COMPANY
Telefónica Tech Cloud

INDUSTRY
Cloud Services

HEADQUARTERS
Madrid, Spain

VMware Cloud Director and Telefónica Tech Cloud: Delivering an On-Premises, Automated Experience in the Cloud

About Telefónica Tech Cloud

Telefónica Tech is a new subsidiary of Telefónica, announced in November 2019, and is part of one of the **largest telecommunications service providers in the world**. Telefónica Tech complements and expands the group's traditional telco portfolio, with a wide range of advanced technology services including Security, IoT, Big Data and, importantly, a business unit dedicated to cloud.

The Telefónica Group has more than 12,000 committed professionals, 1,000+ certified industry specialists and thousands of global customers with a strong presence in Europe and Latin America.

The unit has a robust and wide portfolio of services and has adopted a multi-cloud approach, including IaaS services based on VMware and hyperscalers, as well as professional and managed services.

The Telefónica cloud business unit fully supports customers in their cloud transformation journey. They provide **cloud strategy, professional implementation services** and the **provisioning of cloud infrastructure**, including the **Virtual Data Center (VDC) service based on VMware Cloud Director™**, and **managed services** for everyday operations.

Growth Through VMware Partnership

Telefónica has been a VMware partner since 2007, and with the creation of the T-Tech Cloud Unit continues this long-term, strategic partnership.

The partnership has allowed Telefónica to influence and participate in the technical evolution of cloud products, allowing them to position their VMware offering as a cutting-edge solution. The flexibility of their commercial model with VMware solutions allows per use consumption of the products. **This agility enabled Telefónica to grow their business rapidly and expand their portfolio, without huge investments**.

Partnering with VMware and delivering a robust set of services on the VMware Cloud Provider Platform has allowed them to become the VMware-based cloud of choice in many markets. For many virtualization customers looking for a local cloud solution, they have become the preferred option.

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"Our **VDC hybrid cloud** is a key product platform to continue to accelerate our growth in cloud services. The VDC 4.1 release includes important technical enhancements, which fundamentally transform the customer experience, from Containers, Application deployment with Bitnami and Infrastructure as Code (IaC), delivered by Terraform. These new elements represent both our commitment to always offering best-in-class services and ensuring cutting edge cloud propositions for our customers. In addition, it showcases our ability to collaborate with the best in the market."

HUGO DE LOS SANTOS, TELEFÓNICA TECH CLOUD DIRECTOR

Accelerating Business Needs for Cloud Transformation

Companies are transitioning to the cloud to increase innovation, agility and efficiency. But T-Tech Cloud customers often lack the technical expertise and resources to implement a cloud transition project, while maintaining existing IT operations.

Organizations also face tremendous pressure to minimize the technical, operational and financial risks of their cloud projects. In addition, they need to reduce IT expenditure while preserving non-amortized assets. Therefore, they look for experienced and proven partners to guide and accompany them in this transformation process.

Automation through robust APIs is another key requirement to help organizations simplify the deployments in a virtual data center. Although VMware Cloud Director has a very comprehensive and powerful REST API, many organizations lack the skills or the time to train users to take full advantage of its capabilities. **Terraform allows organizations lacking programming skills to automate and fully leverage the VMware Cloud Director environment**. The T-Tech Cloud Unit has collaborated with VMware to enhance the capabilities of Terraform, to make it more beneficial for T-Tech Cloud customers.

Reduce Risk and Costs with VMware Cloud Director

Most T-Tech Cloud customers start their cloud journeys with their existing on-premises private clouds. They are accustomed to the VMware vSphere™ and VMware vCenter Server™ environments and expect similar performance from cloud-based VMware solutions. **These customer demands are the reason VMware Cloud Director is the foundation of the Virtual Data Center, one of the key IaaS offerings in the T-Tech Cloud Unit's portfolio, others being AWS, Azure and Google Cloud Platform**.

Cloud Director provides T-Tech Cloud customers with a virtual environment that includes similar VMware concepts as on-premises deployments. **This familiarity reduces the risk of cloud projects and gives customers the comfort and confidence to transition to the cloud and embrace a hybrid cloud environment. Multi-tenancy provides customers with a similar level of isolation and security boundaries that they expect from a private cloud**, while simplifying provisioning and management work. Additionally, customers can automate deployments with Cloud Director's complete and well-documented REST API.

With the evolution of Cloud Director, T-Tech Cloud customers who have transitioned to the cloud, no longer miss managing directly from vCenter. Furthermore, Cloud Director provides a similar experience in a multi-tenant environment and is the foundation for a rich ecosystem of value-added services.

Having updated their production deployments to VMware Cloud Director 10, Telefónica's Virtual Data Center benefits from notable improvements to the HTML5 interface, allowing their customers to move to a modern, intuitive UI. The latest release also provides **a robust integration of two key offerings in the Virtual Data Center: Containers (Kubernetes) and App Launchpad**. These offerings focus on application services and deliver users with an easy way to manage new services.

Embracing Automation with Terraform Integration

The VMware Cloud Provider Platform is the foundation for the virtual infrastructure in Telefónica's Virtual Data Center service. The solid foundation guarantees a level of scalability that is essential for T-Tech Cloud's service. Along with VMware Cloud Director, the Cloud Provider Platform gives partners access to integrated technologies like **Terraform, a product that enables customers to use Infrastructure-as-code (IaC) to automate VMware deployments**.

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TERRAFORM BENEFITS
- Create, replicate and remove deployments multiple times, in different environments
- Maintain the state of a deployment, and restore if parts are missing
- Extend to any Telefónica cloud with familiar HCL language
- Build virtual resources with a powerful alternative to HTML and REST APIs

Automation tools have become an essential part of cloud computing, which support environments that are dynamically created and destroyed, and where consistency and replicability is a must. But these tools are often complex, which hinders usage and thus customers are not able to fully take advantage of the automation features. Terraform bridges this gap and allows T-Tech Cloud to increase both consistency and simplicity in the Virtual Data Center.

Terraform is currently available in all of the clouds offered by the T-Tech Cloud Unit, including VMware solutions powered by VMware Cloud Director. Terraform delivers a cross-platform experience while providing T-Tech Cloud customers with a wide set of characteristics that allows them to provision and configure infrastructure consistently. **The Terraform Cloud Director Provider enables administrators and DevOps engineers to define Cloud Director infrastructure-as-code inside Terraform configuration files, making it an efficient automation and integration tool**.

Uploading templates, deploying VMs and configuring networks can be very time consuming, particularly if customers want to replicate it in different environments. Terraform acts as the perfect solution in this scenario.

The ability to filter in 'Data Sources', was a feature requested by and delivered in collaboration with Telefónica. Naming of the resources in customers' virtual infrastructure can sometimes be tricky, since these have unique names, so the possibility to use RegEx filtering to select them, proved to be very valuable and simplified some configurations.

Terraform allows T-Tech Cloud customers to embrace the power of the REST API and command-line tools using a simple programming language like HCL to achieve their automation targets, so they can deploy complex virtual set-ups. Customers' confidence with these familiar tools gives them confidence in their deployments.

Summary

As companies' multi-cloud journeys continue to evolve, VMware's Cloud Provider Platform gives providers like Telefónica Tech Cloud, a platform to strengthen and broaden their business offerings. Advanced capabilities, like automation through Terraform, allows service providers to deliver a consistent experience across clouds and focus on innovative, value-added multi-cloud services.