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Scrum-as-a-Managed Service: The New Frontier in Service Delivery

Abstract

Organizations across industries are increasingly shifting from the legacy waterfall model to agile delivery. In a typical client-vendor engagement where majority of applications or service delivery are overseen by the vendor, the practice of managed services is the de facto expectation. Consistent demand from customers in agile delivery and managed services is pushing organizations to explore newer service models. The challenge is to combine agile delivery principles with managed services in a single service model. This paper discusses the approach to create scrum-as-a-managed service, the challenges in formulating and executing this service model, and how these challenges can be overcome.

Scrum in Managed Services: Ensuring Quality and Predictability

Agile is already a way of life in most organizations and its benefits numerous, which has led to positive growth in performance and customer experience. A survey by McKinsey & Company in early 2017 shows that 81% of organizations stated that their overall performance improved by a moderate to significant degree since they adopted agile transformation[1].

Among the various processes and functions in an organization that are affected by the agile way of working is the client-vendor engagement. In such a relationship, agile delivery principles may cause a certain level of uncertainty. The reason: Each scrum team is different, having diverse velocities and varying story point sizes.

Scrum teams use story points as a unit to measure the size of a user story. The latter captures the description or requirements of a software feature from an end-user perspective. Scrum teams estimate the size of each user story in terms of story points, and this is commonly known as story point estimation[2].

A service model that executes projects within the scrum framework and uses managed services can help reduce consumer risk and increase predictability. However, the managed service model and agile delivery have different underlying principles, making it a challenge to combine the two.

Managed service demands a fixed scope, whereas the agile delivery model is driven by changing requirements and shifting priorities. Organizations that offer services operate under the pay-per-use model and have fluctuating demand, which is hard to fulfill under managed services[3]. Fluctuating demand in the agile delivery model makes it a challenge to maintain teams and manage their costs, while also mitigating customer risk and improving predictability. This requires service-providing organizations to embrace a calculated risk approach[4].

At the same time, executing scrum projects in managed services requires uniformity across scrum teams. A standardized estimation methodology and a set of references to calculate user stories can help agile organizations achieve such conformity. To ensure quality and the timely delivery of projects without impacting a team's morale and work-life balance, it is important to define a set of metrics to measure the health of scrum teams.

Key Elements of Scrum-as-a-Managed Service

Creating value with scrum-as-a-managed service is not just a simple game of combining two models. It requires overcoming certain challenges, right from estimating user stories and ensuring demand to defining and monitoring relevant metrics, as detailed below (see Figure 1). These challenges are more profound in a client-vendor engagement, as it is essential to balance customer expectations, risks, costs, and agile principles at the same time.

- **Establishing common scale:** The first step in designing a scrum-as-a-managed service model is to achieve uniformity and predictability. For instance, one story point can be defined as one day's worth of effort. At the same time, the amount of effort that goes towards various ceremonies involved in a scrum team, such as sprint planning, daily scrum, story grooming, sprint review, and sprint retrospective, have to be carefully considered to arrive at productive hours per day. Sprint duration can be standardized to two weeks to ensure uniformity across scrum teams and help with better management.

- **Estimating standardization:** To achieve uniformity or standardization in a scrum of scrums scenario, teams must create reference stories and estimate their story points. Reference stories are a set of common and typical user stories based on previous instances of executing scrums across the organization. This set of stories should be estimated in terms of story points, in consensus with multiple scrum teams by leveraging the organization's ecosystem. These reference stories can estimate actual user stories for new scrums. However, this would require creating a mechanism to review and update the reference story guide with new stories, and to modify estimates for older ones.

- **Ensuring demand commitment:** Through negotiations and consensus with the customer, a set of bulk story points should be committed for a specific time frame. Here, the service-providing organization with its contextual knowledge must play a consulting role in suggesting the right budget for the customer, thus adding exponential value. Venture capital-style budgeting is one way to launch a minimum viable product with future funding based on product performance[5]. This commitment on demand from the customer helps with capacity planning. Monthly and

quarterly tolerance limits should be defined in terms of story point consumption to minimize unreasonable demand fluctuations. This also reduces the churn in scrum teams, improving quality and predictability.

- **Determining the size of scrums:** To establish the right number of story points to be delivered in a sprint, scrum teams are advised to use the T-shirt sizing approach. For example, 20 story points per sprint is considered to be a small scrum, whereas 40 story points per sprint is a large scrum. Standardizing scrum sizes across an engagement period helps effectively manage the service. Story points are consumed against bulk stories committed by the customer. Customers should be charged in a suitable way, so that only accepted stories during the sprint review from various scrums are considered as consumed.
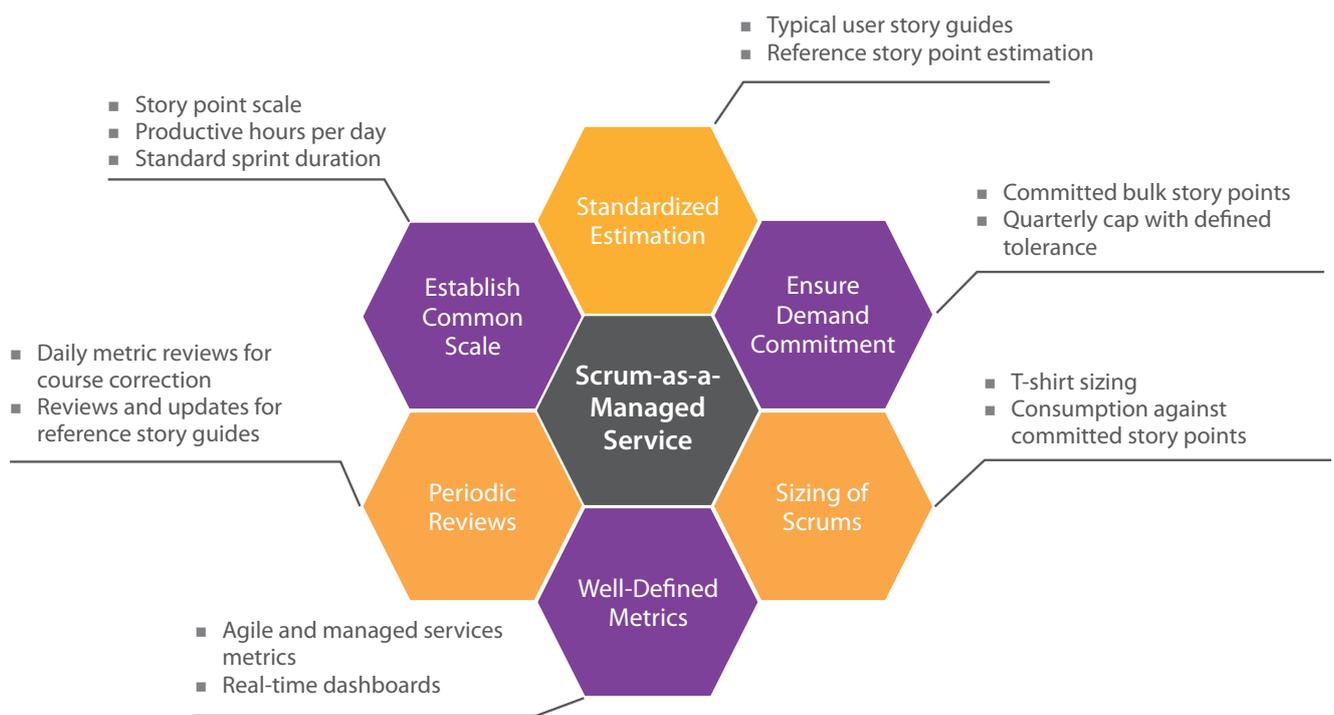

- Typical user story guides
- Reference story point estimation

- Story point scale
- Productive hours per day
- Standard sprint duration

- Committed bulk story points
- Quarterly cap with defined tolerance

- Daily metric reviews for course correction
- Reviews and updates for reference story guides

- T-shirt sizing
- Consumption against committed story points

- Agile and managed services metrics
- Real-time dashboards

Standardized Estimation

Establish Common Scale

Ensure Demand Commitment

Scrum-as-a-Managed Service

Periodic Reviews

Sizing of Scrums

Well-Defined Metrics

Figure 1: Elements of scrum-as-a-managed service

- **Defining metrics and the review process:** A set of metrics (see Figure 2) must be defined to effectively monitor and oversee scrum-as-a-managed service. The metrics need to ideally cover salient aspects of both agile delivery and managed service. Weekly reviews must be planned to assess metrics, draw inferences, and create an action plan. A constantly changing technology landscape and user scenarios make it essential to review and update the reference story guide periodically to ensure its relevance.

Schedule	Cost	Quality
▪ % of completed stories against planned stories ▪ Time-to-market for MVP* ▪ Time-to-market for end-product	▪ Velocity fluctuation ▪ % of rework ▪ Story point burn down rate ▪ % of effort deviation from reference guide	▪ % of sprint review bugs ▪ % of stories adhering to AC and DoD* ▪ Customer satisfaction index ▪ Team satisfaction index

* MVP - Minimum Viable Product   AC - Acceptance Criteria   DoD - Definition of Done

Figure 2: Sample metrics for scrum-as-a-managed service

Conclusion

As the demand for managed services grows, agility continues to be a crucial requirement for most customers. The ideal way forward is to combine these two essential factors influencing service delivery and devise a service model that benefits organizations and, in turn, their customers. The approach and solution discussed in this paper will help create a sustainable service model, minimizing risk exposure for the customer and the service organization with predictable outcomes.

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