The Power that Unites the Republic of Korea

Saram
Electronic Human Resource Management System
The Power that Unites the Republic of Korea

From recruiting public servants to training, performance management, human resource management, competency assessment and civil service ethics, integrated innovation in public personnel management based on respect for people helps realize the fairest and most transparent civil service. Capable talent and an efficient system will lead the future of a united Republic of Korea.
“e-Saram” is the name of the e-HRM (human resource management) system, and Saram is the Korean word for “people” who are the targets of human resource management.
Then, are the supporting service functions different by responsible official?

What functions are there in the “Standard HRM System”?

The system has been in operation for about 20 years. What are the achievements so far?

The Standard HRM System creates a database of diverse data and the HR Policy Support System offers a glimpse at current status updates and statistics as well.

The system offers innovative efficiency and convenience in areas such as HR, time management and cost, and also offers enhanced system reliability by securing transparency, fairness and accuracy over HR management.

The system provides custom services.

Yes. The system offers customized services for different users including browsing, recording and management services in an optimum manner to users, including policy service managers of the central civil service management agency, service managers of each ministry and agency, division heads and organization leaders, as well as general public servants.

I would like to understand “e-Saram” in detail.

As it was not a simple computerization initiative, much effort was needed for large scale Business Process Re-engineering (BPR), public relations and consultations with ministries and agencies, preparation of legal grounds, and expanding the system to other ministries and agencies.

Any difficulties while developing the system?

When was the electronic personnel management system introduced?

What is “e-Saram”?

“e-Saram” is an electronic human resource management system which represents the Korean government’s civil service management and is composed of the “Standard HRM System” and “HR Policy Support System.” The system integrates and manages data related to personnel decisions, salary, performance evaluation, education and training, and services for about 300,000 public officials in 72 central administrative agencies and the electronic processing of overall civil service management.

“e-Saram” is an electronic human resource management system.

The system handles policy services including recruiting, promotion, screening of high-level public servants and their appointments by the President of the Republic of Korea. Additionally, the system offers a variety of status updates and statistics to support speedy decision making.

The system introduction was made in earnest from 2000 and the 1st stage development was completed in 2011 and 2nd stage in 2012. In 2013, the “e-Saram” mobile system was established to help handle related duties swiftly.

This is the system used by each ministry and agency which converts the data on human resources matters, salary, performance evaluation, education and training, and services into a database and supports efficient data processing.

“e-Saram” was introduced in year 2000.

Sure. Let me explain the system in detail based on the areas you wish to learn about. Please follow me.
HISTORY

The Establishment and Development Process of “e-Saram”
Back in 2000, the HR management of the one million public servants of the Republic of Korea was based on paper records and manual work, and as a result multiple issues were generated. To resolve such issues, an electronic HR management system was introduced.

**Background of Introducing “e-Saram”**

- **Duplication of Simple, Repetitive Works**: Human resources, time, and financial resources were wasted and systematic human resource management proved difficult as the work undertaken by public servants was often redundant in simple and repetitive tasks and also in terms of document management.

- **Mis-recording, Missing, Overlapping of Data**: By conducting manual HR management based on paper documents, seamless data management was unavailable from recruiting, appointment, training records to preservation (resignation), and this resulted in mis-recording, missing and overlapping of data.

- **Inefficient Resource Management**: Among approximately 26,000 agencies, 20,117 processed compensation payments individually, resulting in an inefficient resources management including the use of excessive resources.

- **Lower Reliability in Salary Management**: Salary miscalculation and payouts were possible from a lack of or problematic automatic IT system and potential for fraud existed from insufficient systematic management.

- **Inaccurate Statistical Data**: It was difficult to calculate exact statistics over human resources composition and issues occurred in HR policy decisions from inaccurate data including recruiting, promotion, transfer, and labor cost planning.

- **Poor Human Resources Management**: Lack of services for stakeholders in HR management resulted in lower reliability from reasons including individual public officials being unable to browse their own human resource data such as personnel records, evaluations, promotions, and salaries.
Absence of Precedents

No other countries had any precedent of such a large-scale electronic human resource management system when the system development process started. In addition, measures to convince ministries and agencies to adopt the system were needed to provide justification for system development.

① Conducted extensive Business Process Re-engineering (BPR) in advance
- Benchmarked examples of private-sector Korean companies
- Not simply computerized existing manual work but conducted extensive Business Process Re-engineering (BPR) in advance

② Prepared legal grounds by amending regulations
- Related regulations were amended in 2009 from the document-oriented management system (Regulations on Processing Public Officials’ Personnel Records, Statistical Reports and Personnel Affairs)
- Provided grounds for justification by improving legal framework and secured legal grounds for HR management of public servants based on IT systems.
Business Overlaps and Data Ownership Issues

By integrating the HR management function formerly conducted by individual government organizations using an IT system, issues were raised over overlap with the central civil service management agency and ministries and agencies’ data browsing and data ownership.

Public Relations (Briefing) Sessions

- Held public relations (briefing) sessions while attempting to persuade central ministries and agencies and all other applicable organizations
- Consistently explained the concepts of systematic personnel record management and safe data management. Regarding data management, controls are in place to allow ministries and agencies to access their applicable data only

Support Needed over an Early Roll-out of the System

As the common human resource management system for ministries and agencies were based on existing framework, supports were needed for the timely application of the system changes and its early adoption.

1. **Identify key human resource improvement initiatives**
   - Legal system changes related to human resource system
   - Identify common demands for key improvement initiatives of ministries and agencies and set up implementation plans as well as promote improvement throughout the year

2. **Enhance satisfaction with services**
   - Consistent training of all public servants of the central ministries and agencies
   - Online service center to support users, help desk to respond to phone inquiries
Selected as One of the Top Eight Reform Initiatives Related to Human Resource Reform

The electronic HRM system development began in earnest after its selection as one of the "Top 8 Human Resource Reform Initiatives" in the beginning of the 2000s. In 2001, the electronic HRM system was pilot tested at four ministries and agencies, continuously spread to all ministries and agencies by 2008 and became sophisticated enough to serve as the foundations of electronic human resource management.

Developed the Next Generation Electronic HRM System

The 1st generation system was established based on client-server and operated by each ministry and agency with the same system including human resource matters, services, and salaries and for two years from 2011, the legacy electronic HRM system was fully upgraded into a 2nd generation web-based system. The launch of the next-generation electronic HRM system offers an altered information basis and services which correspond with the civil service management environment.

The hardware, DB, and application system which have been separately managed by ministries and agencies were integrated to raise efficiency in information resources operation and associated management

STEP 1

User Convenience Enhanced
By upgrading the entire Standard HRM System for ministries into a web-based system through business process analysis, user convenience was enhanced.

Open-end Connection System Established
Through new service developments such as customized work services, the basis for the electronic business processing is widened and an open-end connection system facilitating the utilization of HR information is established.

Personal Information Protection Reinforced
In line with the reinforced protection of personal information, the system strengthened the encryption of key personal information and tightened the authority structure pursuant to system integration.
Re-established HR Policy Support System as a web-based system, while expanding and rolling out services.

Digitized Service Management and Transferred Services to a Web-based Environment
Realized the digitization of service management by the supporting administrative staff and transferred the client-server based HR Policy Support System of the central civil service management agency into a web-based environment.

Efficiency Enhanced for HR Policy Services
Raised efficiency in HR policy services through additional development and application of the previously manually supported services including candidate management for public servant recruiting, recruitment planning, and HR audit.

Scientific Personnel Policy Support System
Re-established the statistical system for human resource matters, salaries and services and developed an overall government HR information analysis system for an accurate and scientific HR Policy Support System.

Achievements
Transparency and efficiency have been raised in the HR management of public servants through the next generation electronic HRM system. Furthermore, human resources information and data reliability have been significantly improved by digitizing the full process of servicing from an internal processing perspective. Also, the information required for setting up HR policy and decision-making is provided based on accurate human resources information.
Consistent System Improvements Pursued

The government of the Republic of Korea pursued consistent system improvements in “e-Saram”, the electronic HRM system. In line with the changing civil service management, the amendments to the laws and policies including HR laws and regulations, and guidelines have been incorporated into the system in a timely manner so that there are no delays in system implementation.

Mobile System Established for “e-Saram”

Amid the supply of smart devices, the “e-Saram” mobile system was established in December 2013 to respond to the internal and external environment of the field centered paradigm shift. “e-Saram” mobile system allows processing of diverse information using mobile devices, including an individual’s application for annual leave, business trips, and personnel appointments.

System Establishment and Development Processes

- Jan. | Introduced part-time public officials
- Mar. | Opened mobile services
- Aug. | Introduced the self-directed working hour system

2013

- Dec. | Provided support for the job classification reform of public officials
- Dec. | Set up mobile services and pilot tested for select ministries and agencies

2014

2015

- Jun. | Integrated wage services into the senior organization and strengthened efficiency and transparency by connecting wage processing (e-Saram) and accounting (dBrain).
  (959 services from 57 ministries and agencies → integrated into 357 salary agencies)
- Sept. | Introduced specialist positions
An Intelligent Compensation Automated System and Digital-based Civil Service Management

- In 2020, improvements have been made to automate the existing manual wage processes by connecting systems.
- By converting civil service management processing measures including secondment and recruiting of the Ministry of Personnel Management (MPM) into the data leveraging system, a digital-based HR policy was established and the scope of transparent and smart HR management services was expanded.
Swift Service Provision through Mobile Services

The application for annual leave, business trips or flexible work schedules and division head approval are processed via a mobile platform on a real-time basis. Salary details, HR transfers, approval status, user information, and announcements can be checked easily.
**Services**
- Work schedule (annual leave, etc.) inquiry and application / application cancellation
- Business trip details inquiry and application / application cancellation
- Overtime inquiry and application / application cancellation
- Application and inquiry related to work schedule (flextime on the day of application)

**Salary / Human Resource Functions**
- Inquiry related to wage statement
- Inquiry related to human resource appointments and transfers
- Inquiry related to promotions

**Approval Functions**
- Approval Functions (approval in progress / completed / escalation box)
  - Push alarm services

**Common Functions**
- Announcement inquiry
- Service center information
- Inquiry related to basic user information

**System**
- Set up a database for mobile permission management
- Mobile shared platform connections (GPKI certification, vaccine, E2E encryption, virtual keyboard, etc.)

*Managed and operated by National Information Resources Service (NIRS) under the Ministry of the Interior and Safety*
Status of Organizations Using “e-Saram”

As of present, the “e-Saram” system is used by all central administrative agencies, 72 ministries and agencies and related committees. There are about 300,000 individual public officials, 6,000 HR managers and some 1,000 salary paying managers using the system.

## Organizations that have adopted “e-Saram”

<table>
<thead>
<tr>
<th>Number of Organizations</th>
<th>Ministries and Agencies</th>
</tr>
</thead>
</table>

As of 2020
Relevant Regulatory Provisions of “e-Saram”

Article 19-2 of State Public Officials Act (Computerization of Personnel Management)

1. The Secretary General of the National Assembly, Director of the Office of Court Administration, Secretary General of the Constitutional Court, Chairperson of the National Election Commission, and Minister of Personnel Management may create and manage computerized personnel management systems enabling the management of personnel records of public officials by storing them in a database, and enabling the electronic processing of personnel management affairs.

2. Necessary matters concerning the creation, operation, etc. of systems referred to in Paragraph 1 shall be prescribed by Presidential Decree, etc.

Regulations on Processing Public Officials’ Personnel Records, Statistical Reports and Personnel Affairs

Article 6 (Preparation, Retention, Storage of Personnel Records)

1. The person with appointing authority shall prepare, retain and store (including the preservation) of personnel records for the affiliated public officials pursuant to Articles 4 and 5. In this case, the person with appointing authority for public officials of Grade 6 and below or equivalent (public officials) refers to the person with recruiting authority for the applicable authority and the person with appointing authority or nomination authority for public officials of Grade 5 or above (includes senior civil service affiliated public servants, hereinafter the same).

2. Public officials of Grade 5 or above who do not have appointment authority or equal level of organization head who do not have appointment authority may prepare, retain and store a copy of personnel records in the above Paragraph 1 if deemed necessary for human resource management.

3. The Minister of Personnel Management shall computerize Grade 5 and above public officials’ personnel records and those of any other equivalent public officials and maintain them in the Electronic Human Resource Management System (hereinafter “Electronic HRM system”) pursuant to Article 37-2.

Article 37-2 (Establishment and Operation of an Electronic Human Resource Management System)

1. To systematize human resource management, the Minister of Personnel Management shall set up and operate a comprehensive system pursuant to the Standard HRM System pursuant to Article 37-3, Paragraph 1 operated by each administrative agency, the agency HRM system pursuant to Paragraph 2 of the same article, and the central human resource policy support system pursuant to Article 37-4.

Article 37-3 (Distribution of Standard HRM System, etc.)

1. The Minister of Personnel Management may develop database of personnel records of public officials affiliated in each administrative agency and may develop and distribute a Standard Human Resource Management System (hereinafter “Standard HRM System”) which can connect with the Central HR Policy Support System pursuant to Article 37-4 to process human resource tasks electronically.

2. Each administrative agency must use the Standard HRM System. Provided however, the head of the administrative agency, which due to inevitable reasons is unable to use the Standard HRM System, must operate the agency HRM System (refers to the system established by the administrative agency to electronically process the applicable agency’s HR business and hereinafter “Agency HRM System”)

The efficient operation of civil service management is achievable through “e-Saram” by incorporating into the system 35 personnel laws and 15 established rules and guidelines, including the Decree on the Appointment of Public Officials and Compensation Regulation.
SERVICES

Functions and Services of “e-Saram”
Composition of Functions

"e-Saram" is composed of the 10 Standard HRM System services for ministries and agencies and 14 HR Policy Support System services for the central civil service agency.

- **Standard HRM System**

  The system supports efficient human resource services for tasks related to database development on human resource matters, salary, performance evaluation, education and training, and work services of civil officials from each ministry and agency.

- **HR Policy Support System**

  The system handles policy services including recruitment, promotion and screening of senior public officials and their appointments by the President of the Republic of Korea. Additionally, the system offers a variety of status updates and statistics to support speedy decision making.

**Management and Development of “e-Saram”**

“e-Saram” implements strict security as it handles sensitive information in the internal HRM system of administrative organizations.

- The information sources including hardware and system software are commissioned to National Information Resources Service (NIRS) under the Ministry of the Interior and Safety, which is the integrated government data center.
- The firewall and intrusion prevention system as well as the security system is set up to allow access from within the administrative network (intranet). MPM consistently develops and incorporates application software for electronic HRM.
Composition of Functions and Services

**Standard Framework for Electronic Government**

**Personnel Policy Support System**

<table>
<thead>
<tr>
<th>Senior Civil Service</th>
<th>Personnel Screening</th>
<th>Request for Appointment</th>
<th>Personnel Statistics</th>
<th>Total Labor Cost Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>Salary</td>
<td>Service</td>
<td>Personal Use</td>
<td>Special Service for Foreign Affairs</td>
</tr>
<tr>
<td>Record management</td>
<td>Salary management</td>
<td>Work schedule management</td>
<td>Personal information</td>
<td>Qualification for foreign service / chief of diplomatic mission</td>
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<tr>
<td>Appointment management</td>
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<td>Personnel evaluation</td>
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<tr>
<td>Pay grade management</td>
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<td>Open positions</td>
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<tr>
<td>Awards and decorations management</td>
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<td>Promotion</td>
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<tr>
<td>Health insurance management</td>
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<td></td>
<td>Work experience</td>
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<tr>
<td>Disciplinary action management</td>
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<tr>
<td>Allocation of staffing and present staffing</td>
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<tr>
<td>Recruitment management</td>
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<tr>
<td>Education and training</td>
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<tr>
<td>Efficiency management</td>
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<tr>
<td>Promotion and position management</td>
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<tr>
<td>Policy support</td>
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<tr>
<td>Uniform management</td>
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<tr>
<td>Full Survey of Public Officials</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>System operation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Survey support</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Other Tasks**

- Human resource information analysis
- Personnel audit management
- Total headcount plan management
- Leave related to secondment to international organizations
- Education and training management
- Recruiting candidate management
- Online credentials screening
- Dispatched worker services
- Leave related to employment by international organizations
- e-Saram operation & management

**Web Service (Enterprise Service Bus - ESB): Electronic Data Interchange (EDI)**

- Ministry of Personnel Management (MMP)
  - Personnel directory (HR information, awards and decorations information)
- Local government: Personnel System (salary and contribution, appointment, bonus matters)
- Government employees screen for secondment to international organizations, joining and leaving the civil service
- Personnel audit (salary information, joining and leaving)
- Digital Budget & Accounting System (information on travel expenses and actual expenses)
- National Health Insurance Service (NHIS) (Health insurance)
- Korea Financial and Accounting Institute (KFAE) (salary information, bank account information)
- Individual ministry service connected agency
- ESB

**Ministries Linked for Services Common to Ministries and Agencies**

- Ministry of Trade, Industry and Energy
- Public Procurement Service
- Korean Intellectual Property Office

**e-Service Framework**

- Web Service (ESB): Electronic Data Interchange (EDI)
- Electronic Government (Open)
Connection Between Systems

Each Standard HRM System for ministries and agencies and the HR Policy Support System for the central civil service management agency share key data for operations.

- **Information Resource Integration System**

  “e-Saram” is a cloud-based integrated information system that shares servers and databases, generating ministry-level HR information and integrating databases physically and logically.

- **Joint Utilization of HR Information**

  The accumulated HR information is jointly utilized by being linked with the business systems of different ministries including the National Human Resources Database (NHRDB), the Resident Registration System, National Human Resources Development Institute (NHI), Korea Financial Telecommunications & Clearings Institute (KFTC) and major administrative information systems.

**Examples of Linkage between “e-Saram” and Other e-Government Systems**

<table>
<thead>
<tr>
<th>System Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>dBrain Salary</td>
<td>Application for education, completion, continuing learning recognized</td>
</tr>
<tr>
<td>National Human Resources Development Institute (NHI)</td>
<td></td>
</tr>
<tr>
<td>Korea Financial Telecommunications &amp; Clearings Institute (KFTC)</td>
<td>Salary information, account information of national public officials</td>
</tr>
<tr>
<td>GOV.KR Career certificate issuance data for the retirement of eligible public officials among national public servants</td>
<td></td>
</tr>
<tr>
<td>Resident Registration System Data to confirm spouse allowance eligibility for family allowances</td>
<td></td>
</tr>
<tr>
<td>Government Employees Pension System (GEP System)</td>
<td>Public servants’ contribution payment details, base income calculation data, personalized welfare salary data</td>
</tr>
</tbody>
</table>
Standard HRM System

Manage the central administrative agency’s human resource information in the database format and efficiently process the civil service management tasks for human resource, salary and service managers as well as public officials.

**HR**

Management of all individual background information and personnel records from appointment to retirement

- Individual personnel record management and certificate issuance
- Appointment management including HR appointment processing and record management
- Pay grade management including pay grade confirmation and regular promotion as well as education and training, awards and decorations, and recruitment management
- Division Code information, organizational reform and management of allocated staffing vs. present staffing

**Salary**

Salary services including allowances and deductions for public servants and administrative support staff and welfare management including health insurance

- Monthly salaries and separately paid salaries (performance bonus, compensation for unused annual leave, etc.)
- Year-end adjustments pursuant to the Income Tax Act

**Services**

Work schedule, overtime, and business trip management

- Basic services including hours worked, and flexible schedule management including forms and work schedule management
- Application of overtime and approval management pursuant to the preliminary order policy for overtime
- Management of the number of days of annual leave used and compensation for unused annual leave

**Connections**

Open-ended information utilization system integrated for joint use of HR information

- Linkage with major government systems, including KFTC, dBrain, and the National Human Resources Database (NHRDB) run by the Ministry of Personnel Management
- Linkage with administrative information systems (ministry portals)
HR Policy Support System

The policy services are handled by the central civil service management agency (MPM) and analysis of current status and statistical data are provided for scientific and more effective HR policies to be established.

**Senior Civil Service**

Management of the pool of senior public officials and candidates and provision of support for the personnel affairs of senior public officials

- Management of position information including job positions and open-ended positions (Director-level position inclusive)
- Management of the results of recruitment for job positions and open-ended positions (Director-level position inclusive)
- Candidate management including training and competency assessment management
- Senior public officials’ regular / frequent credential screening management and inquiries over current status and statistics

**Personnel Screening**

Provision of support for personnel screening management and online screening for the recruitment, promotion and appointment of the Senior Civil Service

- Inquiries related to personnel screening overviews of senior public servants and personnel screening data format
- Online screening, management of personnel screening results and ministry notification

**Government Personnel Appointment**

Provision of support for approvals and validation of Presidential appointments related to new recruitment and promotion of public officials eligible for appointment requests

- Data receipt and screening management of those eligible for appointment requests
- Government human resource appointments drafting, notification management and current status inquiry

**Statistical Analysis**

Processing of accumulated data into the format necessary for users and provision of diverse statistical data needed for decision-making

- Regular and frequent statistics provided by allocated staffing per class, and by occupation per allocated staffing
- Statistics provided on salary, service and balanced human resource matters
- Diverse analytical data provided by unstructured statistics
The Policy Managing Official of the Central Civil Service Management Agency (HR Policy Support Function)

When performing duties, the responsible official may utilize the current status human resource data of the government as a whole or of specific areas. Additionally, the responsible official may use “e-Saram” to revise human resource policy or conduct a simulation of the as-is and to-be of the salary table renewal to understand its impact and as a result save time and energy.

The system offers an outstanding feature with its information analytics service based on policy statistics which is an improvement from the existing fragmented information collection and statistics to analysis, assumption, result forecasting and policy incorporation of personnel patterns. Furthermore, HR data connection among ministries, HR screening for personnel processing of the government as well as appointment requests are available on the system. Other representative services include management of HR affairs, job positions and candidate competency assessment for the Senior Civil Service, operation and management of public official recruitment plans and appointment management of recruitment candidates.

Statistics Support Function

About 50 types of data on present statistical conditions of the members by class and types can be checked on a real time basis. Statistics on the duration of services and the time required for promotion are also provided.

### Annual Leave Status by the Grades of General Service Officials

<table>
<thead>
<tr>
<th>Grade</th>
<th>Eligible number of staff</th>
<th>Total number of annual leave days given</th>
<th>Total number of annual leave days taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>2 half-day</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>452</td>
<td>9,718,33</td>
</tr>
<tr>
<td>Political Service</td>
<td></td>
<td>3</td>
<td>63</td>
</tr>
<tr>
<td>Senior Civil Service</td>
<td></td>
<td>15</td>
<td>327</td>
</tr>
<tr>
<td>Grade 3</td>
<td></td>
<td>5</td>
<td>135</td>
</tr>
<tr>
<td>Grade 4</td>
<td></td>
<td>59</td>
<td>1,275</td>
</tr>
<tr>
<td>Grade 5</td>
<td></td>
<td>127</td>
<td>2,455,32</td>
</tr>
<tr>
<td>Grade 6</td>
<td></td>
<td>122</td>
<td>2,559,04</td>
</tr>
</tbody>
</table>

Screen shot of the statistics on usage of annual leave by grade
Human Resource Statistics Service of Ministries

Large volumes of data on current status and on statistical analysis are needed to develop HR policy from a comprehensive government perspective. In this regard, “e-Saram” offers reliable statistical data by occupation, grade, organization, and age on a timely basis to facilitate effective and scientific decision making.

The HR statistics service is needed not only by the central civil service management agency but also for autonomous human resource operations to meet the attributes of different ministries. Furthermore, it is essential for research on civil service management and for encouraging the Korean general public’s interest and their right to know.
Service Officials by Ministry (Standard HRM System Function)

The officials in charge of personnel management of each agency can process all HR services including recruitment, promotion, salary, education and training, and welfare benefits with a single system, and the results are automatically reflected within the record management system.

Managers can handle overall human resource services of the affiliated staff including appointment, recording, awards and decorations, punishment, pay grade management, allocated staffing and present staffing, and human resource audit. Furthermore, overall administration of services including work schedule management, annual leave and compensation management, overtime management and night duty can be processed. Also, salary payment, health insurance, and contributions based on the services of the affiliated staff can be processed.

Benefits of the Function

- **Improved efficiency and security**: Officials working on human resources will use the same database but can access data based only on their authority, thereby resulting in improved business efficiency and security.

- **Reduced data mismatch and redundancy**: The risks of data mismatch and redundancy from the personnel changes of public officials not being communicated to other managers are reduced.

- **System based overall human resource management**: The official with human resource authority of each agency can access the system directly and use human resource information and may engage in work efficiency rating, human resource appointment, talent utilization and other tasks.

- **Data-based civil service management**: Direct browsing of individual employee work performance data, overall organizational HR status, and statistical analysis data, and provision of specialized data required for decision-making.
Salaries Function

Everything required to pay monthly salaries including personnel changes such as promotions, monthly salary and tax calculations, and bank account management can be performed within the system. The annual salary payment plan can be managed, including types of salaries paid monthly, salary payment date and automatic reflection of HR matters as well as monthly paid allowances.

Processing of Monthly Contracted Salary Payments

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/26/20</td>
<td>17:51:30</td>
<td>Eligibility selection</td>
</tr>
<tr>
<td>11/26/20</td>
<td>17:51:36</td>
<td>Management of period out of office</td>
</tr>
<tr>
<td>12/29/20</td>
<td>16:46:21</td>
<td>Salary appointment creation</td>
</tr>
<tr>
<td>12/29/20</td>
<td>16:47:26</td>
<td>Salary and allowance calculation</td>
</tr>
<tr>
<td>12/30/20</td>
<td>16:16:12</td>
<td>Contribution status change incorporation</td>
</tr>
<tr>
<td>12/30/20</td>
<td>16:16:43</td>
<td>Deduction calculation</td>
</tr>
<tr>
<td>12/30/20</td>
<td>16:18:10</td>
<td>Tax calculation</td>
</tr>
<tr>
<td>12/30/20</td>
<td>16:18:32</td>
<td>Payment amount calculation</td>
</tr>
<tr>
<td>12/30/20</td>
<td>16:54:14</td>
<td>Salary performance generation and closing</td>
</tr>
</tbody>
</table>

Monthly salary of the applicable staff in affiliation (ex. 1,000 persons) will be processed in batch following the above orders.
Division Head / Chief of Agency

The division head or agency head can use the system to manage their division more easily and efficiently than before. The human resource data of the affiliated staff can be checked directly and if necessary, utilize the talent search function to identify the right person for a specific task.

Key information required for the management of agencies including current human resource data of public servants, staff allocated and present statistics, education statistics and various human resource status indicators by affiliated agency or by division can be checked on a real-time basis on the system and overtime of division members, approval for leave or business trips and work efficiency of employees can be processed on the system.

Division Head Functions

What is most important for the Government Civil Service is its People

The division members’ work schedule could be checked on a real-time basis including overtime status, annual leave, and business trips on the division head’s intranet screen.

<table>
<thead>
<tr>
<th>Work schedule of members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Work schedule</td>
</tr>
<tr>
<td>Childcare hours</td>
</tr>
<tr>
<td>Business trips/training</td>
</tr>
<tr>
<td>Flexi-time</td>
</tr>
<tr>
<td>Hana Lee</td>
</tr>
<tr>
<td>Jina Sin</td>
</tr>
<tr>
<td>Kyung-ah Lee</td>
</tr>
<tr>
<td>Hana Lee</td>
</tr>
</tbody>
</table>

Wait box

<table>
<thead>
<tr>
<th>Inquiry period</th>
<th>Overtime application</th>
<th>Work Schedule application</th>
<th>Business trip application</th>
<th>Other application</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.4.11–2019.10.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The approval request notice email can be suspended on the screen for setting approval notice.

> List of approval wait

<table>
<thead>
<tr>
<th>Request</th>
<th>Submitted by</th>
<th>Date and time submitted</th>
<th>Approval status</th>
</tr>
</thead>
</table>
General Public Servant

General public servants can browse their basic human resource information and apply for changes in background information or directly make changes. If an individual public official changes and saves information relating to education, address, and phone number, the responsible human resource official confirms the details and reflects it in the system. Also, the individual may browse salary details or may directly apply for annual leave or business trips.

Individual public servants may register, inquire, or correct their personnel record information or register and manage their education outcomes. Individual services include work schedule logs, pre- or post-application of overtime, monthly overtime inquiry, and application for business trips and leave. In addition, applications for various certificates and online issuance, attachment of documentation and associated inquiry are available.

Application and Change of Work Schedule

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Class</th>
<th>Date of appointment to current position</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gil-dong, Hong</td>
<td>ICT Management Division, Planning and Coordination Bureau</td>
<td>IT assistant junior official</td>
<td>Feb.09, 2018</td>
<td>Employed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service period</th>
<th>Statutory number of days of annual leaves</th>
<th>Number of days of annual leave (actual service period)</th>
<th>Number of days of leave used (to be used)</th>
<th>Remaining number of days of annual leave</th>
<th>Available number of days of annual leave</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year + 8 months</td>
<td>14 days</td>
<td>14 days (12 months)</td>
<td>9 days</td>
<td>5 days</td>
<td>5 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inquiry period</th>
<th>2020.01.01 − 2020.12.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval status</td>
<td>Approved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Changes</th>
<th>By Category</th>
<th>Period used</th>
<th>Time used</th>
<th>Number (of days)</th>
<th>Hours</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes</td>
<td>Annual leave</td>
<td>Sept. 18, 2020</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes</td>
<td>Early leave (annual leave)</td>
<td>May 13, 2020</td>
<td>12:00 − 18:00</td>
<td>5:00</td>
<td>Due to flu</td>
<td></td>
</tr>
</tbody>
</table>

Individuals enter their work schedule including business trip or vacation directly into “e-Saram” and the senior official also approves the request using “e-Saram”
KEY RESULTS

Achievements of “e-Saram”
Maximized Efficiency and Reliability of HR Management

The introduction of an IT system presented an innovative outcome in improving human resource management. More than anything, as the paper document-based manual business processes became computerized in the year 2000, efforts centered on correcting errors, missing information, and redundancy management have largely been reduced. This brought about a remarkable improvement of business efficiency in public sector human resource management.

Therefore, issues from repetitive processing of simple work have been resolved and overall work efficiency based on resources invested such as human resources, time and financial resources has been maximized. Along with this impact, the reliability of public officials’ HR data was significantly enhanced.
Achievements

Cloud-based Information Resources Integration System Established

Based on the existing electronic HRM system, “e-Saram” has been successful in developing an innovative integrated system. In 2011, the 57 ministries and agencies had their own servers, databases and “e-Saram” application systems independently. However, the separate systems have been integrated into a cloud-based information resource integration system and joint “e-Saram” services were offered to all ministries and agencies. Provided however, separate technological security systems have been rolled out to allow only the applicable ministries to access only their own ministries’ HR database.

The integrated system served as the basis for the efficient management of the vast information resources and raised business efficiency to the maximum level by incorporating data from ministries and agencies on a real-time basis and by aggregating statistics.

Examples of Responding to the Covid-19 Pandemic

By promoting “e-Saram” emergency services, urgent support is provided for “e-Saram” service functions pursuant to the Service Management Guidelines

Through the Government Virtual Private Network (GVPN), managers are aided in processing civil service management

Speedy organizational reforms including providing support for the transfer of about 1,300 human resources en masse when the Korea Disease Control and Prevention Agency (KDCA) was set up
**Fairness, Transparency and Convenience**

Transparency and fairness in human resource management were secured by computerizing all human resource management processes from public officials’ appointment to retirement. In particular, tasks processed in compliance with acts and regulations on managing human resources contributed to fair processing of issues including prevention of wrongful receipt of salaries and of public officials’ corruption.

As data reliability improved remarkably, systematic HR management of public officials became possible and support was provided for policy decisions related to personnel management of public officials based on accurate data. Additionally, work convenience has been upgraded by offering civil service information based on the authority of individual public officials, division heads, and policy decision makers.
“e-Saram” Operating Expenses and Future Plans

Next Generation “e-Saram” Introduction Cost

Approximately, KRW 10 billion
(hardware, security device introduction expense excluded)

Operating Expenses (Maintenance)

Approximately, KRW 1.3 billion / year

Future Plan and Vision

By leveraging existing achievements, efforts are going to be placed to realize scientific and transparent civil service management through “Digital Innovation” in all areas of public offices and also to contribute to improving the productivity of the government

- Move beyond the simple application of new technologies and materialize a digital human resource environment where both public officials and systems work together
- Use AI system adoption to ensure competent talent is allocated by job duty, and to recommend educational content by individual
- Adopt the Robotic Process Automation (RPA) to process simple and repetitive works
The civil service management system for public servants was not constructed overnight. As the river becomes wider over a thousand years and develops dignity with time, the system is polished up over a long period based on the environmental changes within the nation and era.

At the center of all systems lie “people.” The key owners who are devoted to the nation and the general public and who lead the government are public officials and this is how the HRM system of the government of the Republic of Korea became “e-Saram.”

The backbone of “e-Saram” will serve as a foundation through which reliable public offices are materialized and represented by elements including fairness, transparency, expertise, convenience, openness, and diversity. A scientific and accurate HRM system assists with the most efficient work handling and supports a balanced non-discriminatory HR system and ultimately creates a more capable public office.

Therefore, “e-Saram” which has remained a leading global system through supplementation and improvement over the past 20 years, can proudly be presented as an innovation representing the government civil service management system. Although the social and institutional environment required by each country is often different, the system is expected to serve as a good benchmark responding to the needs of the times with its smart systems.
References


