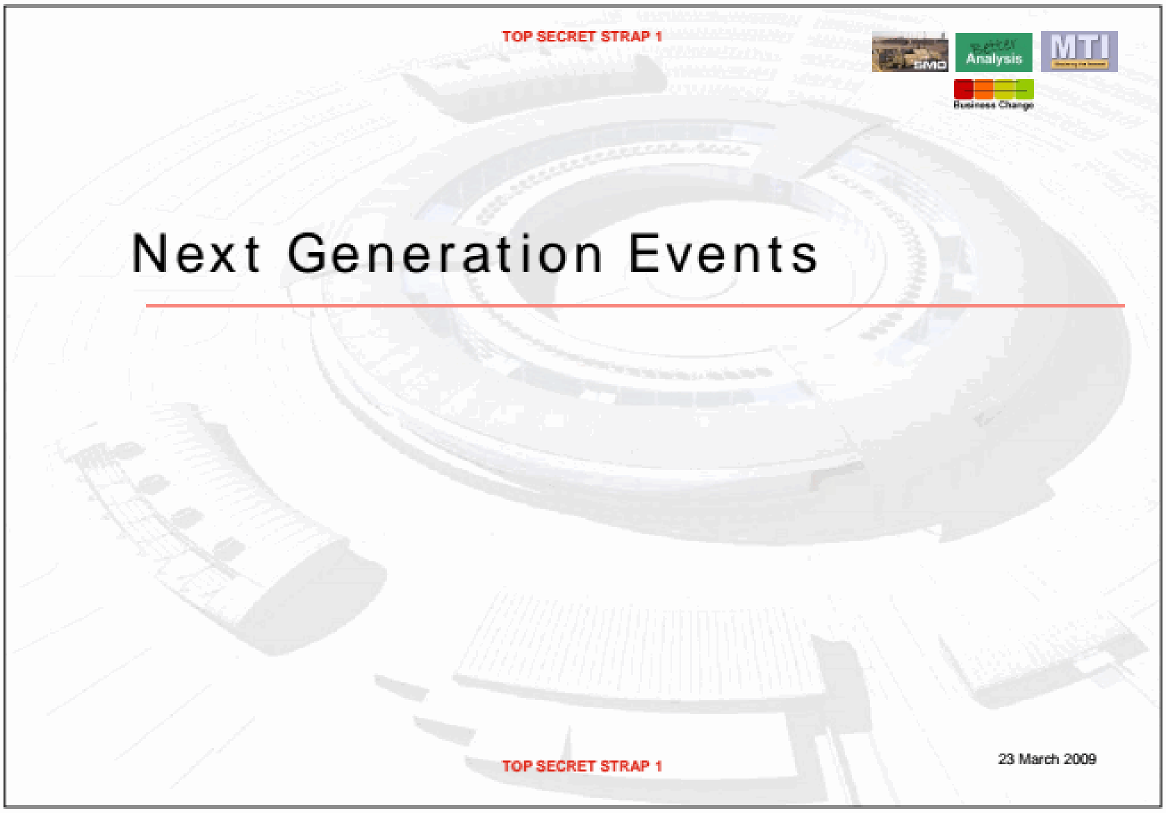
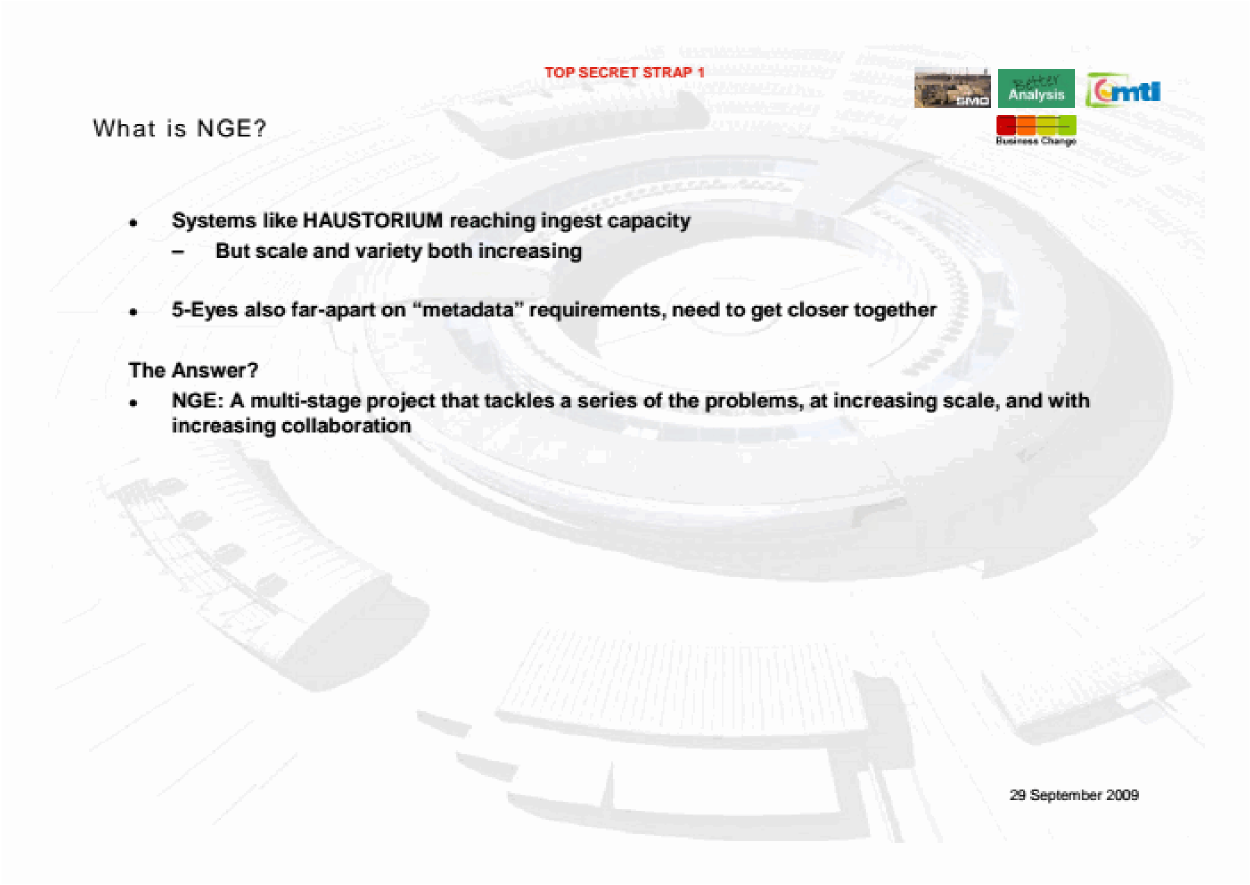


SMO
Better Analysis
MTI
Business Change

Next Generation Events

23 March 2009



TOP SECRET STRAP 1

What is NGE?

- **Systems like HAUSTORIUM reaching ingest capacity**
  - **But scale and variety both increasing**

- **5-Eyes also far-apart on “metadata” requirements, need to get closer together**

The Answer?

- **NGE: A multi-stage project that tackles a series of the problems, at increasing scale, and with increasing collaboration**

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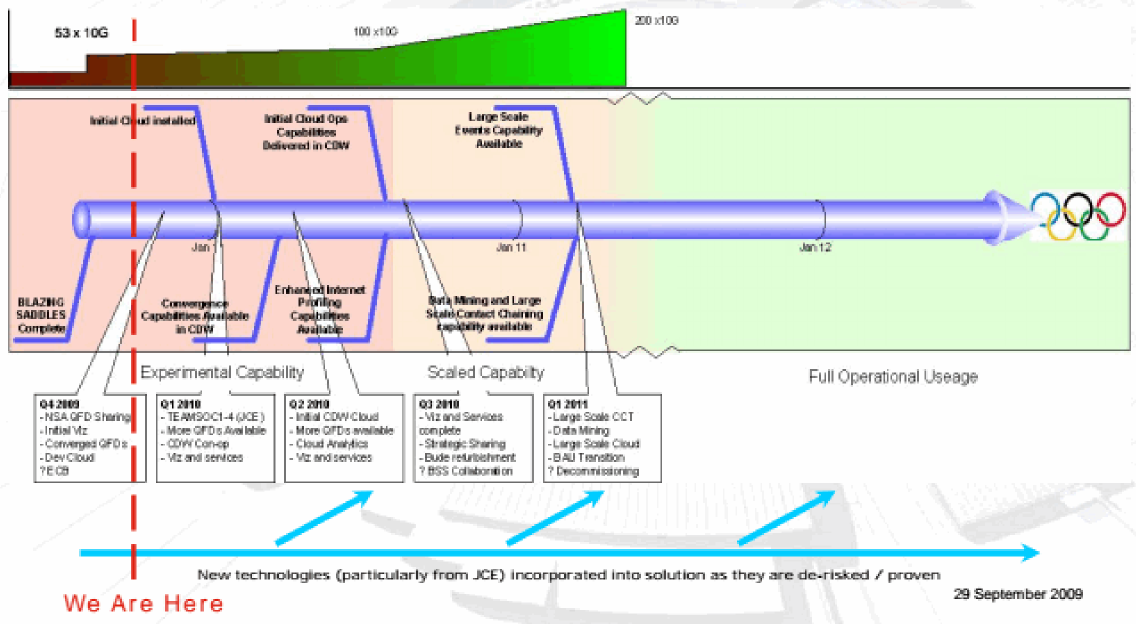
Next Gen Events: High-level Plan



53 x 10G

100 x10G

200 x10G

Initial Cloud installed

Initial Cloud Ops Capabilities Delivered in CDW

Large Scale Events Capability Available

BLAZING SADDLES Complete

Convergence Capabilities Available in CDW

Enhanced Internet Profiling Capabilities Available

Data Mining and Large Scale Contact Chaining capability available

Jan 10

Jan 11

Jan 12

Experimental Capability

Scaled Capability

Full Operational Useage

Q4 2009
- NSA QFD Sharing
- Initial Viz
- Converged QFDs
- Dev Cloud

? ECB

Q1 2010
- TEAMSOC1-4 (JCE)
- More QFDs Available
- CDW Con-op
- Viz and services

Q2 2010
- Initial CDW Cloud
- More QFDs available
- Cloud Analytics
- Viz and services

Q3 2010
- Viz and Services complete
- Strategic Sharing
- Bude refurbishment

? BSS Collaboration

Q1 2011
- Large Scale CCT
- Data Mining
- Large Scale Cloud
- BAU Transition

? Decommissioning

New technologies (particularly from JCE) incorporated into solution as they are de-risked / proven

We Are Here

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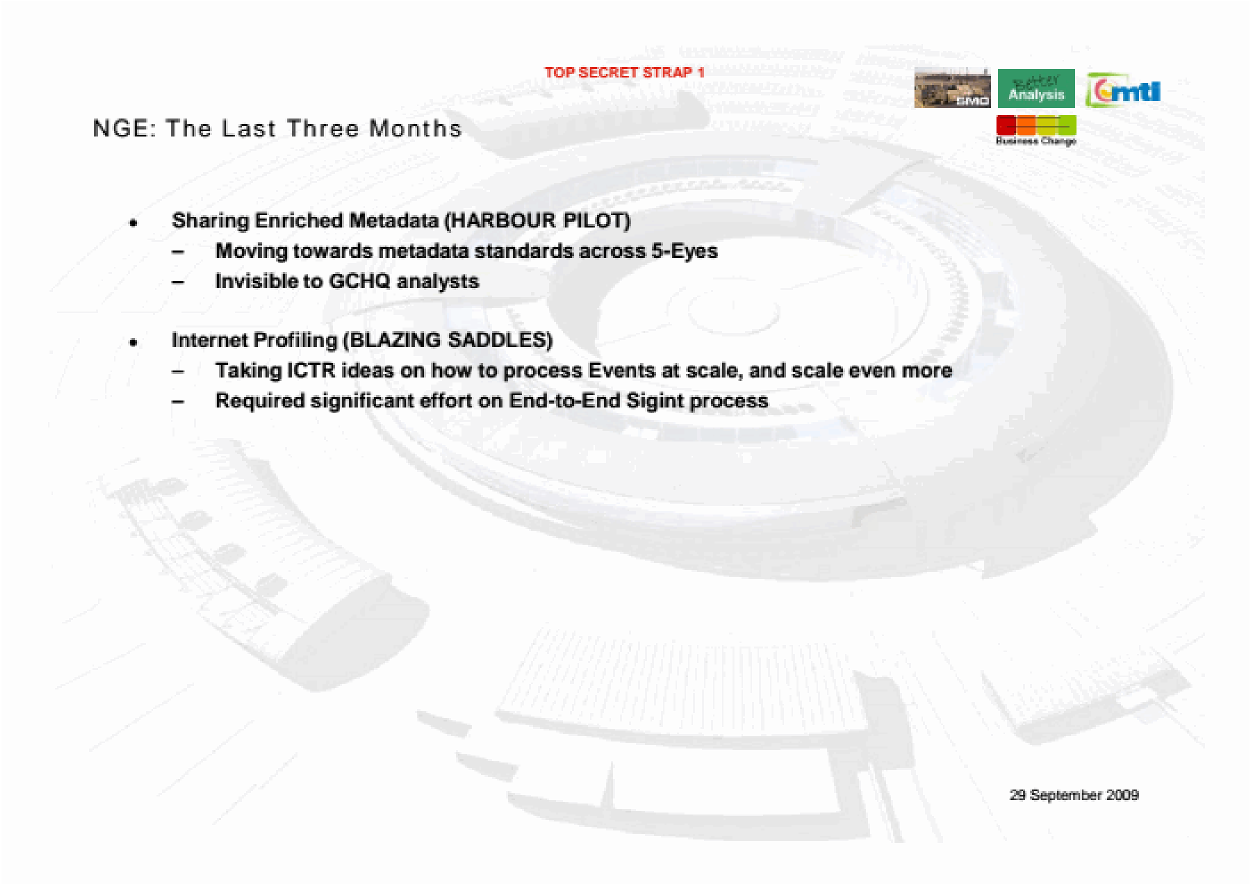

TOP SECRET STRAP 1

NGE: The Last Three Months

- Sharing Enriched Metadata (HARBOUR PILOT)
  - Moving towards metadata standards across 5-Eyes
  - Invisible to GCHQ analysts
- Internet Profiling (BLAZING SADDLES)
  - Taking ICTR ideas on how to process Events at scale, and scale even more
  - Required significant effort on End-to-End Sigint process

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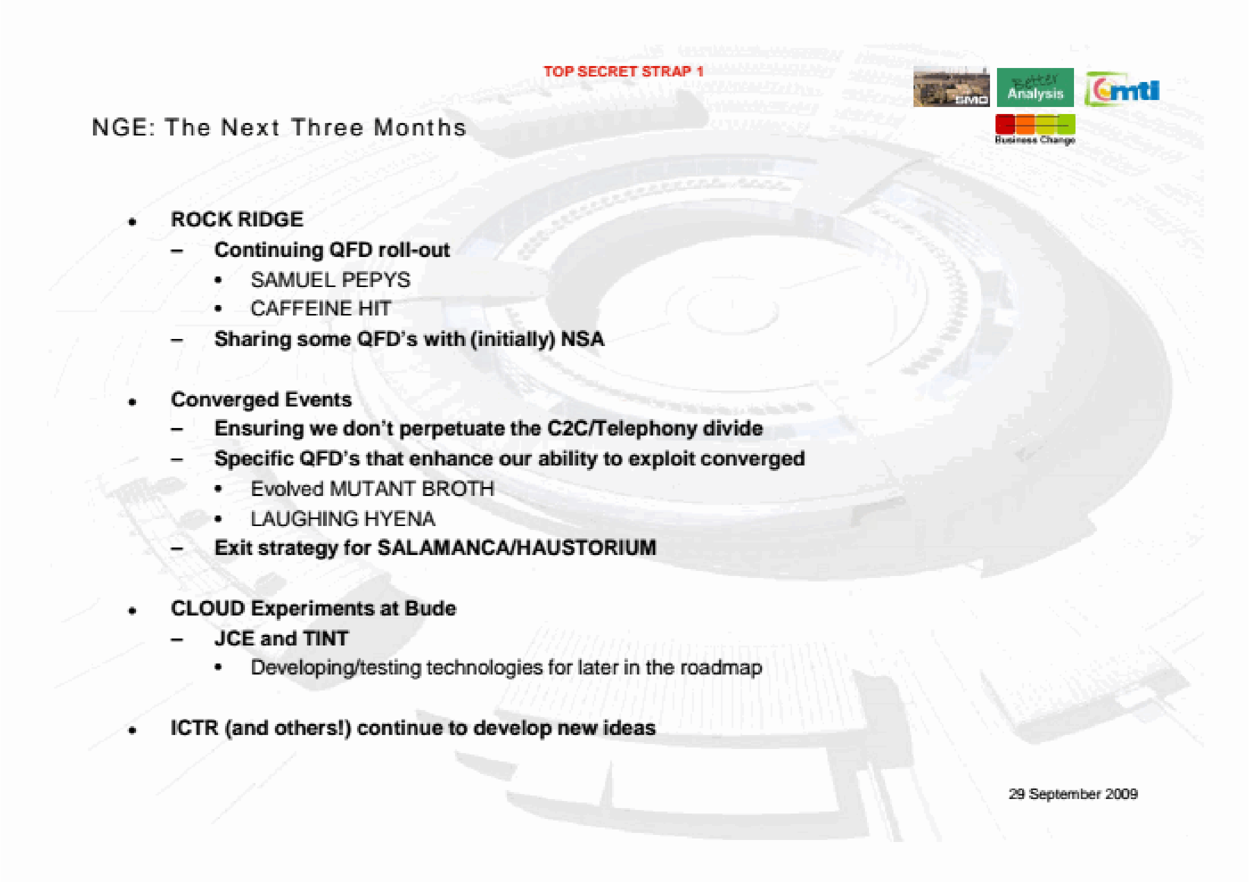
Plug 1 - Internet Profiling: The BLAZING SADDLES Delivery

- **What It Does:**
  - **Takes 8 ICTR QFD's and scales them for up to 100 x 10G bearers**
  - **Allows the analyst to see large amounts of a targets online activity**
  - **Metadata – MUTANT BROTH, AUTO ASSOC, KARMA POLICE, SOCIAL ANIMAL, INFINITE MONKEYS, HRMAP**
  - **Content – MEMORY HOLE, MARBLED GECKO**

- **Why You Care:**
  - **Want to know alternate online accounts?**
  - **Quickly build up a picture of someone's online MO and interests?**
  - **Identify for further exploitation (with other techniques) a targets network/machines?**
  - **Success across IP/X – CP, SIMMER, Mumbai, G20 – and ask around in your IPT!**

- **How You Get Access:**
  - **Currently instigating corporate process (based on C2C skill level)**
  - **Interim – see your Tech Director or Tech Ex**



TOP SECRET STRAP 1

NGE: The Next Three Months

- **ROCK RIDGE**
  - **Continuing QFD roll-out**
    - SAMUEL PEPYS
    - CAFFEINE HIT
  - **Sharing some QFD's with (initially) NSA**
- **Converged Events**
  - **Ensuring we don't perpetuate the C2C/Telephony divide**
  - **Specific QFD's that enhance our ability to exploit converged**
    - Evolved MUTANT BROTH
    - LAUGHING HYENA
  - **Exit strategy for SALAMANCA/HAUSTORIUM**
- **CLOUD Experiments at Bude**
  - **JCE and TINT**
    - Developing/testing technologies for later in the roadmap
- **ICTR (and others!) continue to develop new ideas**

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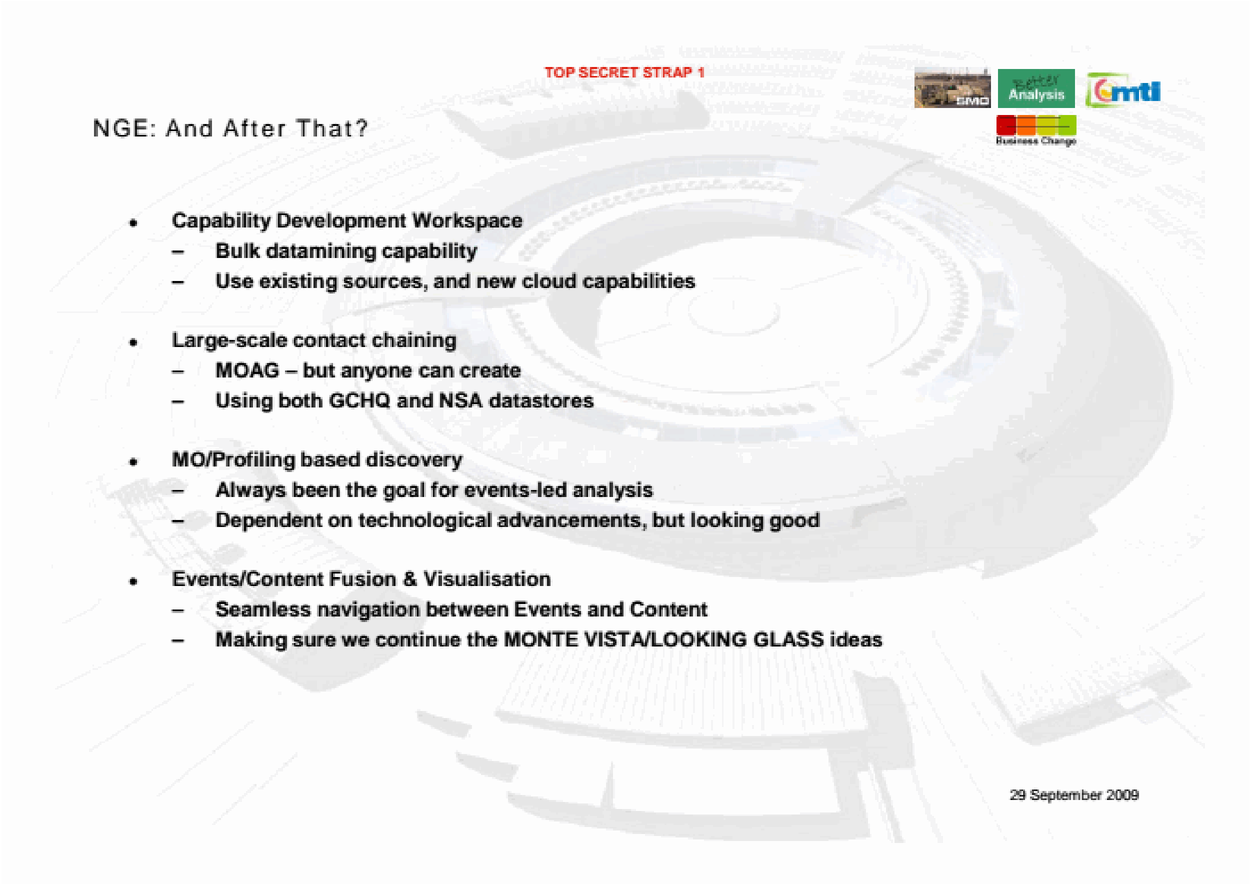
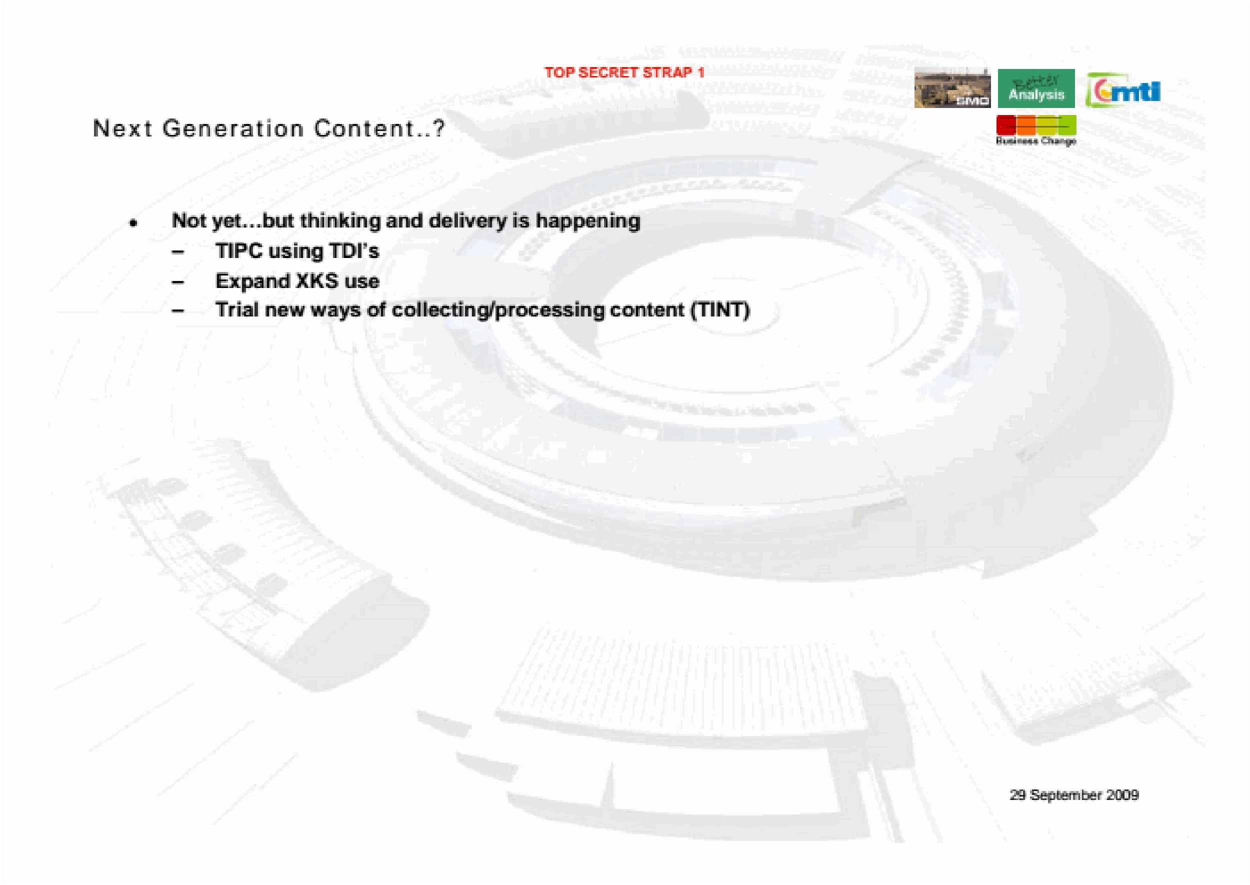


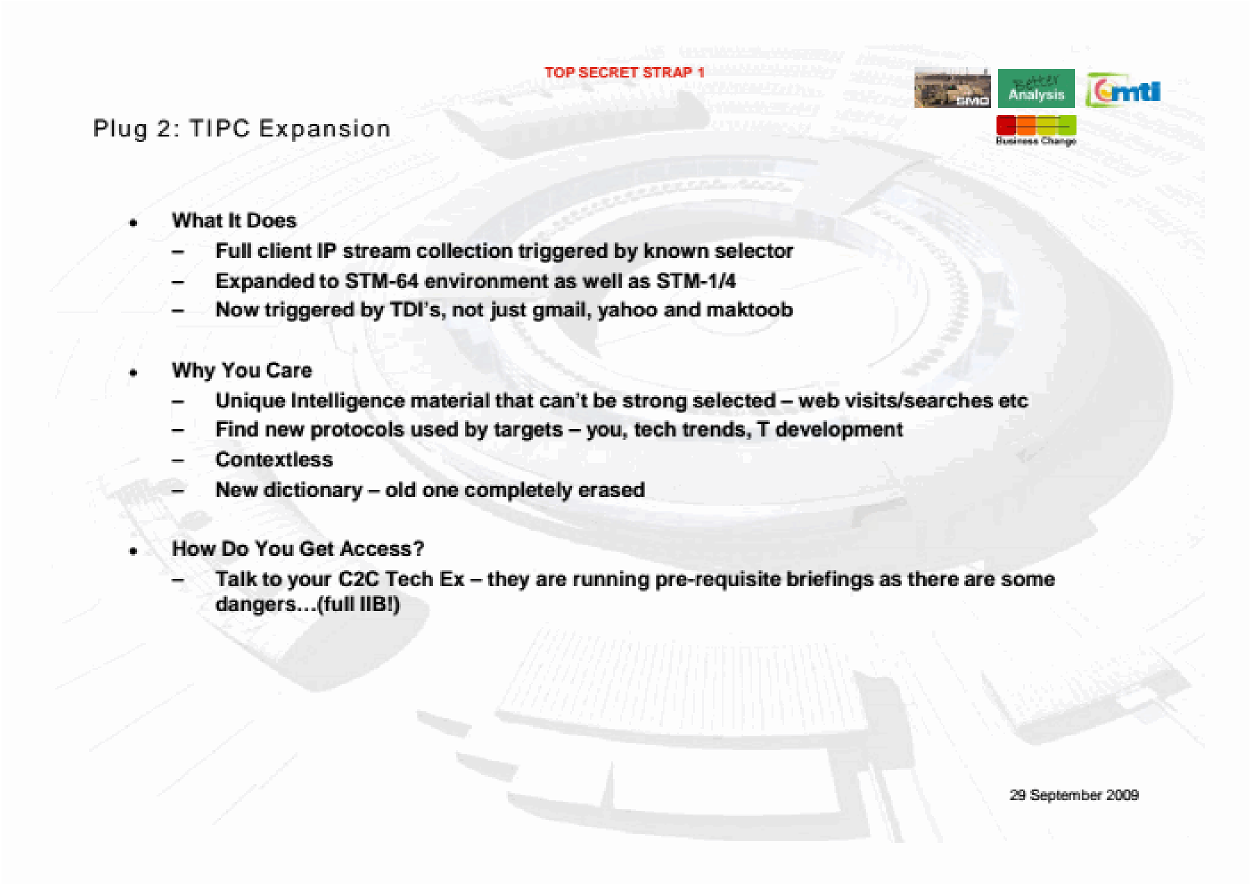
NGE: And After That?

- **Capability Development Workspace**
  - **Bulk datamining capability**
  - **Use existing sources, and new cloud capabilities**
- **Large-scale contact chaining**
  - **MOAG – but anyone can create**
  - **Using both GCHQ and NSA datastores**
- **MO/Profiling based discovery**
  - **Always been the goal for events-led analysis**
  - **Dependent on technological advancements, but looking good**
- **Events/Content Fusion & Visualisation**
  - **Seamless navigation between Events and Content**
  - **Making sure we continue the MONTE VISTA/LOOKING GLASS ideas**



Next Generation Content..?

- Not yet…but thinking and delivery is happening
  - TIPC using TDI’s
  - Expand XKS use
  - Trial new ways of collecting/processing content (TINT)

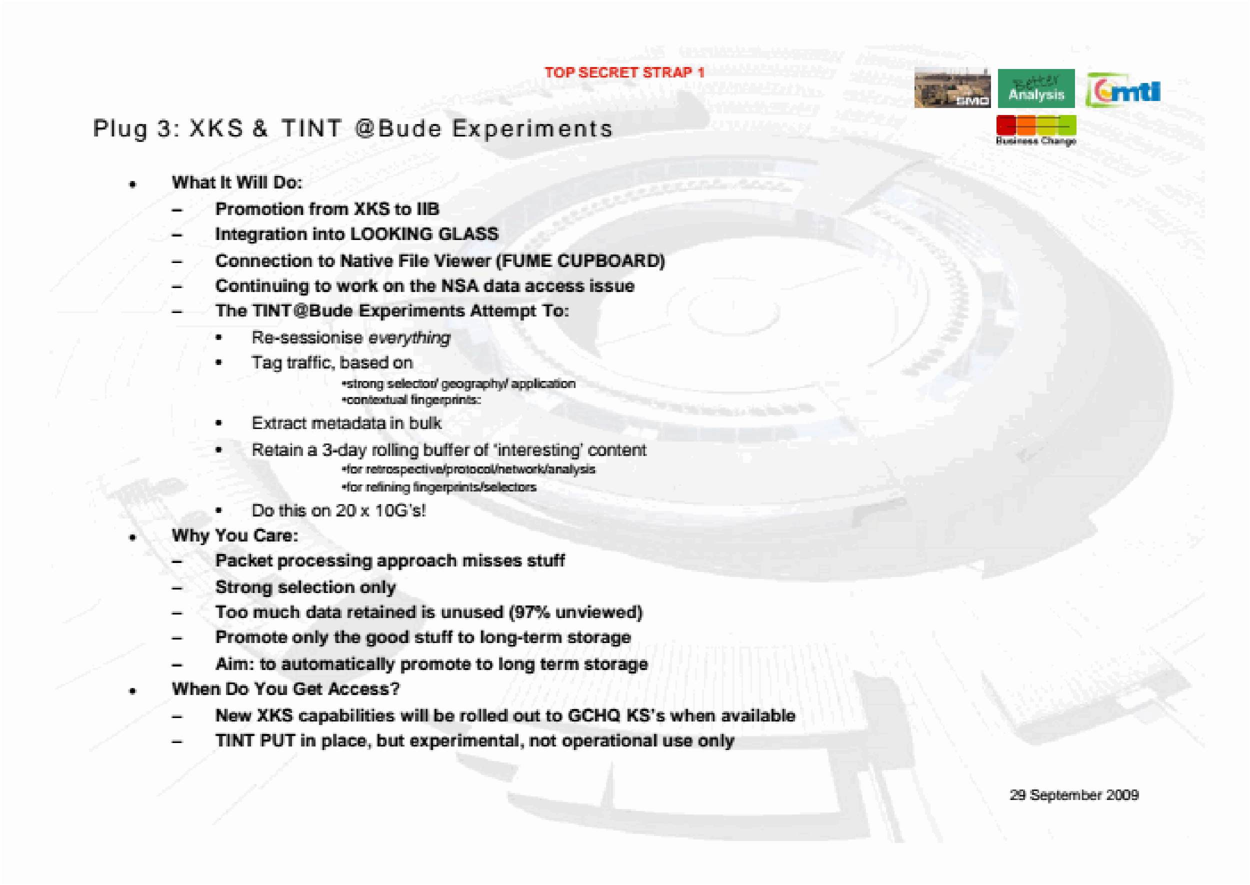


Plug 2: TIPC Expansion

- **What It Does**
  - **Full client IP stream collection triggered by known selector**
  - **Expanded to STM-64 environment as well as STM-1/4**
  - **Now triggered by TDI's, not just gmail, yahoo and maktoob**

- **Why You Care**
  - **Unique Intelligence material that can't be strong selected – web visits/searches etc**
  - **Find new protocols used by targets – you, tech trends, T development**
  - **Contextless**
  - **New dictionary – old one completely erased**

- **How Do You Get Access?**
  - **Talk to your C2C Tech Ex – they are running pre-requisite briefings as there are some dangers…(full IIB!)**



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Plug 3: XKS & TINT @Bude Experiments

- **What It Will Do:**
  - **Promotion from XKS to IIB**
  - **Integration into LOOKING GLASS**
  - **Connection to Native File Viewer (FUME CUPBOARD)**
  - **Continuing to work on the NSA data access issue**
  - **The TINT@Bude Experiments Attempt To:**
    - Re-sessionise *everything*
    - Tag traffic, based on
      - strong selector/ geography/ application
      - contextual fingerprints:
    - Extract metadata in bulk
    - Retain a 3-day rolling buffer of 'interesting' content
      - for retrospective/protocol/network/analysis
      - for refining fingerprints/selectors
    - Do this on 20 x 10G's!
- **Why You Care:**
  - **Packet processing approach misses stuff**
  - **Strong selection only**
  - **Too much data retained is unused (97% unviewed)**
  - **Promote only the good stuff to long-term storage**
  - **Aim: to automatically promote to long term storage**
- **When Do You Get Access?**
  - **New XKS capabilities will be rolled out to GCHQ KS's when available**
  - **TINT PUT in place, but experimental, not operational use only**

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