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Health Insurance Review and Assessment Service Information (ICT) System

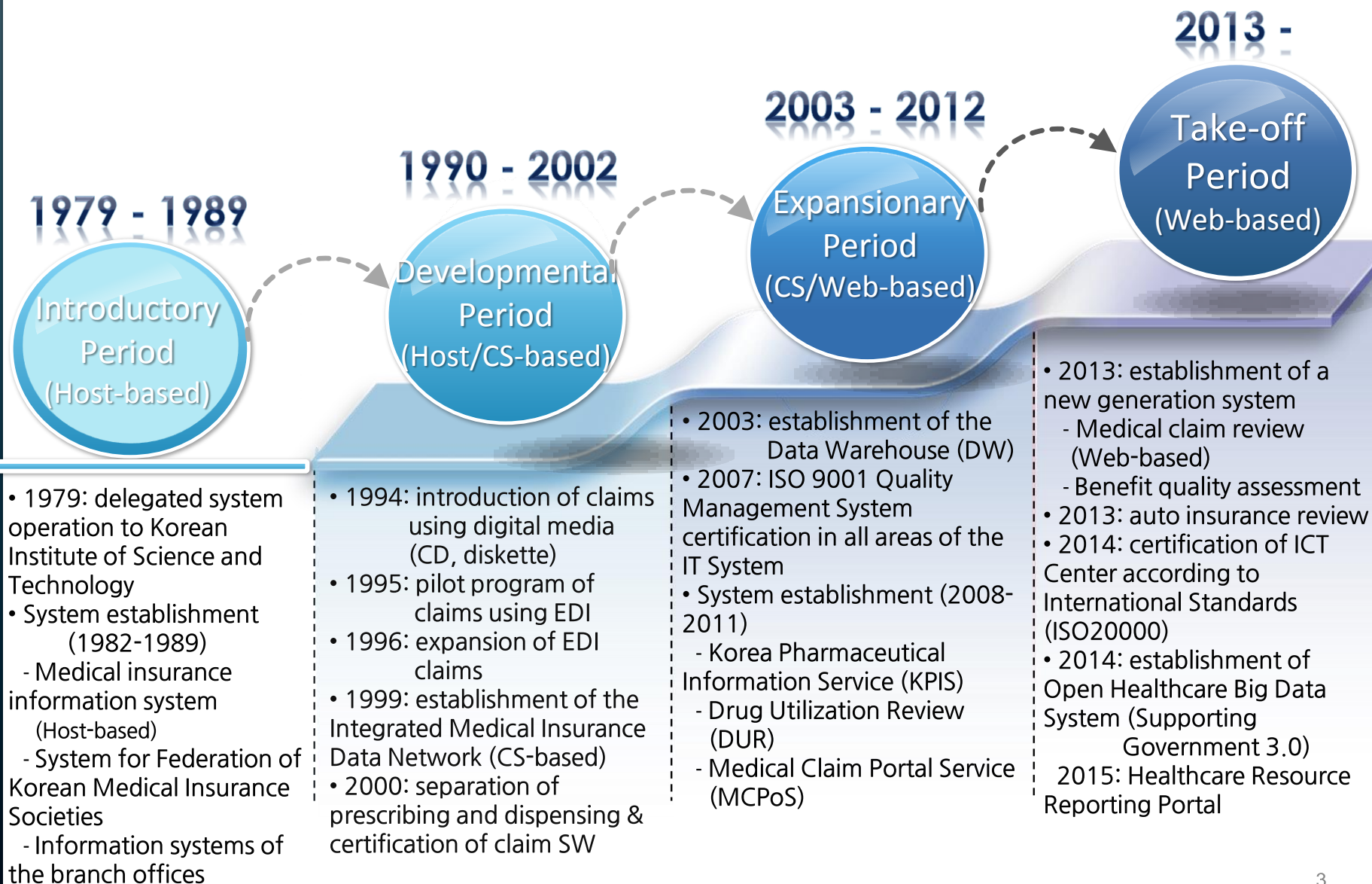




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Development(History) of ICT System



Business Environment

Indicators



91,545 providers



1.5 billion claims
annually



USD 72 billion in
medical fees
annually

Requirements

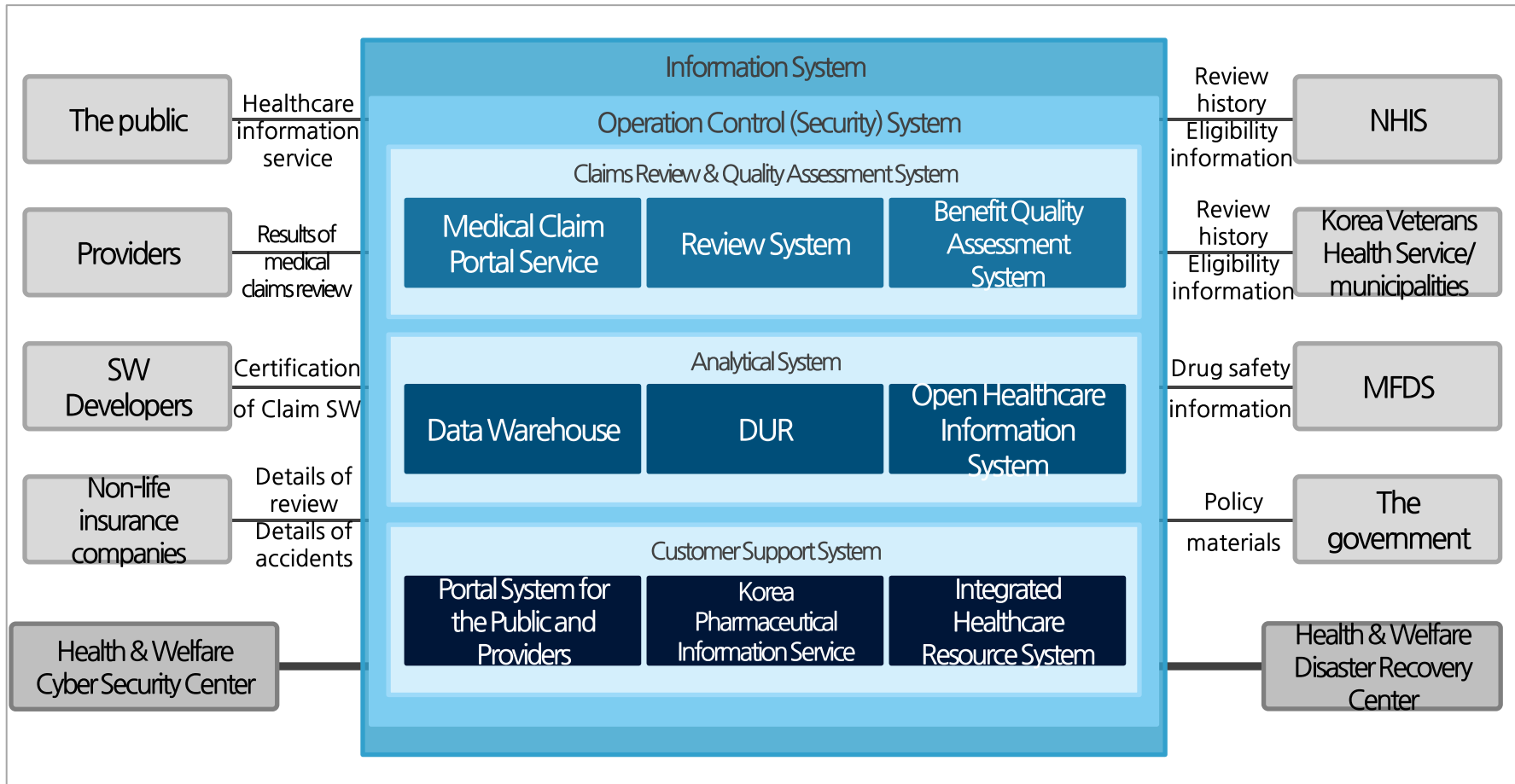
Quick and accurate processing of large amounts of data

Expansion of real-time services such as DUR

Better protection of privacy and a more stable IT system

Scale of the ICT System

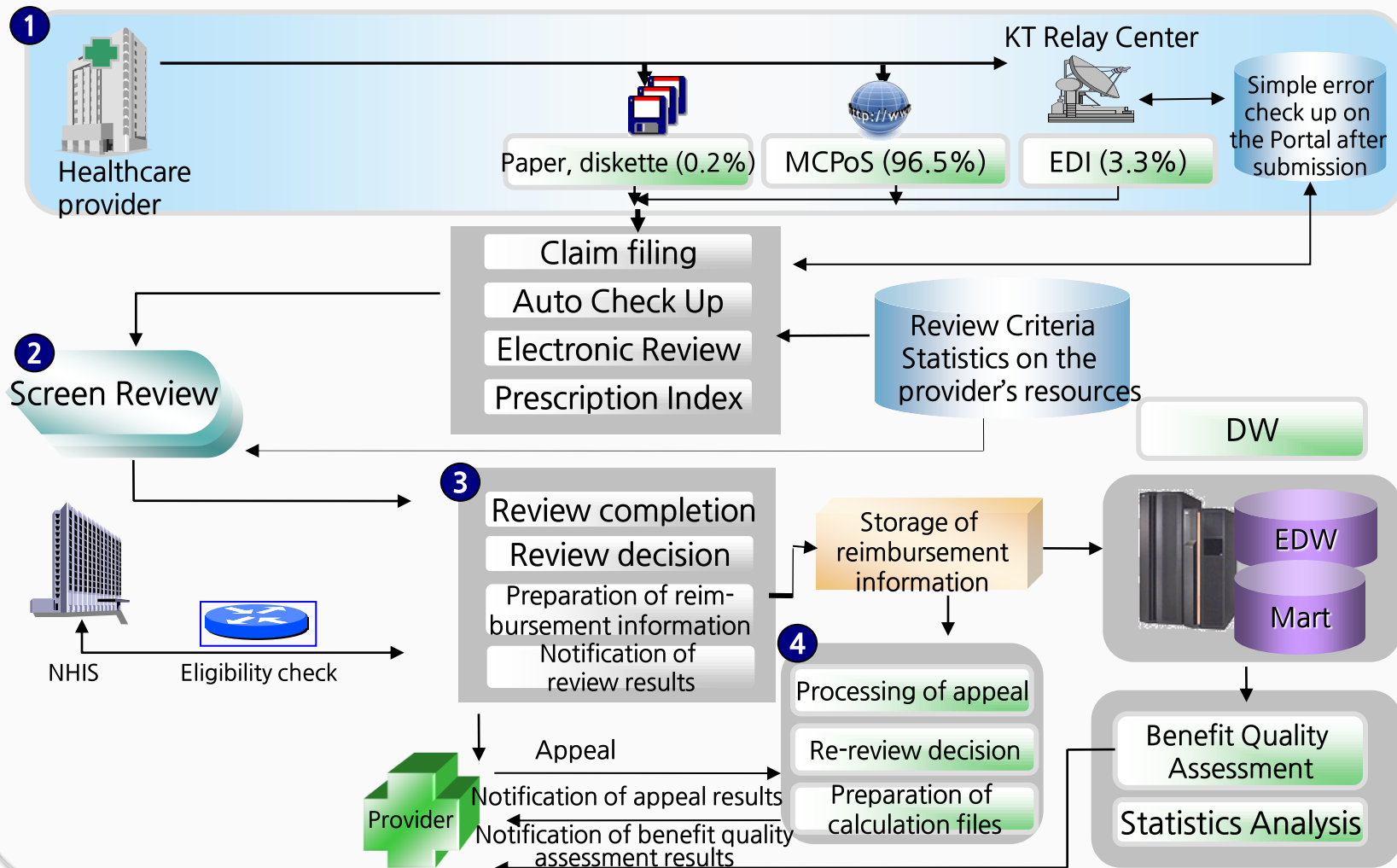
Servers	187 UNIX servers (329 small- to medium-sized servers)
Disk storage size	3.4PB
No. of programs	69,000 copies
No. of personnel	264



Major systems

– Medical claims review system

Receipt of claims [automatic check Up] → [Screen] Review →
Decision → Post-Factum Management/Monitoring



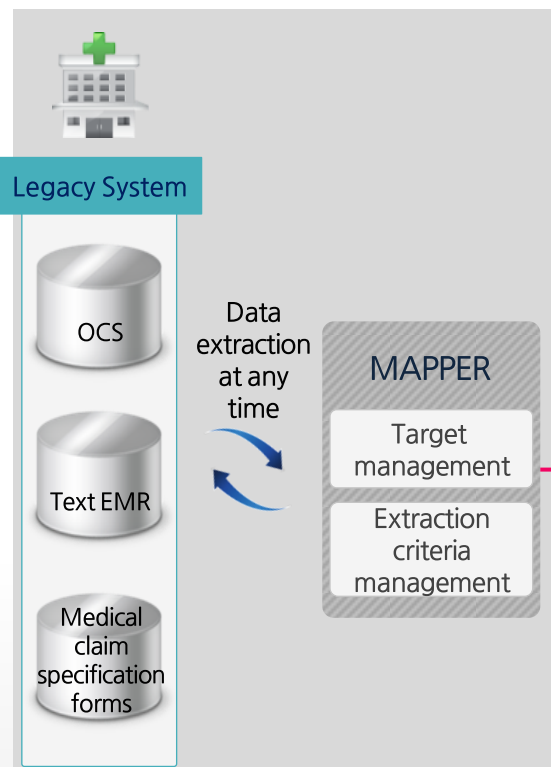
Major systems

– Benefit quality assessment system

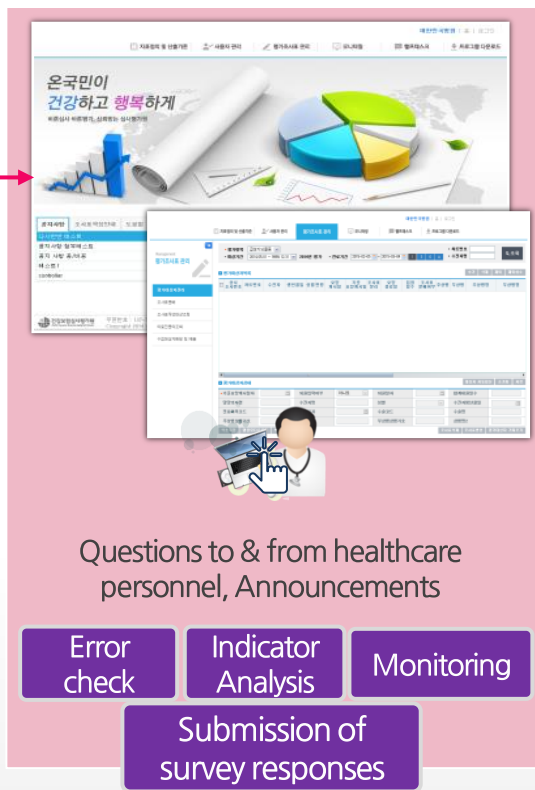
Overview

- A system that links EMR with assessment survey tables in real-time for efficient collection of responses, reducing providers' administrative burden and supporting their autonomous healthcare quality management

Healthcare Provider



Relay Server



HIRA



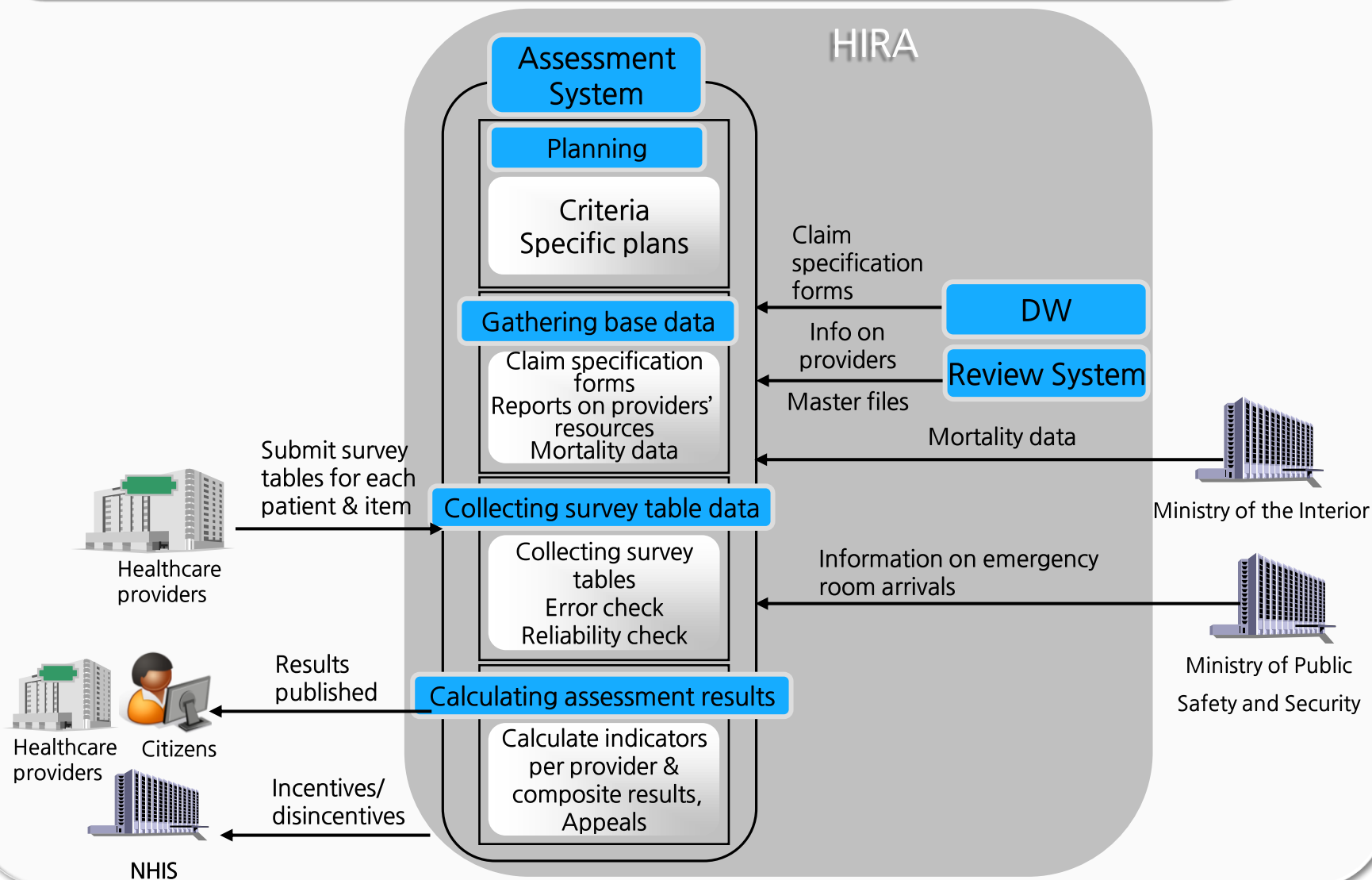
Major systems

– Benefit quality assessment system

Benefit Quality Assessment System



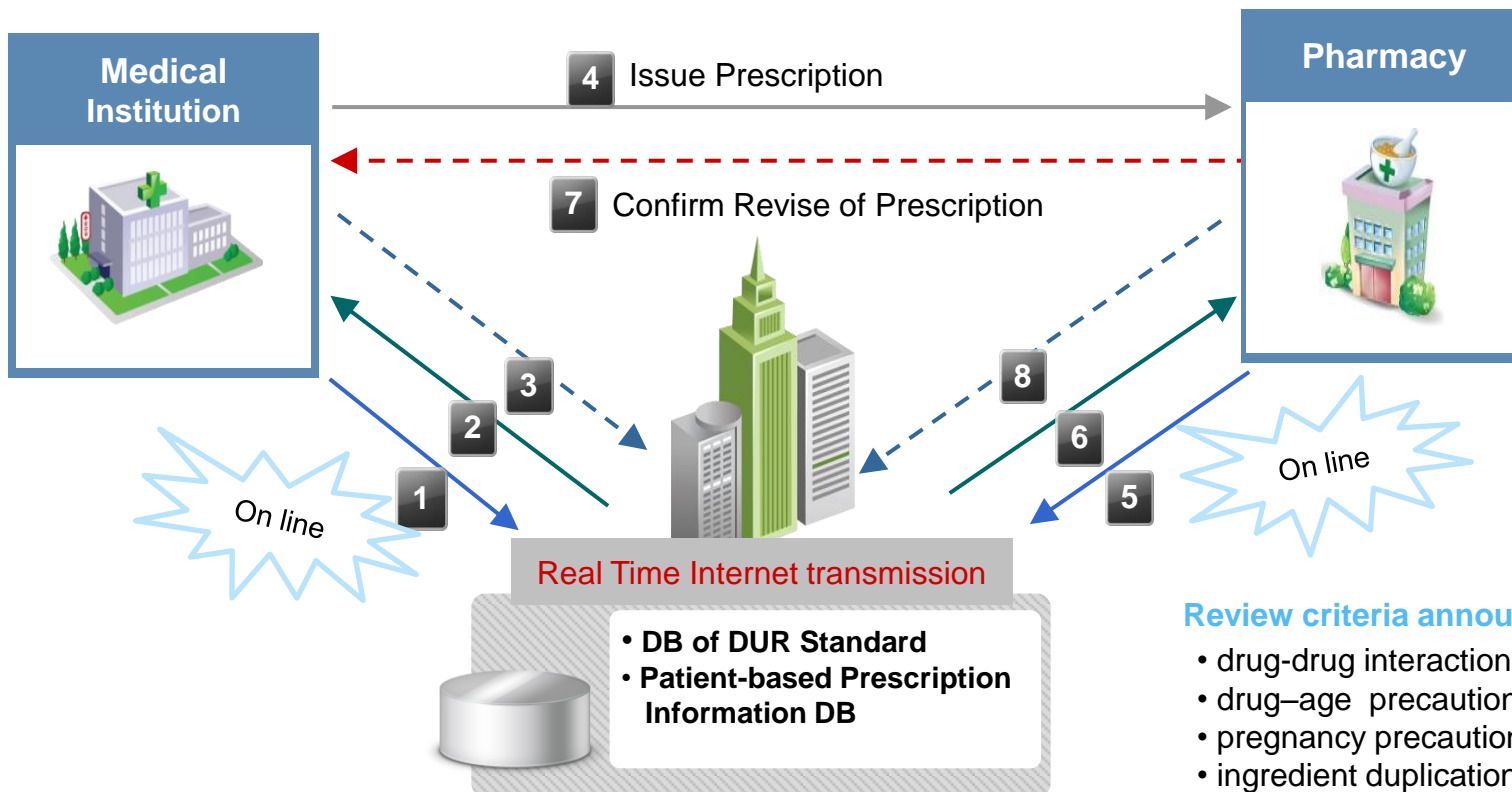
Planning → Gathering base data → Collecting survey responses
→ Calculating assessment results



Major systems

– DUR (Drug Utilization Review)

Data Warehouse



Review criteria announce by MFDS

- drug-drug interaction
- drug-age precaution
- pregnancy precaution
- ingredient duplication
- therapeutic duplication
- Suspended drugs for safety reasons ext.

1 5 Prescription Information Transmission

2 6 Review Results Transmission

3 8 Completed Prescription Transmission

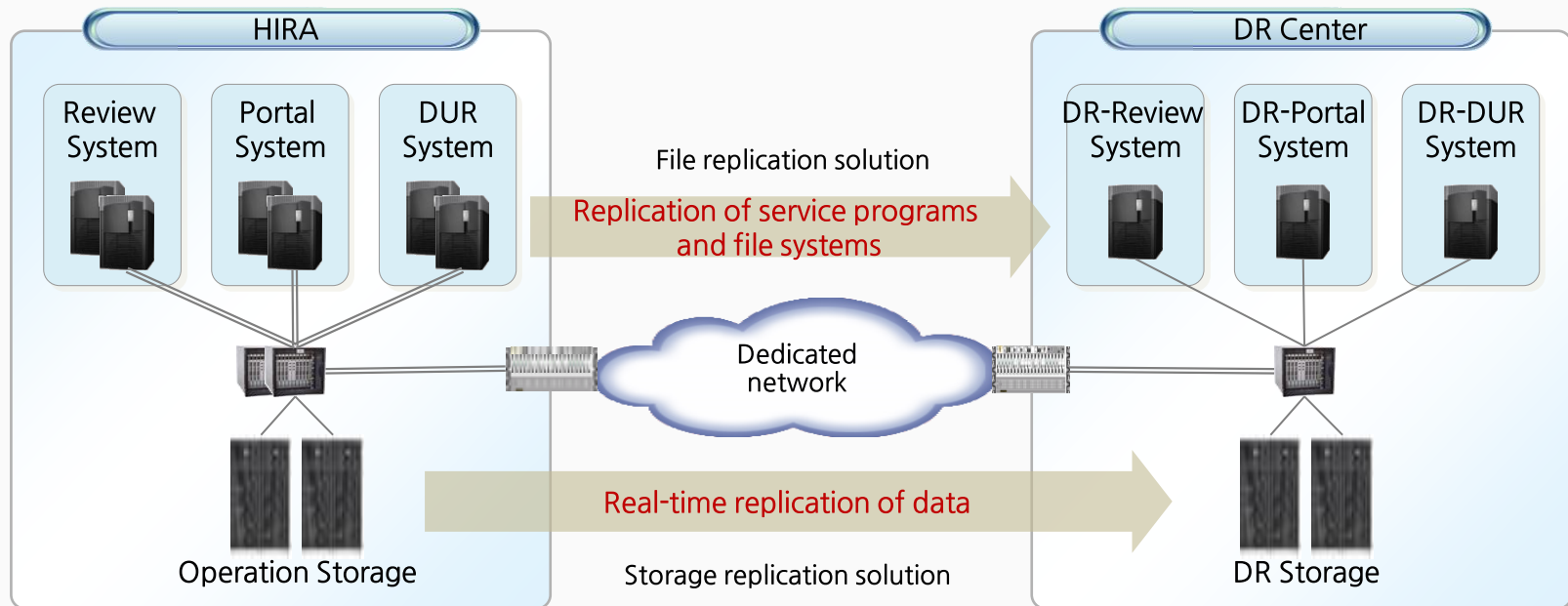
- DB of DUR Standard less than 0.5 sec / transaction

Health Insurance Review & Assessment Service



Disaster Recovery System

Remote operation of the ICT Center (DR Center under MoHW)

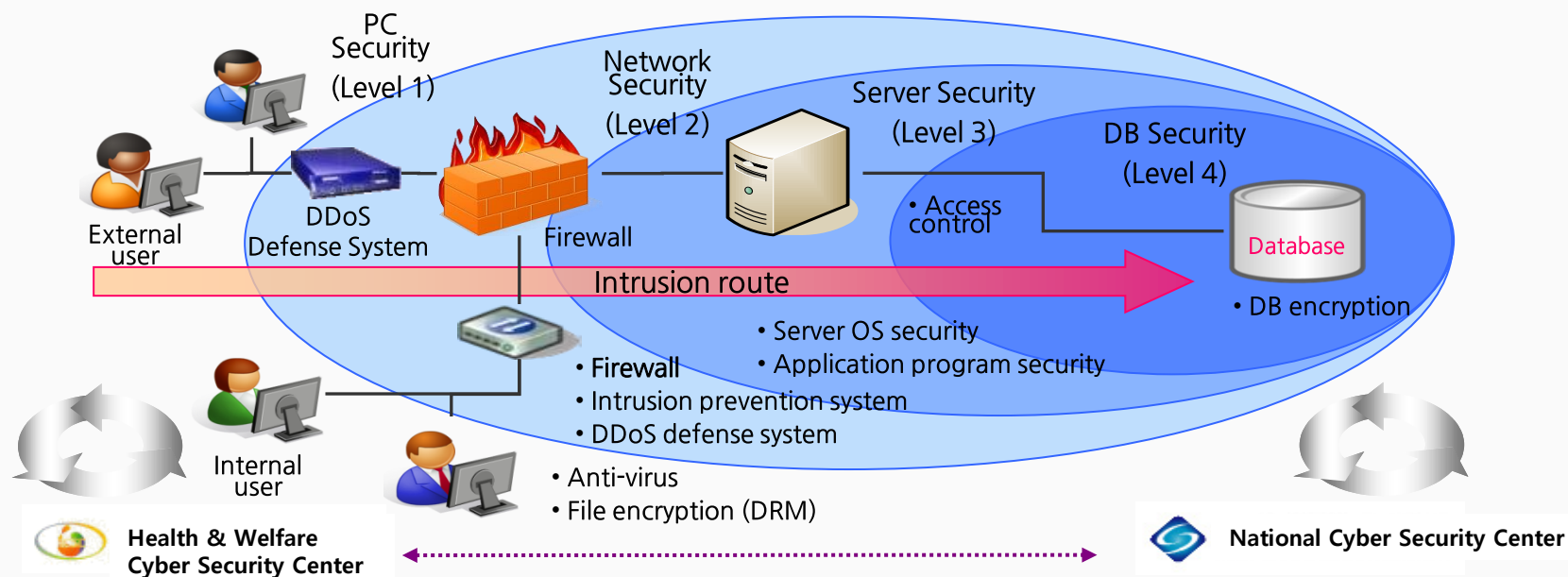


- Continuity of key information systems even in times of disasters
 - real-time data replication
 - regular mock disaster exercises every half year

Security and operation

– Security

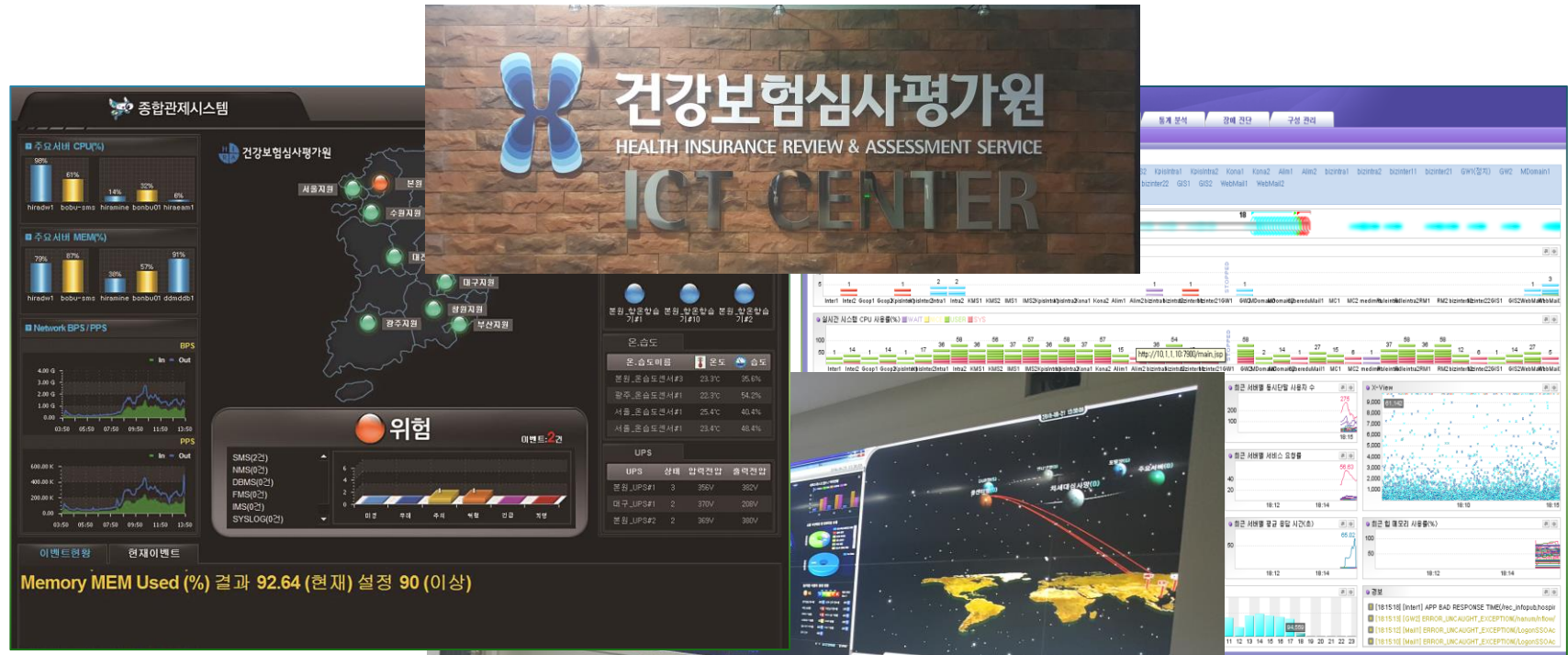
4 levels of security



Level	내용
PC security (Level 1)	User authentication, central management of antivirus programs, digital rights management (DRM), flash memory access control, etc.
Network security (Level 2)	Network separation, intrusion blocking and prevention system, firewalls, DDoS defense system, VPN, etc.
Server security (Level 3)	Server security (SecureOS), access control, integrated access record management system, etc.
DB security (Level 4)	Encryption of DB with important info such as personal info, DB access control and access record management, etc.

Security and operation

– Operation control system



» Monitoring of HIRA's HQ and the 10 branches

» Monitoring and control system resources & troubleshooting

» Non-stop, real-time service of Operation Control System

Certifications and Patent

❏ International Patent

『 Electronic Review of Medical Claims 』, Business Method

‘07 Republic of South Africa

‘08 Japan

‘09 Singapore, Australia

‘10 Vietnam

‘12 U.S.

❏ ISO9001 and ISO20000

‘05 EDI review system

‘06 DW and Mining system

‘07 IT system (including web portal service)

‘10 KPIS system

‘12 DUR and VOC system

‘14 ISO20000 (IT Service Management)

❏ Database Quality Certification (Korea Data Agency)

‘11 DQC-M(Management) Certification of agency-wide data management system

‘11 - ‘17 DQC-V(Value) Certification of data quality (Review System, DW)

‘14 - ‘16 DQC-S(Security) Certification of data security (Review System)

Q & A



Thank You