

digitalhealth

REWIRED

LONDON

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Headline Sponsors:



Dan Jeffery

CISO & Deputy CIO
NHS Blood and Transplant

NHSBT: building a world where every patient receives the donation they need

Where we operate

28 blood and plasma donor centres and 50 mobile teams

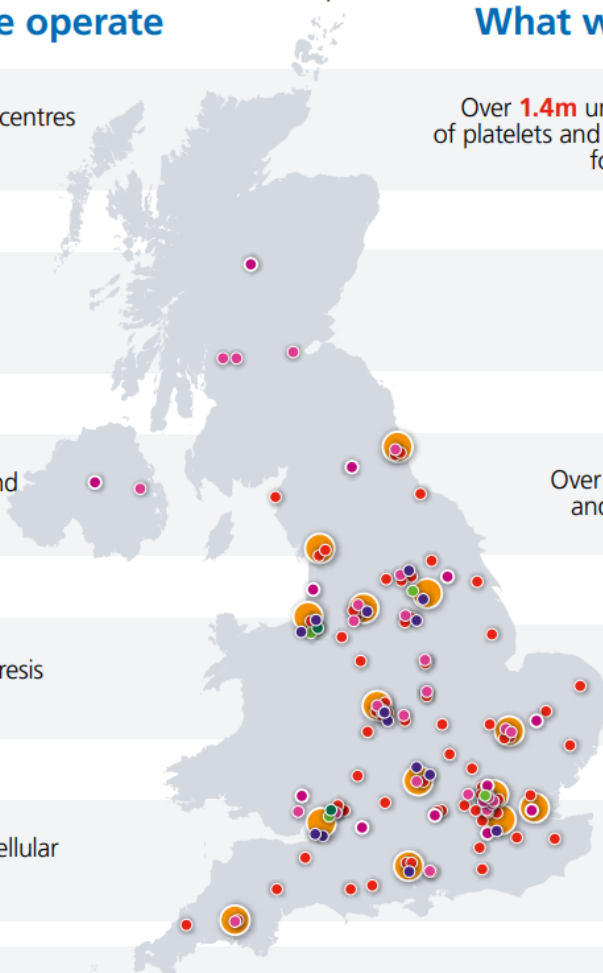
12 regional organ donation teams

2 world-class tissue banks and 4 regional donation teams

8 regional Therapeutic Apheresis Service (TAS) units

6 specialist laboratories for cellular and molecular therapies

14 main centres with manufacturing, pathology, donation and other specialist facilities



What we deliver*

Over 1.4m units of red cells, 250,000 units of platelets and 200,000 plasma components for transfusion to 260 hospitals

4,000 life-saving organs to 29 UK Transplant Centres

Over 6,000 human tissue products and 2,000 corneas for transplant

10,000 procedures to around 2,000 patients and donors

Over 1,800 life-saving stem cell transplants

* every year

Our donors



Blood

Over 800,000 people donate blood, plasma and platelets each year in England

We need at least 5,000 blood donations every day to meet patient need

To grow and diversify our donor base we need 150,000 new blood donors every year, including:

40,000 donors of Black heritage

30,000 donors with priority blood groups including Oneg



Organs and Tissues

30 million people have recorded a donation decision on the NHS Organ Donor Register

1 million people record their donation wish each year for the first time

Each year around 1,500 people donate their organs after death and over 1,000 people make living organ donations

Around 2,500 people donate their eyes, 250 donate bone, tendons and skin, and 350 donate heart tissue after death

We need 2,000 more organ transplants every year to meet demand



Stem cells

The British Bone Marrow Registry (BBMR) includes 380,000 potential stem cell donors, and connects us to 39 million potential stem cell donors through a global network of registries

Stem cells are found in bone marrow and umbilical cord blood, and can be used to treat a wide range of blood cancers and disorders

The NHS Cord Blood Bank includes 19,000 clinical grade cord blood units for potential live-saving transplant

We need to recruit 30,000 new potential stem cell donors each year

NHSBT: defending a world where every patient receives the donation they need

Driven by a variety of motivations... ...threat actors seek to do harm to... ...through the compromise of... ...by exploiting one or more of our ...

Motivation

- GEOPOLITICAL ADVANTAGE
- DISRUPTION / DESTRUCTION
- FINANCIAL
- INTELLECTUAL PROPERTY
- IDEOLOGICAL / POLITICAL
- DISCONTENT
- EMBARASSMENT
- "BECAUSE THEY CAN"
- ACCIDENTAL








In this example an organised crime group is motivated by financial gain and damaging NHSBT's reputation...

Threat Agent [top ten]

- Malicious Insider
- State Sponsored Cyber Operations
- Foreign & Mil. Intel Ops.
- Organised Crime Groups
- Accidental Insider (Privileged User)
- Journalist
- Industrial Espionage Groups
- Accidental Insider (Normal User)
- Opportunistic Criminals
- Hacktivist

...as an organised criminal group they have dedicated and well honed skills, access to resources, and patience...

NHSBT's Business

-  STRATEGY & TRANSFORMATION
-  DONOR EXPERIENCE
-  BLOOD SUPPLY
-  OTDT
-  PLASMA
-  CLINICAL SERVICES
-  GROUP SERVICES

...they will research and understand our business and seek to compromise the most relevant part of NHSBT to meet their desired objectives...

NHSBT's Estate & Ecosystem

- Health & Care Customers
- System Partners [e.g. NHS Digital]
- NHSBT's Supply Chain
- NHSBT's Cloud Estate
- NHSBT's On Premise IT Estate
- NHSBT's Physical Estate
- NHSBT's Staff

...and this can be done through a variety of entry points within our ecosystem...

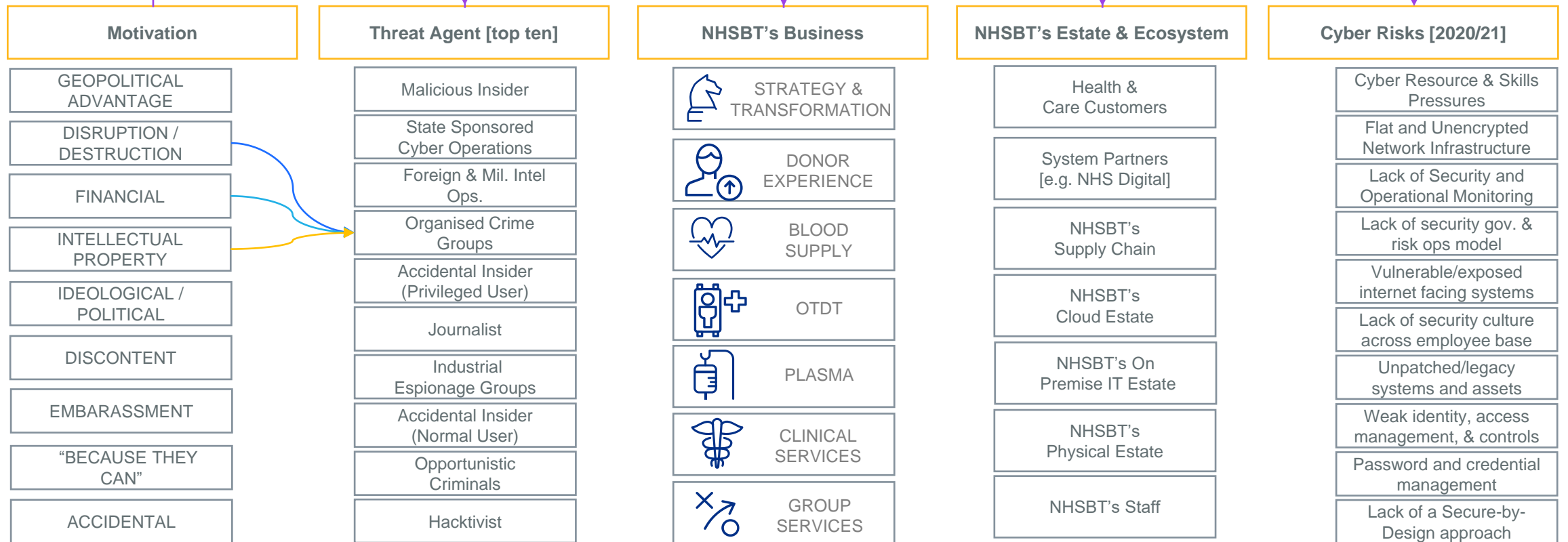
Cyber Risks [2020/21]

- Cyber Resource & Skills Pressures
- Flat and Unencrypted Network Infrastructure
- Lack of Security and Operational Monitoring
- Lack of security gov. & risk ops model
- Vulnerable/exposed internet facing systems
- Lack of security culture across employee base
- Unpatched/legacy systems and assets
- Weak identity, access management, & controls
- Password and credential management
- Lack of a Secure-by-Design approach

...and through the leveraging of one or more of our vulnerabilities

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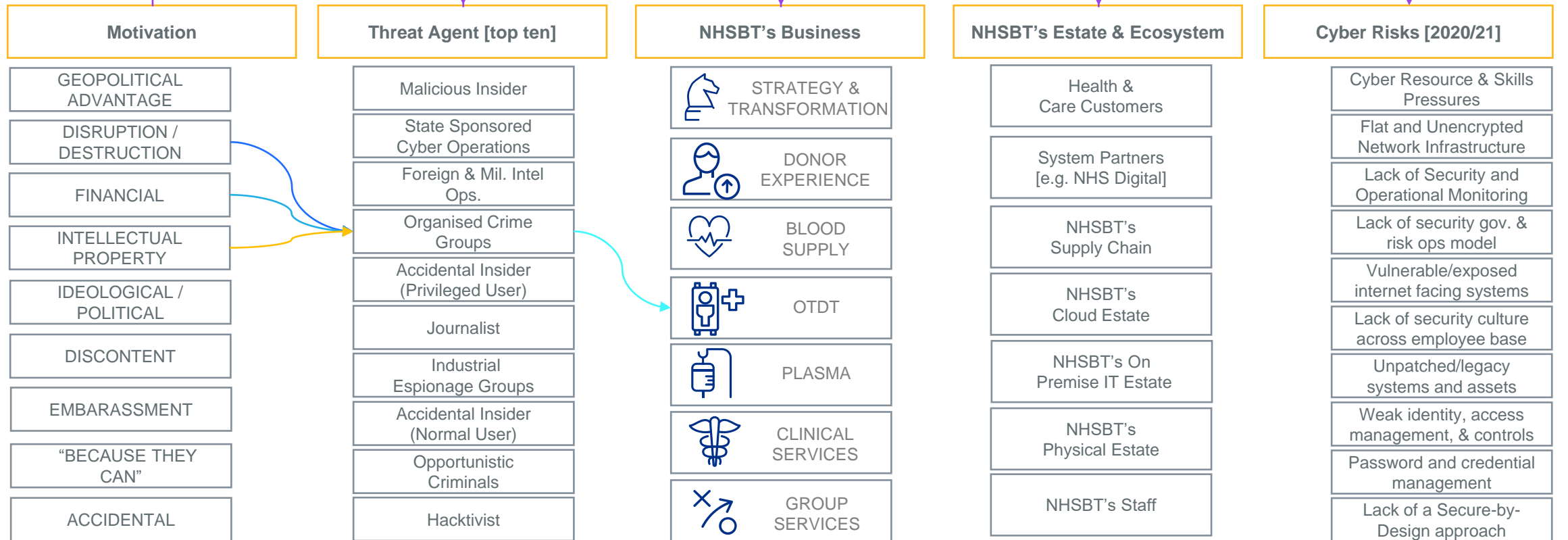
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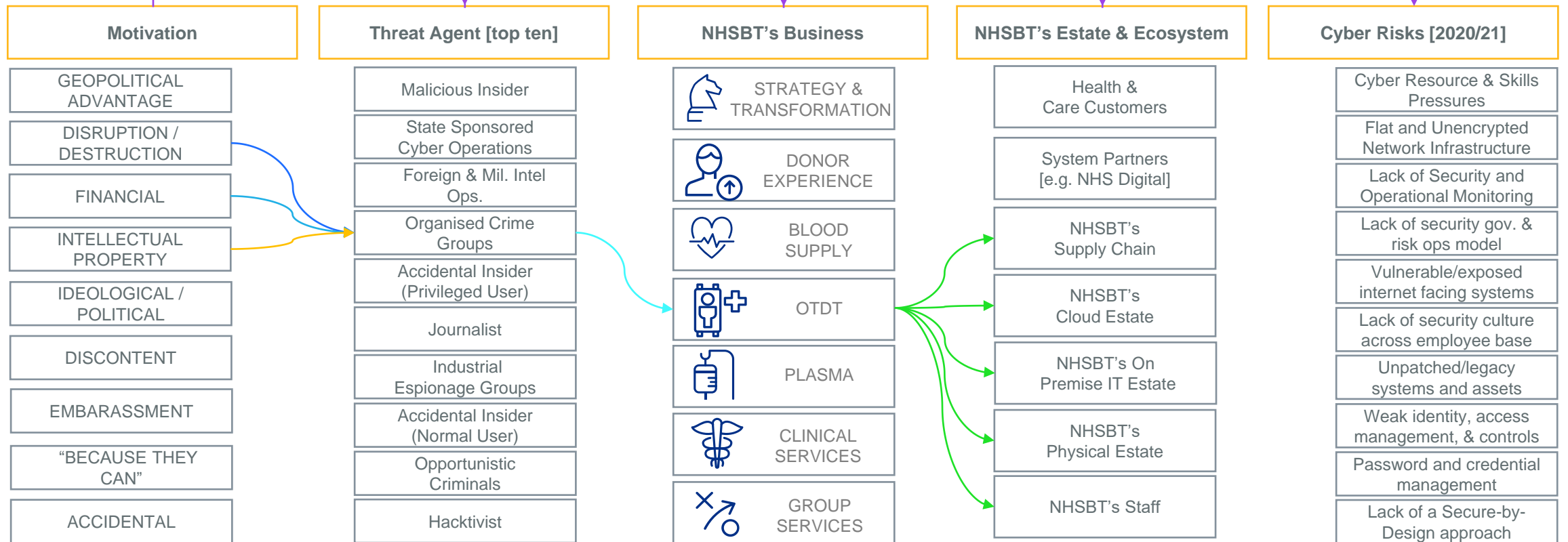
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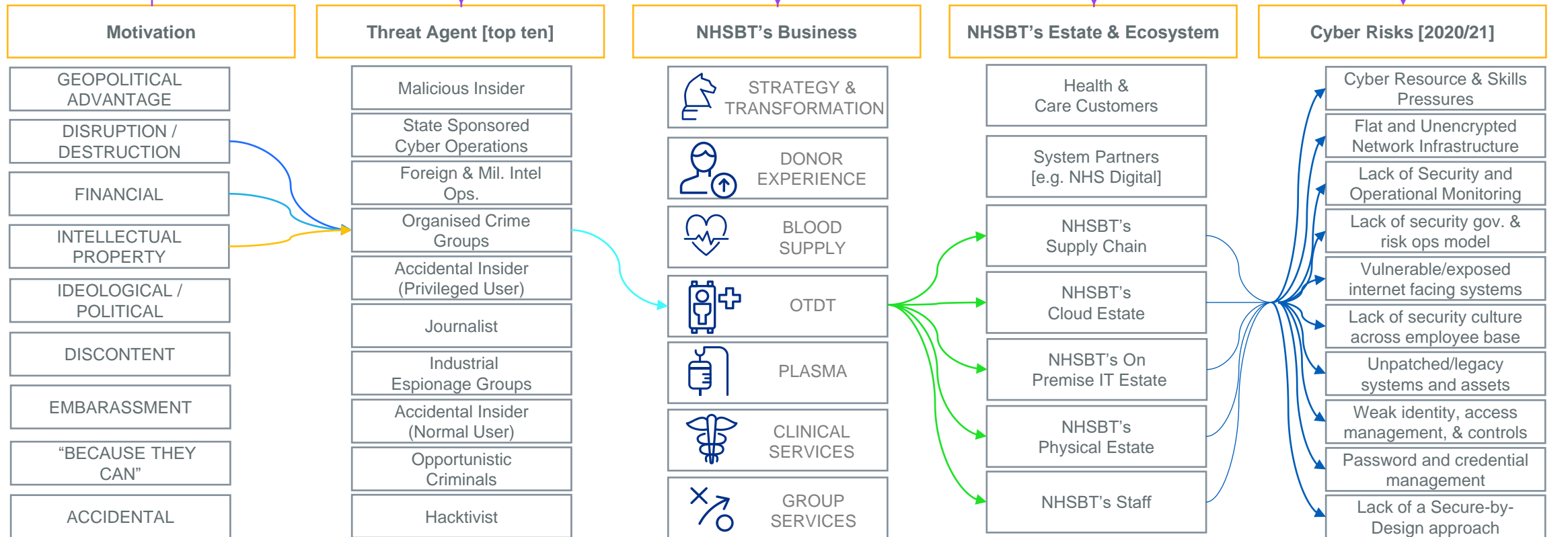
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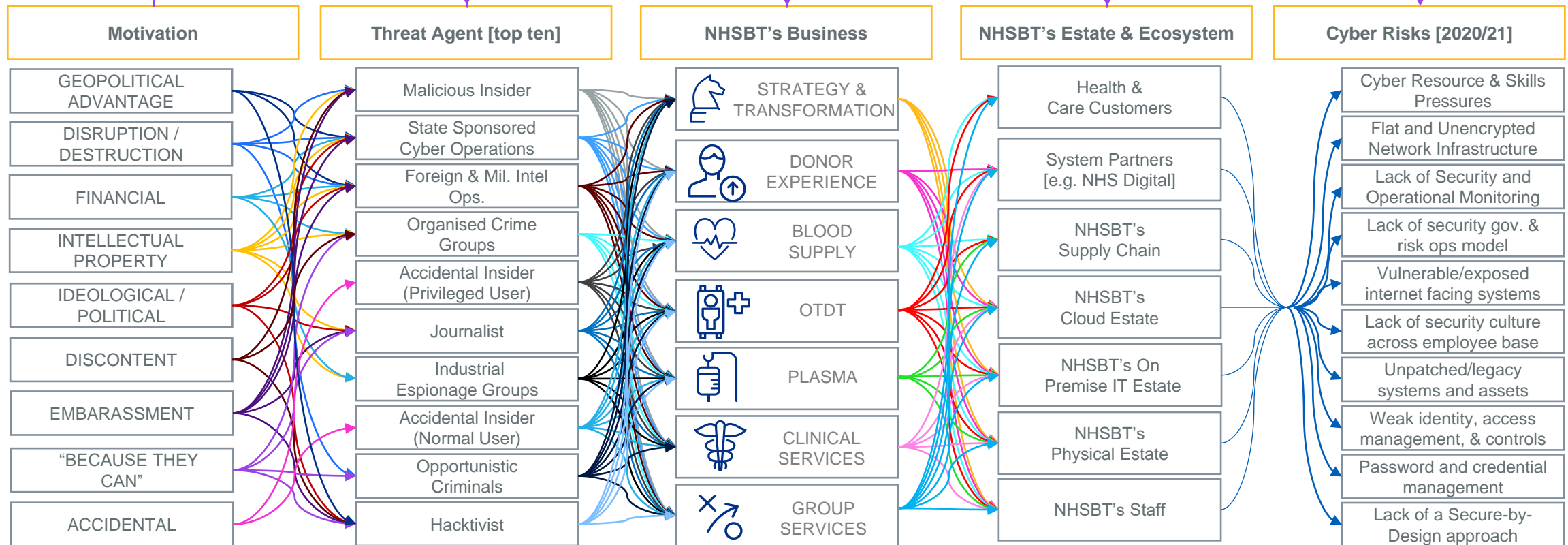
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There are only a few motivations which NHSBT can influence and control...

...and Threat actors usually have multiple motivations as well as a variety of techniques to compromise...

...and these are applicable to a majority of NHSBT's business areas...

...and accessible through our diverse ecosystem and staff-base...

...and the likelihood of success for Threat actors is increased by our current Cyber Risk position

NHSBT: strengthening a world where every patient receives the donation they need

