



Smart Foundry

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



NUTANIX™

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For many organizations, there are a limited number of testing environments, which can create bottlenecks and subsequently delays. For those that have already embarked on their 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 and system management, the number of needed environment can escalate, thereby increasing the costs and reducing economies of scale.

Lack of environment management can result in under-utilization of available resources. This is because there is a lack of visibility of a demand management system and a cost-based information portal to make relevant decisions. Also, in some cases, test environments are not monitored for capacity and utilization.

Improper workflows and processes designed to request non-production environments can therefore become redundant and not fully or efficiently utilized.

To combat all of these challenges, there is a need for an intelligent, automated system to manage DevOp environments more efficiently, allowing for concurrency and faster execution, resulting in less down time, and better resource utilization.

Smart Foundry, next generation DevOps management

To deliver new ways of working with organizations in a future-proof manner, we have worked with our partners Nutanix and Plutora to create a set of informed and forward-looking testing, test data and environment management. The Smart Foundry solution, is based on four principals:



Domain-centric approach

Smart Foundry addresses domain specific requirements for testing and test environments including automated delivery of test data. For insurance businesses for example, Smart Foundry will be a one stop technology option to address all Guidewire related quality assurance and engineering technology requirements. For banking clients, Smart Foundry supports Temenos for core banking and other domain related applications that are the central to these organizations.



Intelligent integration

Capgemini's intelligent integration framework is what brings Smart Foundry to life and differentiates its functioning with typical end-to-end tool integrations that currently exists in the market today. The integration of such a set of tools will not replicate the functioning of Smart Foundry unless the domain specific use cases and intelligent combinations of functions come together to define the end-to-end ecosystem. This make Smart Foundry unique in the market and the first of its kind.



Multi-premise technology

Smart Foundry delivers non-production environments in a cloud-agnostic way. This means that organizations will no longer be tied to a single cloud provider, allowing them to make informed decisions on compute to host their test and development software based on cost and viability. This is delivered through cutting-edge technology by various partner solutions involved. Organizations can now maximize the use of their existing data center and look at on-demand cloud options, all while working seamlessly as one (or many) end-to-end integrated eco-system, using blueprints and container solutions.



Tool Agnostic Platform

Capgemini has selected Nutanix and Plutora as our primary partners to build the Smart Foundry platform based on our intelligent integration framework. This forms the engine of the platform. However, all the surrounding ecosystems can be replaced by existing tools currently used in an organisation to provide the relevant functions. Smart Foundry is a truly tool-agnostic platform that can be plugged into any tool that fits into the functional framework of the platform.



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

Solution Features



Value Stream Management & Multi-Premise Workloads

The automated Smart Foundry solution enables users to design environment maps, raise change requests, view environment conflicts, run health checks, provide a visual configuration management database (CMDB) and create insights-driven dashboards and reporting.

Users can also efficiently book and schedule environments and view environment calendars to manage the use of environments between parallel releases. If there is a conflict in booking environments, Smart Foundry will effortlessly call upon blueprints, containers and virtual instances as required from the various integrated components to make the relevant environments available to the users.

In addition, Smart Foundry provides a cost-driven decision-making option to deploy application environment blueprints to the cloud of your choice or to on-premise locations in such a combination that allows the availability of an end-to-end test environments in a multi-premise, cloud-agnostic setup.



Test Data Management

Smart Foundry helps organizations reduce cost by spreading workloads between multiple cloud providers while maintaining the end-to-end architecture intact. Test Data generation is a key functional module that allows the provisioning of synthetic data on-demand.

Synthetic data generation keeps your data secure and safe. This function is seamlessly integrated with the value stream management workflow and the Service Management module of Smart Foundry.



Chaos Engineering & Observability

The Service Management module of Smart Foundry works with the observability component and the value stream management modules to provide analytics-driven dashboards for reporting to key stakeholders. Continuous monitoring is key to the Smart Foundry solution.

Smart Foundry brings in chaos engineering capabilities from AWS, effortlessly integrated with environment management health checks to test the stability of the deployments across various cloud platforms.



Domain Specific Solutions

The solution is designed to also provide domain-centric options to address application test environment related challenges faced in various industry sectors. This provides organisations to tap into Smart Foundry to provide domain specific test environment, data and testing solutions.



Continuous Quality

Test Environments and Test Data are key to providing effective testing outcomes. This is where Smart Foundry graduates from being an engineering solution to be an end-to-end quality engineering platform.

The test environments and data capabilities seamlessly integrate with Capgemini's Smart QA and other industry tools to provide AI assisted testing for rapid release of applications, ensure business continuity through testing and monitoring.

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 and digital 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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