Infrastructure - Assessment Questions

Question	Why we ask?	How to score/rate? (1 lowest - 5 highest)	Weight?	What data can we pull to quantify?
What are the different deployment environments in the organization?	This will help determine if there are dedicated environments for each phase/function in the release pipeline.	1 - no environment separation 2 - only non-prod and prod 3 - dev, staging, and prod 4 - dev, qa, staging, and prod (optional cas) 5 - dev (feature), qa, staging, perf, and prod (optional cas)		
How are the environments provisioned and configured?	Will help determine if there is a systematic way to provision the envinroments and ensure that configurations are as expected.	1 - manual configuration 3 - some automation but manual intervention required 5 - one click provisioning		
How quickly are environment requests completed?	This will help to determine if there is a big turn-around time for an environment request to be completed	1 - greater than 1 day 3 - 4-24 hrs 4 - 1-4 hrs 5 - less than 1hr		
Is there monitoring configured for the environments?	This will help us determine what capabilities are enabled to ensure the environment is healthy	1 - no monitoring 3 - monitoring but no alerting 5 - monitoring and alerting		
Are the same monitoring tools used in production also used in a non-prod environment?	This will help determine if testing and familiarity of the production monitoring tools are also available and exercised in a non-prod environment.	1 - prod monitoring tools are not available in non-prod 3 - some but not all prod monitoring tools available and used in a non-prod environment 5 - all prod monitoring tools are also used in a non-prod environment		
Any environment self-healing capabilities?	This will help determine if there are automated fixes for common issues	1 - no self-healing 3 - 1-5 self healing capabilities 4 - 5-10 self healing capabilities 5 - more than 10 self healing capabilities		
Is there a mechanism to identify configuration drift between environments?	This will help determine if there is a systematic way to identify if there are configuration differences between environments	1 - no mechanism to identify configuration differences 3 - can report of configuration differences, but no automated mechanism to correct differences 5 - can report and correct differences automatically and/or via one click.		
How often are environments refreshed?				
Is there a dedicated non-prod environment that has the current production versions?	This will help determine if there is an environment available for debugging items found in production.			

Is there a dedicated performance environment that is close to production specs?	This will help to determine if there is a reliable mechanism to test performance issues prior to production release.	1 - no performance environment 3 - performance environment exists but less that 1/3 scale 4 - performance environment exists, but not same size as production (greater than 1/3 scale) 5 - performance environment exists and is the same scale as production		
Are higher environments (staging to prod) controlled to ensure only release candidate versions are deployed to them?	This will give us an idea on whether the higher environments are testing expected release candidate versions that will be deployed to production	1 - no controlled 3 - controlled but no traceability/history of changes 5 - controlled and there is a mechanism to trace changes and see the history of changes.		
How often are infrastructure patches applied to the environments?				
What is the order in which environments are patched?	This will let us know if patches are tested in a non-prod environment first before applying to production	1 - no policy dictating that a production patch must be defined in non-prod 3 - patches applied to non-prod first unless it is a urgent patch that must be applied to production immediately 5 - patches always applied to non-prod before prod		
Is there an environment dedicated of feature branch testing?		1 - No environment dedicated for feature level testing 3 - VM based environment dedicated for feature testing and it is a set of shared resources across multiple developers 5 - Container based environment dedicated for feature testing and there is clean isolation to perform individual feature tests without impacting other feature testing.		
How do you roll back a production deployment?	This gives us an idea on the rollback strategy, what is involved, how much is automated, and how long does it take.			
Are rollbacks tested in the non-prod?	This gives us an idea of how reliable the roll back strategy is and if it is being tested on a continuous basis			
What is the deployment strategy used in production (canary, blue/green)?	This gives us an idea of the strategy used for production deployments. Strategy will assist with follow-on questions to determine the efficiency of the strategy.			