

WeGO is pleased to offer the WeGO eGovFrame with comprehensive support services to WeGO members. The WeGO eGovFrame is a standardized and open source software framework developed to help governments efficiently develop and operate e-Government applications. In close collaboration, WeGO and experts from the National Information Society Agency (NIA) will help WeGO member cities discover and readily deploy the WeGO eGovFrame. By providing training and technical support, WeGO is fully committed to assist its members in enhancing their public services.



Software applications generally consist of code related to 1. the business logic -- the crucial processes within a software application that carry out the operations between servers and the user interface with which customers interact – and 2. "lower-level" code relating to the general technical infrastructure that holds the application components together, such as database management and user interface display. Software frameworks provide the foundation and tools for developing software applications that allow software developers to focus on the business logic, rather than the technical infrastructure of a program. This results in a standardized software development cycle that is more predictable and efficient.

As the scale of software applications becomes increasingly complex, the trend has been for large IT companies to invest in building their own proprietary software frameworks in order to achieve a higher level of efficiency in software development, while small and medium-sized companies (SMEs) often cannot afford to have their own expensive software frameworks.

This has meant that governments have had to rely exclusively on the technology of large IT vendors – referred to as "vendor lock-in"-- as e-Government systems based on such vendors' proprietary frameworks can only be understood by them and cannot be maintained and updated by others. Further, e-Government systems from diverse IT vendors based on their respective frameworks have resulted in systems that are not compatible with each other and that require repeated training of government staff.

What is the WeGO eGovFrame?

In recognition that there is a clear need for a standardized development framework for e-Government projects to increase efficiency, enhance the interoperability of e-Government systems, resolve dependency on large IT company-vendors and enhance the competitiveness of SMEs, the framework was initially developed by NIA under the leadership of the Ministry of Public Administration and Security as an ambitious, USD 18 million multi-year project.

What does the WeGO eGovFrame consist of?



Reusable Common Components

 139 reusable Technical Common Components for Security, User Authentication, User Support Statistics, Collaboration System Management, Integration, Digital Asset Management

90 reusable Utility Common Components

The WeGO eGovFrame consists of four software environments – development, runtime, operation and management -- as well as hundreds of reusable common components of e-Government systems, and enables member cities and their partners to easily develop, run and enhance software applications in order to meet their specific e-Government needs. The

WeGO eGovFrame also provides mobile web UX Functions and Mobile Device API for both web-based mobile services and hybrid mobile applications.

Success of the WeGO eGovFrame

The WeGO eGovFrame has been widely adopted in countries like Mexico and Vietnam and has garnered substantial international recognition, including a sweep of the prestigious FutureGov Awards in 2010. Based on numerous carefully selected Open Source Softwares (OSS) (e.g. Spring, Hibernate, iBATIS, eclipse, JUnit and Maven & Ajax), the WeGO eGovFrame contributes to technology improvement in e-Government and elevation of OSS technology worldwide by opening technologies for free.



What are the benefits of the WeGO eGovFrame?

1. Efficiency: Reduced Time and Costs

- Provides general technical infrastructure of software applications, allowing developers to focus on writing code for the business logic
- Simplifies software development process by providing standardized tools for developing software and built-in decisions about fundamental architecture and design issues
- Improves productivity by increasing the reusability of common components of e-Government application systems developed through the standard framework, thereby avoiding redundant development of same components
- Eliminates the need to provide repetitive training to staff, as would be the case for e-Government application systems developed with multiple frameworks
- 2. Quality: Increased Satisfaction of Governments and Citizens
- Raises quality of software applications by providing technical code for generic services needed by most applications, where developers are prone to making errors
- Standardizes the software development process for consistency and predictability
- Increases user satisfaction through standardized screen and interfaces for e-Government services
- Enhances interoperability of e-Government systems and information-sharing between government agencies through standard inter-system integration interface
- Provides standards for modular programming and thereby facilitates swift replacement of modules for easy maintenance of software applications and

adoption of fast changing technologies

- Provides a reliable technology infrastructure based on carefully selected Open Source and major software vendors' frameworks
- 3. Independence from IT Company Vendors: Enhanced SME Competitiveness
- Avoids dependency on vendor's technology for maintenance of software applications that are based on vendor's proprietary framework
- Creates fair competition for SMEs as only major IT vendors have been able to afford expensive frameworks and have dominated e-Government development
- Improves SME competitiveness by sharing open source framework and providing developers with free, cutting-edge and easy-to-use technology

Why the WeGO eGovFrame rather than another OSS Framework?

- Provides common essential functions specific to e-Government software applications
- Provides a pre-configured, integrated and comprehensive development environment based on multiple, specially selected Open Source Softwares whereas an OSS framework is specific to a particular domain and cannot be combined easily with other OSS frameworks
- WeGO provides technical support and regular training for government officials and software developers to raise competitiveness



Get Started! How to use the WeGO eGovFrame?

The WeGO eGovFrame is openly available for developers to download on the dedicated eGovFrame portal <u>http://eng.egovframe.go.kr</u>. Considering the increasing citizen-centric demand for smart public services alongside budgetary challenges, the WeGO framework is a sustainable and smart tool that is free for everyone. In addition, WeGO will provide dedicated training and technical support exclusively to WeGO members. So follow the steps below and get started now!

Step-by-Step Instructions

- 1. Basic requirement: JavaEE 5 or Java version 1.5 or higher, Java-based Database Management System (DBMS) and Java-based <u>Web Application Server</u> (WAS)
- 2. WeGO eGovFrame Portal: You can find comprehensive information and download the WeGO eGovFrame from the dedicated portal <u>http://eng.egovframe.go.kr</u>
- 3. For full manuals on the Development Environment, Runtime Environment and

Common Components, go to <u>www.egovframe.go.kr</u> and click on WikiGuides. A quick tutorial on how to use the WeGO eGovFrame can be found by clicking on WikiGuides > Getting Started.

- 4. In the WeGO eGovFrame Portal, choose Download > Development Environment to download the eGovFrame 3.0 Full version Development Environment.
- 5. Install the Development Environment by unzipping the files and configuring the properties. If you need guidance, the Development Environment Installation Guide can be found at http://www.egovframe.go.kr/wiki_en/doku.php?id=guides:dev:installation
- 6. Please note that Eclipse 4.3.2 is included in the Development Environment but if you encounter problems running Eclipse during the installation process, you can download Eclipse separately at <u>https://www.eclipse.org/</u>
- 7. The Development Environment links automatically to the Runtime Environment (Runtime Environment pom.xml version 3.0) and Common Components, but you may also download them separately by going to the WeGO eGovFrame Portal and choosing Download > Runtime Environment and Download > Common Components, respectively.
- 8. The Operation Environment will be available for download on the WeGO eGovFrame Portal in 2015.
- 9. To start a new project, open Eclipse and click eGovFrame > Start to choose the type of project you would like to start.
- 10. To add a common component, click eGovFrame > Implementation > Add eGovFrame Common Component.
- 11. Compile, build and implement your software application
- 12. Run and test your software application
- 13. WeGO Services: Under a partnership with the dedicated eGovFrame Center run by NIA, WeGO will provide training and technical support to WeGO members using the WeGO eGovFrame



WeGO services for WeGO members

WeGO will provide a unique opportunity for WeGO members to learn to use the free WeGO eGovFrame that will help them achieve more efficient, less costly and highly interoperable e-Government systems by offering full support services to WeGO Members who apply the WeGO eGovFrame.

- WeGO Secretariat staff members will communicate and liaise with WeGO members that need any assistance with the WeGO eGovFrame and work together with NIA to provide prompt guidance and solutions
- Technical staff of NIA's eGov Frame Center which specializes in all matters relating to the WeGO eGovFrame -- will provide comprehensive technical support by receiving service requests through the dedicated WeGO eGovFrame Portal <u>http://eng.egovframe.go.kr</u> and performing on-offline technical support

• WeGO will support WeGO members in participating in training programs offered by the eGovFrame Center and design special training programs exclusively for WeGO members

WeGO will be there to help you step-by-step on your way to building efficient and open e-Government systems that help meet your city's and citizens' needs.

How does the WeGO eGovFrame work?

WeGO eGovFrame Kit	
WeGO Training and Support Technical training and support provided by WeGO and NIA	
WeGO eGovFrame Smart development tools	
Common Components (Ready and Reusable cost-efficient technology)	Business Logic (Your own technology)

General Technical Infrastructure (Ready and easy-to-use technology) By providing a technical foundation and tools, WeGO eGovFrame enables developers to better meet specific urban needs Smart e-Government Application Interoperable, Efficient & No Vendor Lock-in

Technical Partner: National Information Society Agency (NIA)

The National Information Society Agency (NIA) was founded as a statutory agency for the purpose of promoting informatization and the development of related policies for national agencies and local autonomies. As the core agency for providing policy advice and technical support in Korea, NIA is truly a knowledgeable and experienced partner for WeGO For any inquiries on the WeGO eGovFramework, please contact the WeGO Secretariat. You may also contact the NIA Center directly for technical questions:



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