The Buyer's Guide
for Value Stream Management and Flow Metrics

By 2023, 70% of organizations will use value stream management to improve flow in the DevOps pipeline, leading to faster delivery of customer value.[1]

90%
faster market response from shifting to product

Yet only **16%** can release more than once a month

The transition from project to product in Enterprise IT has the potential to drastically improve market response. Product line leaders can shift resources and funds up to 90% faster than in a project model.[2]

But that agility and authority is wasted if you can't take advantage of it ... And most large scale IT organizations are slowed down by inefficient end-to-end value streams.

Today, only 16% of software delivery organizations can release code changes more than once a month.[3] Inadequate data and analytics on end-to-end flow are impeding IT from accelerating business growth.

In this guide you'll learn how to select the right value stream management solution for your software delivery organization so you can improve velocity and time-to-market:

- Why value stream management?

- Setting the bar: some general considerations

- Getting ROI: seven must-have features

- Where to get additional help

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1   Gartner, The Future of DevOps Toolchains Will Involve Maximizing Flow in IT Value Streams, Majunath Bhat, Daniel Betts, Hassan Ennaciri, Chris Saunderson, Thomas Murphy, 14 January 2020.

2   Gartner, Benefits of IT Product Line Management, CIO Research Team, 11 December 2019

3   Forrester, Digital Transformation Requires Development Transformation, Jeffery S. Hammond, Diego Lo Guidice, and Christopher Condo, 13 December 2019.

Why **Value Stream Management?**

Business and IT leaders are under constant pressure to deliver outstanding customer experiences, fueled by technology and innovation, at the speed of the market and at a competitive cost.

Maximizing flow in DevOps value streams helps achieve these goals by minimizing bottlenecks and improving team productivity, employee morale and customer satisfaction.[4]

But to maximize flow, you have to measure flow and continuously improve it. The **flow metrics** were designed to do exactly that, for example: Flow Time measures speed to market, Flow Efficiency measures wait times, and Flow Velocity measures productivity (or throughput).

Value Stream Networks Are Complex

Measuring flow metrics over complex knowledge work networks in enterprises with thousands (or tens of thousands) of IT practitioners can be challenging. The information is never in one place.

These heterogeneous toolchains are evidence that practitioners seek specialized tools and demand user experiences that maximize their role's focus — flow and joy— one of the five ideals for the modern enterprise.[5]

42%
of large-scale software delivery organizations use **4–10 core collaboration tools** for Portfolio Management, Design, Enterprise Agile Planning, Testing and ITSM, and dozens of additional tools to support the CI/CD pipeline and operations.[6]

Measuring flow for product value streams involves tracing its constituent units of value creation as they traverse teams, tools and departments in the form of artifacts like Activities, Capabilities, Epics, Features, Stories, Bugs and Incidents.

What **Value Stream Management Tools Do**

- Measure the rate of value delivery for software products and services
- Provide actionable insights into the obstacles impeding business value delivery
- Present a unified executive view of software delivery productivity and its correlation to business results like growth and quality
- Provide insight into the strategic health of product value streams
- Inform data-driven decisions about future investments in a product line

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4 Gartner, The Future of DevOps Toolchains Will Involve Maximizing Flow in IT Value Streams, Majunath Bhat, Daniel Betts, Hassan Ennaciri, Chris Saunderson, Thomas Murphy, 14 January 2020.

5 https://www.forbes.com/sites/peterhigh/2020/03/10/in-the-unicorn-project-bestselling-author-gene-kim-defines-five-ideals-for-the-modern-enterprise/#7b234cc14bfd

6 Kersten (2018). *Project to Product*. IT Revolution, p. 174.

Setting the Bar: Some General Considerations

Time-to-Value

Leadership needs data insights fast, in order to respond to a rapidly changing market and economic climate.

- Can the value stream management solution provide visibility into value streams within hours of provisioning?
- Can it work within the current tool structure, without imposing prerequisites and preconditions (e.g., changes to tools, artifacts, schemas, processes and organizational structures)?
- Does the solution support a gradual transition from project to product, measuring both project- and product-oriented value streams?

Scalability

For value stream management to be adopted at scale, the solution must establish the foundations for sustainable and scalable flow metrics.

- Does the solution support variability in ways of working and tool stacks, while making it possible to enforce standards centrally, as needed?
- How well does the solution insulate flow metrics from toolchain changes, like version upgrades, new tools or migrations to the cloud?
- Can configuration be delegated to the value stream leaders themselves to ensure accuracy and trustworthiness of the data?

Implementation

Many organizations need help to define their value streams, identify and implement strategies to improve flow and drive new behaviors.

- Can your vendor help support the change, from the practitioner level all the way up to the C-suite?
- Does the vendor provide sufficient coaching and advisory on strategies to improve flow and drive change?
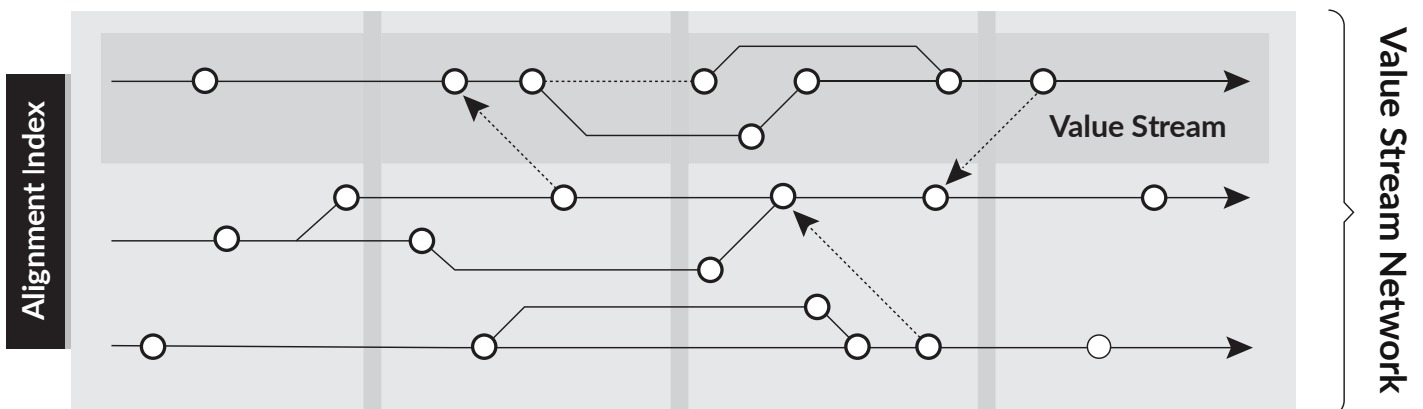
Getting ROI: Seven Must-Have Capabilities

Business Orientation

Software delivery value streams exist to create value for the business. Make sure you can measure IT productivity correlated with business impact.

- Are the value stream metrics presented in a nontechnical language suitable for a conversation with business partners or a finance stakeholder?
- Does the solution create a focus on the business outcomes supported by the product lines, for example, business growth, customer satisfaction, cost control, quality and employee engagement?
- Are flow metrics trended alongside the critical business outcomes of each value stream?
- Do executives have a birds-eye view of flow metrics and business results across a portfolio to support rebalancing and prioritization?

Actionable Flow Forensics

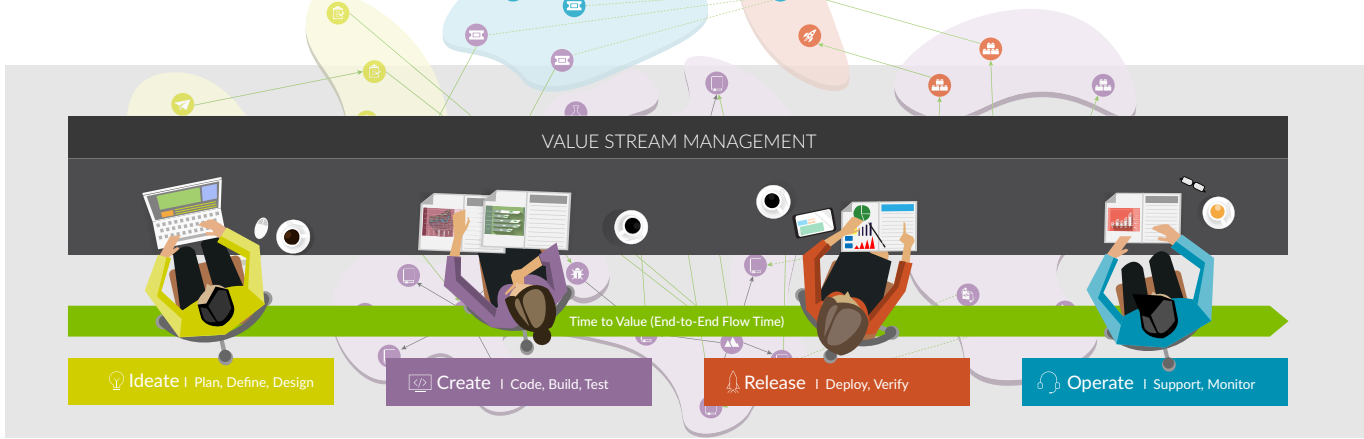**The goal of measuring value streams is to identify what you can improve, before it's too late.**

- Does the solution identify bottlenecks that impede faster delivery? Can you easily discern which bottleneck is most impacting end-to-end flow (the system bottleneck)?
- Can users investigate and probe bottlenecks by drilling down to the individual artifacts contributing to or being impacted by the constraint?
- How well can the solution quantify and visualize the improvement in flow when bottlenecks are minimized?
- How well does the solution ensure that the data is consistently accurate and trustworthy?
- How extensive is the utilization of AI/ML to surface actionable insights from the organization's data?

Context-Sensitive Analytics

Business context and contributing factors are vital information when interpreting metrics and using them to make data-driven decisions.

- Can flow metrics and business results timelines be decorated with meaningful business events such as changes to headcount, process, workflow or tooling; mergers, acquisitions and reorgs; strategy pivots; Ways of Working initiatives?
- Can the development cadence be overlaid on timelines, including planning, funding, program increments, releases, sprints, . . .releases or sprints?
- Are metrics normalized by FTE?

VALUE STREAM MANAGEMENT

Time to Value (End-to-End Flow Time)

Ideate | Plan, Define, Design

Create | Code, Build, Test

Release | Deploy, Verify

Operate | Support, Monitor

Visualization

Good visualizations help create a shared understanding of the value stream, its performance and its challenges.

- Does the solution provide visualization that digitally instruments the value stream?

- Is the visualization constructed from live value stream data vs. a static image that quickly becomes stale?

- Can the visualization facilitate the understanding of what flows in the value streams, how it flows (process) and how well it flows (speed and efficiency)?

Abstraction

Value stream management solutions project the business lens over carefully selected data subsets from within the toolchain, in order to measure by product line.

- How easy is it to carve out the data subsets that constitute a single product? Are the modeling capabilities sufficiently sophisticated to accurately define a product's scope?

- Does the solution support endpoints, artifacts and workflows without limitations or constraints?

- Does the solution abstract multi-tool artifact data into clear units of business value creation and protection to support enduring product lines?

- Does the solution support quick retroactive changes to value stream configuration as products and portfolios evolve?

Flow Orchestration

Automating the flow of work and replacing manual operations with digital workflows serve to remove waste and inefficiencies from the value stream.

- Does the value stream management solution enable you to control the flow of work, by automatically advancing it to the next step/tool when ready?

- Can the solution create and/or update artifacts based on an external event and add them to a product's backlog?

- Can the solution create and propagate digital relationships between artifacts to automate traceability?

Governance

Value stream management creates a control plane for delivering software at scale.

- How well does the solution establish governance over what to measure and how to measure your value streams?

- Does the solution provide a clear unified approach to improve quality and velocity?

- Can the solution help govern IT's shift from a project operating model to a product orientation?

Getting actionable real-time visibility into **end-to-end flow requires three capabilities:**

1. The ability to capture data from any tool without interruption and without destabilizing the tools' daily operation.

2. The ability to join and abstract the data from the individual tools into one integrated set of Flow Metrics per value stream, with powerful analytics and visualizations to highlight opportunities for improvement.

3. The ability to view the data sliced-and-diced through the business lens, so that software delivery performance can be correlated to business results.

Where to get more help:

AGILE RISING

www.agilerising.com/solutions/value-stream-management/

info@agilerising.com

412-301-6206

What is Value Stream Management in Software Delivery?

Bridging the Divide Between the Business and Agile/DevOps Teams with Value Stream Management

Flow Metrics: A Business Leader's Guide to Measuring What Matters in Software Delivery

Tasktop® is the leader in value stream integration and visualization. It catalyzes the shift from Project to Product for global enterprises and governments, enabling them to innovate and thrive in the Age of Software.

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