

# Defence Information '18 Event – Reports

Thanks to all involved for making DE'18 another successful and highly informative 2-day event. We appreciate the committed participation from speakers, sponsors, workshop leaders, exhibitors, Excellence Award finalists, judges, venue hosts and catering staff – as well as the joint organisers: Team Defence Information, the MOD and Cranfield University. The DI'18 theme was **Maximising value from Team Defence information** with the focus for Day 1 on *Information, Cyber & Information Enablers* and, for Day 2, on *Support, Services & Support Information*. View documents relating to DI'18 on the [TD-Info website](http://TD-Info website). Read more about Team Defence Information [here](http://here).

**For MOD, counts for CPD**



**Defence Information 18**  
Keynotes, Workshops, Panels, Excellence Awards, Trade Stands, Sponsors, Dinner & Networking  
**April 18 & 19**  
[www.teamdefence.info](http://www.teamdefence.info)

**- Maximising value from Team Defence information**

**Day 1:** Information, Cyber & Information Enablers  
**Day 2:** Support, Services & Support Information

Free parking | venue STEAM museum Swindon

**Go here to apply >** 

**Top MOD & Industry Speakers**

**David Rowland** on behalf of Martin Elliot, Dir Service Design ISS  
**Grp Captain Andy Curtis**, MOD Programme Director Defence Support Network Transformation  
**Nigel Whitehead**, CTO BAE Systems & Chair TD-Info  
**Gareth Hetheridge** Snr IT Bus Partner Rolls-Royce  
**Dr Andrew Tyler**, CEO Europe, Northrop Grumman  
**Lance McMahon**, Chief Enterprise Architect & Strategic Tech Mngment Consultant, Atkins

**Steve Glass**, MOD Director Support Enablers Operating Centre (SEOC)  
**Steve Latchem**, MOD ISS Head of Architecture  
**John Wariner**, CIO Air; **Ian Annett**, CIO Navy  
**Bill Mead**, Boeing Defence UK Ltd  
**Matt Wiles**, Senior VP & MD Team Leidos  
**Graham Curtis**, Info Mngment & Tech - UK Platform & Support, BAE Systems & JIG Co-Chair  
**Prof Alan Braithwaite**, Founder, LCP Consulting

**Workshops - x12 choices**

Information Skills	Export Controls & WATERGUARD	Architecture Modelling
GDPR	Cyber Security	Data Analytics
Data Exploitation	Defence Information Strategy	Paperless Aircraft
Digital Innovation	Intelligent Mobility for Defence	Collaboration at Scale

**2018 Excellence Awards & Good Practice Market Place**




**Many exhibitors, sponsors & networking opportunities**



Poster used on MOD screens at Corsham to promote DI'18

This document presents the views of two independent attendees at Defence Information 2018<sup>1</sup>. The first, from Simon Harries, explains that he observed three major themes - Integration, Transformation and People – that were present throughout both days. The second piece is copied from a blog post by Kevin Parker called My favo(u)rite conference of the year. Kevin was the lead of the independent judging panel for the 2018 Excellence Award<sup>2</sup>.

Also, we provide a summary of the results of the [TD-Info 2018 Excellence Award](http://TD-Info 2018 Excellence Award), won by GBR14. See the [Award presentation slides](http://Award presentation slides) and [video](http://video). Use the links to view documents and presentations hosted on the TD-Info website.

<sup>1</sup> See the full programme [here](http://here)

<sup>2</sup> See Results of the 2018 Excellence Awards [here](http://here)

## A View from Defence Information ‘seasoned attendee’ - Simon Harries

Simon has attended several previous DI events and is a seasoned defence observer. We thank him for sharing his observations as a self-styled ‘objective participant’.



“The annual Defence Information conference, held in Swindon on 17th & 18th April, marked an important new stage in the development of a focused, effective Team Defence Information organisation. Concepts that may once have been seen as unusual, slightly exotic and therefore somewhat challenging, took centre-stage at the event, now seen as mature, relevant and vital to long-term success. Discussion was both very open and more confident in exploring new perspectives and innovative ideas.

To an objective participant, like me, the result was both positive and thought provoking. Boundaries between forces participants, traditional defence contractors and members of the information world seem to have become much more porous. Exchanges of ideas are more lively and fruitful, and behind this step towards a more high-performing Team Defence lies greater understanding, leading to higher levels of mutual respect.

These generally positive, and occasionally surprising responses were driven by the three major themes that I felt were present all through the two days of business sessions and discussions. These themes are: **Integration, Transformation and People.**

All three need to be examined in depth, because it is only too easy to use each of them as a rousing headline that leads to cliché. The importance of these themes was not the words, themselves, but the complex, urgent and detailed ideas that lie behind them.

The concept of **Integration** was explored repeatedly throughout the programme, and in several quite different contexts. The most striking and in some cases challenging of these lies in the way that virtually every speaker agreed that no barriers now exist between the world of defence as most of us normally see it (the “kinetic”, to use MOD language, the world of ships, planes and guns) and the domain of information. We have moved from hard demarcation to blurred lines to the point where we now have no real dividing lines at all. Information is at the heart of defence strategy, procurement, management and long-term investment.

We saw this from the Navy and RAF viewpoints, when Commodore Ian Annett and Air Commodore John Wariner each stressed the critical ways in which secure information flows are key enablers both for major weapons platforms and for networked management. The “software-defined” approach is now being applied to major weapons systems, with updateable capabilities ranging from basic software improvements through to precise mission management.

Moves away from traditional centralised IT systems, and towards decentralised platforms, using often very low-cost components (such as Raspberry Pi in one instance), with strict separation between applications and data, have helped defence bodies adopt some key industry best practices without security compromise.

**Integration** was also a continuous theme in terms of industry – defence collaboration, though this is not exactly a surprise, as the entire purpose of Team Defence is to enable more efficient and productive joint working, enabling industry to make a more useful contribution to defence, and enabling defence to maximise the potential of our industrial base.

Different speakers charted progress to date and investigated a range of sometimes highly innovative options for the future. [Graham Curtis](#), co-Chair (Industry) of the Joint Information Group (JIG), looked to the presence of the relatively recent incoming MOD CIO (and the anticipated increase in the rate of defence-focused innovation, which he sees as a major emerging theme). Several speakers looked at different aspects of supply chain integration and also put forward ideas for closer, more productive working relationships across increasingly complex value chains.

[Matt Wiles from Leidos](#) showed how the MOD supply chain outsource contract is taking cost out of the entire value chain through reduced duplication and fast-response management systems, with close collaborative working across industry as a prime driver for value. Steve Latchem, Head of Architecture at ISS (MOD), went further with his vision for a virtual community, spanning MOD and industry, using a common Operating System, with an oversight committee charged with ensuring enhanced collaboration at all levels.

[Lance McMahon from Atkins](#) - Member of the SNC-Lavalin Group, used the recent Heathrow Airport systems integration case study as an example of good business change practice, driving measurable performance benefits by establishing common platforms for multiple disciplines in complex operational organisations. This provides a practical way of turning the integration vision into practical reality . Integration and collaboration ran through the entire programme, but it was also striking to see how **Transformation**, backed by the ambition for change on a very large scale, was very much front of mind.

[Bill Mead, of Boeing Defence UK](#), used the analogy of a white-water raft to introduce the reality of uncontrollably fast and unpredictable change, making it necessary to embrace transformation, be extremely ingenious and responsive in making change work for us, and to avoid being too prescriptive about mixing and matching technologies to meet emerging needs.

[Andrew Dobson, Defence CTO at Cisco](#), reviewed latest thinking on what is often known as “Fog” computing (occasionally referred to as “Edge” computing) to empower local decision-making without the need to refer constantly back to central systems, with the latency issues and potential cyber weaknesses this causes.

[Gareth Hetheridge, from Rolls Royce](#), highlighted the role of digital technologies in transforming design, test and production methods. Digitization is increasingly being used now to address complex engineering problems, to overcome “technology debt” (legacy systems) and to accelerate innovation. Concepts such as “digital twins” are speeding up all aspects of development work, while use of cloud, robotics and AI are shaping production disciplines and moving them in new directions.

[Prof Alan Braithwaite](#), who has been a supply chain innovator for many years and is currently visiting professor at Cranfield, then explained how innovative technology and management methods can be used to transform the MOD/Industry value chain. Disruptor scenarios<sup>3</sup>, each of them evidenced through real-world industrial examples, were explored and applied to a defence setting, offering the prospect of higher speed, reduced wastage and much lower costs for MOD.

Yet I found the most striking aspect of the entire programme to be the repeated, serious and universally-accepted emphasis on the role of **People**, with the related concepts of culture and organisation explored in depth and with real flair.

Every one of the speakers I have cited, and most of the others, as well, talked about the role of Culture as the non-negotiable starting point for every positive development. **Gareth Hetheridge** spoke of the

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<sup>3</sup> Prof Braithwaite made several references to his book co-authored with Martin Christopher, “Business Operations Models: Becoming a Disruptive Competitor”

millennial culture in the new generation of engineers and apprentices within Rolls Royce, and looked at the challenge of applying the rapid, social media-informed communication and collaboration methods associated with consumer technology to a defence context. [Steve Latchem](#), [Ian Annett](#) and [John Wariner](#) acknowledged that information-enabled, software defined methods and systems can only operate effectively when managed by people who have culturally embraced the potential of the digital age. [Andy Curtis, ACDS Logistics Operations](#), made it clear that joining up a disaggregated, stove-piped logistics model depends more on establishing the right behaviours than on any operational initiative.

Yet perhaps the most impressive examples of serious investigation of people-related issues could be found within a number of lively, committed and purposeful break-out sessions or workshops<sup>i</sup>. One of these looked at practical ways to foster interaction at the human level between MOD bodies and private companies, testing obstacles and suggesting how to overcome these.

In another session I attended, we looked at human and psychological road blocks to change, taking in structural issues, the fear factor and, most impressively, the need for greater diversity. It is perhaps a measure of how mature and open discussion at DI18 really was that all participants could articulate the need to encourage diversity at gender, ethnic and even neural levels, and put forward highly practical ways for fostering such changes.

A conference can only do so much, of course, and now we need to see how active participating bodies will be in pushing forward the change agenda discussed in this programme. As a platform for productive exchange of ideas and practical proposal-building, however, Defence Intelligence has clearly come of age and is now making a real contribution to building an effective Team Defence.

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#### **Other speaker presentations:**

[Dr Dominic Davies, DSTL](#) – As Head of Knowledge Management at Dstl, Dominic presented on Guarding against organisational amnesia - Knowledge and information management in the Defence Science and Technology Laboratory (Dstl). He said that Dstl has successfully introduced Web 2.0 technologies for collaboration and creation of knowledge & information: a “Knowledge Ecosystem”.

[David Rowland, MOD](#) – MOD ISS Head of Strategy presented on behalf of Martin Elliot (JIG Co-Chair and MOD Director Service Design ISS) on Digital Acceleration - What does this mean for Defence? This included an update on the way Martin Elliot is transforming the way MOD is designing its Information Communications and Technology (ICT) for the Digital Age and the influence the new CIO (Charles Forte) is having on the MOD.

[Nigel Whitehead CBE, BAE Systems & TD-Info Chair](#) - Nigel is Chief Technology Officer BAE Systems plc and sits on the Defence Suppliers Forum as well as being Chair of TD-Info. His Industry keynote spanned themes that included the Global and UK contexts for defence, the MOD’s Modernising Defence Programme and its Equipment Plan for the decade 2017-27.

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**About Simon Harries:** Simon, says his business, Verbal Remedies, is about “...helping people and the organisations they work in make changes for the better.” Tag line: ***Responsible, humane change and innovation***

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## My favo(u)rite conference of the year – Kevin Parker



This is a copy of Kevin's blog post at

<https://biztechfuturist.com/2018/04/24/my-favourite-conference-of-the-year/>

Also, as lead of the judging panel, Kevin introduced the results of the TD-Info Excellence Award which is available as video at <https://youtu.be/G9IbqDJ5JMI>

Each year I get to travel to the UK and attend the Defence (with a “c”) Information conference, DI'18, organized jointly by the Cranfield University Defence Academy and Team Defence [Information]. This conference brings together MoD (Ministry of Defence), Army, Navy, Air Force, Marine civil servants and uniformed IT (ICT in UK parlance) personnel and tech industry thought leaders. The mission of the conference is to look at MoD technology strategy and direction and to see where commercially available solutions can augment MoD efforts.

It is my favorite conference because when a speaker talks about a task being “mission critical” the stakes are clearly different and measured in lives and liberty rather than pounds and pence.

The conference is organized under the Chatham House Rules which enables participants to share what they learned and allows for free discussion of the ideas presented so long as the authors of those ideas are not revealed. This means speakers are free to speak their minds and be transparently clear on their challenges, objectives, and needs.

The MoD is “a much beloved but crusty old uncle.”

Each year I learn something new about the British approach to the “defence of the realm” and I am inspired by the clarity, pragmatism, and determination that gets things done. Like any branch of UK government, the MoD is a centuries-old bureaucracy that has to account for every pound of tax-payer revenue they spend.

**“The MoD is like a beloved but crusty old uncle” Attendee DI'18**

**An abundance of common ground**



As was widely reported in the British press, “last year the MoD spent more on computers than ammunition” and as one speaker noted, “It is clear where the next war is being fought.”

Excellence is collaboration, impact, innovation, potential, and implementation  
This year I had the distinct honor to be asked to lead the judging panel for the DI Excellence awards. These awards recognize innovators in the MoD, the uniformed services and, commercial enterprises, who come together to address specific technology needs.

Often these innovations take existing MoD infrastructure and exploit it in new, and more accessible ways, frequently they adapt commercial technologies for the rigors of the battlespace, and always they present solutions that adapt to the complex landscape of MoD regulations and traditions.

This year there were 8 entries from a total of 48 collaborators. The organizations involved included the Royal Engineers, the Royal Navy, some of the largest aerospace contractors to a startup (named after a class of sailing boat because the founder likes to race small yachts).

One team developed an additive manufacturing, or 3D-printing system, to make replacement parts in places where spares cannot be easily delivered like aboard a naval vessel or in an active battlespace.

Another group looked at minimizing the damage caused by a cyber-theft attack by encrypting each data element in a data-store with a different key forcing the bad-guys to have to brute-force decrypt millions of times anything they stole.

Not all ideas took on the offensive and defensive needs of the military. One submission took the tens of binders, thousands of pages and millions of words that describe just one of the business processes used thousands of times a day by civilians and uniformed personnel, ashore and at sea, and made it instantly accessible, searchable and useable thus saving endless hours and bringing much-needed standardization and conformity.

And in this complex world of alliances and treaties, controls and licenses, the import, export, and use of classified hardware must be tightly managed. Keeping track of who has what and how they may use it is a massive, and naturally secretive, process, largely done on paper or in spreadsheets. A mistake in this process may result in an inadvertent supply of sensitive technology to potentially hostile groups. Clearly a situation in need of technology to control.

A most interesting nomination found a way to bring brilliant new entrepreneurs and innovators together to tackle impenetrable and intractable MoD challenges. Not only that but incubate those new companies and help them navigate their way through the MoD procurement and investment processes.

‘Team Defence’ is really ‘Family Defence’

One thing I found to be common amongst all the excellent nominees was a sense of pride and purposefulness. Many of the commercial partners in these teams were former uniformed members of the UK military. Their paycheck now comes from a company but they are still working their original service mission with the resources and commitment to deliver upon it.

It is a credit to the MoD, the armed forces, Cranfield University, Team Defence [Information] and the hundreds of participants in DI’18 that this open exchange of ideas and a free flow of

information is possible. It enables extraordinary solutions to unimaginable problems that save lives, ensures liberty, projects influence, and defends the nation.

Thank you. See you next year.

#### About Kevin

Kevin has spoken at many conferences and seminars on a range of leading IT topics, including methodologies, business analysis, quality assurance techniques, governance, open source issues, tool interoperability, release management, DevOps, Agile, ITIL, from the mainframe to distributed platforms to the web, mobile, wearable and embedded systems. He is a much sought-after speaker, recognized around the world for his provocative and entertaining style. Kevin is a 40-year industry veteran, holder of three technology patents. He was born and educated in the UK and lives and works in the Bay Area, California.

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## Winner of the Team Defence Information 2018 Excellence Award - Congratulations to GBR14!

See full [RESULTS](#) of the Excellence Award

Innovative company [GBR14](#) is the worthy winner of the Team Defence Information 2018 Excellence Award. It was presented by TD-Info MD Phil Williams to Peter Rogers (CEO) and Kully Johal (Chair & Co-founder) of GBR14 at the Defence Information 2018 Event on 19th April, where 8 finalists presented their entries in the Good Practice Market Place.

GBR14 have an innovative and patent-pending enabling technology that, "...manages individual database records, repository files, Internet of Things (IoT) and mobile devices, and access privileges using unique encryption keys to separately encrypt, and cryptographically separate, each piece of asset data."

In doing so, "GBR14 largely eliminates the risk of mass data loss which means that data can be used, accessed and shared in ways that make data security a facilitator and not a limiting factor in the creation of value-add business processes."

Visit the [GBR14 website](#) to learn more about the enabler capabilities they have developed and some of the use cases – including defence - to which they can be applied.

### Congratulations to the following award winners:

#### Highly Commended:

- Babcock
- Mood international

#### Commended:

BAR Associates | BAE Systems Land UK | Exostar | Lockheed Martin | The Boston Consulting Group (BCG)



## Workshops at DI'18

Thanks to those that provided workshops on the following topics, with links where documents have been uploaded to the website at the time of writing:

- Information Skills (JIG)
- Export Control & WATERGUARD
- Architecture Modelling
- [General Data Protection Regulation \(GDPR\)](#)
- Cyber Security Threats & Countermeasures
- Data Analytics
- Data Exploitation
- Delivering on the Defence Information Strategy
- The paperless aircraft
- [Digital Innovation](#)
- Lessons from intelligent Mobility (iM) for Defence and Industry – [Outputs](#) & [Workshop Outline](#)
- Collaboration at Scale – case study in Health & Social Care

Information Skills	Export Controls & WATERGUARD	Architecture Modelling
GDPR	Cyber Security	Data Analytics
Data Exploitation	Defence Information Strategy	Paperless Aircraft
Digital Innovation	Intelligent Mobility for Defence	Collaboration at Scale

For reference, here are the workshops:

**WORKSHOP 1: Information Skills (JIG) Workshop - Ian Sinclair (Civica) and Ross Harris (Cranfield University):** MOD/Information Skills Collaboration: The Commercial Perspective (JIG)

**WORKSHOP 2: Export Control & WATERGUARD Projects: Updates on progress, successes and future plans - Andy Dunn (Babcock International) and Mark Jones (MOD)**

**WORKSHOP 3: Architecture Modelling: Sharing Architecture Models between MOD and Industry - Dave Hawken (MOD Head of Business Architecture), Billy Coffield (MOD ISS) and Marc Lockhorst (BiZZdesign).**

**WORKSHOP 4: General Data Protection Regulation Workshop: Ensuring the Defence of your Organisation - Nigel Turner (Global Data Strategy)**

**WORKSHOP 5: Cyber Security Threats and Countermeasures in Defence and Commercial Organisations – Neil Hepworth (Deep Secure)**

**WORKSHOP 6: Data Analytics Workshop – Mike Feltham (MOD Head of Innovation Exploitation, ISS Service Design)**

**WORKSHOP 7: Data Exploitation - Tim King (Babcock), Michael Kaine (MOD) and Neil Rae (Boeing Defence UK)**

**WORKSHOP 8: Delivering on the Defence Information Strategy: Developing an evergreen application environment through enterprise collaboration - Ollie Houseman & Andrew Dixon (SVGC)**

**WORKSHOP 9: The Paperless Aircraft – Benefits and Barriers Workshop Dr Alisdair Wood & Bill Dutton (Leonardo)**

**WORKSHOP 10: Digital Innovation – Neil Rae (Boeing Defence UK)**

**WORKSHOP 11: When Cyber risk becomes an opportunity: lessons from Intelligent Mobility (iM) for Defence and Industry - Michael Windmill (Atkins Defence Cyber Lead) and Andrew Flood (Atkins Intelligent Mobility Director).**

**WORKSHOP 12: Collaboration at scale across Health & Social Care Delivering on the 5 year Forward View - Sukhmeet Panesar (NHS) and Alan Patrick & Janet Parkinson (Agile Elephant)**

## APPENDIX – Summary of Defence Information 2018 – 18/19 April

NB: summary information provided ahead of DI'18

Day 1: Information, Cyber & Information Enablers; Day 2: Support, Services & Support Information  
Jointly presented by Team Defence Information, MOD & Cranfield University

At **STEAM Museum Conferencing**, Fire Fly Avenue, Swindon, Wiltshire, SN2 2EY

Defence Information (DI) is the major annual communications event jointly planned by MOD & Industry. The MOD are well-represented as speakers, delegates, workshop leads and exhibitors – including



stands from Information Systems & Services (ISS) and Contracting, Purchasing & Finance (CP&F). Industry too has strong presence in its breadth and depth.

The new MOD CIO **Charles Forte** is in post and has signaled his ICT priorities<sup>ii</sup>. We look forward to our Event providing timely 'Team Defence' communications and discussion opportunities, capitalising on a 2-day programme with networking opportunities including a dinner.



With around 300 professionals and Whole Force<sup>iii</sup> representation, the Event has strong engagement from leaders and practitioners in both Industry and MOD. Whilst *Information* is the common thread, Day 1 will focus on **Information, Cyber & Information Enablers**; Day 2 on **Support, Services & Support Information**.



The stimulating format of DI'18 includes a range of keynote speakers, interactive workshops, finalists exhibiting for the **TD-Info Excellence Awards** and exhibitor stands from MOD and Industry, - all supported by an interactive DI'18 App.

This multi-faceted event has wide MOD/Industry appeal for both Information and Support professionals and reliably delivers a sustained 'buzz' of interaction amongst attendees. We aim for it to be good value-for-money for sponsors, exhibitors and attendees. DI'18 is a *must-attend* event for the MOD and representatives of Industry users of MOD services plus Industry suppliers.

Information Skills	Export Controls & WATERGUARD	Architecture Modelling
GDPR	Cyber Security	Data Analytics
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Digital Innovation	Intelligent Mobility for Defence	Collaboration at Scale

<sup>i</sup> Workshops included:

- Information Skills (JIG)
- Export Control & Waterguard
- ISS Architecture Modelling
- [General Data Protection Regulation \(GDPR\)](#)
- ISS Data Analytics
- Supply Chain Information Services (SCIS)
- Innovation
- Systems Engineering in Logistics
- NHS Digital Collaboration at Scale – case study
- Innovative approaches for Cyber / Enterprise Cyber resilience

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<sup>ii</sup> The recent MOD ISS publication **ISSue #4** reported that, at a Town Hall meeting for MOD ISS staff, the incoming CIO, Charles (Charlie) Forte said his ICT priorities were:

- To drive forward the joining of the whole IT function across Defence, not as one big, monolithic IT organisation, but more likely as tangents of accountability that cut across the business and turn activity from a push to a pull model
- Finding better decision-making processes to support IT delivery (which already has the backing of senior management)
- Strengthening the impact of technology innovation and adoption of new technology; finding mechanisms which allow the tensions between new ideas and security, and other restrictions
- Taking big initiatives and pushing them through to success, which is important for ISS' reputation and for what our customers need
- Establishing a good plan for 2018/19; one which we are confident is deliverable with the resources we have

<sup>iii</sup> Whole Force: a “partnered arrangement of regular military, regular reserves, volunteer reserves, sponsored reserves, civil servants and private-sector contractors” [RUSI Paper](#) page 19