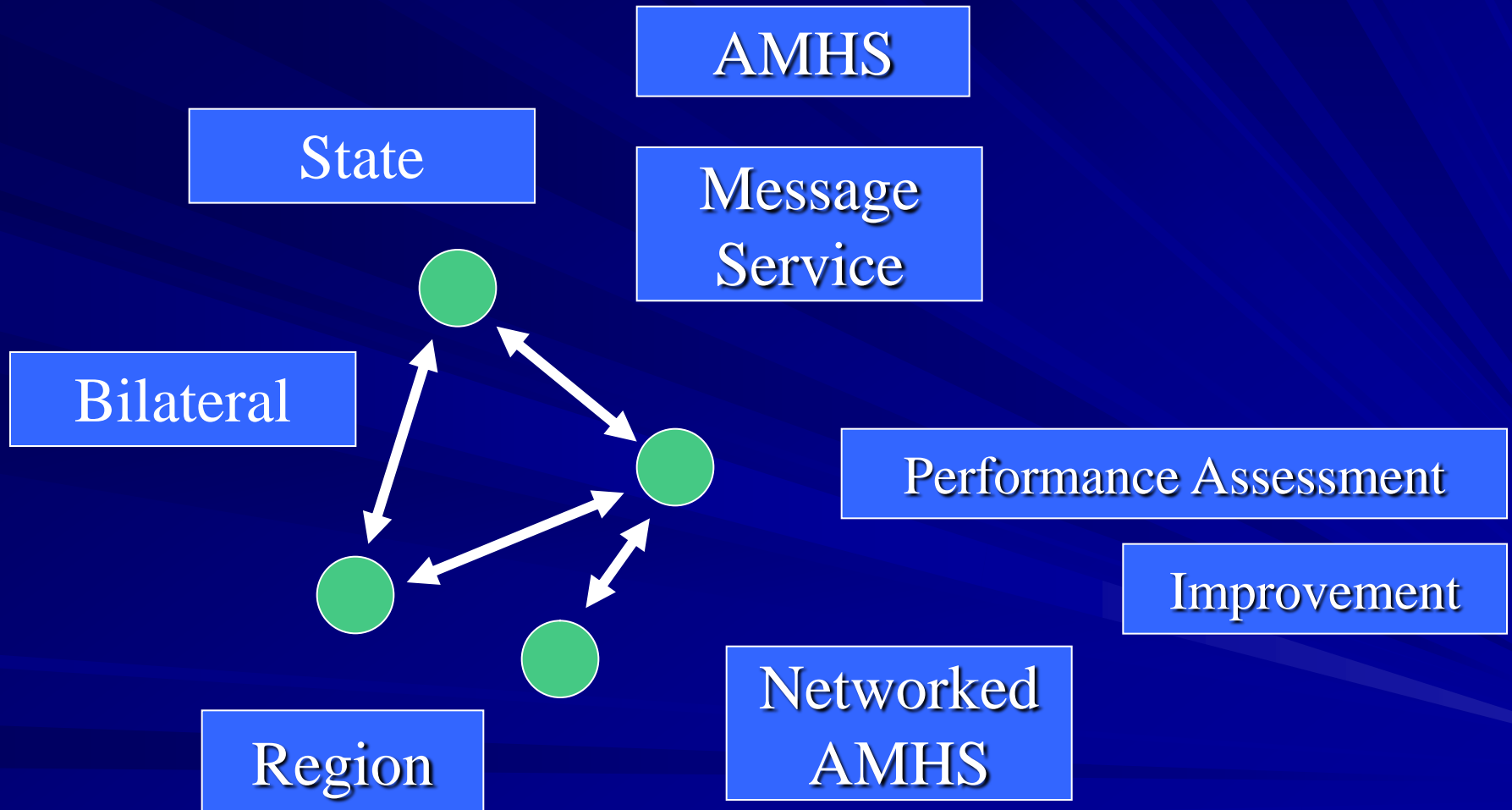


AMHS Performance Assessment  
ATNICG-WG7/WP7 and WP8

Bangkok, 27 , January 2010

Presented by Japan

# AMHS Performance Assessment in the Asia/Pacific Region



# AMHS Performance Assessment in the Asia/Pacific Region

Selecting AMHS Service Performance Indicators

Deciding Performance Assessment Method  
(Measurement and Evaluation) together with  
Performance Target

## Performance Indicators

Performance Indicator Category	Candidate Performance Indicators
Availability	MTBF/MTTR
Integrity	Quality of Message Delivery
	Quality of Message Delivered
Throughput: Demand of messaging	In-bound (receiving) message demand
	Out-bound (sending) message demand
Throughput: Capacity of AMHS server	
Transmission Time (Delay)	sender message-out to receiver message-in

Mainly State's Responsibility

# AMHS Performance Assessment in the Asia/Pacific Region

## Indicators

- 1) Number of messages transmitted
- 2) Number of messages received
- 3) Number of non-delivery reports received
- 4) Number of received messages with detected error(s)
- 5) Hourly profile of received message traffic in one day

# ATS Messaging Management Manual

## AMHS Operational Functions/ statistics

purposes

to predict future needs and ensure the ability of the service to meet these needs

Statistics on Organizational levels

Between direct MTA partners

Statistics in Operational Phase and for Planning Phase

*identify the desired statistics before procurement by most States of AMHS systems , but no target*

Statistics on Messaging Service and Lower Layers

Overall traffic volume at the level of IP packets

# ATS Messaging Management Manual

## AMHS Operational Functions/ statistics (continued)

Peak hour and Daily Statistics in a month  
*data corresponding to the peak hour traffic over the past month,  
total data corresponding to the daily traffic over the past month.*

No Integrity/Reliability indicators

Time efficiency indicators

How to handle them

## Proposed decision

Clarifying Useful Statistics on Peak hour and Daily Statistics in a month

Number of Message Transmitted /Received

Integrity/Reliability indicators

Received Message Traffic Profile, instead of Time efficiency indicators

Proposed Indicators

## Proposed Performance Indicators for Region

### Indicators

- 1) Number of messages transmitted
- 2) Number of messages received
- 3) Number of non-delivery reports received
- 4) Number of received messages with detected error(s)
- 5) Hourly profile of received message traffic in one day

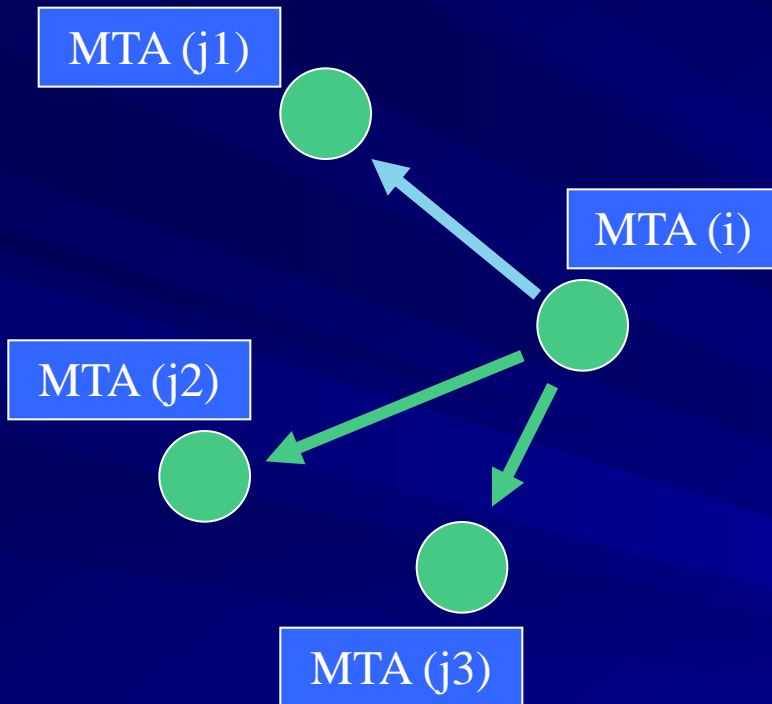
1) and 2) are same in names but different in meanings

## Performance Indicators

Performance Indicator Category	Candidate Performance Indicators
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Transmission Time (Delay)	sender message-out to receiver message-in

# 1) Number of messages transmitted

Out-bound (sending)  
message demand



Hourly Statistics for one Day

$\Sigma$

Peak Hour

Daily Statistics for one Month

$\Sigma$

Peak Hour

Monthly Statistics

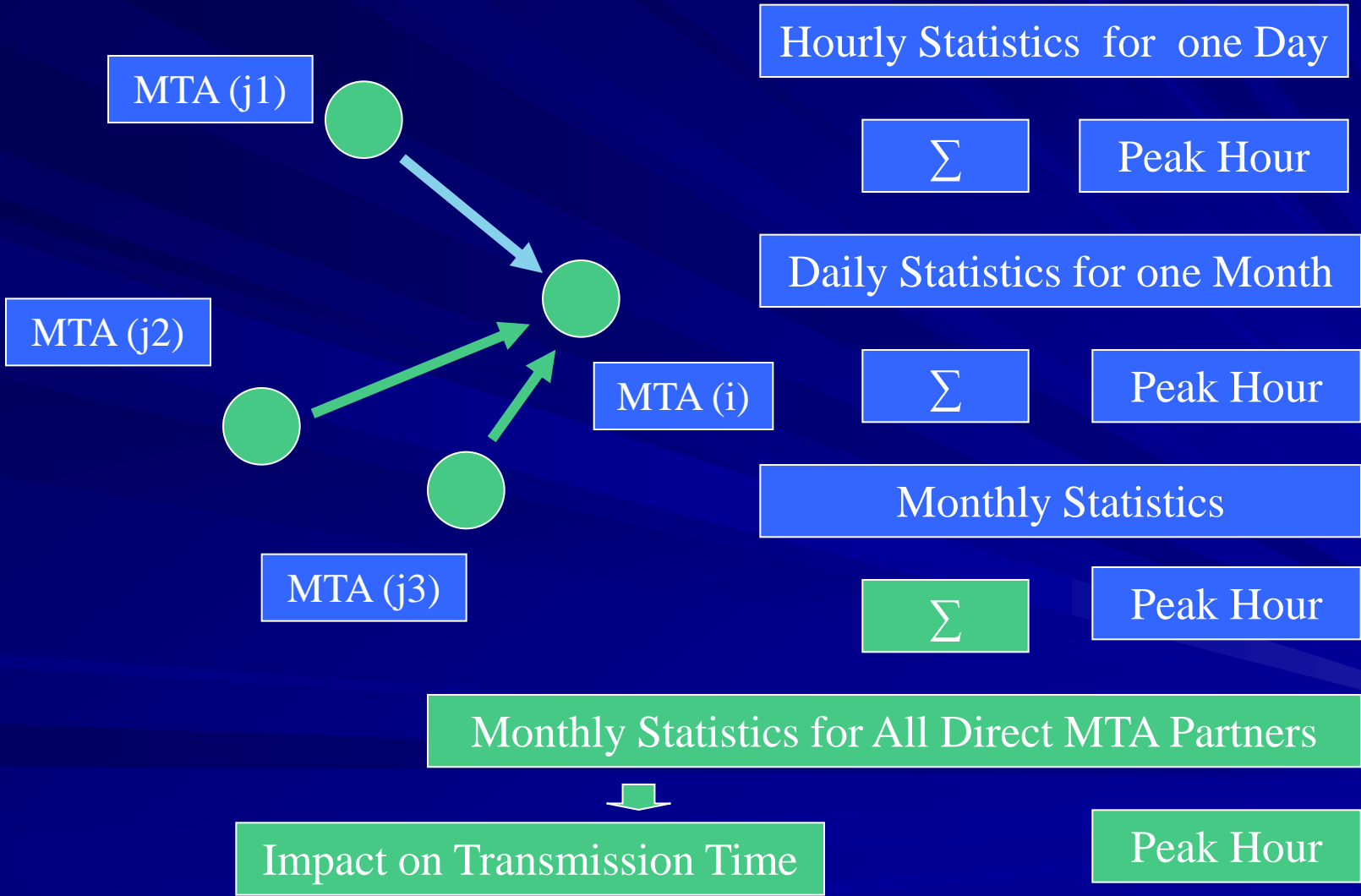
$\Sigma$

Peak Hour

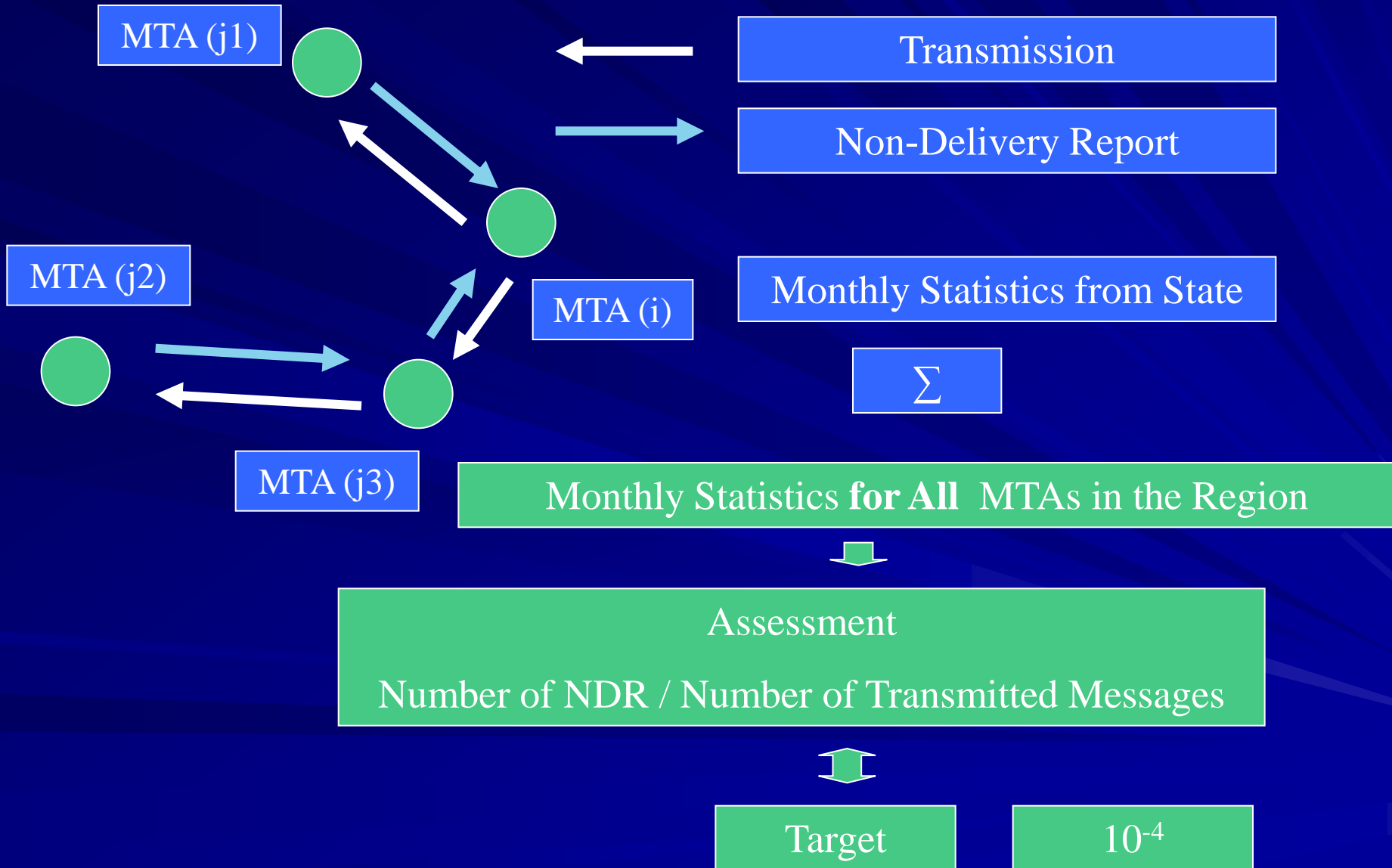
Monthly Statistics for All Direct MTA Partners

Peak Hour

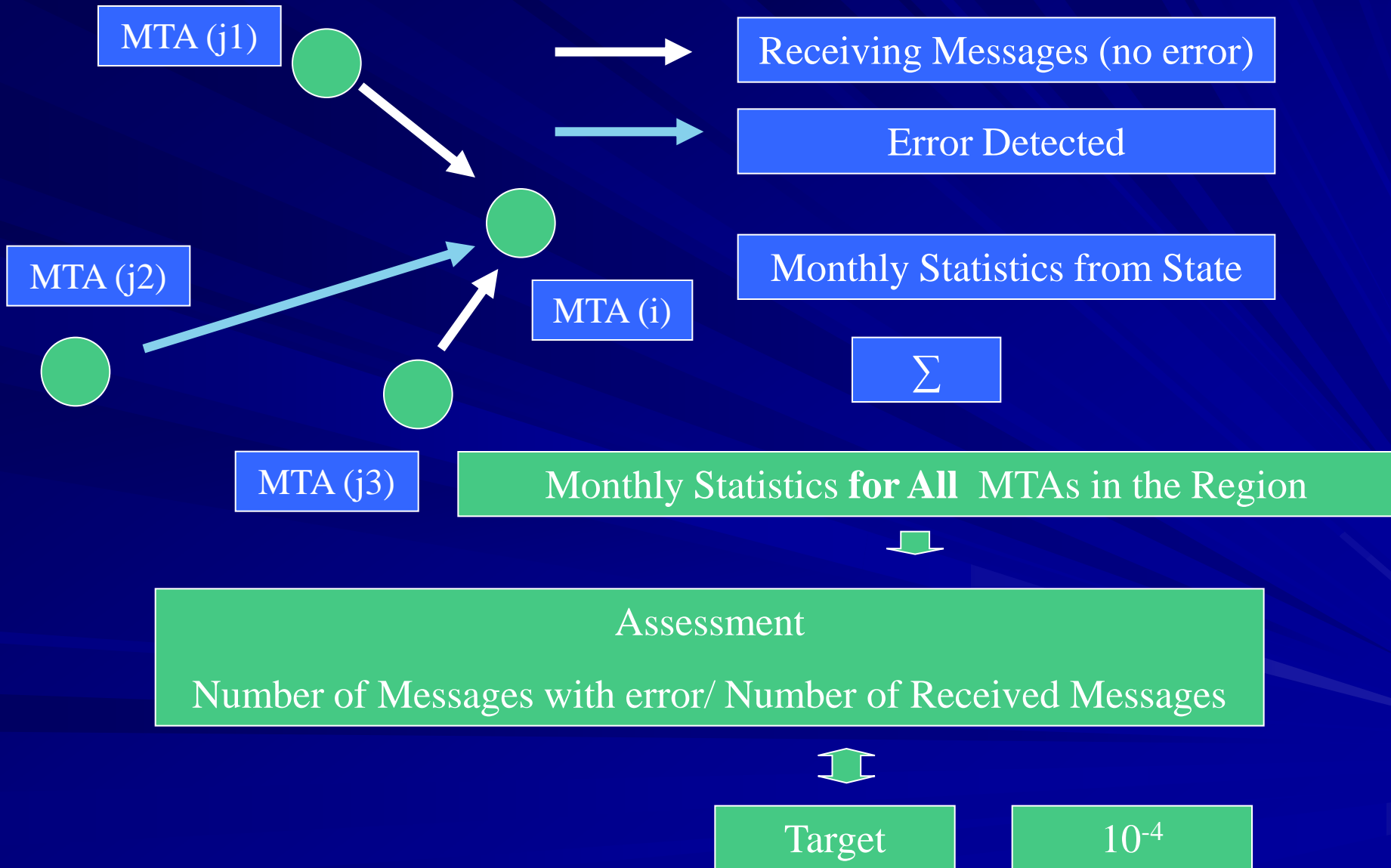
## 2) Number of messages received



### 3) Number of non-delivery reports received

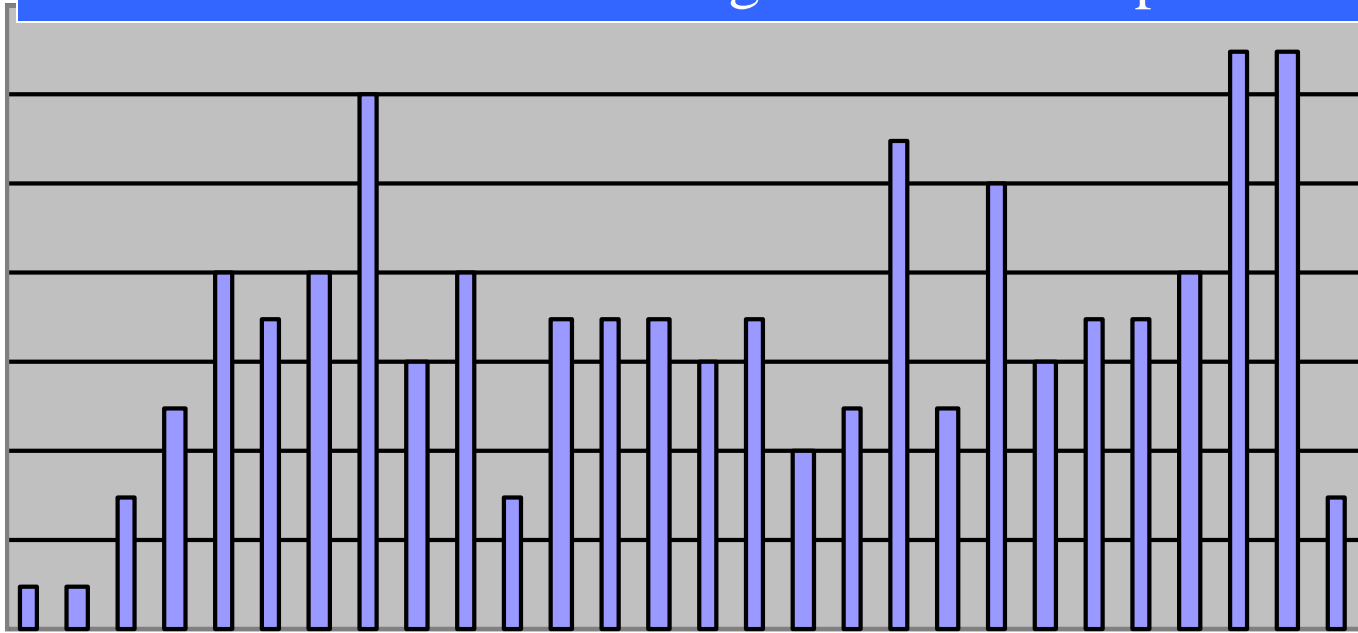


#### 4) Number of received messages with detected error(s)



## 5) Hourly profile of received message traffic in one day

Number of Arrival Flights as an example



By knowing the traffic profile at Partner, State can monitor and evaluate the transmission time

Monitoring and evaluating the transmission time from each State to any Direct MTA partner is local matter