

William Manning Baruch Sadogursky

DevOps Theory vs. Practice A Song of Ice and Tire-Fire



William Manning

Official Hiptech Translator

Native proficiency in English and Bad English
Fluent in Thought Leader gibberish
Has a secret bunker for the robot apocalypse
Professional Tinfoil Hat Haberdasher

Disclaimer: absolutely none of the above is true.







Everybody's software must be releasable at absolutely any time



Everyone must have 100% test automation



We do Continuous Security well.



Your greatest threat is an outage.

Not an employee.



VMs are the enemy of DevOps. This is where you must focus your innovation.



You are a beautiful unique snowflake, as are your problems.

No vendor could possibly understand them.









@jbaruch

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Baruch Sadogursky Chief Sticker Officer

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William Manning

Senior Solutions Architect

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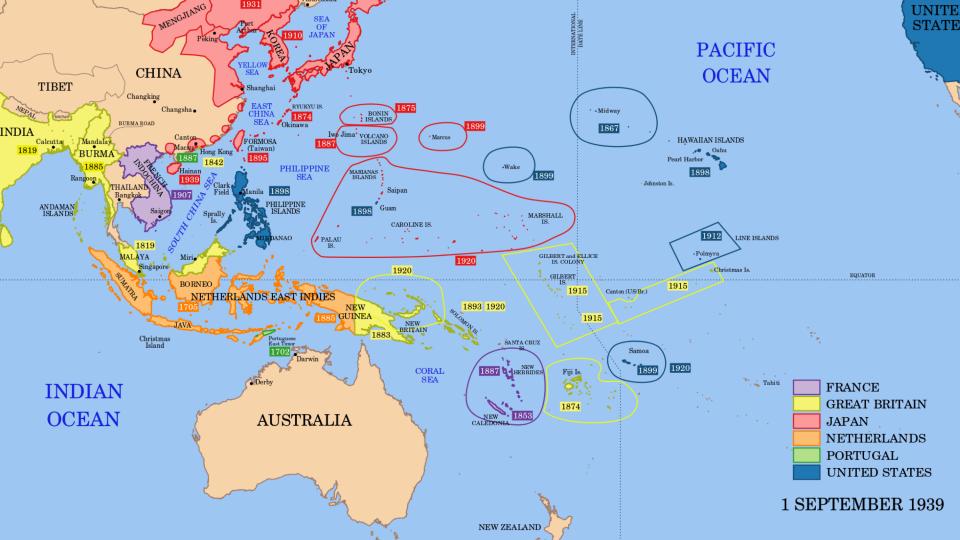


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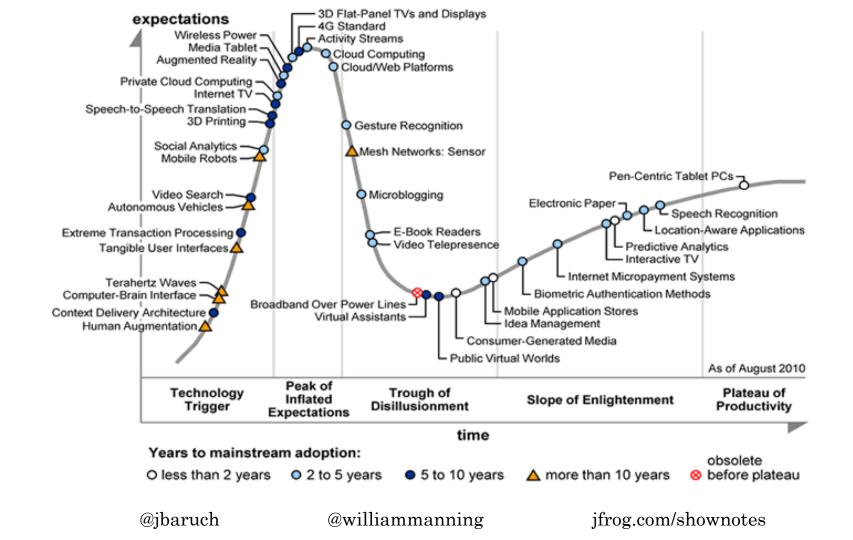




Figure 1. Magic Quadrant for Public Cloud Infrastructure Managed Service Providers, Worldwide









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- ADOPT (2)
- TRIAL
- 52. Appium Test Distribution New
- 53. BackstopJS New
- 54. Buildkite
- 55. CircleCI
- 56. CVXPY New
- 57. gopass
- 58. Headless Chrome for front-end test
- 59. Helm New
- 60. Jupyter
- 61. Kong API Gateway
- 62. kops
- 63. Patroni New
- 64. WireMock New
- 65. Yarn
- ASSESS (2)
- 66. Apex
- 67. ArchUnit New
- 68. cfn_nag New
- 69. Conduit New @ibaruch
- @williammanning



1 Unable to find something you expected to see? Your item may have been on a previous radar »









"A maturity model is a tool that helps people assess the current effectiveness of a person or group and supports figuring out what capabilities they need to acquire next in order to improve their performance. In many circles maturity models have gained a bad reputation, but although they can easily be misused, in proper hands they can be helpful."

Martin Fowler



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Martin Fowler



Maturity model components

Evaluation factors

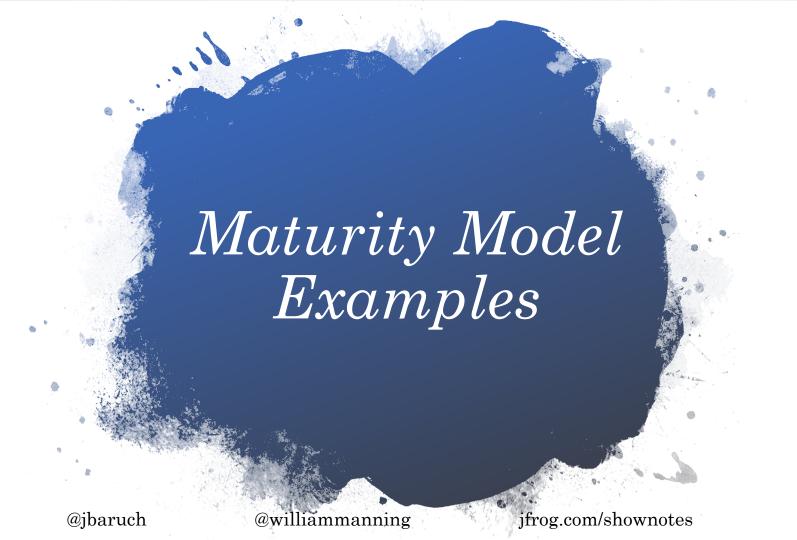
Scoring methodology

Self assessment vs 3rd party assessment capability

Progress tracking

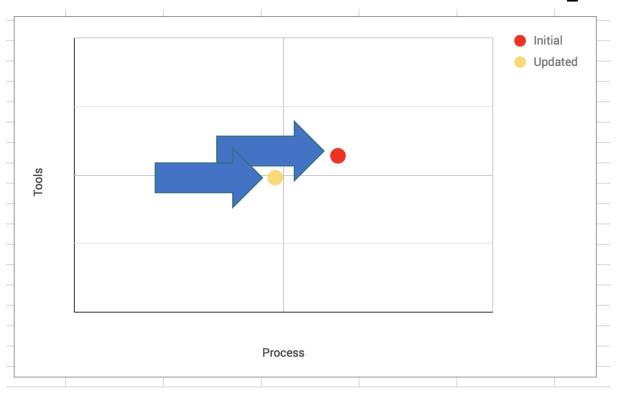
Visualization







Simple model



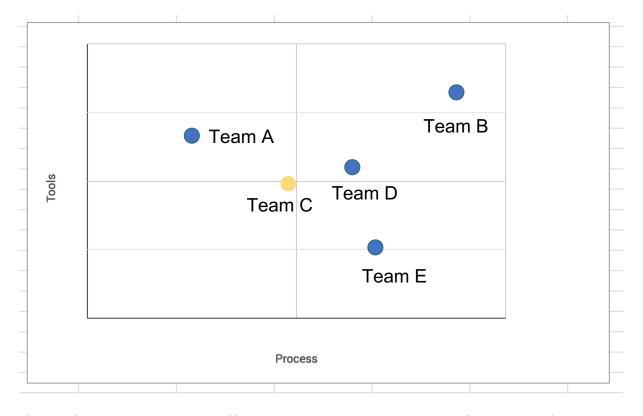


Progress planning



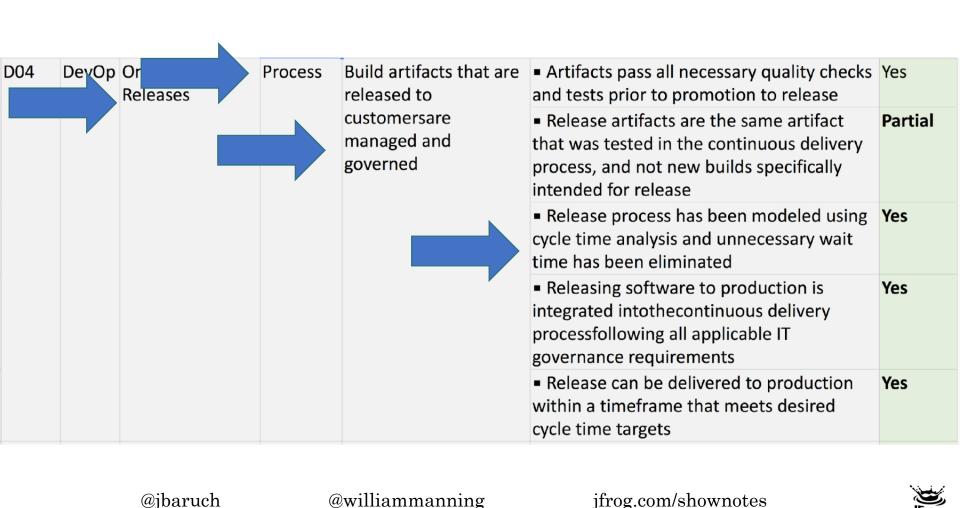


Leader board





s On	Tool	Builds are configured to publish and consume artifacts from a artifact management system in a consumable format	 Artifacts are being published to a controlled environment (backed up, secured, allows for versioning, integratable) 	Partial
			 Artifacts are published in a way where intermediate artifacts can be aged and managed, and final artifacts are preserved within required policy guidelines 	Yes
			 Artifacts are published in a standard consumable format (e.g. Maven 2, Docker Registry,) 	Yes
			■ Artifacts when published are associated with sufficient meta data that can provide consumers with information about the build record/environment/tools and country of origin used during publishing	Yes
			■ Build dependencies of artifacts that originated from a controlled environment are consumed from a local cache on the build machine	Yes
			■ Remote artifacts are hosted/proxied from a network friendly location that introduces limited latency when artifacts can't be pulled from local cache	Partial
			 Artifacts that originate from outside the company are preserved, with sufficient meta data to verify source and validity of the artifact 	Partial
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Category	Criticality	₩	Benchmark	_	TODAY	24 motnh from now	▼
02. Organizational Effectiveness	Must Have		0	100	2 2	<u>•</u>	75
03. Architectural Alignment	Sh		•	83	32	2 🕒	60
04. Continuous Integration	M		0	90	④ 3€	0	86
05. Continuous Delivery of product feature	Should Have		0	92	35	0	86
06. Unit/Functional Test Automation	Must Have		q \	100	25	O	72
07. Automated System Test & Health Check	Must Have		<u> </u>	71	22	①	59
08. Everything as Code	Should Have		•	56	22	①	52
09. Brand-Directed Initiatives	Must Have		0	100	25	•	80
10. Infrastructure Delivery (IAAS, PAAS)	Must Have		0	98	27	•	82
11. SaaS Services (APAAS / OSS Backing Svcs)	Must Have		•	81	33	Incomplete	
12. BSS Automation & Integrations	Must Have		0	93	22	①	49
13. Service Introduction	Must Have		0	100	25	3	37
14. Operating Model	Must Have		0	93	23	•	70
15. Compliance Elements	Nice to have		•	79	21	•	24
16. FedRAMP Elements	Nice to have		0	100		•	0
17. Container as Best Practice	Should have		0	96	23	O 1	100



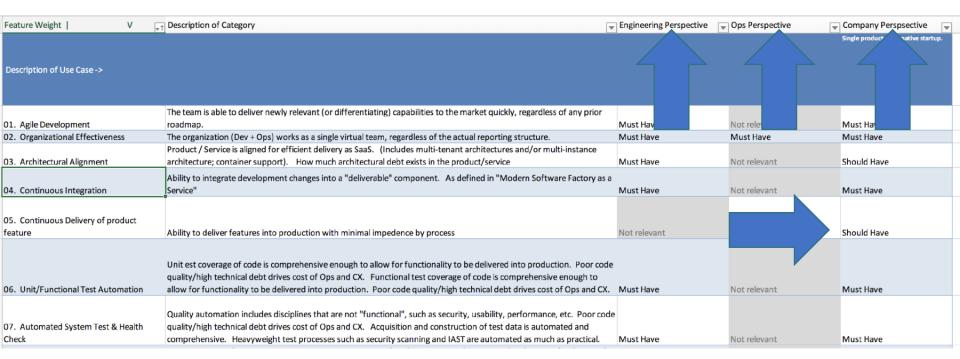
Define your factor weights

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Category	Sequen	Feature	Description	Engineering Perspective	Ops Perspective	Compan Perspsec	
↓ ↑	Ų1	▼		T Cl'Spectil ▼	T CI Specti.	e	₹
01. Agile Development	1		Culture is aligned with good agile practices: Open communication Messengers not shot Learn from failure Strong team bonds Differentiating: any and every member of the team is comfortable identifying problems and failures at any level in				
			the organization; members are rewarded for surfacing issues; scapegoating is unheard of. Complete: team works well together and trusts each other Partial (Some): team works well most of the time; some protectionism may occur, particularly with management or executive management involvement No support: team is suspicious of each other, very important to find someone to blame, looking good to management is first object.	High	High	High	
01. Agile Development	2	Reasonable Program Increments	Complete: 90 days Pis; consistently maintain program increments.	High	High	High	
01. Agile Development	3	Always Shippable	Any code that is delivered through the pipeline is shippable or shippable quality. Even if it is not shipped, it could be.	Med	High	Med	



Account for different teams' priorities





Model definition example

System config as Code

The infrastructure configuration is managed as code - e.g. no manual processes for configuring/setting up/ infrastructure.

Differentiating: Infrastructure operates without any manual processes. All changes to the infrastructure or infrastructure capabilities are done through automation and policy only. Complete: Infrastructure operates without any manual processes. Some infrequent administrative activities may be initiated manually (although the activities themselves must be automated). Partial (Most): Infrastructure operates without any manual processes. Some infrequent administrative activities may be manual, pending automation.

Partial (Much): Infrastructure operates with significant automation. Some processes still manual; pending automation.

Partial (Some): Infrastructure requires significant care and feeding. Many processes still manual; pending automation.

No Support: While some functions may be automated, they are generally kicked-off manually; and many functions are still fully manual. Large backlog of automation items.



Applying maturity models: DOs and DONT's

Only use primary colors

Involve your teams in the model definition

Let team self assess first and then assess together

Partner with forward looking teams first

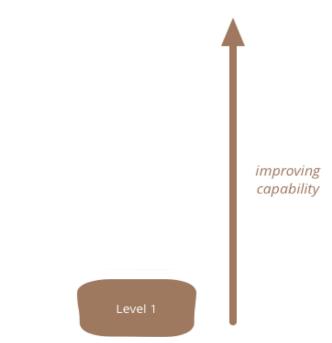
Remember being at 100% is not a goal the model has to have a stretch goal

Evolve the model from time to time

And



Our message is:



https://martinfowler.com/bliki/MaturityModel.html



Q&A and links

- @jbaruch
- @williammanning
- https://jfrog.com/shownotes
 - The slides
 - The video (tomorrow)
 - All the links
 - Ratings, comments
 - Raffle



Things that are not questions

- Your résumé
- Calling bullshit on the entire premise of the talk
- A long rambling story with no point

