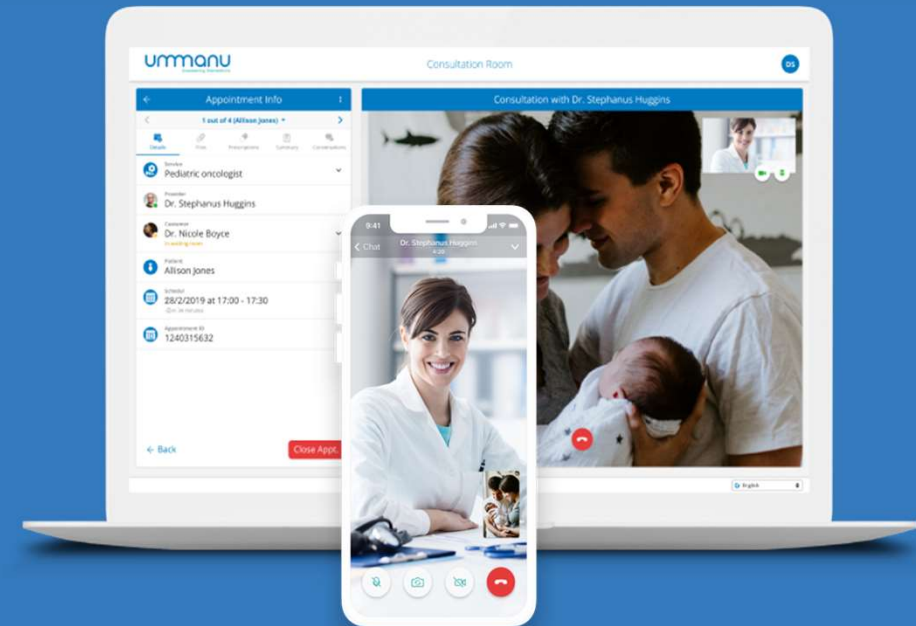ummanu
Empowering Telemedicine

Integrella
Digital Integration

When disaster becomes opportunity

The hacking & recovery of
the NHS 111 service

Shahriar Haque
Chief Operating Officer
Integrella

Itzik Levy
Chief Executive Officer
Ummanu

Ummanu and Integrella – Where did it all begin?

- Integrella has been delivering healthcare integration projects across strategy, design and implementation for the last 15 years.

- Ummanu provides a game-changing telehealth automation platform that radically optimise clinician productivity and patient safety.

- Earlier this year, we leveraged the InterSystems IRIS for Health data platform and AWS technologies to link NHS 111, Ummanu and urgent care providers.

- Unique interoperability solution for NHS 111, High Level Architecture.

www.ummanu.health   www.integrella.com

Ummanu's system and technology in numbers

500
Active clinicians on
the system 24hrs/day

2m
Online consultations
in 2022

26
Different clinical specialities
delivered via the system

4-12
Consultations/hr
by each clinician

20mins
Average patient waiting time

88% cases
Require a single remote
intervention

GDPR Compliant

Ummanu is a digital health tech company. A part of the Davidoff Group of companies, with technologies and services that support the needs of over 40 million people every day across three continents and multiple markets including the UK, the US, India and China.

www.ummanu.health   www.integrella.com

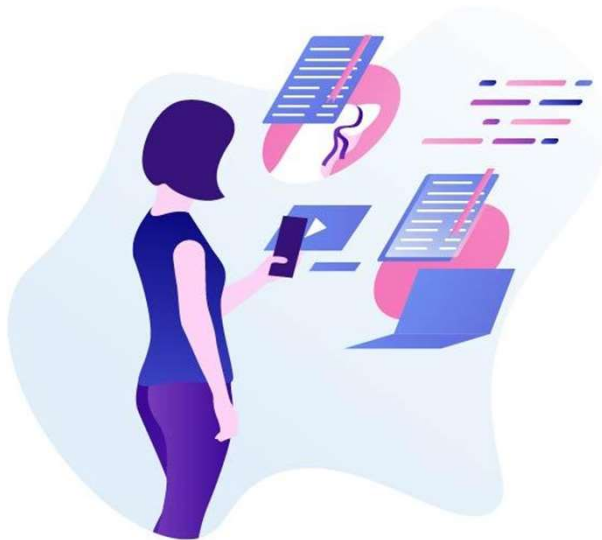# Administrative call-handling tasks impact clinicians' productivity

Workforce challenges

+

Precious clinician's time used for admin activities

=

Increasing use of agency staff & admin staff, which leads to high costs

OUR SOLUTION

Autonomous Predictive Dialer with a Smart Virtual Waiting Room

#UKISummit22

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Insufficient communication with waiting patients impact patient experience

Long waiting times **+** **Patients frustrated with being uninformed** **=** **Falling public/ patient satisfaction and confidence**

OUR SOLUTION

Automated communication management for comfort (welfare) calls and notifications throughout the patient journey

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Inconsistent management of waiting lists is also impacting clinical safety

Long waiting times **+** Biased and inefficient urgency management of cases **=** Jeopardised clinical safety
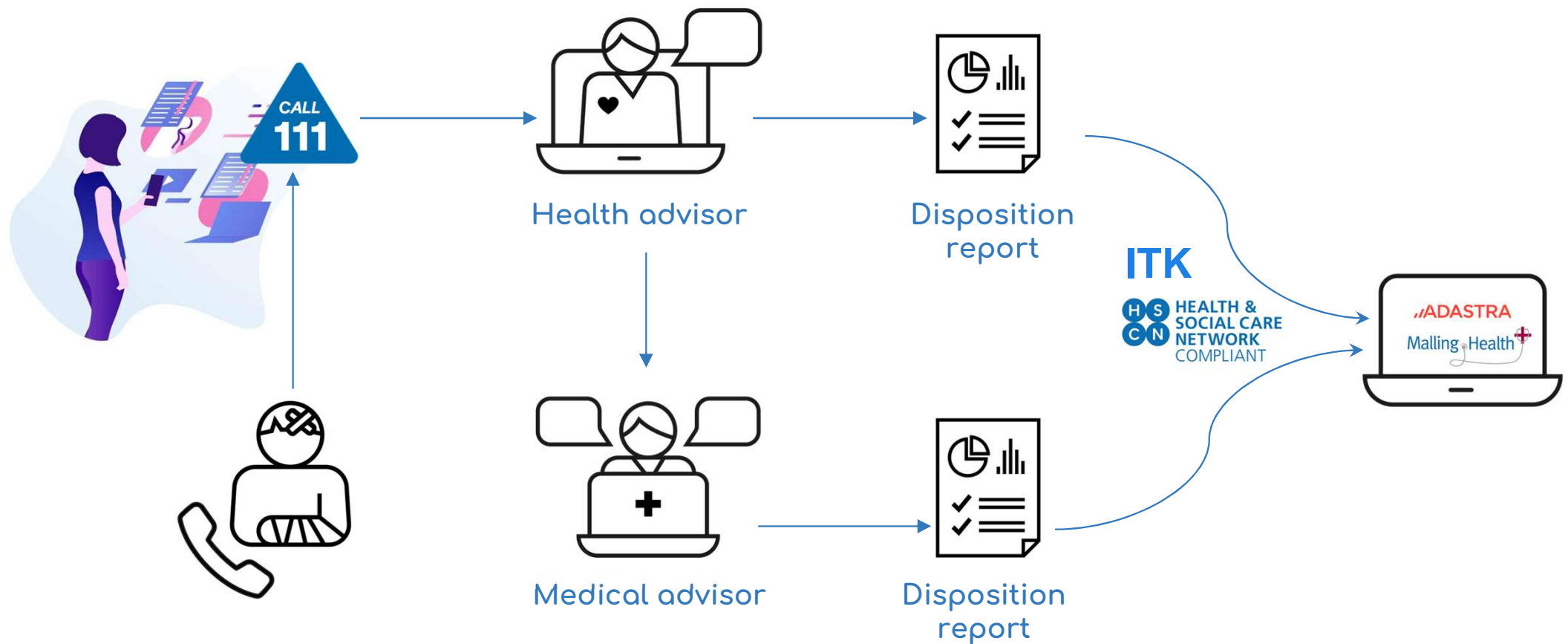
OUR SOLUTION
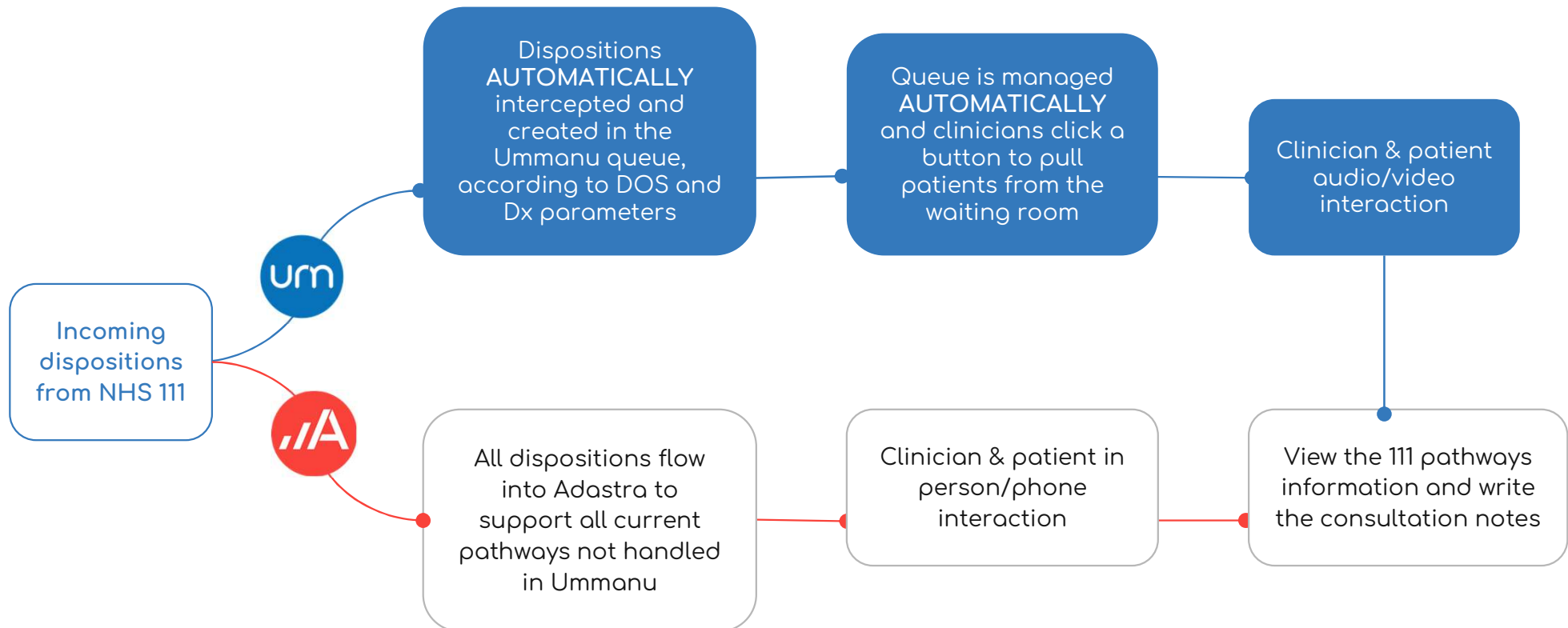Smart management of case urgency streaming based on agreed organisational disposition

Urgent Care work process

Health advisor

Disposition report

Medical advisor

Disposition report

ITK

Ummanu & Adastra flow

```
Incoming
dispositions
from NHS 111
```

um →

Dispositions **AUTOMATICALLY** intercepted and created in the Ummanu queue, according to DOS and Dx parameters

Queue is managed **AUTOMATICALLY** and clinicians click a button to pull patients from the waiting room

Clinician & patient audio/video interaction

A →

All dispositions flow into Adastra to support all current pathways not handled in Ummanu

Clinician & patient in person/phone interaction

View the 111 pathways information and write the consultation notes

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High-level solution architecture
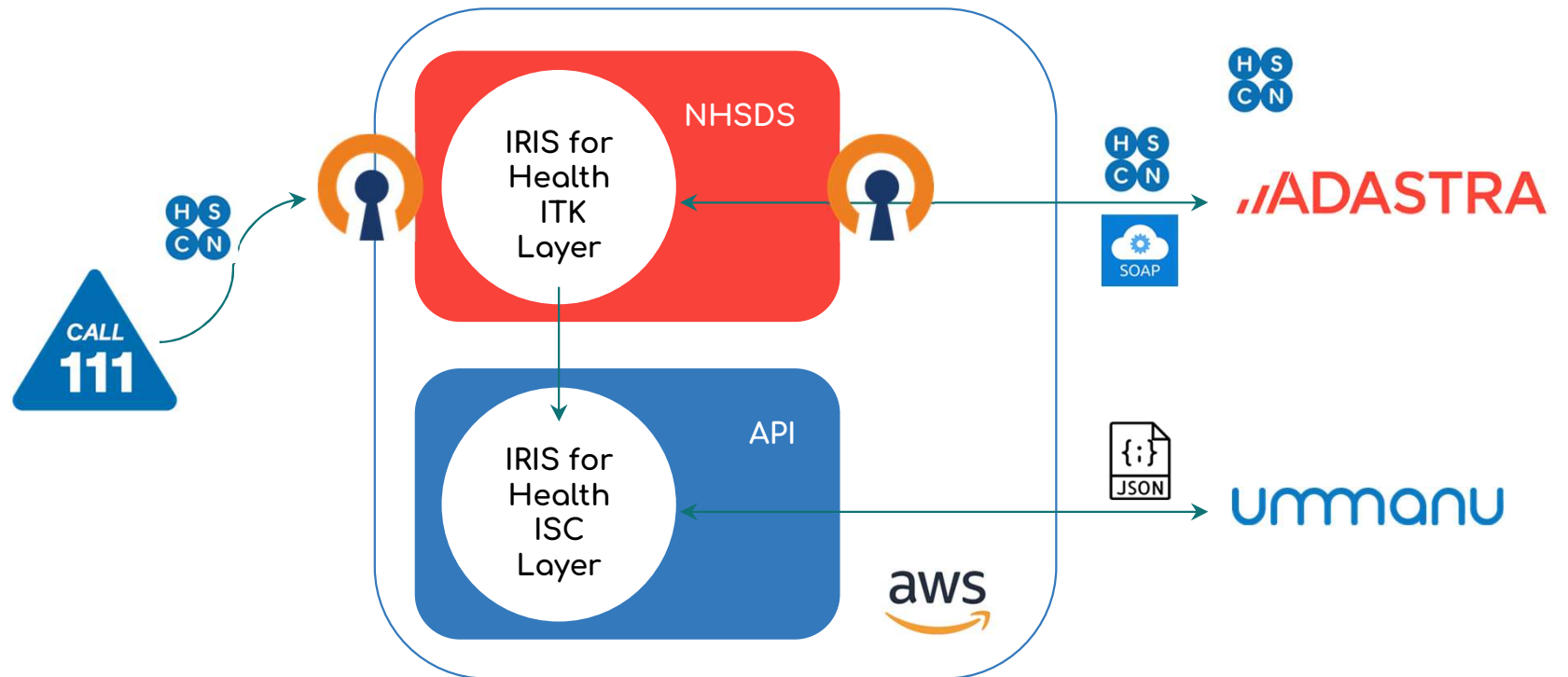
IRIS for Health logical architecture

InterSystems™ IRIS Health

ITK Switchboard

Dispositions

NHS 111

ITK Request / Response

ITK WS Service
From_NHS111_Adastra_OOH

ITK

Routing Rule

On Success ACK from Adastra

ITK

ITK Operation
From_NHS111_Adastra_ITK_SEND

ITK

Adastra

Disposition Details

ITK Operation
From_NHS111_To_ISC_ITK_SEND

Async Call

Disposition Details

InterSystems™ IRIS Health

ISC

ITKSwitch Service
From_ITK_Ummanu_REST

Routing Rule

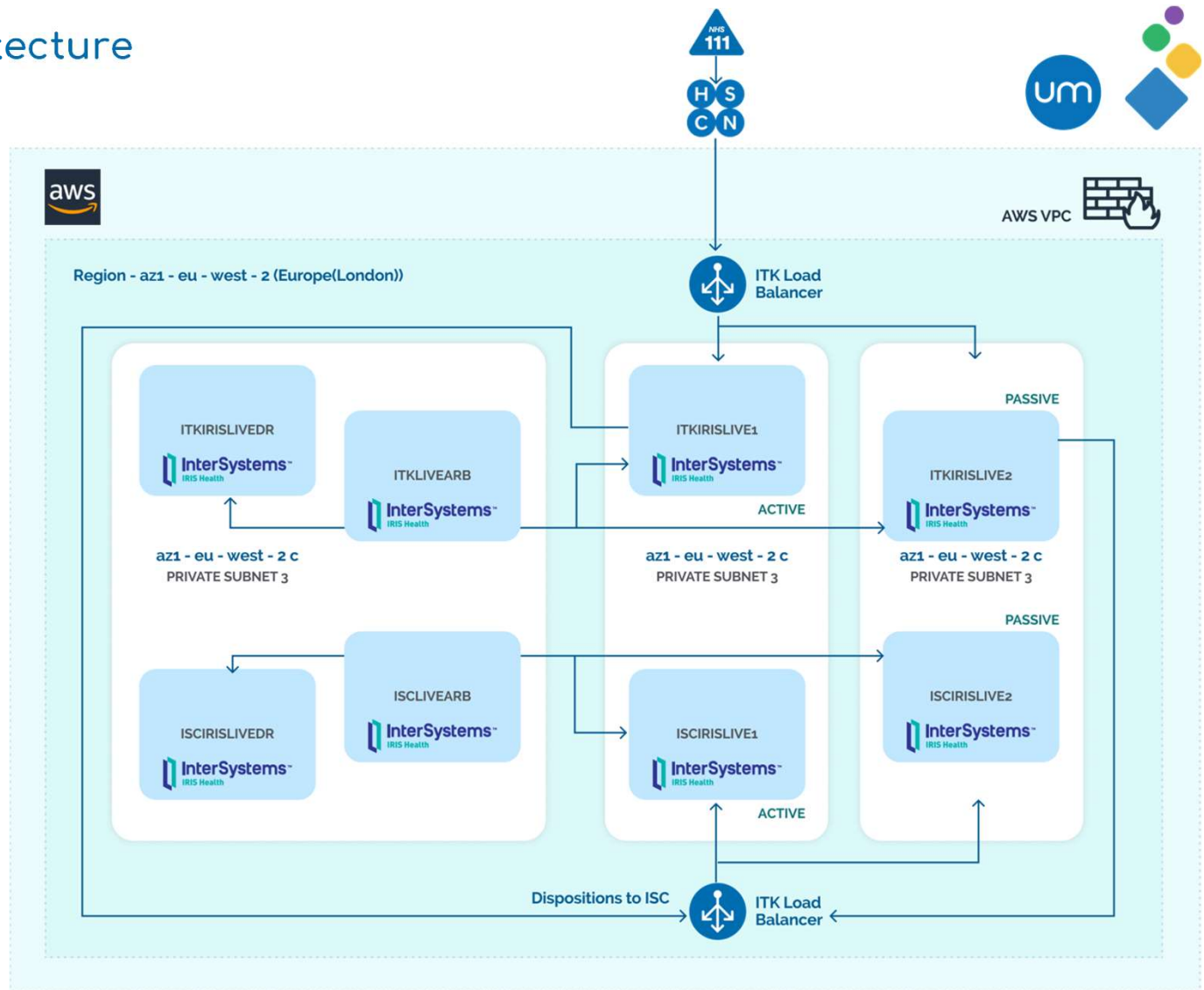**DTL for Dispositions to Ummanu**

REST Operation
ITK_To_Ummanu_SEND

Retry Request

REST

Ummanu

IRIS for Health physical architecture

- 2 Clusters – ITK & ISC

- Arbiter to keep the failover nodes in sync, ALB to route traffic

- AWS to HSCN private tunneling setup

- ARM64 Ubuntu 20.04 EC2

- All nodes in London region, but different AZ

1   add title
-Sharlene Lopez
, 14/10/2022

Response to Advanced Software Outage

"The attack targeted the system used to refer patients for care, including ambulances being dispatched, out-of-hours appointment bookings and emergency prescriptions.

"But the NHS said disruption was minimal. The National Crime Agency said it was 'aware of a cyber incident' and was working with Advanced."

BBC News 6 August, 2022

"A security issue was identified yesterday, which resulted in loss of service," said Advanced boss Simon Short.
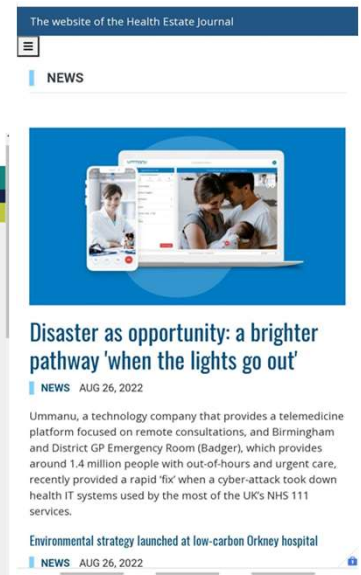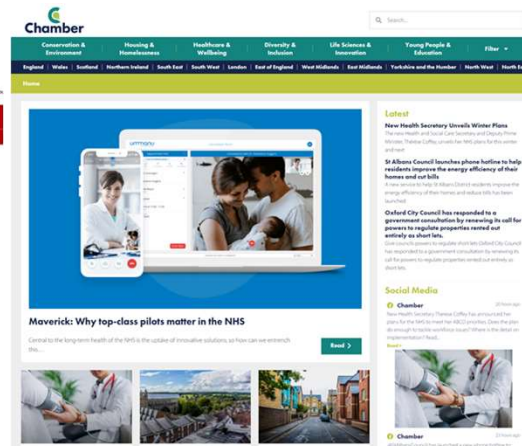
"We can confirm that the incident is related to a cyber-attack and as a precaution, we immediately isolated all our health and care environments."

"He said the issue had been contained 'to a small number of servers'."

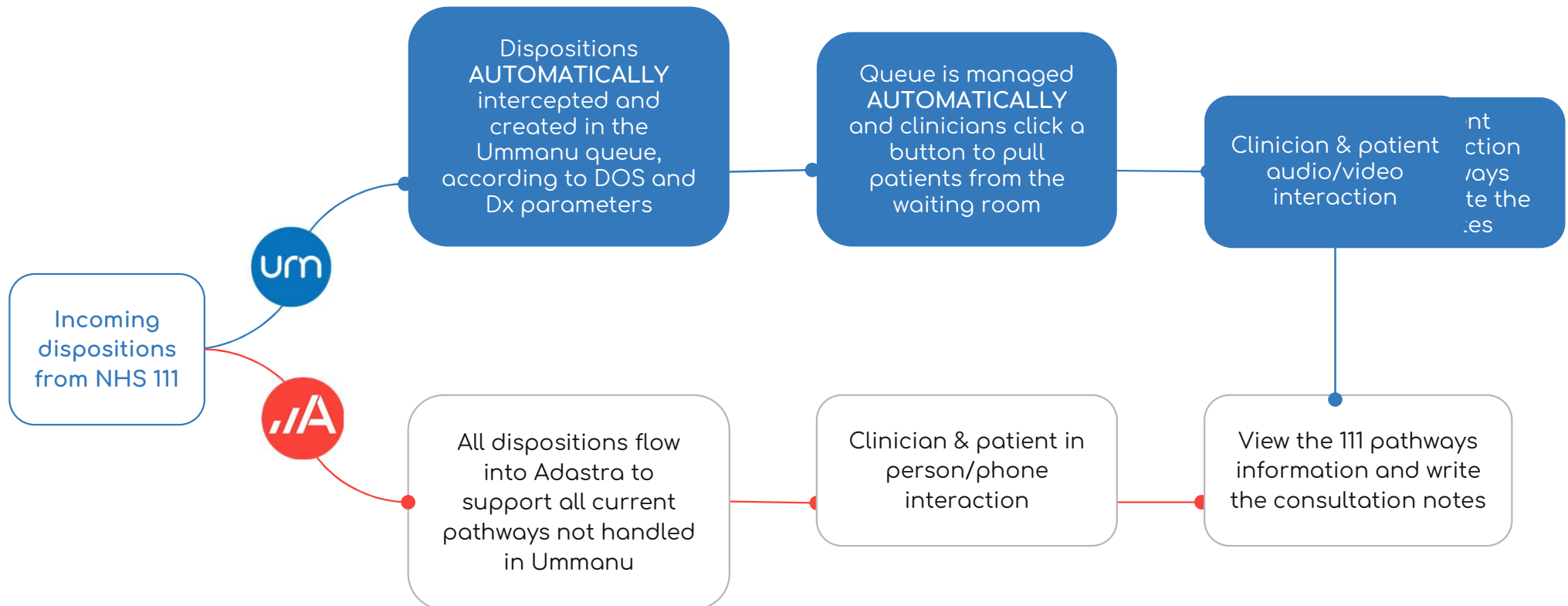"Advanced has indicated the issue might not be fully resolved until next week."

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Ummanu & Adastra flow

Incoming dispositions from NHS 111

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View the 111 pathways information and write the consultation notes

Thank you for listening

For a detailed demo or to speak
with our Head of Interoperability
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