Kingdom of Morocco

الهيئة العليا
للاتصال السمعي البصري
ⵝⴰⵏⴱⴰⴷⵜ ⵜⴰⴷⵙⵍⴰⵏⵜ ⵏ ⵓⵎⵢⴰⵡⴰⴹ

Haute Autorité de la
Communication Audiovisuelle

PROGRAMS MONITORING SYSTEM HMS

The IT Division UIQ (Missions)

✓ Development of Software and Information Systems that meet the requirements of HACA internal management as well as regulation;

✓ Efficient and reliable storage and archive of audiovisual Data;

✓ The production of reliable quantitative audiovisual data while meeting the needs of programs monitoring and contents analysis process and respecting the required quality standards;

✓ Software, information system and IT infrastructures maintenance and update in order to satisfy the strategic requirements of the institution;

The IT Division UIQ (Organization)

The IT Division, that has 23 executives and agents, is organized in three units, as follows:

- ✓ IT systems Unit;

- ✓ Data production Unit;

- ✓ Software development Unit;

TV and Radio Programs Monitoring Technical System in HACA
The Software Package « HMS »

The Software Package HMS

✓ **HMS Acquisition :**

Receive, digitize, store and archive TV and Radio programs : national, regional and local channels (used since 2009)

✓ **HMS Media Library :**

Media library → watch/listen to TV and Radio programs, live or previously broadcasted: recorded (used since 2009)

✓ **HMS Pluralism :**

Control of political Pluralism during normal or election period (used since 2007)

HMS Acquisition

HMS Acquisition

This software allows TV and Radio signals reception **24/24** and **7/7**, recording, storage and archive for analog and digital video and audio broadcast, or via satellite.

The main strength of this software is the recording, in central and remote platform, of programs broadcasted by distant Radio channels which signal is not received in the Headquarters.

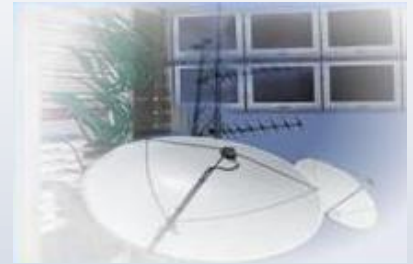# System Diagram: Reception and Recording of Radio channels in HACA
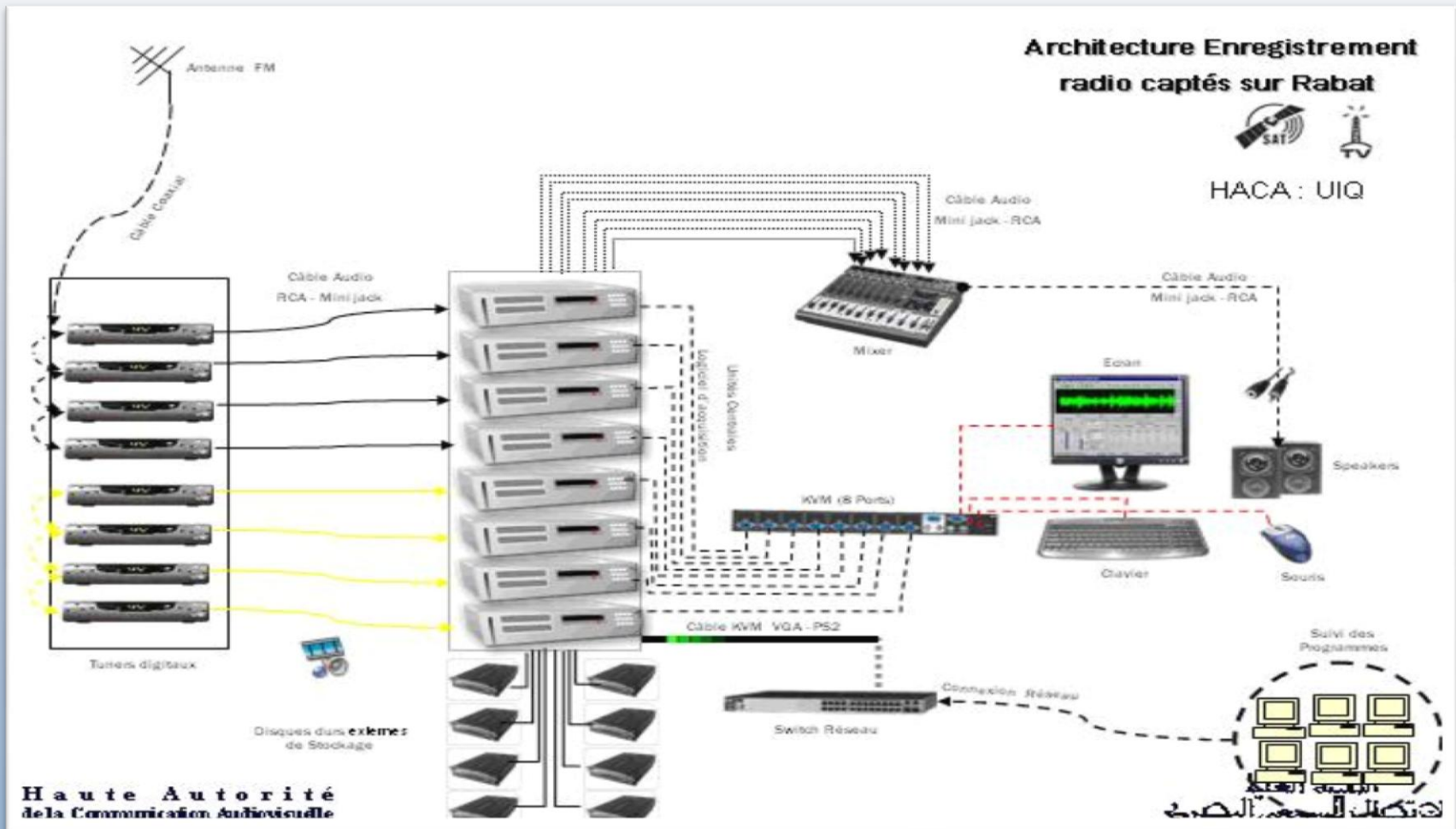
System Diagram: Reception and Recording of TV channels in HACA
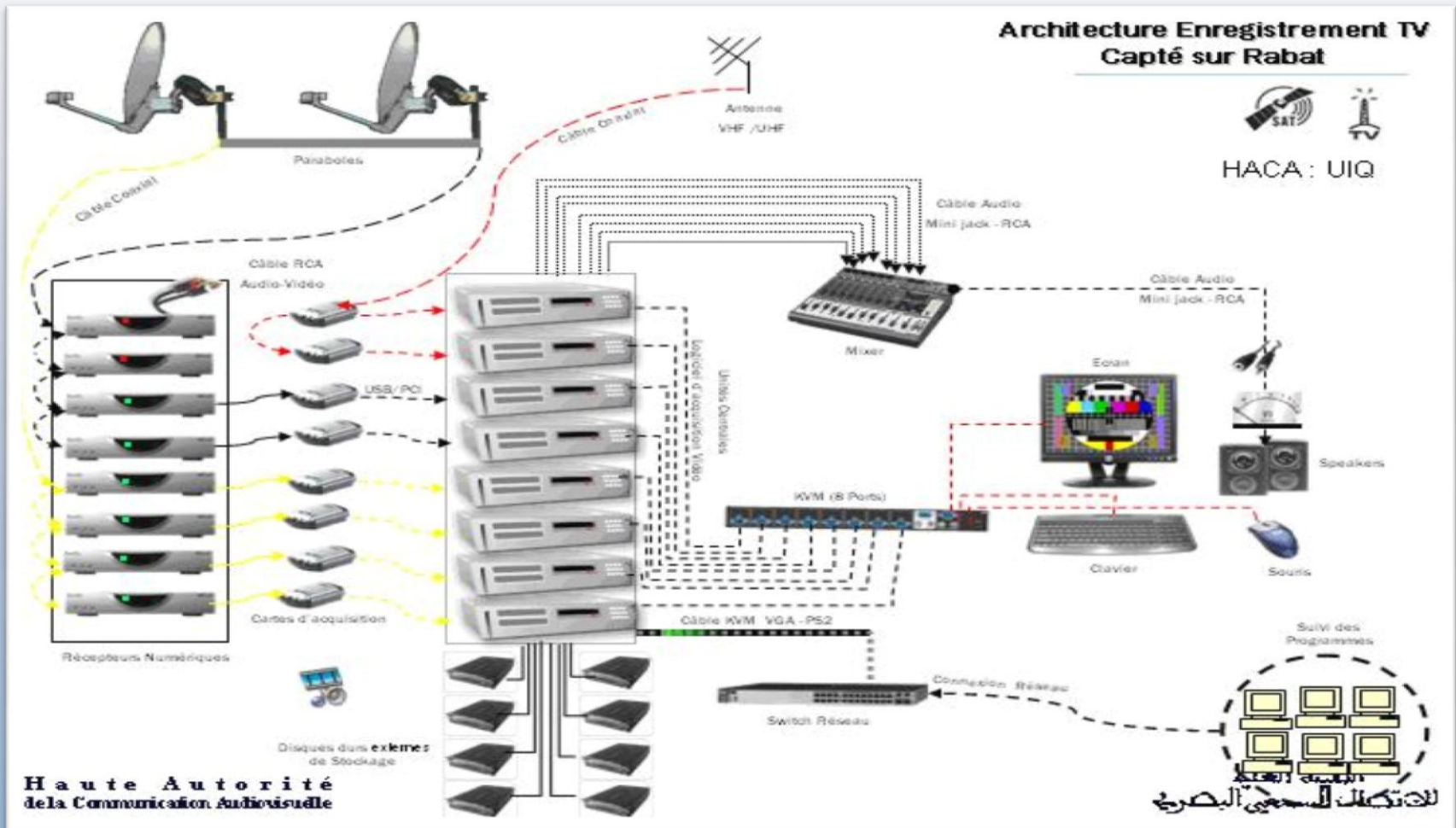
System requirements

✓ **Signal reception and distribution Platform**:

- FM, UHF, VHF and parabolic antennas.

- Signal ,and audio and video amplifiers/distributers.

- FM tuners, digital receivers (for satellite and digital terrestrial signals).

✓ **Media storage and archiving Platform :**

- Workstations equipped with « HMS Acquisition »: 2 Workstations for each TV or Radio Channel to record

- audio/video converters

✓ **A Network infrastructure allowing the interconnection of the different workstations.**

System Diagram: Reception and Recording of Distant Radio channels

>> Schéma Conceptuel de la Chaîne de traitement des IP RADIOS
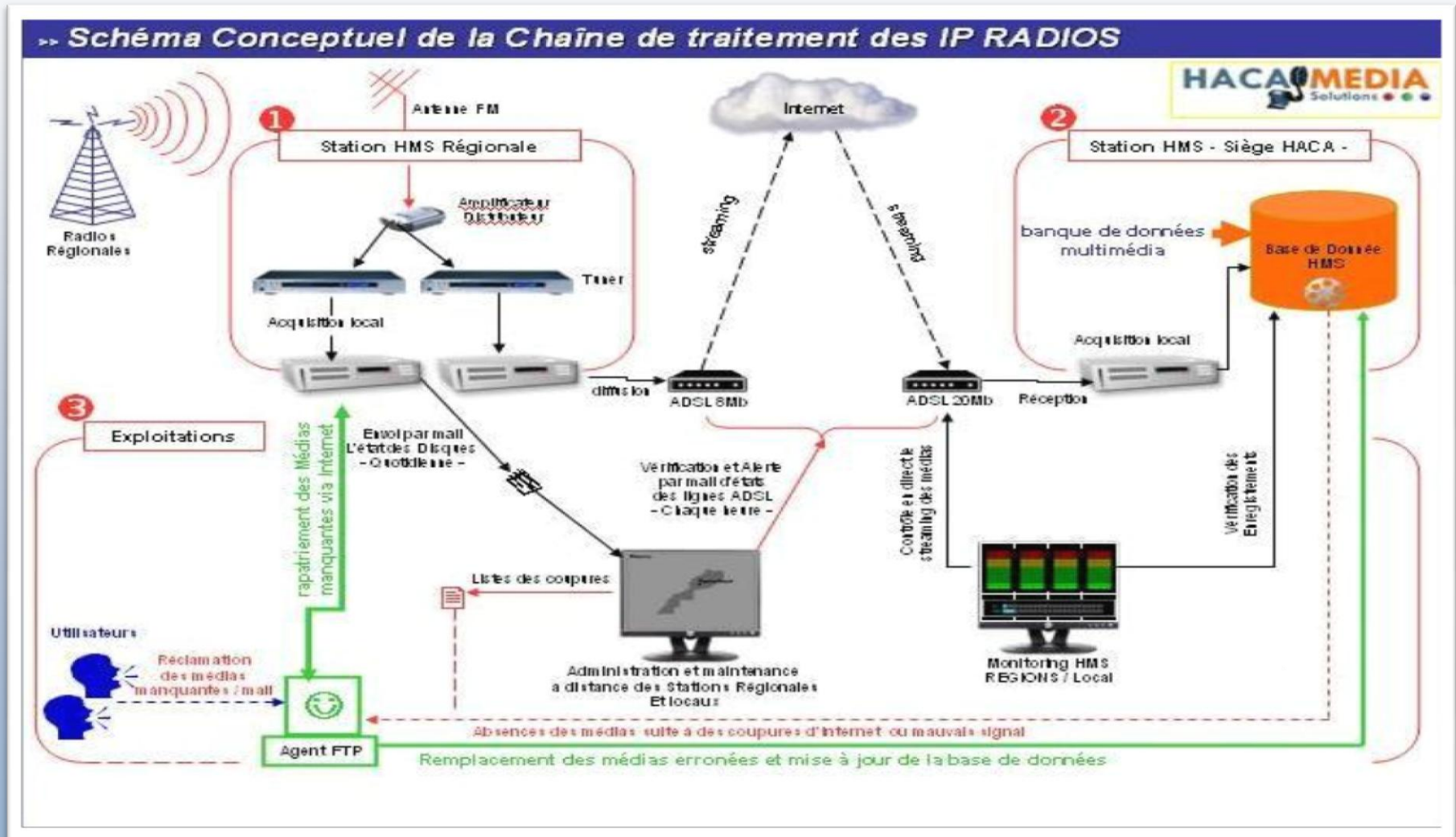
Regional installations throughout MOROCCO

Regional HMS Stations

Casablanca   **Fes**   **Tangier**   **Marrakech**   **Agadir**

Regional HMS Stations

Tetouan **Meknes** **Oujda** **Laayoun** **Dakhla**

System requirements (Regions)

✓ **Signal reception:**

- Installation of an FM antenna.
- Signal amplifier and distributer.
- 2 FM tuners per Radio channel.

✓ **Programs recording and storage:**

Workstations equipped with « HMS Acquisition »: 2 workstations for each Radio Channel to record

✓ **Signal streaming and Media file transfer**

An 8 MB/s (min) Internet (ADSL) connection with a fixed IP address in the regional site, and another 20 MB/s (min) Internet (ADSL) connection with a fixed IP address in HACA headquarters.

Information

✓ HMS Regions: since summer 2007

✓ 2 TB External Hard Drives are used. Each single disk stores:

- 1 year storage for 1 TV channel, or

- 1 year storage for 8 Radio channels

✓ Total Backup: Every recorded and stored signal, either in Rabat (HACA site) or in regions, is done concurrently by Two separate equipments → Machines backup, Disks Backup

HMS Acquisition (Overview)
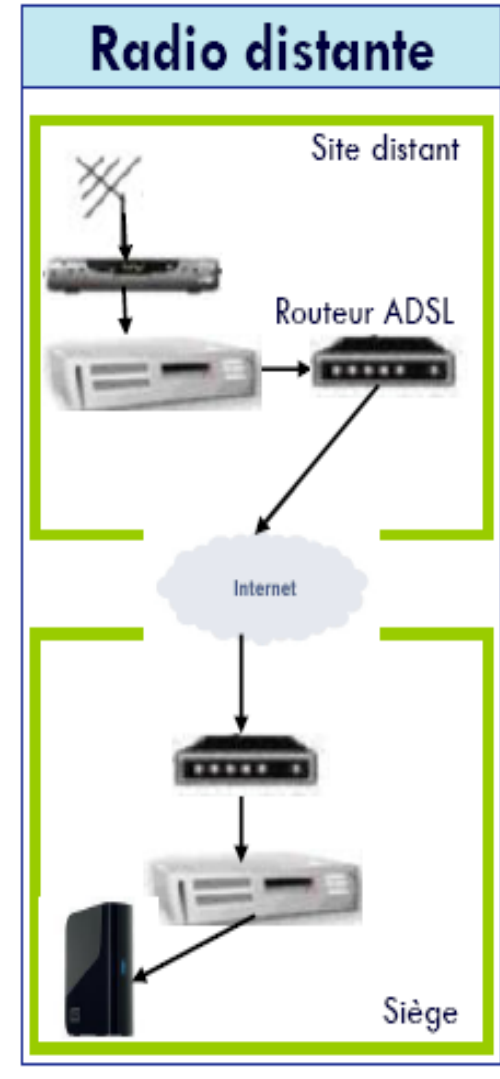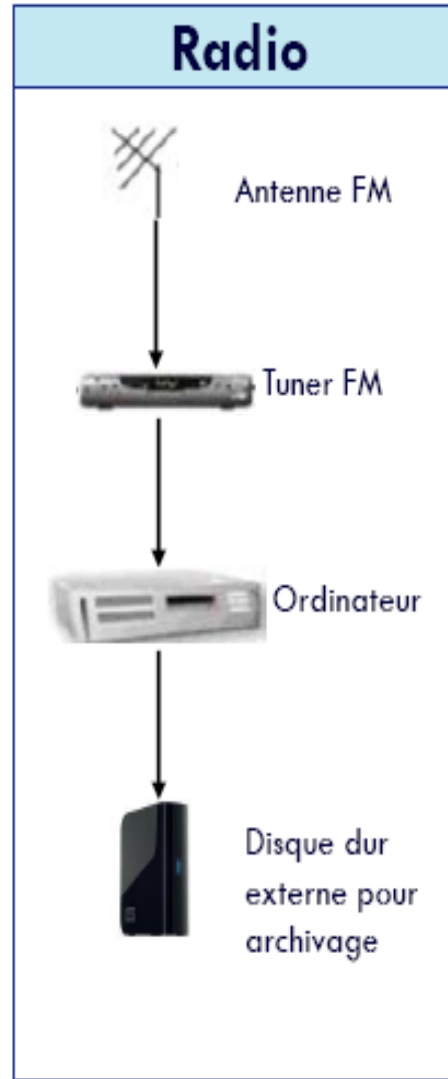
HMS Media Library

HMS Media Library

The system gives access, via HMS-Acquisition, to audio-visual programs, live or pre-recorded: an easy access available to all the staff in HACA

HMS Media Library

HMS Media Library functionalities

- ✓ Watch/listen to live broadcast

- ✓ Watch/listen to recorded programs

- ✓ Play a program from an external source

- ✓ Annotate and comment a program or a program sequence with the possibility to attach a document or a file

- ✓ Download a program or a sequence with the possibility to export for further use

- ✓ Exchange between different users. The functionality « Annotation and Monitoring » enables program and sequence processing, annotation, comments, document or file attachment, and exchange with other users.

HMS Pluralism

HMS Pluralism

Operational since 2007

This solution allows statement counting and timing for political, union and professional personalities on TV and Radio channels in normal or election period.

The solution configuration is based on the rules prescribed in decisions relating to political pluralism in normal and election period.

(Patent OMPIC N°29818 03-10-2008)

WIPO: World Intellectual and Property Organization

Information

- ✓ HMS Pluralism operates with a Database of political, union and professional personalities. This database is updated on a regular bases.

- ✓ Statement counting is based on how a personality is represented: as a minister, a political party member, professional...

HMS Pluralism

HMS Pluralism : (Example of Results)

Normal period	Election period

Normal period:

- (16) Liste des séquences
- (1) Liste détaillée par date
- (2) Liste détaillée par intervenant
- (3) liste classement / rubrique / sujet
- (4) Liste condensée par partis des équilibres politiques
- (5) Liste détaillée des équilibres politiques
- (6) Relevé des temps d'interventions politique par heure
- (7) Int erventions par personnalité triées par la durée totale d'intervention
- (8) Intervention par classement triées par la durée totale d'intervention
- (9) Intervention par catégorie triées par la durée totale d'intervention
- (10) Intervention par institution triées par la durée totale d'intervention
- (11) Nombre intervention par émissions
- (12) Tableaux croisés ...
- (17) Tendance

- (13) Obligations du cahier des charges relatives au pluralisme
- (18) Rapport complet
- (19) Pourcentage cumulés
- (20) Création d'un DVD/CD

Election period:

- Répartition du temps d'antenne par type d'émission, catégorie et support (Version Arabe)
- Rapport général pour **Tout support**, selon les critères ci-dessus (Version Arabe)
- Temps d'antenne trié par institution tout support confondu (Version Arabe)
- Temps d'antenne trié par intervenant tout support confondu
- Autres données utiles tout support confondu (Version Arabe)
- Emissions tout support confondu
- Evolution du temps d'antenne par semaine tout support confondu
- Répartition du temps d'antenne global par type émission et catégorie tout support confondu
- Répartition du temps d'antenne par émission et catégorie tout support confondu (Version Arabe)
- Partis politiques (Version Arabe)

HMS Pluralism: (Obligations of decision 46-06)

Obligations du cahier des charges relatives au pluralisme

<< Précédent | Suivant >>

Critères — Liste éditée le : 30/11/2016 12:05:11 par BOUEZMARNI Najib

Période : 01/01/2016 00:00:00 - 31/03/2016 23:59:59   **Support :** [Radio Casa FM]   **Type émission :** [MAGAZINES INFOS,AUTRES EMISSIONS]

Catégorie	Durée réelle		Obligation CC		Différence	
GOUVERNEMENT + MAJORITE	12:32:14	51.67%	14:33:28	60 %	-02:01:14	-8.33 %
OPPOSITION	11:02:16	45.49%	07:16:44	30 %	+03:45:32	+15.49 %
NON REPRESENTES AU PARLEMENT	00:41:17	2.84%	02:25:35	10 %	-01:44:18	-7.16 %

Répartition par catégorie inclue dans les obligations du cahier des charges

OPPOSITION (45.49%)

GOUVERNEMENT + MAJORITE (51.67%)

NON REPRESENTES AU PARLEMENT (2.84%)
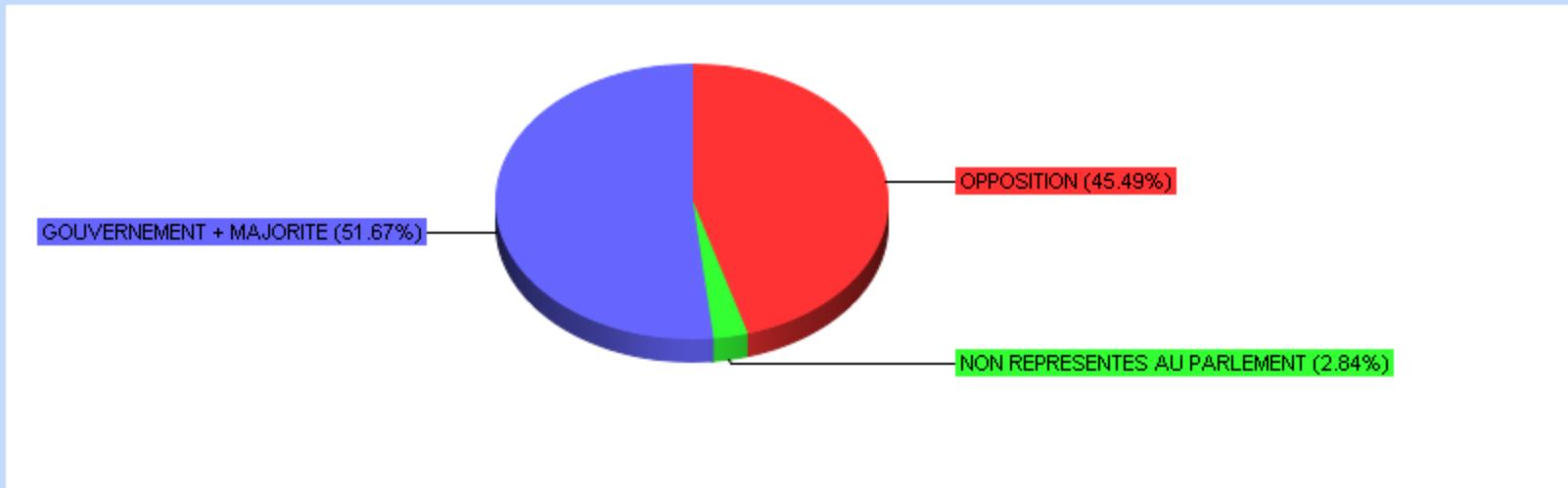
2011 Elections : Distribution by political parties for
Radio Nationale

Synthèse : Graphique récapitulatif des temps d'antenne cumulés
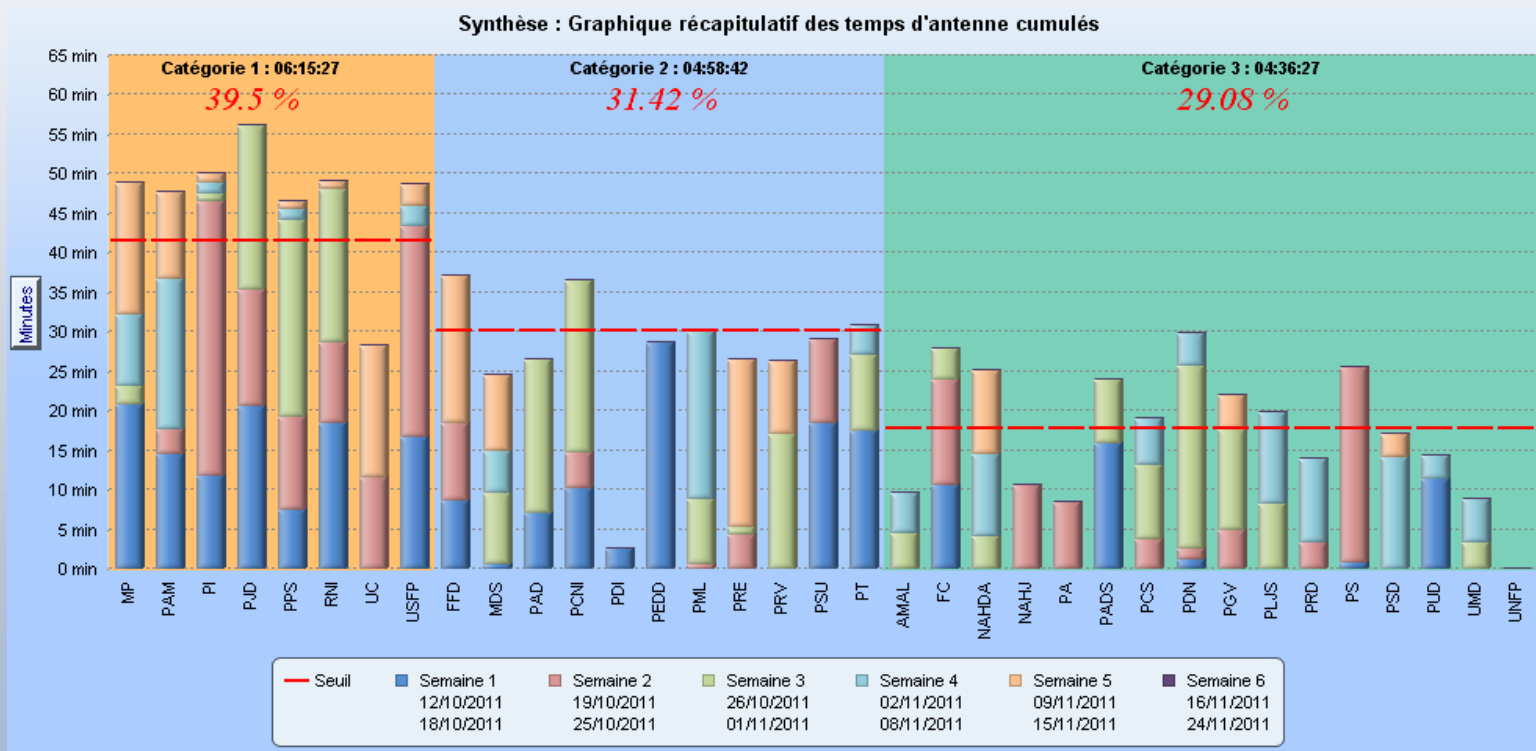
Type émission	Nb Emission	Nb Intervenant	Nb intervention	Volume horaire
Journaux/Flashes	27	49	98	0:45:55
Magazines infos	66	99	727	15:04:41
Total	93	148	825	15:50:36

HMS Pluralism: Final Report Edition

RAPPORT SUR LE PLURALISME

DANS LES MÉDIAS AUDIOVISUELS

EN PÉRIODE ÉLECTORALE

LÉGISLATIVES 2007

تقرير حول التعددية

في وسائل الاتصال السمعي البصري

خلال الفترة الانتخابية

الانتخابات التشريعية 2007

HMS Pluralism: Search Module

Multi-criteria Search module

HMS Pluralism: Media sequences list

MEZOUAR SALAHEDDINE, MINISTRE, MINISTERE DE L'INDUSTRIE, DU COMMERCE ET DE LA MISE A NIVEAU DE L'ECONOMIE, GOUVERNEMENT, QUATRE PARTS
Support : TV 2M, **Emission :** JT 20H45, **Rubrique :** ECONOMIE NATIONALE, **Le :** 01/08/2007 **à :** 20:55:50
Sujet : اجتماع للجنة الاستثمارات خصص لدراسة 30 مشروعا استثماريا مع مجموعة أمريكية

00:00:20

ALAMI MOULAY HAFID , PRESIDENT, CONFEDERATION GENERALE DES ENTREPRISES DU MAROC, ORGANISATIONS PROFESSIONNELLES, INTERVENANTS SYND. ET PROFES.
Support : TV 2M, **Emission :** JT 20H45, **Rubrique :** ECONOMIE NATIONALE, **Le :** 01/08/2007 **à :** 20:54:30
Sujet : programme économique electoral du pps

00:00:23

BIADILLAH CHEIKH MOHAMED, MINISTRE, MINISTERE DE LA SANTE, GOUVERNEMENT, QUATRE PARTS
Support : TV 2M, **Emission :** JT 20H45, **Rubrique :** EDUCATION & FORMATION, **Le :** 01/08/2007 **à :** 20:50:02
Sujet : كشف عن برنامج في تكوين الأطباء و رفع من عدد خريجي الجامعات المغربية

00:00:24

EL MALKI HABIB, MINISTRE, MINISTERE DE L'EDUCATION NATIONALE ET DE L'ENSEIGNEMENT SUPERIEUR, GOUVERNEMENT, QUATRE PARTS
Support : TV 2M, **Emission :** JT 20H45, **Rubrique :** EDUCATION & FORMATION, **Le :** 01/08/2007 **à :** 20:49:18
Sujet : كشف عن برنامج في تكوين الأطباء و رفع من عدد خريجي الجامعات المغربية

00:00:30

MEZOUAR SALAHEDDINE, MINISTRE, MINISTERE DE L'INDUSTRIE, DU COMMERCE ET DE LA MISE A NIVEAU DE L'ECONOMIE, GOUVERNEMENT, QUATRE PARTS
Support : TV Al Oula, **Emission :** JT 20 H 30, **Rubrique :** ECONOMIE NATIONALE, **Le :** 01/08/2007 **à :** 20:49:14
Sujet : التوقيع على اتفاقية تفاهم مع شركة دوافين ستضاعف إلى ثلاث مرات مستوى التصدير لهذه الشركة

00:00:16

2007 Elections: Convention : HACA - media public sector
13 March 2007

HACA

HACA Pluralisme

www.haca.ma   Version 1.0

Relevé des temps de paroles et d'antenne
des personnalités publiques dans les médias audiovisuels

Copyright (c) 2007 - HACA
Tous droits réservés.   >>>

SNRT

SOREAD 2M

**MEDI 1 TV
2011**
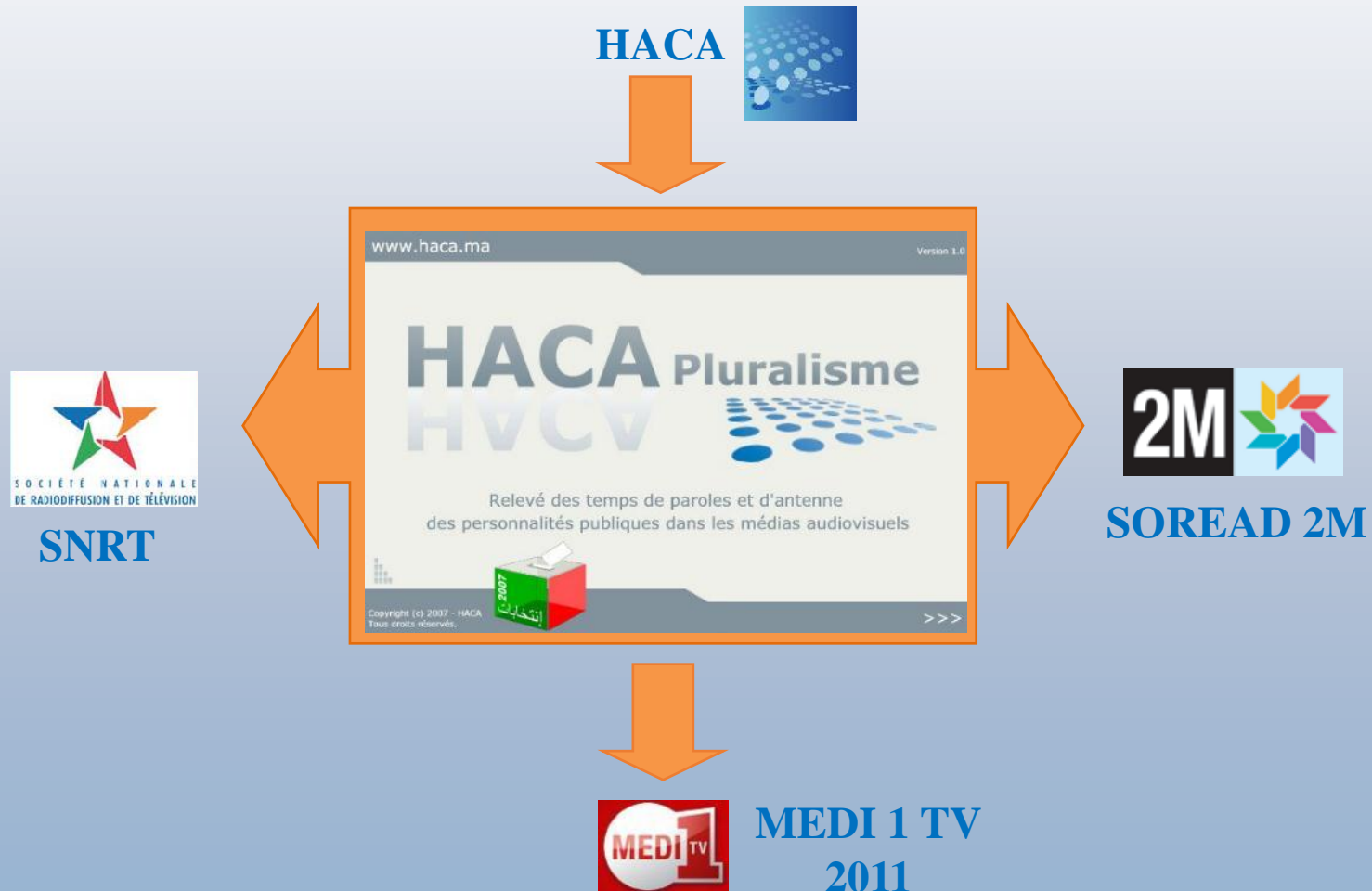
TECHNICAL MONITORING

Technical Monitoring

✓ Technical monitoring allows live and continuous video and audio signal control

✓ The different screens show a mosaic of TV, and Radio programs (with the name of each channel) as they are being recorded

✓ It allows viewing direct audio and video streaming from the recording servers (main and back-up)

Another feature is the remote access control of every machine in the « IT room » as well as in the different regions of Morocco where HMS is installed → centralized management

System Diagram of Monitoring and Remote Control

Screens Wall

TV1 | TV2 | | | |
| | | | TV N

FM Antenna
Satellite Reception
Video Distribution
Digital Receiver
Video Converter
Network Distribution
Local Network
Streaming
Remote Access Control
TV Recording and Streaming Station
FM Tuner
Net
Local Radio Recording and Streaming Station
Regional Radio Recording and Streaming Station
Monitoring and Control Stations
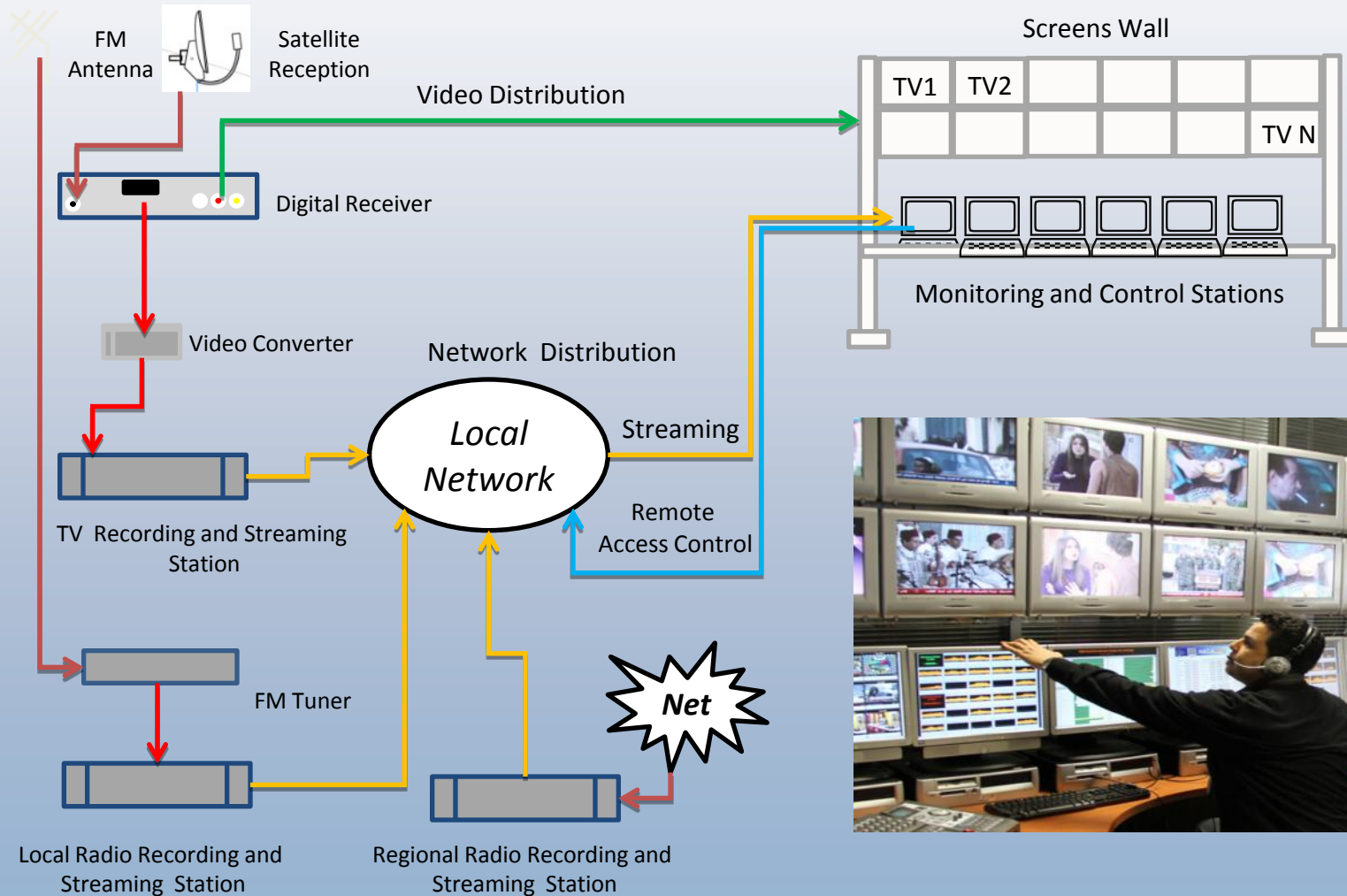
Monitoring
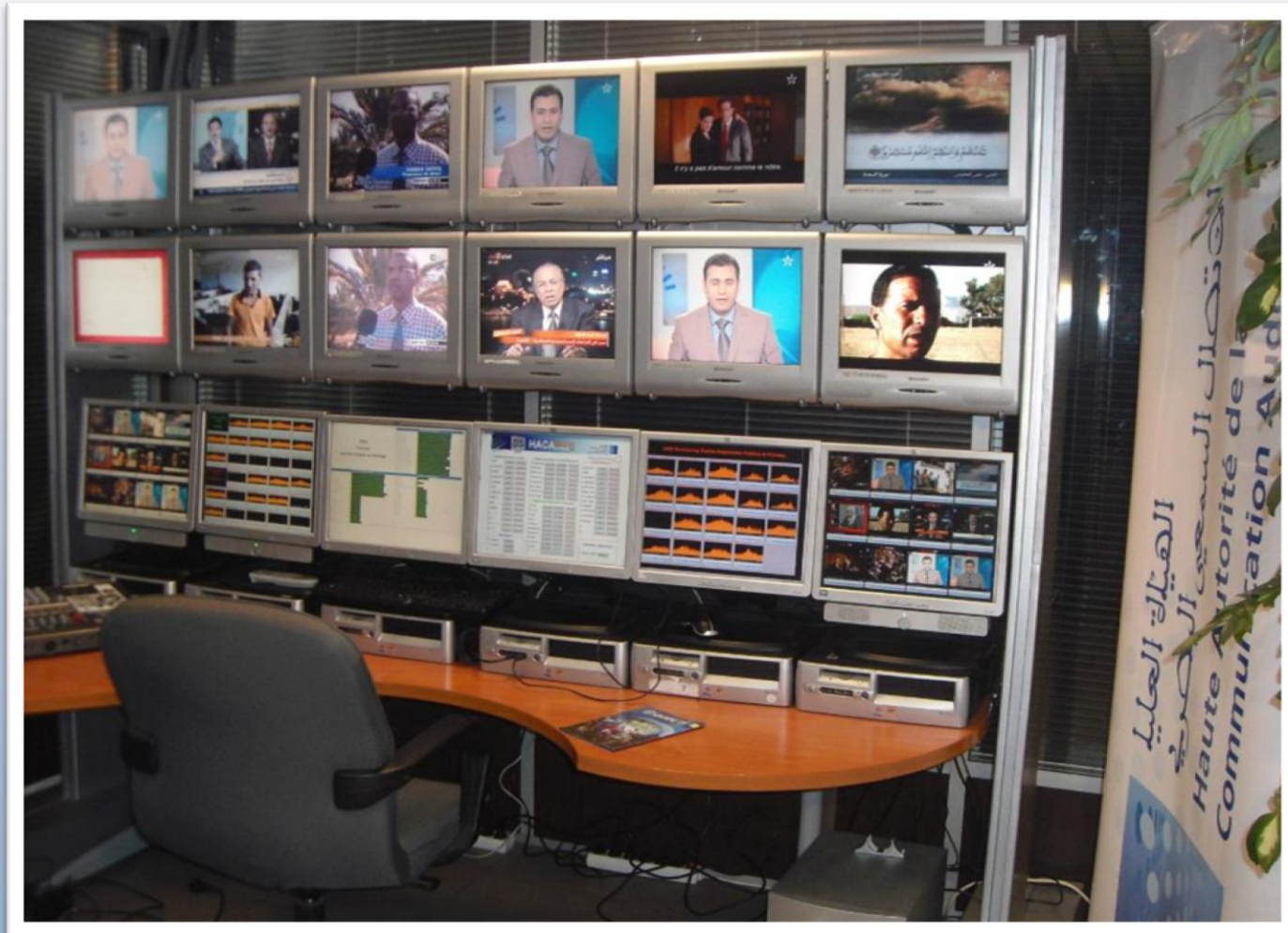
National Audiovisual Services: 57

24h/24h   7J/7J

✓ 38 Radio et 19 TV channels
  - 10 TNT channels
  - 9 TV channels via satellite
  - 16 National Radio channels
  - 22 Regional Radio channels

✓ Programs archiving since July 2007

Media Storage and Archiving

22 Distant Radios

1. Cap radio
2. MFM Atlas
3. MFM Chamal
4. MFM Orientale
5. MFM Sahara
6. MFM Saiss
7. MFM Sous
8. Radio Plus Agadir
9. Radio Plus Casablanca
10. Radio Plus Fès
11. Radio Plus Marrakech
12. SNRT Agadir
13. SNRT Al Hoceima
14. SNRT Casablanca
15. SNRT Dakhla
16. SNRT Fès
17. SNRT Laayoune
18. SNRT Marrakech
19. SNRT Meknès
20. SNRT Oujda
21. SNRT Tanger
22. SNRT Tétouan

16 National Radios

1. 2M
2. Amazigh
3. Aswat
4. Atlantic
5. Casa FM
6. Chada FM
7. Chaîne Inter
8. Coranique
9. Hit radio
10. Luxe
11. Mars
12. Med
13. Medina
14. Médi 1
15. Nationale
16. Sawa

19 TVs

Terestrial
1. Al Oula
2. TV 2M
3. MEDI 1 TV
4. Al Maghrebia
5. Arrabiaa
6. Arriyadia
7. Assadisa
8. TV Laayoune
9. Aflam TV
10. TV amazigh

Satellite
1. Al Oula Sat
2. TV 2M Monde
3. Médi1 Sat
4. Al Maghrebia
5. Arrabiaa
6. Arriyadia Sat
7. Assadisa
8. TV Laayoune
9. TV amazigh

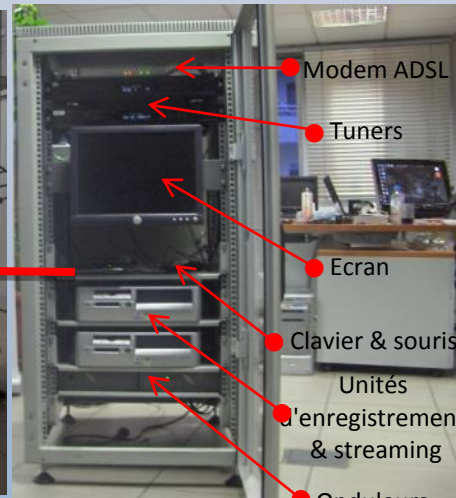# A complete and Turnkey Solution and expertise

Signal Reception

Rack assembly and hardware installation

Hardware and Software (HMS solution) Installation and configuration

Prêt à l'expédition

Modem ADSL

Tuners

Ecran

Clavier & souris

Unités d'enregistrement & streaming

Onduleurs

A Rack model for media Transfer in a region containing one Radio service

Made in HACA

A Rack model for audiovisual programs acquisition

TV and Radio Programs Monitoring
Technical System in HACA
The Software Package « HMS »

International Cooperation:

Support for programs monitoring

International Support

Regulator/Country	Nb TVs	Nb Radios	Total
CSC **Niger**	12	33	**45**
HAICA **Tunisia**	48	42+4	**90+4**
HAAC **Benin**	12	24	**36**
CNRA **Senegal**	24	36	**60**
HAPA **Mauritania**	12	12	**24**
CSA **Belgium**	36	36	**72**
HCC **Tchad**	2	11	**13**
Total	156	198	**344**

CSC Niger 2016

- ✓ Signature of the agreement on October 12th 2015
- ✓ Installation on January 2016;
- ✓ Data center to record :
  - • 33 Radios
  - • 12 TVs
- ✓ Software installation and training:
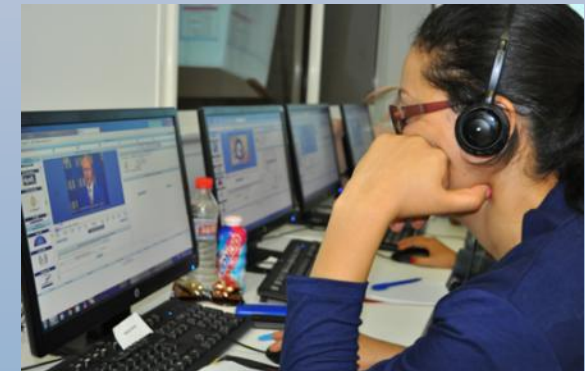 - • HMS Acquisition;
  - • HMS Media Library;
  - • HMS Pluralism;
- ✓ Supervisor's room design;
- ✓ Reception of two trainees at HACA from 16 to 20 November 2015.
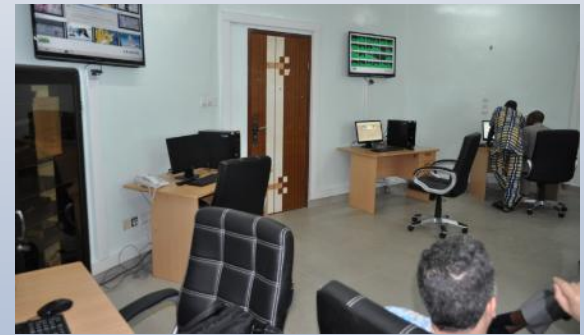
HAICA Tunisia 2014

✓ Installation August 2014;

✓ Data center to record :

  • 42 Radios (18 distant)

  • 24 TVs

✓ Software installation and training :

  • HMS Acquisition;

  • HMS Media Library;

  • HMS Pluralism;

✓ Design of 3 rooms for 30 supervisors;

✓ Setting control screens for programs recording;
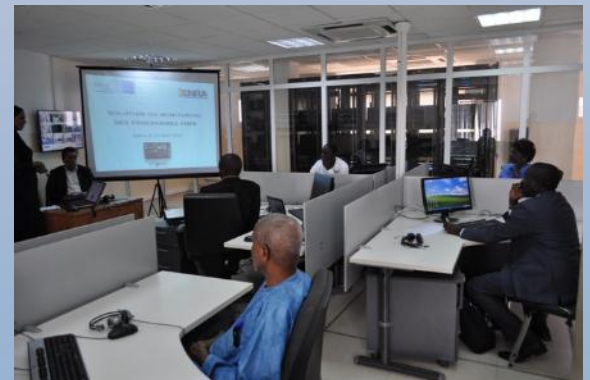
HAAC Benin 2014

- ✓ Installation from 01 to 14 June 2014;
- ✓ Data Center to record:
  - • 24 Radios
  - • 12 TVs
- ✓ Software installation and training :
  - • HMS Acquisition;
  - • HMS Media Library;
  - • HMS Pluralism;
- ✓ Design of a room for 12 supervisors;
- ✓ Setting control screens for programs recording;

CNRA Senegal 2014

- ✓ Installation from 13 to 30 April 2014;
- ✓ Data Center to record :
  - • 36 Radios and 24 TVs
- ✓ Software installation and training :
  - • HMS Acquisition;
  - • HMS Media Library;
  - • HMS Pluralism
- ✓ Support Mission from 25 to 31 May 2014 :
  - • M. Nadir Taher, DSP et Mme Amal Haider, UIQ.
- ✓ Design of a room for 16 supervisors;
- ✓ Setting control screens for programs recording;

HAPA Mauritania 2013

- ✓ Installation from 26 June to 08 July 2013
- ✓ Data Center to record :
  - 12 FM Radios
  - 12 TVs
- ✓ Software installation and training :
  - HMS Acquisition;
  - HMS Media Library;
  - HMS Pluralism;
- ✓ Support Mission for:
  - Legislative Elections of 23 November 2013
  - Presidential Elections of 21 June 2014

CSA Belgium 2011

✓ Installation at Brussels from 05 to 25 June 2011
✓ Data Center to record :
- • 18 FM Radios
- • 18 IP Radios
- • 36 TVs (hertzian, cable, Digital)

✓ Software installation and training :
- • HMS Acquisition;
- • HMS Media Library;
- • HMS Sampling;

✓ Maintenance Mission at Brussels from 13 to 16 January 2014
- • Support request for the relocation to the new premises in June 2015

HCC Tchad 2011

- ✓ Training mission in Tchad from 25 to 27 October 2010
  - • M. Noureddine AFAYA, Ex. Member of CSCA
  - • M. Najib BOUEZMARNI
- ✓ Installation at N'Djamena from 08 to 15 May 2011
- ✓ Data Center to record :
  - • 11 Radios
  - • 2 hertzian TVs
- ✓ Software installation and training :
  - • HMS Acquisition;
  - • HMS Media Library;
  - • HMS Pluralism;
- ✓ Design of a room for 8 supervisors;
- ✓ HACA received two trainees from HCC :
  - • M. Ali Abatcha, Webmaster and in charge of monitoring (April 2013)
  - • M. Nouri Aboutiman, Technical Manager (September 2014)

Perspectives

Several countries have expressed their interest in HMS solution :

Togo

Mali

Cameroon

Moldova

THANK YOU FOR YOUR ATTENTION

www.haca.ma