How actionable visibility helped a healthcare giant improve feature velocity

THE PROBLEM
Supporting an aggressive business growth plan with limited IT resources

For the IT staff at one of the largest providers of specialized hospitals and rehabilitation facilities for outpatient care in the U.S., supporting rapid growth with a relatively small core team is a daily challenge.

One product value stream was under particular pressure, as they developed and supported the systems used by tens of thousands of patient care specialists. While the business often complained feature delivery was too slow, the developers were either drowning in unplanned support work or blocked while waiting on input or approval from the business.

They turned to Tasktop Viz and the five Flow Metrics to better understand where their work was slowing down. They sought to discover which investments in people, process and technology would help them go faster. And they wanted clear data visualizations to share with their leadership and peers to advocate for those investments.

HIGHLIGHTS
- 2x increase in feature Flow Velocity
- Massive reduction in support ticket volumes
- Identified precisely where to invest to remove impediments to value delivery

“Getting visibility into our Flow Distribution motivated us to take action, and we reduced the time we spent on incidents and defects from 60% to 20%.”

— Manager of Enterprise Applications
THE SOLUTION

In August 2019, the enterprise began using Tasktop Viz to generate Flow Metrics from their development work—managed in Microsoft Azure DevOps—and support work—executed in ServiceNow. The insights began surfacing within a couple of weeks.

Insight #1 from Flow Distribution: Developers are inundated by support work

Flow Distribution measures the de-facto investment in different types of value creation. It shows the ratio of business value creation vs. business value protection in a given time period.

The Flow Distribution for the month of August was conspicuously red (see Figure A), the color reserved for defect and support work. Nearly 70% of what this product value stream delivered was resolutions to bugs and support tickets. Only 25% of their delivery was of features (in green) that generate new business value.

The Flow Metrics and a cross-check with ServiceNow data confirmed the value stream’s suspicion: their weekly release cadence introduced user experience changes at a clip their clinical practitioners were not prepared to absorb. The high volumes of support tickets were not software defects, so much as misunderstandings of new capabilities, resolvable through conversations. However, those conversations were consuming precious developer bandwidth.

Impact of learnings from Tasktop Viz:

- An experiment was run in September to use feature flagging to artificially slow down the release of UX changes to production from once a week to once a month. The monthly release was accompanied by a newsletter and training.
- An improved Flow Distribution in September confirmed the hypothesis, and month after month the ratio of defects declined while the Flow Velocity for features increased.
- The results were shared with other product value streams, who soon adopted the revised release schedule to similarly favorable results.

Insight #2 from Flow Efficiency: Hire more BAs, not developers

One of the knee-jerk, go-to solutions for poor feature velocity is hiring more developers. Yet, for this product value stream, the Flow Efficiency metric in Tasktop Viz helped make a data-driven case to hire more business analysts, and not more developers.

Initially, the Flow Efficiency metric for feature work in September was at 100% (see Figure B). The interpretation of 100% efficiency is that feature work is never blocked and never waits—not once—as it makes its way from ideation to production. That was intuitively wrong.

This unrealistic 100% efficiency was an alarm bell: it meant this value stream had invisible wait states that weren’t currently being captured or measured. Without visibility into those wait states and where work was slowing down, they could not identify how to go faster.

Impact of learnings from Tasktop Viz:

- The value stream used the data to make a case for adding additional states to Azure DevOps to more accurately reflect their workflow.
- Once implemented, the Flow Efficiency metric in November adjusted to show a much lower efficiency, around 60%. The work was found to be waiting for business analysts, not for developers.
- The Flow Efficiency metric was taken to the CIO, who immediately approved the hiring of additional business analysts, knowing that this would clear the impediment to faster feature delivery.

“We were able for the first time to get a resource allocated to us outside of a budgeting cycle based on taking this live data to our CIO.”

— Manager of Enterprise Applications