

The Technology Development Application and Challenge of Service for Passing and Exchanging Electronic Documents

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The Main Points



Introduction

The transformation of the electronic official document exchange system

Set about a new tiered and centralized system

Face the challenge

Introduction



Purpose

- to examine the differences and the optimization process of each generation of the exchange system

Suggestion

- thorough analysis on the SPEED and future outlook and recommendations will be provided

Introduction/Systeme



1999

The electronic official document exchange system was initiated by the Digital Taiwan Project

USER

more than **32,000** government agencies, education institutes, private enterprises, and various organizations



- ★ A critical infrastructure in Taiwan
- ★ Information Security - Class A

\$

Utilization of the exchange system has saved over **NT\$1 billion** in postage costs for all government agencies every year

4

檔案管理局

Administration

National Development Council

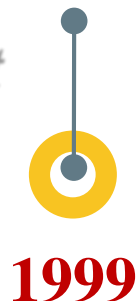
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System development



**The electronic
official document
exchange system
was initiated**

1st



1999

2000



2nd

**Constructing a
cross-center
exchange**

**Decentralized
point-to-point
exchange**



2003

3rd

2009



4th

**Set about
integrated
exchange center**

**SPEED
launch**

5th



2017

2019



**SPEED will be
fully online**

The new system was renamed *Service for Passing and Exchanging Electronic Documents or SPEED.*



The initial phase

e-Taiwan

Client-server
architecture
XML format
Region-wide

Cross-center
exchange by
gateway

Gateway becomes
a bottleneck

Preliminary
policy

The 1st
generation

The 2nd
generation

The 3rd generation : Decentralized exchange



E-government Program (2001-2004)



Exchanged by XML-BOX



XML-Gateway (heterogeneous)



Expand the use of certificates



G2B2C service center



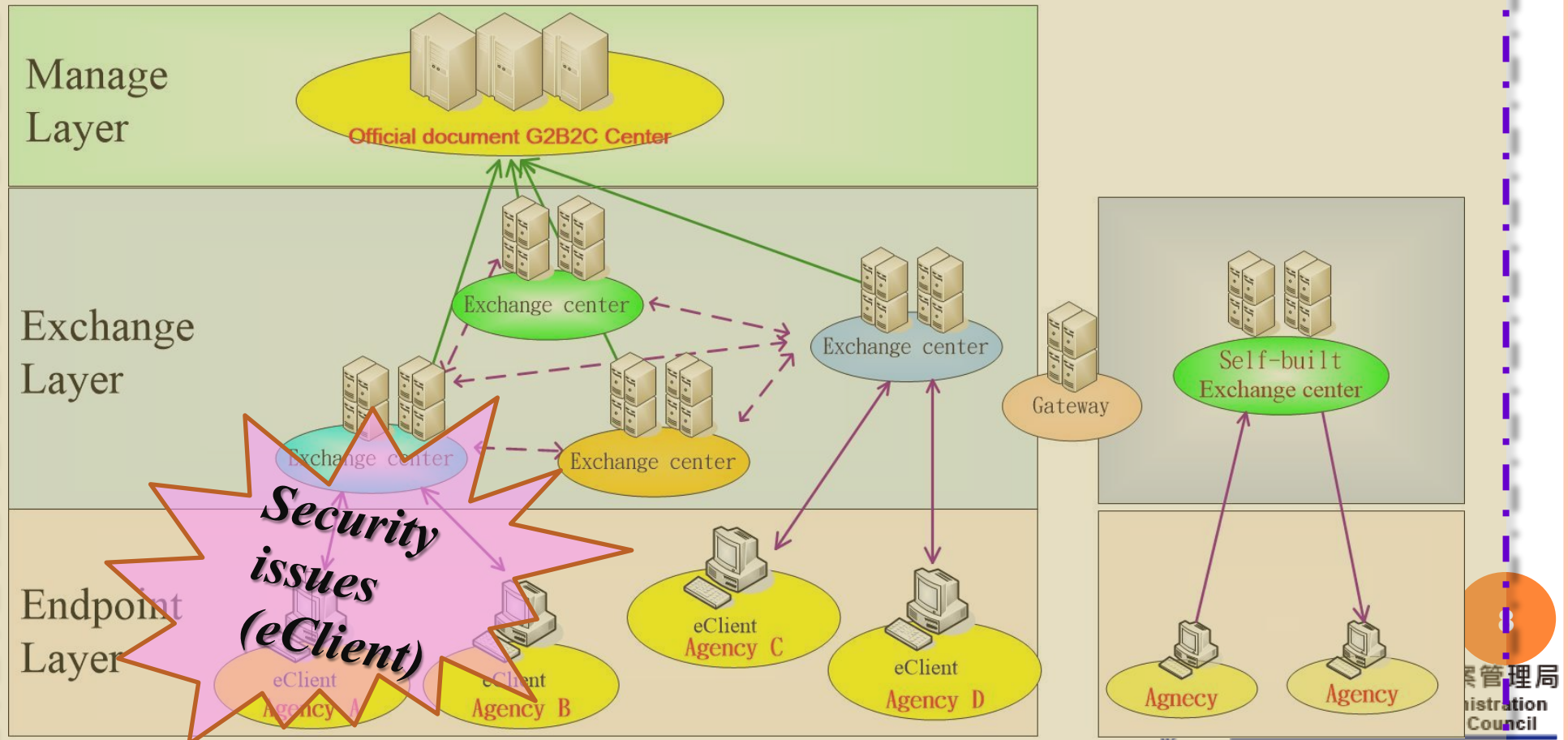
DTD format

**Excessive XML-BOX
increase
maintenance costs**

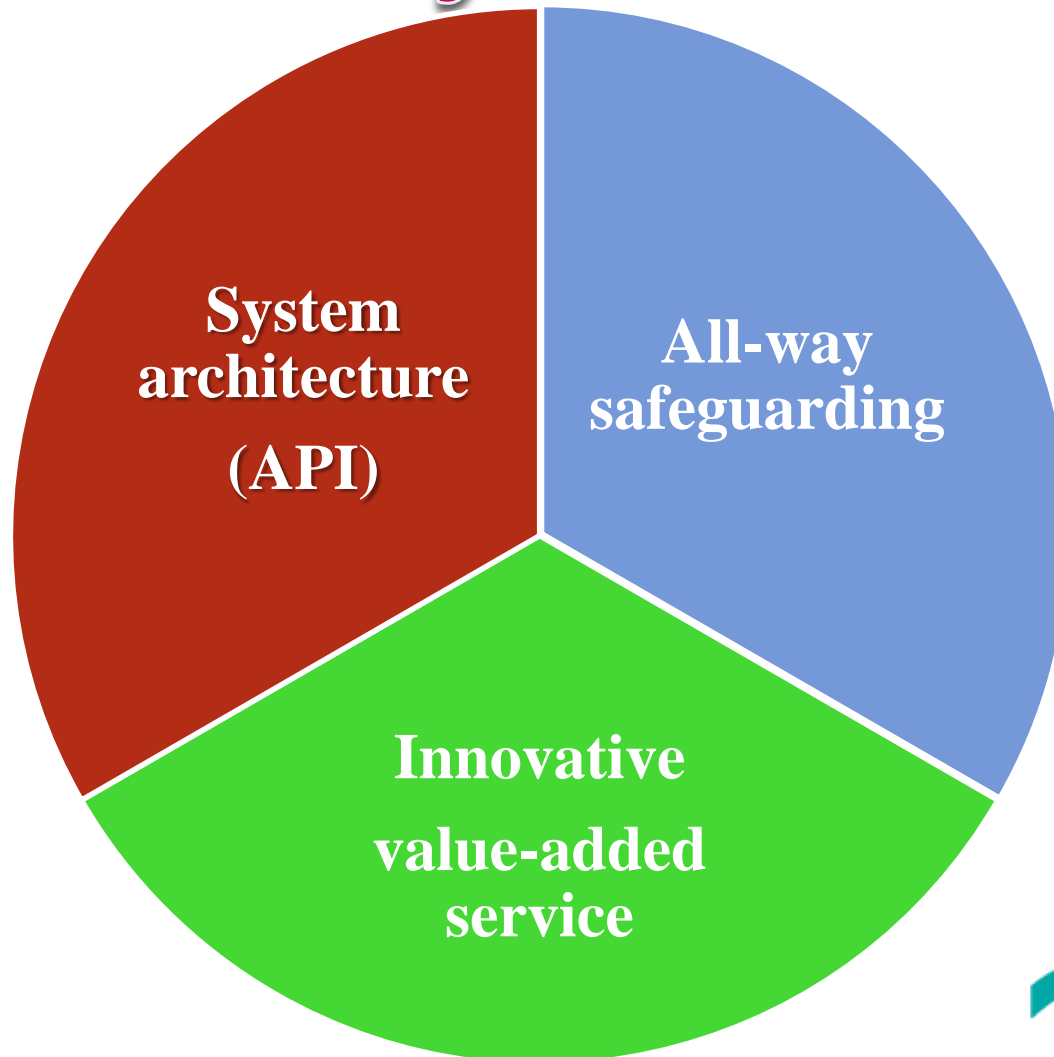
The 4th generation : Integrated exchange centers



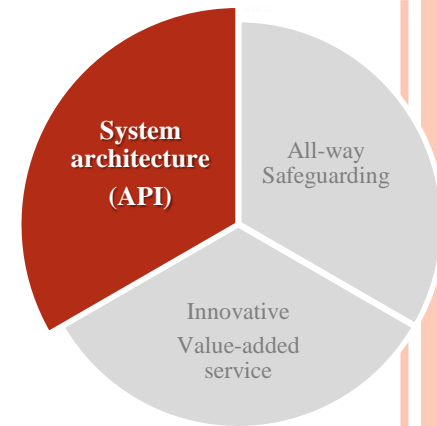
The security standard & A dedicated SOC system



Set about a new tiered and centralized system



System architecture (API)



Management Layer

Address

Transaction Statistics

Security Monitor

Exchange Layer

Exchange Center



Extra Center



Intra Center

Cyphertext

Security Channel

Exchange Center



Extra Center



Intra Center

Cyphertext

Endpoint Layer

jAgent (API)

Encryption modular

Official document management system

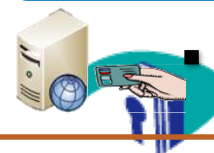
Client



Encryption modular

jAgent (API)

Official document management system

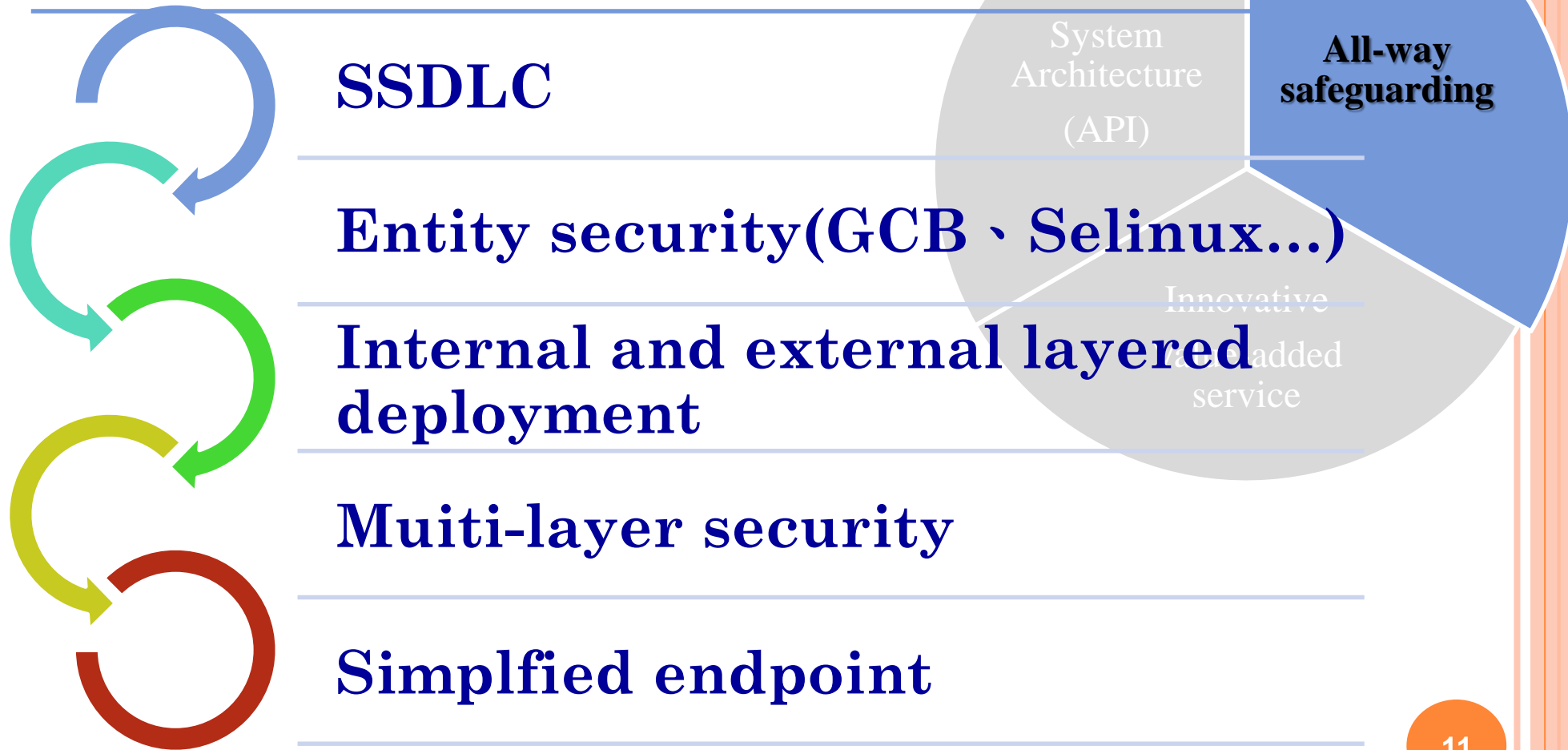


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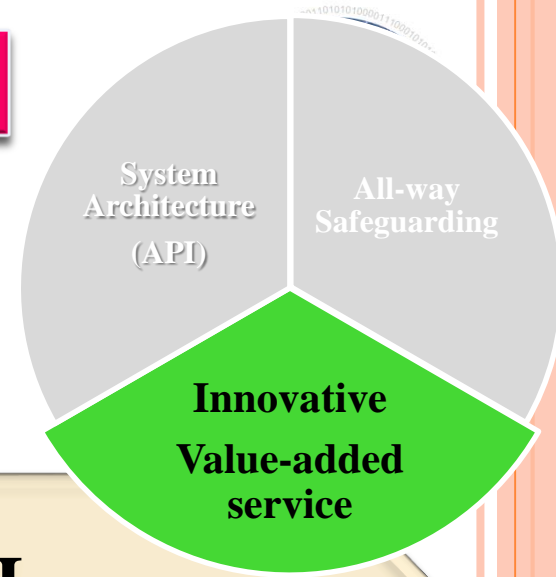
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All-way safeguarding



Innovative value-added service



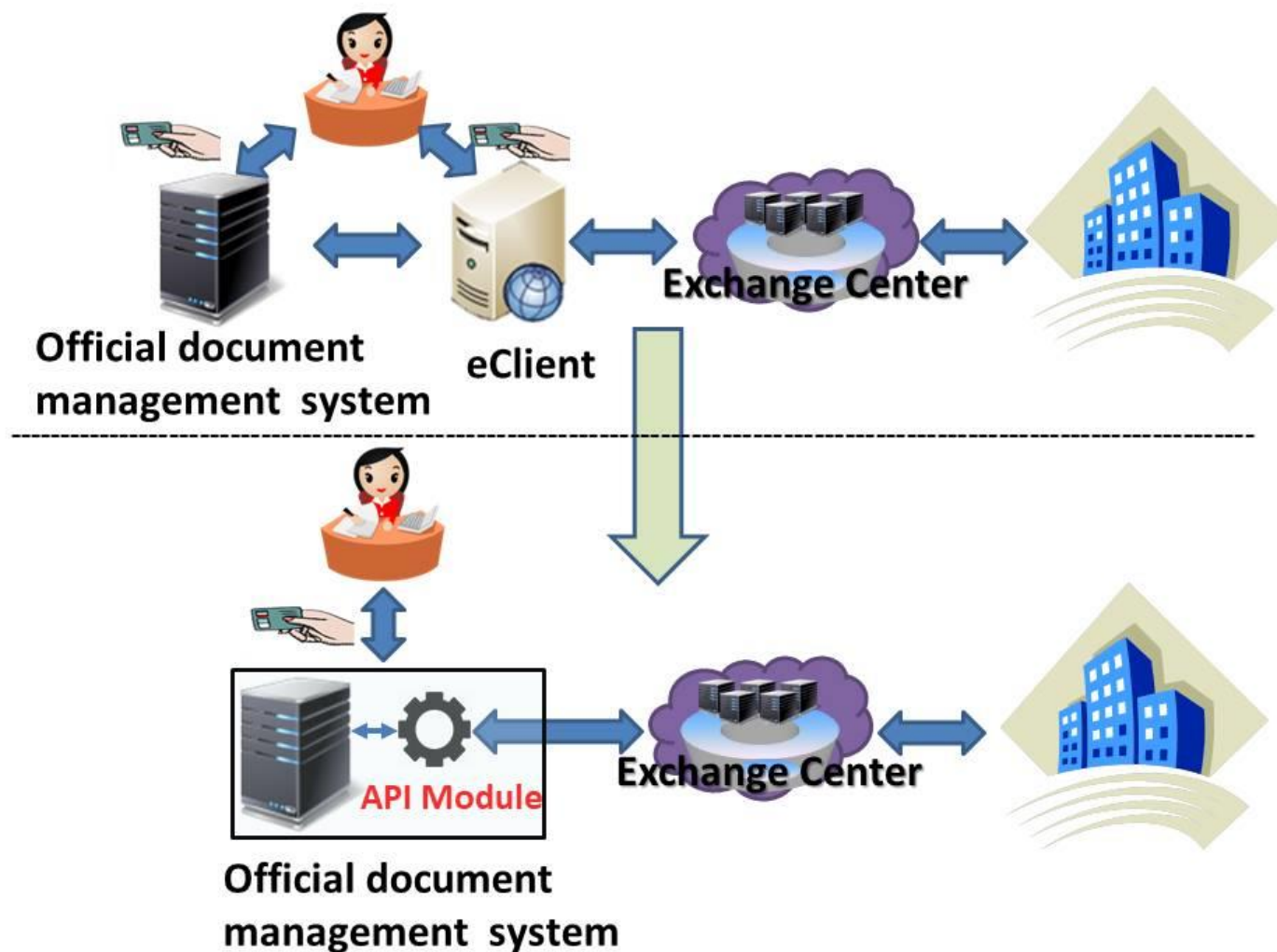
One-stop service

- **Integration through API**

Integrating multiple systems

- **Core issues of government**
- **Public concern**

One-stop service



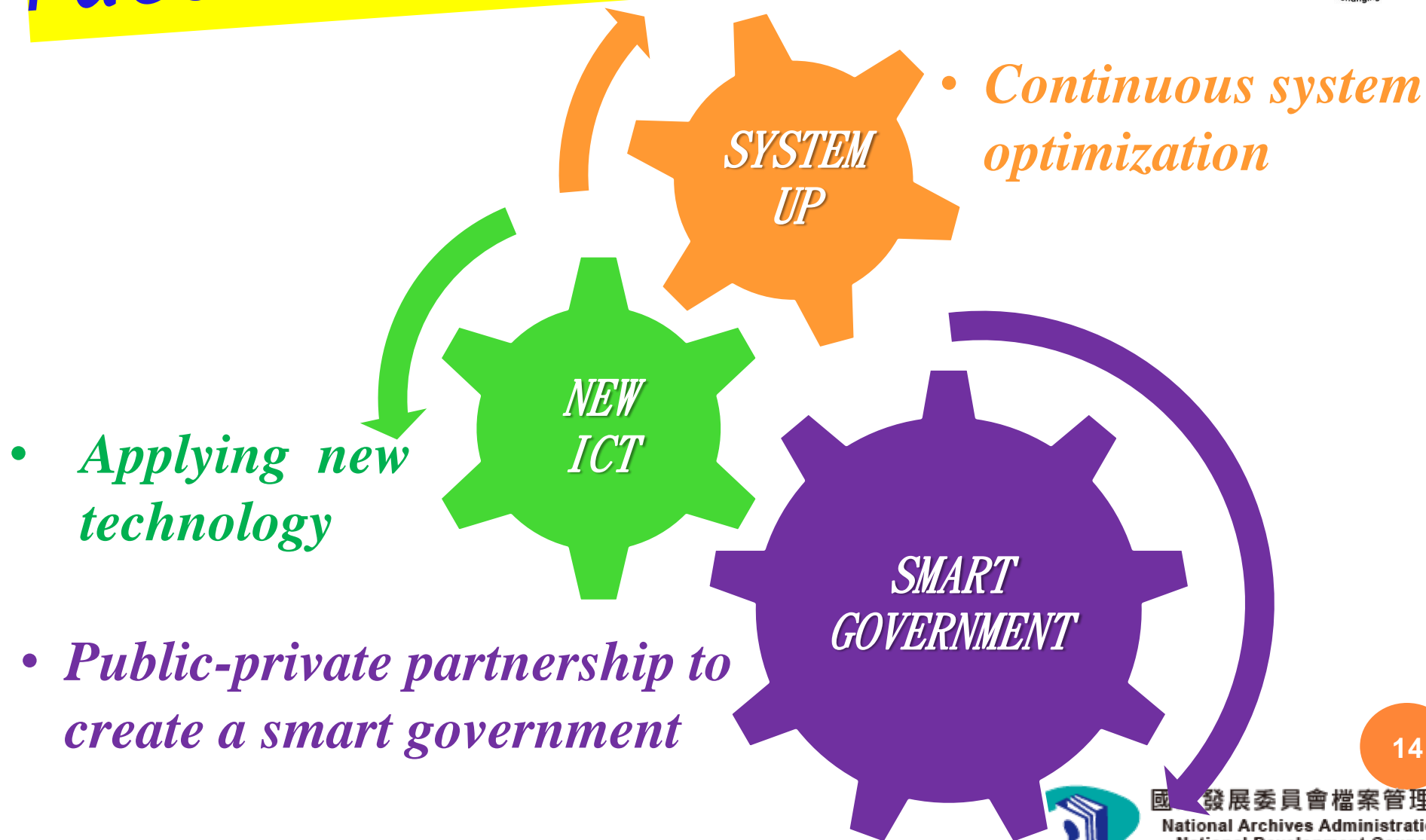
One-stop service

System
Architecture
(API)

All-way
Safeguarding

**Innovative
Value-
added
service**

Face the challenge



Continuous system optimization



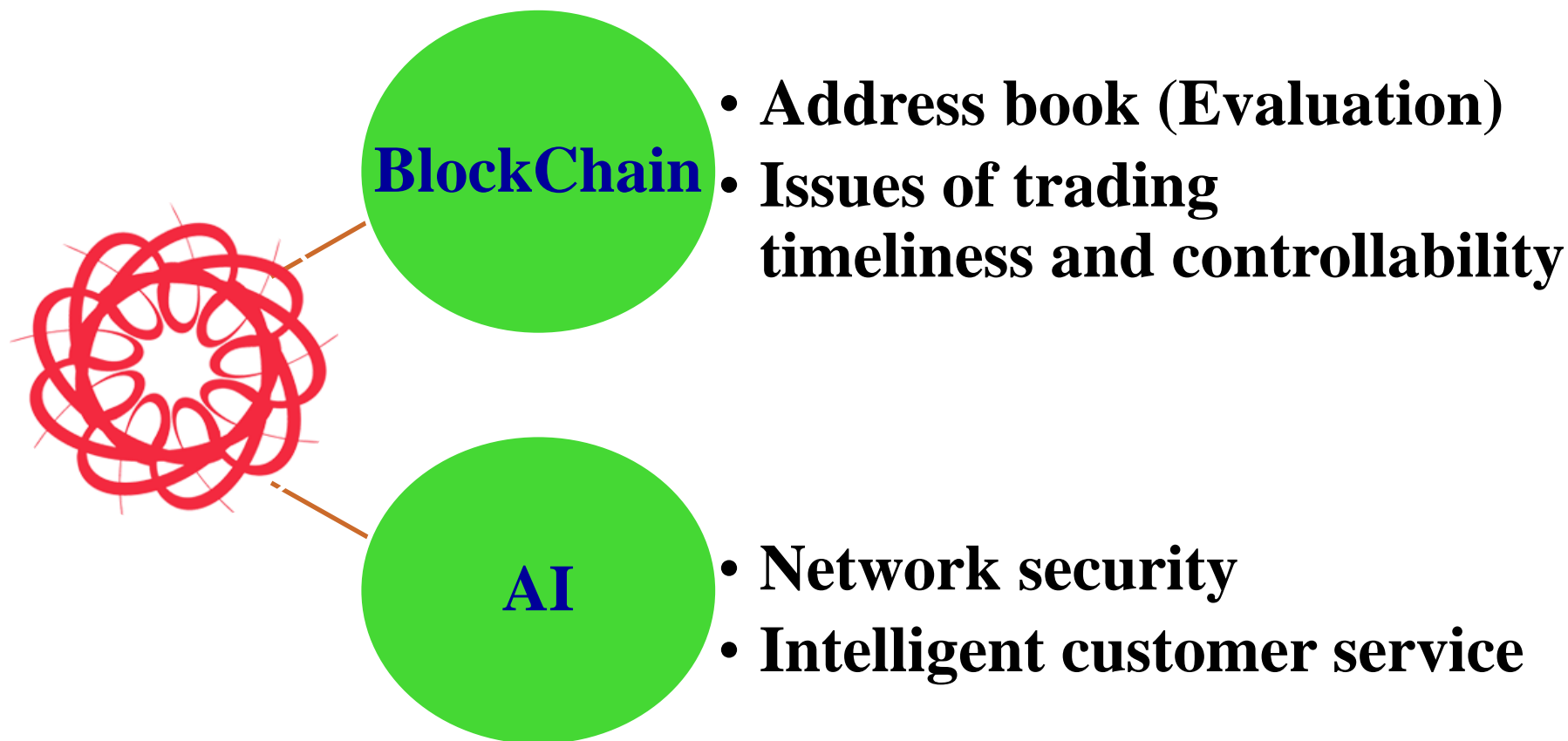
Performance

- **Encryption performance**
- **Stable exchange environment**

Security

- **Expand log collection**
- **Early warning mechanism**
- **Obfuscated code and digital signature**
- **Check integrity at run-time**
- **Active-defense application**

Applying new technology



Public-private partnership to create a smart government



Data-oriented service

Open data

Linking communities

People-centered

Service-oriented smart government





Q & A

