

# Continuity of Local Government and Case Study

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# 1. Direction of E-Government IT infra

## Objective and Direction of Korean e-government

Building the world best open e-government

Network Based  
Government

Knowledge Based  
Government

Participatory  
Government

Ultimate Goal

Provide customized service

- Providing online popular complaint services throughout the unitary popular complaint window(G4C)
- Offering new services that a citizen and company want

Electronization of documents & sharing the information

- Changing the traditional method of delivering government services into electronic method
- Integrating and driving multi-organization data to one organization data(sharing the resources)

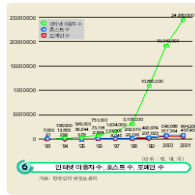
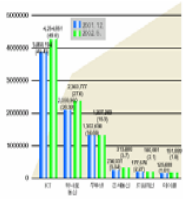
Ensuring a security, reliance, and easiness of access

- Protecting a system from a Cyber Terror and a natural disaster
- Narrowing an informational gap and improving privacy protection



# 1. Direction of e-Government IT infra

## Historical progress and level of Korean information



- Poor Telecommunication

- Established fundamental of information society

- National level initiatives
- MIC

- Informatization stage for new take-off
- announce ITA proposal

- knowledge based informatization on an entire area

**World #1**  
Diffusion rate of high-speed internet

**World #5**  
Coefficient of internet utilization



- Diffusion rate of Wire telephony: 7%

- spread a domestic switching system & host computer
- level 1,2 national basic information system

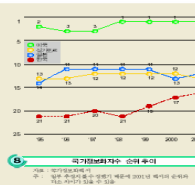
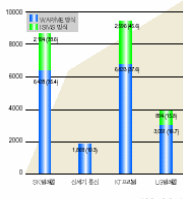
- Build national high-speed network
- National Framework Plan

- The expansion of high-speed internet network
- established a e-government law

- with new informatization strategy corresponded to participatory government plan

**World #7**  
Index of ITU mobile & internet

**World #15**  
Index of UN e-government

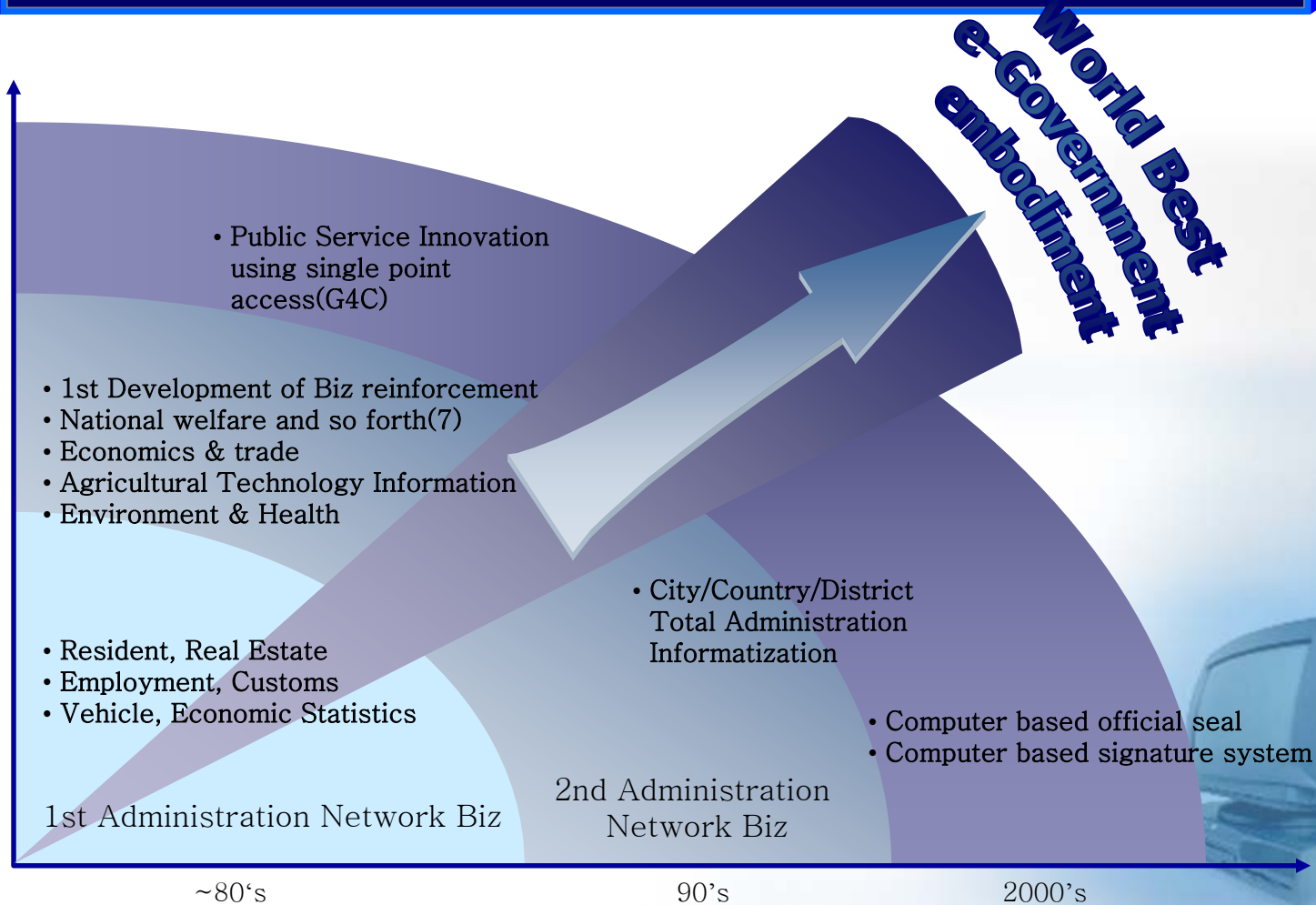






# 1. Direction of e-Government IT infra

## Informatization progress of civil affairs





## 2. Local Government Case Study(Seoul City)

### Background of Seoul City's Continuity Plan

#### Environmental factor



- Need plan to protect systems from a disaster
- Possibility of losing an important information resources
- Cases of failure and disaster
  - A-bank(2000):transaction suspension from host computer CPU failure (6 hours)
  - B-securities(2000) :suspension of credit transaction due to a water leakage (2 days)
  - public institution(2003): civil service stoppage due to server parts failure (4 days)

#### Internal factor



- recognize importance of disaster recovery plan after WTC 9.11 terror attack
- spread of 「 IT competitiveness is international competitiveness 」 mind

#### Technical factor



- Need to provide administrative service for 24hours 365days
- Improvement of civil services through new technology and verified solutions



## 2. Local Government Case Study(Seoul City)

### Current status Analysis

#### Environmental Status

##### Business Environment

- Role and Function of Seoul Metropolitan City
- Organization of Administration and administration zone.

##### Informatization Environment

- Purpose of Informatization policy
- Informatization driving System
- Informatization Business current status



## 2. Local Government Case Study(Seoul City)

### Current status Analysis

#### Informatization Current Status Analysis

Business  
(Information System)

- Understanding business & Biz process
- Understanding business relations

Server

- Server current status by suppliers
- OS current status
- DBMS current status

Storage

- Storage current status by suppliers
- Storage usage status

Backup

- Backup equipment status
- Periodic Dissipation & Place

Network

- External circuit status
- Speed of external circuit
- Backbone configuration status

Facility

- Average usage of Computer centers



## 2. Local Government Case Study(Seoul City)

### Risk & Business Impact Analysis

#### Risk Analysis

##### Failure analysis

###### Failure occurrence analysis

- Analysis on a current failure counter plan
- Analysis on a failure occurrence and a degree of danger
- Finding a failure vulnerability and a necessary improvement
- Prevention for failure and recommendation for the failure prevention plan(targeted to 1st priority task)

##### Disaster analysis

###### Earthquake Occurrence

- 20 times of earthquake occurrences for 20 years (earthquake of over 4 degrees intensity)

###### Fire occurrence

- Average 6000 cases of fire occurred in a year

###### Security accident

- Security accident occurred from Hacking and a virus



## 2. Local Government Case Study(Seoul City)

### Biz Impact Analysis

Set up Recovery plan classified by task  
(priority, RTO, RPO)

Overall damage analysis

#### Qualitative analysis items

effect on a nation & foreign countries.

Effect on a foreign relation

Effect on other tasks

Possibility of off-line handling process

allowed failure time

Recourse recovery time

level of allowed lost articles

possibility Compensation for damages

Possibility of lawsuit

questionnaire survey(7 points index, nominal index)

#### Quantitative analysis items

additional steps to deal with tasks

increase of computer service lead time

Suspension of financing

Data research



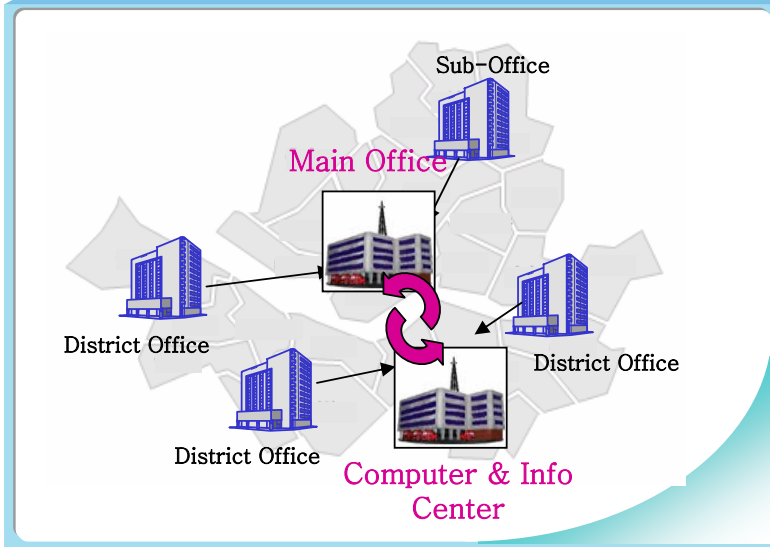




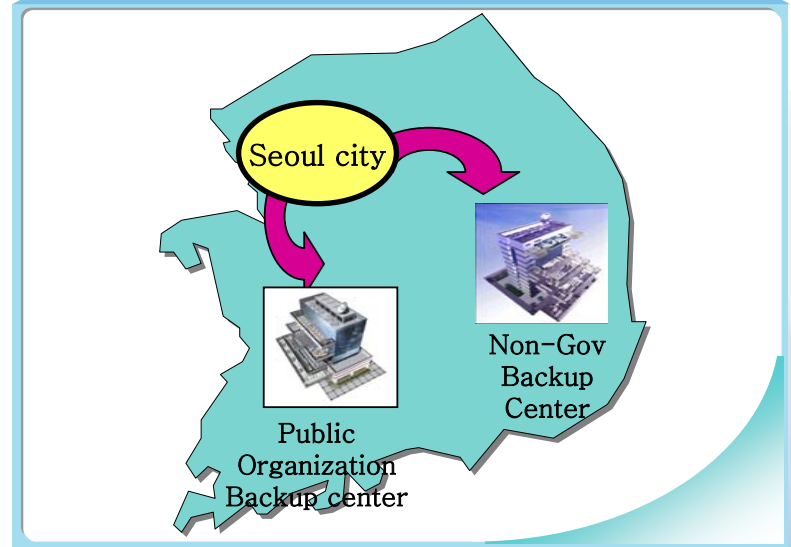
## 2. Local Government Case Study(Seoul City)

### Backup Center Acquisition

Short-Term



Long-term



classification		Short-Term	Long-Term
Type		Reciprocal Center	Reciprocal Center or Independence Building type(Consignment type)
Role	Main Center	Main Office, Computer & Info Center, Sub-office, District	Computer & Info Center,DMC (New building)
	Backup Center	Main Office, Computer & Info Center	Computer & Info Center, DMC (New building), others(Public, non-gov)



## 2. Local Government Case Study(Seoul City)

### Building direction

#### Plan for Data synchronization

classification	Short-term	mid/long-term
1 <sup>st</sup> priority task (Critical)	System and DB redundancy on remote site based on H/W solution	Apply a remote high availability solution
2 <sup>nd</sup> priority task (Important)	Backup tape dissipation	H/W + S/W complex operation
3 <sup>rd</sup> priority task (Low Important)	Backup tape dissipation	Backup tape dissipation



## 2. Local Government Case Study(Seoul City)

### Target Establishment

Target Business

- ❖ Office Automation, Pre-tax Information System

Backup center

- ❖ Self-Mgmt type(Main Center : Main Office, Backup Center : Computer & Info Center)

Backup Technology

- ❖ *Applied Real time Data Duplication Tech*

RPO

- ❖ No Data Loss (*RPO=0*)  
(RPO : Recovery Point Objective)

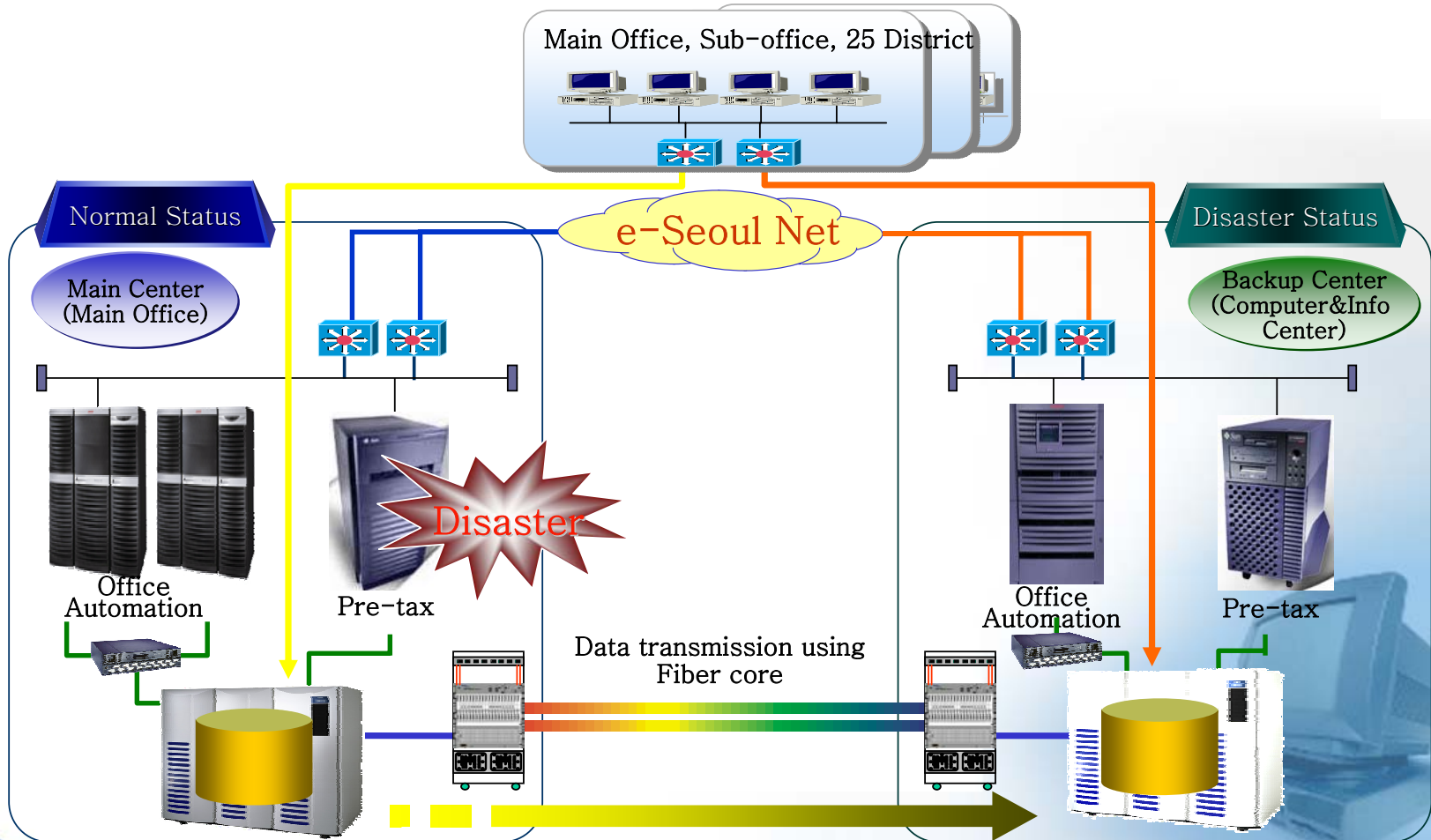
RTO

- ❖ *Office Automation : 2~3day, pre-tax : within 1 week*  
(RTO : Recovery Time Objective)



## 2. Local Government Case Study(Seoul City)

### Building & Administration





## 2. Local Government Case Study(Seoul City)

### Test result

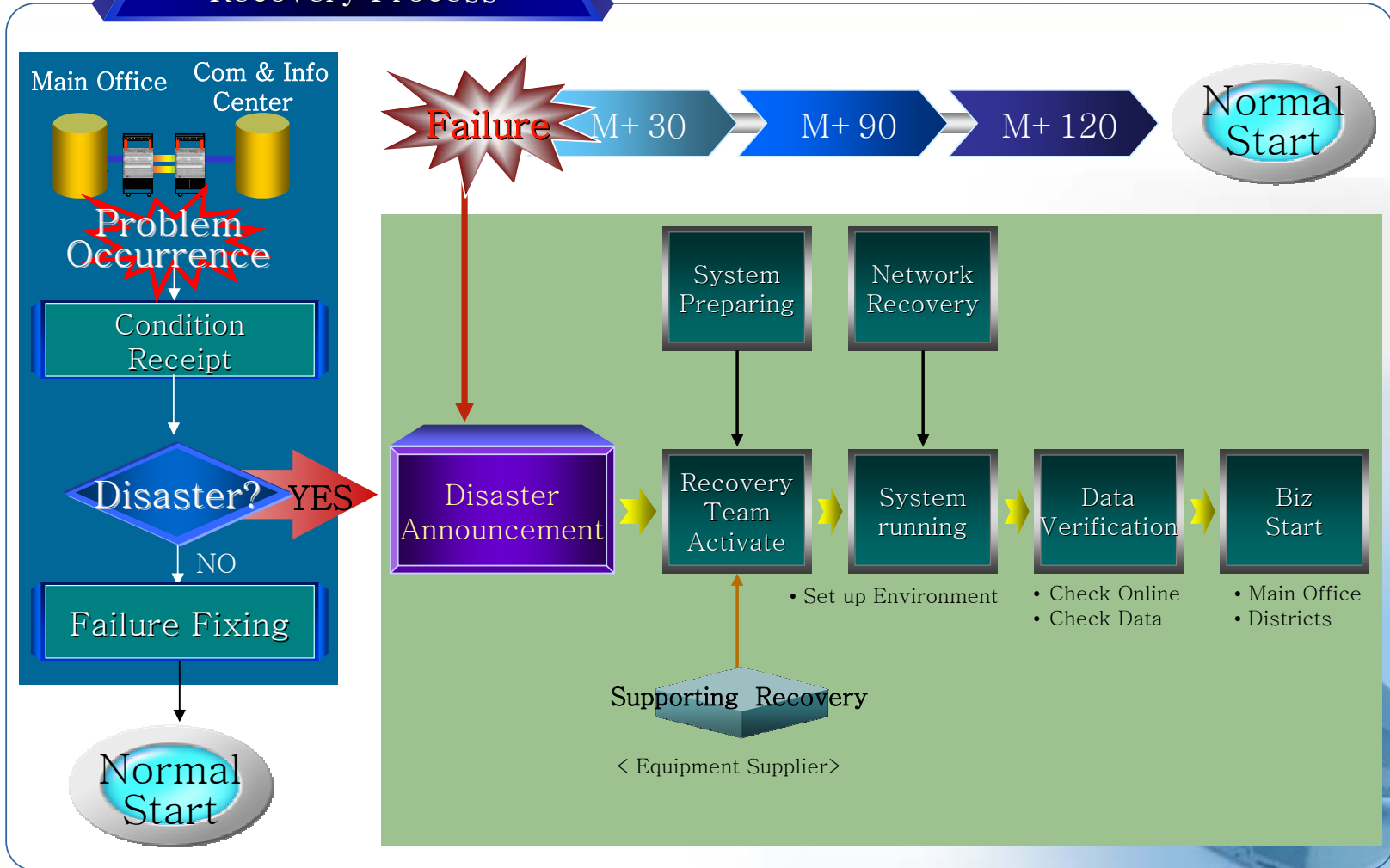
- ❖ Site : Main Office, Computer&Info Center, 5 District
- ❖ Attendant : Dept. Info Planning 23persons, 5 District 7persons

Procedure	The time required							Status	remark
	09:00	10:00	11:00	12:00	13:00	14:00	15:00		
Preparing Recovery	→							Normal	Stop Main Office's Biz
Office Automation Pre-tax		→	→	→	→			Normal	
Network conversion		→						Normal	
Main Office Test				→	→	→		Normal	
5 District Test				→	→	→		Normal	
Network Restoration							→	Normal	
Office Automation Return Pre-tax Return							→	Normal	Start Main Office's Biz
Overall time required	→	→	→	→	→	→	→	Normal	09:33~ 15:20



## 2. Local Government Case Study(Seoul City)

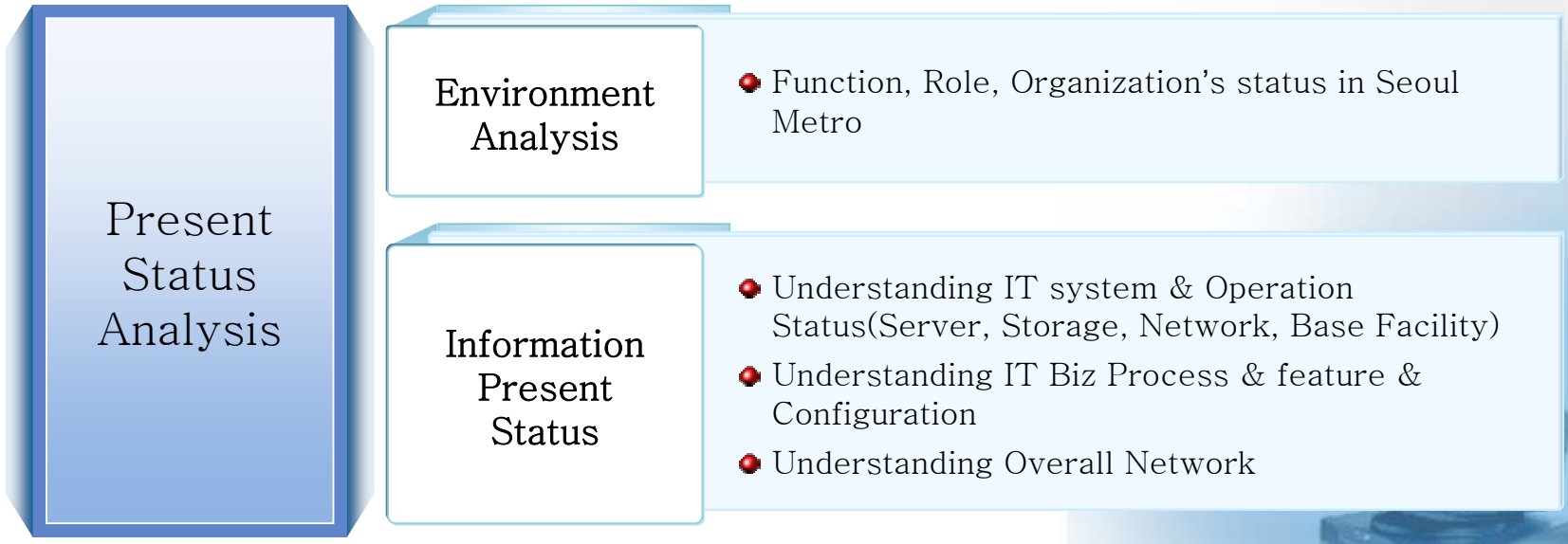
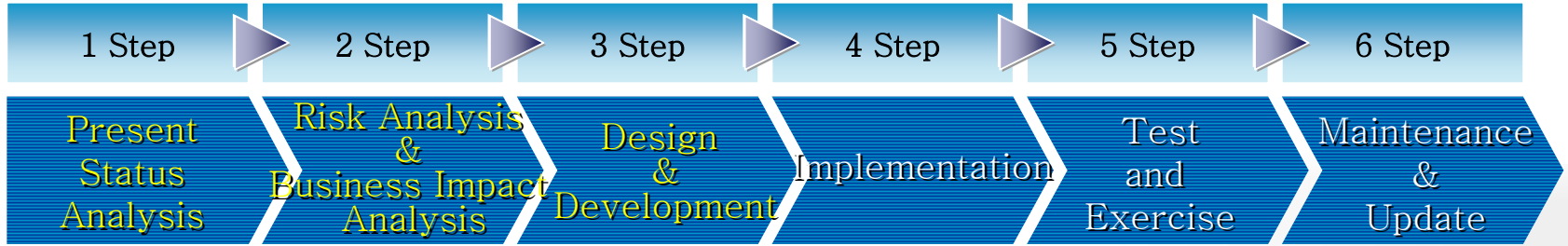
### Recovery Process







### 3. Continuity Plan Process





### 3. Continuity Plan Guide

#### Risk Analysis & Business Impact Analysis

##### Risk Analysis

- System Failure & Disaster Outbreak analysis
- Security Accident analysis
- Understanding Failure & Disaster in domestic and abroad

##### Business Impact Analysis

- Biz Impact Analysis – Survey & Investigation
- Total damage Analysis
- Making Plan to manage Risk

#### Design & Development

##### Design

- Type and Location for Backup Center
- Data Backup's Technical Type
- Plan for Backup Center's Operation
- Backup Plan
- Plan for User's environment

##### Development

- Verify a biz object in detail
- Making a Plan about Important Systems each



### 3. Continuity Plan Guide

#### Implementat ion

Delivery

- Ordering equipments and Entrance

Facility  
Construction

- Building IT environment

Installation

- System/Solution/Network equipments

Duplication

- Data Initial Duplication

#### Test And Exercise

Unit Function  
Test

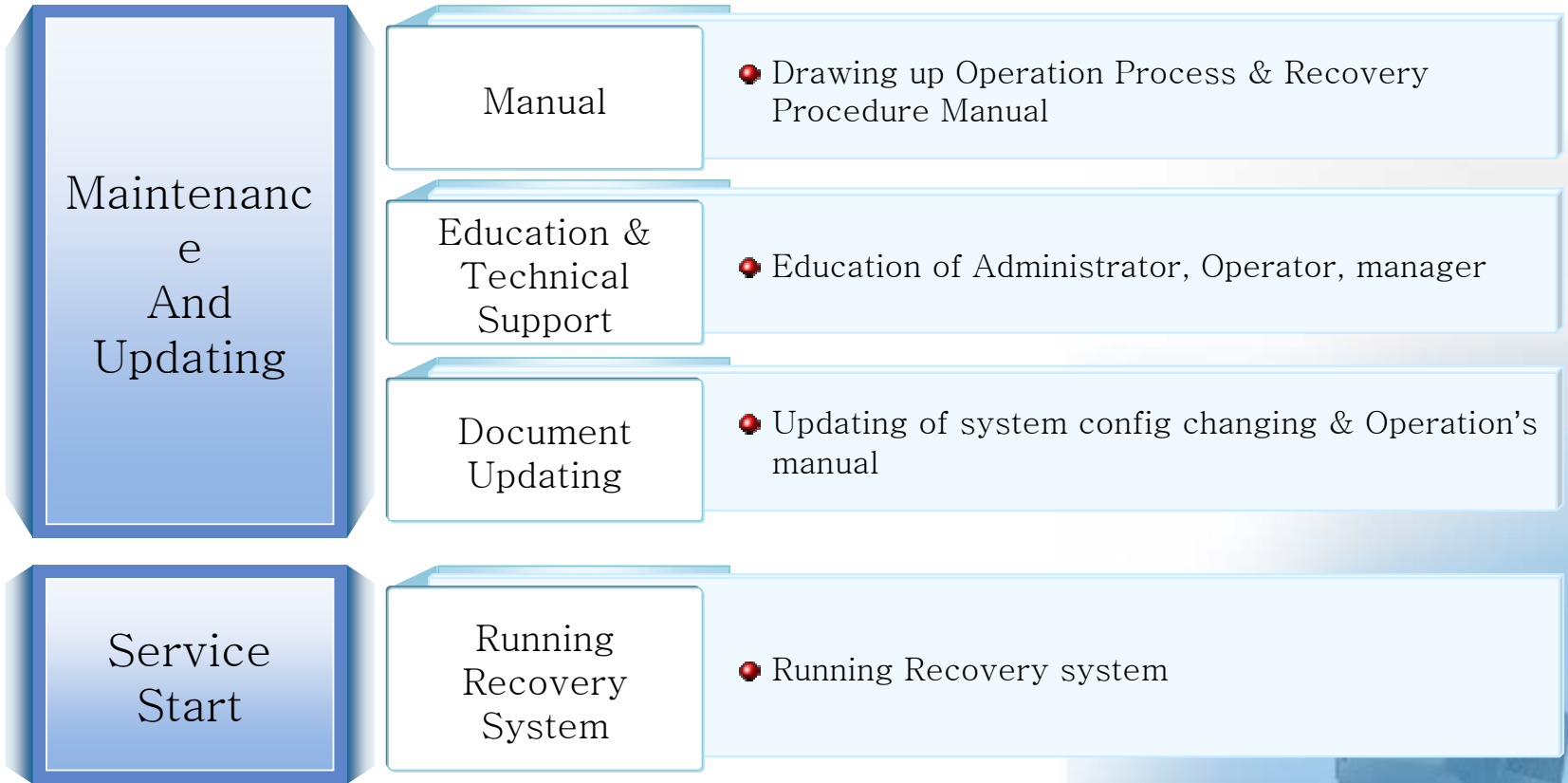
- Solution Function Test
- Performance Test
- Network equipment Test

Exercise

- 1'st Exercise : Confirm Normality test for Biz
- 2'nd Exercise : Confirm User's Connection
- 3'rd Exercise : A hypothetical exercise about Disaster



### 3. Continuity Plan Guide





## 4. Local Government Problem & Solution

- ⊗ Improving Data Backup system
- ⊗ Introduction a Procedure of Changing, Failure, Protection Mgmt.
- ⊗ The Pursuit of Advanced technical level for Operator
- ⊗ Improving Data Backup system
- ⊗ Introduction Operation and Mgmt Automation tool

### Environmental Factor

OS Failure  
H/W Failure(server&network)  
Facility Failure  
Disaster

### Operator's Mistake

Lack of Operation Process  
Miss Operation  
Complicated System

### Application Failure

Program Bug  
Performance Problem  
Lack of Changing Mgmt.



## 5. Local Government Consideration

### *Continuity Plan Consideration*

- 1 The Intention of Decision maker
- 2 For Common Interest
- 3 Cooperation of interested persons
- 4 Consideration of Technique and Cost
- 5 Continuing regular exercise and Document updating