



An Automated HF Network Solution

HFIA

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- The H7700 HF network solution for large and medium size networks
 - Capabilities
 - Benefits
 - Architecture
 - Equipment
 - Projects

H7700 Network Solution



- Integration to optimise technology
 - HF Radios
 - HF modems & waveforms
 - Automatic link establishment & data link protocols
 - Frequency performance prediction
- Transparent subscriber-to-subscriber connectivity
- Range of user services
- Automatic, unattended operation
- Reduced operator workload, skill level & training costs
- Interoperability with legacy equipment
 - HF Radios
 - Subscriber Terminals

- Traffic user
 - The H7700 architecture allows the users to seamlessly send and receive traffic of various types across an HF channel
- System configuration and monitoring operator
 - The H7700 provides the operator with the remote capability to configure the system, enable traffic to be sent and received by traffic users, to monitor the status of traffic in the system and the status of system equipment

H7700 Capabilities (1)



- User traffic
 - IP (main traffic type)
 - Data
 - Voice (analogue)
 - E-mail

- Platforms
 - Fixed site
 - Mobile shelters
 - Surface ships & submarines
 - Transport helicopters
 - Transport aeroplanes
 - Manpacks

- H7700 system solution features ...
 - Automated HF radio system
 - Synchronous ALE (STANAG 4538)
 - Asynchronous ALE (MIL-STD-188-141B)
 - Manual mode
 - Traffic passed in all link establishment modes
 - Data link protocol (STANAG 5066)
 - Automatic frequency selection
 - Standard IP and data interfaces
 - Interoperability

H7700 Capabilities (3)



- H7700 system solution features ...
 - Split-site architecture
 - Multi-channel nodes
 - Unmanned operation
 - Military environment
 - Demanding radio performance (co-location)
 - Small space envelope for naval fit

Benefits H7700 Delivers (1)



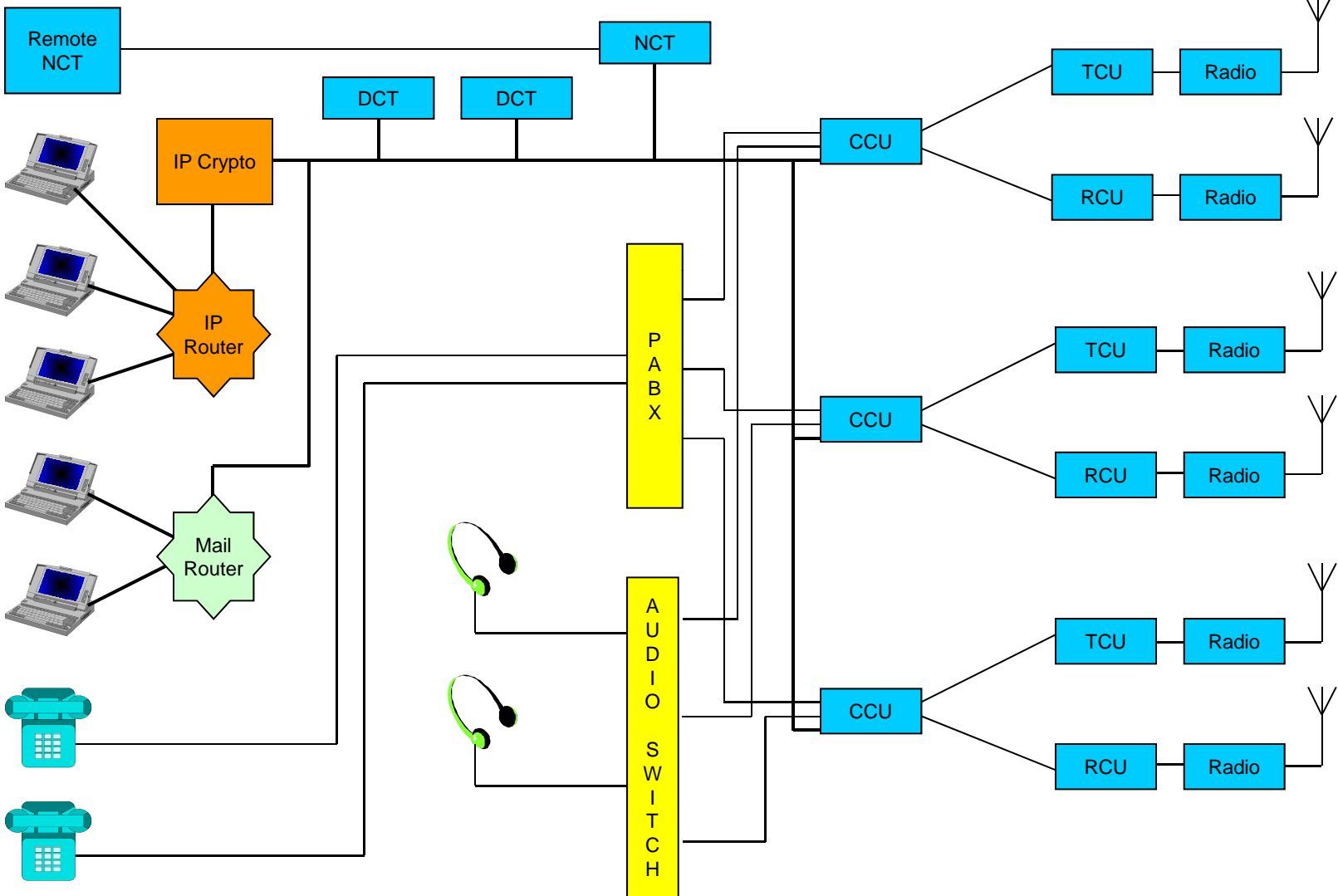
- Rapidly deployable
- Once configured, nodes run un-attended
- Reduced training and skill level required
- Optimises use of the HF spectrum automatically
- Lower cost of ownership than SATCOM systems
- National ownership of whole system

Benefits H7700 Delivers (2)



- Flexible
 - Can scale to operational need
 - Expand to cater for new systems as they are deployed
- Use of IP supports a vast range of user needs
- Uses NATO and US Military standards
- Interoperable with other military HF systems
- Operates with legacy subscriber and radio equipment

H7700 Multi-Station Node



Equipment (1)

- RSCU - radio system control unit
 - Multi-role: CCU, TCU, RCU, CCU&RCU, CCU&TCU, CCU&RTC
 - Two physical configurations, land/sea and airborne
- PC controller
- 19.2kbps modem
- Interfaces to
 - Ethernet
 - Traffic interface
 - Inter-Site Links
 - Radios



Equipment (2)

- Operates with a range of equipment
- SELEX
 - Receiver
 - 100w TCVR
 - 400w TCVR
 - 1kw TCVR
 - 5/10kw TCVR
 - 100W and 1kw ATUs
- Range of legacy equipments



Equipment (3)

- Navy cabinet
 - Specially designed to meet small platform requirements
- Provides 3 Receiver/Exciters and 2 Power Amplifiers.
- Able to switch PAs between channels depending on traffic requirements
- 230vAC and 24vDC operation
- Interface to submarine antenna system



Key Project HF2000



- Customer Sweden's FMV
- Project schedule
 - Equipment delivery mid 2006
 - First system software delivery October 2006
 - Progressive software deliveries during 2007
 - In service readiness date of 2007 with operations expected from 2008

- SELEX stand at the IRST conference
 - Equipment demonstration
- SELEX presentation Wednesday 14:00
 - Advanced HF spectrum management techniques
- FMV presentation Wednesday 13:30
 - The role of HF2000 in a network based defence

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Any questions ?