



STP SOFTWARE
TEST PROFESSIONALS
CONFERENCE SPRING 2019

Modern Testing Teams and Strategies

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Let's talk about testing teams...

Historically, the testing team's structure followed its function:

- Separated, aligned to a phase of work in the process
- Isolated, by reporting structure to enable objectivity
- Discrete, assigned to a system area, application or component
- Longevity, valued for contextual expertise and experience

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Let's talk about testing teams...

Recent changes in software delivery impact our team structures:

- DevOps tears down walls that separate all of us
- Rapid adoption of continuous processes (CI/CD)
- Subjectivity challenges with collaborative testing
- Work assignments are dynamic, based on acumen & skills

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Testing Team Types: The Project Team

This team is comprised of the normal members of a project team: testers, PM's, developers:

- Normal engineers, not test gurus
- Working within a sprint or iteration
- Testing may not be the #1 priority
- Tools might be varied or home-grown
- May/not be using external help



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Testing Team Types: The Special Forces Team

A specially trained team of super engineers empowered by “executives” whose mission is:

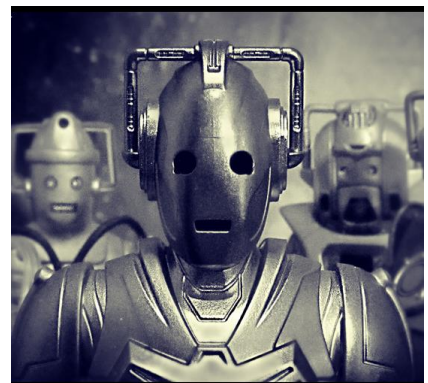
- Remove system failures and issues
- Destroy enemy anti-patterns
- Institute changes to code or platform
- Institute changes to staff and mgmt
- Restore application peace, prosperity for the future of all users



Testing Team Types: The Center of Excellence

In large companies, this is a centralized and dedicated team for testing work:

- Specialized team with mature roles
- Formalized pipeline and processes
- Geographically dispersed (outsourced)
- Manage dedicated test labs and tools
- Large financial investment/visibility



Testing Team Types: The Roving Geniuses

These are the “Macgyver” characters in your company who get assigned to testing efforts wherever and whenever they arise:

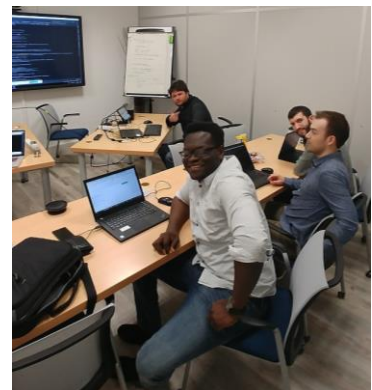
- Take the lead on triage and escalation
- Senior engineers on specific systems
- Work under high-pressure, high-risk
- Highly disruptive to normal work patterns
- Not incented on long-term improvements



Testing Team Types: Ephemeral Team

Paired and Mob models for testing practices:

- Empowers all engineers to test and fix
- Unspecialized roles with shared accountability
- Encouraging quality awareness across roles
- Challenging preconceived ideas about testing
- Participate in any escalation and resolution
- Collaborating to prevent quality issues in the system



Testing Team Types: Paired Testing

Paired and Mixed Paired Testing:

- Putting two people together to work on something
- Complementary disciplines – Performance + DBA
- Incongruent disciplines – Tester + PM
- Unfamiliar disciplines – Dev & Ops
- Employ session-based test management
- Collaborating to prevent quality issues in the system
- Mixing different “pairing” time-over-time



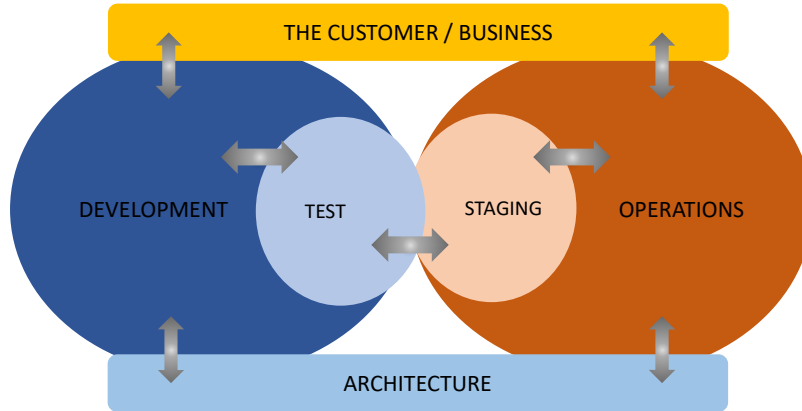
Testing Team Types: Mobbing & Mob Testing:

The Group Working on the Same Thing:

- work together through strong-style navigation - whoever is on the keyboard is not in control
- the idea is **not** to get most work out of each individual...but to get the best idea into the work the team is doing
- assign a special designated navigator, which rotates by person
- everyone gets their turn being the voice of the group, directing the driver
- Note: “kindness, consideration and respect - this is how you work closely with others”
- Note: “get the best out of everyone from the work - hear everyone’s voices actively”

Full Credit: Maaret Pyhäjärvi “**Mob Testing: An Introduction & Experience Report**”
<https://dojo.ministryoftesting.com/dojo/lessons/mob-testing-an-introduction-experience-report>

Modern Testing Team Landscape



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Question: What kind of team do you have?

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What is a Strategy?

A strategy is comprised of four characteristics:

- delivers a long-term return on investment
- aligns the required resources to deliver
- arranges the type and timing of your tactics
- enables a competitive differentiation

Keep in mind:

- A strategy is not a plan.
- A strategy is not a secret.
- A strategy is not static.

What is a Testing Strategy?

To develop a testing strategy, consider the following:

- **The Objective:** what do you want to achieve and why
- **The Strategic Plan:** a high-level idea for how you're going to accomplish your objective, the general "how"
- **The Tactical Plan:** the detailed steps to implement your strategy, to achieve your objective, the specific "how"

Testing Strategy: Objectives

Examples of testing objectives:

- ensure stories function as-described and for expected behaviors
- explore alternate and unexpected uses or functions
- measure response time of N secs is maintained under load
- attack application for nefarious purposes
- validate system accessibility and compliance to laws or regulations



Testing Strategy: The Strategic Plan

Objective: “explore alternate and unexpected uses or functions...”

The testing strategy:

- ...by adopting session-based and exploratory testing techniques
- ...by pairing up diverse members of the team with different backgrounds
- ...by bringing in alternative workers with fresh ideas and perspectives
- ...by rigorously challenging our biases in existing suite of test cases



Testing Strategy: The Tactical Plan

Objective: “explore alternate and unexpected uses or functions...”

The testing strategy: “...by pairing up diverse members of the team with different backgrounds”

The tactics we’ll use:

- ...on alternate sprints try a different paired tester/engineer combination
- ...weekly lunch-n-learn sessions to cover alternate test perspectives
- ...give incentives, voted by team as “most valued test” and “wildest idea”



What a test strategy is NOT...

- Descriptively explaining what you are doing in more intellectualized language that sounds “strategic”
- Tacit adoption of industry terminology, acronyms or techniques that may (may not) fit your team
- A means of proving that people are just stupid about quality
- Automating the hell out of everything – because that’s what’s hot right now
- Creating a gigantic bug backlog database for impact analysis
- Producing metrics and graphics for your management (although, sometimes you have no choice)



POP QUIZ: Strategy or Tactic?

1. Paired Testing with Incongruent Disciplines
2. Pretty pictures and graphs with colors for management
3. Long-Haul Soak Testing at the end of the sprint
4. Mob Testing Each Friday, followed by automated regression run
5. Find all the bugs

Exercise: develop a strategy

Template for Testing Strategy and Team:

The Objective:

The Who: (team structure)

The Strategy:

The How: (tactical plan)

The What: (strategic plan)

The Tactical Plan:

The Deliverables: (objectives)

Example Testing Strategy and Team:

The Objective: *we need to identify and remediate security vulnerabilities related to session hijacking*

The Who: *a special forces team of development, test and operations engineers*

The Strategy: *by bringing in alternative workers with fresh ideas and perspectives*

The How: *we will meet every Wednesday for extended 90-minute lunch with security consultant, split time on new technique and hands-on mob/paired test sessions*

The Tactical Plan: *during weekly lunch-n-learn sessions to learn new security test techniques with an external expert*

The What: *there are new OWASP security test techniques coming nearly every month, we'll learn from expert consultant*

The Deliverables: *automated test scripts, action-items for both development and people, risk assessment for any vulnerability we find*

In summary...

- Know what your starting with: the existing team structure
- Know what's working and what's not: avoid futile arguments
- Refresh and confirm your objectives: avoid dogmas and egos
- Develop new strategy and plans first: collaborate
- Refine your team structure to align with your strategy

Thank you!


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