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Addendum 2 to Document RAG12-1/5-E 26 June 2012 Original: English only

Chairman of the Correspondence Group on BR Information Systems

REPORT OF THE CORRESPONDENCE GROUP ON BR INFORMATION SYSTEMS



Report of the RAG Correspondence Group on BR Information Systems

Peter Major Chairman, RAG CG on BR Information Systems

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Overview

- Mandate
- BR Information Systems
- · Reviews and recommendations
- Priorities
- Cost/benefit implications
- Roadmap



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Mandate

- · review notice processing workflows
- review existing software and databases
- review the means to ensure the security and integrity of the software and databases
- · evaluate existing platforms
- evaluate cost/benefit implications, give and prioritize recommendations
- establish target dates and a roadmap based on the recommendations



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BR Information Systems

- · Reflect provisions of RR International Treaty
- BR Databases repositories of signatories
- ITU's obligations: secure handling of data availability of data & derived information
- TerRaSys terrestrialSNS spaceMARS maritime
- · RAG CG focus on Space System



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Notice processing workflow - review

- TerRaSys, SNS and MARS not integrated
- · No immediate processing need to integrate
- · IFL and HAPS may require common processing
- · Common framework and approach needed
 - Streamlined security system
 - conceptual database design
 - Service Oriented Architecture



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Environment - review

- Good cooperation between IAP & SSD, IAP & TSD
- Imminent lack of expertise in legacy software
- BR Information Systems complex skills/tasks for analysts



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Environment - recommendations

- Improve communication from IAP to administrations
- · Improve transfer of knowledge within IAP
- Backups for tasks
- Documentation
- Improve cooperation between IAP divisions
- Continue regular IT training & RR training



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Existing software - review

- Technical examination software legacy
- SpaceQry support will cease
- SNS Online limits of technology used
- Merge component technology used not supported by IS Department
- · SNTrack difficult to modify and maintain



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Existing software - recommendations

- Continue to rewrite technical software
- Rewrite/integrate SpaceQry SNS Online
- · Secure merge component
- Rewrite/integrate SNTrack
- Improve communication on Application support/Tutorials to users



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Existing databases - review

- · Databases on different platforms
 - control
 - synchronization
 - data integrity
 - security
- · Database Administrator to ensure
 - system reliability
 - security



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Existing databases - recommendations

- Continue integration of space databases
- Full time DBA for space databases
- · Improve security of space databases



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Security issues - review

- Security versus rigidity
- TerRaSys centralized control and security
 - limited flexibility
- SNS local control and security
 - extended flexibility
- No common security principles
- Compromise needs new framework



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Security issues - recommendations

- Establish common security principles
- Consider findings of on-going internal study
- · Implement findings on security issues



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Platforms - review

- Legacy systems from late 80/early 90
- Migration to Linux/Windows platforms
- Different OS, languages
- Some initiatives to include Web based apps
- No consideration for mobile apps



Platforms - recommendations

- · Create framework to accommodate diversity
- Move away from legacy (mainframe) applications
- · Consider web based applications
- Consider mobile applications



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Priorities - Phase 1

- implement WRC-12 decisions: database change program changes
- analyze resolutions 907 and 908 (WRC-12)
- · consider tools for filing consolidation

Timeframe: 1 April 2012 – 31 December 2012



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Priorities - Phase 2

- rewrite TEX software (COBOL)
- rewrite SpaceQry (Visual Objects)
- · reconsider use of remote shell
- rewrite SNTrack
- review SNS Online
- train staff in Service oriented architecture

Timeframe: 1 April 2012 – 31 December 2015



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Priorities - Phase 3

Create project team of BR, IS & external experts

- to design common conceptual DB
- common framework TerRaSys, SNS, MARS
- common risk, recovery and security mgmt
 - SNS processing around central DB
 - Web based system provide all functionalities

Timeframe: 1 January 2016 - 31 December 2018



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Cost/Benefit Analysis

| Topic | Activity | Cost | Benefit |
|---------------------|-------------------|------|------------------------------|
| WRC-12 decisions | Implementation | NO | Ensure continuous processing |
| Res. 907 & 908 | Impact analysis | YES | Phase 2 Input |
| 45,1674,176,23,075 | Phase 2 | 23.5 | |
| Торіс | Activity | Cost | Benefit |
| Res. 907 & 908 | Implementation | YES | Complete WRC-12 |
| Space TEX Software | Rewrite | NO | Improved stability |
| SpaceQry | Align to space SW | NO | Improved stability |
| SNTrack, SNS Online | Review | NO | Improved stability |

Cost/Benefit Analysis (cont'd)

| Phase 2 (cont'd) | | | | | |
|---|--------------------------------------|------|--------------------------------|--|--|
| Topic | Activity | Cost | Benefit | | |
| Integrated BR Information System (Methodology) | Training in SOA | YES | Preparation –Phase 3 | | |
| Integrated BR Information System (Project Management) | Training in Project Management | YES | Preparation –Phase 3 | | |
| Integrated BR Information System – external expert | Recruit expert | YES | Expertise in specialized field | | |
| Analysis of Phase 3 | Feasibility analysis | YES | Preparation -Phase 3 | | |

ITU

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Cost/Benefit Analysis (cont'd)

| Phase 3 | | | | | |
|--|--|------|--|--|--|
| Topic | Activity | Cost | Benefit | | |
| Integrated BR IS - Conceptual Database | Design | NO | Basis of common approach for space and terrestrial systems | | |
| Integrated BR IS (space) - design | Analysis/Design | YES | Platform independence | | |
| Integrated BR IS(space) – implementation | Detailed design/implementation /testing | YES | Service oriented architecture | | |
| Integrated BR IS (space) – deployment | Training in Project Management | YES | System flexibility, enhanced security | | |
| Integrated BR IS (space) – training, on-line help | Create training material, publications, seminars, on-line help | YES | Greater user involvement | | |



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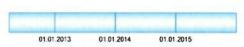
Roadmap

Phase 1: Implementation of decisions of WRC-12



01.04.2012 31.12.2013

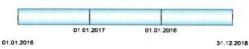
Phase 2: Rewrite TEX, SpaceQry, SNTrack, merge, SNS Online



01.04.2012

31.12.2015

Phase 3: Project team: SOA, central space DB, security mgmt





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Thank you for your attention

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