# The Pharmaceutical Marketplace Challenges

EQUINIX

UNITAS GLOBAL

# Content

# Executive Summary

Unitas Global and Equinix commissioned an independent research study into the challenges facing the global pharmaceutical industry.

The research was focused on the regulatory and technical issues facing the industry and is supported by insight from leading industry figures.

The research investigated how the global pharmaceutical landscape has dramatically changed over the last decade. We have analysed responses from thought leaders, detailing their predictions for the industry moving into the next decade.

## The 4 Key Challenges

The following are some of the key challenges facing the pharmaceutical industry as identified through our research activities and interviews with industry leaders:

- Time of development
- Diversification of portfolios
- Competition from biosimilars
- Regulation

The objective of the research and this report is to identify key areas and provide insight into services that can address these challenges.

# Challenges Facing the Pharmaceutical Industry

## Time of Development

The cost of new drug development is approximately $2.6 billion according to a recent study by Tufts Center for the Study of Drug Development and published in the Journal of Health Economics. Since 1995, drug Patents have had a 20-year initial time limit. However, from the point of filing to the time of receiving an approved license can often leave only a few years before the business is facing challenges from biosimilars. Many businesses seek to extend their patents for that reason. But any improvements in the development cycle can also ensure increased time in the market to recover costs.

As competition abounds, pharmaceutical organisations are under pressure to speed up the time to market. The adoption of new technology, in particular machine learning (ML) and artificial intelligence (AI), can significantly speed up analytical activities by an order of magnitude. PWC suggests in their Pharmaceutical 2020: Virtual R&D series, the 'Virtual Man' that by 2020 research and development costs will be reduced by up to two thirds, and clinical trials costs will be substantially cut by the adoption of new computer-based technology. The 'Virtual Man' will enable researchers to predict the outcome and effects of treatment. This will reduce the time needed to reach the clinical trials phase.

For this reason, it is expected that the market for AI in the healthcare IT application market will increase to $1.7 billion by the end of 2019, due in part to the expectation that operationalising AI platforms across select healthcare workflows will result in 10-15% productivity gains over the next 2-3 years (68.5% CAGR from 2018-2022).

## Diversification of Portfolios

The industry is changing with many pharmaceutical companies embarking on mergers and acquisitions programs to extend their pipelines and diversify their drugs portfolios.

While mergers and acquisitions may also lead to cost reductions, it creates the challenge of bringing two highly regulated and complex businesses together, not just from a security perspective, but from a people, systems, and processes perspective as well.

## Competition from Biosimilars

Evidence suggests that biosimilars may represent a more significant proportion of the top 100 drugs by 2021. This is due in part to growing demands and increasing costs consciousness from global healthcare providers as they face increased costs and regulations themselves.

Critical to managing this risk will be speed to market and effective but secure collaboration to reduce costs. This collaboration would be best enabled by direct and secure connections to the research universities through the Joint Academic Network (JANET), the Health and Social Care Network (HSCN), and other key information and data services through a single secure connectivity capability.

## Regulation

The US Drug Quality and Security Act (November 2013) along with the Drug Supply Chain Security Act (DSCSA) introduced a series of regulatory changes to control the supply and distribution of drugs for any pharmaceutical company trading in the US or overseas. Many of these changes are being phased in now through to the 2023 deadline. These changes include the management of drugs in the distribution chain. The ability to track each drug and identify a surplus that can be redistributed to areas of demand could have significant financial benefits for pharmaceutical companies.

Reducing stock in the channel, reducing the volume of expiring drugs, and providing the ability for companies to resell/redirect drugs when data resides in many disparate systems provide challenges to pharmaceutical companies. Companies would be able to better use and gain meaningful insights from their data if it was all located in a single managed platform.

# The Solution

Unitas Global and Equinix along with ecosystem partners Cloud Gateway and SCAN-Nvidia have created a secure, cloud-based platform that brings together all the key technologies that address the pain points of the pharmaceutical industry into a single, cost effective on demand platform-as-a-service (PaaS).

The service provides secure connectivity from anywhere in the world, on any device, to any/multiple cloud service providers. Through a single enforcement point, a pharmaceutical client gains full visibility for tracking and traceability, reporting, and hosted AI data analytics on all data into and out of the platform. This solution is truly scalable on a consumption model.

# Further Information

Unitas Global and Equinix undertake industry-specific research in order to provide relevant insights, solutions, and services for the pharmaceutical industry. If you would like to know more about pharmaceutical hosted AI workshops, how to participate in a technology workshop, or to speak with one of our Cloud Solution Architects and business consultants please contact: emea.team@unitasglobal.com, or +44 1772 842 098.