



PATIENT OUTCOMES ARE FORCING PHARMACEUTICAL TRANSFORMATION

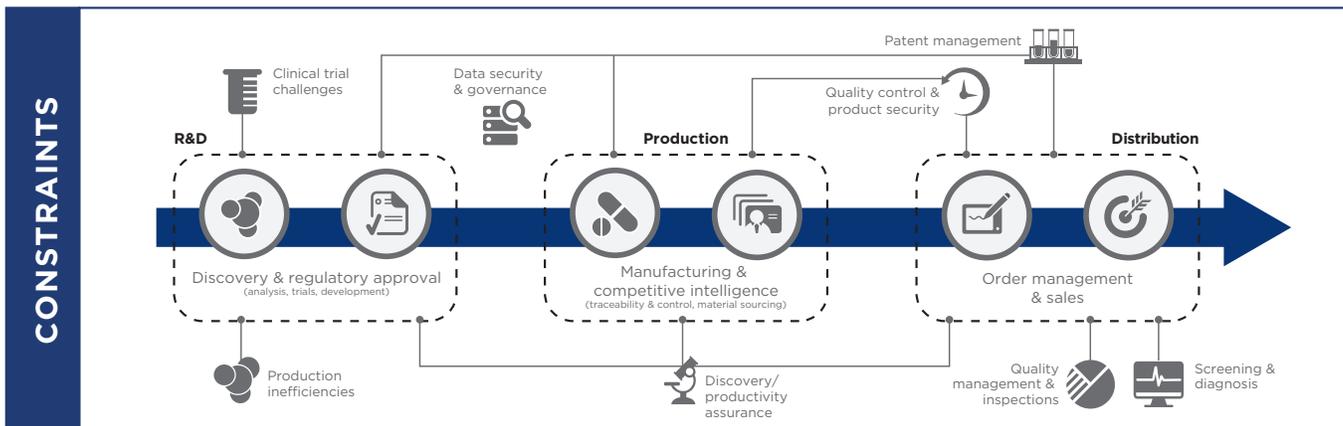
With more focus on positive and predictable patient outcomes, pharmaceutical firms must quickly drive medical breakthroughs, reduce drug costs and demonstrate value via faster access to medical and patient data and greater insights.

Industry trends

Pharmaceutical firms' business models are transforming. Global demands and pricing pressures are forcing companies to collaborate in new ways with partners, healthcare providers, patients, insurance companies and government regulators. Key industry trends include:

- Pharmaceutical markets are rapidly growing in developing countries
- Healthcare policymakers and payers are mandating what doctors prescribe
- Patient data is increasing from multiple channels (EHR, monitoring devices, mobile, social)
- Precision medicine is targeting specific illnesses and dictating custom treatments
- Big impact drug releases are being replaced by quick impact releases
- More drugs are facing patent expiration and generic drug price pressures

The pharmaceutical market is projected to more than double to \$1.3 trillion by 2020¹. Companies need a more data-driven, collaborative supply chain.



Lack of information integration across R&D, production and distribution business processes is creating the following business and technology constraints:

Business constraints

- The need for continuous innovation in the face of value-based care and reimbursement, pro-generic/biosimilar policies and other price-cutting strategies reduce margins
- Long product lifecycles—from product research, to development, to testing, to delivery—slow time to market
- Expensive and inefficient supply chain processes and more complex and costly quality control increase operational costs
- The repositioning of the business for targeted, outcomes-based medicine, while continuing to comply with strict regulations and product safety, slows growth

Technology constraints

- Siloed legacy data systems are not accessible or shareable, and they are barriers to collaboration and gaining insights to better manage patient outcomes
- Maintaining privacy, security and compliance in an emerging collaborative, data-sharing, cloud-enabled environment is difficult and increases risk
- Centralized data capture and point-in-time analytics that are far from dispersed, patient monitoring devices and other information systems prevent real-time analyses and insights
- Integrating new technologies (mobile, cloud, IoT) into rigid, siloed IT infrastructures can be costly and complex

Conclusion:

Pharmaceutical supply/value chains need more real-time collaboration, data exchange and analytical experience for greater insights to improve patient outcome control and gain a competitive advantage.

Conclusion:

Pharmaceutical businesses need their IT to be re-architected for the digital edge to better leverage new technologies and integrate processes, data, analytics and new channels of patient and product data capture.

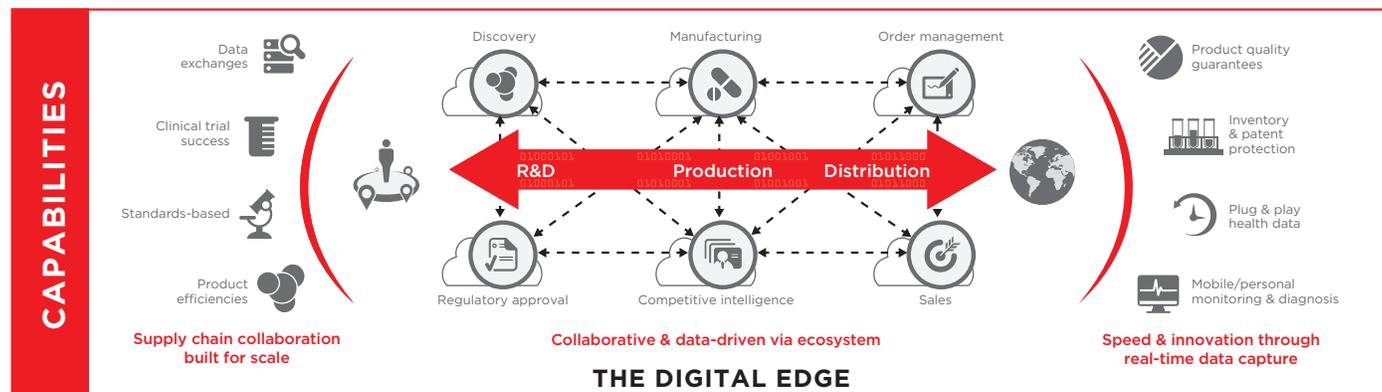


EQUINIX

WHERE OPPORTUNITY CONNECTS

1. PwC, "Pharma 2020: The Vision," 2016.

Constraints become capabilities when infrastructures shift from being siloed and fixed to integrated and dynamic.



Business and technology need to change. To expedite this transformation and meet the growing digital demands, pharmaceutical businesses must re-architect their IT infrastructures. This re-architecture creates capabilities that were previously not possible to achieve.

Business-enabled

- Enhanced intra- and inter-company collaboration, data-sharing and analysis lead to new insights for influencing patient outcomes and competitive advantage
- Streamlined product lifecycles bring products to market faster and accelerate expansion into new markets
- Optimized, more cost-effective supply chain processes deliver higher quality products at a lower cost
- Real-time communications with patients, healthcare providers and government regulators enable more predictable outcomes with less risk of violating security, safety and other medical product regulations

Technology-enabled

- An interconnected platform supports outcome-based analytical models with real-time data from physicians and patients to sustain new business models
- Direct and secure interconnections maintain data safety and compliance wherever data resides, collocated or in the cloud
- Localized and secure real-time data capture, processing and analytics promotes faster innovation and insights for targeted medical product development
- Integrated technologies can be easily and quickly leveraged by supply chain participants, enabling greater operational and cost efficiencies

The digital edge is where to localize delivery of cloud-supported services to your customers, employees and partners.

How interconnection and Equinix accelerate digital business and technology transformation

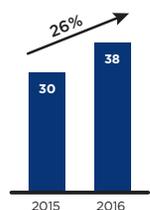
- Shorten the distance** between your applications and data, customers, employees and partners
- Localize traffic and services** across all the locations and markets you need to reach and regionalize services globally
- Integrate and deliver via ecosystem exchanges**, leveraging multiple clouds and SaaS providers to increase your rate of change while interconnecting with digital partners
- Locate data and analytics closer to users** for improved response times and distributed scale, reducing the amount of data traversing networks

The Equinix ecosystem advantage

Equinix is where pharmaceutical firms, partners and customers come together and leverage an Interconnection Oriented Architecture™ (IOA™) that enables them to harness the power of direct and secure interconnection. The Equinix pharmaceutical ecosystem consists of more than 38 companies worldwide, 1,400+ networks, 2,500 cloud and IT service providers and more than 8,000 global businesses.

7
of the top
10

Seven of the top 10 pharmaceutical companies use Equinix as their global interconnection provider of choice



Equinix is averaging 26% year-over-year pharmaceutical customer growth

About Equinix

Equinix, Inc. (Nasdaq: EQIX) connects the world's leading businesses to their customers, employees and partners inside the most interconnected data centers. In 40 markets across five continents, Equinix is where companies come together to realize new opportunities and accelerate their business, IT and cloud strategies.

Architect your digital edge on Platform Equinix™

Pharmaceutical businesses need to re-architect their IT infrastructures on a platform that supports dynamic bandwidth and connectivity to enable the analytics and control needed to provide positive and predictable patient outcomes. They need to put interconnection first in their digital IT transformation strategies. A sure path to that goal is to harness the power of an IOA on Platform Equinix.



Plan your digital platform with the **IOA Knowledge Base**, an open repository of blueprints and design patterns based on the best practices of market leaders across more than 600 production implementations. The IOA Knowledge Base has codified solutions to business and technology constraints. Visit Equinix.com/ioa to learn more and see how your infrastructure can transform to meet the needs of your business.

Packet Fusion

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Connecting the Dots to the Cloud