

Smart Foundry – The Business Need

An intelligent, multi-functional, domain-centric DevTest environment management platform

The Challenges

We have observed that for some organisations, there are only a limited number of environments causing contention of environments as multiple project teams want to use these limited environments at the same time

For organisations that have already embarked the cloud and DevOps journey, it has been a major challenge to contain the number of non-production environments that are provisioned on demand. Due to poor environment management, it has been observed that these environment numbers shoot up thereby increasing the costs involved. These costs include the costs incurred due to unmanaged cloud environments and the cost of tools resulting due to lack of tooling strategy.

Lack of environment management has seen under-utilisation in some cases. This is because there is a lack of visibility of a demand management system and a cost-based information portal to make

relevant decisions. Test environments are not in some cases monitored for capacity and utilisation.

Due to improper workflows and processes, especially, to request and design non-production environments, various organisations have environments that are redundant and not used often. This has resulted in project teams provisioning new environments on cloud or ordering new infrastructure without accurate visibility of availability of existing environments. This is also waste of capital expenses thereby increasing operational costs

Due to lack of proper requirements capture, it is observed the more than often, it is a challenge to deliver fit for purpose environments. This is also due to lack of proactive health checks and limited automation between lifecycle phases.

Non-production environment monitoring and automated service management especially through intelligent integration is missing in most organisations. In some

cases, it is observed that there are no metrics captured or service level agreements in place for defect or incident management for non-production environments. This results in delays in availability of environments.

It has also been observed that many organisations have committed to one single cloud platform that eventually increase the costs of utilisation over a period. Spreading workloads over multiple cloud platforms are not practiced by many organisations.

Test Data Masking or Synthetic data is not a standard practice in many organisations. This increases the security risk of the data involved if organisations use production data for development or testing purposes.

The need for Smart Foundry

Smart foundry addresses all the challenges mentioned above. The value stream management module of Smart Foundry ensures that there is a clear customisable workflow to manage the end to end lifecycle for managing non-production environments.

This also provides the facility to book and schedule environments, manage the demand and view environment maps so that the dependent upstream and downstream environments can easily be represented in a map along with technical specifications of the environments.

This module has the features to manage environments from a release perspective and the ability to provide analytics-based reporting. This module will help us move forward through change with complete work visibility, smart dashboards, and governance to improve organizational performance in this new remote-first world.

Smart Foundry's Value Stream Management capability is fulfilled by Plutora and this helps in integrating the data of your current software delivery toolset into Plutora. Without the need for big changes, developers and testers can focus solely on doing great work. The orchestration layer gives managers complete control of multiple pipelines from idea to production.

This allows to automate, standardize and orchestrate complex releases, hence reducing risk. This module also helps in getting advanced KPIs, metrics and predictive analytics of your complete software delivery process to empower your digital business. With a complete view of your software delivery process, you can identify chokepoints, eliminate waste, increase efficiency and reduce time-to-value, giving you a competitive advantage.



“Capgemini’s Smart Foundry solution is an End-to-End Test Environment & Continuous Testing solution that is designed to deliver fit-for-purpose Multi-Premise (On-Premise & Cloud) environments on-demand. This solution will address the key business challenges in most IT organisations related to availability of non-production environments and data and an integrated Quality pipeline”

**- Wick Keerthapongalan,
Portfolio Manager
Capgemini’s Financial Services**

Smart Foundry has intelligently integrated its value stream management capabilities to the multi-premise environment provisioning capabilities powered by Nutanix Calm.

Smart Foundry meets this challenge of provisioning multi-premise environments with Calm by automating IT service delivery to meet business needs and to speed up ROI. Calm automation lets you adjust workloads according to business priorities and run applications on multiple hypervisors and clouds without platform lock-in. Calm also provides policy-based governance, making it easier to optimize VM and container utilization and sizing, which leads to significant savings in OPEX and CAPEX, as well as faster time to value.

You can fast-track your way to production-ready cloud native infrastructure with Nutanix Karbon, an enterprise Kubernetes management solution that is integrated with the other modules of smart foundry including Nutanix Calm dramatically simplify provisioning, operations, and lifecycle management.

Smart foundry has the capabilities to offer service virtualisation and test data management services coupled with end to end observability and service management to ensure that all the environments are proactively monitored, and alerts triggered to and attended to much faster and efficiently.

Synthetic test data can be generated automatically through service management tool integration to the value stream management and test data management module which significantly reduces the time required to test.

Smart Foundry seamlessly integrates with end to end testing tool landscapes including Capgemini's own Smart QA ecosystem to provide a truly smart end to end quality engineering platform addressing all the challenges listed above.

Of the challenges posed by test environments, the greatest by some distance is cost. 60% of the respondents mentioned it this year. The growing demands of test environments and the increased need for availability are the two main reasons.

- World Quality Report 2019-20

About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of €17billion.

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