

API & Schema

Technical specifications for API and data design

The comprehensive technical document for architectural design and code structure
Engineering & Operations Team (WSS)

Technical Application Profile

Project : NotificationPublisher Ecosystem

Paths (Endpoints) : Email (Single/Bulk), SMS, WhatsApp, FCM

Data protection (Secrets) : HashiCorp Vault KV v2

Implementation stage : Production - OKE Cluster

Core Tech : ASP.NET Core 8.0, RabbitMQ

1. JSON email structure (EmailPublisher)

The /Email path requires the following syntax to support Base64 attachments:

```
{
  "AppId": 1,
  "MessageTypeId": 3,
  "Message": {
    "Receiver": "user@domain.com",
    "EmailCC": "cc1@domain.com;cc2@domain.com",
    "EmailBCC": "bcc@domain.com",
    "Subject": "Test Subject",
    "Message": "<h1>Hello</h1><p>Body content</p>",
    "MsgPriority": 0,
    "MsgAttachment": [
      {
        "MsgAttachmentBase64": "/9j/4AAQSkZ...",
        "MsgAttachmentFileName": "image.jpg",
        "MsgAttachmentType": "image/jpeg"
      }
    ]
  }
}
```

2. JSON structure for SMS (SMSPublisher)

The /SMS route supports multiple sending of bulk numbers with a single text string:

```
{
  "AppId": 1,
  "MessageTypeId": 1,
  "Message": {
    "Sender": "EServices",
    "Receiver": "966551398999,966567472422",
    "Message": "Your verification code is 1234"
  }
}
```

3. JSON structure for WhatsApp (WhatsAppPublisher)

```
{
  "AppId": 1,
  "Message": {
    "Receiver": "966551234567",
    "TemplateName": "otp_verification",
    "BodyParams": "1234,5 minutes",
    "HeaderType": "Text",
    "HeaderText": "Verification Code",
    "UrlParam": "https://verify.example.com/1234"
  }
}
```

4. Full API Endpoint Catalog

NotificationController - /api/v1/Notification

Description	Input	Endpoint	Method
Send SMS	SMSPublisher	/SMS	POST
Send a single mail	EmailPublisher	/Email	POST
Send bulk mail	List<EmailPublisher>	/Emails	POST
Send WhatsApp	WhatsAppPublisher	/WhatsApp	POST
FCM Notice	PushNotificationPublisher	/FCM	POST

SettingsController - /api/v1/Settings

Description	Endpoint	Method
Fetch Mail Setup	/Email	GET
Fetch the mail settings menu	/EmailList	GET
Add/modify a mail setting	/Email	POST/PUT
Bring SMS providers	/SMSProviders	GET
Add/Edit SMS Provider	/SMSProvider	POST/PUT
Bring WhatsApp setting	/WhatsApp	GET
Add/edit WhatsApp setting	/WhatsApp	POST/PUT
Bring business accounts	/WhatsAppBusinessAccounts	GET
Bring WhatsApp templates	/WhatsAppTemplates	GET
Add/edit a WhatsApp template	/WhatsAppTemplate	POST/PUT
Fetch list of applications	/ApplicationsList	GET
Add/edit an application	/Application	POST/PUT
Fetch RabbitMQ settings	/ApplicationRabbitMQConfigs	GET
Message status query	/MessageStatus	GET

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Send from control panel	/SendMessage	POST
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MessagesController - /api/v1/Messages

Description	Endpoint	Method
Record SMS messages with numbering	/sms	GET
Record WhatsApp messages with numbering	/whatsapp	GET
Record mail messages with numbering	/email	GET
Control panel statistics	/stats	GET

ExcelController - /api/v1/Excel

Description	Endpoint	Method
Download Excel template	/Template/{type}	GET
Send bulk from Excel	/Send (multipart/form-data)	POST

5. Database Pipeline



Data flow between API and SQL Server

- Create SqlConnection via Dapper
- Execute INSERT INTO EMAILS_LOG with Status=Pending
- The database returns Guid MsgId as a tracking code
- Application state query: IsActive, IsSettingActive, SMSQuota

Stored Procedures

Purpose	Parameters	Stored Procedure
SMS log with numbering	@Search, @Page, @PageSize	SP_GetSMSMessages
WhatsApp history with numbering	@Search, @Page, @PageSize	SP_GetWhatsAppMessages
Email record with numbering	@Search, @Page, @PageSize	SP_GetEmailMessages
Total/Sent/Failed	-	SP_GetMessagesStats