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Cisco Systems
Global Defence Space & Security (GDSS)
Defence Networking Case Studies

Key Themes

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- **Time Sensitive Targeting - Andre**
- **US and Joint Navy Centrix - Charlie**
- **US Forces in IRAQ Convergence - Charlie**
- **Focus of Case Studies:**
 - The Customer**
 - The Business Problem**
 - The Solution & Story**

The Customer

- Australian, Singapore, France, Thai Air Forces
- “A lot of effort is now being put on one aircraft assigned to one target, rather than waves of bombers piecemeal. Effectively, it is a new way of waging war,” WGCDR Hinchcliffe said.
- The CAOC provides the answer to how best to wage an air campaign today. The CAOC comprises common procedures and structure, supported by **unique hardware and software and driven by trained and dedicated staff.**
- A major component of the new world of a **networked ADF, it will be interoperable and supported by proven doctrine. It is a weapons system in its own right.**
- The project for the CAOC was established in 1996. It is deliberately based upon similar CAOCs established by the US and, to a lesser extent, the UK, to ensure interoperability.

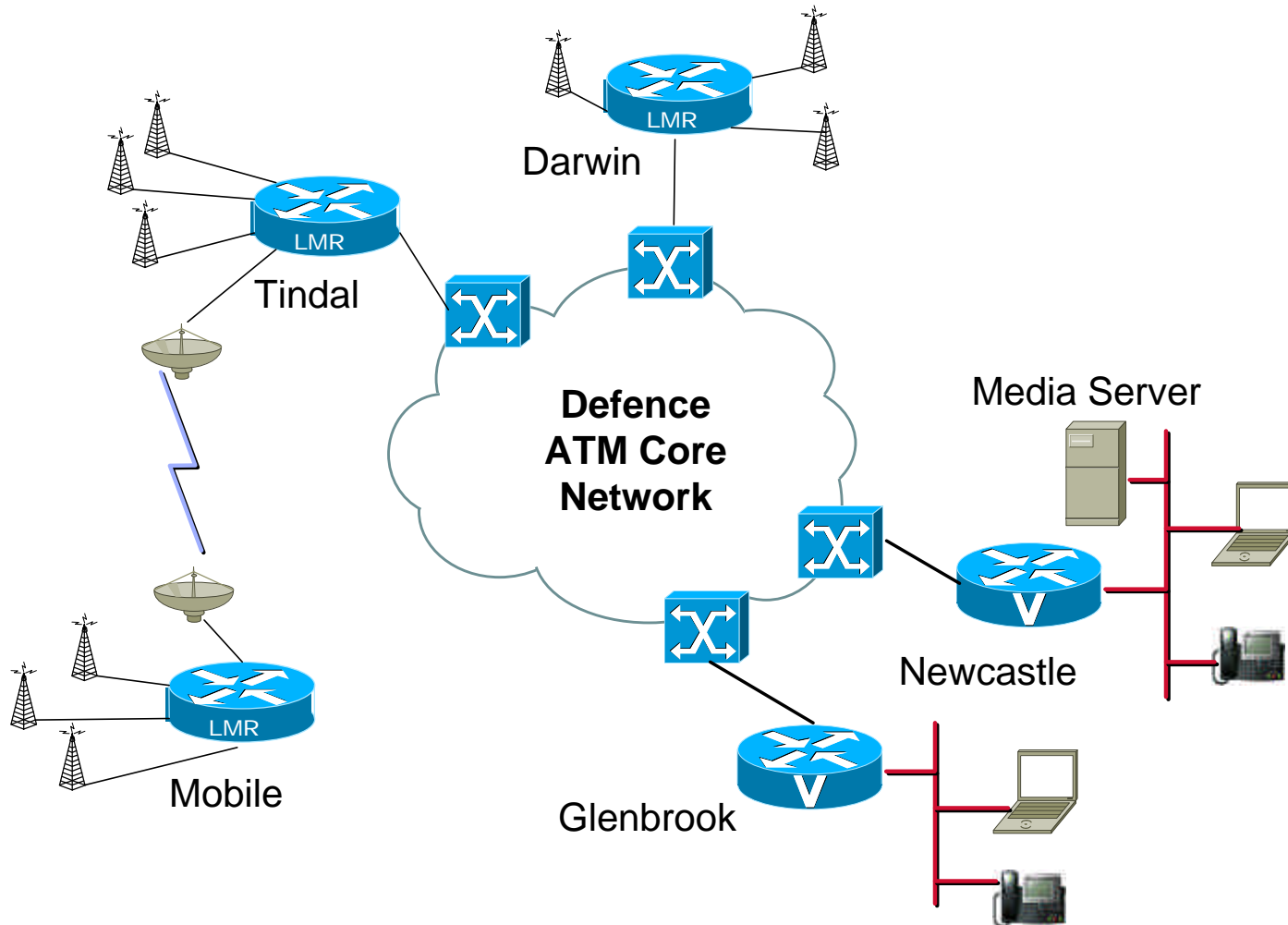
Ex Pitch Black



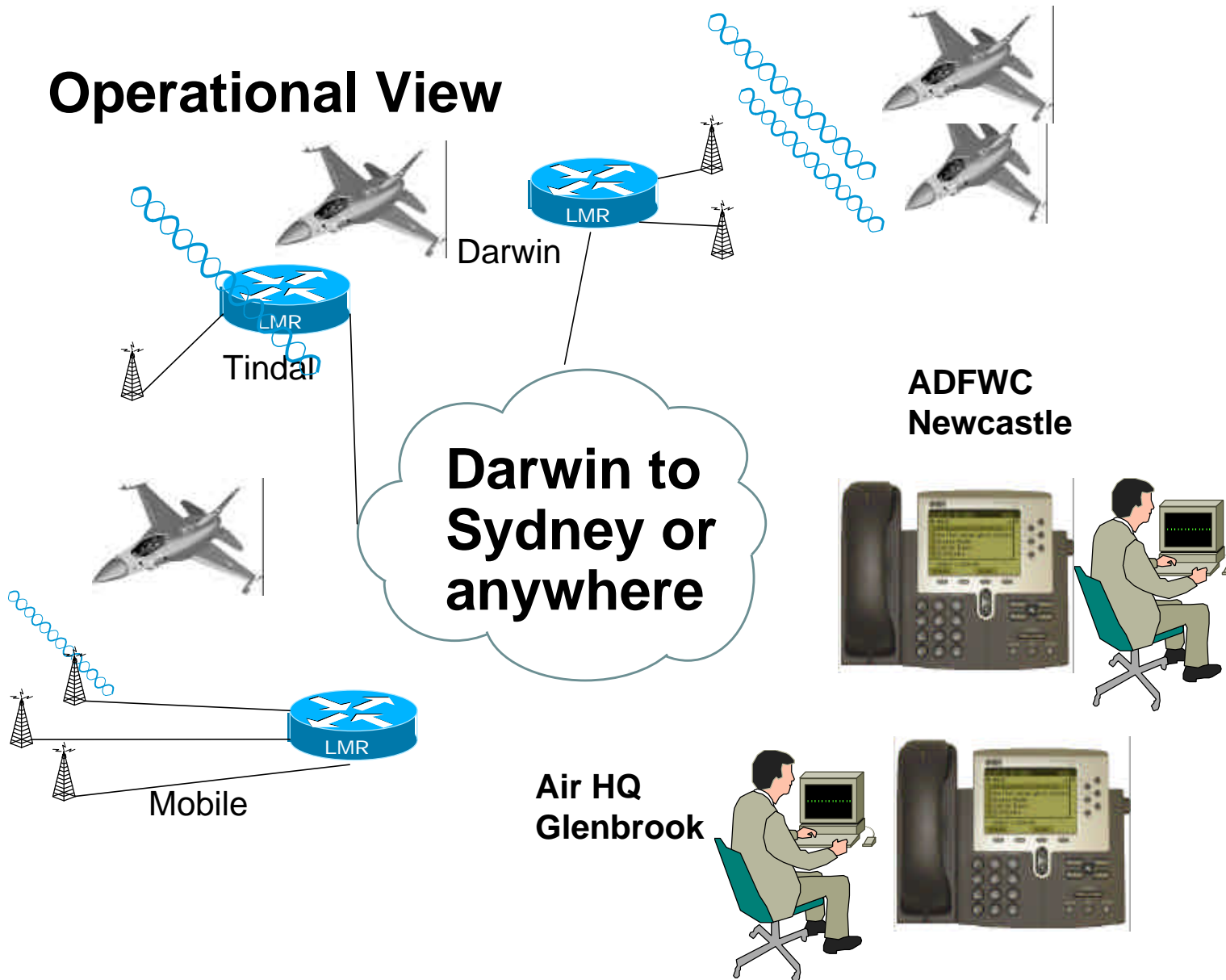
The Problem

- Operations in the first Gulf War revealed there were several factors in orchestrating a modern air campaign. Chief among these were **interoperability**, speed, targeting – including collateral damage management – and the implication of **time-sensitive targeting**, mission complexity and the size of the campaign.
- “How can the Joint Forces Air Commander communicate by voice with a pilot from a fibre isolated room to authorize a attack on Politically sensitive target”

Technical View



Operational View



Pitch Black 2004 – Australia, Singapore, France, Thailand Air Force

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- www.defence.gov.au/news/raafnews/editions/4614/topstories/story01h.htm
- This is vital, as it also provides the CAOC command with the ability to communicate directly with any aircraft involved in the mission, providing even greater flexibility to a changing and evolving mission. In future, real-time information from Wedgetail and UAVs will also be fed into the COAC.

The Customer

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- **US Navy and Japanese Maritime Self Defense Force (JMSDF)**
- **JMSDF used COWAN-J/CENTRIX-J as “dial-up” email retrieval**
 - Very cumbersome**
 - Needed “English-Japanese” translator**
- **JMSDF did not have access to coalition “Common Operating Picture” (COP)**
- **Ship-to-ship secure telephone <20% successful connect rate**
- **Coalition interoperability technology limited**

The Problem

- Previous exercises and operations had identified several factors restricting coalition **interoperability-language differences, lack of common operating picture, no real time collaboration tools.**
- Japan's upcoming deployment in support of Operation Iraqi Freedom resulted in increased interest in considering innovative solutions.

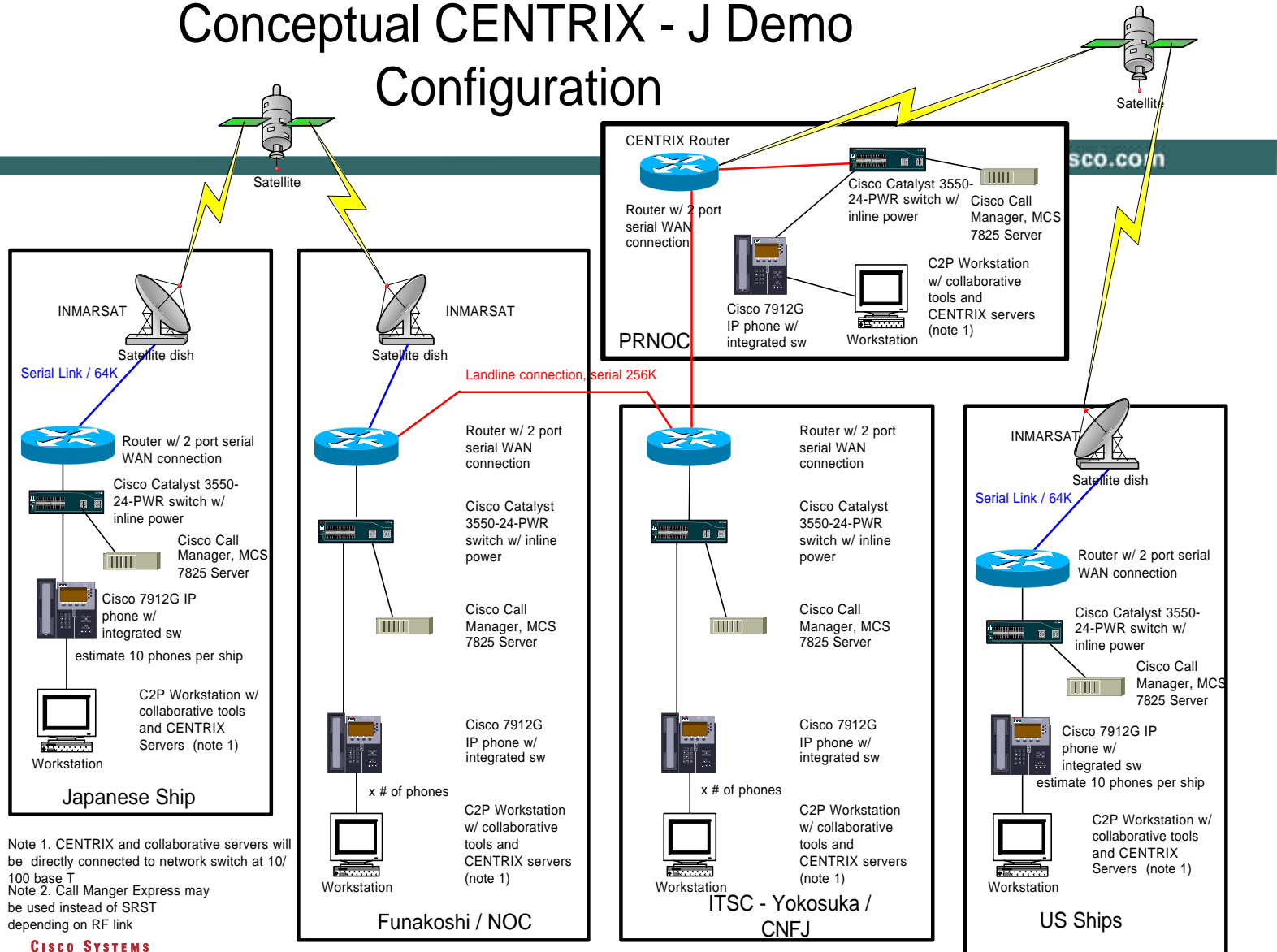
AnnualEX 15G

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- **Annual Exercise US & Japan**
Held 6-16 November 2003 this year
- **Commands**
U.S. Forces: CTF 70/DESRON 15
JMSDF Forces: CINCSDFLT/CCF1
- **Ships**
JDS Kirishima
USS Kitty Hawk
USS Cowpens
USS Curtis Wilbur
USS O'Brien



Conceptual CENTRIX - J Demo Configuration



User Feedback

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-----Original Message-----

From: Ward, Christina CDR (CNFJ N6)
[mailto:N6@cnfj.navy.mil]

Sent: Tuesday, November 25, 2003 1:09 AM

To: 'chabooth@cisco.com'

Subject: Re: Centrix-J Feedback

Charlie,

The VOIP phones were hailed as the big winner for ANNUALEX. The only problems I heard about were when the link dropped during maneuvers. Now folks want to purchase. Lot's of new customers for you!

Chris

Cisco Dominated 40% of the US Navy for Secure Voice over 60% INMARSAT (multiple satellites)
Prior to this demonstration, the US Navy had experienced less than 50% success rate for secure telephone calls between US Ships, and less than 20% with Allied ships.

The Customer

- **US and Coalition Military partners in Iraq**
- **Joint and Coalition operations have become a reality, and with it the need for significantly improved interoperability.**
- **Network Centric Warfare principles are considered achievable to some degree.**
- **Exploiting commercial off the shelf (COTS) technologies for rapid capability improvement is being conducted.**
- **“Converged voice, video, data” networks are viewed at technolgically feasible solutions.**

The Problem

- **Rapid installation of initial unit capabilities while minimizing airlift and build/install time is desired.**
- **A quick, easy to install, and reliable means for classified data and voice traffic is needed.**

Solution: rapidly deployed converged networks

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