

*Driving patient engagement and  
better health outcomes with*  
**Avanade Virtual Patient Visits**



Founded in 2000 as a joint venture between Accenture and Microsoft

# Avanade brings global scale and expertise

Grown from 200 to  
**39,000**  
professionals

Avanade works with  
**41**  
of the Top 100 U.S.  
hospitals *(Thomson-Reuters)*

**8 of 10**  
of the largest Blues

**21 of 25**  
of the largest U.S. payers

**Microsoft  
Global  
Healthcare  
Partner of the  
Year**



**#1**

globally in Teams and  
Office 365 deployment



**#1**

in certified resources  
deploying and  
administering O365



**10M+**

Office 365 users  
deployed, over  
32M workloads



Purpose built assets  
and accelerators



In-depth Workplace  
Managed Services

# The COVID crisis has magnified existing challenges ...

55%

of physicians experience **burnout**, costing the U.S. \$32B annually<sup>1</sup>

70%

of health workers **worry about bringing the coronavirus home** to their families<sup>2</sup>

## ... and driven higher adoption of virtual visits

69%

of all visits at the peak of the COVID-19 crisis were **telehealth visits**<sup>3</sup>

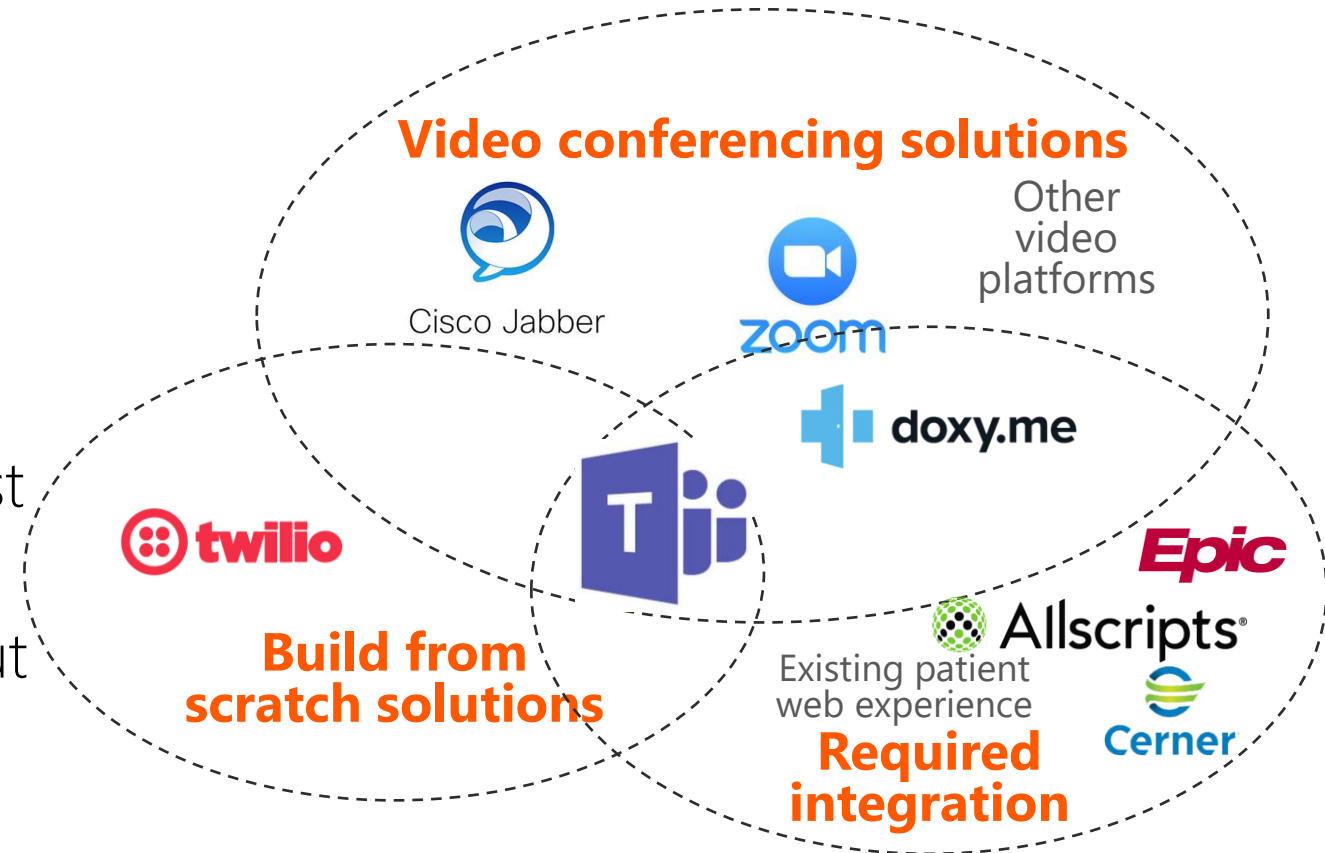
**The mainstreaming of digital health tools** and collaboration software will be one of the few positives to come from this pandemic.

*The Lancet, May 2020*

# Many providers have multiple video conferencing solutions

*They are looking to offer a more consistent, engaging and time saving solution*

- Video conferencing solutions provided a COVID quick fix
- Solutions like Twilio allow providers to build something custom, but at a high cost
- Forward looking providers want a solution that has a lot of out of the box features but also allows for workflow, customization, integrations, etc.

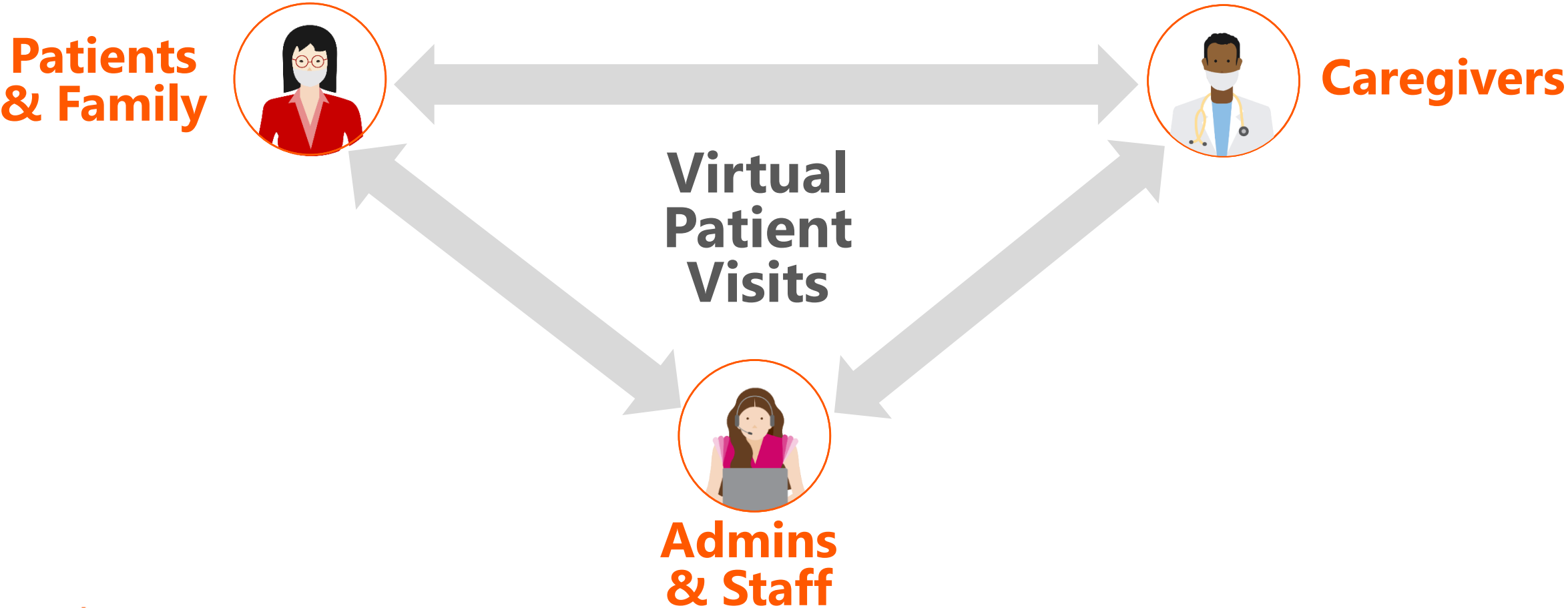


# It's time to rethink patient visits

Virtual visits began as a public health necessity, but they also represent a way to **reset and renew** the patient experience

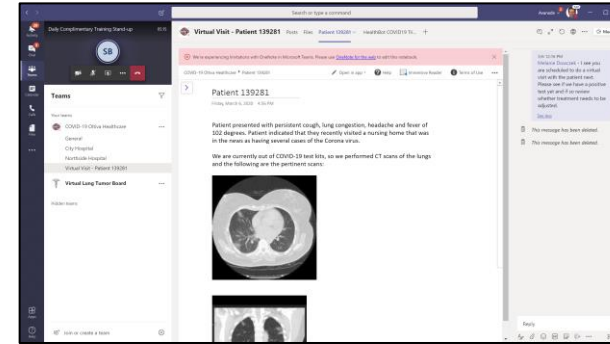
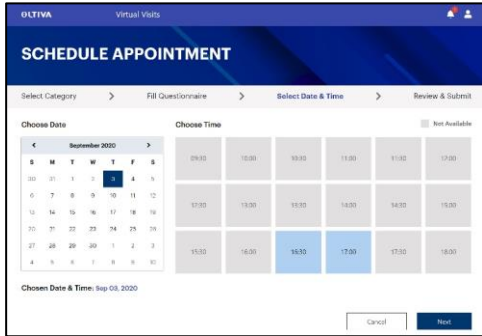
- Provide patients with **high-quality, affordable care**
- From the **safety and convenience** of their home
- **Reduces physician burnout** by automatically putting relevant information and applications in the hands of caregivers, allowing them to easily collaborate with colleagues and automate workflow
- **Increases access** for vulnerable/underserved patients while **reducing costs** relative to in-person visits
- Extends geographic reach of caregivers to extend their patient base thereby **increasing revenue**
- Builds the foundation for a larger digital health and patient care revolution

# Connects patients, staff and family To provide improved care



# Avanade Virtual Patient Visits

The care delivery model is evolving - patients and caregivers expect more



## Easy to schedule

- Appointments can be scheduled through the EHR or self-scheduled by patient
- Reminds patients and caregivers of upcoming appointments

## Seamless and engaging visits

- Easy for patients to use - no software to install and no license needed
- Virtual exam room experience that tests connectivity, helps patients complete required form/waivers and educates them while waiting
- Notifies caregivers when patient arrives and when specified wait times are exceeded
- Integrates with EHR to enhance the workflow caregivers are accustomed to
- Tracks key visit metrics which can be fed to billing systems and used to improve patient and physician satisfaction

## Robust collaboration

- High-quality video, audio, chat, file sharing and screen sharing with mobile capability from any device, anywhere including text messages
- Ability to record and transcribe visit and populate into EHR
- Orchestrates collaboration and hand-offs across admin, nursing, doctors and specialists to provide better care and make doctors more efficient
- Ability to add additional participants (e.g., other clinicians, translators, family members, etc.)

## Secure and branded platform

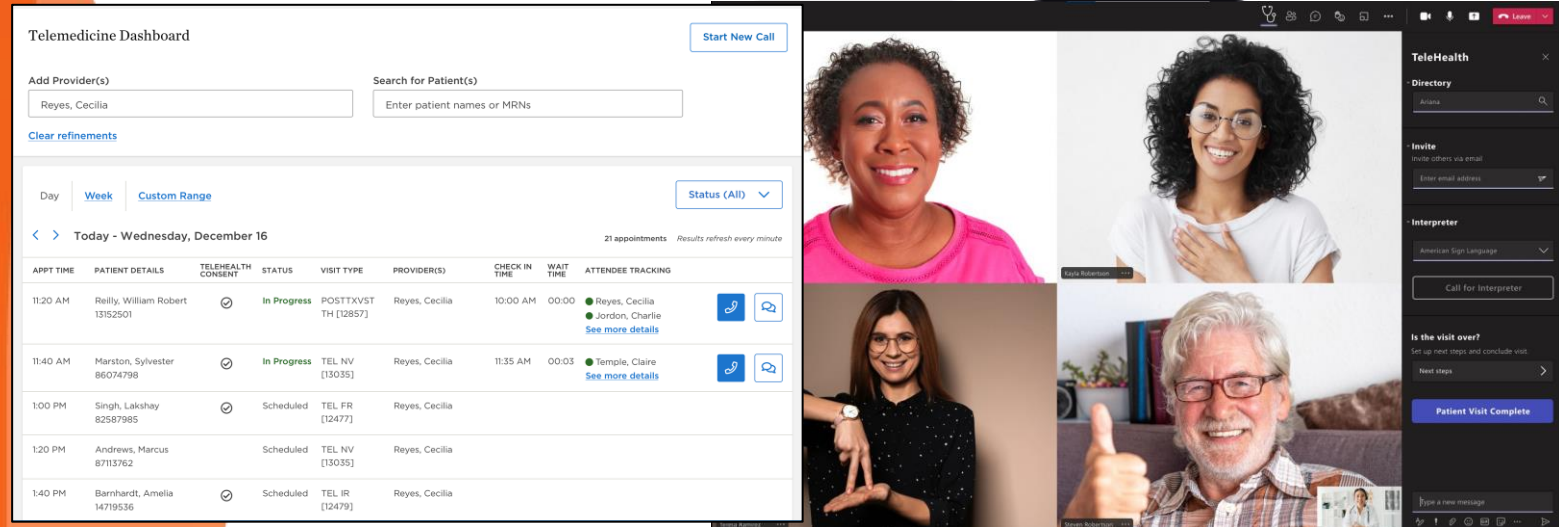
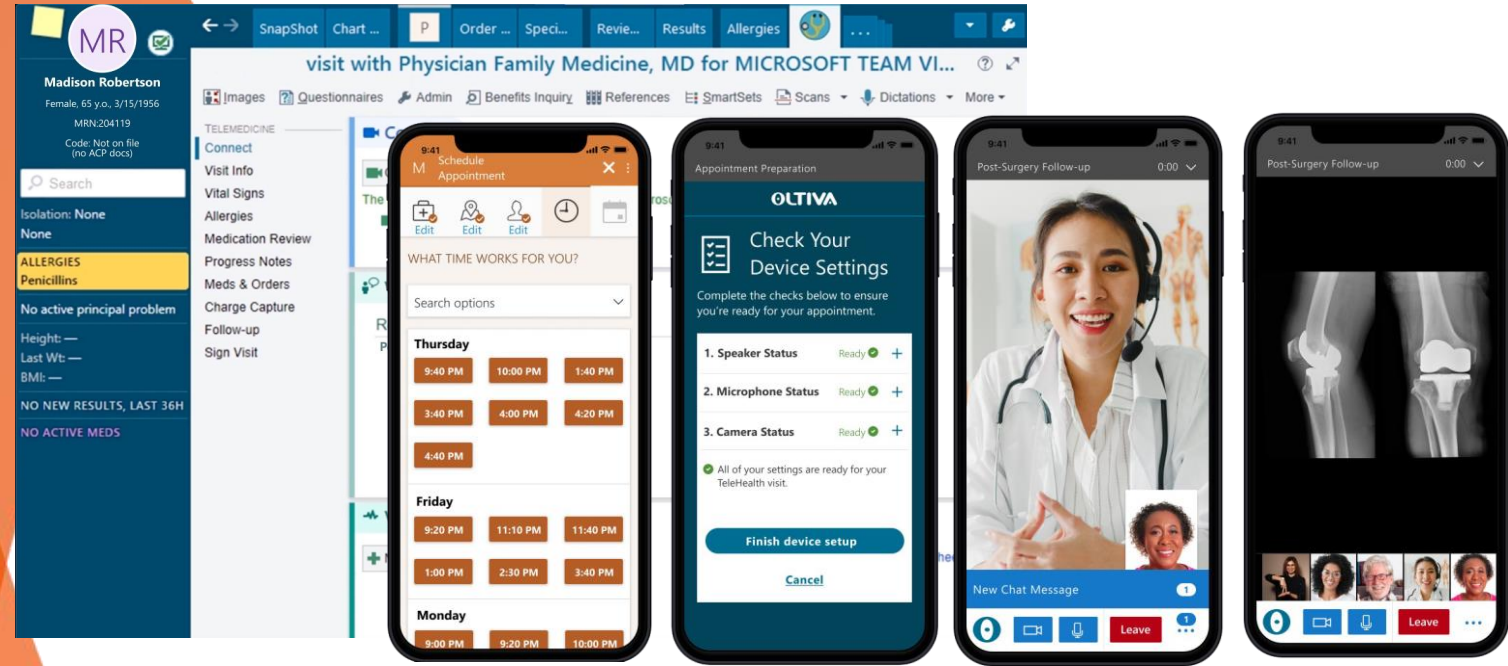
- Built on the secure, auditable and traceable Microsoft platform
- Platform meets HIPAA, HITRUST, EU GDPR and ISO 27001/ 27018 standards
- Most providers already have the required licenses and software installed
- Customized to reinforce your brand with patients

# Case Study

## Top ranked hospital system

### Customized, branded and fully integrated virtual experience:

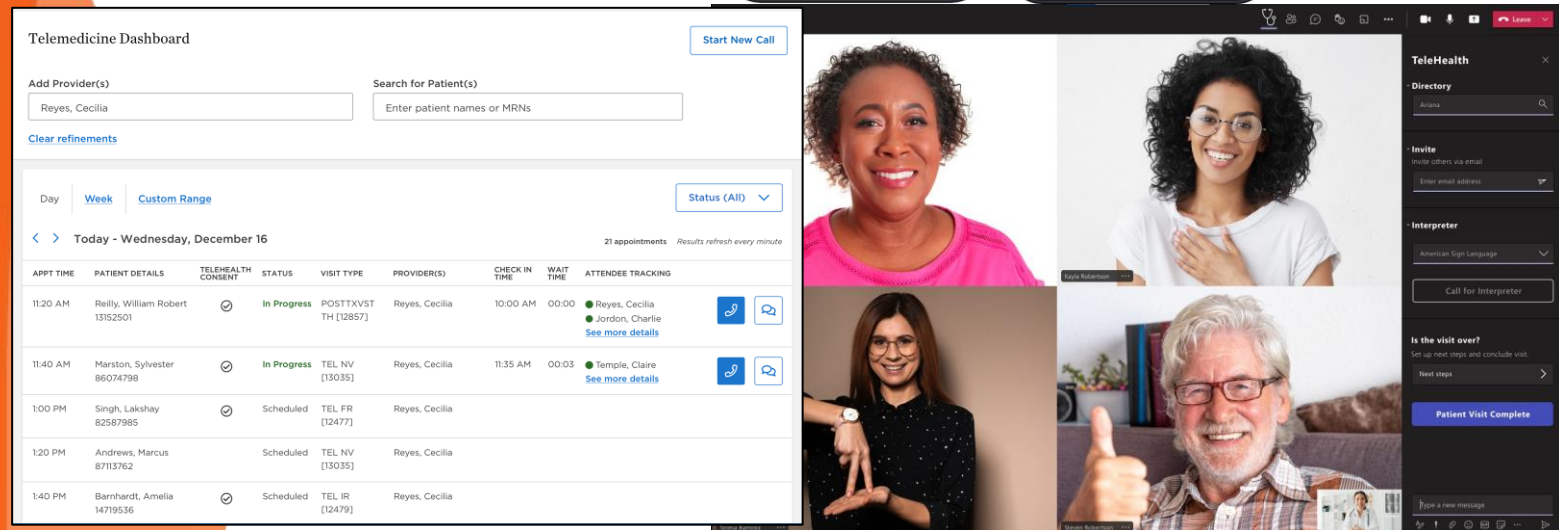
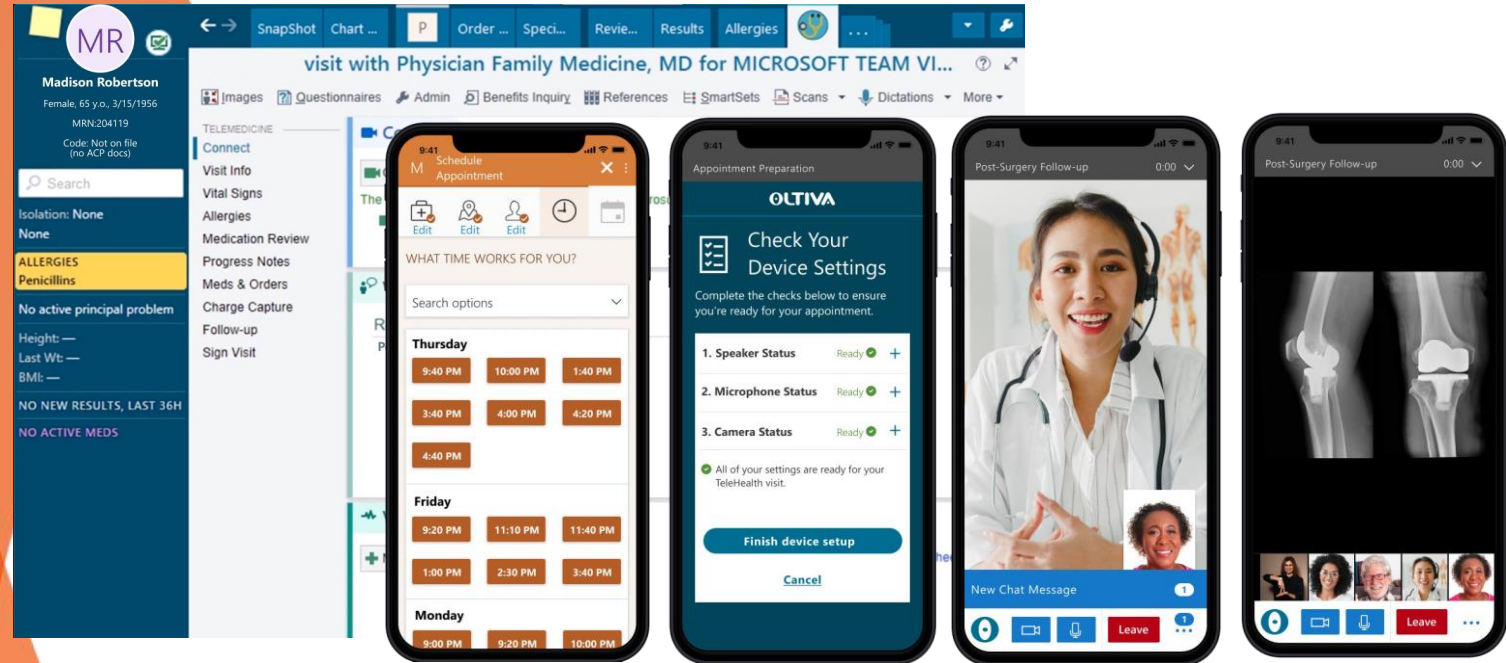
- Integrates with Electronic Health Records scheduling systems
- Connects caregivers and patients virtually via desktops, laptops, tablets and phones
- Reminds caregivers of appointments and notifies them about patient wait times
- Customizable virtual exam room engages patients while waiting for caregivers
- Orchestrates multiple caregivers' interactions with patient including translators
- Dashboard to track patient experiences
- Caregivers can share information from EHR as appropriate
- Drives new revenue streams for virtual visits while providing better patient experience and reducing physician burnout





# Virtual Patient Visits

# Demo



# Virtual Patient Visits architecture

CAREGIVERS



STAFF



DEVICE OF CHOICE



PATIENT



FAMILY



**Teams powered user interface**  
*with in meeting apps*

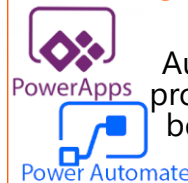
Integrating collaboration, information, applications and automation in a user interface tailored to providing Virtual Care that leverages your existing investment in the Microsoft platform

**Azure Communications Services + the Azure cloud**  
*custom zero install interface highly extensible*



**Analytics and AI**

Track patient wait times, monitor the quality of visits and provide relevant information in context



**Workflow and Automation**

Power Apps and Power Automate to streamline clinical processes and automate tasks to better manage caregivers' and patients' time

**Epic Integration**  **HL7 FHIR**

Integration with EHR via HL7/FHIR, existing patient portal and other systems for scheduling, billing, eConsents, text notifications, documenting the visit and other relevant information

# Get started with a Discovery Workshop

*Gives you a roadmap to unlock high-value opportunities*

## Share the art of the possible

Our experts share demos and lessons learned from other providers to help you identify transformational ways to realize improved outcomes

## Identify high value quick wins

We uncover and prioritize pain points and brainstorm practical solutions to drive meaningful improvements in the patient and caregiver experience for scheduling and conducting virtual visits

## Plan to deliver increased value over time

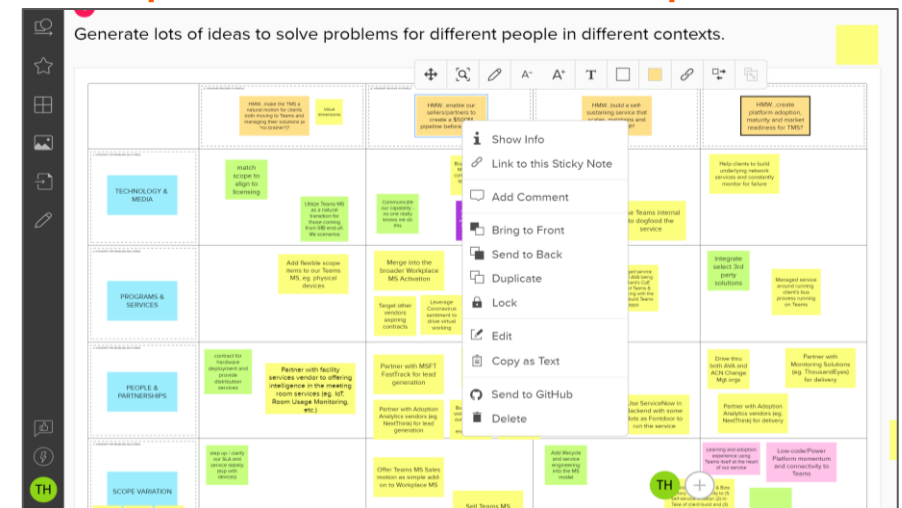
We prioritize capabilities like virtual exam room enhancements, visit transcription, integration with clinical systems, artificial intelligence and analytics to drive measurable improvements in patient outcomes, physician burnout, risk management and operational costs

## Key participants

Clinicians, staff, IT and administration



**In person or virtual options**

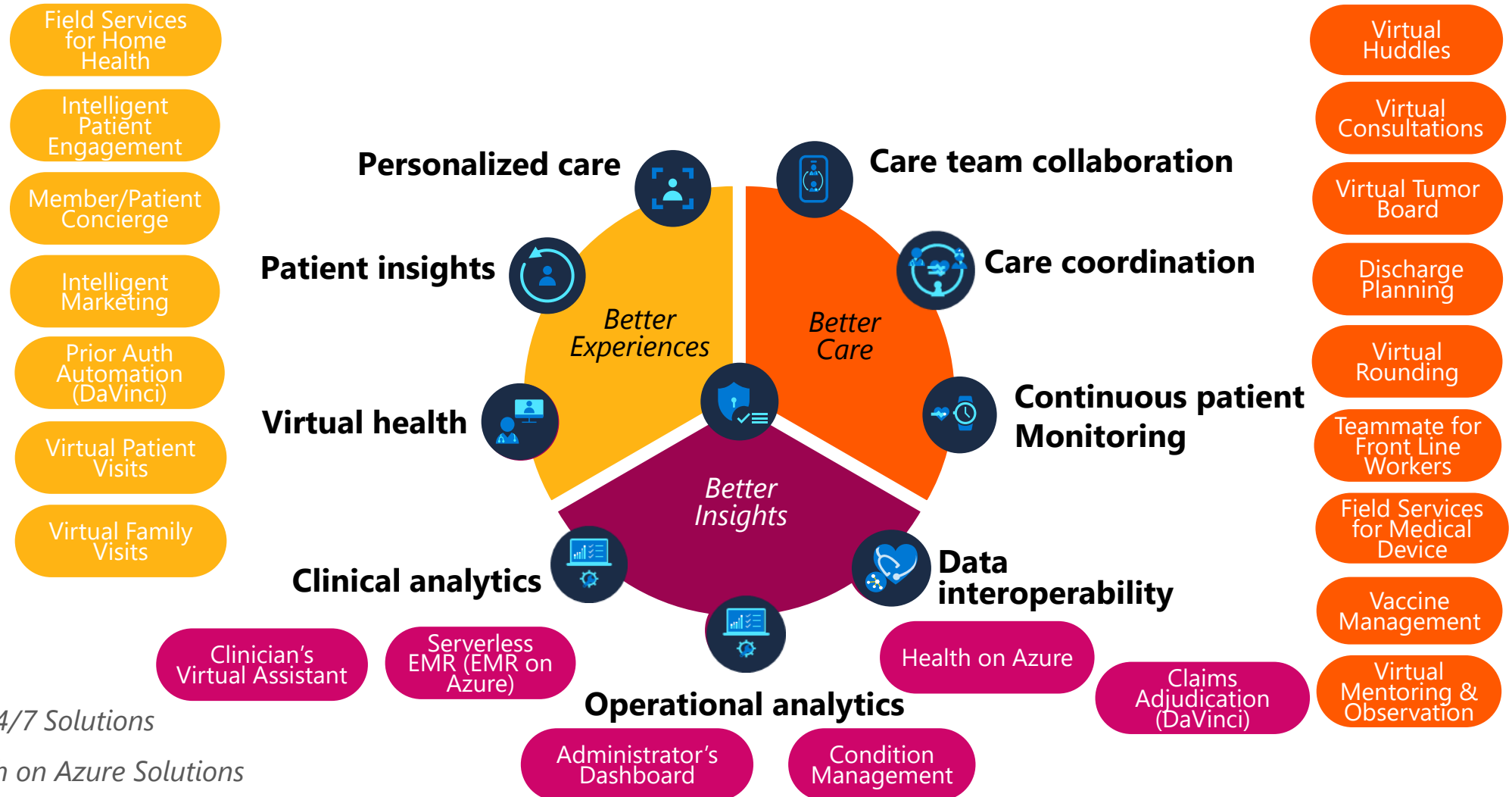


# Appendix



# Accenture/Avanade health solutions

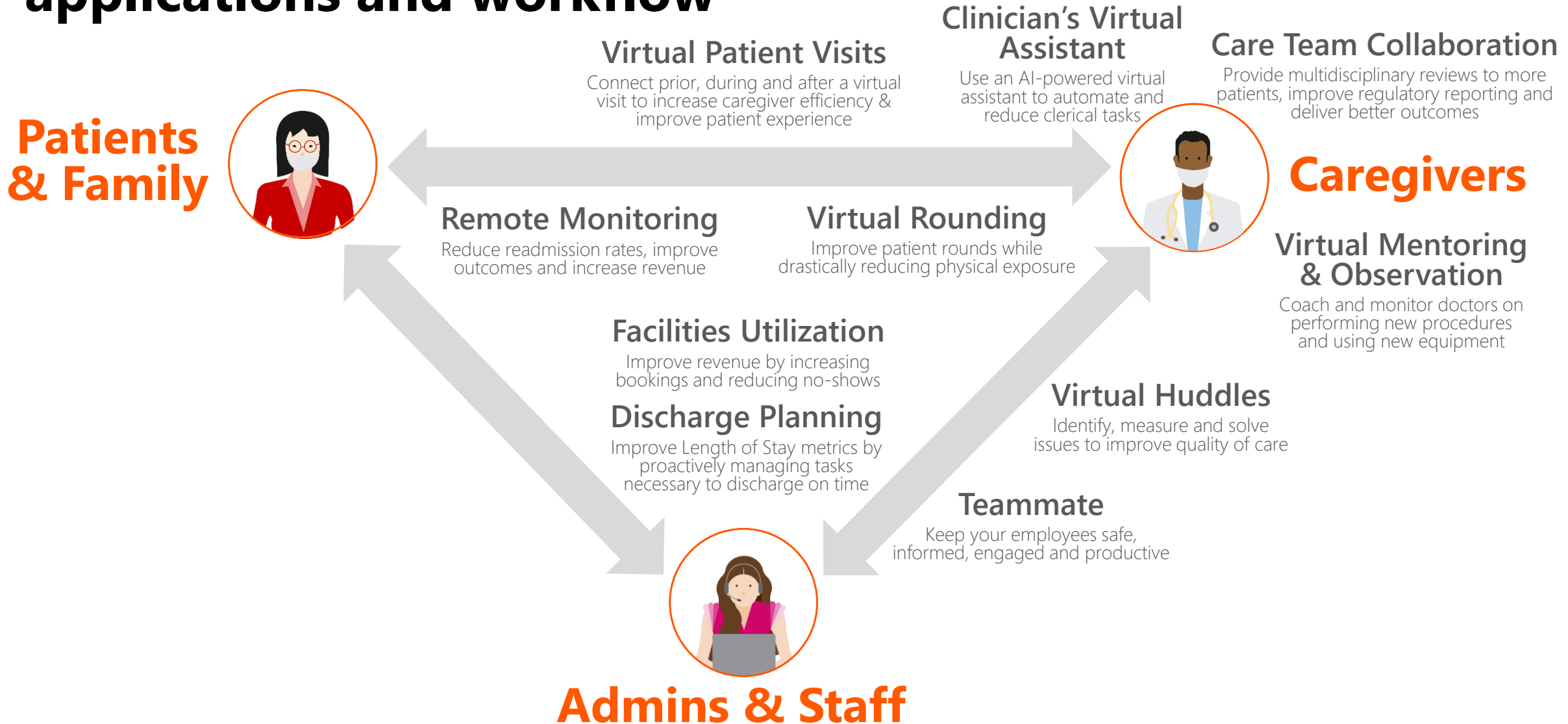
## Bringing the Microsoft Cloud for Healthcare to life for clients



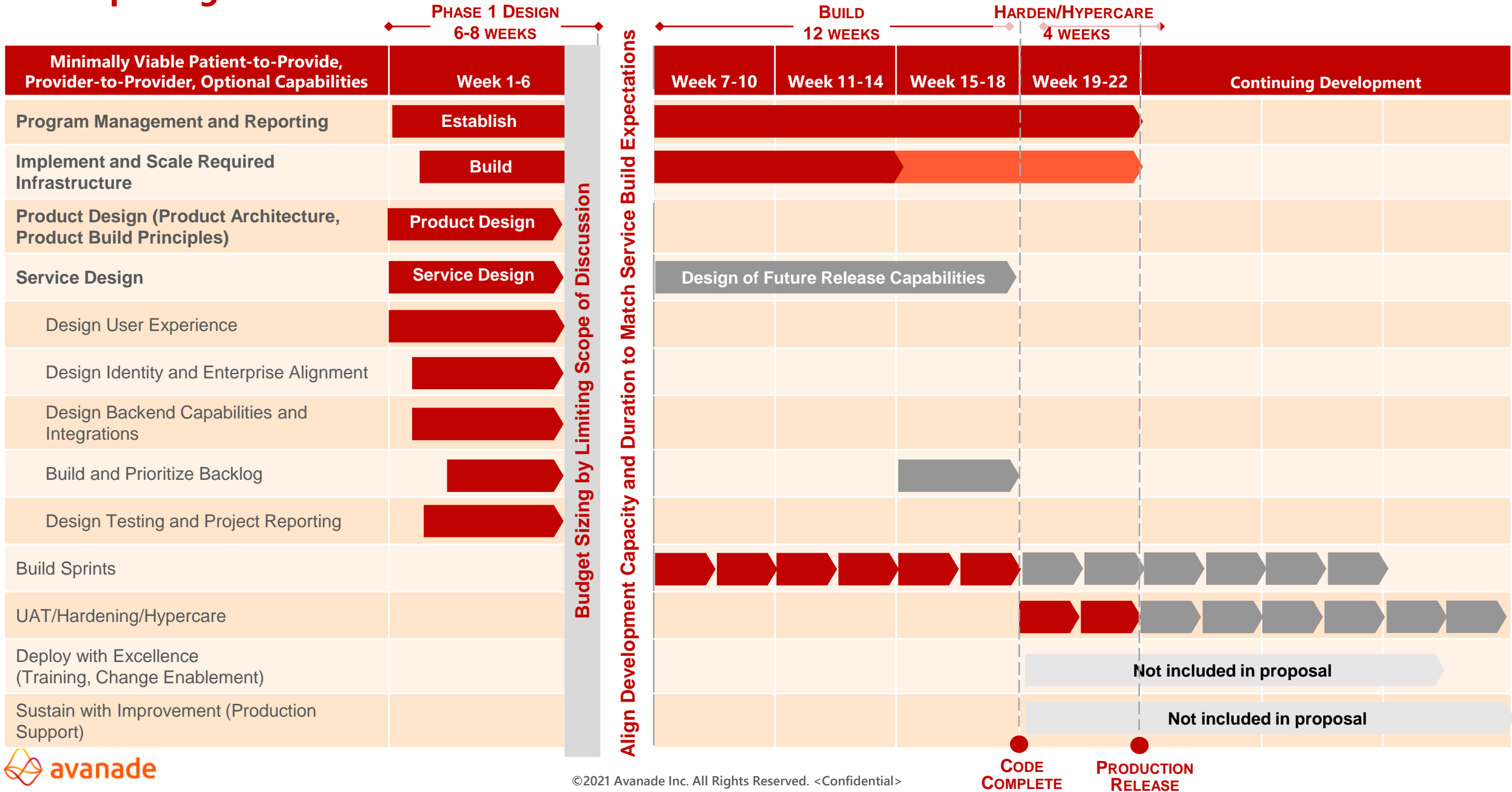
= Care24/7 Solutions  
 = Health on Azure Solutions

Note: Solutions can be built on Microsoft Cloud for Healthcare or standard Microsoft cloud platforms

# Care 24/7 is about connecting people, information, applications and workflow



# Example High-Level Timeline



# How we use design thinking to build a solution that works—and scales

## Human-centered

Starts with empathy and understanding stakeholders through observation and research; integrates change management to ease users into transformation.

## Creative

Reframes the problem and looks at it from different perspectives; considers many solutions.

## Iterative

Refines the problem definition and potential strategic solutions based on feedback and testing; learns from early failures.

## Prototype-driven

Relies on tangible representations of potential solutions to get early user feedback.

## Collaborative

Involves all disciplines throughout the process; employs co-creation methods throughout.

## Strategic

Although agile and iterative, the overarching strategy that is initially defined guides the creation process, outlines the solution roadmap and drives lasting transformation.



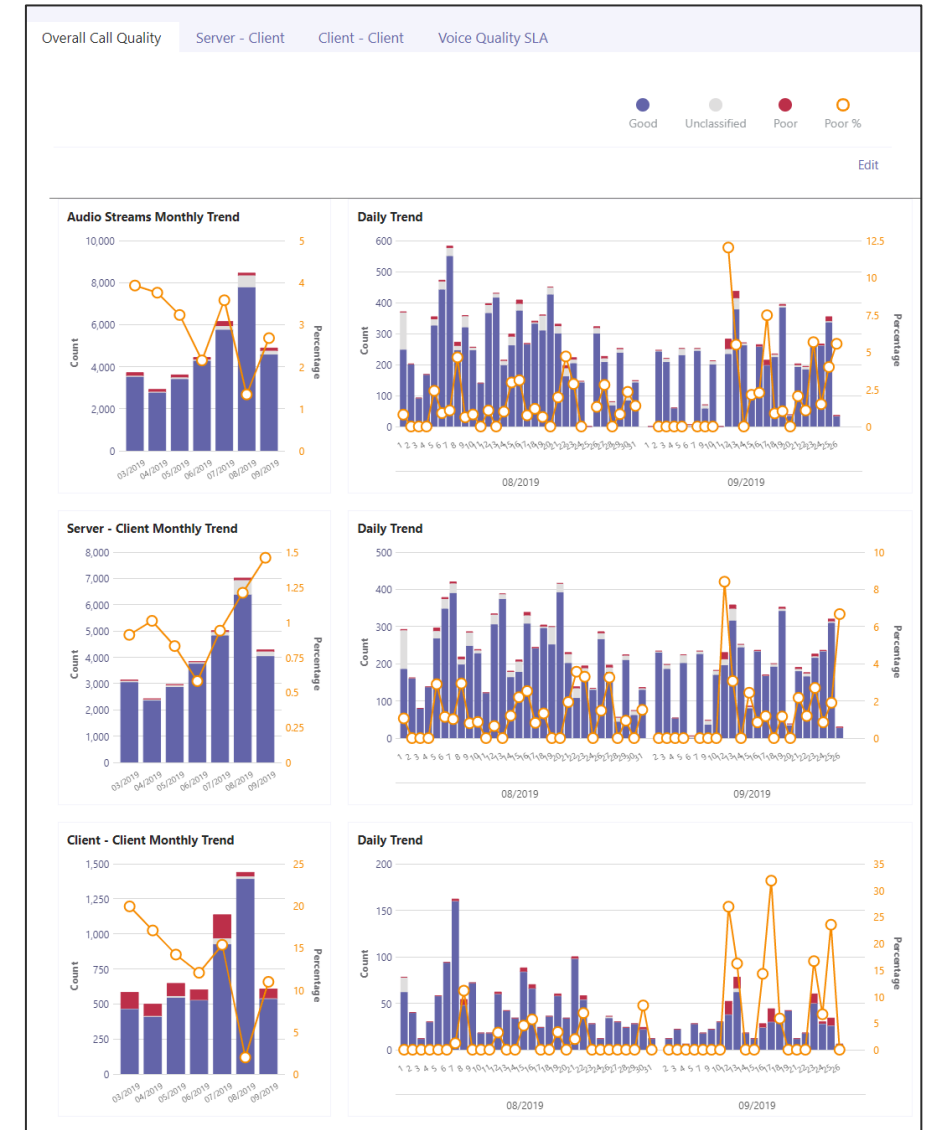


# Dashboard capabilities beyond what's in the demo

- Remove participant from the dashboard
- Ability to end/complete call from the dashboard
- View previous messages sent to the room
- Option to send a "canned" message or free text one way message to the room from the dashboard
- Provider lists management
- Start unscheduled call for any patient
- Patient extended alone time alert notification on dashboard
- View audio dial-in information from dashboard
- Resend invitation from dashboard
- View meeting URL/link from dashboard
- Active tele visits in a card design for checked in and roomed in patients
- Identify all users coming from CIS
- Non-provider landing page
- Action menu for ended call from dashboard - restart call
- Attendee dashboard popup
- Patient hasn't checked in dashboard alert
- List of meetings with filtering
- Filter by patient name / MRN
- New UI updates for already done components
- Active visit - attendee panel

# Reporting capabilities not shown in the demo

- Break down by internal calls (within your organization, such as VPN, WiFi, wired) or external calls
- Break down the metrics by building or network
- Calls using TCP, UDP or proxy
- Identify and remediate any network or firewall problems
- Gain insights into the percentages of call setup and drop failures
- Learn where the majority of call setup and drop failures occur
- Use "Rate My Call" data to learn about users' actual experience
- Where are the poor experiences occurring?
- Correlate the poor experience with call quality, reliability and devices
- Learn which microphones and speakers are most commonly used and their impact on call quality
- Are the supporting audio, video, USB, and WiFi drivers being regularly patched?
- Learn which client types and versions are being used and their impact on call quality and reliability



# The toolbox for adding capabilities



## Forms

Insurance information, sign consents, update health conditions, etc.



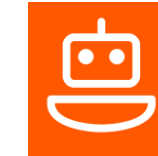
## Analytics

Visit stats like clinic, specialty, doctor, duration, wait times, no-shows, etc. as well as follow up and clinical analytics



## Messaging

Notifications via email, text messaging, Teams messaging, EHR messaging, walkie-talkie, etc.



## Bots

Triage, test connections, get support, bring other people into the meeting like translators, etc.



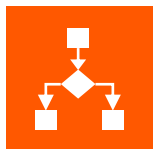
## Connectors

Pull and push information from EHR and other systems of record



## Artificial Intelligence

Translation, transcription, facial/emotional recognition, recommended follow ups, etc.



## Workflow

Assignment of tasks (*e.g.*, schedule follow up visit, tests, procedures, etc.) and track to completion



## Apps

Create custom capabilities using either low code (*e.g.*, PowerApps) or pro code approaches

# Device support

All users can use Virtual Patient Visits using mobile devices. Patients, families, and others use their web browser and no download is required. Health professionals can use any device using a Teams client or a web browser.

## Tested mobile devices include:

- iPhone
- iPad
- Samsung Galaxy

## Tested web browsers include:

- Windows: Chrome, Edge
- iOS: Safari
- iPad OS: Safari
- macOS: Chrome, Safari
- Android: Chrome
- Linux: Chrome
- Ubuntu: Chrome

*Other devices and browsers can be supported, these are the ones we've initially tested for.*

# Technical architecture FAQs

<p>Does Virtual Patient Visits separate caregivers' clinical visit data from their business meeting data?</p>	<p>Yes. The solution is flexible in where data is stored. Virtual Patient Visits only stores data that is necessary to conduct the patient visit. The architecture has been developed to interact via API calls as the preferred method to share data. Other client systems are expected to be the source of truth.</p>
<p>Does Virtual Patient Visits require multiple Azure/M365 tenants, and if so, how many and how are they interconnected for user workflows?</p>	<p>No. Our solution does not require multiple tenants. Virtual Patient Visits uses a single tenant. Inside the tenant we do recommend multiple subscriptions to align to development, test, pre-prod, and production. For disaster recovery, we recommend two production subscriptions in separate Azure availability zones. Regarding workflows – Virtual Patient Visits configures APIM, App Gateway, and Cosmos DB to address interconnection amongst the production subscriptions</p>
<p>What are the federation, Azure AD Connect, SAML 2.0 or other identity/ authentication requirements of Virtual Patient Visits for the caregivers?</p>	<p>This depends on your requirements as we can adjust the solution to fit. We do require Azure AD to be configured, but external users are not required to be in AD.</p>
<p>Does Virtual Patient Visits store patients' identities? If so, where, and what identity providers can the Avanade solution ingest for patients' identities?</p>	<p>No. Virtual Patient Visits stores the meeting, and details about the meeting. We don't store patient identities. We would prefer to use an existing identity store for mapping to meetings.</p>

# Technical architecture FAQs

<p>Do you leave the session exposed to patient access after the meeting ends or after the patient leaves?</p>	<p>We generally do not, but this is configurable. It can be set so when the clinician closes the meeting via a UI control in Teams, this terminates the meeting.</p>
<p>What sharing capabilities exist for caregivers and patients during the meeting? What persists after the meeting? How does that comply/not comply with HIPAA, etc.?</p>	<p>Configurable. Currently, chat and video. Screen sharing is also possible for both the caregiver and patient. Document sharing is available, but requires alignment to client policies, EHR integration and technology/security considerations. Information does not persist after the meeting as the meetings are atomic and not linked.</p>
<p>Are there any third-party tools or applications required to enable Virtual Patient Visits?</p>	<p>No. Virtual Patient Visits is built on Microsoft Azure and Teams.</p>
<p>Does it require ExpressRoute connectivity or is it Internet-based only?</p>	<p>No. ExpressRoute is not required. We are using a VPN as the current client. You just need a way to pass meeting transactions (add, remove, information) between the solution and the back-end solutions. If the solution is to be integrated into the current patient portal and/or mobile application, we need to pass secure communication between those applications.</p>
<p>What are the bandwidth/connection speed concerns?</p>	<p>As the solution runs in Azure and the communication patterns with existing systems such as the EMR, scheduling, notifications is very light, there are no bandwidth concerns.</p>

# Next step after the Discovery Workshop

## *Design thinking and prototype for a specific use case*

Target 2 weeks



### Planning & Discovery

Our process starts with understanding your key audience/stakeholders, their expectations, core business challenges and needs. From there, we use this information to begin illuminating opportunities to improve the virtual visit experience.



### Ideation & Co-creation

We work through ideation and storyboarding to collaboratively co-create the ideal experience to meet your caregiver and patient needs. This feeds into the design and build of a demo application bringing these ideas to life.



### Demo Design & Build

We iteratively design and build out with you a demo application based on the outputs from co-creation activities. These early feedback loops allow us to put together a final demo that aligns with your ideal outcomes.

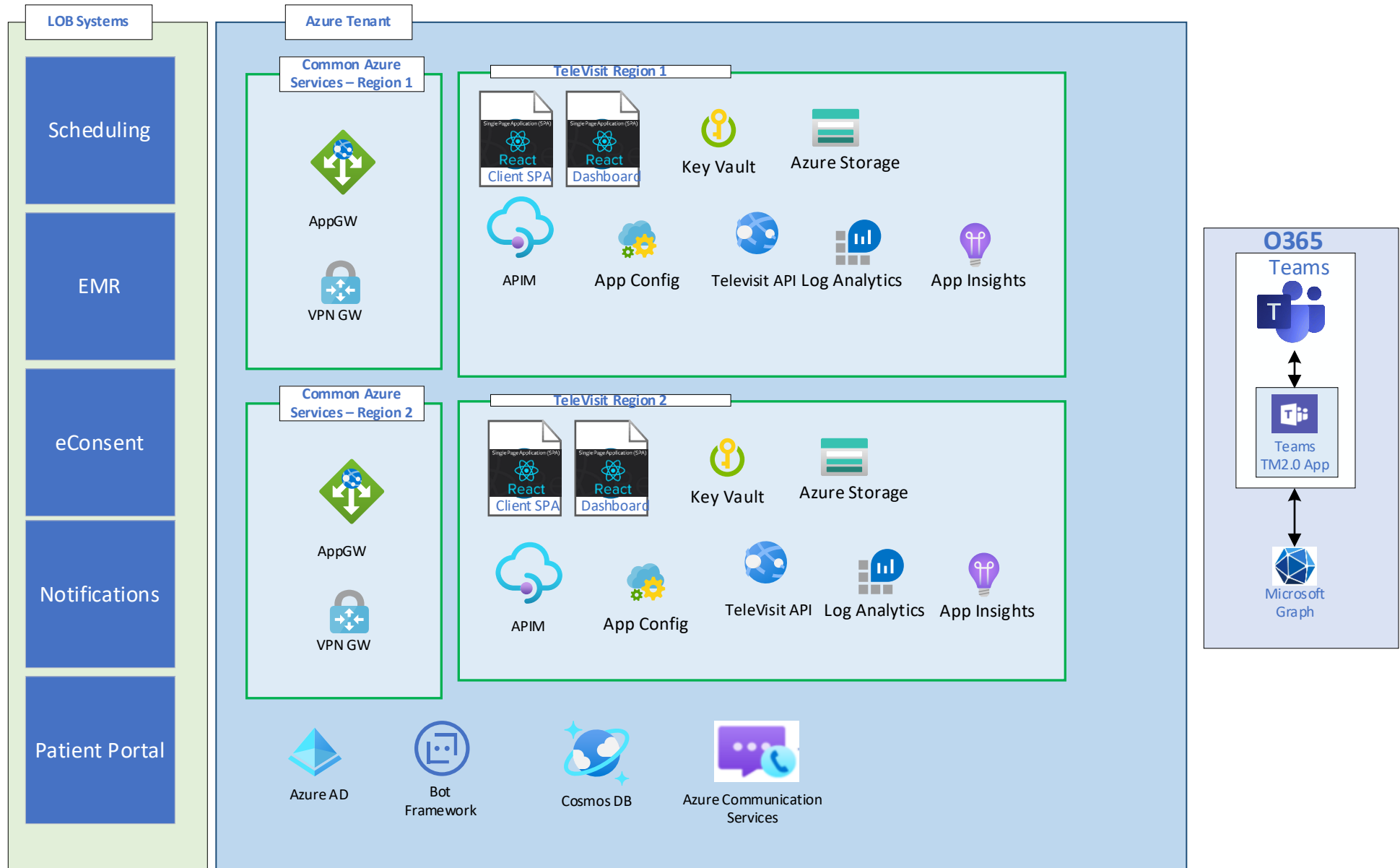


### Final Demo & Readout

We provide a final demo of the application to your team along with a final readout to summarize activities and outputs over the two weeks including: user journeys, personas, outcomes, recommendations and next steps.

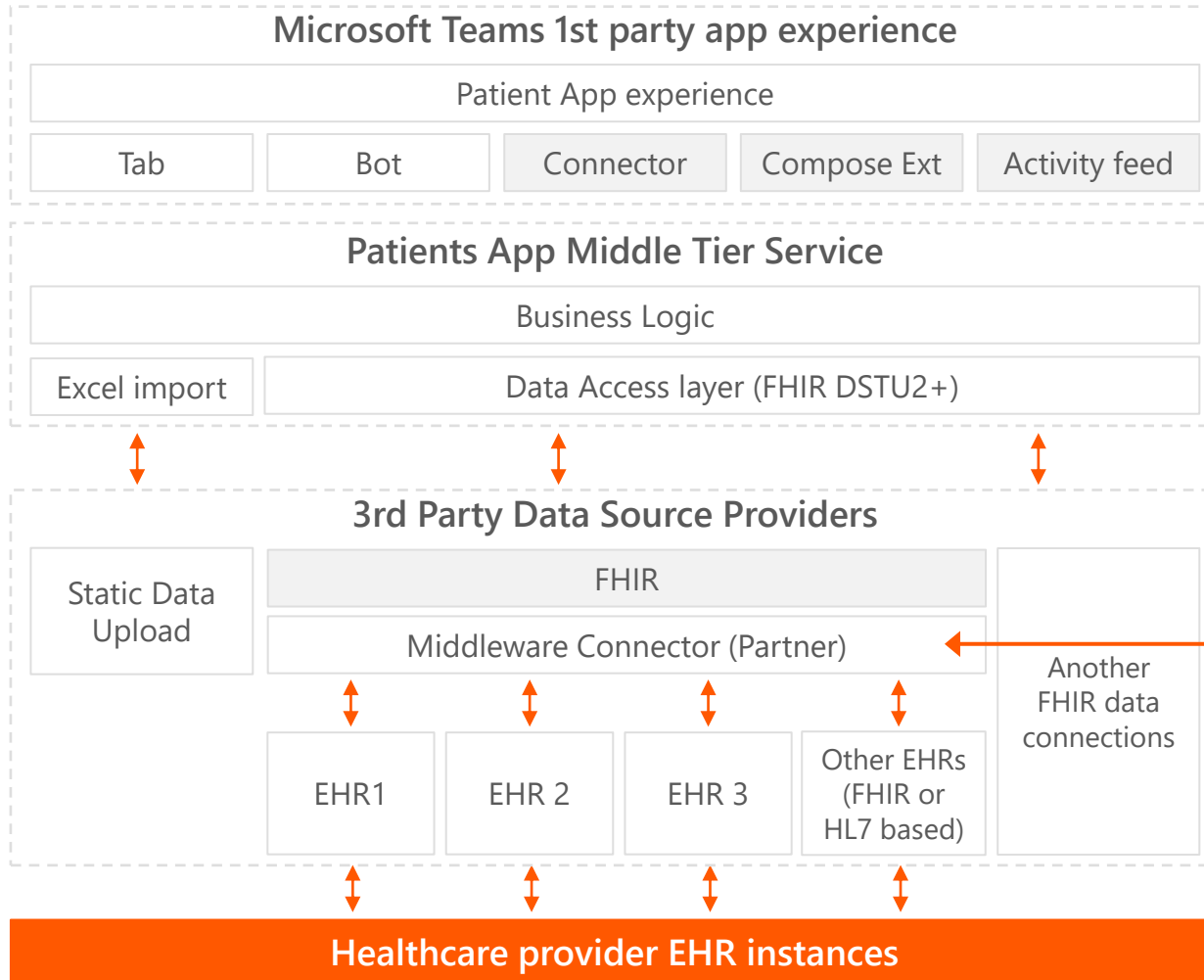
# Solution architecture

- Virtual Patient Visits manages connections to other systems through a variety of integrations
- The content of the integration can be based on HL/7 or FHIR
- API and integration engines are possible transport mechanisms.





# Teams integration to EHR



Virtual Care solution customized to healthcare provider needs

Patients App provided by Microsoft

Middleware connector provided by companies like Datica, Infor Cloverleaf, Redox, Dapasoft, Rhapsody, etc.

# High level comparison of capabilities

Features	Legacy telehealth vendors	Video conferencing software vendors	Out of the box Teams	Virtual Care Solution built on Microsoft Teams
Industry leading security			✓	✓
Robust video conferencing	✓	✓	✓	✓
Scheduling calls	✓	✓		✓
Easy care team coordination & collaboration within visit	✓			✓
Rich content and interaction during visit including screen share, file share, EHR share, etc.			✓	✓
Tight integration with EHR patient record	✓			✓
Integration with other non-EHR and billing systems (e.g., supply chain)				✓
Priority messaging				✓
Customizable pathways and workflow	Limited			✓
Artificial intelligence				✓
Integration with clinical data and analytics				✓
Custom branding (white label)	✓			✓