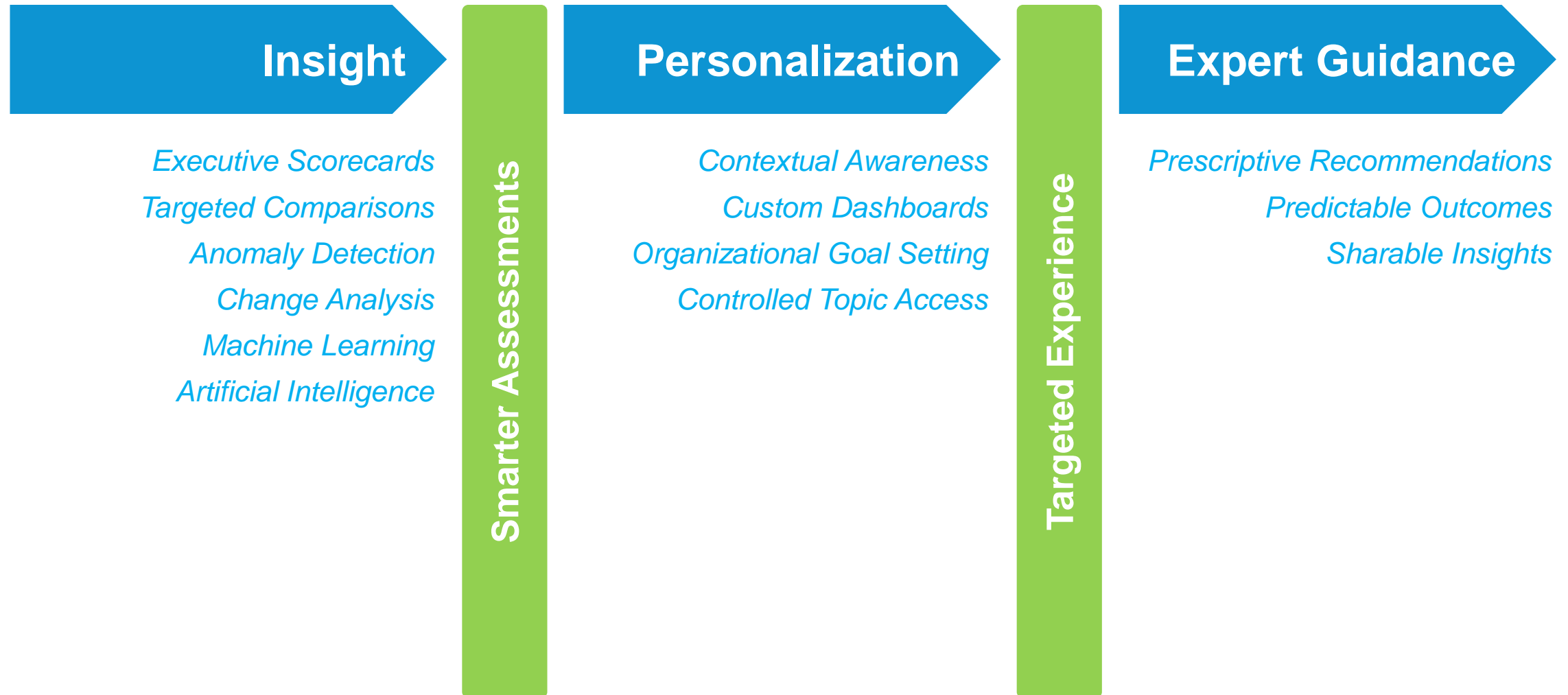
# Create a targeted experience



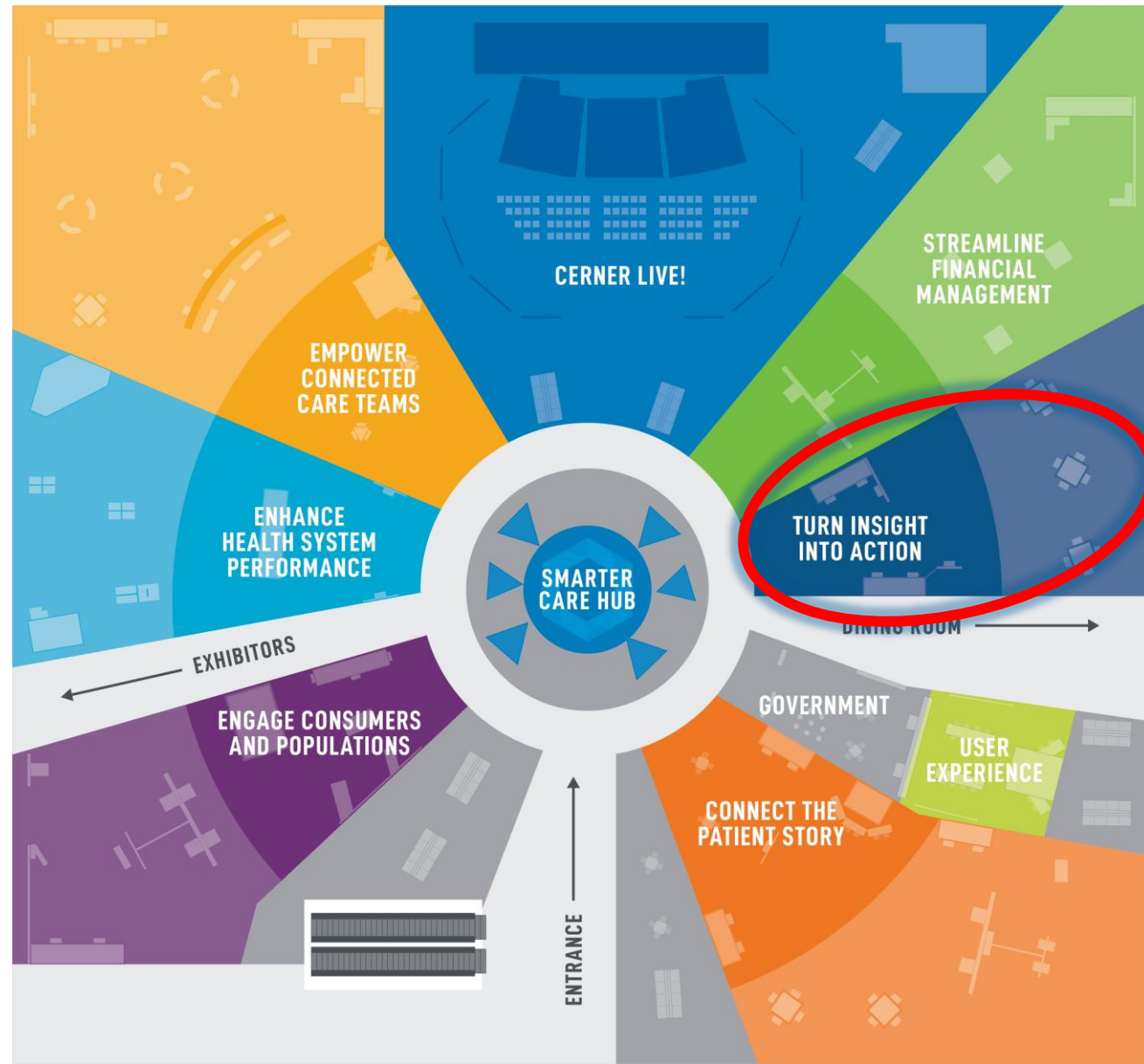
**78** DASHBOARDS  
**381** REPORTS  
**426** METRICS  
**138** ROLES  
**16,537** USERS

# Organizational Health Model

Right data, right time, right person to make optimal decision



# Learn more in the solutions gallery



# Related Education Sessions

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## Today

**3:30 PM – 4:30 PM**

Addressing the overburdened clinician with an optimization “Uplift” program at IU Health

## Wednesday, October 10<sup>th</sup>

**11:00 AM – 12:00 PM**

Clinical documentation modernization: our strategy to create efficient documentation

**12:15 PM – 1:15 PM**

Using CDS to overcome obstacles: processes, capabilities, and metrics to make an impact

**1:30 PM – 2:30 PM**

Incorporating management for daily improvement to support continuous advancement

**2:45 PM – 3:45 PM**

Using data analytics to decrease nursing time in the EHR



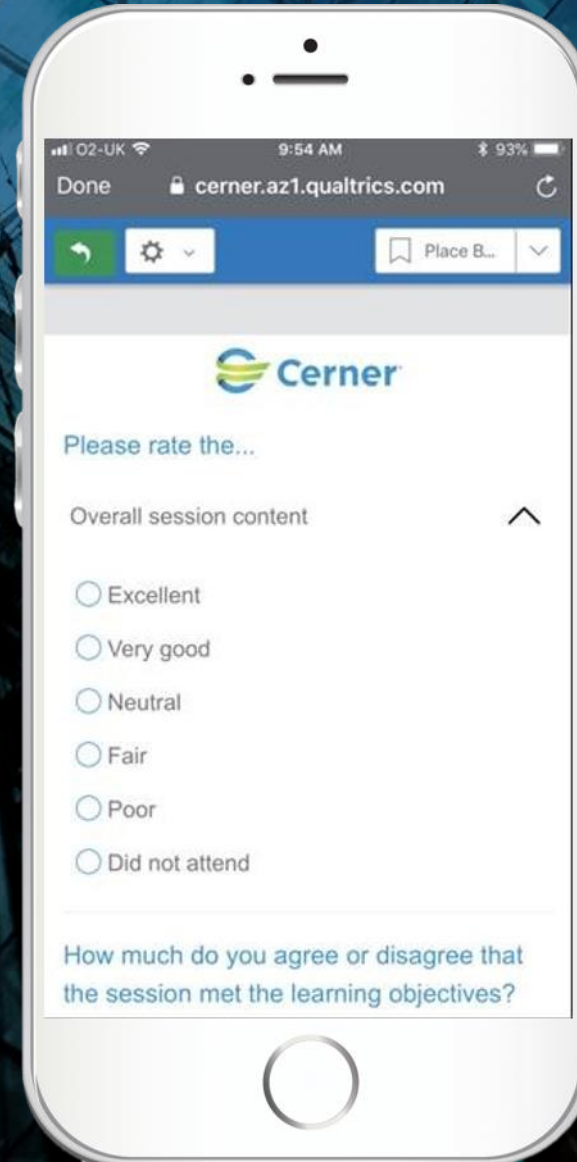
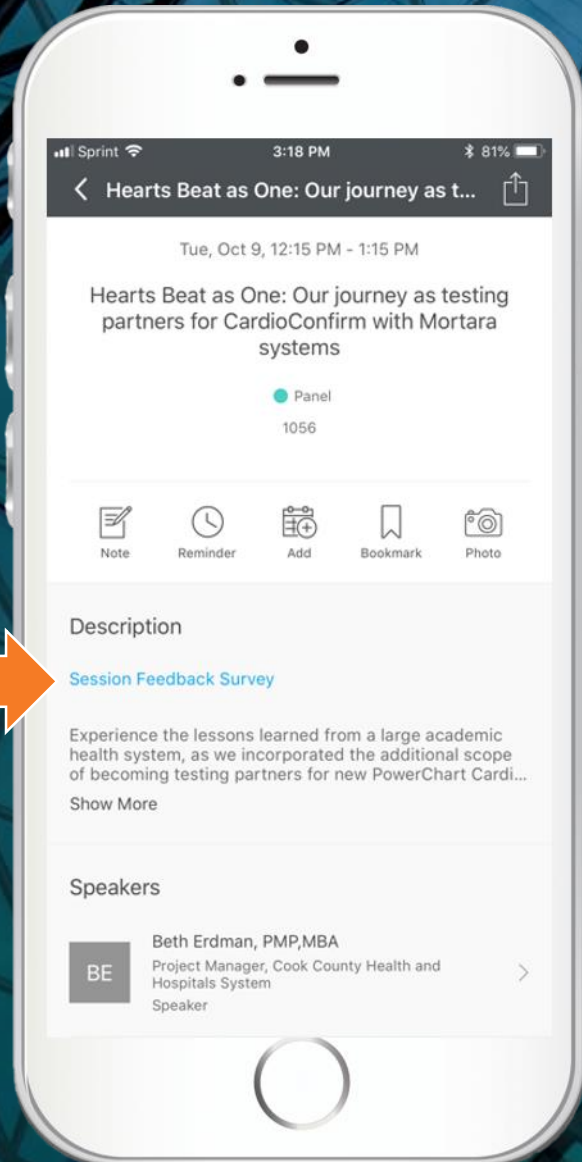


*Numbers have an important story to tell. They rely on you to give them a voice.*

Stephen Few



# Share your session feedback



# LightsOn Resources

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- **Videos:** <https://connect.ucern.com/docs/DOC-240163>
  - LightsOn WBT: <https://connect.ucern.com/docs/DOC-627141>
  - Advance WBT: <https://connect.ucern.com/docs/DOC-549788>
- **Workshop:** <https://connect.ucern.com/thread/1704929>
  - LightsOn & Advance
  - 3 days
  - Instructor led
- **Reference Pages:** <https://wiki.cerner.com/x/nLJV>
  - User guides for each dashboard
  - Metric Definitions