

MARCH 2024

EDITION |  
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*Rise every day*



## PAYMENTS & DIGITAL SERVICES REDEFINING RESILIENCE AND STABILITY

### This Month's Spotlight: Mastering the Art of Monitoring!

Get ready to dive deep into the critical world of **Effective Monitoring**! This month, we're shining a light on the practices that keep our software systems healthy and running smoothly.

We'll explore the latest tools, techniques, and strategies that empower us to proactively identify and address issues before they ever become a problem. It's all about building software resilience and stability – and ultimately, driving positive outcomes for our Payments and Digital Services landscape.

Join us as we unpack the secrets of effective monitoring and discover how it's shaping a brighter future for our services!

# MARCH WINS: DELIVERING INNOVATION AND EFFICIENCY



March was a month of significant progress! Let's celebrate some key achievements:

## **Deliveries:**

### **• Digital Worker Revolution:**

Our service management is now powered by 18 digital workers thanks to Power Automate's successful migration to production.

### **• Cheque Processing Upgrade:**

The Dexter Inward Cheque Clearing system received an upgrade, boosting functionality and efficiency. Dedicated queues, role-based entitlements, and enhanced cheque return management are just some of the improvements.

### **• Regulatory Compliance:**

The India Flex platform now captures Debit/Credit Purpose Codes for Nostro Transactions, ensuring compliance with RBI regulations.

### **• Automated Quality Checks:**

Quality control for 10 FTC products received a major boost with the launch of an automated system, improving accuracy and efficiency.

### **• Streamlined Approvals:**

The Egypt EDMS callback enhancement automates validation for high-value transactions, streamlining the approval process.

### **• Enhanced 'Letter of Credit' Generation:**

Integration updates from Flexcube allow Portia to automatically generate the latest 'Letter of Credit' based on current contract information.

## **Project Updates:**

**• Pakistan Neo Bank:** Integration testing is underway for the OBPM platform, and a successful product walkthrough was conducted. Development is nearing completion with 157 out of 170 APIs finalized.

**• Oman Program:** Detailed design for the Payments Platform is complete, local payment gateway vendors are selected, and API discussions for Flexcube interaction are ongoing.

These achievements represent a commitment to innovation and efficiency across our organization.

**Stay tuned for more exciting updates next month!**

## **March in Numbers : Transaction**

### **Volumes**

1.3 M

SWIFT

1.25

M

ICV

0.62

M

NPSS

0.07

M

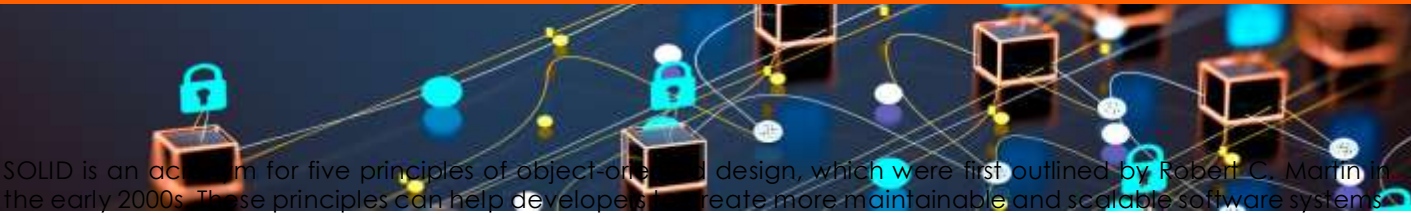
Cheques

7.54

M

Recons

# UNLOCKING THE POWER OF SOLID DESIGN: MASTERING CLEAN CODE FOR LONG-TERM MAINTAINABILITY



SOLID is an acronym for five principles of object-oriented design, which were first outlined by Robert C. Martin in the early 2000s. These principles can help developers create more maintainable and scalable software systems.

Let's have a quick overview of the 5 SOLID principles

## Single Responsibility Principle

This principle states that a class or module should have only one responsibility or reason to change. This means that the class should have a narrowly defined scope and should not take on too many responsibilities.

## Interface Segregation Principle

This principle states that the interfaces of a class should be designed in such a way that each interface serves a specific purpose and is used by a specific client which helps to reduce the amount of unused code in a program, making it more efficient and easier to maintain.

## Open/Closed Principle

This principle states that a class should be open for extension but closed for modification. This means that the class should be designed in such a way that new behavior can be added through inheritance or composition, without changing the existing code.

## Dependency Inversion Principle

This principle states that high-level modules should not depend on low-level modules, but rather both should depend on abstractions. This principle helps to improve the flexibility and maintainability of a program, by allowing different parts of the program to evolve independently.

## Liskov Substitution Principle

This principle states that objects in a program should be replaceable with instances of their subtypes without altering the correctness of the program.

In conclusion, the SOLID principles are a set of guidelines that can help developers create more maintainable, extendable, and understandable software by focusing on creating classes and modules that are single-purpose, well-encapsulated, and easy to modify.

By adhering to the SOLID principles, developers can save time and effort in the long run by writing code that is easier to maintain and adapt over time.

# BUILDING A FORTRESS: RESILIENCE THROUGH MONITORING

This month, we're focusing on the critical pillars of IT success – stability and resilience! By proactively monitoring our systems, we can identify vulnerabilities before they become problems, keeping our operations running smoothly.

## Strengthening Our Defenses:

To achieve this, we've implemented several key initiatives:

**Daily Stability Calls:** Launched in early March, these daily calls keep us on top of system health and vital metrics. This collaborative approach fosters accountability, boosts awareness, and allows for early intervention when needed.

## Early Warning System in Action:

The positive impacts are already evident. These calls have:

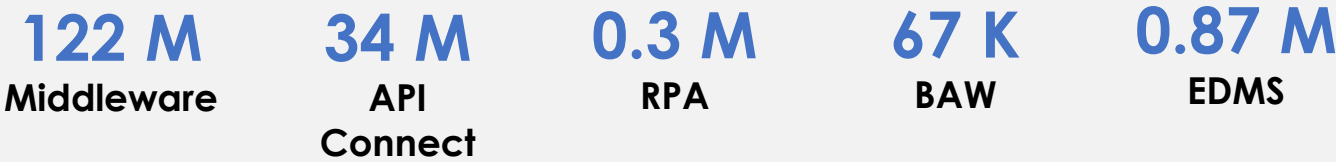
### • Identified Critical Issues:

Our proactive approach led to the early detection of hardware components nearing obsolescence. By catching these potential issues early, we can plan and implement solutions before they disrupt operations.

### • Enhanced System Awareness:

Daily analysis of patterns and trends has heightened our understanding of system behavior, allowing for faster response times to any fluctuations. By prioritizing resilience and monitoring, we're building a robust foundation for the future. This proactive approach ensures our systems are strong, reliable, and ready to handle any challenge.

## March in Numbers : Transaction Volumes





# MARCH INNOVATION: ELK TAKES MIDDLEWARE MONITORING TO THE NEXT LEVEL



This month, we're shining a light on a game-changer for our Payments and Digital Services team: the **ELK Dashboard Implementation**.

## Challenge: Manual Workload and Limited Insights

Previously, our team relied on file-based logs for monitoring Middleware, a critical system for all integrations. While effective, this approach was time-consuming, requiring hours of daily log analysis to understand volume, performance, failures, and other system behaviors. We explored alternative solutions like Splunk and App-Dynamics, but integrating our vast data proved difficult.

## Solution: Unleashing the Power of ELK

Enter ELK (Elasticsearch, Logstash, and Kibana). This powerful open-source suite transformed our monitoring capabilities. We seamlessly connected Middleware with ELK using an Rsyslog shipper agent on our AIX servers. This innovative approach, developed to overcome compatibility challenges, efficiently transfers logs to ELK, enabling:

- **Real-time Dashboards:** Gain instant insights into system behavior through interactive dashboards powered by Elasticsearch.
- **Reduced Manual Work:** Enjoy a 70% reduction in manual log analysis, freeing up time for more strategic tasks.
- **Proactive Alerting:** Identify and address potential issues before they impact operations.

## Overcoming Obstacles: AIX Compatibility Solved

Running Middleware on AIX presented a hurdle – standard shipper agents like Filebeat weren't compatible. Our team tackled this challenge head-on, and through diligent exploration, devised a solution using the Rsyslog agent. This innovative approach ensures seamless log integration regardless of the platform.

## Benefits Abound: Visibility and Efficiency

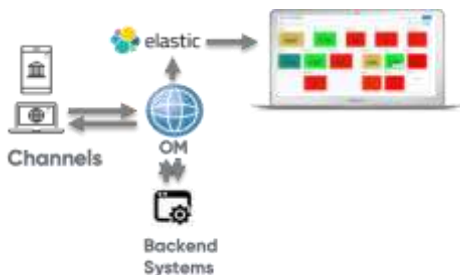
The ELK implementation has already delivered significant benefits:

- **30+ Channels and Backend Systems:** Monitor interactions between Middleware and various systems with ease.
- **Critical Performance Fix:** Utilizing dashboard analytics, the team identified and resolved critical performance issues.
- **Expanded Monitoring:** We're actively implementing monitoring dashboards for Payment's data, including cross-border payment systems like SWIFT.

ELK represents a leap forward in Middleware monitoring, providing real-time insights, improved efficiency, and a proactive approach to system health.

**This is just the beginning – stay tuned for further advancements in our monitoring capabilities**

Classification: Public



# TEAM CONNECTS



## APRIL'S TECH TUNE-UP: A LOOK AHEAD

Get ready for an exciting April with these key implementations on the horizon:

- **ISO20022 HK Interbank Clearing Ltd. (ICL):** Enhanced message standardization for smoother transactions.
- **4 Digital Worker Migrations:** Power Automate streamlines Service Management tasks.
- **National Payments Systems Strategy (NPSS):**
  - IPP Enablement for PSPs (E-Commerce): Simplifies online payments.
  - Credit Card Integration: Streamlines credit card transactions.
  - Matrix IPP Integration: Enhances overall NPSS functionality.
- **Fusion Phase II - Payment Screening Automation:** Improved efficiency for transactions related to sanctioned countries.
- **Flex India Trade SFMS Integration:** Boosts financial communication and transaction efficiency.
- **Dynamic Work Item Allocation for Mortgage Loans:** Streamlined loan processing.
- **BAW Upgrade (20.x to 23.0.1):** Enhanced Business Activity Workspace experience.
- **IAM Side Reporting Integration:** Improved reporting capabilities for Identity and Access Management.
- **IAM SailPoint Upgrade:** Upgraded SailPoint for robust identity management.

Stay tuned next month for a closer look at these exciting developments!

Classification: Public



## STAR PERFORMERS MAR'24



### Jayakrishnan C

Ace Performer  
Nominee



Arpana Patel



Ajith G



Naveen R



Dande S



Sama Reddy