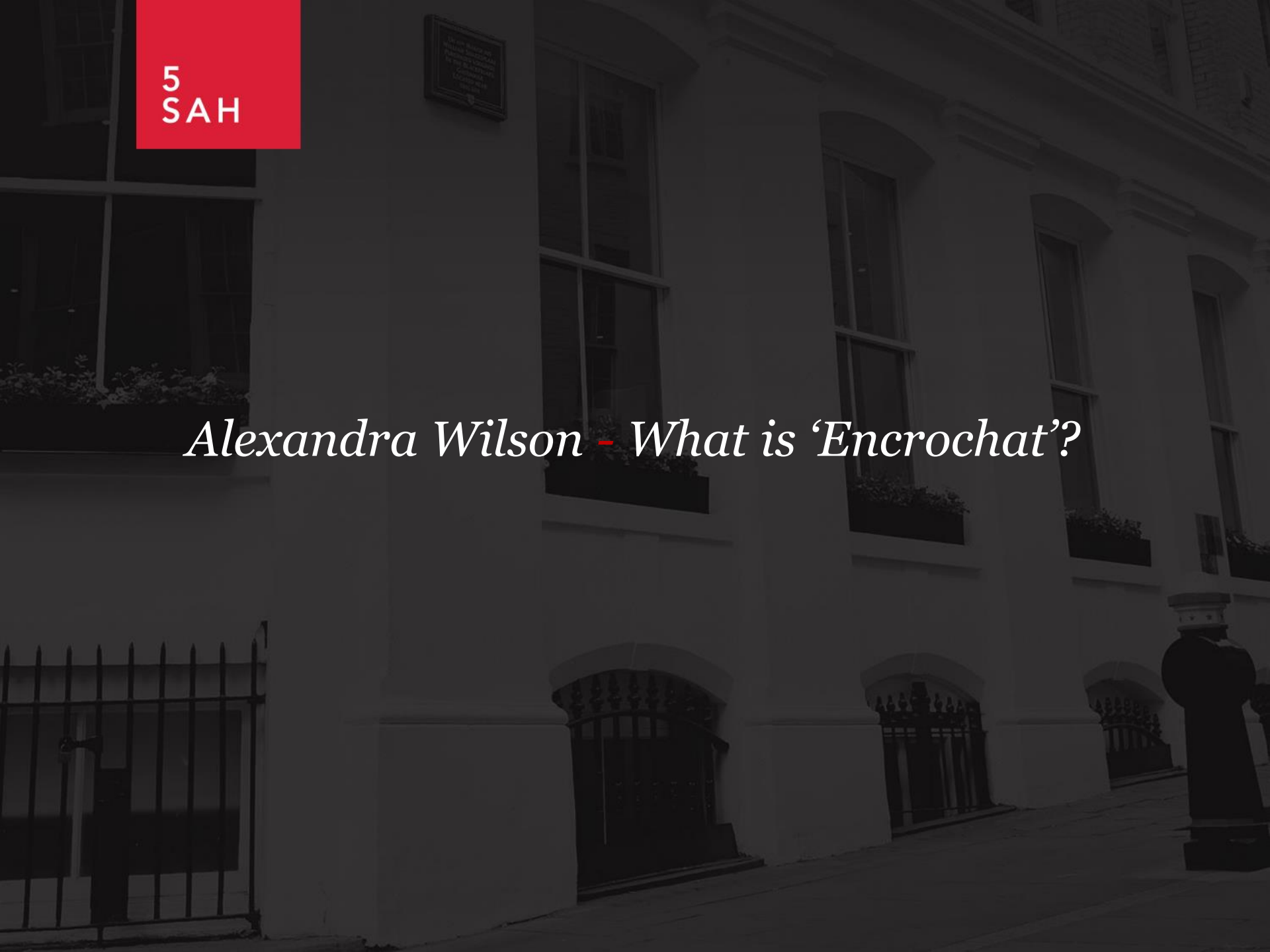
EncroChat – practical steps for a defence lawyer – what do we know so far?

5SAH – LCCSA - Webinar 29 July 2020 at 3:30pm

- *Alexandra Wilson – 5SAH*
- *Oliver Kirk – 5SAH*
- *Greg Robinson – Footprint Investigations*



Alexandra Wilson - What is 'Encrochat'?

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Intercepted communication

section 4 IPA 2016

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Inadmissibility of intercepted communication carried out in the UK

section 56(1) IPA 2016

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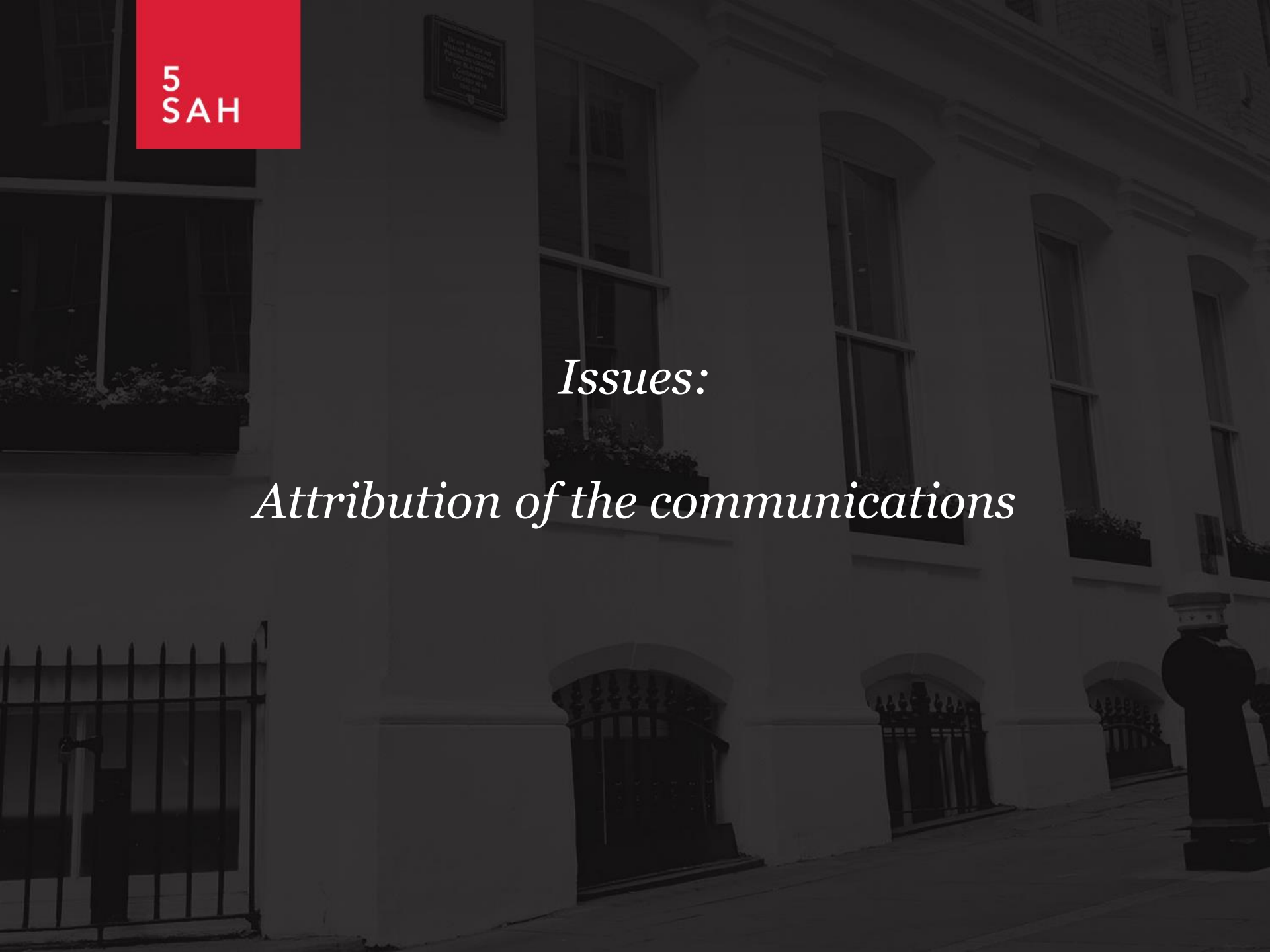
Case Law

- *R v Aujla [1997]*
- *R v P and Others [2000]*



Issues:

Attribution of the communications

Equipment interference

part 5 IPA 2016

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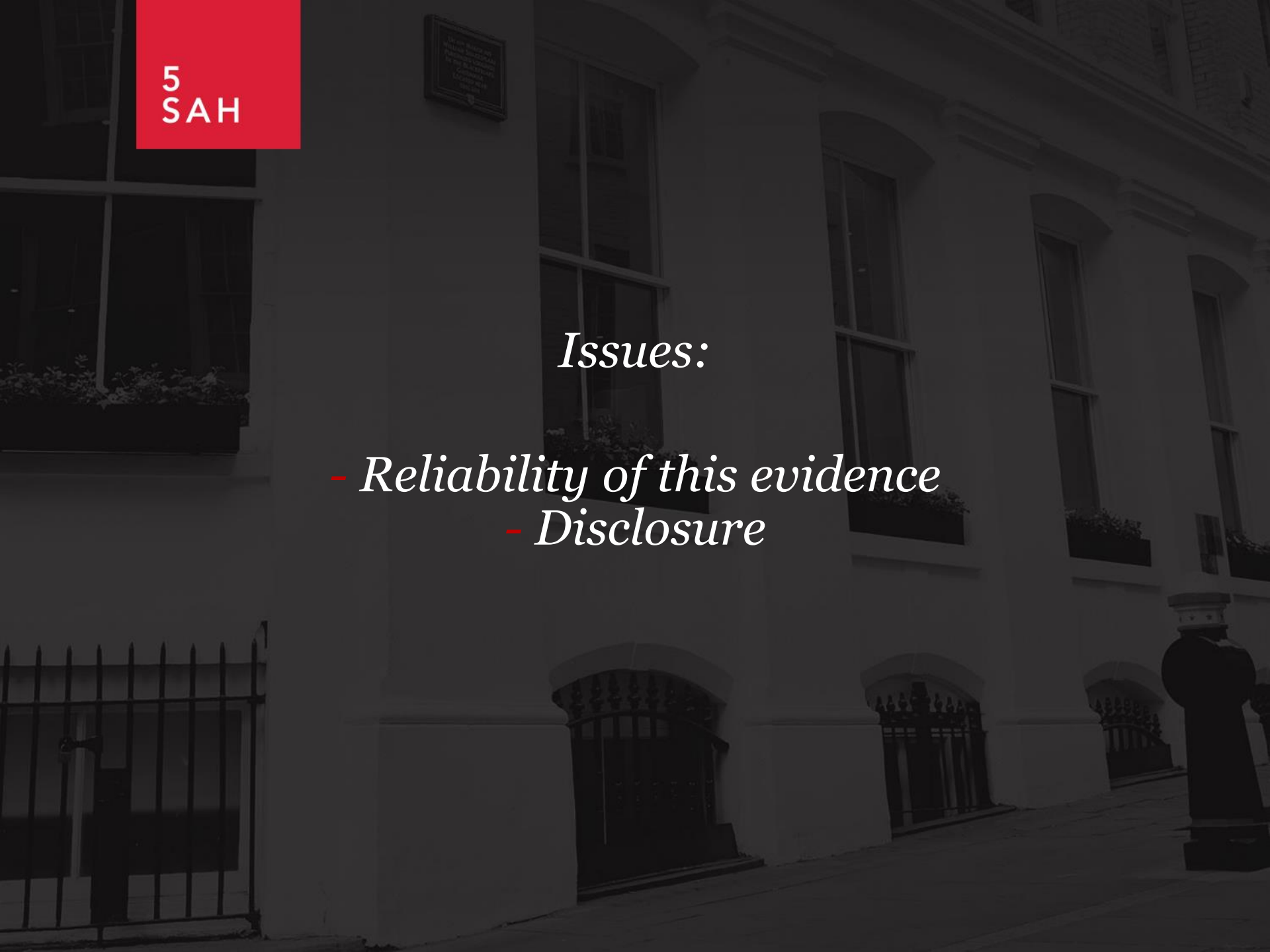
Admissibility of equipment interference evidence



Issues:

- *Reliability of this evidence*
- *Disclosure*

Intelligence sharing

Outside of the IPA 2016

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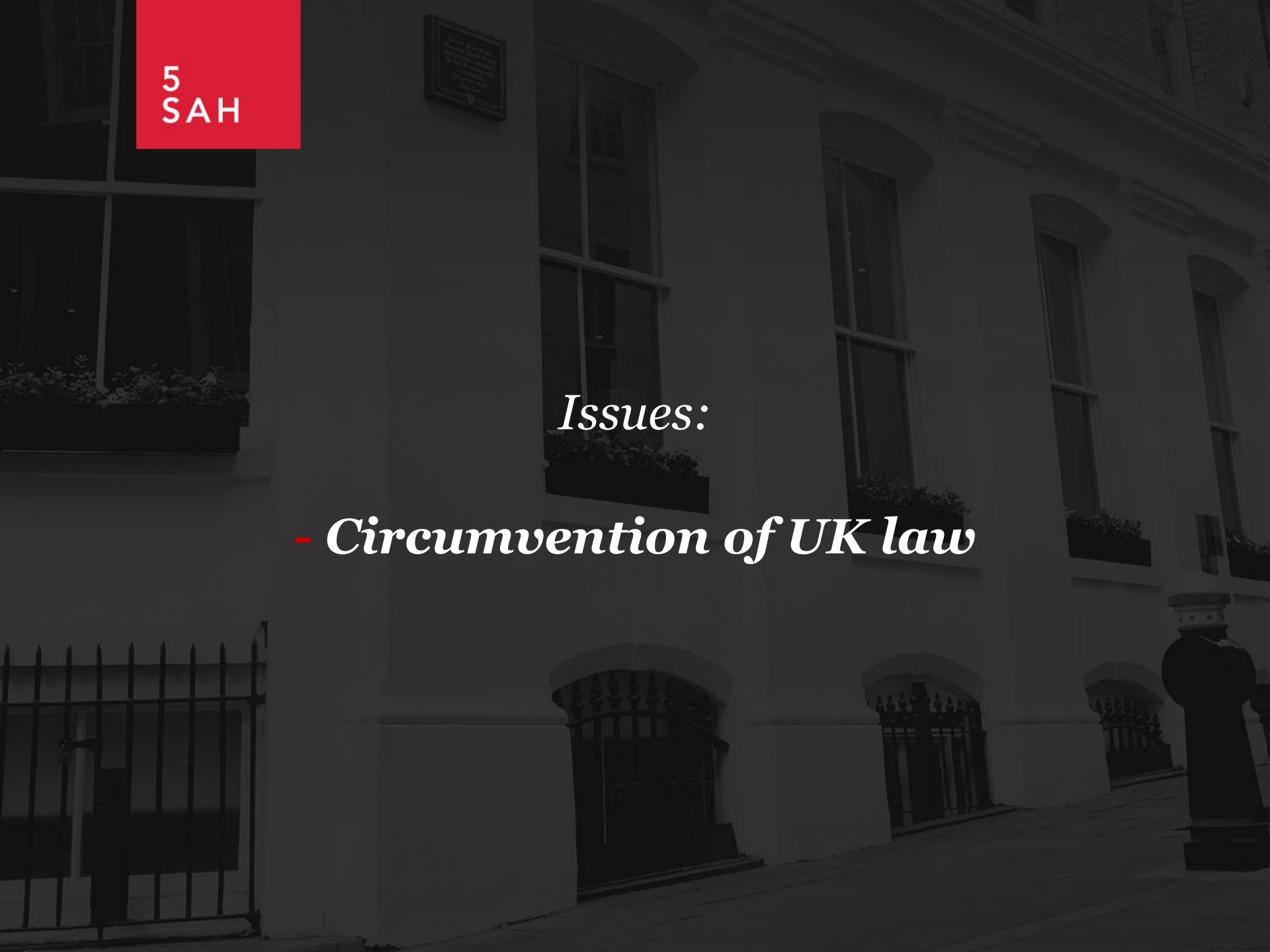
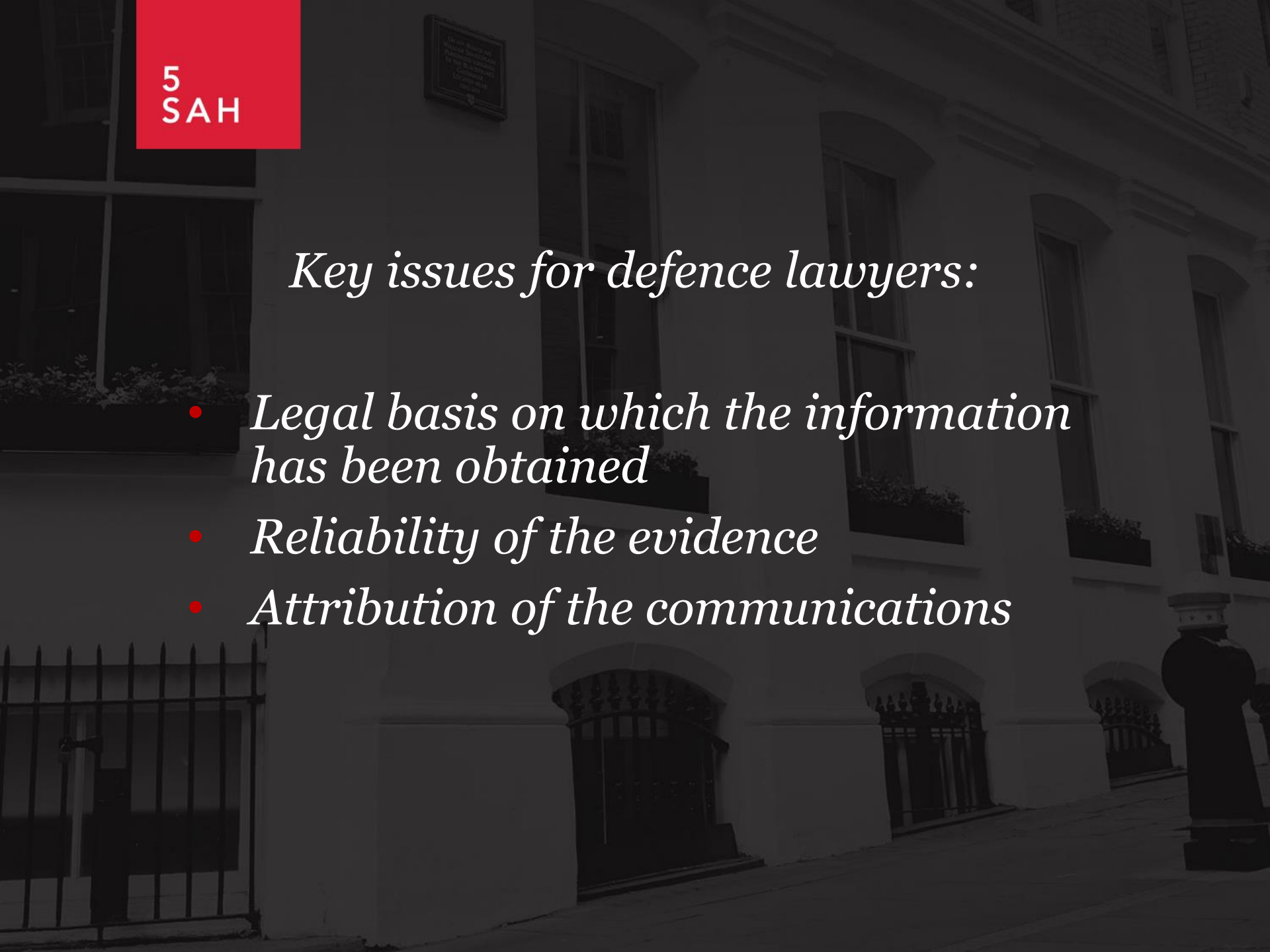
Admissibility of intelligence shared



Issues:

- ***Circumvention of UK law***



Key issues for defence lawyers:

- *Legal basis on which the information has been obtained*
- *Reliability of the evidence*
- *Attribution of the communications*

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Alexandra Wilson

- Alexandra has a busy criminal practice where she has gained familiarity with cell-site and other electronic evidence. She is interested in the legal issues surrounding the use and misuse of data, technology and information. She has written two detailed articles on Encrochat which can be viewed here: The hacking of EncroChat and The hacking of EncroChat Part 2. She is also due to present a Webinar on Encrochat to LCCSA members, alongside another barrister from 5SAH and a leading cell site expert.

- Alexandra has represented a variety of clients in criminal cases charged with serious matters and specialises in young and vulnerable clients. She has undertaken additional training in this area including the YJLC Youth Justice course and the ICCA Vulnerable Witness training course.

Oliver Kirk - Checklist for Defence Practitioners

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- *Under what authority was the evidence obtained?*
- *Did the obtaining of the evidence amount to "interception"?*
- *Did the obtaining of the evidence amount to interference with computer systems?*

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- *What authority was given for such interception/interference? Was any such authority "blanket' or targeted?*

- *If conducted abroad, was such activity properly authorised in that jurisdiction? (may require assistance/evidence from local lawyer).*

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- *Is the product obtained by law enforcement reliable?*
- *How are the defence able to test the reliability of the evidence?*
- *If encrypted and decrypted, how do we know that this process has been done reliably?*

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Attribution:

- *It seems likely that this will be familiar territory involving cell site, mapping with other known provable movements (CCTV, observations, ANPR etc) as well as recovery of devices.*

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- *Application to exclude S 78. Will obviously depend upon the answers to all of the above questions.*

- *Aggravating feature for the purposes of sentence (R v Nelson and Markham [2020 EWCA 718) R v English and Read [2020] EWCA 100.*

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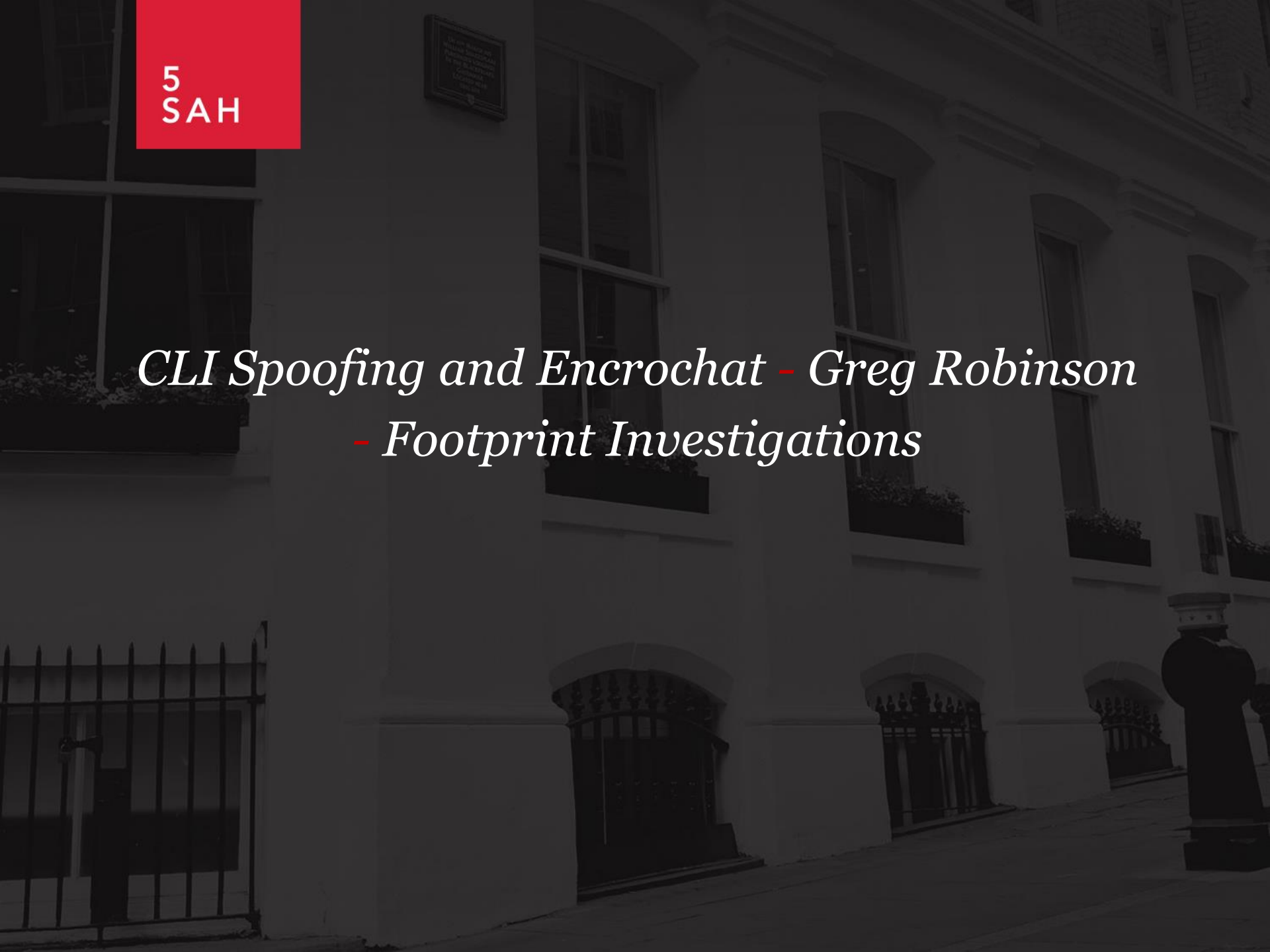
Oliver Kirk

- Oliver is an experienced criminal advocate. He represents clients in the most serious and complex criminal cases.
- He is currently instructed as defence counsel in an Encrochat case.
- Prior to being called to the Bar, Oliver was a solicitor for 22 years and a Higher Courts Advocate for the last 10. As a result, Oliver has gained a wealth of experience that means he is ideally placed to advise solicitors on case preparation in order to achieve the best possible outcomes for his clients.



CLI Spoofing and Encrochat - Greg Robinson - Footprint Investigations

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- *CLI (Calling Line Identity) Spoofing is a method of masking the identity of a mobile phone number*

- *Encrochat is a sophisticated encrypted messaging service*

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CLI Spoofing

- CLI Spoofing is a method of masking the true identity of the phone number
- This can be done randomly each time the device is used known as “Chaotic Number Substitution” or the user can allocate a number, often choosing 07777 777777 or 07777 123456 or similar.
- There is often an association with a landline number which is linked to the unregistered SIM, often a ‘0203’ number provided by DIDWW Ltd or similar.
- Routing of calls is such that all communications can be artificially represented as incoming with no outgoing activity.

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Encryption

- Encryption is used to enable secure communications using several methods.
- The main method of achieving secure communications is to ensure that all traffic is carried over the internet, using either the mobile network(s) or wifi.
- The communications are routed through external servers, often hosted abroad.
- Communications are heavily encrypted end to end using algorithms which ensure that the contents of messaging / voice calls cannot be decrypted.

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How it works

Incoming call to the 0203 number via mobile network

Call is routed via provider , DIDWW ltd via an I/P address

Call is transferred voice over i/p via foreign server operated by AY securities

Call is transferred to end user of the 0203 number (this is not visible in call data)

End user (mobile linked to 0203) now receives the call

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Additional Features

- Messages can be set to expire after a pre-set duration after receipt – Burn Time
- All data on a device can be remotely wiped – Kill Pill
- Devices such as microphones and cameras are often disabled.
- Generates a random IMEI number each time it is used
- Voice alteration / distorton to disguise users.
- SIM's can be provisioned to use any UK network, user can select which.
- Can be powered up as a regular Android device, using different buttons will start up in encrypted mode.

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Who Are the Providers?

- AY securities – full CLI spoofing and encryption services using unregistered SIM's open to all UK networks. Use Russian or German Servers and landline mask to associate with SIM / MSISDN. All comms to be masked as incoming.
- Encrochat – Dutch Provider, uses unregistered SIM's on open devices usually running an android OS compatible with certain handsets. BQ Aquarius Handset is one known device. Offers full encryption using messenger type comms, no phone numbers stored, user names are used instead, have to be invited.
- Cloud 9 – Another 3rd party provider, who provide SIM's provisioned by AY securities.

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What does the data look like?

- Large number of different incoming numbers which only appear once (reverse CLI spoofing)
- Unusual numbers appear, such as 07777 123456
- All data is incoming, no outgoing activity
- All data is described as “data” with no voice calls or text messages

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How do investigators identify CLI Spoofing?

- Call data from co-defendants and associates can help identify the actual UK mobile number linked to the spoof device / virtual number.
- Sensitive techniques can be used “cell dumps” and “IMSI grabbers” but these require a high level of authority, Chief Constable / Home Office, not covered by RIPA.
- More difficult to attribute the number, but once the identity has been discovered, the process is similar to regular mobile numbers, albeit there is often no content from the device download.
- Defence teams need to be checking evidential continuity and integrity.

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Greg Robinson
Footprint Investigations

- Greg Robinson is the Senior Cell Site Expert and Technical Director of Footprint Investigations. He has worked in Radio and Telecommunications Engineering for 33 years, including senior positions with the M.O.D, British Forces Broadcasting Service and Hutchison 3G, planning and optimising their 3G network.
- For almost fifteen years, he has worked exclusively as a cell site expert, and has completed in excess of 800 reports. He has appeared in court on hundreds of occasions giving evidence for both prosecution and defence in many high profile trials and has received two Chief Constables Commendations from Leicestershire and Staffordshire Forces

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For further information on our team please contact: Dave Scothern

Chambers Director

dscothern@5sah.co.uk 020 7332 5400

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Chambers
UK BAR
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5 St Andrew's Hill

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