

# PERFORMANCE 101

## WHAT IS LOAD TESTING?

Dan Marek  
perf pro



# AGENDA

- What is Load Testing
- Load Testing Value
- Benchmark Process Snapshot
- Golden Rules
- Responsibility Matrix
- Key Takeaways

# WHAT IS LOAD TESTING?

- Automate app services, infra services and front end applications performing REAL system actions
  - Run “virtual users” or transactions to create target load volumes
  - Process of metric collection and analysis
  - Collaborative troubleshooting and tuning
- Use load testing tools for automation
- Use operational monitoring and APM for metrics & problem solving



# WHAT IS THE VALUE OF LOAD TESTING?

- Cost avoidance
  - Identify defects before deployment or user growth
- Minimize cost by conserving hardware and software
  - Enable consolidation and virtualization
- Understand risk before deployment
- Deploy reliable and stable systems
  - Understand system limits and operational procedures
- Share performance experiences with new application teams
- Independent third party review of applications

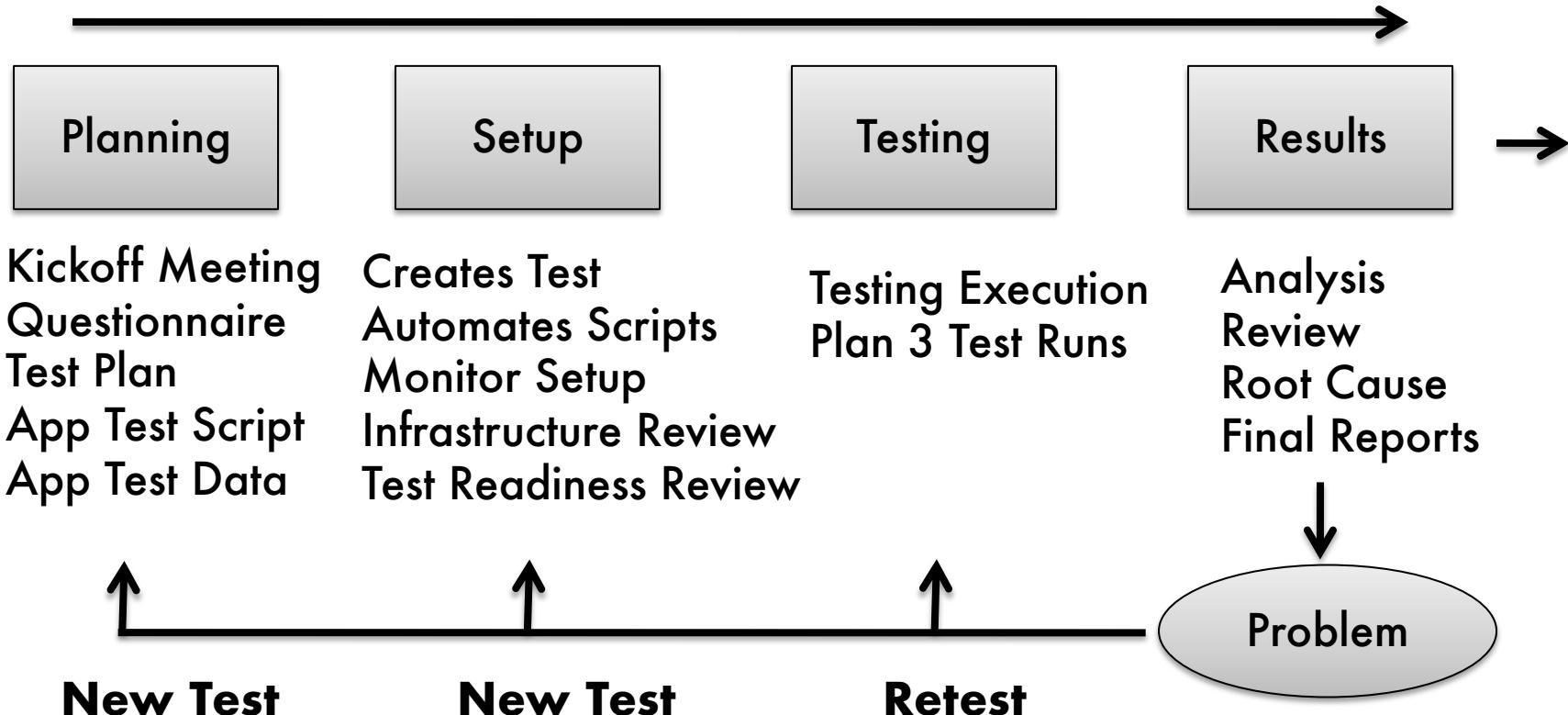


# PERFORMANCE TEST SERVICES

Service Need	Benchmark	Reliability Resiliency	Capacity	Component Exploration	Tuning	WAN Client Side
Baseline	Load, Day in Life, Peak, Month End					Network, Client Side
Stability		Endurance, Failover, Chaos				
Capacity			Stress Servers	Trending		
Problem Research				Shake Out Throughput Load Balancer	Iterative Load	



# BENCHMARK SNAPSHOT



# GOLDEN RULES

- Three Golden Rules "It is all about the Scenario"

- Volume
- Business Critical
- 80/20

- Think Outside In

> Test Inside Out

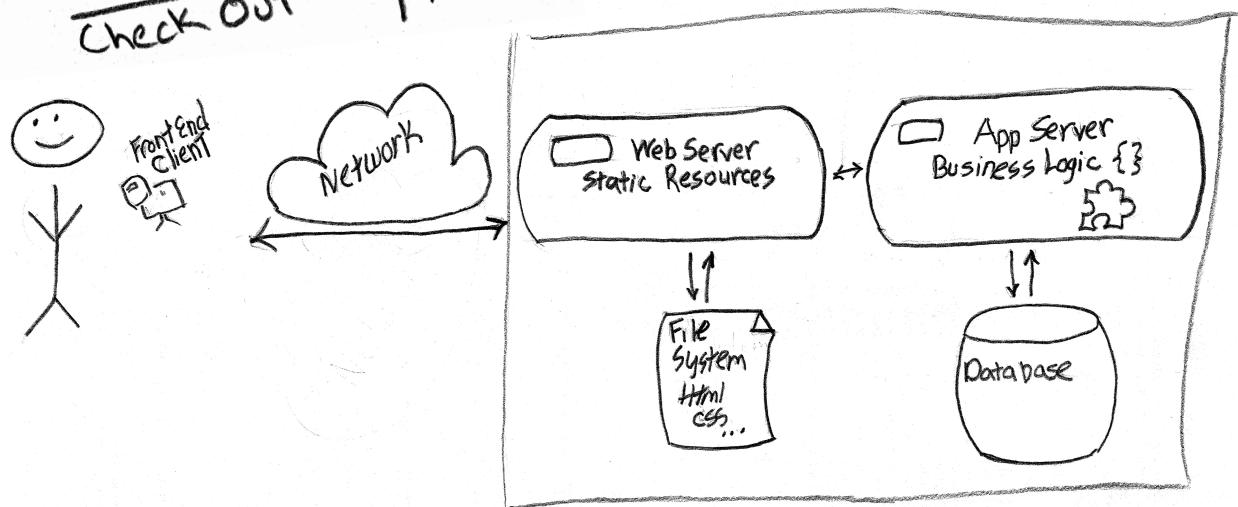
- Feature CRUD

- User Visits

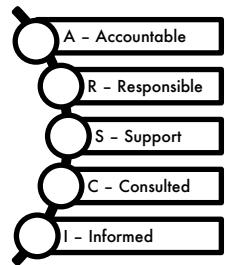
- Small Batch Size

- One Test One Goal

Transaction Name	TPM
Product Search	500
Add to Cart	200
Check Out	100



# RESPONSIBILITY MATRIX



	perf lead	perf eng	proj lead	app lead	test lead	test eng	bus analyst	bus contact	infra lead	infra eng	app dev / vendor	arch ent, infra app
<b>Planning</b>												
Kickoff Meeting	A		R	S	S		S					
Questionnaire	A	S	R	S	S	C	C	C	S	C	C	C
Test Plan	A/R	S	R	S	S	C	C	C	S	C	C	C
Test Scenario & Script List												
App Test Script			A			R	S	S				
App Test Data			A	S		R	S	S	S		S	
<b>Setup</b>												
Creates Test	A	R			C		S				C	C
Automates Scripts	A	R			C		S					
Monitor Setup	A/R								R	S	S	C
Infrastructure Review	A	R			S				S	S	S	S
Test Readiness Review	A	R	S			S	S		S	S		
<b>Testing</b>												
Testing Execution	A	R							S	S	S	C
Plan 3 Test Runs	A	R							S	S	S	C
<b>Results</b>												
Test Results and Analysis	A	R							S	S	S	
Analysis, Root Cause & Tuning	S/R	S	A	R	S				S	S	S	C
Final Reports	A	R		C	C	C			S	S	C	C



# KEY TAKEAWAYS

- Performance Fundamentals “It’s all about the Scenario”
- One Size Does Not Fit All
- Think About People – aka “Outside In”
- Think Infrastructure, Architecture, & Code
- Test As Early As Possible – aka “Inside Out”
- Agile or Iterative Waterfall – align goals, what, who, when & how



# PERFORMANCE SERIES

- What is Performance Engineering?
- Advanced Performance Practices
- What about DEVOPS?



# QUESTIONS

