PaMGIS SMART CITY PLATFORM

Delivered by PaM (Planning and Mapping)

Building Smarter, More Sustainable, and Connected Cities Through Geospatial Intelligence

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Overview

PaM (Planning and Mapping) delivers **PaMGIS Smart City Platform**, an integrated geospatial solution that enables governments, municipalities, and urban planners to manage city growth, infrastructure, public services, and urban development through data-driven decision-making.

PaMGIS combines GIS, digital twins, IoT integration, urban planning tools, infrastructure management, real-time monitoring, and predictive analytics into a unified platform that helps cities become more efficient, resilient, sustainable, and citizen-focused.

The platform serves as a digital foundation for modern urban governance by connecting people, infrastructure, services, and data through a single intelligent operating environment.

The Challenge

Cities worldwide face increasing pressure from:

- Rapid urbanization
- Informal settlements
- Traffic congestion
- Aging infrastructure
- Environmental challenges
- Limited municipal resources
- Fragmented city data
- Inefficient service delivery
- Climate-related risks

Without accurate data and integrated systems, governments struggle to plan, manage, and invest effectively.

The PaMGIS Smart City Solution

PaMGIS provides a city-wide digital ecosystem that integrates spatial data, infrastructure assets, public services, and analytics to improve planning, operations, and citizen engagement.

Digital City Mapping

- High-resolution city basemaps
- Parcel and property mapping
- Building inventories
- Road and transportation networks
- Utility mapping

Urban Planning & Development

- Land-use planning
- Zoning management
- Development permit tracking
- Growth modeling
- Master planning support

Infrastructure Asset Management

- Roads and bridges
- Water networks
- Sewer systems
- Power infrastructure
- Public facilities and assets

Smart Mobility

- Traffic monitoring
- Transportation planning
- Route optimization
- Public transit management
- Parking management

Public Safety & Emergency Response

- Incident mapping
- Emergency dispatch support
- Disaster preparedness
- Risk assessment
- Crisis management dashboards

Environmental Sustainability

- Climate resilience planning

- Flood risk mapping
- Air quality monitoring
- Waste management optimization
- Green space management

Key Benefits

✓ Improve urban planning and development

✓ Enhance municipal service delivery

✓ Reduce infrastructure maintenance costs

✓ Improve public safety and emergency response

✓ Increase operational efficiency

✓ Support sustainable growth

✓ Improve citizen engagement

✓ Enable data-driven policy decisions

✓ Strengthen climate resilience

Core Platform Features

PaMGIS Smart City Dashboard

- Executive City Dashboard
- Real-Time Monitoring
- GIS Visualization
- Infrastructure Tracking
- Performance Analytics

Digital Twin Capability

- 2D and 3D City Models
- Infrastructure Visualization
- Development Simulation
- Scenario Planning
- Urban Growth Forecasting

Spatial Intelligence Engine

- Predictive Analytics

- AI-Assisted Planning
- Trend Analysis
- Risk Modeling
- Resource Optimization

Enterprise GIS Platform

- PostgreSQL/PostGIS
- Cloud or On-Premise Deployment
- Secure Multi-Agency Access
- API Integration Framework
- Mobile Data Collection

Smart City Functional Areas

Urban Planning

Manage zoning, land use, permits, and development approvals.

Transportation

Optimize traffic flow, transit systems, and mobility infrastructure.

Utilities

Monitor water, electricity, drainage, and public infrastructure assets.

Public Safety

Improve emergency response coordination and risk management.

Environmental Management

Track sustainability initiatives and environmental indicators.

Revenue Enhancement

Support property taxation, land administration, and municipal revenue generation.

Implementation Approach

Phase 1 – Digital Foundation

Develop city basemaps, infrastructure inventories, and GIS databases.

Phase 2 – System Integration

Connect municipal departments and data systems.

Phase 3 – Smart Operations

Deploy dashboards, monitoring systems, and analytics.

Phase 4 – Digital Twin Development

Create 3D city models and simulation capabilities.

Phase 5 – Continuous Optimization

Apply AI, predictive analytics, and performance management.

Deployment Options

Government Cloud

Secure cloud-hosted deployment managed by PaM.

Municipal Data Center

Installed within city or government infrastructure.

Hybrid Architecture

Combines local control with cloud scalability.

Ideal Users

- City Councils
- Municipal Governments
- Ministries of Local Government
- Urban Planning Authorities
- Smart City Initiatives
- Infrastructure Agencies
- Utility Providers
- Metropolitan Authorities
- Development Partners
- Public Safety Agencies

Why PaM?

PaM (Planning and Mapping) specializes in geospatial technologies, digital mapping, urban planning, infrastructure management, and smart city transformation.

Through PaMGIS, PaM enables cities to leverage geospatial intelligence, real-time data, and advanced analytics to improve governance, strengthen resilience, enhance citizen services, and support sustainable economic development.

PaM (Planning and Mapping)

Transforming Cities Through Spatial Intelligence

PaMGIS Platform Solutions

• Smart City Management

• Digital Mapping

• Land Title Registration

• Property Tax Administration

• Emergency Response Management

• Geospatial Analytics

• Asset Management

• Urban Planning & Development

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PaMGIS — Mapping Cities. Connecting Communities. Enabling Smarter Futures.