GOLIATH TECHNOLOGIES®
HEALTH IT OBSERVABILITY

CASE STUDY

Understanding "Actual" Clinician Experience with Epic Hyperdrive

A large health system with over 2000 sites of care addressed clinician complaints about Epic Hyperdrive speed and reliability by using empirical data to gain a comprehensive view of clinician experience, identifying impacted individuals, the frequency and duration of issues, and root causes for faster remediation.

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Background

One of the largest Nonprofit Health Systems in the US was experiencing clinician and nursing complaints from users of Epic Hyperdrive. They engaged Goliath Technologies to help them frame the size of the problems, isolate root causes, and determine a remediation plan based on the findings.

Challenge

The health system faced spotty complaints from very vocal and prominent surgeons in one of their geographic regions. Both Clinical and IT Executives wanted to understand the extent of the issues and the contributing factors so they could be remediated. Despite exhausting all available tools and consulting vendors, no actionable data was found. The health system then reached out to another region using Goliath Technologies for assistance.

Scoping the Extent of the Problem

The frustration was acute. The executives wanted to respond to and resolve the reported issues but there was no actionable data, so our first challenge was to understand the true extent of the issues our client was facing.

As a general statement, IT and Clinical executives have difficulty knowing at a meaningful level whether clinicians are having issues with speed and reliability when it comes to Epic Hyperdrive or any other EHR, business, or clinical application. This is not from a lack of interest or investment. Health systems in the US are estimated to spend between $250,000 and $2 million per year on clinician and staff surveying, depending on the size and number of physicians.

Limitations of Subjective Reporting Methodologies

The problem is traditional methods rely on clinician feedback or self-reporting. Surveys or feedback sessions, regardless of the methodology used to conduct them, receive between >10%-25% participation. Add to this that, according to the AMIA less than 10%-15% of clinicians even report EHR slowness or logon problems to help desk.

Finally, when it comes to understanding EHR speed and reliability issues specifically, it is impossible to arrive at actionable data through human interaction. In a direct interaction, a clinician or user can describe their experience using the application at a nuanced level. Conversely, even the best description of speed and reliably issues are usually conflated and ambiguous, “Epic is slow”, or “My logon is slow”.

Solution

Establish a Complete Dataset

Goliath Technologies' first challenge was to understand the true extent of the issues the client was facing. Traditional methods relying on clinician feedback or self-reporting were

insufficient, as they received low participation rates and often resulted in ambiguous descriptions of issues. To address this, Goliath Technologies used digital data to provide nuanced details missing from most descriptions of speed and reliability issues. Data was correlated from 100% of clinicians without the need for their participation, providing a comprehensive view of clinician experience.

Illustrative Example: Actual Clinician Experience with Epic Hyperdrive

Within five business days, Goliath Technologies was able to correlate and present data, providing a full view of clinician experience from every user, location, application, and specialty. This data-driven approach allowed for a quick understanding of the issues and their root causes.

The uppermost presentation layer allowed us to see the numbered data quickly (Image A):

1. Data by health system or clinic location.
2. Clinician experience score based on the user experience metrics that are automatically compared to industry best practices.
3. Total number of users correlated with those that are experiencing speed and reliability issues.
4. Speed and reliability root cause analysis to see quickly why issues are occurring so we can focus on those areas for remediation.
5. Logon times for those locations and users.
6. High level summary data to convey initial impressions and areas for remediation focus.

Image A: Epic Hyperdrive & Citrix Clinician Experience Data

EPIC Clinician Experience Analytics

1 Health System Location	2 Clinician Experience Score	3 Total Users	Users Experiencing Speed and Reliability Issues	4 Speed and Reliability Root Cause Analysis				5 Logon Performance		6 Summary Review
				Slow Speed from User Location	Slowness Due to Network	Slowness Due to User Activity	Critical Slowness	Logon >= 30s	Reconnects >= 10s	
University Hospital	93	4267	25 <1%	5	19	1	1	225	20	Best scorecard we have ever to date. The few outlying, impacted users seem to be experiencing network-based issues. Evaluate these users with the poorest scores to identify any common factors.
Oncology Center	93	1624	17 1%	8	10	4	1	72	9	The few outlying, impacted users seem to be experiencing network-based issues impacting S&R. Evaluate these users with the poorest scores to identify any common factors. Logon times as a percentage of users is significant >30 seconds while there are no issues with reconnects. Initial logons require further investigation, consult product details.
Children's Hospital	92	2662	44 2%	35	15	5	4	167	25	Just over 5% of users are impacted, largely by local client connectivity. Complaints from these users can be investigated at the endpoint. Initial Logons require investigation see product details.
Orthopedic Surgery Center	92	731	11 2%	8	5	3	7	11	8	Just over 12% of users are impacted, largely by local client connectivity. Complaints from these users can be investigated at the endpoint. initial logon and reconnects are an issue here and likely Wi-Fi related at the surgery center location.
Ambulatory Surgery Center	68	142	47 33%	36	29	8	31	30	23	Just over 7% of users are impacted, largely by network delays. Investigate users with the poor Network scores to identify any common factors.
Regional Hospital	61	1936	739 38%	704	398	183	361	652	214	~25% of users experiencing S&R largely by local client connectivity. Complaints from these users can be investigated at the endpoint for network conditions and endpoint activity. Initial logon times significant so consult product details on specific users from this location over past 30 days.

Results

The data-driven insights united Clinical and IT teams around facts, not opinions. Shared, unbiased data enabled productive collaboration between Clinical and IT leadership, leading to the approval and implementation of permanent remediation actions.

Key Insights

- Overall EHR speed and reliability were within acceptable ranges, indicating that the initial perception of broad poor experience was exaggerated.
- Several locations were experiencing clear issues with clinician experience, but these were not caused by Epic Hyperdrive or the datacenter infrastructure.
- Further investigation was required in areas experiencing poor performance, but the data significantly narrowed the aperture for investigation, allowing for more productive and efficient investigation.

Conclusion

Goliath Technologies' approach provided the health system with actionable data, enabling them to understand, quantify, and resolve chronic speed and reliability issues. The collaboration between Clinical and IT teams, based on shared data, led to improved clinician experience and more efficient remediation efforts.