

Healthcare Connectivity & IT Infrastructure **Playbook**



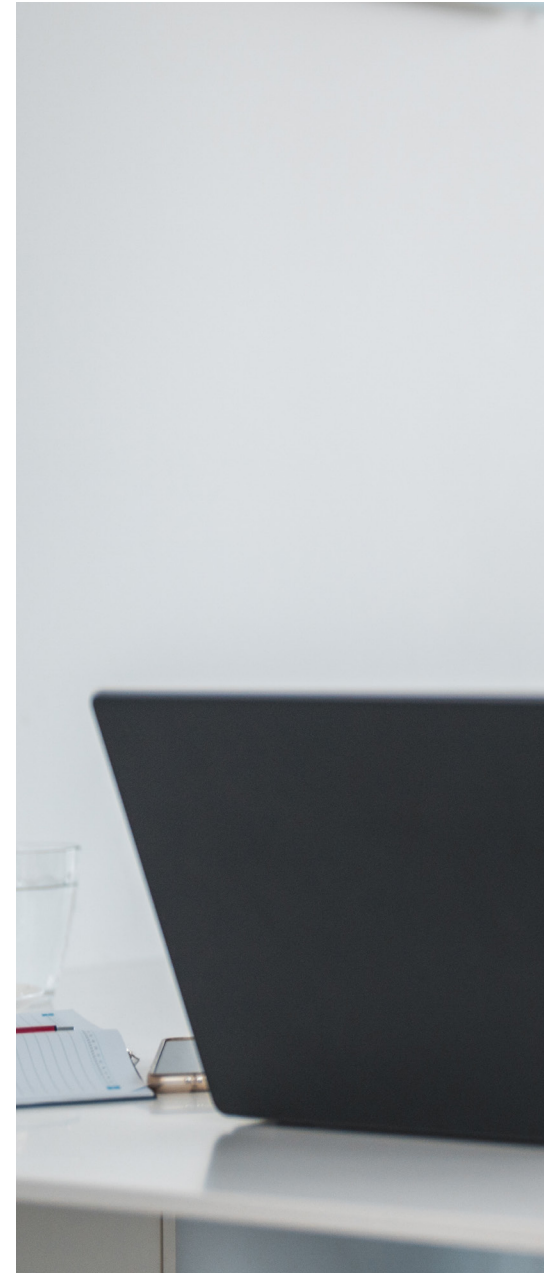
Technology and healthcare go hand in hand.

The right IT plan goes a long way in **supporting your medical team.**

The “one-size-fits-all” approach does not work when choosing IT infrastructure services for hospitals and healthcare providers. The right combination can be a competitive differentiator, but it’s important to choose wisely. With so many options, analysis paralysis can set in fast.

Let the nature and purpose of your institution be your guide.

There’s one thing successful medical institutions have in common: a winning technology game plan focused on connectivity, cybersecurity, voice, cloud and colocation. We created this playbook to help you sort through the noise.





A Winning Technology Lineup.

Selecting and implementing an IT foundation that effectively supports the rigors of digitalized medicine is crucial. Given the high stakes, it can also be intimidating. There are many infrastructure options to build your foundation across four key domains.

THE PLAYING FIELD



CONNECTIVITY

The foundational network elements used to ensure patients, providers and administrators can effectively communicate.



CYBERSECURITY

Robust security solutions to protect sensitive data and critical systems from accidental exposure or malicious exploitation.



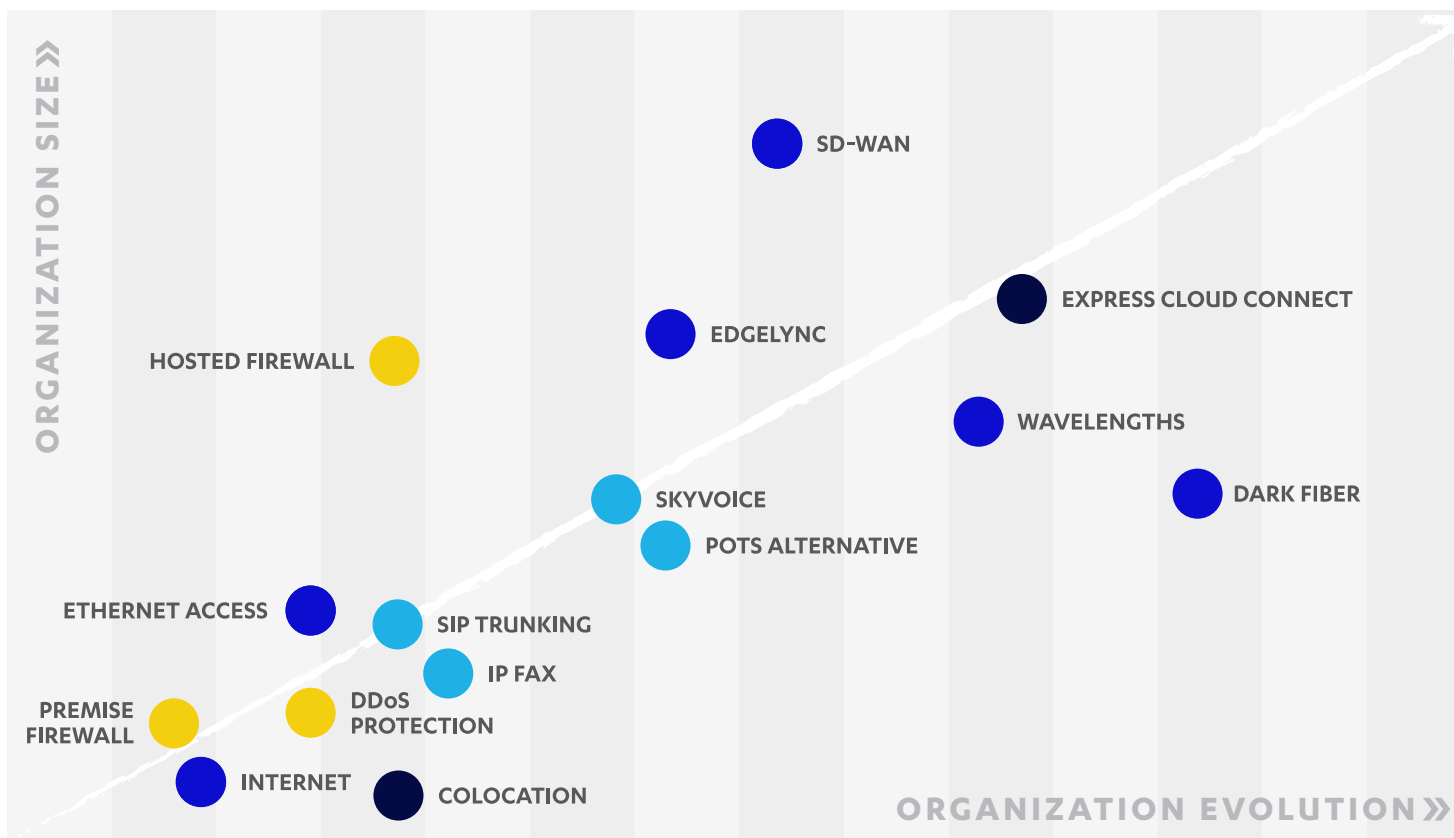
CLOUD & COLOCATION

Secure, reliable data center solutions for traditional and hybrid environments, and a fast, dedicated connection.



VOICE

Combined voice and data solutions and tools to enable shared, seamless conversations across multiple platforms.





Digital innovations are revolutionizing healthcare delivery, allowing organizations to excel in the triple aim of improving population health, enhancing care experiences, and reducing costs. To enable providers to concentrate on patient outcomes rather than technological challenges, a robust IT infrastructure is essential.

- Maintaining fast, HIPAA-compliant digital infrastructure that connected medical devices, AI-powered diagnostic tools, and ambient clinical systems need
- Safeguarding electronic health records, staff records, medical research data and intellectual property against escalating ransomware attacks and sophisticated cyber threats
- Utilizing real-time clinical data and AI-driven analytics to identify opportunities for improved care quality, cost savings and patient experiences
- Promoting health equity and closing the digital care gaps with technology that facilitates clear, active engagement between providers and patients
- Automating administrative workflows and reducing clinician burden with AI scribes, ambient listening, and intelligent systems for appointment scheduling, claims processing and insurance verification
- Delivering scalable, zero-trust network architecture to support telehealth, remote patient monitoring, connected medical devices (IoMT), and future healthcare advancements across distributed care delivery models

Successful execution across these strategic imperatives can help improve patient outcomes, streamline data-intensive processes and support collaboration between colleagues in the same location or across the country.

A solid IT infrastructure foundation must be flexible enough to support evolving demands, scalable enough to accelerate data transfers and secure enough to thwart bad actors.

USE CASE 1:

Large Hospital Network

Digital systems that keep hospitals functioning are everywhere, from the emergency department to facilities management to the administrative offices and even the cafe. Reliable IT is the backbone that keeps everything working toward the common goal of delivering matchless patient care.

● **CONNECTIVITY:** Internet + Ethernet + Wavelengths or Dark Fiber

- Dedicated access with guaranteed bandwidth ensures smooth, uninterrupted data flow for real-time diagnostics, AI-powered clinical tools, efficient remote patient monitoring and seamless transfers of Electronic Health Records (EHR) across all facilities.
- For large hospital networks with multiple campuses, data centers, or facilities requiring high-capacity interconnection for medical imaging transfers, disaster recovery, or centralized data aggregation, wavelengths deliver dedicated circuits with speeds from 10 Gbps to 400 Gbps.
- Or, dark fiber allows you to maintain complete operational control over your network infrastructure between critical facilities. Dark fiber can provide nearly unlimited bandwidth and is highly secure.

● **COLOCATION**

- Secure, reliable data center solutions for traditional and hybrid environments. Remove the burden of physical infrastructure

management, freeing your network team to focus on emerging technologies without losing sight of near-term priorities.

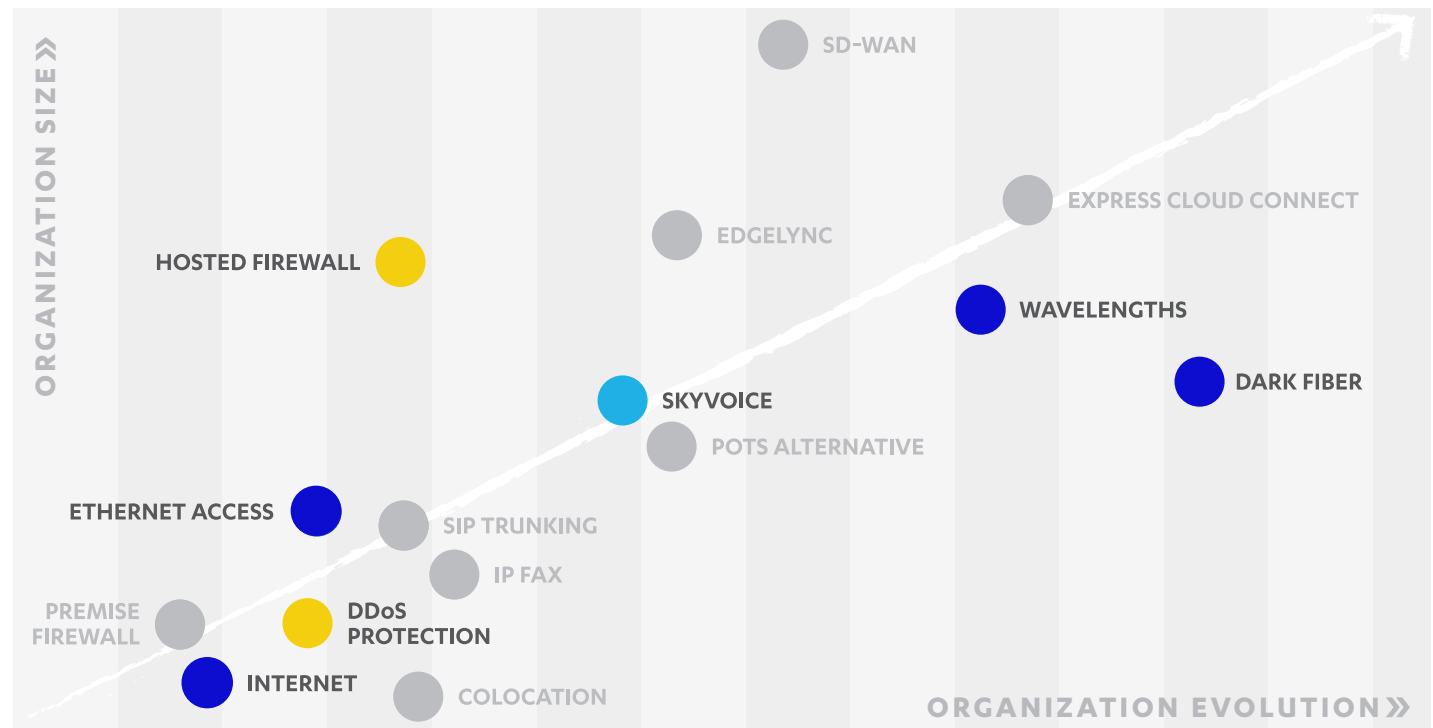
- There's no room for network downtime or data loss in the delivery of care. Secure offsite backup and recovery systems ensure that natural, accidental, or deliberate disruptions don't put hospital operations or patient records in jeopardy.

● **CYBERSECURITY:** Firewall + DDoS Protection

- Healthcare data breaches come with a heavy price tag. Protecting sensitive hospital and patient information from exfiltration starts with a robust network perimeter.
- DDoS Protection ensures coordinated waves of weaponized traffic can't overwhelm critical systems, keeping patient data and vital clinic equipment accessible and fully operational.

● **Voice:** SkyVoice

- Efficient remote consultations, seamless collaboration between specialists and clear communication with patients all depend on reliable and secure voice and video technology.



USE CASE 2: Private Medical Practices

Positive patient experiences and efficient practice operations require IT that removes technical limitations and helps you focus on delivering exceptional in-office care.

● **CONNECTIVITY:** Internet + Ethernet Access

- Guaranteed bandwidth and symmetrical speeds ensure seamless data transfer for Electronic Health Records (EHR), telehealth consultations and diagnostic imaging, minimizing wait times and maximizing patient care efficiency.
- Streamlined network management and flexible private infrastructure provide consistent performance and enhanced reliability, even under heavy demand. This ensures that your network can adapt to changing business needs and new technologies without compromising patient care.

● **CLOUD:** Express Cloud Connect

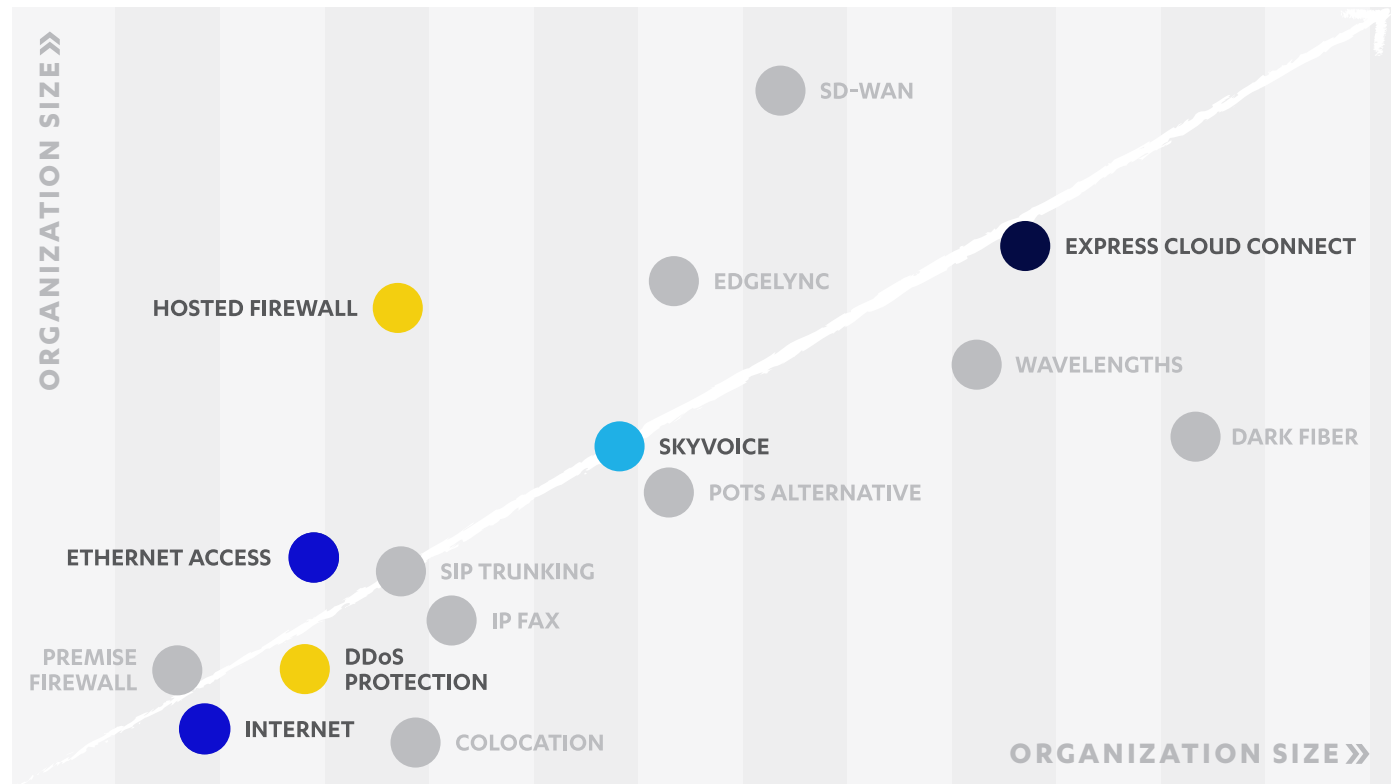
- Connect directly to leading cloud providers through dedicated, high-performance pathways that securely host and run clinical data and health records remotely, enabling consultations and after-hours care without the space, management, or expenses of physical infrastructure. Express Cloud Connect ensures operation during outages or network interruptions, keeping you focused on exceptional care.

● **CYBERSECURITY:** DDoS Protection

- Network attacks come without warning. Prevent breaches and data exploitation with comprehensive security that intercepts and neutralizes threats before they strike.
- DDoS Protection prevents attacks that could disrupt clinic access to critical systems and information. Active mitigation blocks malicious traffic in real time, ensuring uninterrupted patient care.

● **Voice:** SkyVoice

- Reliable voice and video quality are essential for secure telehealth appointments, efficient communication with your care team, and timely patient coordination.
- Easily expand or adapt communication systems as your organization grows, ensuring that your team always has the tools needed for seamless patient interactions and internal collaboration.



What's **Your Play?**

These are the most widely used connectivity plays healthcare organizations swear by. Refer to this playbook every time you're thinking of adopting new technologies and use these plays as building blocks to assemble your technology game plan. It can help you think through every move to ensure your organization is set up for success.

The tactics contained in this document address broad use cases. Some products may not be ideal for specific use cases or situations, and some products not included in the play may work better for other scenarios.

Segra offers a broad lineup of technology services and will help you design a winning technology game plan tailored to your unique business needs.

Let's start a conversation today.

