NATIONAL SPECTRUM MANAGEMENT ASSISTANCE WORKSHOP

23 to 24 July 2018, Accra, Ghana

Agenda

1 Automation for spectrum management activities

2 SMS4DC current usage

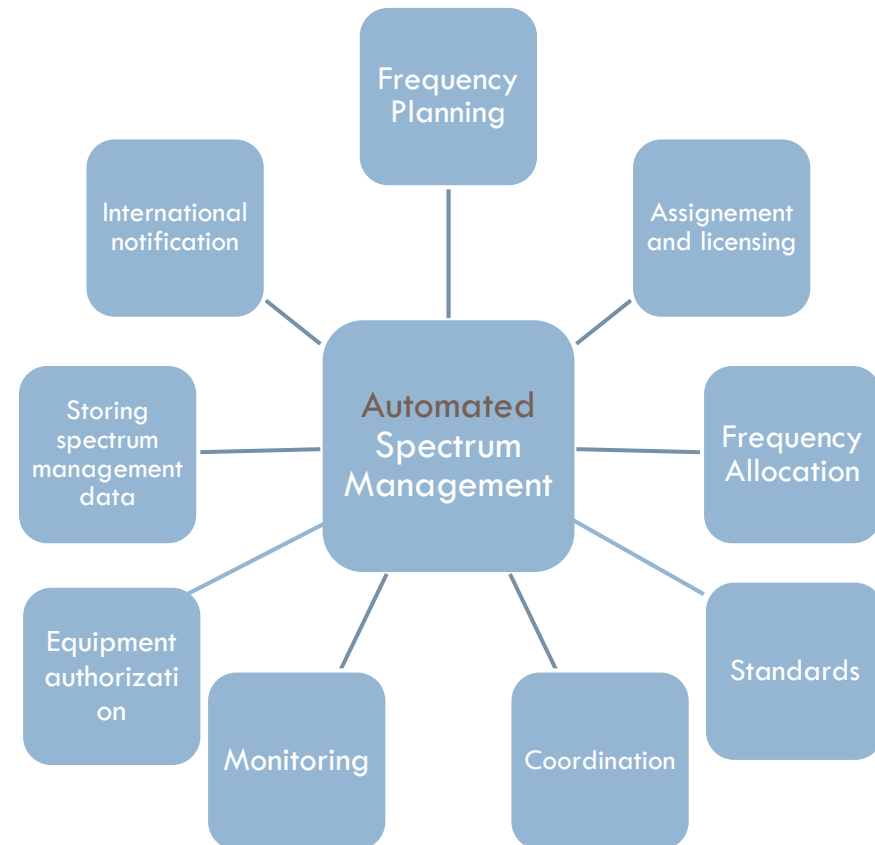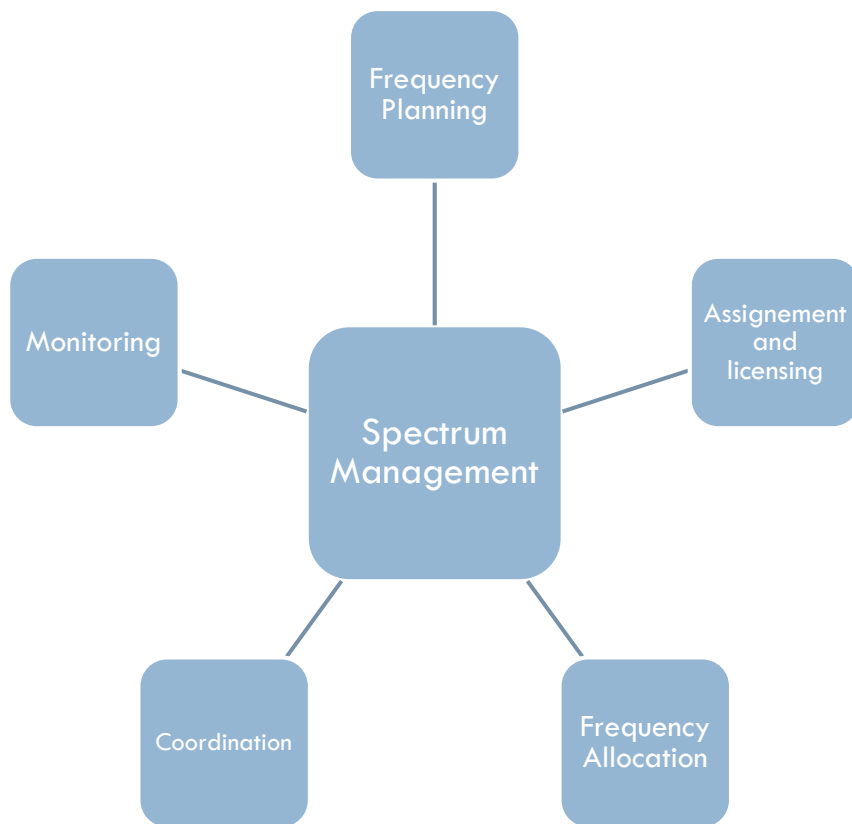**3** Improvements to be considered

Introduction

- Statement from ITU Handbook on National Spectrum Management

"National spectrum management must ensure that adequate spectrum is provided over the short term and the long term for public service organizations… for private business telecommunications, …

In order to meet these objectives, the spectrum management system must provide an orderly method for allocating and assigning frequency bands, authorizing and recording frequency assignments and establishing regulations and standards."
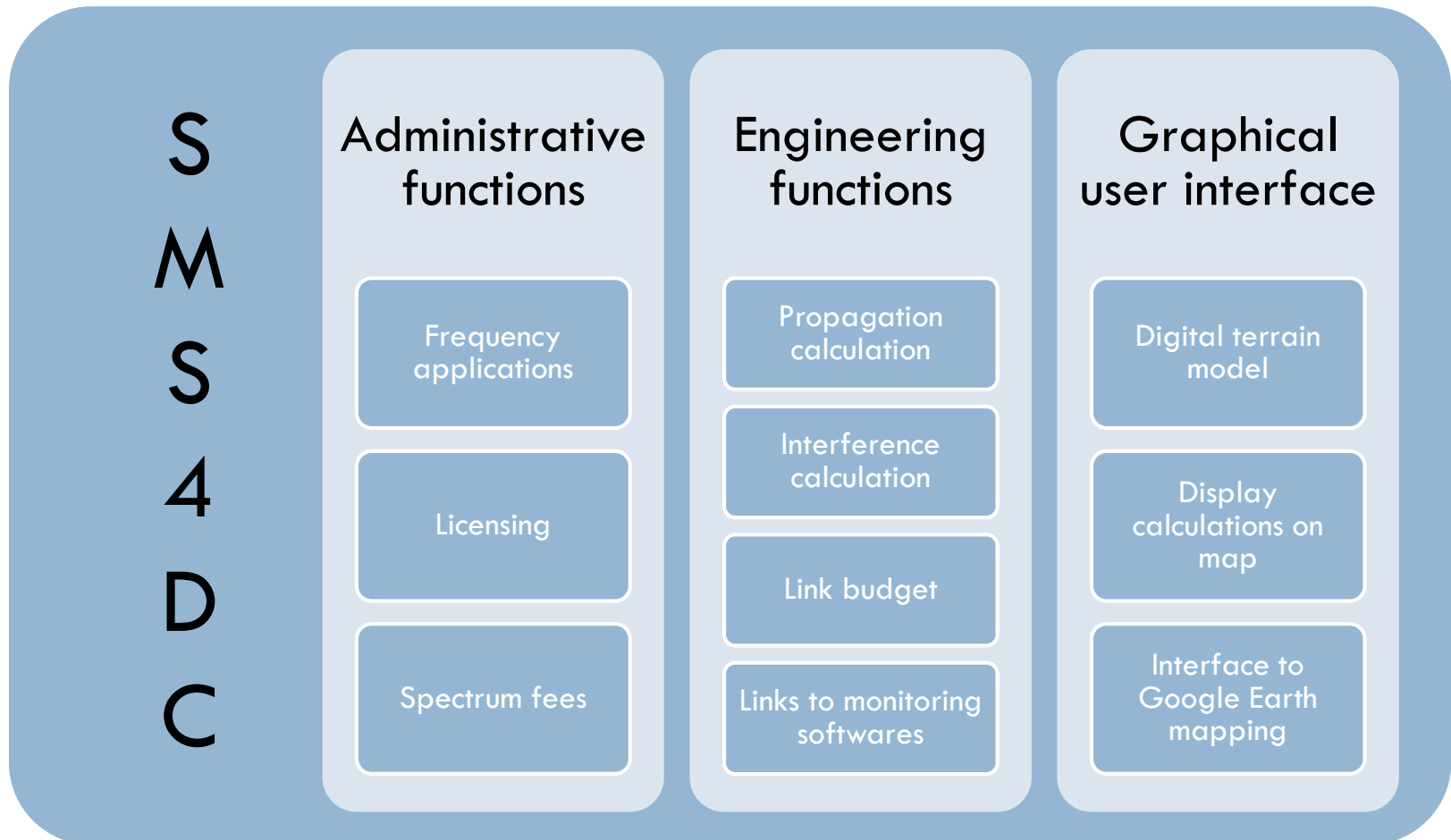
Automation for spectrum management activities

□ Increasing spectrum management activities

Automation for spectrum management activities

□ SMS4DC

S M S 4 D C	Administrative functions	Engineering functions	Graphical user interface
	Frequency applications	Propagation calculation	Digital terrain model
	Licensing	Interference calculation	Display calculations on map
	Spectrum fees	Link budget	Interface to Google Earth mapping
		Links to monitoring softwares	

Agenda

1 Automation for spectrum management activities

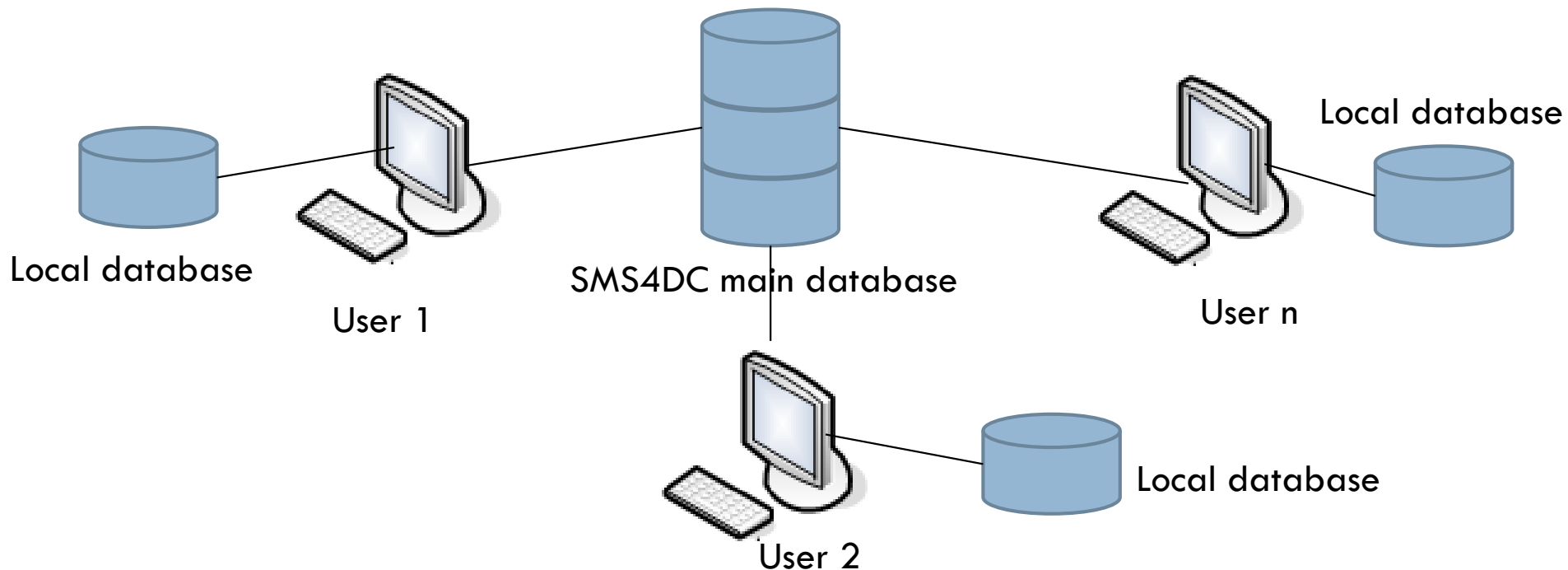2 SMS4DC current usage

3 Improvements to be considered

SMS4DC current usage

- Several training sessions have been performed
  - Algeria
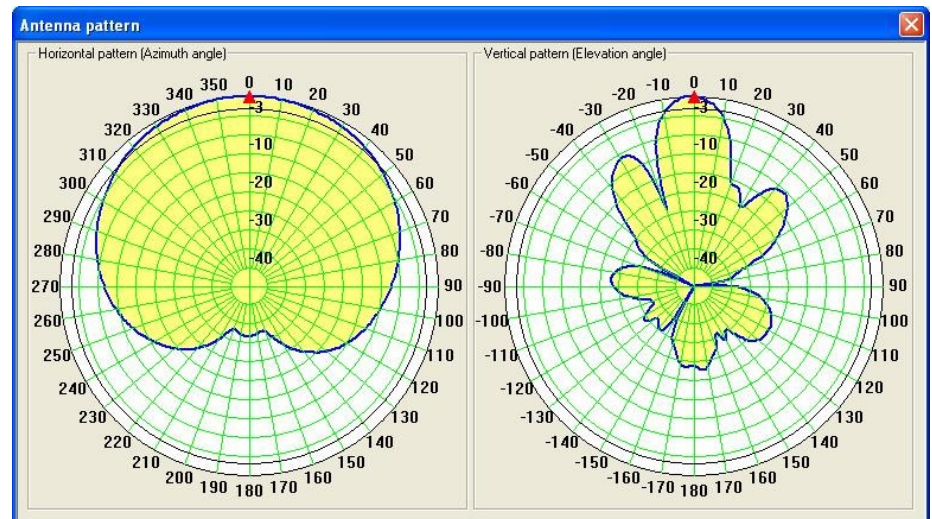 - Cameroon
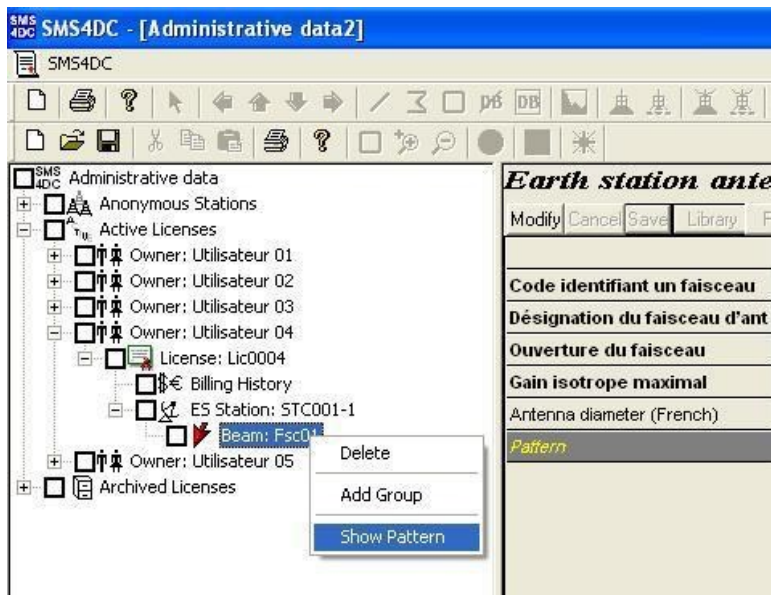 - Chad
  - Comoros
  - Gabon
  - Guinee

SMS4DC current usage

☐ Installation and networking

◻ Client server configuration (main database)

◻ Individual database for tests purposes

Local database

User 1

SMS4DC main database

User 2

Local database

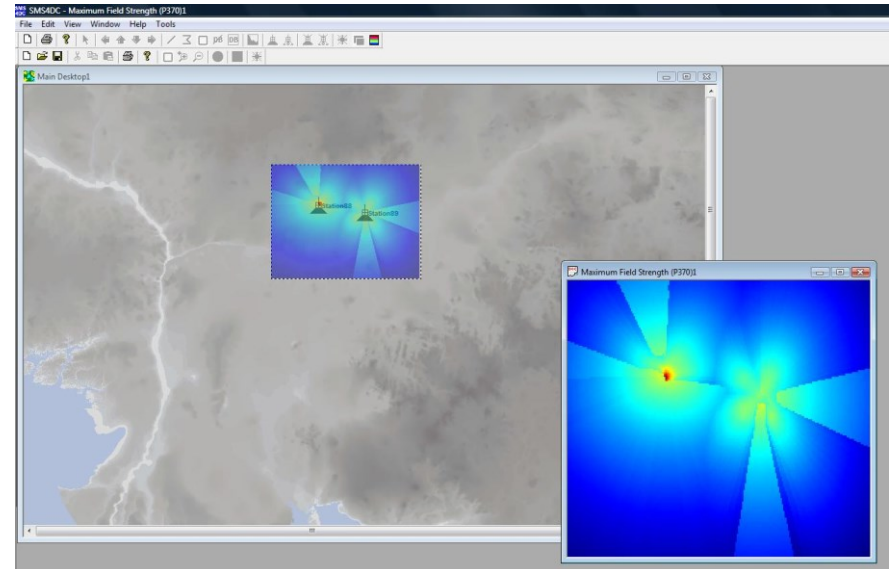Local database
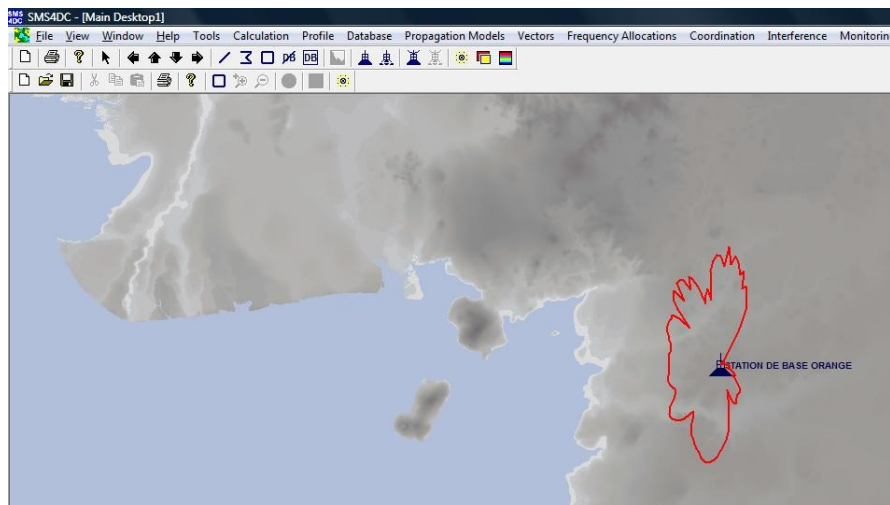
User n

Local database

SMS4DC current usage

- Licensing and frequency application
  - User creation
  - License information entering
  - Stations, equipment and antennas informations

SMS4DC current usage

☐ Propagation calculations

  ☐ Usage of propagation models

  ☐ Point to area or point to point calculation

  ☐ Field strength contour

  ☐ Display calculations on map

SMS4DC current usage

☐ Interference calculations

■ Between broadcasting, fixed and mobile stations

BC to BC	• Interference calculation between broadcasting sound stations
BT to BT	• Interference calculation between broadcasting TV stations
FX to FX (link)	• Interference calculation between microwave links
FX to FX (stations)	• Interference calculation between stations in fixe service
FXM	• Interference calculation between stations in land mobile service and fixe service

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1 Automation for spectrum management activities

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3 Improvements to be considered

Improvements to be considered

Administrative functions
- Improve the billing tool
- Create a search by criteria tool (name, license number, date…)
- Statistics reports tool (number of licenses, number of stations by service…)

Engineering functions
- Import stations from notice files

Graphical user interface
- Increase the basic map resolution

Thank you for your attention

Arnaud DAMIBA
22 July 2018

Television Tower St. Chrischona, Switzerland
Source : wikipedia