

# Using the SAMOF Framework to Track Season Readiness

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## Executive Summary

TurboTax and related products produce Intuit’s main income stream (approximately 60-70%) of our operating capital. Our dependency on this income stream makes it imperative to insure that:

- a) TurboTax is ready for tax season, and that
- b) customers have an excellent experience using our core product.

SAMOF is a QuickBase created by Rahul Sharma that contains all the dimensions used in measuring season readiness to ensure that we meet those two goals. Every service, all underlying dependencies, etc., that impact the customer experience of TurboTax will be measured. SAMOF provides a common language and metrics (framework) for determining season readiness.

Every service, complete with its underlying dependencies, etc. that touches tax season will have a record in SAMOF. Individual owners are responsible for working through the various tasks until each task is assessed as complete and the ready for launch. During season readiness testing, Intuit will use SAMOF to measure how ready each service is and will reapply this methodology repeatedly until all marks of measurement are rated successful.

## Introduction

Historically Intuit has had no explicit linkage between performance and reliability requirements with a method of viewing the status of each service at a glance. In the past, metrics criteria are primarily process-oriented (versus product oriented) and/or subjective. Such an approach to deciding software readiness increased the risk of poor field performance and ultimately unhappy customers. At the same time, other companies are increasing their completion with Intuit in the space of personal and small business tax filing, increasing our need for being on the cutting edge of creating an excellent customer experience.

Two years ago, Intuit faced the problem of developing a repeatable methodology for determining the season readiness of each of TurboTax’s underlying services that contained the capability of being easily viewed. In TY11 we used a Season Readiness QuickBase that contained most of the elements being evaluated but without a way to view it in an easy-to-read dashboard format.

26 Categories	
Category	Description
Application Monitoring & Logging	<p>Wily Introscope</p> <ol style="list-style-type: none"> <li>1. Help ensure App team has appropriate Introscope monitoring of the App functions - work with team to make sure the right stuff is captured to be able to detect and identify root</li> <li>2. Help ensure App team has appropriate Introscope monitoring of the call to dependent services - every dependent service should have metrics that can quickly identify issues a</li> <li>3. Capture errors and response times - work with team to weed out the generic error (code/description) and make them more specific to point to problem area.</li> <li>4. Ensure Key metrics needed for BizOps dashboards are captured and appropriate metric grouping and calculators are setup (in our Morn)</li> <li>5. Capture and document the information about the APp team dashboard - how to get to it, what are the key dashboards/metrics operations can use</li> </ol> <p>Logging/Splunk</p> <ol style="list-style-type: none"> <li>1. Ensure key unique identifies are included in log entries to be able to identify and link transactions across the app and shared services - e.g. AuthId, ClientIP, GUID</li> <li>2. Work with team to build Splunk queries that can help narrow in quickly and find information to quickly identify root cause. Save queries and publish/share with Bizops team</li> </ol> <p>LTM (F5) health checks</p> <ol style="list-style-type: none"> <li>1. How are you using the LTM health check mechanism for your application?</li> </ol>
Audit and Compliance	<p>PCI, SSAE16 etc</p> <ol style="list-style-type: none"> <li>1. If your app deals with credit card numbers make sure they follow the PCI rules.</li> <li>2. For TTO, Data Services and EFE perform SSAE16 compliance tasks - talk to Suresh.</li> </ol>
Build Verification Process	<p>BVT (Build verification tests) have been tested and are executed each time a deployment occurs. Also, ensure the sequencing and dependencies of the individual builds in case of</p> <ol style="list-style-type: none"> <li>1. Make sure the App has proper test coverage when verifying the build (e.g. out of synch config issue)</li> </ol>

Each year CTG Biz Ops kicks off an end-to-end program called tax season readiness that runs from each year from May to April. All services hosted on our product infrastructure platforms that offer underlying support for TurboTax are measured as a result. All services must be up all the time during tax season or the failure of any service can have significant business impact. The SAMOF QuickBase Dashboard is a quick view of the experience status of all services.

In the last two years, CTG Biz Ops has established the SAMOF QuickBase (specifically the powerful dashboard key dimensions and customer experience views) as its primary method to evaluate and track each service to determine season readiness at a glance. We accomplished this by using specific task-based criteria for assessing each service's state and connecting it in the QuickBase so that the current status of each state is easily viewable. This document describes at a high level, how to use the SAMOF framework that has since been put into place specifically for this purpose.

## Season Readiness Dimensions

Scalability, Availability, Monitoring, Operations support and Feature functionality; all of these are dimensions or key elements of season readiness. The SAMOF framework allows everyone to use a common language when referring to the metrics for determining season readiness as well as addressing the need of viewing the current status of all services. Each of the elements is made up of key tasks that must be performed before each area is considered complete and ready. These metrics will be evaluated both in test and in production states.

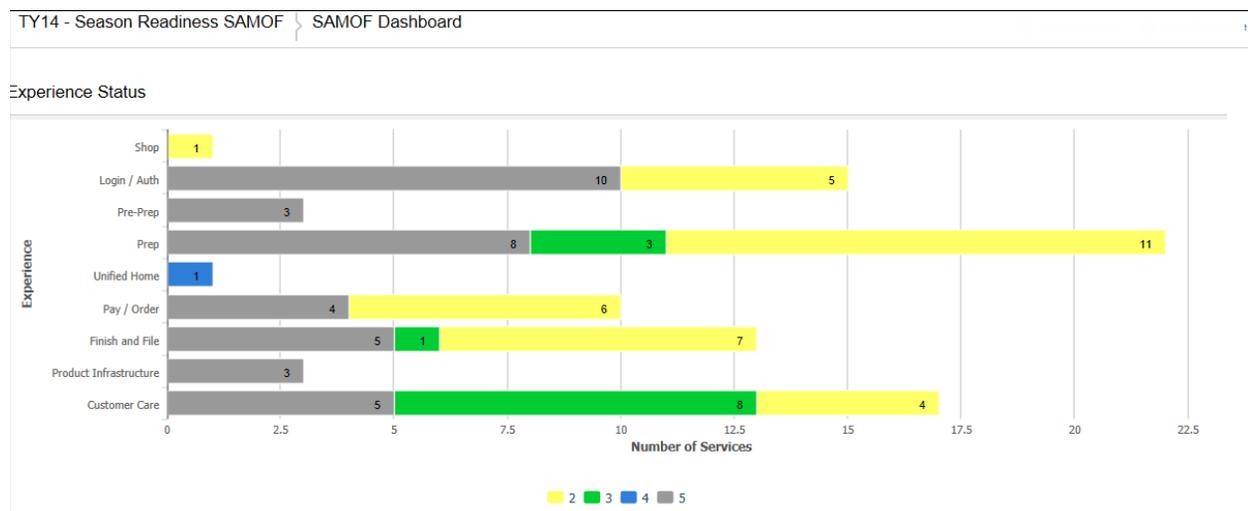
The following discussion is how to use the SAMOF QuickBase Dashboard to view or assess the current state of readiness for any Intuit service by experience. The current year SAMOF QuickBase is available at <https://intuitcorp.quickbase.com/db/bjdt4zs3p>.

## Focus on Customer Experience

The SAMOF Framework uses the focus on customer experience as a way to measure season readiness. Each of the key experiential states is represented in SAMOF.

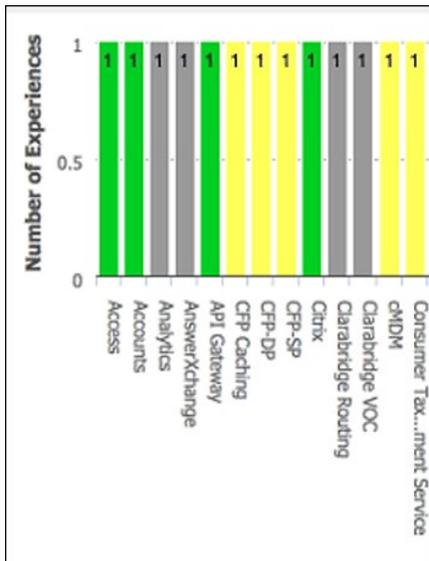
## The SAMOF Dashboard

One or more service offers each of the experiences listed on the Dashboard. At a glance you can see that each service is evaluated by customer experience levels and various degrees of readiness are noted by the color shown on the experience line in the following graph:





Here is an exploded view of the number of experiences of a service and their current overall state of readiness. You can dive deeper into specific tasks that must be done before each service is fully determined to be complete and ready.



You can click on any of the items and view the overall state of the experience. Using EBS as the example, clicking on EIB (the service), you can see the overall state of readiness for the experience is currently far off from being assessed as complete and ready. You can also see what criteria is used in evaluating readiness as well as what is missing or what state each item is currently being assessed at.

1 Service											
	Experience	Group (s)	Service	Notes	Live ?	Go Live Date	Scalability Summary	Availability Summary	Monitoring Summary	Operations Summary	Features / Functionality Summary
	Pay / Order	EBS	EIB	Enterprise Integration Backbone	Field not updated						

You can view the service to see more details of where each dimension is currently at in terms of testing and performance.

In addition to Experience and Service Status, the SAMOF contains other dashboards for each of the key elements used in assessing season readiness. You can easily view each service by each element of the SAMOF.

TY14 - Season Readiness SAMOF > SAMOF Dashboard
Experience Status
Service Status
Scalability by Experience
Availability by Experience
Monitoring by Experience
Operations by Experience
Features/Functionality by Experience

## Key Metrics

Some of the key points that are analyzed (see the SAMOF QuickBase for a full list) during this assessment are:

- **Scalability** – Key metrics identified for any service, service supports at least 138% of prior year’s Peak Traffic and Load, and all products provisioned and verified.
- **Availability** – RTO is communicated to App Ops, dependency and integration points are identified and user Experience Flow diagrams capture downstream dependencies for each service, FMEA is completed and expectations communicated; contingencies are summarized, failover testing is identified and all systems are fully functional. Testing is done in pre-prod and Production (if possible). In addition, the service’s playbook is linked to the QB record.
- **Monitoring** – Customer Experience Monitoring (CEM) is in place for each service and component of the experience, it is configured on all sites, appropriate monitoring tools and metrics are established to detect and identify root causes of issues, dependent service calls are being monitored, and key metrics are captured and sent to App Ops. Also perform system health checks using monitors that pin the WIPS, VIPS, and web servers.
- **Operations** - Incident management plan is documented and tested, alerts have appropriate escalation levels defined, relevant team members are knowledgeable about the change management and Change Approval Board (CAB) processes, and the security assessment review is performed on each service.
- **Features and Functionality** – All features and functionality must be fully QA tested, key customer experience pages must be captured and uploaded to App Ops TY14 Teamspace, all pages reviewed by Privacy/Legal/PM to make sure message content is reviewed.

## Conclusion

The SAMOF Framework was put in place to address the overall operational goal of excellence. The focus is first on prevention, then detection of issues, response to acknowledge knowing of outstanding issues, restoration of system health, and ultimately a final resolution of the issue. This white paper is the first of several to further address the best ways that Intuit’s CTG Biz Ops group can both meet and exceed the needs of our business partners.