Legacy Modernization with LTl’s M2M (Monolithic to Microservices)
Digital technologies are disrupting the way business functions. If your systems are built on technologies, which are making it difficult to effectively expose those services, features, functionalities to other apps and systems, it’ll continue to be an obstacle in the business growth strategy. “Legacy Modernization” is need of the hour to not only stay relevant, but to surge ahead of the competition leveraging digital, cloud-native technologies.

Legacy monolithic applications are often difficult for feature updates and expensive to scale due to the sheer nature of the architecture. Cloud-native, Microservices-based, API-led scalable applications pave the way to transform into modern, resilient, and customer-centric business to outpace the competition. Legacy Modernization helps deliver superior customer experience while bringing greater agility, flexibility, and scalability in business operations.

Are you challenged by?

1. Huge maintenance overheads of legacy monoliths
2. Applications constraint to scale up/down as per demand
3. Delays in rolling out new product and services
4. Applications inability to leverage API economy and partner ecosystem
5. ROI justification despite being convinced about modernization need
Having worked with large Fortune 500 enterprises, we understand the challenges and dilemma faced by our clients in undertaking legacy modernization initiative. LTI’s M2M solution brings together agile processes, innovative tools and accelerators to help clients in their modernization journey, with minimal risk in multi-cloud environment.

M2M solution leverages automation tools, frameworks, and accelerators in every stage of modernization journey. While M2M uses the strength of our proven partner ecosystem for discovery, DevOps, and scalable design, it is powered by two of our opensource-based frameworks - **MBPF (Microservices-Based Process Flow Framework)** and **MBIF (Microservices-Based Integration Framework)**.

**Microservices-Based Process Flow Framework**

Our MBPF framework is an innovative, lightweight solution which helps in microservice orchestration to define and monitor business process. Unlike traditional BPM tools, MBPF is high throughout and low latency framework. This framework enables a citizen developer to define the business process workflow, while the MBPF framework takes care of linking independent microservices with workflow. For more detail, please refer MBPF-Datasheet.

**Microservices-Based Integration Framework**

Our MBIF framework enables faster development of integrations using microservices and provides all benefits of the Microservices architecture. While MBPF provides orchestration of microservices for business processes, MBIF enables microservices-based integrations. This comes with out of the box support for common services like message persistence, message verification, business rules validation, message transformation, transmission, etc. For more detail, please refer MBIF-Datasheet.
Below is the overview of M2M solution

<table>
<thead>
<tr>
<th>Approach</th>
<th>Discover</th>
<th>Design</th>
<th>Implement</th>
<th>Automate</th>
<th>Scale</th>
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<tbody>
<tr>
<td></td>
<td>• Reverse engineering for bottom up analysis</td>
<td>• API-first approach</td>
<td>• Microservices-based Integration Framework for common reusable services to build MVP</td>
<td>• Leverage platform-specific DevOps tools like Azure DevOps</td>
<td>• Configure platform scalability policies (Enable autoscaling if required)</td>
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<td>• Business capability and Domain object analysis</td>
<td>• Design with Microservices-based architectural principal</td>
<td>• Platform-specific APIM policy generator for citizen integrators</td>
<td>• End-to-end automation of build and deployment processes</td>
<td>• Add new features on top of MVP</td>
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<td>Outcome</td>
<td>• Prioritized business capability list</td>
<td>• API Specification</td>
<td>• Working product with MVP feature</td>
<td>• CI/CD pipeline Automation test script</td>
<td>• New features and business capabilities</td>
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<td></td>
<td></td>
<td>• Microservices-based architecture</td>
<td>• Engineering artefacts related to MVP product</td>
<td>• Automation build and deploy script</td>
<td>• On-demand scaling architecture</td>
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<td>Enabler</td>
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M2M solution additionally leverages following components for automation:

**Enterprise Analyzer**
Used for reverse engineering and extracting insight about the legacy system.

**DevOps**
M2M leverages opensource tool stack for CI/CD and automation of entire build and deployment pipeline.

**Container (k8s)**
M2M solution is built on Kubernetes (k8s) as container orchestration engine, which makes it compatible with multi-cloud scenario.

**Open API**
M2M solution leverages the latest version of Open API specification (3.0.3).
Why LTI?

LTI is at the forefront of innovations across Legacy Modernization spectrum, by being a true transformation partner to our clients. LTI’s Digital Integration (DI) practice has unmatched experience in transforming business operations of global clients, with a gamut of our modernization offerings that help better align IT investments with business objectives. We possess E2E capability of all required solution components that uniquely positions us as trusted partner for this legacy modernization.

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Channels
UI/UX

Mobile Apps
Web Apps
Partner Apps

API Gateway
Service Mesh
Event/PubSub
BPM
DevOps (CI/CD)
Integration
Config Mgmt
Service discovery

Auxiliary Services
Security (IAM, SSO)
APIM
Analytics/Monetization
Distributed tracing
Distributed tracing
Caching
Autoscaling

Openshift
AWS
Azure
GCP
Kubernetes

Backends (Database, ERP, 3rd Party, SaaS)
Benefits

- Improved speed of migration and modernization by 40%
- Reduced cost of application migration and modernization by 30%
- Reduced cost of ongoing maintenance by 25%
- Reduced risk of future platform incompatibility
- Improved ability to create innovation
- Reduced risk of disruption and availability of applications

LTI (NSE: LTI) is a global technology consulting and digital solutions Company helping more than 400 clients succeed in a converging world. With operations in 32 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI’s Mosaic™ platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivaled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 32,000 LTItes enable our clients to improve the effectiveness of their business and technology operations and deliver value to their customers, employees and shareholders. Follow us at @LTI_Global

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