नवीन ओखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासिनक भवन, सैक्टर-6, नौएडा, गौतमबुद्ध नगर

दिनांकः- 20.02.2023

सार्वजनिक सूचना

Rates for AMC and Cloud hosting of Online Building Map Approval Software of NOIDA Authority

नौएडा प्राधिकरण हेतु कार्यशील Online Building Map Approval के अनुरक्षण एवं होस्टिंग का कार्य कराया जाना है। उपरोक्त कार्य हेतु इच्छुक अनुभवी एवं समान प्रकार का कार्य करने वाली संस्थायें अपनी दरें सील्ड लिफाफे (envelope) में सूचना प्रकाशित होने की तिथि से एक सप्ताह अर्थात दिनॉक 27/02/2023 सायं 5.00 बजे तक निम्नानुसार प्रारूप में अधोहस्ताक्षरी के कार्यालय में उपलब्ध कराने का कष्ट करें।

TABLE - A

Sr.	Item Description	Qty.	Rate (in Rs.) Per Item per Month	Rate (in Rs.) Per Item for One Year	Rate (in Rs.) Per Item for Three Year
	PART A (IT CLOUD HOSTING INFRASTRUCTURE)				
1	**SERVER – I (Required for Web Application):** Server – I shall be dedicated for the web application of OBPAS software. The detailed server-I specification is hereunder: i. Software: This Machine will be based on Linux environment (Operating System) wherein Web Host Manager will be installed to access Directory, Files, Database, Web Hosting Control Panel etc. PHP and MYSQL shall be installed for OBPAS Application. ii. Hardware: a) Server Processor - 2 X Hexa Core Xeon E5 2620 2.0 GHz / 15MBB.	01			

	b) HDD Size 2*2Tb SATA Raid 1 RAID Configuration Raid 1 or more. c) Memory Capacity - RAM 48 GB or more				
2	**SERVER – II (Database):** Server – II shall be dedicated for the Database of OBPAS software. The detailed server specification is hereunder: i. Software: Machine will be based on Windows 2016 R2 with 64 Bits (Operating System) wherein MS-SQL 2012 R2 standard Edition (Core license) which powers the Scrutiny Engine for OBPAS Application. ii. Hardware: a) Server Processor - 2 X Hexa Core Xeon E5 2620 2.0 GHz / 15MBB. b) HDD Size 2*2Tb SATA Raid 1 RAID Configuration Raid 1 or more. c) Memory Capacity - RAM 48 GB or more	01			
3	**Server – III (Application):** Server – III shall be dedicated for the Scrutiny Engine of OBPAS software. The detailed server specification is hereunder: i. Software: Machine will be based on Windows 2016 R2 with 64 Bits (Operating System) wherein AutoCAD Scrutiny Engine installed for OBPAS Application. ii. Hardware: a) Server Processor - 2 X Hexa Core Xeon E5 2620 2.0 GHz / 15MBB. b) HDD Size 2*2Tb SATA Raid 1 RAID Configuration Raid 1 or more. c) Memory Capacity - RAM 48 GB or more	01			
3	**Backup of OBPAS:** Replication of hosting of physical or virtual server (DR) will be very much essential for Backup policy of OBPAS including for database and application.	03			
4	Managed Support service for Cloud IT Infrastructure is also required.	01			
PART B (SUPPORTING SOFTWARE LICENSES)					
5	Enterprise Pro Dedicated Server Web Application Server- based on Linux environment	1			
6	Enterprise Pro Dedicated Server (Database) Server- based on Windows 2016 R2 with 64 Bits	1			

7	Enterprise Pro Dedicated Server Application: Server based on Windows 2016 R2 with 64 Bits	1			
8	Smart DCR Engine	1			
9	AutoCad	1			
10	MS-SQL 2012 R2	1			
11	SSL	3			
12	Antivirus	3			
13	SMS	3 Lakh			
14	Domain	1			
15	Firewall/ WEF (Web application Firewall).	1			
PART C SOFTWARE AMC COST AND MANPOWER/SUPPORT					
16	AMC of Online Building Map Approval Software	01			
17	Software Developer with knowledge of Architecture and Autocad having experience of minimum 5 Years	02			
18	Co-ordinater with knowledge of back-end support of software having experience of minimum 3 Years	01			
Total Price					
GST@					
Grand Total					

Scope of Work PART (A) (IT CLOUD HOSTING INFRASTRUCTURE) AND PART (B) (SUPPORTING SOFTWARE LICENSES) SR. NO. 01 To 15

NOIDA wishes to engage a **Meity Empaneled and STQC Audited CSP** or their Managed Service Provider for providing cloud Services for a period of 1 **year**, which may be reviewed for extension on the completion of the one year at the discretion of NOIDA for hosting the Applications as mentioned in the table below. The scope of work is as under:

1. The Bidder will be responsible for provisioning and managing required IT infrastructure for hosting applications on the MIETY Empaneled cloud.

2. The Public cloud shall comply with the respective Empanelment Compliance Requirements published by Ministry of Electronics Information and Technology, Government of India.
3. The Bidder shall be responsible for provisioning required compute infrastructure (server/virtual machines), storage for hosting applications. The bidder has to manage and maintain the VM's including underlying Hardware, Operating systems, Database, antivirus etc. for the contract period. Inbuilt Antispam/Malware/Antivirus threats control software as per defined SLA's in this tender document.
4. The Bidder should configure, schedule and manage backups of all the data including but not limited to files, folders, images, system states, databases and enterprise applications as per the backup policy.
5. Backup solutions need to be the responsibility of the bidder for storage & server for copying of uploads data other than tape backup.
    i. Bidder has to provide a dedicated or shared backup tool for backup of the Database, Applications etc. The backup has to be automated through backup agents
    ii. Daily incremental backup with retention period of 7 Days.
    iii. Weekly full backup with retention period of 1 Month.
    iv. Monthly full backup with retention period 03 months.
6. The Bidder shall be responsible for provisioning of adequate Internet Bandwidth and connectivity at the DC including termination devices, for end users to access the Applications.
7. Bidder has to provide Public/Private static IP address for all the VM's.
8. The responsibility to install SSL shall lie with the Bidder.
9. Closure/Termination/Transit/Exit, NOIDA wishes to terminate the services CSP should retain the copy of Database for 45 days and CSP shall ensure that there is no deletion of data for a minimum 45 days beyond the expiry of the contract without any confirmation from NOIDA.
10. The managed cloud service provider should ensure inter-operability support and data portability in case of change/migration to another CSP.
11. Ownership of data generated on usage of the system at any point in time during the contract or expiry shall rest absolutely with NOIDA.
12. Post exit all the data content should be removed to ensure that the data cannot be

recovered.

13. The Vulnerability assessment should be done once in six months, the Vulnerability assessment reports should be shared with the NOIDA on half-yearly basis.
14. The CSP should provide the identity and access management.
15. The hosted solution must include firewall along with the IPS / IDS Features.
16. Security information and event management (SIEM) for supporting compliance reporting and incident investigation through analysis of historical data from these sources.
17. The CSP should provide the infrastructure performance and availability of the cloud services being used, as well as alerts that are automatically triggered by changes in the health of those services.
18. Event-based alerts, to provide proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources.
19. Ability to discover all of the provisioned resources and view the configuration of each.
20. Notifications should be triggered each time a configuration changes.
21. The bidder should provide the access of their/ CSP's data center to NOIDA officials for physical review of the deployment once a year or Provide the Third Party Auditors report for the NOIDA Official to verify the Security Services.
22. Bidder should handover the monitoring and maintenance reports, SLA report on monthly basis.
23. The bidder should provide 24*7 Helpdesk support along with ticket management system and an escalation matrix.
24. Any change in Virtual Machine shall have to be informed in writing to Noida officials.
25. The Bidder should have successfully supplied the offered Cloud Service to state/central govt. organization in India. Work order & completion certificate or any other relevant proof should be submitted against each point.
26. Co-coordinator is basically Helpdesk to attend the queries/ Telephonic support to public to rectify/ resolve the issues raised by public and department. Incorporate the changes/ modifications in the existing software
27. Software developers have to develop reports and per department requirement, generation of different MIS reports, modification in modules, roles for user, integration of services with other software and portals as per time to time requirement. And the software developer have the background of Architect and

knowledge of AutoCAD software, building by laws to resolve the issues from public.

Scope of Work Software AMC Part (C) Sr. 16 To 18.

OBMAPS (Online Building Map Scrutiny & Approval Process) is a software to help speed up the process of building plan compliance check in accordance with the building bye-laws of NOIDA Authority. Its high speed and accuracy is a boon to all stakeholders. It is capable of analysing the building plans within minutes and generates a set of Reports, which are comprehensive and easily understandable to all stake holders. OBMAPS provides online service for Pre-scrutiny of your building plans so that you get faster approval from the Authority and drastically reduces the time and drafting manpower.

NOIDA OBMAPS software is a single windows management system which is enabling all building map approval process (Likes: document submission, automatic building map plan scrutiny, online payment and generate instant approval/objection letter) into a single web page. NOIDA OBMAPS facilitates registered architects to upload all necessary documents online (like: Building ownership documents, scanned copy of various annexure, drawing file in .dwg file, approval form) for submitting online application to authority. License software & APIs (DCR- Pre-check, DCR- Scrutiny, MS Server Std., MYSQL/SQL, SSL Auto CAD, Bulk SMS) encompass the On Line Building Map Approval Process System (OBMAPS). Followings are the key components of the project:

i. Creation of Noida Building Regulations as per "Development Control And Promotion Regulations For New Okhla Industrial Development Authority (NOIDA) UP.
ii. Online Map Submission, Automated Building Plan Security & Approval System for all types of buildings - Residential, Commercial, Industrial, Institutional, Group Housing.
iii. Customization of rule master with the NOIDA byelaws for:
    a. Industrial Properties
    b. Residential Properties
    c. Institutional Properties
    d. Commercial Properties
    e. Housing Properties
    f. Group Housing Properties
iv. Customization of SMART DCR workflow as per the approval process. Creation of inbuilt workflow for NOIDA.
v. Roll out of the customized system.
vi. Integration of Digital Signatures of authority.
vii. Generation of Sanction/Rejection or deviation letters to the customers of NOIDA.
viii. Up-dation of Provisions.

TECHNICAL SPECIFICATION:

NOIDA OBMAPS is DCR (Development Control Regulations) Engine (Pre-check and Scrutiny). This Engine (AI tool) compares applicant proposed drawing file with NOIDA's building bylaws and generates real time customized reports.

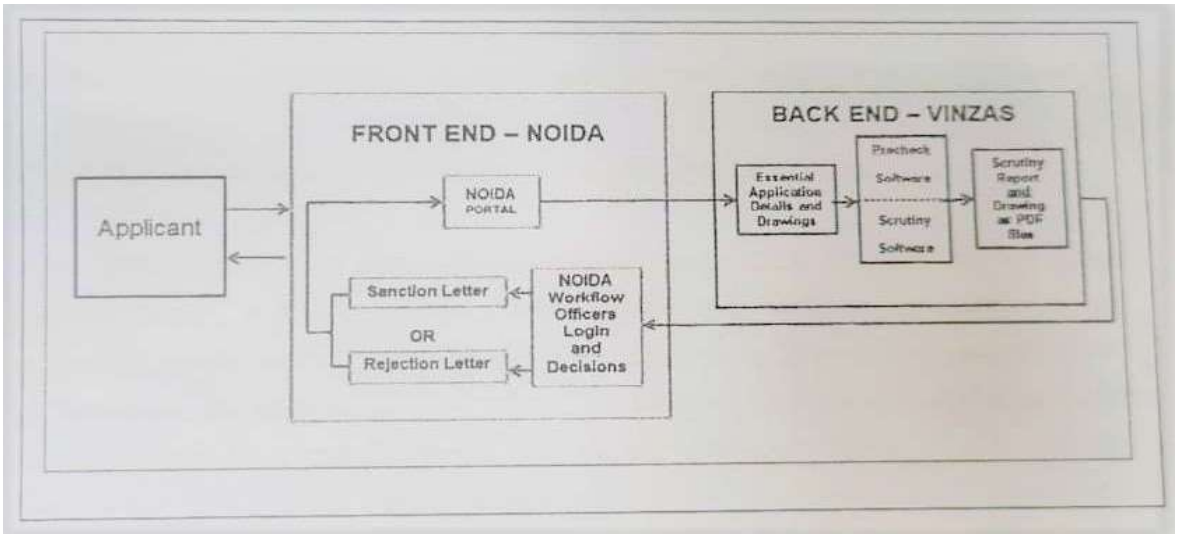
It is an online platform where any User/Architects/Building owner can submit his documents and request for online building plan sanction. On the other hand, NOIDA's registered architect can submit his online application through NOIDA-OBMAPS software.

This application software contains levels of application review as per office order NOIDA, recommendation and approval system before generating objection/sanction letter. The software contains login panel for NOIDA's Senior Management

The proposed application accepts Auto-CAD drawing files only and Auto-CAD business edition will install at server side only by the Authority. The key benefit of server side AutoCAD license installation is "we did not restrict to Architects/officers to use Pirated/original License OR any Auto-CAD License version".

The proposed application provides facility of Online Payment services using various payment mode i.e., Cash (Generate Challan), Cheque/DD, RTGS/NEFT Net Banking, Debit Card and Credit Card. The proposed application sends notification to all stakeholders through SMS/E-MAIL/OTP system. A tracking tool will be generating various kinds of alert to keep all stakeholders on the same page.

SYSTEM ARCHITECTURE:



1. Clients submit drawings using Web interface after registration
2. Drawing gets Pre-checked and if drawing follows standard, further scrutiny will be done
3. If Drawing is not as per standard, it will be returned back by email to the Clients.
4. Authority officers can view the drawings submitted, scrutinised and returned

5. MIS shows status of applications zone wise as well as revenue generated

PROMINENT PROCESS OF THE SOFTWARE:

1.1 ONLINE BUILDING PLAN SCRUTINY APPROVAL SYSTEM PROCESS:

Automated Building Plan Security & Approval System is the main part of the Smart DCR

- System is designed for Applicants to register and submit the drawing and get the Reference Number of the Application
- This system is designed to allow an Applicant to submit the drawing and check the status of submitted drawing online, anytime during the process.
- The software facilitates communication between NOIDA and applicants via E-Mail.
- Applicants can also view the status of their File Online anytime.

PRE-CHECK is a built in function of Smart DCR (Hosted on the cloud server) Smart DCR pre-check software checks the building proposal drawing submitted by the applicants for CAD drawing format compliance. Any deviations will be marked in the drawing with hyperlinks pointing to the error area and returned to the applicants for suitable corrections, by the pre-check software automatically without any human intervention. A user manual will be provided for the applicant's ready reference and the submission drawings are to follow the layer and colour structure as outlined in the manual. The uploaded drawing should be in ".dwg" format. Architects can check their drawing status - whether successfully submitted or returned through email or by logging in, on notification.

1.2 SMART DCR SCRUTINY PROCESS:

Once the pre-check process passes the submitted drawings, the main scrutiny process starts automatically. This Process will scrutinize the submitted drawing data by comparing them with relevant Bye-Laws and generate detailed reports on compliance. Based on the compliance reports, the scrutiny officers of the Authority can approve or reject the submitted plans.

Objective of the Online Building MAP Approval Process (OBMAPS)

OBMAPS is integrated through NOIDA's Allottee Accounts System (for avoiding building owner discrepancy) and Sector Layout GIS software for checking the building Road map/Geographical restriction/Sector Maps and more key factor to make the system more transparent.

The objective of the said project is summarized as follows:

- To be developing a single window management system for documents uploading, map drawing file scrutiny system, make payments and approval process.
- Create a fully transparent system for issuing of building plot to authorize building Owner (Get Building Owner details through Property Accounts Management System).

- Notification to planning section and system admin for inconvenience of building owner details.
- Scrutiny of the uploaded Auto-CAD files to avoid department valuable time and client satisfaction.
- Notification (SMS and E-Mail) to Building Owner, Registered Building Architect. Planning department for new building application as well as Auto-CAD abandonment.
- Building Plan Fee will be received through OBMAPS E-Challan System (payment tracking system) or On-Line Payment Gateways.

OBMAPS software will be accepting only Scrutinized Auto-CAD file for approval.

1.1. OBMAPS Online Scrutiny System:

Automated building plan scrutiny and approval system runs through developed software and API Integration. Automated building plan scrutiny and sub module/MVC (Model View Controller) are grouped in following categories:

A) New Software Development
B) NOIDA application's API Development and Integration
C) Third Party API Integration
D) Storage Server

1.1.1. OBMAPS System:

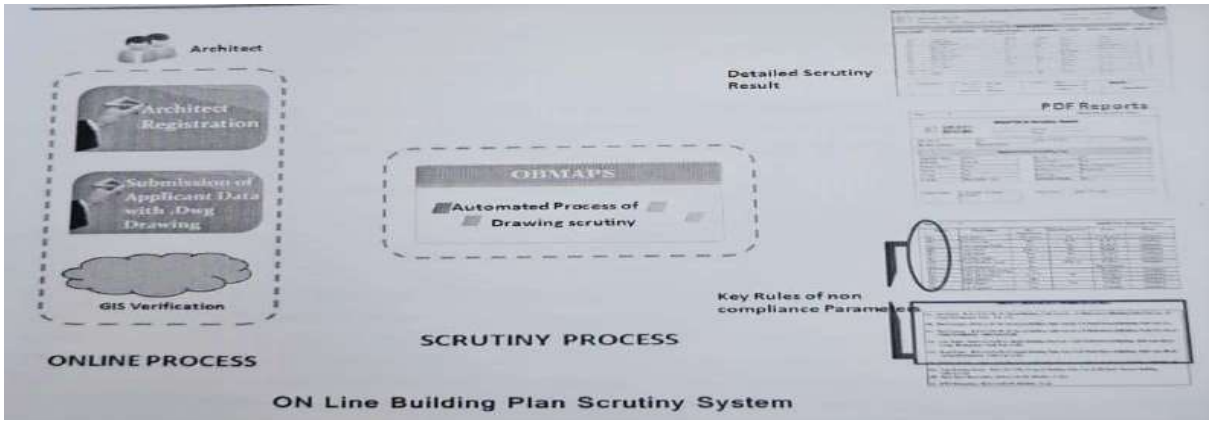
OBMAPS is a unique and innovative solution for automation of Building Plan Approval, reading Auto-CAD drawings and mapping them to development control regulations of the NOIDA Authority. "OBMAPS reads the building entity from drawings which are being submitted by Architects in soft copies, geometrically map each & every entity by corresponding with complex & interlinked rules. It produces relevant reports embedded in drawings as well as in printed format. OBMAPS helps in attaining the e-Governance by supplying all electronic versions of the documents.

OBMAPS provides online service for Pre-scrutiny of building plans for faster approval from the corporations and drastically reduce the time and drafting manpower.

1.1.2. Features of OBMAPS System

1. Drawing submitted in AutoCAD format: OBMAPS reads drawing drawn in AutoCAD formats automatically. Verifications according to the type of the project-All OBMAPS.
2. Verifications are done according to project type- Building permission or sub-division amalgamation
3. Auto-Detection of building use: It can detect use of building (e.g. Residential, Commercial or mixed) and can also auto detect Building Structure (e.g. High-rise Bldg. or Low-rise Bldg) by drawings.

4. Block Diagram: OBMAPS generates Block diagram for each Floor and provide dimensions with area Calculation.
5. Auto-Generation of FSI & Built-up area Table: OBMAPS automatically inserts FSI & Built-up Area Tables with per floor detail for each Building. Same way inserts FSI & Built-up Area Table for whole Project.
6. Auto-Generation Plot area Table: OBMAPS automatically detects the type of layout proposal - amalgamation or subdivision and creates standard area table as per the case.
7. Auto-Generation of Area-Statement: OBMAPS automatically inserts Area Statement with all proposed & permissible value in traditional format.
8. Section reading & Association: It reads sections associated with each floor plan, floor. section & generates the dimension of the section & each floor by auto dimensioning.
9. Margin Generation: OBMAPS scrutinizes the requirement of Margin from Main Road, Plot Boundary, and Open Space etc. itself. Even it shows Proposed Failed Margin with Auto Dimensioning.
10. Verification with Actual Coverage Area: OBMAPS verifies built-up area (Max. Coverage area) proposed by auto punching of each floor plan automatically.
11. Generation of Scrutiny Reports: OBMAPS generates the various scrutiny reports dynamically based on the New Okhla Industrial Development Authority Rules. Generated report shows the Failed/Passed items with their rules in a very user friendly viewable/printable format. Reports can also be generated in standard language. Customization of reports can be made using user defined templates. Software reads the building entities from drawings, geometrical map each & every entity by corresponding with complex & interlinked rules. After scanning and saving the drawing, scrutiny reports are generated where all failed and passed rules are displayed with required/permissible values with proposed values so that architect can easily correct them.



1.1.3. Digital Signature Security System:

Digital Signature Certificates (DSC) are the digital equivalent (that is electronic format) of physical or paper certificates. Certificates serve as a proof of identity of an individual for a certain purpose; for example, a driver's license identifies someone who can legally drive in a particular country. Likewise, a digital certificate can be presented electronically to prove your identity, to access information or services on the Internet or to sign certain documents) digitally. A licensed Certifying Authority (CA) issues the digital signature.

Digital signature scheme typically consists of three algorithms:

A. Key generation algorithm: that selects a private key randomly from a uniform set of possible private keys. The algorithm generates the private key and a corresponding public key.

B. Signing algorithm: Giving a message and a private key, produces a signature.

C. Signature verifying algorithm: Giving a message, public key and a signature, either accepts or rejects the message's claim to authenticity.

Two main properties are required. First, the authenticity of a signature generated from a fixed message and fixed private key can be verified by using the corresponding public key. Secondly, it should be computationally infeasible to generate a valid signature for a party without knowing that party's private key. The list of licensed CAS along with their contact information is available on the MCA portal (www.mca.gov.in).

1.1.4. OBMAPS Login-OTP System:

OBMAPS Login System will work on 64-bit Secure Hash Algorithm (digital signature) for maintaining Cyber Security Services. SHA will store encrypted login details for accessing limited power to authorized and unauthorized users.

OTP system will create advanced higher level application security. SMS gateway will send one time password at every login to avoid unauthorized visitors and newly generated OTP will be active in next 15 minutes only, after 15 minutes it will be deactivated.

Login Requirement:

1) Registered Email ID or Mobile No or OBMAPS Unique ID

2) Secure Password

3) Active OTP

1.2. NOIDA application's API Development and Integration

1.2.1 Property Information Management System(PIMS): Automate scrutiny of building proposal software is required building owner details, plot details, plot areas, contact information and other attributes at drawing file submission. NOIDA's Building database management software is already stored these details, To connect Property Management Information System (PIMS) and newly proposed Automate) scrutiny system, there are three modules.

A) OBMAPS building owner module
B) PMIS API
C) Non registered building detail

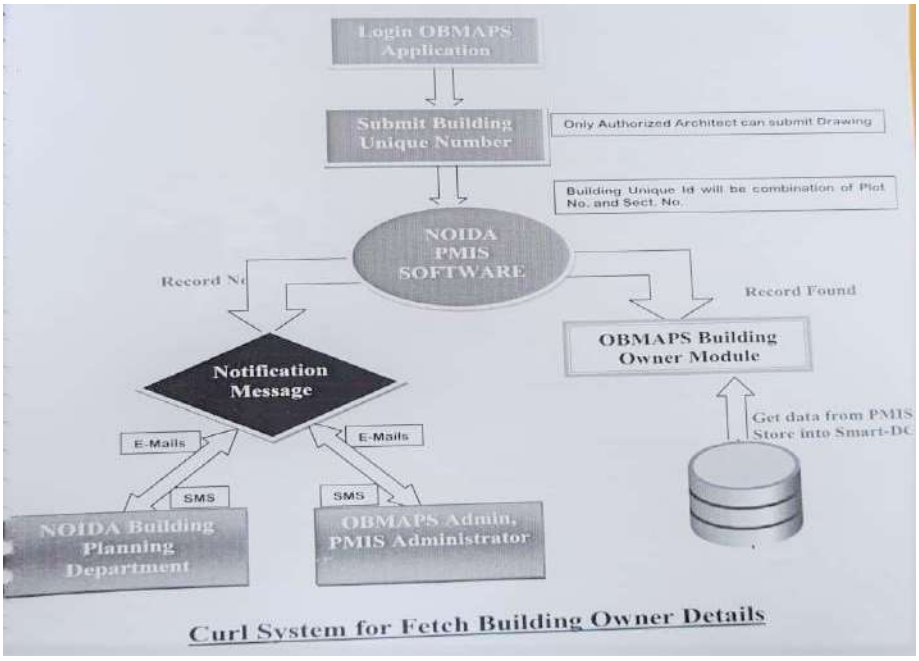
OBMAPS building owner module is fetch individual owner details from NOIDA's building database management software at Build-Unique-ID. When OBMAPS-BOM module will hit PMIS API, two conditions can be occurred.

A. API OUTPUT: if building detail is exist

B. Notification: If building details does not exist, a notification will deliver to department and administrator for update PMIS system. A notification system can be managed through Bulk SMS/Bulk Email Server.

Benefits of PMIS API Integration

1. Application Unique ID: Every plot is assigned a unique identification number which will be the combination of Plot number and Sector number.
2. This API will help to keep away from duplicate plot allotment issues.
3. Easy File submission: Architect need to submit unique plot and sector number through which API will provide the plot details like: owner name, owner contact number, plot size, sector number, address and many more details.
4. When architect's file will be submitted to OBMAPS software, three messages will be forwarded to building owner number, architect number and planning department to make secured and transparent system.
5. Fully transparent file submission: Architect will not be able to misguide to building owner as they will receive notification on every file submission. The file submitted will not be stored at server until it is as per development authority rules and regulation.
6. Building Owner will also be aware of every action against their request or application.
7. Better Utilization of PIMS Software: If PMIS does not receive the details building owner against enquired plot number, two messages will be delivered to PMIS administrator and planning department.



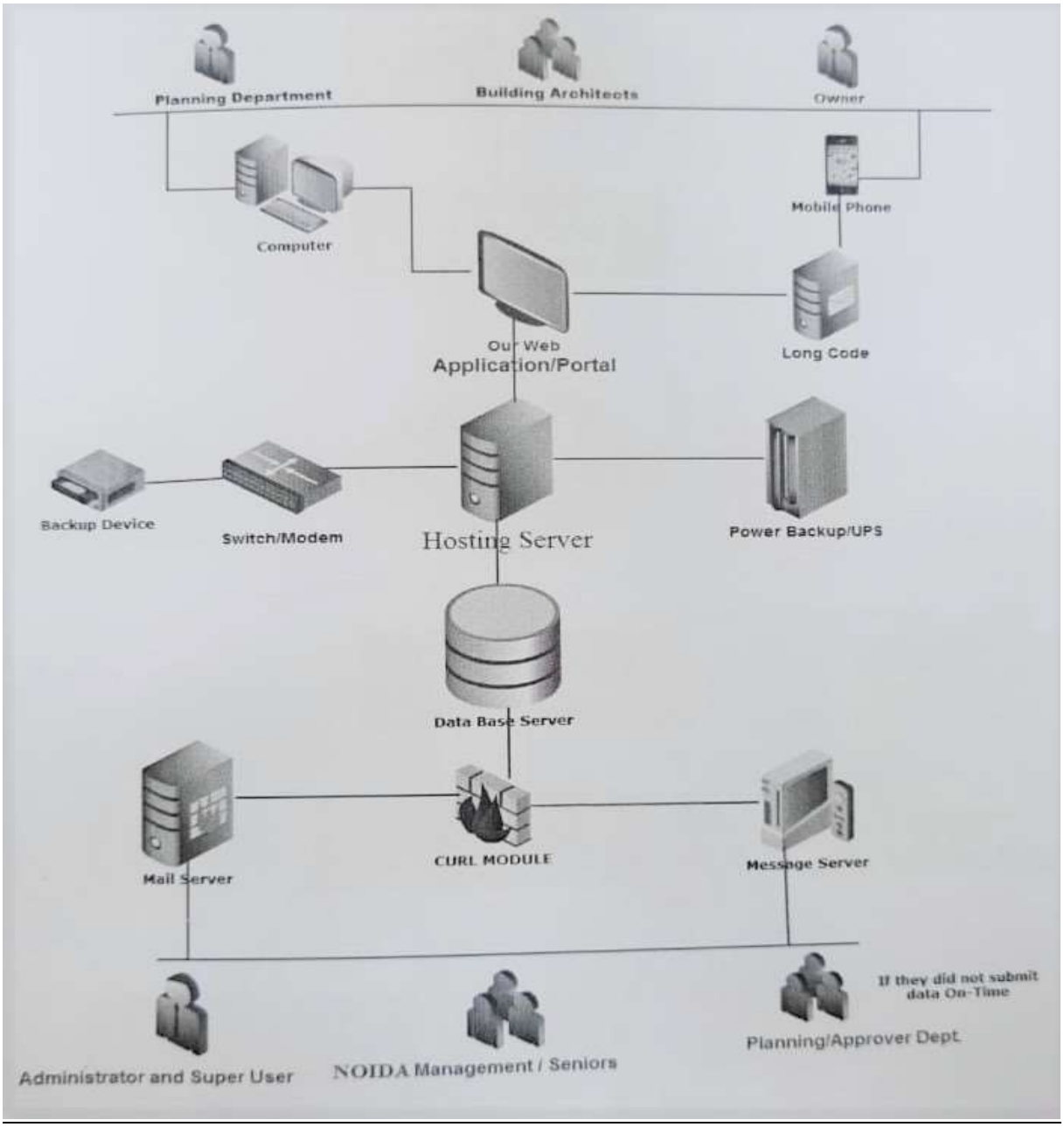
1.3. Third Party API Integration

1.3.1. SMS Gateways

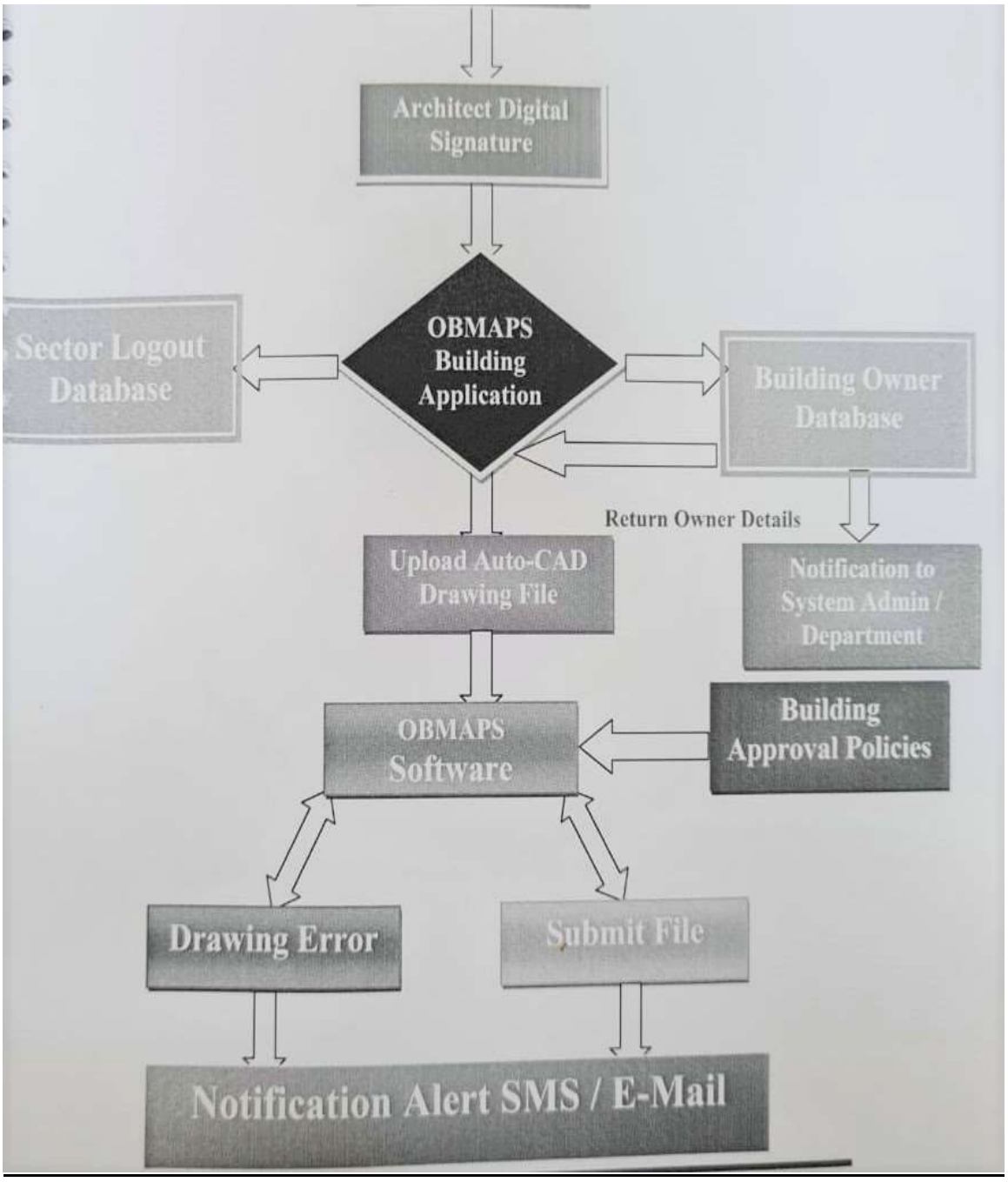
1.3.2. E-mail Gateways

1.3.3. Online Payment Gateway

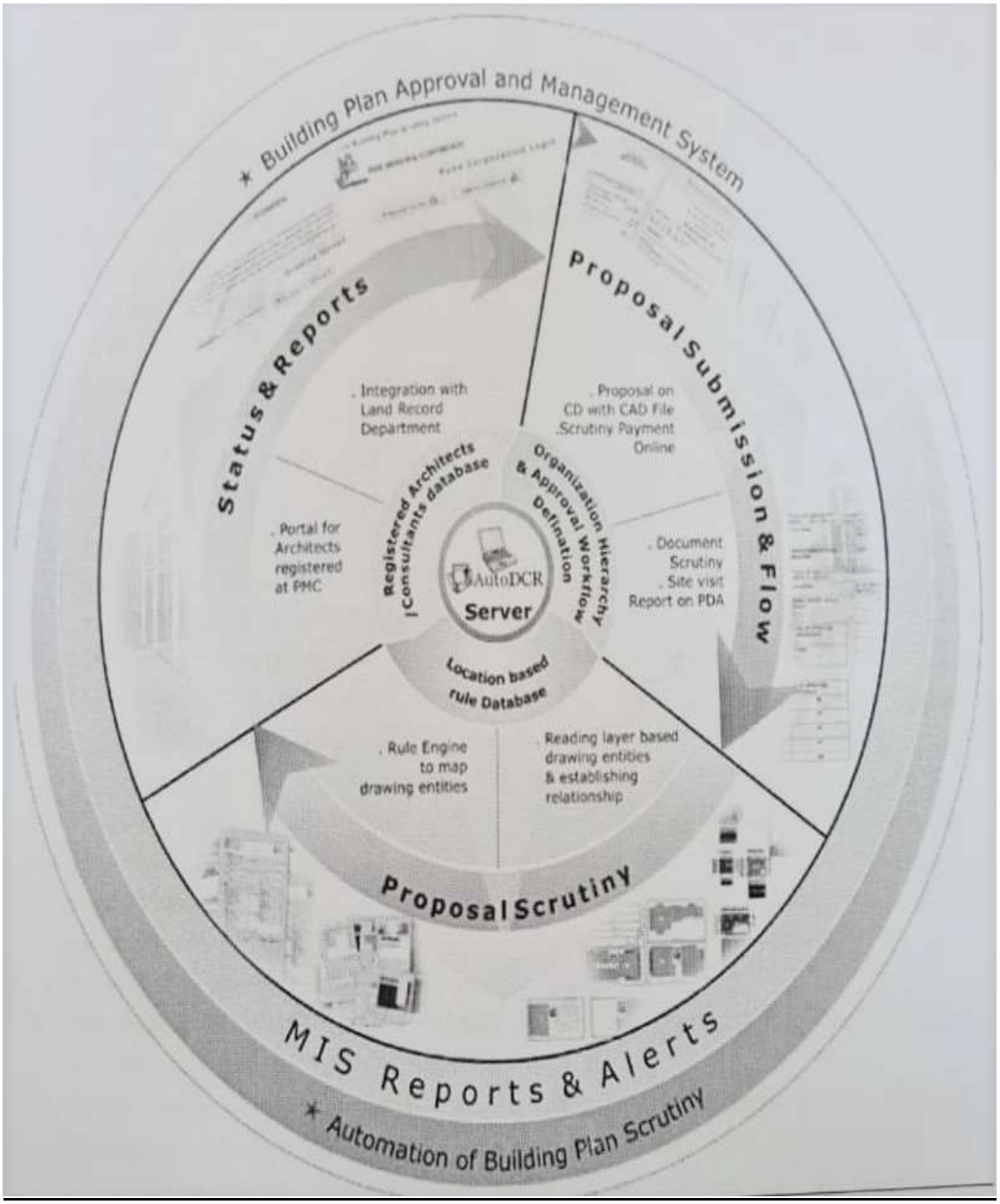
Application Architecture Diagram


Planning Department
Building Architects
Owner
Computer
Mobile Phone
Our Web
Application/Portal
Long Code
Backup Device
Switch/Modem
Hosting Server
Power Backup/UPS
Data Base Server
Mail Server
CURL MODULE
Message Server
If they did not submit data On-Time
Administrator and Super User
NOIDA Management / Seniors
Planning/Approver Dept.

Building Application File Submission Diagram



Building Plan Approval and Management System



PROVID SUPPORT TO NOIDA AUTHORITY (**9 hrs X 5 days support onsite)**

1) 8 hrs – 6th and 7th day support offsite as per the discretion of the Authority
2) 24 hrs TAT maximum for Severity 1 issue
3) 72 hrs TAT max for Severity 2/3 issues

TEAM COMPOSITION DURING AMC PERIOD

The team should comprise of the Domain Expert who should have a thorough knowledge of NOIDA Building Bylaws and a Software Developer with adequate experience.

नोट –

- **Coordinator is basically Helpdesk to attend the queries/ Telephonic support to public to rectify/resolve the issues raised by public and department. Incorporate the changes/ modifications in the existing software**
- **Software developers have to develop reports and per department requirement, generation of different MIS reports, modification in modules, roles for user, integration of services with other software and portals as per time to time requirement. And the software developer have the background of Architect and knowledge of AutoCAD software, building by laws to resolve the issues from public.**
- **Amount is to be quoted for entire BOQ. Partially quoted rates shall not be considered.**
- संस्था द्वारा प्रस्ताव अपने लेटरहैड पर प्रेषित किया जाना अनिवार्य है।
- संस्था द्वारा अपने लेटरहैड पर संस्था के **PAN No. , GST No.** के साथ–साथ यह भी प्रमाणित किया जाये कि वह किसी अन्य विभाग में **Black Listed** नहीं है।
- उपरोक्तानुसार बिन्दुओं को सम्मिलित करते हुये संस्था द्वारा विस्तृत तकनीकी प्रस्ताव **(Full Specification)** एवं दरें सील्ड लिफाफे **(envelope)** में निर्धारित प्रारूप में उपलब्ध कराया जाना अनिवार्य है।