COMPOSE

Comprehensive Operations and Management of Presses Over Secure Environment

COMPOSE, developed by NIC Kerala, represents a groundbreaking shift in Gazette Publishing, revolutionizing conventional manual procedures with an advanced digital platform. This comprehensive solution standardizes and simplifies the Gazette Publishing process for both daily and weekly Gazettes, significantly streamlining operations for the Printing Department of the Government of Kerala. By automating Gazette publication, COMPOSE overcomes inherent challenges associated with traditional methods, particularly in eliminating the need for Gazette Printing, resulting in substantial savings in paper stationery and reducing the workload for the DTP and Reading sections.

Gazette publications play a pivotal role in disseminating vital information to citizens and government departments regarding major policy decisions and announcements. The inauguration of e-Gazette Publication by the Hon'ble Chief Minister of Kerala, Shri Pinarayi Vijayan, marked significant milestones, with Gazette number 38 being the first online gazette published on October 2, 2021. Mandating all Gazette notifications to be published as e-Gazettes using COMPOSE further underscores the government's commitment to modernization and efficiency.

The manual Gazette publication process involved a complex series of stages, requiring content submission to the printing department, iterative proofreading, and manual signing by the Superintendent General of Presses (SGP). This

Beena Jayaprakash
Sr. Technical Director
beena.jp@nic.in

K.V. Jaya Kumar
Technical Director
jaykumar.kv@nic.in

COMPOSE marks a significant leap forward in Gazette Publishing, replacing age-old manual practices with a cutting-edge digital platform. This innovative solution modernizes and streamlines the Gazette Publishing process, catering to both daily and weekly Gazettes, and notably enhancing efficiency within the Printing Department of the Government of Kerala. By digitizing Gazette publication, COMPOSE effectively tackles the limitations of traditional methods, notably eliminating the necessity for physical Gazette Printing. This not only translates to substantial savings in paper and stationary but also lightens the workload for departments involved.

cumbersome procedure, involving around fifteen workflow stages, often resulted in delays and challenges in timely publication, especially for urgent notifications.

To address these inefficiencies, COMPOSE re-engineers Gazette publication processes, facilitating online content submission with digital signatures and offering templates in multiple languages. Once submitted, Gazette content undergoes workflow-based approval, ensuring format accuracy and data integrity. The eGazette is then published for public access and download, eliminating the need for physical visits to the Government Press and enhancing citizen experience.

Integration with various government platforms, including eOffice, Kerala government e-treasury application, SPARK - Payroll system, and the eS-evanam portal, enables seamless workflow and enhances service accessibility. Moreover, COMPOSE caters to a wide range of stakeholders, including government departments, autonomous bodies, legislative bodies, local bodies and state public service commissions, facilitating efficient governance and service delivery.

In conclusion, COMPOSE represents a paradigm shift in Gazette Publishing, offering numerous advantages in terms of accessibility, cost-effectiveness, timeliness, and environmental sustainability. By leveraging digital innovation, COMPOSE not only modernizes Gazette publication processes but also enhances citizen services and overall efficiency, benefiting stakeholders across the spectrum of governance in Kerala.

Working Process

COMPOSE streamlines the entire Gazette publishing process by digitizing manual procedures, automating workflows, and enhancing accessibility for both government departments and citizens. Through its robust features and integration capabilities, COMPOSE represents a significant advancement in Gazette Publishing technology, empowering stakeholders and facilitating efficient governance.
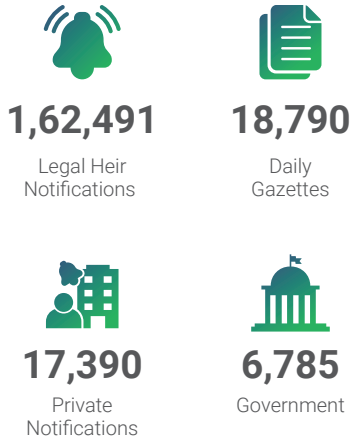
- **Submission of Gazette Content:** Government departments and agencies submit Gazette content online through the COMPOSE platform. This content includes notifications, announcements, and other relevant information.

- **Digital Signature and Approval:** The submitted content undergoes digital signature and approval processes. This ensures the authenticity and integrity of the Gazette publications. Once approved, the content becomes ready for publication.

- **Template-Based Content Preparation:** COMPOSE provides standard templates in multiple languages, such as English, Malayalam, Tamil, and Kannada, for content preparation. This en-

1,62,491
Legal Heir
Notifications

18,790
Daily
Gazettes

17,390
Private
Notifications

6,785
Government

▲ Fig 6.1 **COMPOSE at a Glance**

sures consistency and simplifies the formatting process for users.

- **Workflow-Based Approval:** The platform employs a workflow-based approval system, where Gazette content goes through various stages of review and approval. This ensures compliance with standards and regulations before publication.

- **Preview and Finalization:** Users have the opportunity to preview Gazette notifications before final submission. Any necessary adjustments can be made at this stage to ensure the accuracy and correctness of the content.

- **Publication and Accessibility:** Once approved, Gazette notifications are published electronically as e-Gazettes. These publications are made available for public access and download through the COMPOSE platform and the official website of the Printing department.

- **Integration with Other Systems:** COMPOSE is integrated with various government systems and platforms, such as eOffice, Kerala government e-treasury application, SPARK - Payroll system, and eSevanam portal. This integration facilitates seamless workflow management and administrative approvals across different departments.

- **Citizen Services and Search Functionality:** The platform offers enhanced citizen services, including Name Change, Signature Change, and Religion Change, with corresponding notifications generated automatically. Citizens can search e-Gazettes through the portal using keywords, Gazette numbers, GO numbers, or department names, enhancing accessibility and convenience.

- **Status Tracking and Reporting:** COMPOSE provides status tracking features, allowing users to monitor the progress of Gazette publication and other related activities. Additionally, the platform generates reports and analytics to provide insights into Gazette publishing trends and performance.

Features

- **Online Publication:** Streamline Gazette publication through digital platforms.
- **Standard Templates:** Simplify content preparation with pre-defined formats.
- **Digital Signature:** Ensure authenticity with enabled Gazette approval.
- **Online Submission:** Facilitate easy submission of Gazette requests for both government departments and citizens.
- **Citizen Services:** Offer a range of services including Name, Signature, Caste, Religion, and Gender change.
- **Taluk Officer Module:** Enable submission of Legal Heirship notifications.

NIC has been a pillar in digital transformation of the state of Kerala with release of major applications like eOffice, Finance applications like eTreasury, eStamping etc, ReLIS for Land Records, PEARL for Registration etc.

COMPOSE released during 2019 has enabled printing department, other departments of Govt of Kerala and Citizen in efficient service delivery of notifications through gazette publication. The workflow based, digitally signed eGazette has significantly reduced resource requirement in terms of time, effort and cost of service. Standardized processes with fixed responsibility ensures optimal productivity with efficiency.
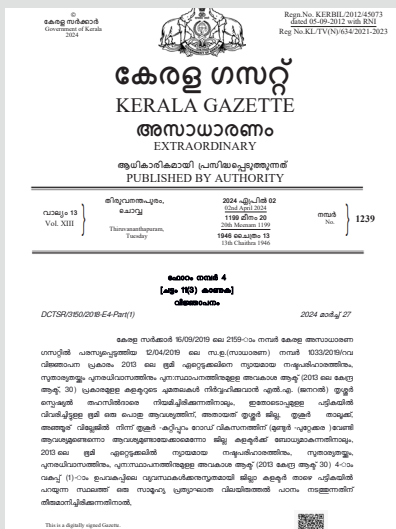
Dr. Rathan U. Kelkar, IAS
Secretary, E&IT and Environment Department
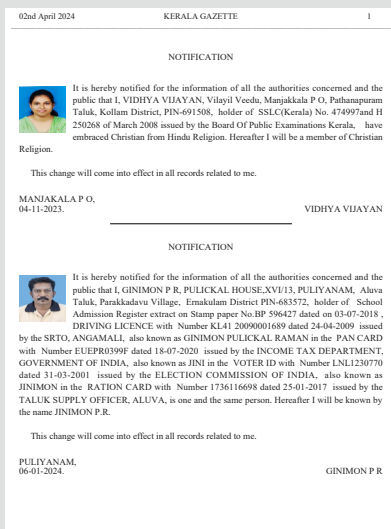Government of Kerala

- **Registration Department Module:** Allow requests for Chit Notifications.
- **Taluk-wise Notifications:** Organize Legal Heirship notifications by Taluk.
- **Preview Functionality:** Review Gazette notifications before finalization.
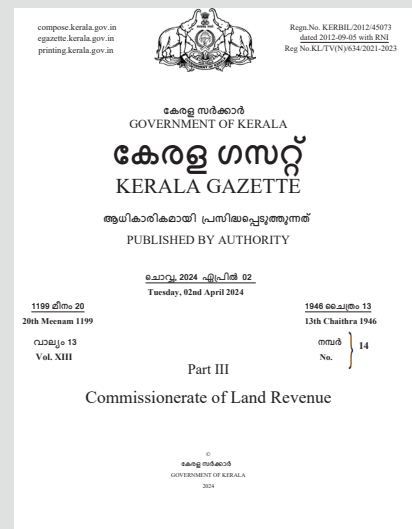- **Online Fee Payment:** Integrate e-treasury for
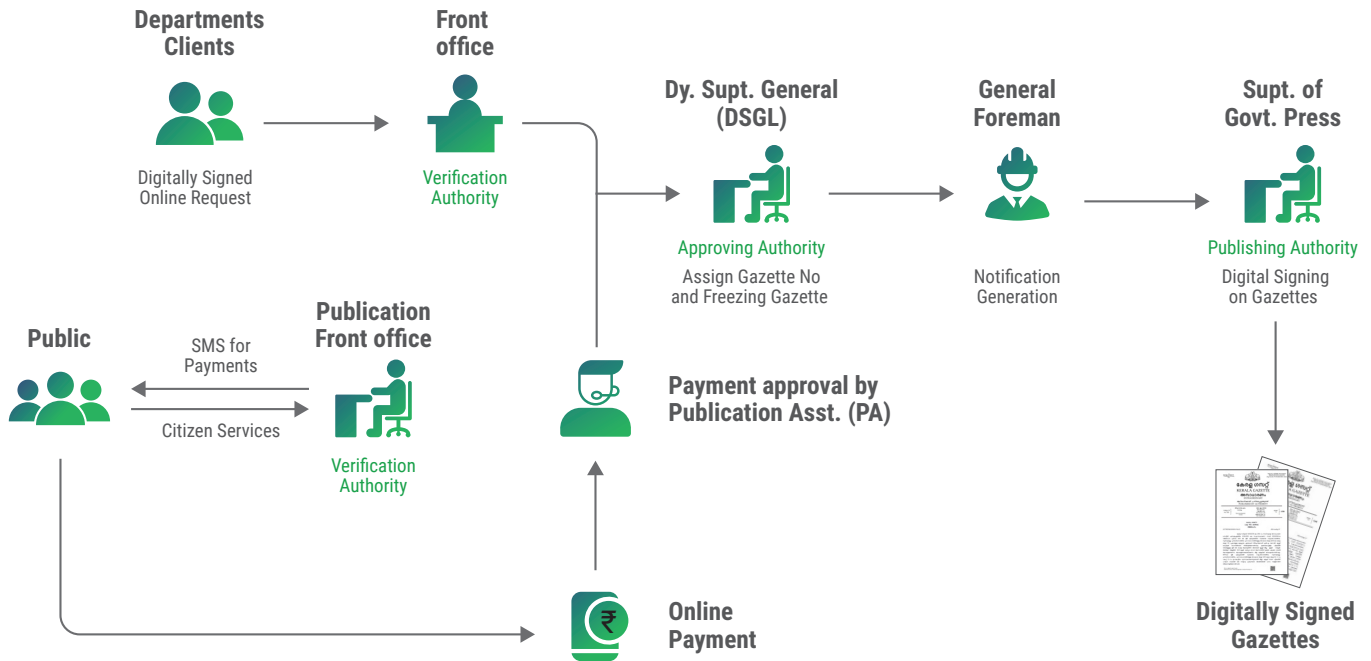
▼ Fig 6.2

Daily Gazette

Citizen Notifications

Weekly Gazette

▲ Fig 6.3 **COMPOSE Process Flow**

seamless payment and verification.

- **Content Size Checking:** Automatically validate uploaded content adherence to required formats.
- **Workflow Printing:** Manage printing activities through an online submission, work order generation, cost sheet calculation, and payment monitoring system.
- **Outturn System:** Generate outturn reports for various sections within the Printing Department.

It gives me immense pleasure to express our sincere thanks to NIC Kerala on behalf of the Printing Department. By e-publishing through COMPOSE, the Kerala Gazette has significantly improved efficiency, transparency, and accessibility, fostering better communication between the government and the public. I extend my heartfelt appreciation and congratulations to the NIC team for their unwavering dedication and sustained efforts in the effective development and implementation of COMPOSE application.

Veeran T.
Superintendent of Govt. Presses
Directorate of Printing
Govt. Central Press

- **Material Management:** Streamline stock requests, distribution, annual indent processing, and balance tracking.
- **QR Authentication:** Embed QR codes for authenticity verification.
- **E-payment Integration:** Incorporate electronic payment methods for convenience.
- **NIC Bulk SMS Service:** Implement bulk SMS notifications for effective communication.
- **NIC e-sign Tool:** Utilize electronic signatures for document authentication.
- **Alert Services:** Stay informed with integrated SMS and Email alerts throughout various stages.
- **Calendar System:** Generate Gazette headers using English, Malayalam, Saka, and Kolla Varsham calendars.

Key Benefits

- **Efficiency:** COMPOSE streamlines processes, reduces manual intervention, and optimizes resource utilization, enhancing overall efficiency.
- **Transparency:** The platform provides transparency in Gazette Publishing processes, ensuring accountability and trust.
- **Accessibility:** Citizens and government departments can easily access Gazette publications and submit requests online, enhancing accessibility and convenience.
- **Environmental Sustainability:** By eliminating the need for physical printing, COMPOSE reduces paper usage, contributing to environmental sustainability.
- **Cost-Effectiveness:** Through streamlined processes and reduced resource consumption, COMPOSE offers cost-effective Gazette Publishing solutions.

- **Citizen Satisfaction:** Citizen-centric services and streamlined processes enhance satisfaction levels among citizens and stakeholders.

Software Architecture and Technology Stack

- **Operating System:** Linux OS
- **Application Server:** Wildfly
- **Database:** PostgreSQL
- **Programming Language:** Java
- **Framework:** Spring Boot
- **Additional Technologies:** PDF Builder, NICDsign for Digital Signing, NIC Bulk SMS Service

Summary

COMPOSE represents a significant leap forward in Gazette Publishing, embracing digital transformation to enhance efficiency, transparency, and citizen-centricity. With its array of features, key benefits, and robust software architecture, COMPOSE sets new standards for Gazette Publishing platforms, paving the way for a more efficient and accessible administrative system. As governments worldwide seek to modernize their operations, COMPOSE stands as a testament to innovation driving positive change in public service delivery.

Contact for more details

Beena Jayaprakash
Sr. Technical Director
NIC Kerala State Centre
CDAC Building, Vellayambalam
Thiruvananthapuram, Kerala - 695033
Email: beena.jp@nic.in, Phone: 0471-4712729895