The Santa Monica Experiment

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The earthquake that will devastate Seattle: nyr.kr/1fEY9gy

Soon after the shaking begins, the electrical grid will fail, likely everywhere west of the Cascades and possibly well beyond. If it happens at night, the ensuing catastrophe will unfold in darkness. In theory, those who are at home when it hits should be safest; it is easy and relatively inexpensive to seismically safeguard a private dwelling. But, lulled into nonchalance by their seemingly benign environment, most people in the Pacific Northwest have not done so. That nonchalance will shatter into the fire and water thing made of clay.
The next full-margin rupture of the Cascadia subduction zone will spell the worst natural disaster in the history of the continent.
Our house

Year built: 1962

Foundation: Hollow tile with no rebar

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<table>
<thead>
<tr>
<th>TO DO</th>
<th>DOING NOW</th>
<th>DONE</th>
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<tbody>
<tr>
<td>Design &amp; Build</td>
<td>Maintenance</td>
<td>Maintenance</td>
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<tr>
<td>build back porch storage locker</td>
<td>remove hornets nest from eaves</td>
<td>replace water filter</td>
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<tr>
<td>Maintenance</td>
<td></td>
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<tr>
<td>paint kitchen</td>
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<tr>
<td>Maintenance</td>
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<td></td>
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<tr>
<td>replace ceiling light</td>
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TO DO
Design & Build
build back porch storage locker

Research
Get a generator

Design & Build
Retrofit house

Maintenance
paint kitchen

DONE
Maintenance
remove hornets nest from eaves

Done
replace water filter

HomeBan
July 30, 2015
Ask your neighbor this question:

“Why do you take on more work than you have capacity to do?”
4 reasons we say yes when we should say no

1. We like the people who asked
2. We don’t want to let the team down
3. Fear of public humiliation/job loss
4. We don’t realize what’s all involved
A team’s story

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

Tasked to build out/retrofit 6 data-centers

AND....

• keep the lights on four existing data centers
• build out a new platform architecture
• support live issues (on-call)
• roll out a new configuration management tool
• Deploy new features
Initial problems revealed

Attempts to estimate & plan work had little success

No good system for handling emergent work - any planned timelines were blown up by emergent work

Resistance from the team for daily standups and planning meetings.

Attempts at backlog grooming failed - backlog perceived as overwhelming and could not keep up

Above things resulted in gaming the system with inaccurate representation of planned/completed rpt.
Exercise: Identify sources of internal frustration

Write down internal sources of frustration - things that prevents you or your team from getting work done.
Sources of internal dissatisfaction?

• Conflicting priorities
• Changing priorities
• Interruptions
• Context switching
• Unable to meet commitments
Exercise: Identify sources of business frustration

Write down sources of business dissatisfaction.
Sources of business dissatisfaction?

• No visibility into status of work request
• Things take too long
3 questions to answer

1. What are the constraints?

2. How long does work take to do?

3. What is the actual work and what state is it in?
An experiment to see impacts...

These 92 interruptions prevented progress on these projects.
... led to an exercise in prioritization

Visibility on conflicting project priorities
If everything is a P1, nothing is a P1

Every request cannot be the top priority!

Hence the need to limit your wip

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

#1 Can we keep up with the demand?
#2 Lead time - how long does it take to get work done?

# days it took for ticket to go from created to closed
#3 Where is work stuck?

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<thead>
<tr>
<th></th>
<th>On Deck</th>
<th>Investigate</th>
<th>Implement</th>
<th>Validate</th>
<th>Closed</th>
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</thead>
<tbody>
<tr>
<td><strong>Project work</strong></td>
<td></td>
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<tr>
<td><strong>Maintenance work</strong></td>
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Pattern or Anti-pattern?

Individually Named Swim lanes
Resource efficiency or Flow efficiency?

Optimize for you or For your Customers?
Operations team work flow

- **Fires**
  - Investigate: Fire
  - Design: Fire
  - Implement: Fire
  - Deliver: Fire
  - Validate: Fire
  - Closed: Fire

- **Projects**
  - Investigate: Improve
  - Design: Project
  - Implement: Project
  - Deliver: Project
  - Validate: Project
  - Closed: Project

- **Maintenance**
  - Investigate: CODB
  - Design: CODB
  - Implement: CODB
  - Deliver: CODB
  - Validate: CODB
  - Closed: CODB

- **Improvement**
  - Investigate: Unplanned (emergent)
  - Design: Unplanned (emergent)
  - Implement: Unplanned (emergent)
  - Deliver: Unplanned (emergent)
  - Validate: Unplanned (emergent)
  - Closed: Unplanned (emergent)

- **Recruiting**
  - Investigate: Unplanned (emergent)
  - Design: Unplanned (emergent)
  - Implement: Unplanned (emergent)
  - Deliver: Unplanned (emergent)
  - Validate: Unplanned (emergent)
  - Closed: Unplanned (emergent)
Purchase Order board design
Feedback loops

Standups
Lean Coffee
Ops Review
Customer mtg
Kanban Kata
Anecdotal circles

Business Meeting time

Invited stakeholders to a meeting and showed them the data.
- showed them the demand and what was getting done
- showed them the Lead time
- showed them where work got stuck

Customers appreciated the visibility into Ops
We took advantage of that by humbly asking for their help – beginning with all the work sitting in the validate queue.
Skillsets, line of commitment & CAB visibility
Team Standup topics

• queried tickets untouched for x days
• displayed average team wip
• Looked at wait time for blocked items.
• Reviewed cab approved changes not yet implemented
• 15 min daily sync up at 3pm instead of interrupting
• Goalie
Ops team lessons learned

Clear priorities
Ops review meetings
WIP limits
Metrics
Making work visible

“We were finally able to have a convo about why we were doing too much work because of all the things above.”
Ops team guidance

Understand dependencies
Have the courage to push back
Dig in and ask questions

“The one lesson that was really drilled home with us was getting rid of vagueness/assumptions by pushing back and asking questions”
Analytics to help people look at odds of being approx right vs. exactly wrong

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“Organizational health will one day surpass all other disciplines in business as the greatest opportunity for improvement.”
Take Away: Ask your teams 3 questions:

1. What prevents you from getting your work done/value delivered)?
2. What are your business folks & IT employees complaining about?
3. How long does it take to get work done?

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Improve collaboratively using models
Pre DevOps state of affairs

WORKED FINE IN DEV

OPS PROBLEM NOW
Mark Nemecek @mark_of_quality · 31m
DevOps champions are not born. They are forged in the fires of catastrophic operational failure. #Agile2015 #DevOps
Think of DevOps as a container of practices:

1. Culture
2. Automation
3. Measurements
4. Feedback

This cross-functional aligned view is helping to shift IT from a cost center to a strategic advantage.
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