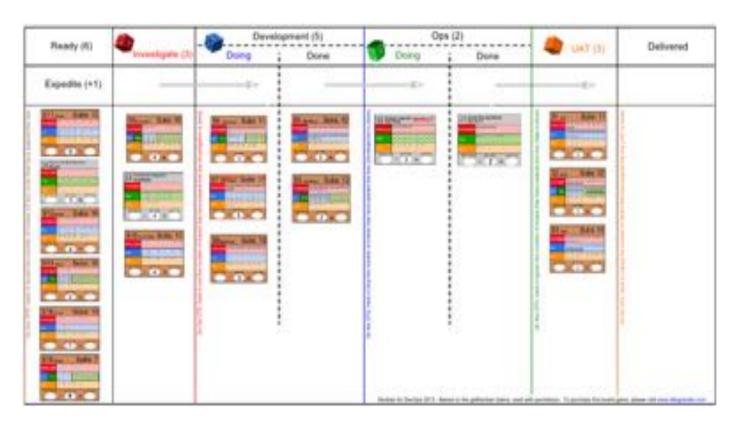
# How we used Kanban in Operations to get things done



#### 40 Ops Engineers (SysAdmin, DBA, Network, Mon, Sec)

Tasked to build out/retrofit 6 data-centers across 6 diff countries.

#### AND....

- keep the lights on 4 existing data centers
- build out a new platform architecture
- support live issues (on-call)
- roll out a new configuration management tool
- Deploy new features
- deal with 3 org structure changes over a 6 month period

#### What randomizes your day?

- Conflicting priorities
- Changing priorities
- Interruptions
- Context switching
- Unable to meet commitments

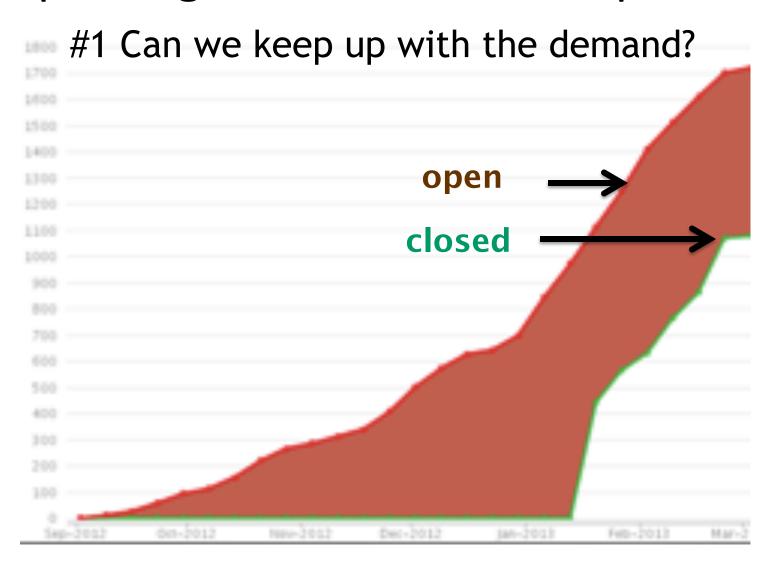
#### Sources of customer dissatisfaction:

- No visibility into status of request
- Things take too long

#### 3 questions:

- 1. What is the actual demand?
- 2. What is the Lead time/cycle time?
- 3. Where are the constraints in the pipeline?

# How we got started on road to improving – looked at 3 data pts

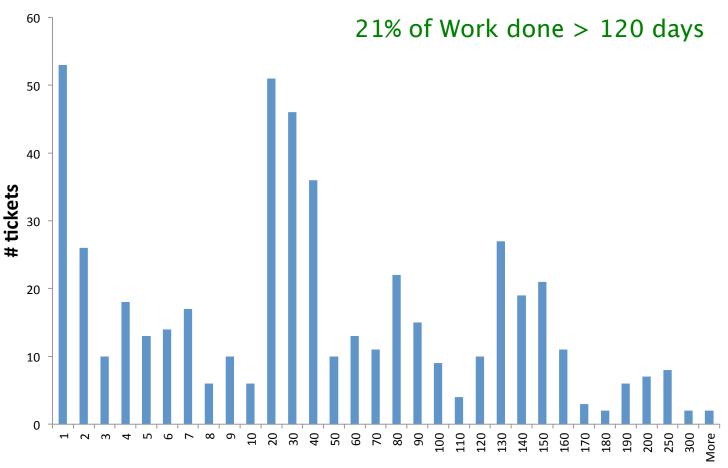


# Top 5 reasons why people take on more work than they have capacity to do:

- 1. Hard to say no to people we like
- 2. Don't want to let the team down
- 3. Didn't realize work would take so long
- 4. Fear from those in position of power
- 5. People pleaser

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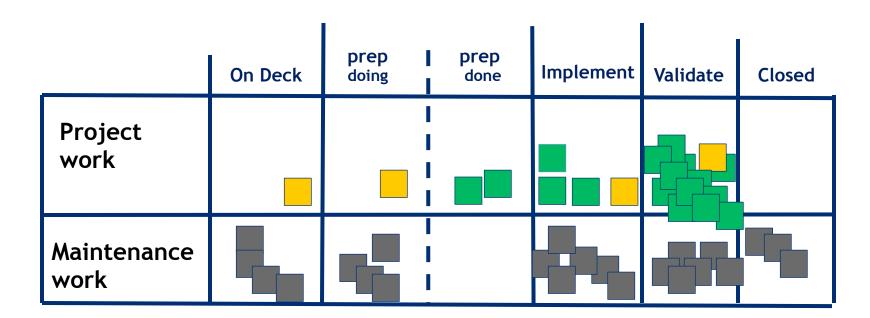
# #2 Lead time - how long does it take to get work done?



# days it took for ticket to go from created to closed

**The Flaw of Averages** 

#### #3 Where is work stuck?



### Customer Mtg time

Invited customers to a meeting and showed them the data.

- showed them the demand and what was getting done
- showed them the Lead time
- showed where work got stuck

Customers appreciated the visibility into Ops We took advantage of that by humbly asking for their help. beginning with all of those tickets sitting in the validate state.

### Next steps

The introduction of a work-in-progress (wip) limit. Some of these guys had 20 – 40 tickets in their queue. We asked them, "Does this seem reasonable?"

How about 10?

Let's head in that direction and see what happens.

# and then there were reorgs

The 1<sup>st</sup> org restructure change created the A Team - to focus on completing projects close to being done, but still hanging on.

• This team didn't have to respond to one off requests and wasn't supposed to be on-call.

2<sup>nd</sup> org structure change split Ops into 3 teams (live Ops, Build, architecture)

Live-Ops with 25% of team and 60% of the work!

#### Live Ops tasks

- access requests for systems, non-Zabbix monitor
- hardware investigation/verification/fixes
- vlan/port changes
- data retrieval (i.e. logs, network stats, etc)
- configuration triage firewalls, load balancers,
  OS settings
- capacity expansion
- verification of configs/services across shards
- database development consultation
- security compliance mitigation

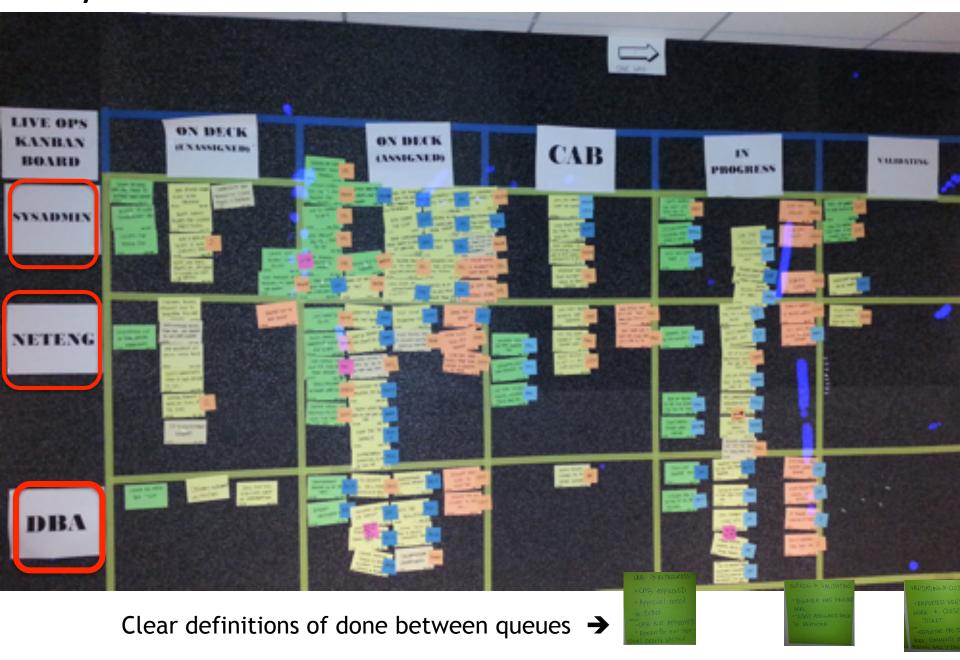
#### Physical board reflected tickets in electronic tool



# Clear distinction between prioritized work, and capacity to handle the work yet.



#### Physical board reflected tickets in electronic tool



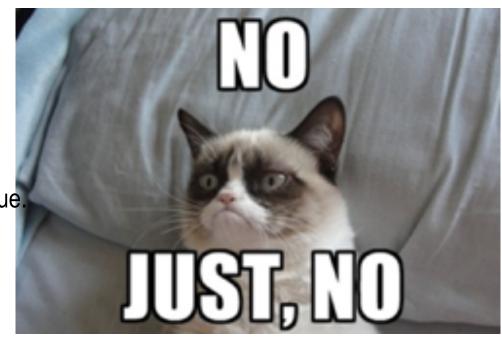
## Live Ops SRE Changes

- Socialized wip limit idea over 6 months and gradually lowered it from 10 to 7 - out of 18 guys, average is 5-7.
- Closed out all tickets with no activity > 90 days
- Started saying "No" to last minute requests.
- Hired 2 new people

Hi D.C.,

Team SRE has a very large number of changes scheduled for today already, and an even larger number of requests in our backlog that this request will displace if moved to the front of the queue.

It would not be fair to other teams if we jumped on this immediately while planned work is pushed off.



Monitoring should be a requirement for a service to go live, not a last minute addition. For us to fully support a live service, please implement monitoring before going live.

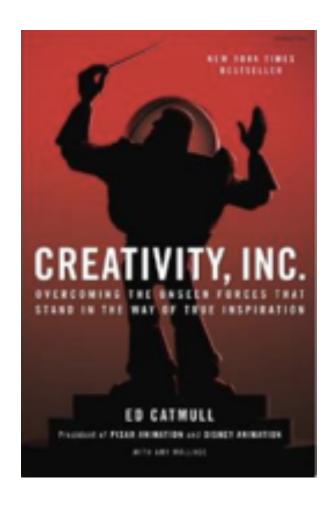
For future requests, please give us as much notice as possible, and make sure to create a ticket (xxx.com) so we can prioritize and schedule the changes as necessary. Here's the ticket for this work....

Respectfully,

A.H

## Live Ops SRE changes con't

- Took time during standups to focus on kaizen improvements.
- Reduced validate state from 7 to 5 to 3 days.
- Found creative ways to deal with walkups, and work done via personal relationships
- 15 min daily sync up at 3pm instead of interrupting.



"Asking this much of people, even when they wanted to give it, was not acceptable."

- Ed Catmull

## Here's what we need help with:

For the leaders

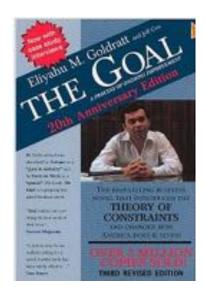
Consider the power you have over other people when you ask something of them.

Here's what we need help with:

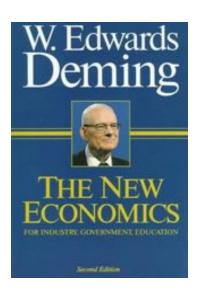
For the workers - How to make it ok to believe that ...

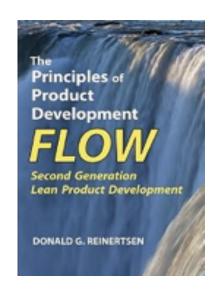
"No" is an honorable reply to someone asking too much from you.

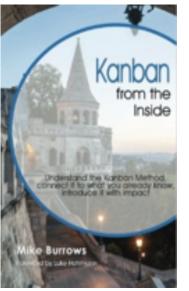
#### Improve collaboratively using models

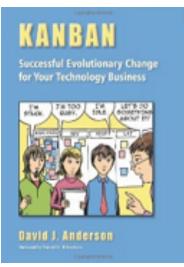


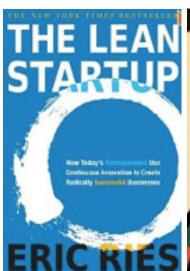


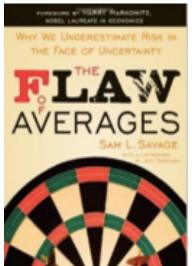


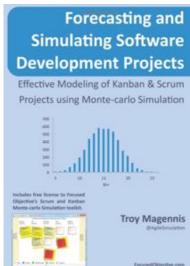




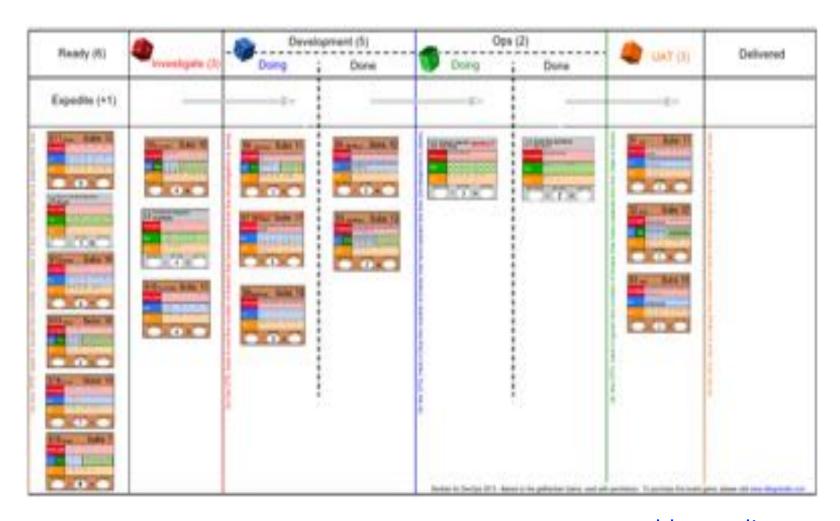








## Workflow Optimization using Kanban



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