

a blast over pay TV pirates



James and Rupert Murdoch face the UK parliamentary culture, media and sport select committee investigating telephone hacking allegations against News International journalists.

Photo: REUTERS

process is termed). Instead, in February 1998 they announced they would use a French system called Seca, developed by Canal Plus.

Two months later, the NDS Black Hat team, a reverse engineering group set up by Operational Security chief Reuven Hasak in Haifa, set out to crack the Canal plus Seca card, a legal and common practice within the industry. Reverse engineering involves the microscopic deconstruction of the card, layer by layer, to reveal the embedded coding.

The team, which was led by German master hacker Oliver Koemmerling, travelled to Bristol to use a Focused Ion Beam and Scanning Electron Microscope in the university physics department.

By June 1998 the Black Hat team had extracted a part of the operating code for the Seca card known as the ROM binary file.

The ROM file is "like the plans of the safe, but it doesn't give you the key to the safe", the former chief executive of Canal Plus Technologies, Francois Carayol, told *Panorama*. "In fact what it did, it gave the hackers a very precise idea of where to drill to open the safe."

Nine months later, a Canadian piracy site called DR7.com, run by a hacker called Al Menard, published a copy of the Seca ROM file. Koemmerling recognised that it had the same date and time stamp as the file created in Haifa. While time stamps can be fabricated, without knowledge of the Haifa file, the odds against creating the same time stamp in a 12-month period are 500,000 to one.

"The time stamp was like a fingerprint, I mean it's not really a physical proof, but by statistics you can say it is an astronomically small [chance] that it is not coming from us," Koemmerling says.

NDS denies that the DR7 file came from Haifa, and says the origins of the file are known only by the unknown person who posted it.

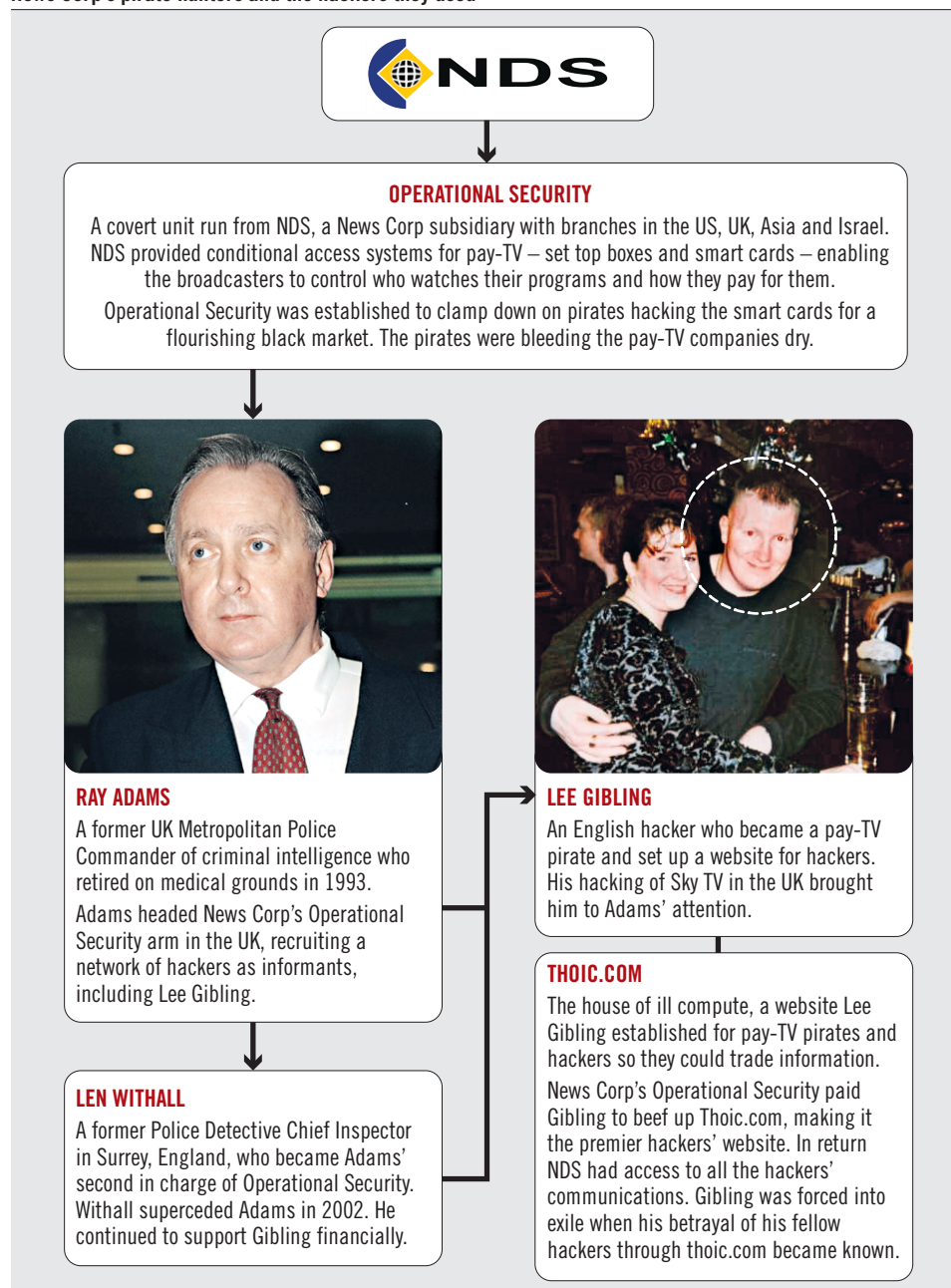
Adams says OnDigital was already hacked before the conversation that Gibling describes. In fact, it "was hacked from day one courtesy of DR7".

The Seca card used by OnDigital had two sorts of keys that could unlock the programming—general operating keys which were changed each month, and management keys which were unique to a small family of cards.

Gibling claims Adams provided him with

The players

News Corp's pirate hunters and the hackers they used



operating keys. Withall says this is "absolute rubbish, absolute rubbish".

Adams says he never had OnDigital codes, never touched an OnDigital card and had never seen an OnDigital pirate card.

"I've never had any codes."

NDS says that all conditional access companies come to possess codes, often when pirate technology is seized in raids by law enforcement agencies, or in the course of research and analysis.

NDS says it has never been in possession of any codes for the purposes of promoting piracy.

If Gibling had been putting OnDigital cards on ThoiC, "I would have arrested him", Adams says.

Panorama says it spoke to several former pirates who confirmed that OnDigital codes were on ThoiC.

Adams told the *Financial Review* that he had arranged for an independent company to conduct a polygraph test upon him when he denied that he "provided any code or software, using many means to do so, to anyone that could use such material to hack".

He was also tested on his denial that he had "provided update keys to enable anyone to overcome On Digital's electronic counter measures".

"It was established that there was no deception in my answers, he told the *Financial Review* in an email on Monday.

"Indeed I was told that the test showed that there was 0.01 per cent chance that I was lying.

"After 14 years when no one has hinted that I ever did anything wrong in my fight against piracy the BBC have decided to make me a villain

"*Panorama* have chosen to focus on issues that have been conclusively disproven, and NDS will take all necessary action to hold responsible anyone who chooses to repeat these baseless and damaging allegations," an NDS spokesman told the *Financial Review* last week.

NDS was a highly successful company, and it would be more appropriate to focus on the successful sale of NDS last week by its joint owners News Corp and private equity group Permira to US giant Cisco, for \$5 billion.

■ Neil Chenoweth was a consultant to the *Panorama* program. He is writing a book, *Murdoch's Spies*.

SOURCE: FINANCIAL REVIEW