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## Service Providers are Positioned to take Industries to the Next Level

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Regardless of industry, we can all agree that technology is evolving rapidly and changing the way we work. Real-time communications, IoT, automation, and analytics underpin these transformations across sectors including healthcare, manufacturing, and hospitality.

Underestimated in Industry 4.0, however, are the massive points of inertia in the IoT market, and the amount of integration work required for enterprises to actually stitch together a vertical solution.



That's not to say that the work isn't well worth the effort. A recent survey by [Omdia](#) of more than 4,500 enterprises across 56 countries demonstrates that almost 91 percent of enterprises have seen their IoT investments either live up to or exceed expectations. And cloud-based technologies and real-time communications have been a catalyst for industries to meet their digital aspirations and better serve their customers. Through partnerships with industry players, telecom operators are well-positioned to extend into adjacent industries (and specific segments) to offer communications-enabled industry solutions bundled together with connectivity services — i.e., to finally expand beyond connectivity and diversify their revenue streams.

### Why Should Telecom Operators Consider Focusing on Specific Industry Segments?

It is becoming increasingly evident that the telecom value chain is transforming as cloud native technology unlocks new possibilities. It may be bold to claim that the arrival of the cloud is

changing the value chain of telecoms and, therefore, the monetization opportunities available to operators, but the 5G network is proof of this. The fact that 5G is driving the disaggregation of the network, separating the physical elements of the mobile network that can't be virtualized from the software components that can, creates fundamental choices for telecoms operators. Re-designing software elements of the network into an open, programmable, and cloud-native platform will be key to supporting the monetization of networks in the future. It will also power CSPs business operations with end-to-end automation capabilities to fully support the digital interactions with their ecosystem of customers and partners.

There lies a remarkable opportunity to expand revenue streams beyond the operator's existing customer base. This potential is not just theoretical but achievable through strategic collaborations and embracing digital innovation — an avenue that holds immense promise for telecom operators seeking sustained growth.

To realize this ambition on a significant scale, the widespread adoption of programmable platforms must be preceded by accelerated investment in cloud native networks and cloud-based technologies with automation and exposure capabilities so that CSPs can continue the transformation of their networks and operations.

Furthermore, end-to-end network programmability that extends from the public cloud and centralized core networks through to the metro edge, and eventually to the industrial edge, will be paramount to enable low latency connectivity for industrial applications.

Finally, CSPs will have a significant need to ingest, store, and analyze the large volumes of data generated by cloud native networks. Hence, data management and analytics tools must support real-time analytics and enable the correlation of data from multiple network and operations domains. AI tools will be essential for overcoming the complexity of managing interactions between applications, business operations, and the network as CSPs continue to evolve.

Yet, the realm of possibilities extends far beyond connectivity alone. Collaborating to deliver vertical industry applications tailored to specific enterprise requirements opens doors to a broader market segment. This collaborative approach not only distinguishes operators from connectivity-centric competitors but also fosters deeper loyalty among enterprise customers. While venturing into industry solutions may seem daunting, the rewards can be substantial. The Omdia survey also highlighted the importance of IoT in digital transformation, with 88 percent of respondents considering it core to their initiatives. Additionally, 95 percent expected measurable benefits from IoT within two years of deployment. By embracing strategic partnerships and digital innovation, telecom operators can unlock new revenue streams, carve out a unique identity in the market, and cultivate enduring relationships with enterprise clients. The question beckons: what is the blueprint to embark on this transformative journey and explore the boundless possibilities that lie ahead?

## **The Enablement of Applications**

By incorporating IoT device management built directly into their applications stack customers can reduce the burden of managing complex integrations to power critical, new services. Going this route can also mean access to enhanced services such as video and audio streaming,

recording capabilities, device management, edge distributed processing, authorization, and authentication.

This enablement of applications with 5G and IoT is designed to address the overarching challenge faced by companies regardless of industry: the need to manage and maintain multiple, disparate communication devices, sets of data, and manual processes to record and archive, all within their own systems. With limited transparency it can be difficult for companies to react quickly to situations.

## Delving into the Food and Beverage Business

With the right blueprint in place, service providers can make the communications enablement of vertical industry applications extremely successful. However, it can be hard to conceptualize this level of partnership and deviation from the current business model. Let's look into the challenges and opportunities within the food and beverage industry as an example.

Challenges in this industry can run the gamut. According to the National Restaurant Association, food and labor are the most significant costs for a restaurant, each making up approximately [33 cents](#) of every dollar in sales. Other expenses, namely utilities, occupancy, supplies, general, administrative, and repairs and maintenance, combine to represent about [29 percent](#) of sales.

The pre-tax profit margin for a typical restaurant is approximately [5 percent](#), but even that is highly susceptible to food issues or labor shortages. It is safe to say this is a challenging space, especially for smaller restaurants.

## Cashless Society

The rise of a cashless society post-pandemic requires reliable and cost-effective payment processes. The average guest wants to pay for their meals with their NFC-enabled phone, including when paying for delivery and pickup orders. The restaurants that can offer the widest range of payment options can win over more customers – whether that's traditional credit cards, chip and pin payments, NFC, or DLT (distributed ledger transactions) such as Bitcoin. The more ways they can process payments the broader the audience they can entice.

## Off-premises Dining

While nothing replaces the social experience of a meal in a restaurant with friends, takeout and delivery are still critical parts of the overall revenue of a restaurant. Restaurateurs need solutions that seamlessly integrate off-premises dining capabilities into their existing model while expertly managing production so one channel does not negatively impact the speed or quality of another.

## Staffing Crunch

The average annual churn in the restaurant industry is about 75 percent, making the staffing crunch one of the biggest challenges restaurant operators must contend with. Businesses have had to become exceedingly proficient and creative in managing their labor resources. Possible

solutions include front office staff such as servers and hosts becoming part of the gig economy and hiring remote staff for functions like online ordering or drive-through.

## Loyalty Programs

Limited or no access to high value services such as marketing or loyalty programs places small restaurants at a disadvantage to large or franchise restaurants. [Eighty percent](#) of consumers want a personalized dining offer based on their historical trends and personal preferences. They are no longer enticed by generic loyalty program offerings such as coupons or discount cards.

One way for smaller restaurants to give customers the high value loyalty they crave is through intelligent CRM solutions that offer a non-invasive way to track guest spending, preferences, and contact information and personal preferences. All of these individual challenges essentially culminate in the need for greater customer acquisition. The question is how can communications-enabled technology support this?

## 5G and AI as the Driving Forces of Digital Transformation

Driving these changes in the post-pandemic restaurant landscape, as well as aiding cloud-based restaurant technologies, are 5G and Artificial Intelligence (AI). Many of the changes that AI will bring to restaurants won't be abundantly obvious but can have positive impacts in areas like tighter supply chains, food waste reduction, and more precise farming techniques. Others may be far more tangible for both employees and guests: an AI-driven system can enable a server to converse with a guest and send enhanced preferences to the kitchen with voice-activated AI and an earbud. Another example is a restaurant outpost in a major airport can rely on AI to proactively deliver insights including when the next plane is landing, if it's been delayed, how many passengers are on board, and even how many are vegetarian. With this information a restaurant can quickly source the amounts needed and create a greater opportunity for sales.

## A Blueprint for Success

In leveraging a communications-enabled blueprint, the opportunity is there to develop a connected offering with all the capabilities and components needed for a small restaurant to succeed. A single box solution could deliver essentially everything needed to help reduce cost and effort through the bundling of real-time communications, restaurant management, and payment technology, including simple transparent pricing, and frictionless onboarding.

With connectivity installed in a bundled offering a restaurant is freed from the task to acquire connectivity separately and integrate the two. The value for smaller restaurants is the ability to compete more effectively and build a multichannel digital-first experience for guests and staff. More importantly, this is a prime example where the restaurant is not looking at a CSPs connectivity-only service as another P&L cost item, rather the entire bundled service (connectivity plus restaurant services solution) which can help increase revenue for the restaurant.

# Service Providers can Enable the Transformation of Industries

Embracing a partnership model allows operators to venture into new industries and elevate from providing connectivity. By integrating industry solutions alongside connectivity offerings, operators can access a new subset of customers and participate in the total value chain. This level of partnership empowers operators to play a significant role in the digital innovation of industries.

5G at scale has the ability to truly drive change. It is more than just progress beyond previous network generations; it is a catalyst for industries to meet their digital aspirations. Service providers have the opportunity to provide the 5G foundation that pushes digital transformation forward. It's time to take the opportunity to make that happen, with high-level quality and security, to partner with industries and take them to the next level.