

Enterprise intelligence for a smarter, patient-centric future

Verizon's vision for the healthcare, medical and pharmaceutical sector in Singapore

verizon^v



Improving the quality of care with advanced technologies

Enriching the patient journey at every touchpoint.

Patients are demanding more from their healthcare systems. Taking their cue from consumer sectors such as retail, entertainment and hospitality, people now expect services that centre around their needs. For healthcare providers, the goal is to anticipate requirements, address pain points and provide intuitive, connected experiences with each interaction.

Traditionally slow to adopt emerging technologies, the sector is finally recognising the need to accelerate change. Digital solutions will play a critical role in bringing disconnected systems, processes, and teams together. And this kind of enterprise intelligence will go a long way to enhance the capabilities of healthcare providers and improve patient care.



The ASEAN pharmaceutical manufacturing sector will grow by 12.8% annually from 2021–2027 to a total addressable market capitalisation of \$148.3BN!



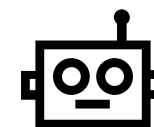
The digitisation of healthcare

The demand for self-service, instantly accessible and personalised experiences means that the patient journey now includes a variety of digital touchpoints. These include the web, mobile apps, contact centres, artificial intelligence (AI) chatbots, and other online tools. For these services to work in real time and be available 24/7, healthcare organisations need fast, reliable networks.



Patient-centered experiences

The emergence of smart hospital rooms signals a broader shift toward delivering consumer-like services. Patients can now access streaming services, pillow speakers, in-room entertainment, and AI assistants in their hospital rooms. These smart rooms also allow patients to interact with their medical records and communicate with care teams.



Cyber security

The sector is also seeing the rise of Internet of Medical Things (IoMT), remote work platforms and contact tracing apps. This creates a more intuitive, interoperable healthcare ecosystem, enabling new forms of care delivery and information management. However, it also means an increased risk of cyber-attack. And because the sector deals with high volumes of sensitive personal data, security breaches are growing, such as the 2019 ransomware attack on the Victorian health sector which infected over 300,000 computers, including some from the UK's NHS, leading to cancelled surgeries and diverted ambulances. Tech leaders must now contend with parallel accelerations of digital transformation and cyber security risk.

Challenges of today

In 2022, 80% of Australians said they preferred physical clinic visits, compared with just 67% in 2019. But the use of telehealth has also risen nine-fold!ⁱⁱ Although these findings are seemingly contradictory, it points to a much greater reliance on healthcare since the pandemic.

Data

82% of APAC healthcare leaders (compared with 65% globally) recognize the value of data to their organization.

ⁱⁱⁱ However, they also believe silos are preventing them from using data as effectively as they'd like.

Supply chain

Owing to the high cost of labour in Australia, local pharmaceutical manufacturing has diminished, offshored to cheaper locations, particularly in Asia. Australia now imports four times as many medicines as it makes, making it vulnerable to supply chain disruption.

Cyber security

Healthcare has always been a top target for hackers – the volume of patient records exposed rose 51% from 2019 to 2021.^{iv} In addition, many organisations use weak encryption solutions and fail to use antivirus software and firewalls, making them vulnerable to attack. Because of this, many cyber security strategies in the sector have a data-centric approach.

APAC insights:

- From 2022–2031, the APAC healthcare cyber security market will grow by 18.9% annually to a market capitalisation of US\$82.17BN^{iv}
- Over 80% of active substance approvals (CEPs) in APAC are held by China and India.^v Many compounds can now only be sourced from two or three Asian suppliers
- 43% of Singaporeans have not used digital technologies to manage their health in the past year. Digital adoption is low because of a lack of trust in tech companies, financial difficulties, and a perceived lack of quality digital tools.^{vi}

Industry benchmarks: How do you compare?

Healthcare in APAC, is on the verge of rapid change. This is due to shifting demographics, digital innovation, rising consumer expectations and limited legacy infrastructure. As a result, patient-centric digital health ecosystems are being established at an unprecedented rate.

Future predictions

- Digital health in Asia will grow to US\$100BN by 2025, up from US\$37BN in 2020^{vii}
- 64% of all health spend was government-funded in Asia in 2018, so finding ways to reduce spend without compromising patient care is a high priority^{viii}
- 1 in 4 hospitals in Australia, China and Singapore use digital health solutions, with the top two being remote consultations (25%) and robot-enabled surgery (21%)^{ix}

IT spend

75% of healthcare providers will boost spend on customer engagement apps^x

65% of hospitals are spending more on digitisation, particularly digital health solutions^{xi}

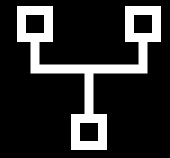
3–6% of revenue is allocated to IT budget, and the average cost per user is roughly US\$3k–6k^{xii}

Verizon: We'll build a solution just for you.

Fast and reliable network connectivity is critical to giving healthcare workers the information they need to deliver quality patient care. Verizon has the solutions to ensure data gets to its intended destination – quickly and securely.

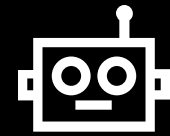


How we do it ...



Network connectivity

Verizon's advanced network technologies such as software-defined wide-area networking (SD-WAN), mobile edge computing (MEC) and 5G, can give organisations the enterprise intelligence to optimise network traffic. Prioritising the transfer of business-critical data can give clinicians and healthcare administrators the data they need in near real-time to make potentially life-saving decisions.



AI-driven solutions

AI can help predict demand for healthcare services and even a patient's potential risk for developing future complications. Looking forward, AI-based solutions can improve patient care and diagnosis without the need for extra headcount. As a result, healthcare organisations can keep costs low or re-invest the budget into other initiatives that improve patient wellbeing.



VoIP and cloud-based phone systems

By shifting voice and multimedia transmission through the cloud and over the internet, healthcare organisations can address modern healthcare challenges such as the growing reliance on telehealth and patient engagement. Dependable, long-distance communication can decentralise care, reduce costs and simplify complex patient communications.



Continues...

How we do it ...



Data & analytics

Healthcare is awash with data. The challenge is to convert it into meaningful insights that enhance decision-making and achieve strategic goals. Verizon's data management, business intelligence dashboards, SD-WAN, MEC, and 5G solutions can store data, identify trends, and create an ecosystem where information can flow and create value.



Managed services

Health is a high-change environment. As organisations in the sector digitise and transform, a custom-built solution can quickly become obsolete. A managed services provider can take on the burden of keeping pace with technological advancement and strengthen infrastructure over time to improve patient care and operational efficiency.



How it all comes together



Mobile Health

Challenge

An occupational health company needed fast, dependable connectivity to deliver large-scale, on-site medical services during the COVID-19 pandemic and beyond.

Solution

Verizon provided critical network and technology infrastructure support, allowing Mobile Health to evolve its service offering.

Results

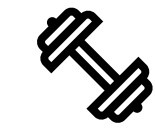
Enabled the setup of a respirator fitting site in just 36 hours, with the operation functioning 24/7 to serve thousands of healthcare workers during the height of the pandemic.

Facilitated business expansion by allowing Mobile Health to pivot its new service offering into the nursing home sector.

Supported delivery of high-quality patient care by enabling innovation in the occupational health space during a period of high demand.

How it all comes together

Ambrosia Treatment Centre and the Neuroscience Research Institute



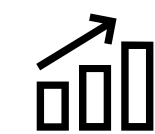
Challenge

An addiction recovery, mental health treatment and research centre operator needed a single solution to maintain connectivity with remote teams.



Solution

Verizon's Contact Center Hub, a multi-channel solution allowing healthcare workers to engage with patients virtually from any device, anywhere, anytime.



Results

Improved contact centre productivity by enabling teams to work remotely during the pandemic.

Connected patients with the right health worker using advanced features such as interactive voice response (IVR) routing, allowing customers to interact with pre-recorded audio.

Provided easier access to analytics and reporting through integration with Salesforce.

Ensured continuity of care by maintaining connectivity for remote teams, even during emergencies.

A strong local presence

Verizon has built a strong presence in Singapore. We employ a dedicated local team who operate from three locations – SGP Science Park, Mapletree Anson and an innovation centre at Ocean Financial Centre OFC. Our offering spans cyber security, advanced communications, secure network services, professional services and media.

Verizon takes security seriously. Here are some of our local and global capabilities:

Singapore

Managed Security Services

Advanced Security Operations

Autonomous Threat Hunting

DDoS Shield

Network Threat Advanced Analytics

Software Defined Perimeter

Ethernet access – Private IP

Private 5G

Partner Access – Starhub/Singtel

Secure Cloud Interconnect with
AWS/Microsoft/Google/Alibaba

Global

ISO 27001

ISO 27002

Payment Card Industry Data Security Standard
(PCI DSS)

National Institute of Standards
and Technology Cybersecurity
Framework (CSF)

National Institute of Standards
and Technology SP 800-53

CSA Cloud Controls Matrix

Cybersecurity Capability Maturity Model

Control Objectives for Information Technologies
(COBIT)



Our global strength

When you choose Verizon, you'll not only benefit from dedicated local resources, but our global capabilities too. This combined strength gives you unrivalled connectivity and protection from cyber threats.

99%

of Fortune
500 companies
as customers

9

security operation
centers (SOCs)
globally

150+

countries

2,400+

certifications and
training for security
team members each
year

34TN

raw logs processed
each year to protect our
customers and minimise
threat

We are also a globally recognised:

- Gartner Magic Quadrant Leader (Network Services and Managed IoT Connectivity Services)
- Omdia Global IT Security Services Leader
- Unified communications as a service (UCaaS) leader for enterprise

Next steps

Let's take our partnership to the next level with an initial executive briefing.

Verizon can help you progress towards your smart future – no matter where you are on your journey.

We can also organize one of our Connected Future Workshops to help you define your future vision. By following a tried and tested framework, we can help you:

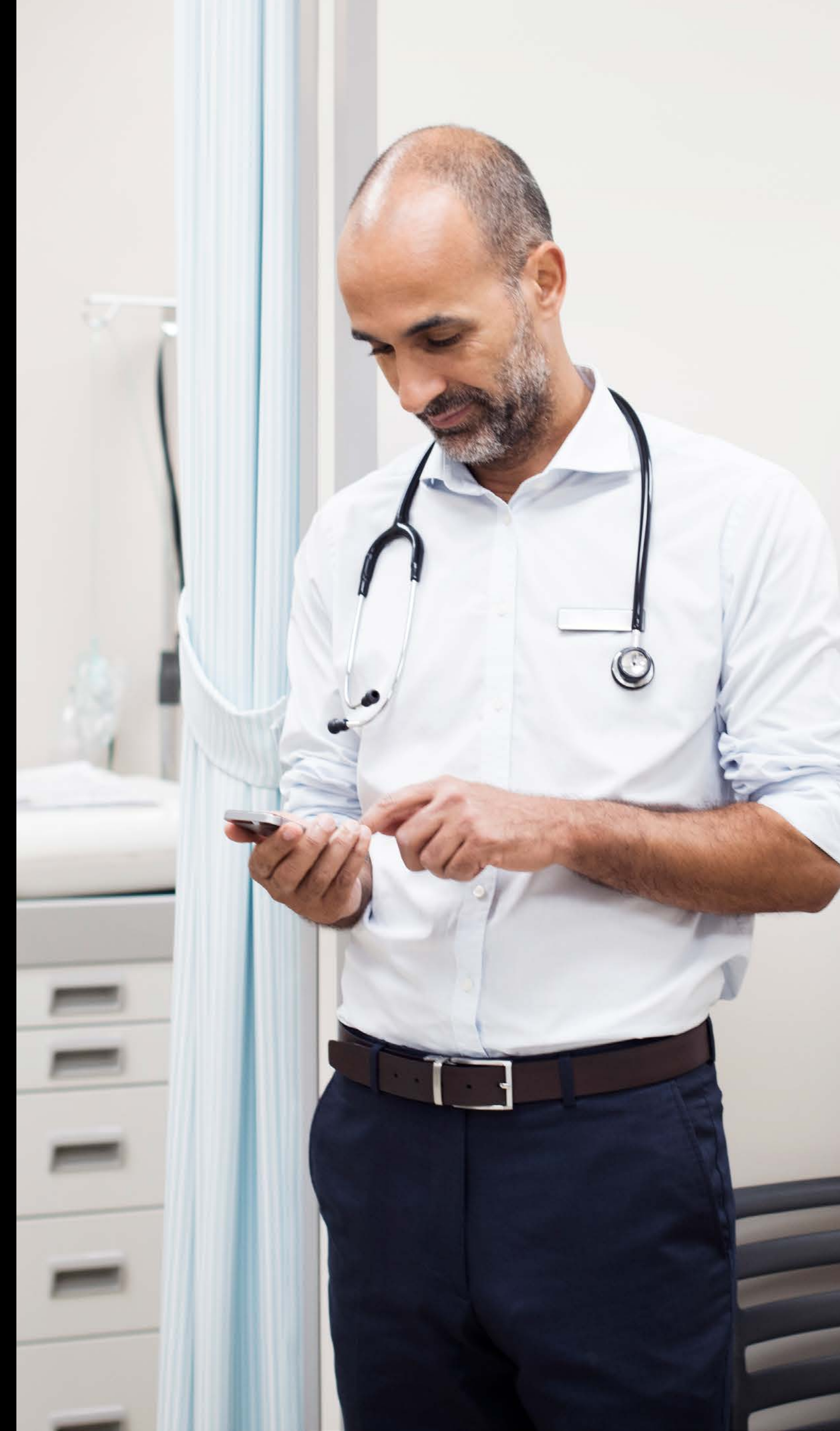
- Learn what industry leaders are implementing
- Walk through your transformation agenda
- Brainstorm opportunities
- Create a roadmap
- Decide on next steps

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- ii. [Asia-Pacific Front Line of Healthcare Report 2022 – Bain & Company](#)
- iii. [Future Health Index 2022 – Philips](#)
- iv. [IBM Security X-Force Threat Intelligence Index 2022 Full Report – IBM](#)
- v. [Where do our active ingredients come from? – progenerika.de](#)
- vi. [Digital adoption in healthcare: Reaction or revolution? – Accenture](#)
- vii. [The future of healthcare in Asia – McKinsey](#)
- viii. [The future of healthcare in Asia – McKinsey](#)
- ix. [65% of hospitals in APAC are increasing spending on digitalisation, says report – Healthcare IT News](#)
- x. [IDC finds almost 75% of APAC healthcare providers to increase spending on patient-centric apps – Intelligent CIO APAC](#)
- xi. [65% of hospitals in APAC are increasing spending on digitalisation, says report – Healthcare IT News](#)
- xii. [IT Spending as a Percentage of Revenue by Industry, Company Size, and Region – Computer Economics \(for IT metrics, ratios, benchmarks, and research advisories for IT management\)](#)

