



# Keeping Your Medical Center CIO Engaged

Using Splunk to increase real-time IT operations transparency and create insights into clinical/patient data

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# Agenda

- ▶ Michigan Medicine (at University of Michigan)
- ▶ Splunk Deployment at Michigan Medicine
- ▶ A use case for CIO
- ▶ Other use cases
- ▶ Next Steps

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# Michigan Medicine

At University of Michigan



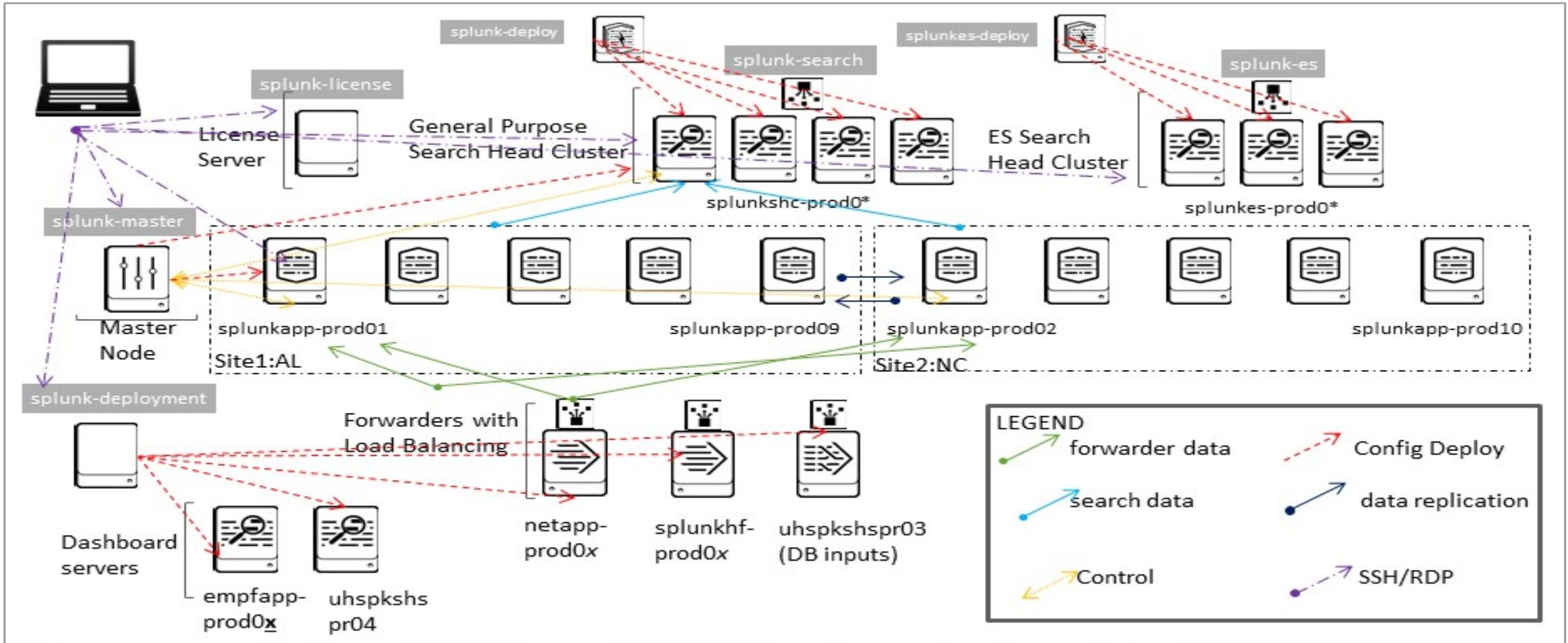








# Splunk Deployment Today



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# CIO Dashboards

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A Splunk Use Case for CIO real-time single pane-of-glass

# Background Story

Once upon a time, when your CIO gets a new office in the C suite ...

- ▶ **Project Summary:** Display multiple clinical and IT dashboards in a single display
- ▶ **Project Goals:** Expose Michigan Medicine Leadership to real time, actionable data regarding IT and Clinical Operations to demonstrate the power of dashboards and analytics
- ▶ **Business Values:** “Wow” factor aside, attract visitors attention, funding and collaboration opportunities
- ▶ **Hardware:**
  - Standard managed PC
  - 4k monitors
- ▶ **Additional Software:**
  - Windows Manager
  - Display Fusion







# Overview Of What We Did

## ► Non-Splunk dashboards:

- Epic Executive Dashboard
- Epic Monitor
- Alertwatch
- Business Objects
- Tableau
- Aspect real-time monitor

## ► IT/business related dashboards:

- Remedy Ticketing
- Huddle board
- Major Incident
- Sitescope

## ► Clinical/Research related dashboards:

- Diabetes Registry
- NIH word clouds
- Epic User geotagging
- Epic patient geotagging

# Remedy Dashboards

## ► Challenges

- Unified service delivery view

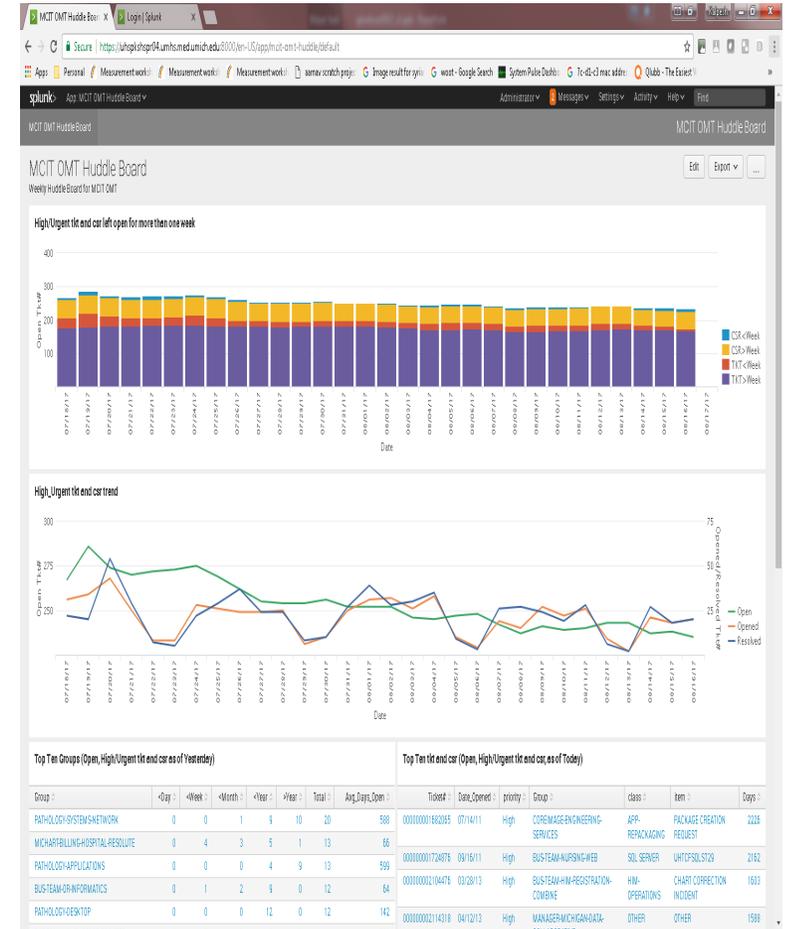
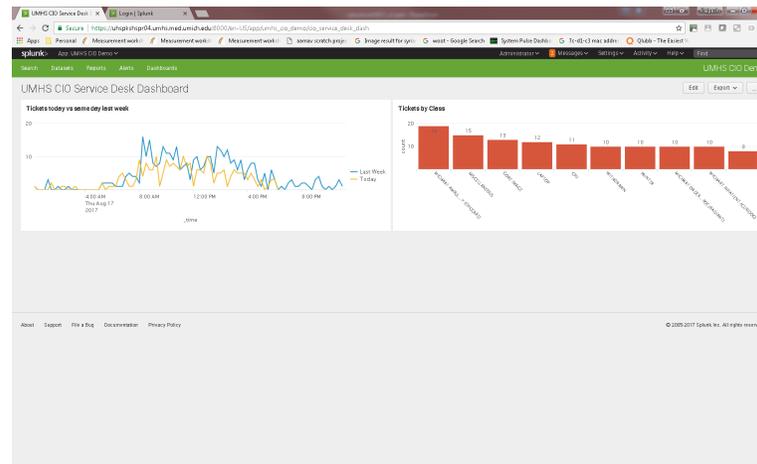
## ► Business Impact

- Continued high level of customer service and optimized customer experience

## ► Data Sources

- Remedy data using DBconnect 1.x
- Full incident database snapshot every night

## • Tail for updates











# Michart(Epic) User Access

## ► Challenges

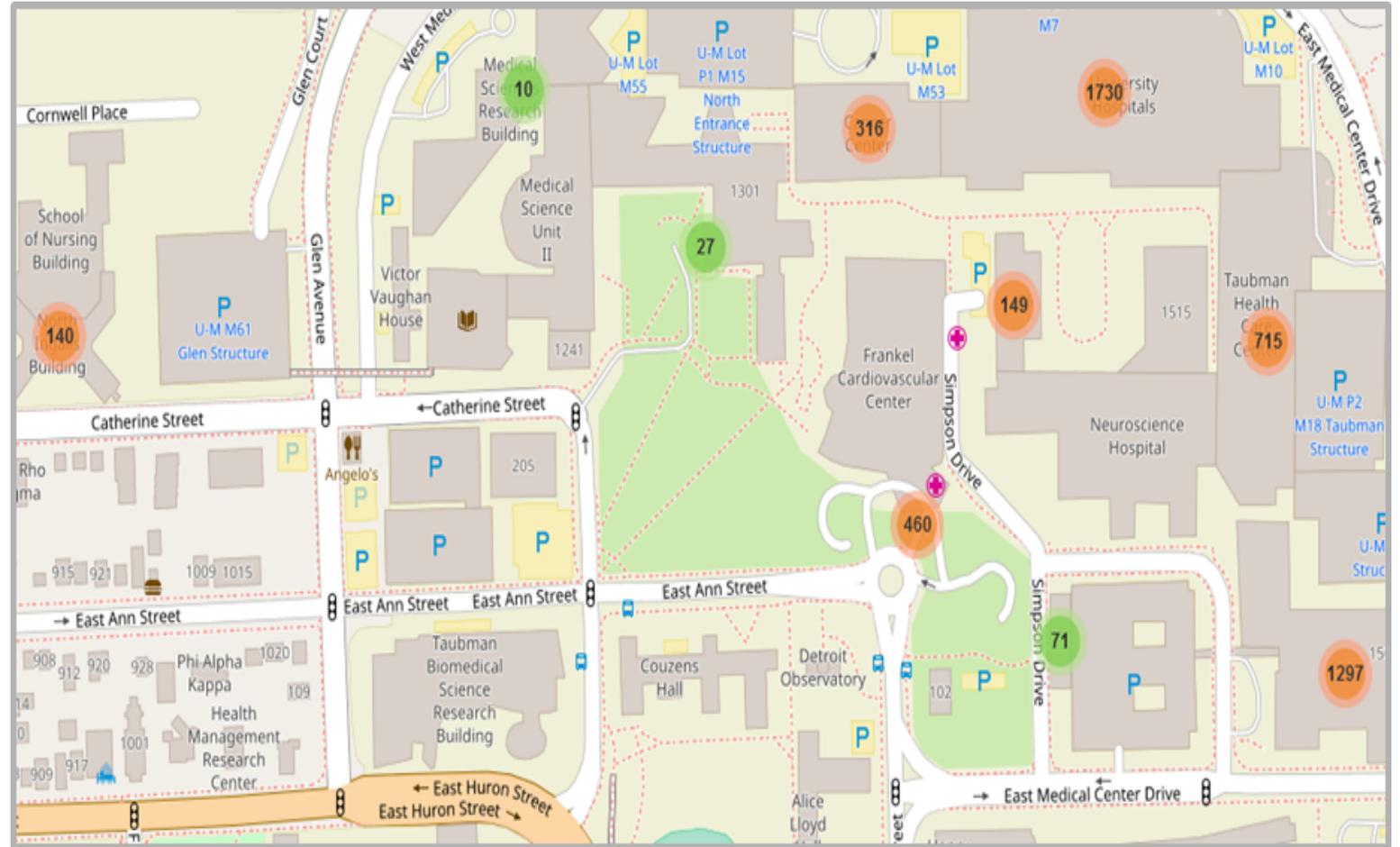
- Determining Epic availability

## ► Business Impact

- Improved customer satisfaction

## ► Data Sources

- Epic Cache database
- Access logs
- Inventory Database
- Building/latitude/longitude





# Other Use Cases

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In Production

# Network Admission Control

## ► Challenges

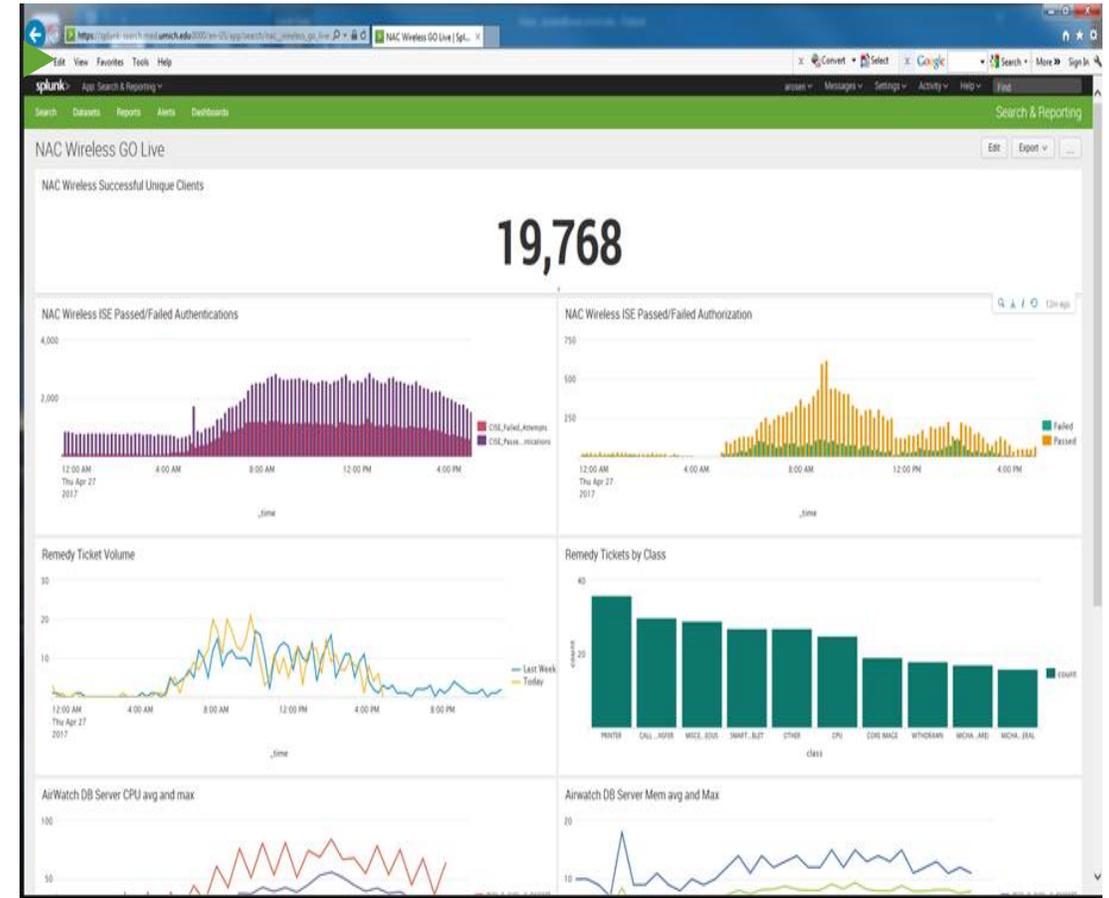
- Streamline Wired/Wireless NAC deployment across the enterprise

## ► Business Impact

- Operational visibility during NAC deployments

## ► Data Sources

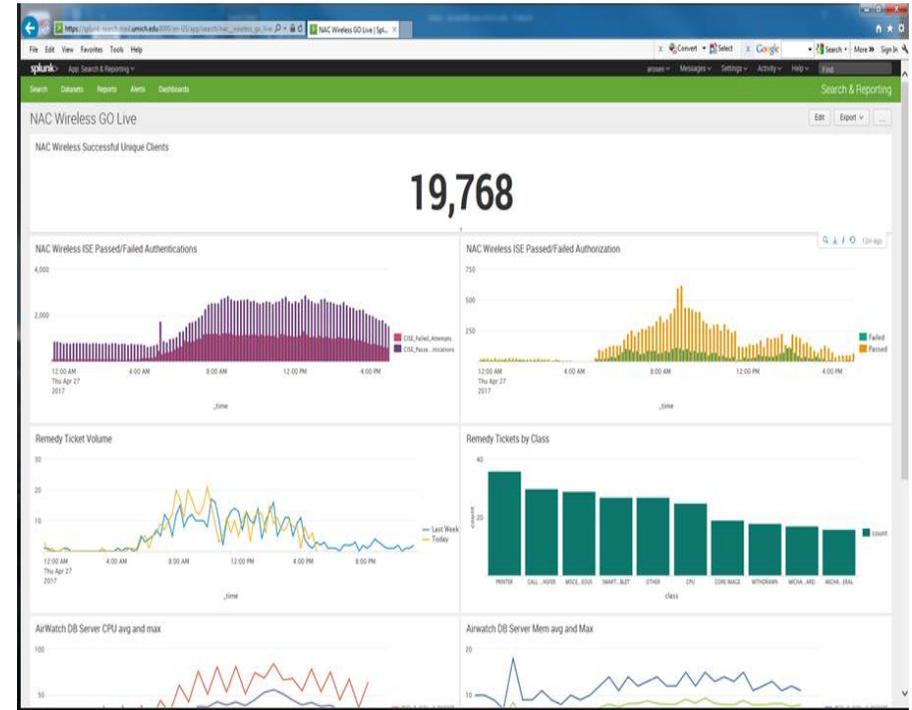
- Inventory
- Cisco ISE data/Prime data
- NAC portal logs
- Airwatch Server data
- Remedy data



# Use Of Dashboards During NAC Go Live

Email from our CIO to our C-Level executives

- ▶ NAC go live went very well today. This was the culmination of 19 months of work!
- ▶ As you can see from a screen shot of our real-time analytics, we were close to 20,000 unique users by end of day. (As an aside, the use of these real-time data/analytics tools are great examples where we could use them and other tools for our other clinical/operations.)



▶ Andrew



# Thank You

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