

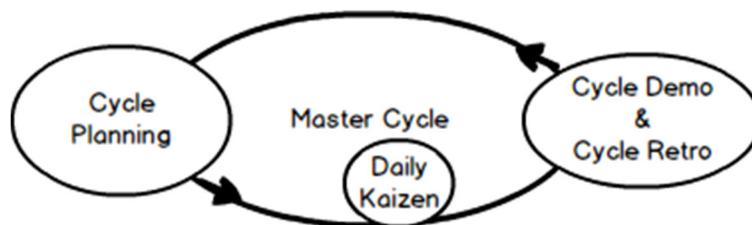
The Stable Framework™

The Stable Framework™ is designed to handle the Operations side of an IT environment. This includes DevOps, Operations, and any repeatable processes performed in Development.

The Stable Framework is comprised of one Master Cycle, two roles, three domains, and four meetings.

The Master Cycle

The Master Cycle is how we measure progress over time. Similar to an Agile sprint, a Master cycle can span from one week to one month. If you have an Agile team it's best to synchronize your Master Cycle with your Agile sprints. The Master Cycle starts with a Cycle Planning meeting which lasts several hours, and ends with a Cycle Review meeting, and a Cycle Retrospective meeting. Combined, the meetings shouldn't last longer than two hours. Every day during the cycle the group performs a daily Kaizen stand-up meeting.



The Two Roles

The two roles include the Master Chief and the Process Owner. The Master Chief (MC) is responsible for establishing the Stable environment, delegating work objectives to the team of Process Owners, verifying accountability, and being sure the Stable Framework is being practiced correctly. The MC is also responsible for the success of the whole set of processes that collectively we call a System. This includes accountability, coordination, empowerment, boundaries, and nurturing the culture. The Process Owner (PO) is responsible for the success of the results of their repeatable processes.



Master Chief



Proces Owner

The Three Domains

The three domains are shared by each role, and include the Future, the Present, and the Past (in that order).



The Future Domain

The Future Domain contains an Asset Library tool containing institutional knowledge mostly in list form.

It also contains a Calendar tool. The Calendar tool will be used to feed scheduled tasks into the Present Domain's Kanban work Queue.

The lists are list of Standard Work items, Customers, Assets, and Services offered.

Standard Work items include a list of Standard Services, Standard Operating Procedures, and Standard Checklist Templates.

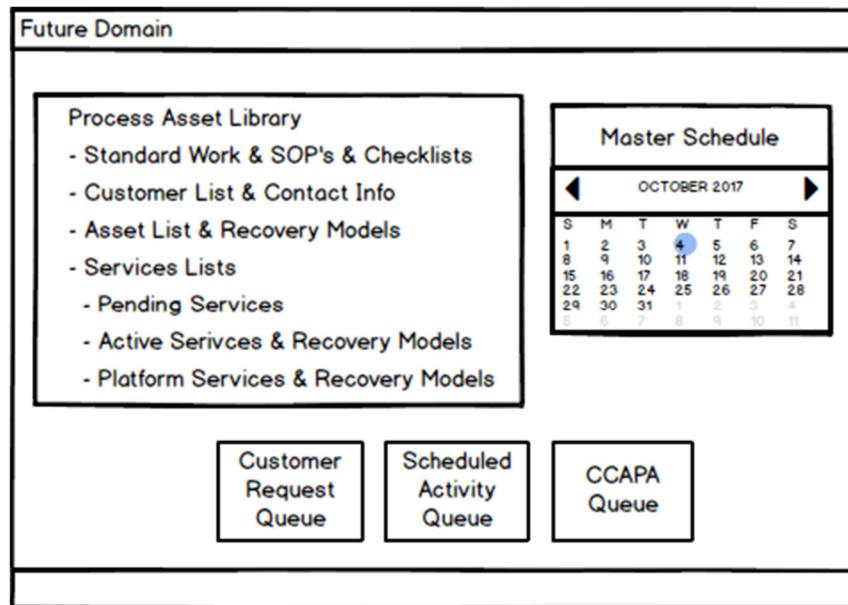
The Standard Services are organized into three categories: Pending Services, Active Services, and Platform Services.

Pending Services are Services that have not yet been deployed but are presently in development. This list is updated by the Master Chief by regular meetings with Engineering. It's important to keep this list updated so that no last minute surprises impact an operations group. Often in software development, a well-intentioned but forgetful engineering team will spend a year developing a new system on a new platform just to slide it under the door for operations to support, without any previous warning. Depending on the situation, Operations may be unequipped with the skills required to service the new offering.

Active Services are services offered by your organization which your team is responsible for. These can be external customer facing services, and also internal services benefiting

internal customers. The Process Owners of each of these services should have an initial consultation with each customer of that service and draft a specific service level for each service they are responsible for. Although the Process Owner should do this, the Master Chief needs to ensure it gets done by the PO. The status of these Active Services are reported on using a Service Level Agreement Monitoring (SLAM) Chart at the end of a Master Cycle.

Platform Services are those incoming services required for your active services to function properly. If your active services require power, networking, a database server, and an active internet connection, then you would list all of those in the Standard Services List and report on their service level performance at the end of you Master Cycle, using a SLAM Chart. Obviously, your Active Services will be impacted by your Platform Service failures so it is important to measure the performance of these also.

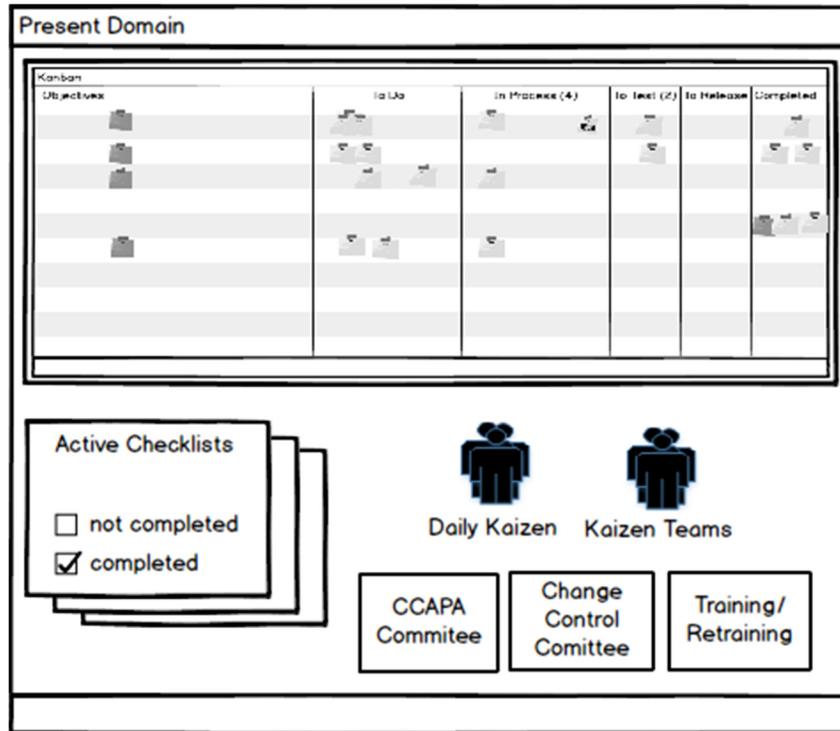


The Present Domain

The Present Domain contains a Kanban Board showing the present work-flow Queue, which is a list of objectives sourced from a combination of a Customer Request Queue, Scheduled Activity Queue, and a CCAPA Queue. As Work Items are completed, their status moves through the Kanban from To Do, to In Process, to Ready to Test, to Approval Pending, to Completed. Work Items should be categorized and time/date stamped as they move the Kanban so the group can get accurate historical information

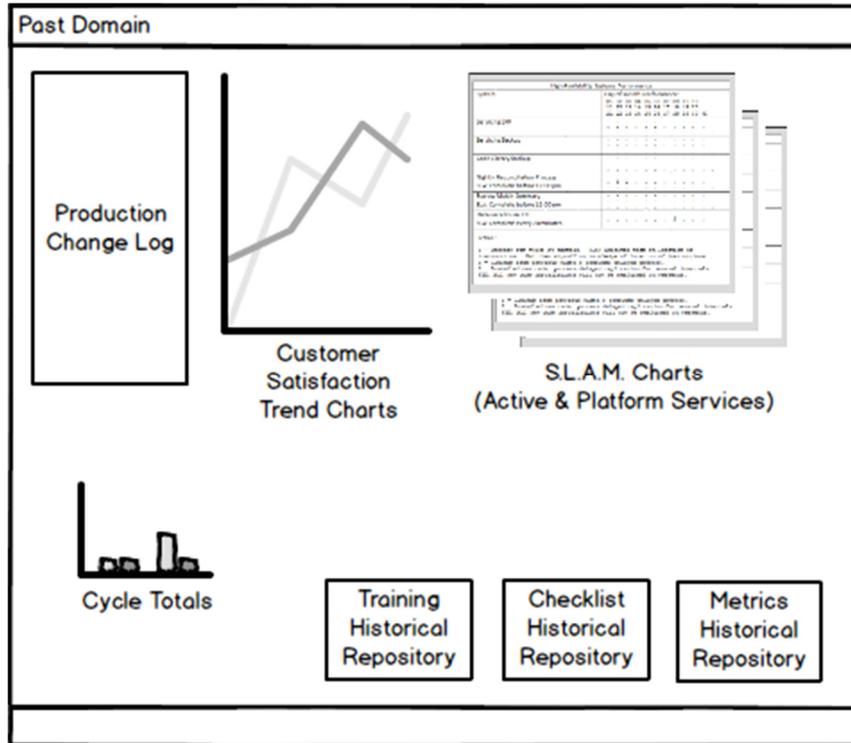
about how long different types of work items take to move through the Kanban. This way, empirical work completion times can be collected as Master Cycles transpire which will give teams better ways to predict how much work is being performed within each Master Cycle, and how long a typical item will take to move through the Master Cycle.

If your team is working with other Agile groups it is recommended to adopt the same length of time they are doing Sprints so that your teams can plan and report at the same times the Agile teams plan and report.



The Past Domain

The Past Domain contains a Performance Console showing Services Report, SLAM Charts for all public services. These SLAM Charts include target service levels vs. actual service level attainment. The console also contains a production change log, customer satisfaction ratings, a Platform Dependencies report, and any other relevant information the business owners may want to see. The goal is to present the overall performance of the department in a manner so clear that the senior management sponsors are free to spend their efforts growing the business instead of having to chase your group around probing for answers. We call this level of reporting "Operational Excellence."



High Availability Systems Performance	
System	Day of Month Performance:
	01 02 03 04 05 06 07 08 09 10
	11 12 13 14 15 16 17 18 19 20
	21 22 23 24 25 26 27 28 29 30 31
Servicing ERP	- - - - - - - - - - - -
Servicing Backup	- - - - - - - - - - - -
Code Library Backup	- - - - - - - - - - - -
Nightly Reconciliation Process	- - - - - - - - - - - -
SLA: Complete before 12:00 pm	- 1 2 - - - - - - - -
Escrow Match Summary	- - - - - - - - - - - -
SLA: Complete before 12:00 pm	- - - - - - - - - - - -
Data-warehouse ETL	- - - - - - - - - - - -
SLA: Complete every 20 minutes	- - - - - 3 - - - - - -
Notes:	
1 - Process ran twice by mistake. FIX: Educated team on location of instructions. Had them signoff on knowledge of location of instructions.	
2 - Cleanup from previous night's problems delayed process.	
3 - Installed new code, process delayed replication for several intervals. FIX: All new code installations will now be performed on weekends.	

Figure 1 - Example SLAM Chart

The Four Meetings

The Master Cycle Planning Meeting

This meeting is held at the start of each Master Cycle. In this meeting items are taken from the Master Schedule, the Nonconforming Issues Queue, and the Customer Work Request Queue are added to the work queue in the Kanban to be completed that cycle. Discussions are had about the implications and time frames expected for each item and the planning is done accordingly. The team self-selects which work items to do. Care is taken to forecast available bandwidth based on past trend data.

Daily Kaizen Stand-up Meeting

The group meets briefly each morning to discuss:

1. A Market Report from the prior day (by the Master Chief)
2. What did I complete yesterday?
3. What will I complete today?
4. if any roadblocks are stopping progress?
5. Any Change Control Items
6. What improvements did they make to their environment

Master Cycle Review Meeting

At the end of the Master Cycle, the group meets to showcase their work performance during the past cycle and discuss recent customer feedback. Total work completed is reported, SLAM Charts are updated, and old charts are filed away historically. This meeting is called by the Master Chief and attended by the team, and the corporate customers. The Master Chief is tasked with collecting customer feedback to bring to these meetings. With the team members performing the processes, the Master Chief acts as an independent 3rd party securing customer feedback in an unbiased manner.

Master Cycle Retrospective Meeting

This meeting is called by the Master Chief and attended by the team, but not any customers. In the meeting the team discusses what went well, what could be better, and what still frustrates the team. If no feedback or discussion is happening, the Master Chief may consider excusing them-self from the meeting and asking the team to self-select a scribe to write

down comments the team can discuss in their absence. It may be that the Master Chief needs to be the topic of discussion.

Committees, Groups, and Special Events

Change Control Committee

As production changes are proposed, they may impact other processes going on around them. If these are established, recurring production changes, typically the change has been systematized and required only a notification, not an approval. However, new changes to production or even some systematized changes must be observed by all concerned and approved to go forward. In Stable, your whole team is the change control committee and is made aware of any pending changes during the morning Kaizen stand up meeting. They are free to put a hold on a pending change if needed until they can adjust their own environment and approve the change. If your team is operating with other IT groups you may have a weekly full-department change control meeting. You simply queued up your changes every day for that weekly meeting. If your whole department is practicing Stable and you are having a set of escalated morning Kaizen stand ups (see Kaizen of Kaizens) than you can push changes on a daily bases by bringing the approved changes in the early Kaizen stand up meetings to the Master Kaizen meeting.

CCAPA Committee

CCAPA is an acronym which means Correction, Corrective Action, Preventative Action. These three actions are what happens when a Non-conforming Incident is reported from a customer. A Non-conforming incident is any incident where the customer experiences something that wasn't as it should be. You can think of your Help Desk receiving calls and logging a problem as receiving non-Conforming incident. These incidents, if significant, should be passed to the CCAPA committee. The CCAPA Committee then is tasked with the following:

1. Correction - Making sure the situation is corrected for the specific customer that reported it
2. Corrective Action - Identifying what should be adjusted in the current Standard Work Process (SOP & Checklist) to prevent this type of situation from happening in the future
3. Preventative Action - Identifying any other processes in

the environment that could benefit from a similar positive adjustment

If you are operating in a controlled environment, such as an FDA regulated industry, you'll need to keep a record of all of these CAPA issues and resolutions.

Daily Kaizen

This is a daily standup meeting. Happening in the morning, the meeting is attended by all on the shift. The meeting should not last longer than 20 minutes. The meeting is called by the Master Chief and consists of the following:

1. Morning Market Report: Announcements about end-of-line customer problem experience since the previous meetings. The Master Chief gets this from the Help Desk

2. Each team member in turn answers the following questions:

- a. What did I accomplish yesterday?
- b. What do I intend to accomplish today?
- c. What roadblocks are preventing my work progress?
- d. What did I improve since last meeting

Kaizen Teams

Kaizen Teams are ad-hoc teams created to solve challenging problems. These teams should be volunteer-only and meet either during work hours, or during lunch or before or after work. Process Owners are encouraged to bring their challenges to these teams for consultation. One leading indicator of how strong team cohesion is within your teams is how much of this is going on. I've seen engineers wrestle with a technical challenge for days or even weeks. This type of situation should always have the assistance of a Kaizen Team.

Kaizen Event

Sometimes a problem appears that is so critical it requires an all-hands audience. This is a Kaizen Event. The whole team must stop everything and brainstorm a fix for the urgent problem. The Master Chief should keep track of how many Kaizen Events are had by the team.

Master Kaizen Meeting

When implementing Stable in a large environment, you will have several Stable teams, all requiring their own Kaizen

standup meeting. This works fine as long no one person is on multiple teams. If this is the case, however, you can stagger the meetings from, for example, 9:00 to 9:20 to 9:40, etc. Alternatively, you can have a set of Kaizen meetings at 9:00am, and then a Master Kaizen meeting at 9:20 where a representative from each team reports at the later meeting.

Gemba Walk

Gemba in Japanese means the location where the work gets done. For a team, they have their own Gemba where they do their work. Similarly, their customer has their own respective Gemba where the customer performs their own work. Sometimes the best way to understand a problem, or get clarity on a requirement, is to visit the customer in their own Gemba. We call this a Gemba walk. It ensures making a better decision than being in a conference room.

Exceptions

Sometimes a product or service contains a known defect that should have been eliminated in the production process but wasn't. After examining the process history, there should only be two possible conclusions:

1. The process needs to be improved even more because a different weakness is identified.
2. An employee simply checked all the boxes on the Standard Work Checklist without actually ensuring each item in the product. We call this an Exception. In cases like this the offending operator is tasked with re-training: Re-Reading the Standard Operating Procedure and, if necessary, updating it and the Standard Work Checklist to be consistent with the current practices. All SOP's should be time-stamped for version control. This way SOP's that have been updated longer than 6 months ago can be re-reviewed and updated for accuracy twice a year. Employee training should also be logged.