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TIM Brasil embraces public cloud for 5G, agility, and cost savings

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Summary

In brief

In the first quarter of 2021 TIM Brasil announced it had selected Oracle and Microsoft as the cloud providers for its IT systems. As a consequence, TIM Brasil will retire two data centers. The deal is part of the company's digital transformation and demonstrates a potential path for the digital journey for other telcos. With the commercial deployment of 5G expected to happen in the next year, more workloads will be processed in the public cloud, including critical tasks like mobile core functions. The deal shows how the scale of telcos can give them leverage in negotiations with cloud providers, even driving partnerships between rival cloud providers like Microsoft and Oracle.

Omdia view

- TIM Brasil's decision to decommission two data centers and move IT workloads to the cloud highlights the path many CSPs are taking to reshape their infrastructure. The investments demanded in the network, especially in fiber access and 5G, dictates the need for a more efficient infrastructure. A successful migration to managing multicloud environments should be the focus of telcos. This will require new skills and changes to processes and workflows.
- **Migration of support systems is just the first step to the cloud.** CSPs are going through a transformation of their business that requires agility, operational efficiencies, and openness to partnerships. The cloud ecosystem is mature enough to support CSPs in all these areas.
- **CSPs command IT budgets big enough to induce unlikely alliances like Microsoft and Oracle.** The joint bid for the TIM Brasil contract is one of the first involving the two software giants in Latin America after they announced the interconnectivity of their clouds. This demonstrates how attractive the telecom sector can be for cloud providers.

Recommendations

Recommendations for service providers

From IT and legacy systems to network functions, cloud migration is a complex issue for CSPs, but one that needs to be addressed as quickly as possible. The benefits of agility, fast time to market, cost savings, to name a few, are strong and the cloud will be required once new technologies and architectures, like 5G, edge computing, and network slicing, are launched and the operator develops new use cases based on them. Cloud providers that have built strong relationships with telcos can better understand the 5G core network requirements and provide telco-grade cloud services for 5G.

Recommendations for cloud providers

Microsoft and Oracle are leaders in the software market, not only in productivity software and databases but in several other areas. A partnership between Microsoft Azure and Oracle Cloud Infrastructure creates a strong proposition for those enterprises that already use their software – the pool of enterprises that are already customers of both companies is sizeable. However, the companies should not lose sight of the whole cloud journey taken by CSPs, that includes the prospect of 5G core networks in the future.

Using cloud to accelerate digital transformation

Setting the business context

Telecom operators are being challenged to rethink their business and operational models. In many countries they face stagnant growth in their traditional core business. Consequently, the sector is undergoing a difficult digital transformation that permeates several aspects of its business. The overall goal is to have a more nimble and innovative organization. TIM Brasil is a good example of the situation. Its revenue grew at a CAGR of just 0.2% from 2015 to 2020, in local currency, while its mobile customer base declined by a CAGR of 4.9% over the same period. Obviously, TIM is not alone in facing this issue. Omdia analysis shows that total revenue for CSPs across 67 markets had a CAGR of -1.1% from 2014 to 2019.

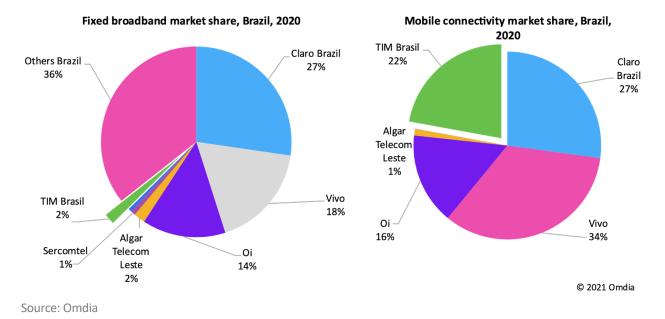
TIM is one of the largest operators in Brazil in the wireless market. However, it has the smallest fixed infrastructure among the top four operators. Furthermore, it has traditionally been less focused on enterprise telecoms than its competitors. The dependency on consumer wireless revenue is a risk factor for the company, especially given that Brazil is, essentially, a mature wireless market. Inorganic growth opportunities are limited since TIM, Vivo, and Claro formed a consortium to buy Oi's mobile unit.

The challenging context for TIM Brasil is also compounded by two factors: the perspective that many 5G opportunities are in the enterprise sector, an area where its competitors are ahead; and the booming FTTH market where TIM is also behind its competitors. Therefore, digital transformation for TIM Brasil is as much a matter of finding new business opportunities as it is about turning the company into a more efficient operation. Given this background, the migration to the cloud is a way to accomplish both goals.

Before the deal with Oracle Cloud Infrastructure and Microsoft Azure, the TIM group already had a contract with Google Cloud Platform (GCP) for its "big data" platform in Brazil and a broader deal with GCP in Italy to offer GCP's cloud portfolio to Italian enterprises.



1. Figure 1: Fixed and mobile market share, Brazil, 2020



Bringing the strategy to life

Given this overall picture, TIM Brasil has been working on a new strategic plan that has four key pillars:

- Mobile: shifting the focus from subscriber growth to increasing customer value via new services, prepaid to postpaid migration, and 5G leadership
- Fixed broadband: accelerating Live TIM fiber broadband services
- Infrastructure: unlocking value from its infrastructure, attracting new investors, and accelerating fiber deployment
- New services: evolving from a reseller of third-party services to a platform for several partners.

This strategy focuses on strengthening the company's core connectivity business while preparing the company for a future of multiple and deeper partnerships. As part of this effort TIM Brasil will need to transform its infrastructure, adopt agile IT methodologies to support existing operations, and prepare its systems and processes to support the new business requirements.

The migration to the cloud is part of these transformational projects and the company roadmap is delineated until 2023. The contract with Microsoft Azure and Oracle Cloud Infrastructure is just one of the first steps in the plan. The benefits of a well-planned and executed cloud adoption include:

- Cutting costs through operational and business efficiency
- Improving sales and customer experience
- Increasing agility and accelerating the development of new products and services.

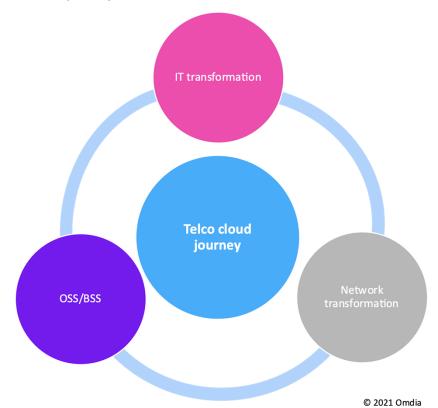
The migration to Oracle Cloud Infrastructure and Azure helps TIM Brasil in all these aspects. TIM Brasil will decommission two IT data centers and expects a 25% reduction in running costs for its IT from 2020 until 2023. Oracle and Microsoft took advantage of their existing relationship with TIM and decided to



interconnect their clouds, thus creating a strong proposition to bid for TIM's cloud contract. This way the cloud providers were able to offer a deal that allows TIM to leverage the best of both providers, transferring workloads to the cloud thanks to the possibility of "Bring Your Own License" (BYOL) without the extra burden of managing each cloud, since Oracle and Azure manage the interconnection – a proposition that is unavailable to other cloud providers that lack the same presence in the enterprise software market. The interconnected clouds also mean reduced complexity in managing the workloads and, consequently, a reduced cost of support.

The challenge faced by telecom companies to upgrade from their legacy systems to a nimbler infrastructure necessarily means a journey to the public cloud. This journey takes, at least, three transformation fronts: IT cloud, network, and OSS/BSS. This is in accordance with Omdia's OSS/BSS Evolution Survey in which 77% of CSPs interviewed plan to host a portion of their OSS/BSS workload in the cloud already in 2021. The deal announced with Oracle and Microsoft is an important step in TIM Brasil's support system and IT transformation but is not the last. Public cloud could even host the mobile core functions as we have seen with Dish Networks and AWS.

2. Figure 2: The telco cloud journey



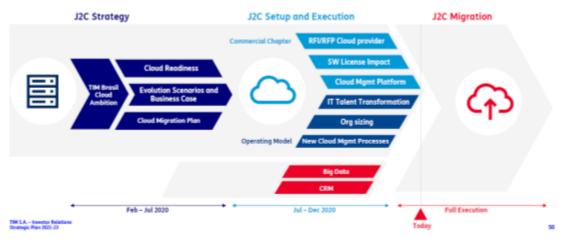
Source: Omdia

In the first half of 2020 TIM Brasil outlined its cloud migration plan, based on scenario analysis, and cloud readiness assessment. In the second half of 2020, the company moved ahead with the execution phase. It released the RFP, prepared its cloud management platform, conducted a software license impact analysis, and started preparing the organization for the migration. Throughout 2022 the company will work on migrating channel systems and in 2023 it will focus on billing and enterprise systems. The ultimate goal is to move 100% of IT workloads to the cloud, allowing for the retirement of its IT data centers by 2023.

Outcome assessment

In 2020 TIM worked on activities like software license impact assessment, development of the cloud management platform, preparation of the IT staff, and the cloud migration plan. The announcement of the selected cloud providers kicked off the next phase of the project; i.e., the actual work of moving IT systems to the public cloud.

3. Figure 3: TIM Brasil "Journey to the Cloud" schedule



Source: TIM Brasil

The winning proposal came from a joint bid from Microsoft Azure and Oracle Cloud Infrastructure. This was the first win for the duo in Latin America in the telecom market, although they did have an interoperability agreement in place. The joint bid arrangement includes unified identity and access management, application interoperability, joint customer support, and partner ecosystem alignment. The offer includes private, low latency (up to 2.0ms) interconnectivity between cloud providers. Azure will handle Microsoft applications, VDI, and SAP Hana while Oracle Cloud Infrastructure will handle databases (the majority of which are Oracle), CRM (Oracle Siebel), billing and integration, and field services management.

Cross-connectivity between Microsoft Azure ExpressRoute and Oracle Cloud Infrastructure FastConnect is possible as both have close peering locations in Brazil. Peering proximity might be an issue for CSPs located in other parts of Latin America.

Appendix

Methodology

Omdia case studies leverage in-depth interviews with key stakeholders as well as reviewing any available documentation such as strategic planning, RFP, implementation, and program evaluation documents.



Further reading

Blockchain Technology and Adoption Trends (December 2019)
"Blockchain is good for more than just Bitcoin," (September 2019)
Service Provider Routers & Switches Market Tracker – 4Q 2019 (February 2020)
"CenturyLink goes "colorless" and takes on the edge cloud" (February 2020)

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