

**THE NEVER-ENDING
STORY:
SITE RELIABILITY**

**Automating Ourselves
Out of a Job ?!?**

Is *Change* Going to Stop?

*All things are compounded objects
in a continuous change of condition*

Stages of Practice

Shu (obey)

Ha (detach)

Ri (separate)

Stages of Practice

Innocent

Shu (obey)

Novice

Beginner

Competent

Ha (detach)

Proficient

Ri (separate)

Master

Expert/Researcher

Signposts of SRE Practice

- Incident Response
- Incident Prevention
- Post Mortems
- SL[AOI]s
- Monitoring

Signposts: Incident Response

(hat tip to J. Paul Reed)

Shu Signposts: Incident Response

Novice

- “Alarmed” by incidents
 - Primarily external sourced with inconsistent response
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Beginner

- “Fears” incidents
 - Effective response requires specific people
-

Competent

- “Aware” that incidents are normal
- Well defined handling process

Ha-Ri Signposts: Incident Response

Proficient

- “Accept” incidents as a normal
 - Some inter-team coordination planning
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Master

- “Embrace” incidents as learning experiences
- Well documented processes and procedures with learning inputs to the process

Signposts: Incident Prevention

(hat tip to J. Paul Reed)

Shu Signposts: Incident Prevention

Novice

- Focus on remediation (docs & metrics) for manually-identified, static, contributory causes
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Beginner

- Documentation done to an “acceptable” level
 - Static & action-based causes recognized
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Competent

- Focus on team response to incidents, maintaining docs

Ha-Ri Signposts: Incident Prevention

Proficient • Early phases of chaos engineering - scheduled

Master • Randomized chaos engineering
• Focus on general hygiene of operational environment

Signposts: Post Mortems

Shu Signposts: Post Mortems

Novice

- “Blameful”, only for crisis incidents
 - Looking for a scapegoat
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Beginner

- Only performed for major incidents
 - Looking for a cause with a focus on mistakes
-

Competent

- More common, starting to look past blaming
- Focus on improving local processes

Ha-Ri Signposts: Post Mortems

Proficient

- “Blameless”, used consistently
- Action items feed back to improve systems & processes

Master

- Used to derive “meta”-learnings
- Applying learnings across the system

**Signposts:
SLAs / SLOs / SLIs**

Shu Signposts: SL[AOI]s

Novice

- Externally imposed (SLA), if any
 - On paper, not necessarily measured
 - May be manually calculated for contractual needs
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Beginner

- Recognizes the difference in these terms
 - Measures “easy” things
-

Competent

- Defined and measured primary characteristics
- Measures internal SLOs, not just contractual performance

Ha-Ri Signposts: SL[AOI]s

Proficient

- Well developed cascade of measures
- Historical record and correlation to events

Master

- Meaningful measures throughout the system

Signposts: Monitoring

Shu Signposts: Monitoring

Novice • No baseline metrics established

Beginner • “OS level” or “out of the box”, inconsistent monitoring
• Partial baselines being developed

Competent • Consistent baseline monitoring across entire system
• Able to determine statistical anomalies

Ha-Ri Signposts: Monitoring

- Proficient
- Thorough instrumentation of all service components
 - Able to correlate internal and external measures
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- Master
- Data observable upon demand
 - Automated correlation and anomaly detection

Other Potential Areas to Evaluate

- Error Budget Definition and Usage
- Change Management Practices
- Demand Forecasting / Cost to Serve

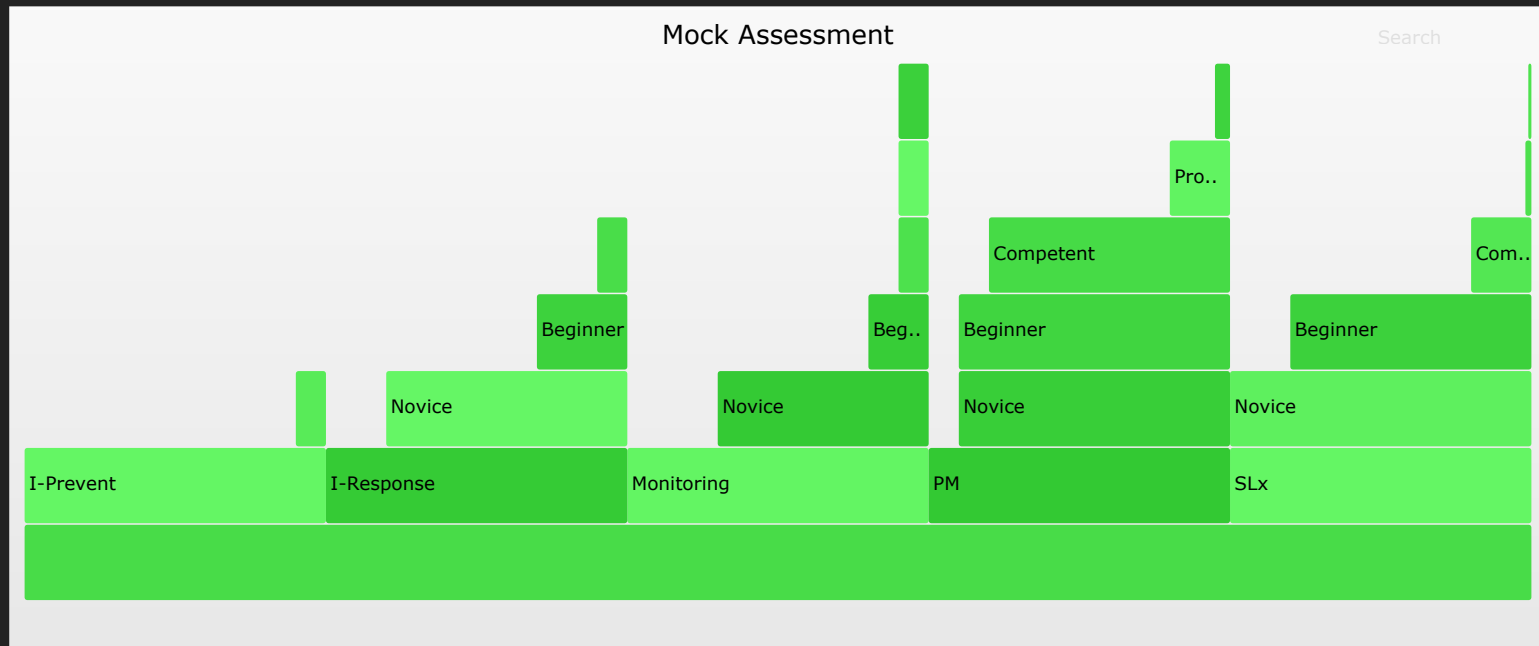
More Potential Areas to Evaluate

- Provisioning
- Efficiency
- Do Your Services “Plan for Retirement”?

Even More Potential Areas to Evaluate

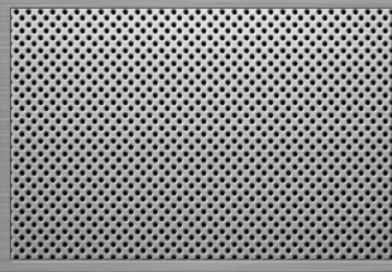
- New Services: Intro to Stability
- MTTs (*hat tip to Etsy*) or INsomnia
- Toil Fraction

Assessing Your Organization's Level of Practice



ARE WE
AUTOMATING
OURSELVES OUT OF A
JOB !?!

HAL 9000





And the Beat Goes On

Each '9' will cost you more than the one before it

Org-wide Practice Adoption ?

Everything as a Service

Customer Reliability Engineering

*... it was only the beginning of the real story ... which goes on forever:
in which every chapter is better than the one before.*

Continuing the conversation. . .

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