



International Civil Aviation Organization
South American Regional Office - Regional Project RLA/03/901
REDDIG Management System and Satellite Segment Administration
Fourth Meeting on the Technical-Operational Implementation of the New REDDIG II Digital Network (RTO/4) and Specialized Course on Whats Up Gold Software
Manaus, Brazil 20 to 24 April 2015

Agenda Item 1: Performance of the REDDIG II since its commissioning.

FOLLOW UP ON THE REDDIG II IMPLEMENTATION ACTIVITIES

(Presented by the Secretariat)

SUMMARY	
This working paper presents information related with the status of the pending implementation activities detected during the process of provisional acceptance of the REDDIG II equipment's in each node of the REDDIG II as well as the performance of the PSAT network as of to date.	
REFERENCES	
Reports of the provisional and final acceptance tests of the (PSAT) (http://ww1.lima.icao.int/reddig)	
ICAO strategic objective:	<i>A – Safety</i> <i>B – Air navigation capacity and efficiency</i>

1 Background

1.1 The operational installation of the REDDIG II by the consortium INEO & Level 3 began on 15 January 2015 and was completed on 31 January 2015. Initially, implementation was scheduled to be held in five days but the company completed in 17 days.

1.2 Prior to the operational installation of the REDDIG II, INEO had proceeded with the physical installation of racks, racks equipment, wiring connections of the equipment in the racks, installation of breakers and AC connection of all the equipment. Basically, the physical installation was made at the level of indoor equipment's even in places where wiring installations and equipment in the outdoor part were made.

1.3 The operational installation of the REDDIG II was made through the following phases:

- Migration Preparation.
- Terrestrial network tests.
- Completing the installation of the outdoor part.
- Commissioning of the satellite network.
- Completion.

1.4 For the INEO operational installation, an installer in each of the nodes was used. The focal points of the REDDIG II designated by the States as well as the additional technicians in each node support the operational installation of the REDDIG II. Likewise, the administrator of the

REDDIG in Manaus provided with all the necessary support to the INEO installer who was in charge of the operations from Manaus.

1.5 From 13 January 2014 to 5 February 2015, conference call have been taken via WEB every day except Sundays, with all the focal points of the REDDIG II to monitor the progress in the implementation of the REDDIG II and analyze together the activities planned during the provisional acceptance tests of the REDDIG II.

2 Analysis

2.1 In order to follow up on the REDDIG II implementation activities, a description on the following items is shown hereunder:

- Provisional Acceptance Testing Process (PSAT)
- Operation the REDDIG II post PSAT
- Parts of the REDDIG II

Provisional Acceptance Testing Process (PSAT)

2.2 For the provisional acceptance tests, the PSAT – NAT - NT 2022-2141167C rev H was used, the focal points of the the REDDIG II proceeded to sign the PSAT certificate from 31 January 31 to 5 February 2015 with comments in each of the nodes.

2.3 The results of the PSAT tests in each of the nodes were registered by the focal points in the PSAT document (H version). In the web page www1.lima.icao.int/reddig are published the PSAT documents completed by the focal points.

2.4 A summary with the pending list of activities during the PSAT in each of the nodes is presented in **Appendix A** to this working paper.

2.5 From the pending activities, common aspects to all nodes are highlighted as the lack of IP telephone service operation designed to support the control centers in managing the flow of Air Traffic Management (ATFM), false alarms and quality in the presentation of the Management System (NMS) of the REDDIG II, the quality of the AFTN messages, loss of packages above the quantity permitted by the terrestrial network LEVEL 3 and the update of the documents containing the circuit diagrams, result of the changes made during the node's installation of the REDDIG II.

2.6 Also in the REDDIG II nodes using E1 as Colombia, Ecuador and Peru, highlights the lack of functioning of the administrative switched voice services, in Colombia the oral ATS switched and dedicated services between Colombia and Panama and the oral ATS switched between Colombia and CENAMER.

2.7 Did not achieved the completion of the AMHS interconnection between Peru-Colombia, Peru-Ecuador and Argentina-Paraguay, as well as the asynchronous and IP connection for radar data exchange between Argentina and Uruguay.

Operación de la REDDIG II post PSAT

2.8 The status of the pending activities as of the date of preparation of this working paper, is presented in **Appendix B**. The information on the implementation progress of the outstanding activities of the Appendix has been filled out by INEO. The Q column of Appendix B contains comments from the States and from ICAO regarding the progress reported by INEO. According to the action plan for the settlement of the pending activities stated in Appendix B, all the

pending activities would be completed by 10 April 2015. As of today, it has been fixed the IP addresses conflicts between the terrestrial and satellite network, the ATS oral circuit between Guayaquil and CENAMER and the AFTN circuit between Lima and Manaus.

2.9 During the operational installation of the REDDIG II equipments, the MODEM 1070 team of the A chain of Lima and COCESNA, and the screen of the GPS clock of the Santiago's node did not work and had to be replaced by new equipment. To replace the MODEMS of Peru and COCESNA, equipment of the REDDIG II spares parts warehouse were used and the GPS clock was shipped from the factory to Chile. Once the MODEM 1070 equipments are repaired they will be delivered to the ICAO SAM Office where the spare parts warehouse is located.

2.10 INEO, according to the contract signed between ICAO and the INEO consortium & LEVEL 3, has a time of 40 days to solve all the outstanding activities identified in the PSAT. As of the date of preparation of this working paper, the ORD time has finished, leaving most of the outstanding activities not completed.

2.11 For the final acceptance of the the REDDIG II, the final acceptance of the FNAT tests are missing, which just like the PSAT tests, will be verified and signed by the focal points of the REDDIG II and by the Project Management (ICAO). Focal points should not sign the FNAT certificate if there are still outstanding aspects in the PSAT or later identified during the ORD period. In this regard, the following conclusion is proposed:

Conclusion RTO/4 XX Final Acceptance Test (FNAT) of the REDDIG II

That Member States of the the REDDIG II proceed to sign the certificate of final acceptance of the the REDDIG II (FNAT) only if all the problems identified during PSAT or later in the ORD period have been resolved.

Repuestos de la REDDIG II

2.12 To store the spare parts of the the REDDIG II at the Regional Office, a special room was adapted, especially suited for storing spare parts with appropriate equipment to control moisture, with an anti-static floor and racks to place the equipment.

2.13 The list of the REDDIG II equipments can be found in the Detailed Scope of Supply Version F on the website www1.lima.icao.int/reddig. For the accommodation and classification of the spare parts in the special room at the Regional Office, Mr. Harry Peñaranda, Communication's Technician of the Civil Aviation Corporation of Peru was hired. The result of the classification work is presented in **Appendix C** of this working paper.

2.14 In the same room, we keep the spare parts of the REDDIG I equipment's. Regarding the spare parts of the REDDIG I as well as the equipment of the REDDIG I in the, the Eighteenth Coordination Committee of the REDDIG II (Lima, Peru 1 to 3 March 2015) formulated the Conclusion RCC /18 Provision of equipment and spare parts of the REDDIG I, so that the Secretariat can explore the feasibility of having the equipment and spare parts of the REDDIG I both for sale and other figures that could manifest and report the results to start by the second half of 2015 to all Member States of the RLA/03/901.

2.15 In this regard, the Secretariat proceeds to send to all Member States of the REDDIG, the letter No. SA5112 dated 25 March 2015 concerning the intentions that their administrations have regarding equipment and spare parts of the REDDIG I and asking to respond back before 15 May 2015.

3 Suggested action

3.1 The Meeting is invited to:

- a) take note of the information provided;
- b) review the activities described in Section 2 to this working paper and their corresponding appendices to be undertaken and aprobar la conclusión indicada en el párrafo 2.11; y
- c) analyse any other aspect deemed necessary regarding this Agenda Item.

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APPENDIX A

SUMMARY OF COMMENTS MADE BY THE FOCAL POINT DURING THE PSAT

STATE	NODE	PSAT DATE	COMMENTS
Argentina	Ezeiza	2/2/15	<ul style="list-style-type: none"> • Pending to amend circuit diagrams • Poor quality on terrestrial IP telephony and satellite network • Pending BER tests AFTN circuits • False Alarms in serial ports CISCO IA • Low levels of transmission SKywan A and B • Emergency Number GBB dedicated router (Fig 46 communicates with Manaus with the number 73601 and not the number indicated in the table in Figure 46 • Loss of packets in the terrestrial networks of Manaus, Recife, Guyana, Paraguay and Suriname. • Access to the website of LEVEL 3 for service management is not supplied • Two RJ45 connectors damaged Patch Panel
Bolivia	La Paz	2/2/15	<ul style="list-style-type: none"> • No comments
Brazil	Curitiba	2/2/15	<ul style="list-style-type: none"> • No comments
	Manaus	5/2/15	<ul style="list-style-type: none"> • Lima Manaus AFTN circuit does not work • Slope of circuit diagrams update • The loss of packets in the terrestrial network are

			<p>above what specifies the SLA LEVEL 3</p> <ul style="list-style-type: none"> • Testing in administrative circuits, switched ATS and AFTN made in one chain in terrestrial network • IP Teleconference does not work according to the technical specifications limited to 10 users • Image quality unimproved slope aspect from the FAT • Administrative Canal with Ecuador does not operate • Observation slope from the FAT: In case of failure of the central server in Manaus NMS backup server Ezeiza should assume all functions of the central server with all the powers of monitoring and control over all seasons • Pending BER tests on AFTN channels • Pending SAT TEST LOOP VER • Testing pending ATS speech circuits, administrative AFTN in one strand of the satellite network
	Recife	30/1/15	<ul style="list-style-type: none"> • Loss of packets in the terrestrial network LEVEL 3 with all nodes • Pending BER tests AFTN • False alarm NMS (IBUC) and RX 1 + 1
Chile	Santiago	1/2/15	<ul style="list-style-type: none"> • Damaged Screen GPS Watch • NMS: refresh state changes very slowly • Image quality is not improved slope aspect from the FAT • IBUC WEB: The indication of voltage does not correspond to the actual value • Pending update diagrams • AFTN circuit with Lima

			<p>inoperative</p> <ul style="list-style-type: none"> • Pending BER test AFTN
Colombia	Bogota	1/2/15	<ul style="list-style-type: none"> • Circuit ATS oral Bogota Panama does not work • AMHS circuit with Peru does not work
Ecuador	Quito	1/2/15	<ul style="list-style-type: none"> • Administrative Voice Circuits inoperative • Packet loss Ground Level 3 network Manaus, Recife Guyana Uruguay • BER testing pending AFTN • Test Tx switch (7.1.1) did not • VoIP teleconference poor quality • False alarm operation of the serial interfaces and E1 • Pending ATS voice test circuit Between Guayaquil and CENAMER
French Guyana	Cayenne	2/2/15 Falta firma INEO	<ul style="list-style-type: none"> • The power connector on the IP phone does not work • Diagrams of circuits incorrect (WVG) • Difficulty reading the IPaddress of WVG • Error in the LAN interface does not work • Modem B is not going green when turned on • Rear Problem with AFTN circuit Manaus
Guyana	Georgetown	5/2/15 Falta firma INEO	<ul style="list-style-type: none"> • No indication of status on one of the switches in the MAP VIEW • You cannot make setting in voice interfaces
Paraguay	Asuncion	2/2/15	<ul style="list-style-type: none"> • Audible alarm UPS in battery mode, almost inaudible • Do not have the antivirus that is specified in Document SDD REDDIG II Scope of Supply Rev. F • The breaker Q5 presents a false contact so they must be changed • Administrative line do not

			<p>configure IP</p> <ul style="list-style-type: none"> • The graphical representation of the computers on the nodes in the NMS has not been improved, as had been observed in the FAT • When testing redundancy Chapter 7 Pag. 70/125 of the PSAT, the IBUCs not indicate faults and do not switch automatically • The serial port 0/0/0 GBB router has a fault where lost packets at reception, so Card 2-Port Async / Sync Serial WAN Interface Card must be replaced • Pending updating circuit diagrams • Loss of packets in the terrestrial network LEVEL 3 with Bolivia, Recife (very high), Colombia, French Guiana, Guyana and Uruguay
Peru	Lima	3/2/15	<ul style="list-style-type: none"> • AFTN circuit with inoperative Manaus and Santiago • Chain MODEM inoperative 1070 • The graphical representation of the computers on the nodes in the NMS has not been improved, as had been observed in the FAT • Pending updating circuit diagrams • Loss of network packets Earth Level 3,, Manaus Argentina, Colombia, Guyana and Venezuela • ATS number d does not match • Testing chain satellite unrealized chain MODEM failure • BER Test unrealized • Pending testing equipment

			<p>failures (Section 7.3)</p> <ul style="list-style-type: none"> • Errors dial plan administrative circuits • Unsatisfactory quality IP voice teleconference
Suriname	Paramaribo		<ul style="list-style-type: none"> • Presents packet losses in the terrestrial network LEVEL 3 with Argentina, Manaus, Recife (very high) .Chile, Colombia, Ecuador, Guyana and Uruguay • Pending BER tests • IP Teleconference only ten users
Trinidad & Tobago	Piarco	4 /2/15 Falta firma de INEO	<ul style="list-style-type: none"> • NMS: refresh state changes very slowly • Image quality unimproved slope aspect from the FAT • IP Teleconference only works with 11 users does not comply with the technical specifications of the REDDIG • No automatic switching on IBUC in case of failure only when power is switched off • Loss of packets in the terrestrial network LEVEL 3 Curitiba and Ecuador.
Uruguay	Montevideo	2/2/15	<ul style="list-style-type: none"> • Pending renovation plans with circuit diagrams • Unit 1070 B chain does not turn green light even when operating well • Pending change Feed Horn • NMS: refresh state changes very slowly • Image quality is not improved slope aspect from the FAT • Foul install antivirus in the NMS • The NMS has incorrect information • Pending BER tests • The supplied software for VPN remote version is not according to the manual shipped for installation can

			<p>not be installed as suggested by INEO.</p> <ul style="list-style-type: none">• Loss of packets in the terrestrial network LEVEL 3 with Bolivia, French Guyana, Suriname, Trinidad & Tobago and Venezuela
Venezuela	Maiquetía	31/1/2015	<ul style="list-style-type: none">• The automatic switching is observed in the RSS

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APPENDIX B
STATUS OF PENDING ACTIONS

File update: 4/17/2015 14:30															
ITEM NUMBER	STATUS	TYP E O/M	CRI TIC ITTY	COUNTRY	NODE	CITY	OUTSTANDING ISSUES	OPENING DATE	ACTION(S) TO BE PERFORMED	COMMENTS	CURRENT UPDATE	EXPECTING CLOSING DATE	REAL CLOSING DATE	ICAO AND STATES COMMENTS 30 march 2015	
P4SAEZ02051	CLOSED	P	4	Argentina	SAEZ	Ezeiza	1 Faltu emendar diagramas circuitales	5 February 2015	As-built under realization		27/03: documents achieved, to be shipped on Monday 30th March 2015	27th March 2015	30th March 2015	Not closed The action is solved once all the REDDIG II focal points receive the document with the emended circuit diagrams and information presented are OK Pending the CD with the electronic documentation	
P3SAEZ02052	ON PROGRESS	P	3	Argentina	SAEZ	Ezeiza	2 Calidad telefonía IP pésima red terrestre y satelital	5 February 2015	1/ Diagnostic of the current configuration 2/ New configuration to be proposed after analysis 3/ Configuration implmented, to be tested (12/03)		05/03 : diagnostic still on progress 13/03: modem configuration changed, test pending. 27/03: tests achieved with Manaus unsuccessful	4th-March-2015 20th-March-2015 10th April 2015		We expect that really the new date would be the 10th April	
P4SAEZ02053	ON PROGRESS	P	4	Argentina	SAEZ	Ezeiza	3 Pendiente pruebas BER circuitos AFTN	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/11/15 => Procedure for BER test targeted Marsh 02th => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread 27/03: new tested to be conducted at SUMU and SAEZ. In addition to that, hardware was bought by INEO to perform tests at INEO facility	4th-March-2015 20th-March-2015 10th April 2015		We expect that really the 10th April would be the closing date	
P4SAEZ02054	solution identified	P	3	Argentina	SAEZ	Ezeiza	4 Falsas alarmas en los puertos seriales del CISCO IA	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 27/03/2015: testes achieved appears to be a communication instability between NMS and routers, as SSH conenction is very sensitive	20th-February-2015 6th-March-2015 4th-March-2015 20 March 2015 10th April 2015		We expect that really the 10th April would be the closing date	
P2SAEZ02055	ON PROGRESS	P	2	Argentina	SAEZ	Ezeiza	5 Niveles de transmisión bajos SKYwan A y B	5 February 2015	1/ Remote diagnostic 2/ Remote intervention by INEO Expert		17/03: INEO technician will go to SAEZ to check hardware 27/03: INEO technician checked cables and WG, an antenna pointing will be achieved.	9th-March-2015 4th-March-2015 27th-March-2015 first/second week April		Some action was made but the RF level still low	
P3SAEZ02056	CLOSED	P	3	Argentina	SAEZ	Ezeiza	6 Numero de emergencia dedicado GBB router (Fig 46, se comunica con Manaus con el numero 73601) y no con el numero indicado en la tabla de la figura 46	5 February 2015	To be corrected		27/03/15 => targeted 04/03/2015 06/03 : email send to clarify	4th March 2015		OK	
P2SAEZ02057	solution identified	P	2	Argentina	SAEZ	Ezeiza	7 Perdida de paquetes en la red terrestre Manaus, Recife, Guyana, Paraguay y Surinam.	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were succesful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Coordination was made to make the test on LEVEL 3 network the 31 March.	
P3SAEZ02058	ON PROGRESS	P	3	Argentina	SAEZ	Ezeiza	8 No se suministra el acceso a la página WEB de LEVEL 3 para la gestión de servicio	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)				LEVEL 3	The user name and password to access LEVEL 3 was sent March 27th	
P4SAEZ02059	closed	P	4	Argentina	SAEZ	Ezeiza	9 Dos conectores RJ45 del Patch Panel dañados	5 February 2015	To be corrected - New connectors will be sent to FP		05/03/2015 => Connector sent to FP on 27/02 => Waiting for confirmation of receipt			OK	
P2SAEZ022410	ON PROGRESS	P	2	Argentina	SAEZ	Ezeiza	10 Continue intermittent problem in the AFTN circuit between Argentina and Brazil, Uruguay and Paraguay. Controllers report lost of flight plan	25 February 2015	Under analysis		27/11/15 => Procedure for BER test targeted Marsh 02th => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread	4th-March-2015 20th-March-2015 10th April 2015		We expect that 10th April would be the closing date	

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O1SLLP17021	CLOSED	O	1	Bolivia	SLLP	La Paz	1	Communication problem with Manaus according to the email from ICAO (17th Feb.)	17 February 2015	OSPF Pb under analysis -> Looking for a technical solution to be implemented	<p>25/02/2015: New configuration will be provided by Lima center on all links under reconfiguration made by 24th Feb except 15th-16th</p> <p>29/02/2015: New configuration implemented, circuit communication under test</p> <p>03/03/2015: implementation of links under test achieved by 03/03/2015</p> <p>12/03/2015: communication test achieved with SOCA, pending test with SLLP</p>	<p>04/03/2015: Test performed successfully</p>			OK Expecting closing day
P2SBMN02051	SOLUTION IDENTIFIED	P	2	Brazil	SBMN	Manaus	1	Circuito AFTN Manaus Lima no funciona	5 February 2015	1/ Check of the Cisco configuration 2/ Local check-up with one of our expert (on-site) in Lima As soon as we have define where exactly is the problem, INEO E&S will correct the bug.	Problem identified	<p>25/02/2015 => Test must be conducted in cooperation with Manaus AFTN center and REDDIG-II technical persons, waiting for their availability. 05/03/15 => problem solved, distrubings still appear but were already identified in Reddig I</p>	<p>4-14th-February-2015 2-25th-February-2015</p>		Solved but not closed pending intermittent loss of AFTN messages
P4SBMN02052	CLOSED	P	4	Brazil	SBMN	Manaus	2	Pendiente actualización diagramas circuitales	5 February 2015	As-built under realization		<p>Diagnostic of the configuration of equipment on AFTN</p> <p>27/03: documents achieved, to be shipped on Monday 30th</p>	27 March 2015	30th March 2015	Not closed - The action is solved once all the REDDIG II focal points receive the document with the emended circuit diagrams and information presented are OK Pending the CD with the electronic documentation
P3SBMN02053	SOLUTION IDENTIFIED	P	3	Brazil	SBMN	Manaus	3	La pérdida de paquetes en la red terrestre están por encima de lo que especifica el SLA de LEVEL 3	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		<p>25/02/2015 => New request retransmitted to Level 3</p> <p>06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.</p>	10th April 2015	LEVEL 3	Coordination was made to make the test on LEVEL 3 network the 31 March.
P3SBMN02054	CLOSED	P	3	Brazil	SBMN	Manaus	4	Pruebas en los circuitos administrativos, conmutados ATS y AFTN realizados en una sola cadena en la red terrestre	5 February 2015	During the PSAT, it appears that this test was already performed. It could be easily checked, and upon request by ICAO, it could be done during the ORD period with the local FP and INEO remote coordination		<p>29/02/2015: INEO reconnection with Lima center on 29/02/2015</p> <p>05/03/15 => Test done with success</p>	06th February 2015		OK
P4SBMN02055	SOLUTION IDENTIFIED	P	4	Brazil	SBMN	Manaus	5	Teleconferencia IP no trabaja de acuerdo a las especificaciones técnicas limitada a 10 usuarios	5 February 2015	1/ Diagnostic of the current licence 2/ New 16 users licences to be provided after analysis		<p>05/03 : Hardware limitation found, solution to be provided. Will be codec change or hardware addition</p>	<p>8th-March-2015 20th March 2015</p>		Still pending issue the IP telephone is general problem the date that you have reported in other part of this action plan is 10 April
P4SBMN02056	CLOSED	P	4	Brazil	SBMN	Manaus	6	Calidad de la imagen no mejorada aspecto pendiente desde la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	<p>05/03/15 => Work identified => Implementation of the solution in progress</p> <p>12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site</p>	<p>04th-February-2015 04th-March-2015 17 Marsh 03/15</p>		OK in progress provide closing date
P3SBMN02057	ON PROGRESS	P	3	Brazil	SBMN	Manaus	7	Canal administrativo con Ecuador no opera	5 February 2015	1/ Analysis of the Cisco Configuration 2/ Correction to be proposed	To be solved from Ecuador side	<p>12/03/2015 new configuration sent to Ecuador, pending tests 16/03 test achieved, still not operational 27/03 A Cisco expert will assist us for the test on April 3rd</p>	<p>2nd-March-2015 04th-March-2015 20th-March-2015 10th April 2015</p>		We expect that 10th April would be the closing date
P3SBMN02058	CLOSED	P	3	Brazil	SBMN	Manaus	8	Observación pendiente desde la FAT: En caso de falla del servidor central del NMS en Manaus el servidor de reserva de Ezeiza debería asumir todas las funciones del servidor central con todas las atribuciones de monitoreo y control sobre todas las estaciones	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	<p>05/03/15 : solution implemented, tests passed with success, see email with summary of the test</p>	<p>04th-February-2015 06th March 2015</p>		Solved but not closed missing the respective test to verify if the transference are working properly
P4SBMN02059	ON PROGRESS	P	4	Brazil	SBMN	Manaus	9	Falta pruebas BER en canales AFTN	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		<p>27/11/15 => Procedure for BER test targeted Marsh 02h => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will</p>	<p>4th-March-2015 20th-March-2015 10th April 2015</p>		We expect that 10th April would be the closing date

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P4SBMN020510	SOLUTION IDENTIFIED	P	4	Brazil	SBMN	Manaus	10	Falta pruebas SAT LOOP BER TEST	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/02/2015 => INEO technician will conduct the test on site, on 30/03/15 06/03/15 => As talked during teleconference, the test requires to shutdown the whole satellite network. Need to confirm and coordinate it 12/03/2015: procedure sent, pending on test to be coordinated by ICAO	27th-February-2015 13 March 2015		Pending issue even though you send a procedure, the SAT BER LOOP TEST has to be made in all the node under your coordination
P4SBMN02011	CLOSED	P	4	Brazil	SBMN	Manaus	11	Pruebas pendiente en circuitos orales ATS, administrativos AFTN en una de las cadenas de la red satelital	5 February 2015	During the PSAT, it appears that this test was already performed. It could be easily checked, and upon request by ICAO, it could be done during the ORD period with the local FP and INEO remote coordination		27/02/2015 => INEO technician will conduct the test on site 06/03/2015 => Waiting for Result report	10th March 2015		OK solved
P1SBRF05021	SOLUTION IDENTIFIED	P	2	Brazil	SBRF	Recife	1	Perdida de paquetes en la red terrestre LEVEL 3 con todos los nodos	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests, to be performed 27/03: tests conducted by LEVEL 3 were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Coordination was made to make the test on LEVEL 3 network the 31 March.
P4SBRF05022	ON PROGRESS	P	4	Brazil	SBRF	Recife	2	Pendiente pruebas BER AFTN	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/11/15 => Procedure for BER test targeted Marsh 02h => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread 27/03: new tested to be conducted at SUMU and SAEZ. In addition to that, hardware was bought by INEO to perform tests at INEO facility	4th-March-2015 20th-March-2015 10th April 2015		We expect that really the 10th April would be the closing date
P3SBRF05023	ON PROGRESS	P	3	Brazil	SBRF	Recife	3	Falsa alarma NMS (IBUC) y RX 1 + 1	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress, to be achieved on 09/03/15 23/03/15 => new NMS problem identified: graphical issue on representation	20th-February-2015 6th-March-2015 04th-March-2015 20th-March-2015 10th April 2015		We expect that really the 10th April would be the closing date
x				Brazil		Curitiba		Nothing for instance							
					SBCT										
P3SCEL05021	SOLUTION IDENTIFIED	P	3	Chile	SCEL	Santiago	1	Dañada pantalla del reloj GPS	5 February 2015	New equipment received in INEO Premises. Will be sent to the site asap		27-02-2015 => Coordination with FP for shipment in progress 04-03-2015 => New equipment sent 04-03-15: waiting for unit exchange to be done by FP 18/03/15 Delivery pending	4th-March-2015 09th-March-2015 TBD, pending on FP feedback		The GPS clock was sent to Chile. Chile is in the process for customs clearance
P3SCEL05022	CLOSED	P	3	Chile	SCEL	Santiago	2	NMS: refresco cambios de estados muy lento	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => in a local NMS it seems correct the refresh. For the distant NMS it is not possible to improve it due to satellite hop	06th-March-2015 6th March 2015		OK
P3SCEL05023	CLOSED	P	3	Chile	SCEL	Santiago	3	Calidad de la imagen no mejorada aspecto pendiente desde la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	20th-February-2015 6th-March-2015 04th-March-2015 17th March 2015		OK
P3SCEL05024	CLOSED	P	3	Chile	SCEL	Santiago	4	WEB IBUC - La indicación de voltaje no corresponde al valor real	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress, to be achieved on 09/03/15	06th-March-2015 6th March 2015		Not closed Chile reported that the problem was not solved

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P4SCELO5025	CLOSED	P	4	Chile	SCEL	Santiago	5	Pendiente actualización de los diagramas	5 February 2015	As-built under realization		During the installation of the new AMHS, 27/03: documents achieved, to be shipped on Monday 30th	27th March 2015	30th March 2015	Not closed. The action is solved once all the REDDIG II focal points receive the document with the emended circuit diagrams and information presented are OK. Pending the CD with the electronic documentation	
P1SCELO5026	ON PROGRESS	P	1	Chile	SCEL	Santiago	6	Circuito AFTN con Lima no operativo	5 February 2015	1/ Check of the Cisco configuration 2/ Local check-up with one of our expert As soon as we have define where exactly is the problem, INEO E&S will correct the bugg.	requested to FP to check cabling and R445 adaptor potential problem	27/11/15 => Procedure for BER test targeted Marsh 02h => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread. 27/03: new tested to be conducted at SUMU and SAEZ. In addition to that, hardware was bought by INEO to perform tests at INEO facility.	4th-March-2015 20th-March-2015 10th April 2015		Pending the intermittent problem of loss of AFTN messages. We expect that the 10th April would be the closing day	
P4SCELO5027	ON PROGRESS	P	4	Chile	SCEL	Santiago	7	Pendiente prueba BER AFTN	5 February 2015		During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/11/15 => Procedure for BER test targeted Marsh 02h => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread. 27/03: new tested to be conducted at SUMU and SAEZ. In addition to that, hardware was bought by INEO to perform tests at INEO facility	4th-March-2015 20th-March-2015 10th April 2015		Still pending. We expect that BER test would be completed the 10th April.
P1SCEK05021	ON PROGRESS	P	1	Colombia	SKED	Bogota	1	Circuito oral ATS Bogota Panamá no funciona	5 February 2015	1/ Analysis of the current configuration 2/ Expert to come on site to finalise the analysis and correct the problem	on site diagnostic to be conducted 21/02	25/02/2015 => INEO expert on investigation on site in coordination with FP and PABX local provider => Close cooperation with those persons is expected to address the problem properly 27/02/2015 => Information on PBX received from provider. New configuration implemented by 02/03/2015 05/03/15 => still on progress with active collaboration of all members concerned 12/03/2015: test today with E1 R2 and no longer E1 E&M 16/03 configuration changed to E1R2 still the same issue. 27/03 A Cisco expert will assist us for the test on April 3rd	4th-March-2015 20th-March-2015 10th April 2015		Even though numerous action made the circuit still out of service	
P1SCEK05022	ON PROGRESS	P	1	Colombia	SKED	Bogota	2	Circuito AMHS con Peru no funciona	5 February 2015	1/ Local diagnostic with our expert (on-site) in Lima 2/ Solutions to be implemented after diagnostic	Resolution pending of the item P2SBMN02051	25/02/2015 => Conflict of IP address was detected between AMHS system and Reddig-II configuration => Member states must be responsible for the NAT translation between the two systems => Expecting action from ICAO 06/03/2015 => Status & configuration update asked to CORPAC for cooperation. 12/03/2015: ping test is working, from SKED (Cisco) to SPIM (router de Corpac). Pending details	4th-February-2015 24th February 2015		Still pending the circuit does not work	
P2SEGU05021	ON PROGRESS	P	2	Ecuador	SEGU	Guayaquil	1	Circuitos de voz administrativos no operativos	5 February 2015	1/ Analysis of the current configuration 2/ Expert to come on site to finalise the analysis and correct the problem	Analysis in progress	12/03/2015: configuration sent, to be installed and tested 16/03: configuration did not solve the issue, it improved communication off hook detection 27/03 A Cisco expert will assist us for the test on April 3rd	4th-March-2015 20th-March-2015 10th April 2015		Still pending no action was made	

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P2SEGU05022	SOLUTION IDENTIFIED	P	2	Ecuador	SEGU	Guayaquil	2 Perdida de paquetes red terrestre Level 3 con Manaos,Recife Guyana Uruguay	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Coordination was made to make the test on LEVEL 3 network the 31 March.
P4SEGU05023	ON PROGRESS	P	4	Ecuador	SEGU	Guayaquil	3 Pruebas BER AFTN pendientes	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/11/15 => Procedure for BER test targeted Marsh 02th => expected coordination from ICAO-Lima and FP to proceed 06/03/15 => waiting for a new diagnostic after Lima analysis 12/03/2015: AFTN test conducted between SAEZ and SUMU and then will be spread 27/03: new tested to be conducted at SUMU and SAEZ. In addition to that, hardware was bought by INEO to perform tests at INEO facility	10th April 2015		Still pending . We expect that the AFTN BER test would be completed the 10th April
P3SEGU05024	CLOSED	P	3	Ecuador	SEGU	Guayaquil	4 Prueba Tx switch (7.1.1) no pasó	5 February 2015	After analysis, it appears that the IBUC needs to be updated. To do so, we need to be connected directly to the equipment. INEO requests from ICAO the support from the local FP in order to perform this action.		09/03/15: Resolution of the item P3SEGU05024 was done by INEO on 09/03/2015 09/03/15: procedure sent with request to update the IBUC and the local FP in order to perform this action. 09/03/15 => problem solved according to email from Raul Avellan of 09/03	28 February 2015		OK solved
P3SEGU05025	ON PROGRESS	P	3	Ecuador	SEGU	Guayaquil	5 Voz IP teleconferencia calidad pésima	5 February 2015	1/ Diagnostic of the current configuration 2/ New configuration to be proposed after analysis 3/ Configuration implemented, to be tested (12/03)		05/03 : diagnostic will on progress 13/03: modem configuration changed, test pending. 27/03: tests achieved with Manaus unsuccessful	10th April 2015		Still pending we expect the IP telephone will be ready the 10th of April
P3SEGU05026	SOLUTION IDENTIFIED	P	3	Ecuador	SEGU	Guayaquil	6 Falsas alarmas de operación de las interfaces seriales y E1	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 27/03/2015: testes achieved appears to be a communication instability between NMS and routers, as SSH conecation is very sensitive	10th April 2015		OK action on progress but not completed
P4SEGU05027	CLOSED	P	4	Ecuador	SEGU	Guayaquil	7 Pending ATS voice circuit test between Guayaquil and CENAMER	5 February 2015	1/ Analysis of the current configuration 2/ Pending to interconnection between Bogota/Maiquetia and Honduras	resolution pending of the item P1SCBK05021	09/03/2015 connection test achieved during a meeting organized by OACI/MARSH. Pending to be confirmed in a meeting on 27/03/2015. 27/03: instability solved	20/ March 2015		Solved but not closed the circuit is under observation
P4SOCA05021	CLOSED	P	4	French Guiana	SOCA	Cayenne	1 El conector de energia del teléfono IP no funciona	5 February 2015	A solution will be proposed by INEO to the site		09/03/2015 The equipment was changed and the problem was solved. 17/03: closed as per email of 17th of march	17th March 2015		OK
P4SOCA05022	CLOSED	P	4	French Guiana	SOCA	Cayenne	2 Diagramas circuitales incorrectos (WVG)	5 February 2015	As-built under realization		09/03/2015 Closing documents submission of the CD 27/03: documents achieved, to be shipped on Monday 30th	27th March 2015	30th March 2015	The action is solved once all the REDDIG II focal points receive the document with the emended circuit diagrams and information presented are OK. Pending the CD with the electronic documentation
P3SOCA05023	SOLUTION IDENTIFIED	P	3	French Guiana	SOCA	Cayenne	3 Dificultad leer la dirección IP del WVG	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	17 March 2015		Not solved yet
P3SOCA05024	CLOSED	P	3	French Guiana	SOCA	Cayenne	4 Error en la interface LAN no trabaja	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress, to be achieved on 09/03/15	20th March 2015		OK

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P3SOCA05025	SOLUTION IDENTIFIED	P	3	French Guiana	SOCA	Cayenne	5	Modem B no va en verde cuando se enciende	5 February 2015	1/ Diagnostic with FP to be performed 2/ If faulty equipment, will open an RMA number to replace the equipment	Analysis in progress with NDSatcom	06/03/2015 ND Satcom will send us a new software and an upgrade procedure for the network 27/03: ND Satcom is still working on the new version. Solutions should be exposed next week	20th February-2015 6th-March-2015 4th-March-2015 24-March-2015 10th April 2015		Still pending
P2SOCA05026	CLOSED	P	2	French Guiana	SOCA	Cayenne	6	Problema posterior con el circuito AFTN con Manaus	5 February 2015	1/ Check of the Cisco configuration -> Conf. OK 2/ Discussions undergoing with local FP	problem already observed during REDDIG 1 operation	25/02/2015 => Closed as per INEO	10th February 2015		Not closed French Guyana reported that the problem was not solved REDDIG 1 did not have this problem. This is a REDDIG1 problem
O1SOCA05027	CLOSED	O	1	French Guiana	SOCA	Cayenne	7	Communication problem with Manaus according to the email from ICAO (17th Feb.)	17 February 2015	OSPF P6 under analysis -> Looking for a technical solution to be implemented	Resolution pending of the Item MISLLP17021	12/03/2015 -> New configuration will be tested by INEO on 4/17/2015, on all nodes, under supervision made by the local operator. To be confirmed 17/03/2015 -> New configuration implemented, solution implemented under supervision of the operators of the remote operation, to be confirmed 12/03/2015: test successful, only SYGC was out due to last mile issue	04th March 2015		OK
P3SYGC05021	SOLUTION IDENTIFIED	P	3	Guyana	SYGC	Georgetown	1	No hay indicación de status en uno de los switches en el MAP VIEW	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress, to be achieved on 09/03/15	20th February-2015 6th-March-2015 04th-March-2015 20th March 2015		Still not solved
P3SYGC05022	CLOSED	P	3	Guyana	SYGC	Georgetown	2	No se puede hacer setting en las interfaces de voz	5 February 2015	INEO sent an email on the 18th Feb. explaining that modifications on voice interfaces are possible, mainly to change the attenuation or the gain to make the communication better. We sent to the FP a procedure.			18 February 2015		OK closed
O1MHTG12051	CLOSED	O	1	Honduras		Tegucigalpa	1	Solicitud de activación de los servicios (email 12/02)	12 February 2015	Procedure to declare the new station in the network to be done	problem identified and expected resolution for 21/02	25/02/2015 Solved by INEO => Closed as per INEO	25th February 2015		Solved but not closed the circuit is under observation
P4SGAS05021	PENDING	P	4	Paraguay	SGAS	Asuncion	1	Alarma sonora de la UPS en modo batería, prácticamente inaudible	5 February 2015	The equipment is working as presented during the FAT. Please precise the issue.			14th February-2015 20 March 2015		Pending issue
P3SGAS05022	SOLUTION IDENTIFIED	P	3	Paraguay	SGAS	Asuncion	2	No se cuenta con el antivirus que se halla especificado en el Documento REDDIG II SDD Scope of Supply Rev. F	5 February 2015	To be provided by INEO		27/03/2015: Antivirus almost identified (two remaining systems)	14th-March-2015 27th March 2015		Not solved still pending the antivirus
P3SGAS05023	CLOSED	P	3	Paraguay	SGAS	Asuncion	3	El breaker Q5 presenta un falso contacto por lo que deberá ser cambiado	5 February 2015	INEO have contacted his local subcontractor to perform the modification			26 February 2015		OK Solved
P2SGAS05024	SOLUTION IDENTIFIED	P	2	Paraguay	SGAS	Asuncion	4	No se configuro la línea Administrativa IP	5 February 2015			27/02/2015 => As per SDD, this request seems to be out of scope of INEO 06/03/2015 A coordination email was sent to Paraguay for configuration changes in the Cisco. We are pending to that information to keep working on this issue and make tests with Paraguay. 12/03/2015: no news from Paraguay 16/03: configuration sent, pending tests 27/03: test resulted not successful, but SIP proxy must be the VCS, not the Cisco	20th February-2015 6th-March-2015 4th-March-2015 24-March-2015 10th April 2015		Not solved still pending
P3SGAS05025	SOLUTION IDENTIFIED	P	3	Paraguay	SGAS	Asuncion	5	La grafica de representación de los equipos en los nodos en el NMS no ha sido mejorada, tal como se había observado en la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	20th February-2015 6th-March-2015 04th-March-2015 17 March 2015		OK on progress almost solved
P3SGAS05026	CLOSED	P	3	Paraguay	SGAS	Asuncion	6	Al realizar la prueba de redundancia del Capítulo 7 Pág. 70/125 de la PSAT, las IBUCs no indican las fallas y no conmutan automáticamente	5 February 2015	After analysis, it appears that the IBUC needs to be updated. To do so, we need to be connected directly to the equipment. INEO requests to ICAO the support from the local FP in order to perform this action.		25/02/2015 Solved by INEO => Closed as per INEO	28 February 2015		OK
P3SGAS05027	ON PROGRESS	P	3	Paraguay	SGAS	Asuncion	7	El puerto serial 0/0 del router GBB presenta una falla en donde pierde paquetes en Recepción, por lo cual la tarjeta 2-Port Async/Sync Serial WAN Interface Card debe ser reemplazada	5 February 2015	Analysis undergoing -> An RMA will be opened if necessary	waiting for a clear diagnostic from SGAS that it is a hardware problem	17/03: update asked to FP	20th February-2015 6th-March-2015 4th-March-2015 20-March-2015 10th April 2015		Still pending We expect that BER test would be completed the 10th April.

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P4SGAS05028	CLOSED	P	4	Paraguay	SGAS	Asuncion	8 Pendiente actualización de los diagramas circuitales	5 February 2015	As-built under realization		27/03: documents achieved, to be shipped on Monday 30th	27th March 2015	30th March 2015	The action is solved once all the REDDIG II focal points receive the document with the amended circuit diagrams and information presented are OK Pending the CD with the electronic documentation
P2SGAS05029	SOLUTION IDENTIFIED	P	2	Paraguay	SGAS	Asuncion	9 Perdida de paquetes en la red terrestre LEVEL 3 con Bolivia , Recife (Muy alta), Colombia,French Guyana, Guyana y Uruguay	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Coordination was made to make the test on LEVEL 3 network the 31 March.
O3SGAS110210	CLOSED	O	1	Paraguay	SGAS	Asuncion	10 Communication problems which forced Paraguay to pass services through the Level 3 network (email OACI 11.02)	11 February 2015	1/ Remote analysis of the problem 2/ Expert from INEO to be send on site to point again the antenna	problem identified as a bad alignment of the antenna. On site technician for 23/02	25/02/2015 => Solved after intervention of INEO expert on site => Closed as per INEO	25th February 2015		OK
P1SPIM05021	SOLVED	P	1	Peru	SPIM	Lima	1 Circuito AFTN con Manaos y Santiago inoperativos	5 February 2015	Remote Diagnostic under progress	Resolution pending of the item P2SBMN02051	25/02/2015 => Test must be conducted in cooperation with Manaos AFTN center and REDDIG-II technical persons, waiting for their availability. 06/03/2015 Our expert on site is reporting that the circuit is nominally operating. He identified that the issues were already present with REDDIG I. Additional analysis is thus required.	27th-February-2015 27th March 2015		Not solved The REDDIG I did not have problem with these AFTN circuits. These are REDDIG II problem The AFTN circuit Lima Manaos and Lima Santiago are working but with intermittent problem
P2SPIM05022	CLOSED	P	2	Peru	SPIM	Lima	2 MODEM 1070 cadena A no operativo	5 February 2015	1/ Spare part installed 2/ Faulty equipment to be collected by INEO for reparation & replacement (Waiting for ICAO instructions) 3/ Spare Modem to be declared in the network		25/02/2015 Solved by INEO => Closed as per INEO	24th February 2015		OK
P4SPIM05023	SOLUTION IDENTIFIED	P	4	Peru	SPIM	Lima	3 La grafica de representación de los equipos en los nodos en el NMS no ha sido mejorada, tal como se había observado en la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	20th-February-2015 6th-March-2015 10th-March-2015 17 March 2015		OK but still pending the installation of the last NMS version
P3SPIM05024	CLOSED	P	3	Peru	SPIM	Lima	4 Falta actualización de los diagramas circuitales	5 February 2015	As-built under realization		27/03: documents achieved, to be shipped on Monday 30th	27th March 2015	30th march 2015	
P2SPIM05025	SOLUTION IDENTIFIED	P	2	Peru	SPIM	Lima	5 Perdida de paquetes red terrestre Level 3 con Argentina, Manaos, Colombia , Guyana y Venezuela	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Still pending Coordination was made to make the test on LEVEL 3 network the 31 March.
P2SPIM05026	ON PROGRESS	P	2	Peru	SPIM	Lima	6 Numero ATS d no corresponde	5 February 2015	Local intervention of our expert		27/02/2015 => Targeted 02/03/2015	20th-February-2015 6th-March-2015 4-2th-March-2015 20-March-2015 10th April 2015		Not solved pending
P4SPIM05027	CLOSED	P	4	Peru	SPIM	Lima	7 Pruebas cadena A satelital no realizadas por falla del MODEM cadena A	5 February 2015			25/02/2015 Solved by INEO => Closed as per INEO	24th February 2015		Not solved Peru reported that tests were not made
P4SPIM05028	SOLUTION IDENTIFIED	P	4	Peru	SPIM	Lima	8 Prueba BER no realizada	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/02/2015 => INEO technician will conduct the test on site, on 30/03/15 06/03/15 => As talked during teleconference, the test requires to shutdown the whole satellite network. Need to confirm and coordinate it. 12/03/2015: Procedure sent	27th-February-2015 13 March 2015		No completed pending issues
P4SPIM05029	CLOSED	P	4	Peru	SPIM	Lima	9 Pendiente pruebas fallas de equipos (Sección 7.3)	5 February 2015	During the PSAT, it appears that this test was already performed. It could be easily checked, and upon request by ICAO, it could be done during the ORD period with the local FP and INEO remote coordination			25th February 2015		OK

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P3SPIM050210	CLOSED	P	3	Peru	SPIM	Lima	10 Errores plan de discoado circuitos administrativos	5 February 2015	Local intervention of our expert		20/02/2015 => Improvement of 2015 12/03/2015 New configuration was sent to ICAO on March 10th pending the implementation and test 12/03/2015: configuration sent, first test ok. Pending confirmation 16/03 new test asked to confirm diagnostic 27/03: closed as per email of 19/03	20th March 2015 20th March 2015		Not solved on progress
P3SPIM050211	ON PROGRESS	P	3	Peru	SPIM	Lima	11 Calidad voz IP teleferencia no satisfactoria	5 February 2015	1/ Diagnostic of the current configuration 2/ New configuration to be proposed after analysis 3/ Configuration implmented, to be tested (12/03)		05/03 : diagnostic still on progress 13/03: modem configuration changed, test pending. 27/03: tests achieved with Manaus unsuccessful	10th March-2015 20th March-2015 10th April 2015		IP telephone still pending
O2SPIM120212	SOLVED	O	2	Peru	SPIM	Lima	12 anomalía que está presentándose en la comunicación AFTN de Santiago hacia Lima y Ezeiza (email OACI 12.02)	12 February 2015	OSPF P6 under analysis -> Looking for a technical solution to be implemented	Resolution pending of the item P2SBMN02051	25/02/2015 => New configuration will be tested by Level3 as of today, on all nodes, under recommendation made by our Cisco expert (CCIE certified) 27/02/2015 => New configuration implemented, solution monitoring under validation 05/03/2015 => Improvement of the routing observed, but still to be confirmed	10th April 2015		Not solved yet still pending
P3SMPM05021	SOLUTION IDENTIFIED	P	3	Suriname	SMPM	Paramaribo	1 Presenta pérdidas de paquetes en la red terrestre LEVEL 3 con Argentina, Manaus , Recife (muy alta), Chile, Colombia, Ecuador, Guyana y Uruguay	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Still pending Coordination was made to make the test on LEVEL 3 network the 31 March.
P4SMPM05022	SOLUTION IDENTIFIED	P	4	Suriname	SMPM	Paramaribo	2 Pendiente pruebas BER	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/02/2015 => INEO technician will conduct the test on site, on 30/03/15 06/03/15 => As talked during teleconference, the test requires to shutdown the whole satellite network. Need to confirm and coordinate it. 12/03/2015: Procedure sent	10th April 2015		Pending issue not solved
P3SMPM05023	SOLUTION IDENTIFIED	P	3	Suriname	SMPM	Paramaribo	3 Teleferencia IP solo con diez usuarios	5 February 2015	1/ Diagnostic of the current licence 2/ New 16 users licences to be provided after analysis		05/03 : Hardware limitation found, solution to be provided. Will be codec change or hardware addition	10th April 2015		IP telephone still pending
P3TTZP05021	CLOSED	P	3	Trinidad & Tobago	TTZP	Piarco	1 NMS: refresco cambios de estados muy lento	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => in a local NMS it seems correct the refresh. For the distant NMS it is not possible to improve it due to satellite hop	10th March-2015 6th March 2015		Not closed Trinidad & Tobago reported the 30 March that the NMS for local monitoring still too slow.
P4TTZP05022	SOLUTION IDENTIFIED	P	4	Trinidad & Tobago	TTZP	Piarco	2 Calidad de la imagen no mejorada aspecto pendiente desde la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	10th April 2015		Waiting to load thnew configuration
P3TTZP05023	SOLUTION IDENTIFIED	P	3	Trinidad & Tobago	TTZP	Piarco	3 Teleferencia IP solamente trabaja con 11 usuarios no cumple con las especificaciones técnicas de la REDDIG	5 February 2015	1/ Diagnostic of the current licence 2/ New 16 users licences to be provided after analysis		05/03 : Hardware limitation found, solution to be provided. Will be codec change or hardware addition	6th March-2015 10th March-2015 20th March 2015		Still pending the IP telephone
P2TTZP05024	CLOSED	P	2	Trinidad & Tobago	TTZP	Piarco	4 No hay conmutación automática en el IBUC en caso de falla solamente conmuta cuando se apaga la energía	5 February 2015	After analysis, it appears that the IBUC needs to be updated. To do so, we need to be connected directly to the equipment. INEO requests to ICAO the support from the local FP in order to perform this action.		26/02/2015 => New IBUC firmware successfully installed => Switching problem solved => Solved as per INEO	28 February 2015		OK solved
P2TTZP05025	SOLUTION IDENTIFIED	P	2	Trinidad & Tobago	TTZP	Piarco	5 Perdida de paquetes en la red terrestre LEVEL 3 con Curitiba y Ecuador.	5 February 2015	Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)		25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Still pending Coordination was made to make the test on LEVEL 3 network the 31 March.


File update: 4/17/2015 14:30														
ITEM NUMBER	STATUS	TYP E O/M	CRI TIC ITTY	COUNTRY	NODE	CITY	OUTSTANDING ISSUES	OPENING DATE	ACTION(S) TO BE PERFORMED	COMMENTS	CURRENT UPDATE	EXPECTING CLOSING DATE	REAL CLOSING DATE	ICAO AND STATES COMMENTS 30 march 2015
O2TTZP18026	CLOSED	O	2	Trinidad & Tobago	TTZP	Piarco	6 Communication problem with Paramaribo and Manaus according to the email from ICAO (18th Feb.)	18 February 2015	OSPF Pb under analysis -> Looking for a technical solution to be implemented	Resolution pending of the item P2SBMN02051	25/02/2015 => New configuration will be tested by Level3 as of today, on all nodes, under recommendation made by our Cisco expert (CCIE certified) 27/02/2015 => New configuration implemented, solution monitoring under validation 05/03/2015 => Improvement of the routing observed, but still to be confirmed			OK
P4SUMU05021	CLOSED	P	4	Uruguay	SUMU	Montevideo	1 Falta actualización los planos con los diagramas circuitales	5 February 2015	As-built under realization		27/03/2015: finalisation of drawings in AEC files 27/03: documents achieved, to be shipped on Monday 30th	27th March 2015	30th March 2015	Not closed The action is solved once all the REDDIG II focal points receive the document with the extended circuit diagrams and information presented are OK Pending the CD with the electronic documentation
P4SUMU05022	ON PROGRESS	P	4	Uruguay	SUMU	Montevideo	2 Unidad 1070 cadena B no enciende luz verde aun cuando opera bien	5 February 2015	We opened an RMA number. INEO will replace the equipment.		06/03/2015 => shipment of faulty unit towards NDSatCom pending			No action made solution required
P3SUMU05023	CLOSED	P	3	Uruguay	SUMU	Montevideo	3 Falta cambiar Feed Horn	5 February 2015			New Feed Horn and antenna Line Up to be done	24 March 2015		OK
P3SUMU05024	CLOSED	P	3	Uruguay	SUMU	Montevideo	4 NMS: refresco cambios de estados muy lento	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => in a local NMS it seams correct the refresh. For the distant NMS it is not possible to improve it due to satellite hop	06/03/2015		Not solved Uruguay reported that the NMS still slow in the local monitoring presentation
P4SUMU05025	SOLUTION IDENTIFIED	P	4	Uruguay	SUMU	Montevideo	5 Calidad de la imagen no mejorada aspecto pendiente desde la FAT	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress 12/03 => new NMS aspect approved by OACI (L.Alejos email of 12/03), to be deployed in all site	5th April 2015		Pending required to load new NMS configuration
P3SUMU05026	SOLUTION IDENTIFIED	P	3	Uruguay	SUMU	Montevideo	6 Falta instalar antivirus en el NMS	5 February 2015	To be provided by INEO		27/03/2015: Antivirus almost identified (two remaining systems)	10th April 2015		Pending issues still waiting antivirus in all the nodes not only Montevideo
P3SUMU05027	SOLUTION IDENTIFIED	P	3	Uruguay	SUMU	Montevideo	7 El NMS presenta información incorrecta	5 February 2015	1/ Diagnostic of the current configuration of the NMS 2/ New version of the NMS	NMS works in progress	05/03/15 => Problem identified => Implementation of the solution in progress, to be achieved on 09/03/15	5th April 2015		Still pending solution almost ready
P4SUMU05028	SOLUTION IDENTIFIED	P	4	Uruguay	SUMU	Montevideo	8 Pendiente pruebas BER	5 February 2015	During the PSAT, it appears that this test was not the priority. Now, it's difficult to perform it because it means that States will have to cut the services. If requested by ICAO, it could be done during the ORD period with the local FP and INEO coordination		27/02/2015 => INEO technician will conduct the test on site, on 30/03/15 06/03/15 => As talked during teleconference, the test requires to shutdown the whole satellite network. Need to confirm and coordinate it. 12/03/2015: Procedure sent	10th April 2015		Pending activity not completed yet
P4SUMU05029	SOLUTION IDENTIFIED	P	4	Uruguay	SUMU	Montevideo	9 La versión entregada de software para la VPN remota no es acorde al manual enviado para su instalación, no pudiendo instalarse según lo sugerido por INEO.	5 February 2015	An amendment to the User Manual will be sent to all the Reddig II Members by email.		17/03: new procedure sent, same as for SAEZ and SBMN	5th April 2015		Not solved pending
P3SUMU050210	SOLUTION IDENTIFIED	P	3	Uruguay	SUMU	Montevideo	10 Perdidas de paquetes en la red terrestre LEVEL 3 con Bolivia, French Guyana, Surinam, Trinidad & Tobago y Venezuela.	5 February 2015		Information transmitted to level 3 -> Waiting for the solution proposed and the ECD (Expecting Closing Date)	25/02/2015 => New request retransmitted to Level 3 06/03/2015 => individual tests to be performed 27/03: tests conducted by LE were successful, except French Guiana. Procedure sent on 27th of March for individual tests.	10th April 2015	LEVEL 3	Still pending Coordination was made to make the test on LEVEL 3 network the 31 March.
P2SVIM05021	CLOSED	P	2	Venezuela	SVIM	Maiquetia	1 No se observa el switcheo automatico en el RSS	5 February 2015	We have contacted our site manager, and apparently it was the automatic switching of the RSS from B to A. It's normal that it doesn't work because it's only possible manually. Please confirm that it's issue can be SOLVED		25/02/2015 Solved by INEO => Closed as per INEO	18 February 2015		OK closed

File update: 4/17/2015 14:30														
ITEM NUMBER	STATUS	TYP E O/M	CRI TIC ITY	COUNTRY	NODE	CITY	OUTSTANDING ISSUES	OPENING DATE	ACTION(S) TO BE PERFORMED	COMMENTS	CURRENT UPDATE	EXPECTING CLOSING DATE	REAL CLOSING DATE	ICAO AND STATES COMMENTS 30 march 2015
OISVIM18022	CLOSED	O	1	Venezuela	SVIM	Maiquetia	2 Communication problem with Georgetown, Paramaribo, and Manaus according to email of the 18th Feb.	18 February 2015	OSPF Pb under analysis -> Looking for a technical solution to be implemented	Resolution pending of the item P2SBMN02051	25/02/2015: New communication will be established between the two sites, with a configuration made by the two experts (VLDL) required. 26/02/2015: New communication implemented, correct communication between equipment. 27/02/2015: Configuration of the OSPF protocol implemented. 27/02/2015: Configuration of the OSPF protocol implemented. 27/03: no issue reported so far	27 March 2015		Solved expeting closing date
OISVIM25023	CLOSED	O	1	Venezuela	SVIM	Maiquetia	3 All the AFTN communication out of service	24 February 2015	Problem occurred due to other equipment		25/02/2015 => Waiting for result after OSPF configuration modification done today on LEVEL3 network 27/02/2015 => solved	27 February 2015		OK Closing date
Legend colour	Pending													
Legend colour	On Progress						The colour of this line is automatically updated according the status, except the last colomn which always remains as initially colored by the customer.							Customer initial color
Legend colour	Solved						The colour of this line is automatically updated according the status, except the last colomn which always remains as initially colored by the customer.							Customer initial color
Legend colour	Solution identified						The colour of this line is automatically updated according the status, except the last colomn which always remains as initially colored by the customer.							Customer initial color
Legend colour	Closed						The colour of this line is automatically updated according the status, except the last colomn which always remains as initially colored by the customer.							Customer initial color

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
	List A			REDDIG II SPARE PARTES DELIVERED FROM BRAZIL				
				EQUIPOS Y PIEZAS DE REPUESTO EN GENERAL				
1	A4	1	1.1	Modem Satelital	NDSatcom	skywan 7000	1	730289
2			1.2	Cable de energia			1	-
3			1.3	Tarjeta MOD	NDSatcom		1	-
4			1.4	Tarjeta SIC/DEMODO	NDSatcom		1	-
5			1.5	Tarjeta FPG	NDSatcom		1	-
6			1.6	Tarjeta UIM	NDSatcom		1	-
7			1.7	Cable de consola	NDSatcom		1	-
8			1.8	Cable de RF N-SMA Macho	NDSatcom		1	-
9	C2	2	2.1	ROUTER Cisco 2901	CISCO	2901	1	FCZ1719C1BR
10			2.2	Two port Async-Sync Serial WAN interface card	CISCO	HWIC	1	FOC17173XNG
11			2.3	Two port Async-Sync Serial WAN interface card	CISCO	HWIC	1	FOC17427CCS
12			2.4	two port voice interface card FXS	CISCO	VIC3	1	FOC16450PGJ
13	C2	3	3.1	ROUTER Cisco 2911	CISCO	2911	1	FCZ175060LX
14			3.2	24 PORT RJ45 PATCH PANEL	CISCO		1	-
15			3.3	01 TARJETA EVM-HD TELEFONICO	CISCO		1	-
16			3.4	Cable serial CISCO V.24 DTE DB25	CISCO		1	-
17			3.5	Cable serial CISCO V.24 DCE DB25	CISCO		1	-
18			3.6	Cable telefonico RJ11 cross over	CISCO		1	-
19			3.7	High density 8 port analog and digital extension module	CISCO		1	FOC180475BH
20	C2	4	4.1	ROUTER Cisco 2901	CISCO		1	FCZ175092L8
21			4.2	Two port Async-Sync Serial WAN interface card	CISCO		1	FOC17427CQP
22			4.3	two port voice interface card FXS	CISCO		1	FOC17224X7C
23			4.4	Cable serial CISCO V.24 DCE DB25	CISCO		1	-
24	A2	5	5.1	Rx 1+1	Terrasat		1	TE6010431
25			5.2	Handheld Terminal with 2 m cable	Terrasat		1	439318
26			5.3	Accesorios para RX 1+1	Terrasat		1	-
27			5.4	Cables de energia	Terrasat		2	-
28			5.5	Cable Coaxial de RF con conectores tipo N 6m.	Terrasat		1	-
29			5.6	Cable de Gestion para LNB	Terrasat		1	-
30			5.7	Cable Coaxial de RF con conectores tipo N 30 cm.	Terrasat		2	-

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
31	A3	6	6.1	Wave Guide Switch for LNB	Logus		1	0244
32			6.2	LNB Banda C			1	2386
33			6.3	LNB Banda C			1	2381
34	B2	7	7.1	Switch Netgear de 26 Puertos	Netgear		1	39223C5U0036F
35			7.2	Cable USB			1	-
36	B2	8	8.1	Switch Netgear de 26 Puertos	Netgear		1	39223C5U00378
37	A1	9	9.1	IBUC 40W	Terrasat		1	TE5022340
38			9.2	IBUC 40W	Terrasat		1	TE5022352
39			9.3	1+1 Interface	Terrasat		1	6410574
40			9.4	Switch de Guia de Onda	Logus		1	0363
41			9.5	Cable Coaxial con conectores tipo N 30cm			2	-
42			9.6	Cables de gestion con conector tipo Militar			2	-
43			9.7	Cable de gestion tipo ethernet			1	-
44			9.8	Cable de Energia			2	-
45	D1	10	10.1	Manuales de Curso de Rio de Janeiro				-
46	D2	11	11.1	Documentos Oficiales REDDIG II				-
47	D1	12	12.1	Manuales REDIG II				-
48	D1	13	13.1	Documentos Oficiales REDDIG II				-

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
	List B			REDDIG II SPARE PARTS DELIVERED FROM FRANCE				
	XXXX			EQUIPOS Y PIEZAS DE REPUESTO EN GENERAL				
49	B3	14	14.1	Tarjeta Serial MOXA de 8 Puertos RS-232 PCI	MOXA		1	TADBB1062386
50	B3	15	15.1	Disco Duro Externo IOMEGA NAS 2 Tb	LENOVO		1	V9AP370005
51			15.2	Fuente para Disco Duro	LENOVO		1	-
52			15.3	Manuales	LENOVO		1	-
53	B3	16	16.1	UPS Eaton Eclipse ECO 1200 VA	EATON		1	G030D43420
54	B3	17	17.1	Cable Multipuerto Moxa 8 puertos	MOXA		1	-
55			17.2	Cable Cisco V.24 DTE	CISCO		5	-
56			17.3	Cable Cisco V.24 DCE	CISCO		11	-
57			17.4	Cable DB25 Male-Female			6	-
58			17.5	Cable Patch Cord ethernet RJ45			6	-
59	C3	18	18.01	Cable Multiple Cisco 8 puertos ethernet con adaptadores a DB25	CISCO		2	-
60			18.02	Two port Async-Sync Serial WAN interface card	CISCO		1	FOC17173XSA
61			18.03	Four port Async-Sync Serial HWIC	CISCO		1	FOC17056CG2
62			18.04	Four port Async-Sync Serial HWIC	CISCO		1	FOC17405CTK
63			18.05	Eight port Async interface card	CISCO		1	FOC174673WU
64			18.06	Two Port Voice Interface Card FXS.	CISCO		1	FOC1747821Q
65			18.07	Two Port Voice Interface Card FXS.	CISCO		1	FOC18073ZCY
66			18.08	Two Port Voice Interface Card FXS.	CISCO		1	FOC1747823M
67			18.09	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WJ8
68			18.10	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WD0
69			18.11	Two Port Voice Interface Card FXS.	CISCO		1	FOC174781UF
70			18.12	Two Port Voice Interface Card FXS.	CISCO		1	FOC18073ZJL
71			18.13	Two Port Voice Interface Card FXS.	CISCO		1	FOC17461BL9
72			18.14	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WGP
73			18.15	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WH7
74	18.16	Four Port Voice Interface Card FXS	CISCO		1	FOC1747523F		
75	18.17	Four Port Voice Interface Card FXS	CISCO		1	FOC174752RT		
76	18.18	Four Port Voice Interface Card FXS	CISCO		1	FOC174751RP		
77	18.19	Four Port Voice Interface Card FXO	CISCO		1	FOC1746833R		
78	18.20	One Port 2nd Gen Multiflex trunks Voice Wan Interface Card E1/	CISCO		1	FOC17451Q66		
79	18.21	High Density voice/fax external Module	CISCO		1	FOC17443E08		
80	18.22	Two Port 2nd Gen Multiflex trunks voice wan interface Card E1/T1	CISCO		1	FOC17479P39		
81	18.23	Eight port Async-Sync interface card	CISCO		1	FOC17446GYD		

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REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
82	C3	19	19.1	Module Adapter for SM Slot on CI	CISCO		1	FOC17516V0F
83	C3	20	20.1	Module Adapter for SM Slot on CI	CISCO		1	FOC17516UU5
84	B1	21	21.1	Impresora Laser Jet Pro 400 M401dn	Hewlet Packard		1	VNH4222944
85			21.2	Cables de Energia			1	-
86	A3	22	22.1	8 Port Device Server 10/100 eth	MOXA		1	TADAE101113
87	B1	23	23.1	RSS 16 SLOT 4U Chasis	DATAPROBE		1	115010100300024
88			23.2	Power Module	DATAPROBE		1	193008400000128
89			23.3	Network Control Card	DATAPROBE		1	134006500400093
90			23.4	Dual 8 wire Module Jack A/B card	DATAPROBE		1	111020200200892
91			23.5	Dual 8 wire Module Jack A/B card	DATAPROBE		1	111020200200893
92			23.6	D25 A/B Card	DATAPROBE		1	111020000100593
93			23.7	D25 A/B Card	DATAPROBE		1	111020000100594
94			23.8	D25 A/B Card	DATAPROBE		1	111020000100643
95			23.9	D25 A/B Card	DATAPROBE		1	111020000100667
96	B1	24	24.1	RSS 16 SLOT 4U Chasis	DATAPROBE		1	115010100300011
97			24.2	Power Module	DATAPROBE		1	193008400000115
98			24.3	Network Control Card	DATAPROBE		1	134006500400080
99			24.4	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200889
100			24.5	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200890
101			24.6	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200891
102			24.7	D25 A/B Card	DATAPROBE		1	111020000100629
103			24.8	D25 A/B Card	DATAPROBE		1	111020000100630
104	C3	25	25.1	High density 8 port analog and digital extension module	CISCO		1	FOC174049WM
105			25.2	High density 8 port analog and digital extension module	CISCO		1	FOC174049YH
106			25.3	Cable de consola de Cisco			2	-
107			25.4	KVM Extender			1	F3D46058D140097
108			25.5	Convertidor USB - Serial			1	-
109			25.6	Telefono IP DEPAEPE	DEPAEPE		1	PE02001120001826
110			25.7	Mouse Optico USB Negro			1	-
111			25.8	Regleta electrica con 05 tomas			2	-
112			25.9	Teclado Estandar K120	Logitech		1	-

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

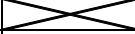
Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
113	B2	26	26.1	Filtro RF	NORSAT		1	C001128132
114			26.2	Filtro RF	NORSAT		1	C001128140
115			26.3	Barras de Anclaje de acero			3	-
116			26.4	Bloques de anclaje de plastico negro			6	-
117			26.5	Tornillos de sujecion de acero			20	-
118			26.6	Blank panel para RSS			3	-
119			26.7	Regleta electrica con 05 tomas			2	-
120			26.8	Adaptadores Cambia genero DB25			15	-
121	C1	27	27.1	Pantalla LCD 27"	SAMSUNG		1	0293H4MDB00709
122	C1	28	28.1	HP ProLiant DL160 Gen8 Base - Server	Hewlet Packard		1	CZJ34500JZ
123	A1	29	29.1	NTP Time Server Master Clock	Gorgy Timing		1	138176
124			29.2	GPS Antenna + Cable	Gorgy Timing		1	138389
125	C2	30	30.1	Router Cisco 2901	CISCO	2901	1	FCZ175092KM
126	C2	31	31.1	Router Cisco 2901	CISCO	2901	1	FCZ170391DX
127	C2	32	32.1	Router Cisco 2901	CISCO	2901	1	FCZ170592LK
128	C1	33	33.1	IBUC Terrasat 80 W	Terrasat		1	TE5022355

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
	List C			REDDIG I SPARE PARTS				
				EQUIPOS Y PIEZAS DE REPUESTO EN GENERAL				
129	E2	34	34.1	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	2634
130			34.2	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	2604
131			34.3	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	1063
132			34.4	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	2434
133			34.5	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	1005
134			34.6	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	1061
135			34.7	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	1067
136			34.8	Fuente de Poder para CX950	Memotec	VLT130-3000S1	1	1088
137	E2	35	35.1	Dual Analog Voice Card	Memotec	AZ004010	1	052171060
138			35.2	Dual Analog Voice Card	Memotec	AZ004010	1	052172487
139			35.3	Dual Analog Voice Card	Memotec	AZ004010	1	052172484
140			35.4	Dual Analog Voice Card	Memotec	AZ004010	1	052172486
141			35.5	Dual Analog Voice Card	Memotec	AZ004010	1	1000339848
142			35.6	Dual Analog Voice Card	Memotec	AZ004010	1	90030009411
143			35.7	Dual Analog Voice Card	Memotec	AZ004010	1	9003000738
144	E2	36	36.1	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	081830913
145			36.2	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	052173027
146			36.3	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	052173028
147			36.4	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	05273174
148			36.5	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	052173175
149			36.6	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	061082686
150			36.7	Fast Ethernet 10/100 Card	Memotec	AZ001011	1	061082680
151	E2	37	37.01	10 Base-T Ethernet Card	Memotec	AC004150	1	9002000306
152			37.02	10 Base-T Ethernet Card	Memotec	AC004150	1	9002000285
153			37.03	ISDN Card	Memotec	AC004060	1	1000328415
154			37.04	Digital Voice Processor	Memotec	AZ004114	1	1000315047
155			37.05	Digital Voice Processor	Memotec	AZ004114	1	1000315043
156			37.06	Digital Voice Processor	Memotec	AZ004114	1	061092235
157			37.07	Digital Voice Processor	Memotec	AZ004114	1	061091982
158			37.08	Digital Voice Processor	Memotec	AZ004114	1	052169078
159			37.09	Digital Voice Processor	Memotec	AZ004114	1	052169066
160			37.10	E1 Expansion	Memotec	AZ004120	1	052169024
161			37.11	V.35 H	Memotec	AZ002312	1	081807596

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
162	E2	38	38.1	Multi I/O V.24	Memotec	AZ002325	1	062236450
163			38.2	Multi I/O V.24	Memotec	AZ002325	1	9002000160
164			38.3	Multi I/O V.24	Memotec	AZ002325	1	9002001222
165			38.4	Multi I/O V.24	Memotec	AZ002325	1	9002001230
166			38.5	Multi I/O V.24	Memotec	AZ002325	1	062236456
167			38.6	Multi I/O V.24	Memotec	AZ002325	1	9002000250
168	E2	39	39.01	Modulo Ram 32 MB			1	040525
169			39.02	Modulo Ram 32 MB			1	045385
170			39.03	Modulo Ram 64 MB			1	07AD00134
171			39.04	Modulo Ram 64 MB			1	07AD00114
172			39.05	Modulo Ram 64 MB			1	07AD00113
173			39.06	Modulo Ram 64 MB			1	07AD00135
174			39.07	Slim Card E&M	Memotec	AZ004025	1	1000370325
175			39.08	Slim Card E&M	Memotec	AZ004025	1	1000370752
176			39.09	Slim Card E&M	Memotec	AZ004025	1	1000370677
177			39.10	Slim Card E&M	Memotec	AZ004025	1	1000328561
178			39.11	Slim Card E&M	Memotec	AZ004025	1	1000328572
179			39.12	Slim Card E&M	Memotec	AZ004025	1	052167044
180			39.13	Slim Card E&M	Memotec	AZ004025	1	052167058
181			39.14	Slim Card E&M	Memotec	AZ004025	1	052167029
182			39.15	Slim Card E&M	Memotec	AZ004025	1	052167041
183	E2	40	40.1	Universal I/O	Memotec	AZ002320	1	082389450
184			40.2	Universal I/O	Memotec	AZ002320	1	082389447
185			40.3	Universal I/O	Memotec	AZ002320	1	092427151
186			40.4	Universal I/O	Memotec	AZ002320	1	092427153
187			40.5	Universal I/O	Memotec	AZ002320	1	92427152
188			40.6	Universal I/O	Memotec	AZ002320	1	92427154
189	E2	41	41.1	Ring Generator	Memotec	AZ009050	1	072294201
190			41.2	Ring Generator	Memotec	AZ009050	1	082388103
191			41.3	Ring Generator	Memotec	AZ009050	1	92425216
192			41.4	Ring Generator	Memotec	AZ009050	1	92425217
193			41.5	Ring Generator	Memotec	AZ009050	1	92425210
194			41.6	Ring Generator	Memotec	AZ009050	1	052174923

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
195	C4	42	42.1	Chasis CX950	Memotec	AC001360	1	CA2508
196	B4	43	43.1	Multiplexor CX950e Chasis+Placa Madre	Memotec	AC002010	1	092425306
197			43.2	Cable de consola Memotec	Memotec		1	-
198	E3	44	44.1	Chasis CX950	Memotec	AC001360	1	CA02740
199	E4	45	45.1	Multiplexor CX950e Chasis+Placa Madre	Memotec	AC002010	1	072298778
200	C4	46	46.1	Multiplexor CX950e Chasis+Placa Madre	Memotec	AC002010	1	082389428
201	E3	47	47.1	Modem Linkway 2100	Viasat	2100	1	B6885
202			47.2	Tarjeta MODEM	Viasat		1	31910
203			47.3	Tarjeta Ethernet	Viasat		1	00A09400599A
204			47.4	FR TIA	Viasat		1	CL000225701
205	D4	48	48.1	Fax CANON H12130			1	DRT0671
206			48.2	Telefono analogico CONAIRPHONE			1	-
207	D3	49	49.1	SSPA 40 W	Paradise Datacom	HPAC2040ACBX001	1	2360
208	D4	50	50.1	SSPA 40 W	Paradise Datacom	HPAC2040ACBX001	1	2359
209	E3	51	51.1	Fuente para Modem Linkway		CL0003192-01	1	RU140400198
210			51.2	Fuente para Modem Linkway		CL0003192-01	1	RU140400196
211			51.3	Fuente para Modem Linkway		CL0003192-01	1	RU140400197
212			51.4	Fuente para Modem Linkway		CL0003192-01	1	RU140400193
213			51.5	Fuente para Modem Linkway		CL0003192-01	1	RU140400194
214			51.6	Fuente para Modem Linkway		CL0003192-01	1	RU140400195
215	E3	52	52.1	Fuente para Modem Linkway		AM-120U-S4-916	1	RU082503487
216			52.2	Fuente para Modem Linkway		AM-120U-S4-916	1	RU082503484
217			52.3	Fuente para Modem Linkway		AM-120U-S4-916	1	RU134100215
218			52.4	Fuente para Modem Linkway		AM-120U-S4-916	1	RU134100212
219			52.5	Fuente para Modem Linkway		AM-120U-S4-916	1	RU134100213
220	D2	53	53.1	Rollo de cable ASSy 3 x 2.5 50 m			1	-
221	D2	54	54.1	Rollo de cable Multipar 50 m			1	-
222	D2	55	55.1	Rollo de cable Multipar 50 m			1	-
223	E2	56	56.1	LNB Banda C	NJS	NJS8477EN	1	00870
224	E2	57	57.1	Cables Patch Cord Ethernet 3m			9	-
225			57.2	Cables DB9-DB25 3m			2	-
226	E4	58	58.1	Rollo de Cable Coaxial 50R 50m			1	-
227	E1	59	59.1	SSPA 40 W	Paradise Datacom	HPAC2040ACBX001	1	2346

APPENDIX C

REDDIG I & REDDIG II SPARE PARTS - 2015

Desc: Reddig Spare Parts

	Location	Box#	Item#	Description	Supplier	Type	Quantity	Serial Number
228	D3	60	60.01	GPS Datum	Datum	ET6000-RB1	1	5823
229			60.02	Cable de consola Cisco	Cisco		1	-
230			60.03	Cable de Gestion SSPA Paradise	Paradise Datacom		1	-
231			60.04	Conectores Tipo N 50R sin ensamblar			4	-
232			60.05	Pulsera anti estatica			1	-
233			60.06	Paquete de Placas vacias para equipos Memotec.			1	-
234			60.07	Combinador-Divisor de RF	Global Proffesional		1	-
235			60.08	Convertidos RS232-RS485	Lindy		1	78680221KGZ0071
236			60.09	Paquete de instalacion SUN SOLARIS	SUN Microsystems		2	-
237			60.10	Tarjeta Multipuerto Serial	COMTROL		1	5850-075665
238			60.11	Cable multipuerto DB25 para Multi I/O Memotec	Memotec		2	-
239			60.12	Cable Patch Cord Ethernet RJ45 5m			2	-
240			60.13	Cable de consola Memotec			1	-
241			60.14	Adaptador DB9-DB25			2	-
242			60.15	Adaptador DB25-M34			1	-
243			60.16	Cable de energia			1	-
244			60.17	Cable RF Coaxial N-SMA Male			3	-