Typical Pain points addressed by TACTiX

Labor Intensive

Necessity of human interference is mandatory for going through tickets/incidents to categorize/schedule for resolution. This leads to higher cycle times across the operations journey that affects customer satisfaction.

Highly Repetitive Events

Operations are typically subject to a high level of incidents repetitions; however resolutions may vary from case to case and many times SOP do not carry enough/detailed information for straight application for subsequent incidents.

High Cost of Operations

Amidst continuous budget cuts and pressure to improve performance, keeping service processes effective and under cost control is a challenge. The labor intensive nature of operations also results in higher cost. Pressure to continuously improve performance also results in human resource issues.

Prone to human error

Due to the nature of repetition coupled with high volumes, business operations are usually prove to human error leading to increased resolution time and other efficiency loss.
TACTiX is one of Tech Mahindra’s product offerings in automation space, it is a framework which works hand in hand with automation processes. Processes requiring manual intervention are candidates for automation.

**Automation**

TACTiX is an Artificial Intelligence based framework for automating IT & Business Operations by providing actionable intelligence.

**Intelligent**

Static automation involves one to one mapping between an issue and its resolution. TACTiX is more intelligent and can propose resolution through dynamic decision making.

**Self-learning**

TACTiX can analyze available Data and learn by itself. It applies natural language processing and machine learning algorithms to identify future problems and recommend a resolution.

**Open Source**

TACTiX framework uses open source tools whereas the implementation can be customized as per client requirements.
Key Features

**Non-intrusive**
Intended to work with existing systems

**Continuous Improvement**
Uses multiple feedback and knowledge systems to continuously evolve and improve

**NLP & Machine Learning**
Uses Natural Language Processing (NLP) and text analytics capabilities to take better and better decisions over time

**Technology Agnostic**
Pluggable framework to work with existing tools and platforms

**Easy Integration & Quick Set up**
Will use existing ecosystem to bring in more efficiencies; The AI engine can be trained quickly with minimum efforts

**Current State**
Features
- Classification & Auto Categorization
- Recommendation & Extraction
- Automation Triggers/Orchestrator integration
- JMS queue based integration points
- Multi-tenancy/app support

In Production for Tier 1 Telco operator in Europe
### How does TACTiX work?

**Reactive & Proactive Operations Management**

| Incident Origin | 1. Incident originates and gets logged in the Ticketing system  
<table>
<thead>
<tr>
<th></th>
<th>2. Incident data is in turn fed into the TACTiX system simultaneously</th>
</tr>
</thead>
</table>

| Categorization | TACTiX triggers its AI component and performs the following:  
|                | 1. Auto categorization of incidents based on NLP algorithms and machine learning  
|                | 2. Crawls through all knowledge repositories available (Standard operating procedures (SOP), Social Intelligence, Operations Guide, Transaction history, Manuals, etc.)  
<table>
<thead>
<tr>
<th></th>
<th>3. Arrives at exact resolution match or recommendation based on learning history and system feedbacks in the past</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>1. Support personnel is presented with top matching recommendation and automation possibility along with related categories, root cause, SOP</th>
</tr>
</thead>
</table>

| Resolution | 1. Post resolution, support personnel can schedule automated resolutions through the automation orchestrator for repeating/similar incidents in the future along with defining the threshold for automation trigger depending on incident criticality  
|            | 2. In case of automated resolution pathways, the system will seamlessly integrate with other Automation Orchestration tools to resolve incidents from log to status capture and feedback  
|            | 3. All these steps are executed through a unified user interface |
|            |-----------------------------------------------------------------------|

<table>
<thead>
<tr>
<th>Feedback capture</th>
<th>1. By integrating TACTiX with Operational Analytics engines, automations can also be trigged proactively ahead of incident occurrences based on trigger parameters and predictive analytics</th>
</tr>
</thead>
</table>

| Automation      | 1. Incident originates and gets logged in the Ticketing system  
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| Proactive Incident Mgmt. | 1. Incident originates and gets logged in the Ticketing system  
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Process Automation using TACTiX

ITSM Tools

Inbound Queue
Outbound Queue

TACTiX Engine

Classification
Recommendation
Resolution
Automation
Feedback

Learning Model

Inbound Queue
Outbound Queue

Service Automation

Password Reset WF
Data issue in BI
iDOC monitoring in SAP
# TACTiX Implementation Process

## Phase-1

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Setup</td>
</tr>
<tr>
<td>Historic Ticket Data Capture for Learning Model Creation</td>
</tr>
<tr>
<td>Data Analysis and Transformation to match with TACTiX recommended data format</td>
</tr>
<tr>
<td>Import data to TACTiX expert console and data mapping</td>
</tr>
<tr>
<td>Learning Model generation</td>
</tr>
<tr>
<td>Test Learning Model with data set to get confidence level of TACTiX recommendations</td>
</tr>
<tr>
<td>Capture variation of datasets from account and load to TACTiX to reach higher confidence level</td>
</tr>
<tr>
<td>Sign-off the highest confident Learning Model for steady state operation</td>
</tr>
</tbody>
</table>

## Phase-2

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deploy TACTiX core engine at account level</td>
</tr>
<tr>
<td>Import the Learning Model created with TACTiX expert console</td>
</tr>
<tr>
<td>Integrate TACTiX with customer incident management system and automation orchestrator</td>
</tr>
<tr>
<td>Real time ticket classification with TACTiX Learning Model</td>
</tr>
<tr>
<td>Recommendation of Resolution</td>
</tr>
<tr>
<td>Trigger automation with recommendation code with the help of TACTiX Learning Model</td>
</tr>
<tr>
<td>Update Incident management system with execution status</td>
</tr>
<tr>
<td>Capture feedback and continuous system learning</td>
</tr>
</tbody>
</table>
Potential Benefits

- **Improved Operation Metrics and KPIs** - Reduced Mean time for overall Diagnosis and Repair
- **Increased Customer Satisfaction** - Reduced SLA violations and reduced occurrence of prevalent failure types
- **Lower operations cost** - AI Integration with Service fulfillment and Ticketing systems facilitates both reactive and proactive operations management; Over time, the evolved AI engine can also be used to replace traditional SOP tools
- **Higher utilization** - Existing resources can be freed up from repetitive tasks for higher value added activities
- **Improved agility, speed and ability** – Businesses can deal with changing customer requirements and market dynamics quickly without suffering operational set backs
The customer’s service operations center was facing major problems of increasing call resolution times and high dependency on human interference. The cost of operations for running the center was also escalating to new figures everyday.

<table>
<thead>
<tr>
<th>Month</th>
<th># of Requests processed</th>
<th># of Request successfully automated</th>
<th>% of Automation enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>298</td>
<td>220</td>
<td>73%</td>
</tr>
<tr>
<td>April</td>
<td>326</td>
<td>267</td>
<td>81%</td>
</tr>
<tr>
<td>May</td>
<td>315</td>
<td>268</td>
<td>85%</td>
</tr>
</tbody>
</table>

**Improved Operation Metrics and KPIs**

- Average 80% of the requests resolution were **automated**
- MTTR improved from **hours to minute**

**Increased Customer Satisfaction**

- Most of the **erroneous** resolutions **eliminated**

**Lower operations cost - Higher utilization**

- Training **effort** reduced by 50%

**Improved agility, speed and ability**

- Lower dependency on individuals
TACTiX expert console is the environment used for phase-1 activities/model generation

- Category Management
- Corpus Management
- Categorization Model
- SOP Management
TACTiX Core engine is the target environment for live implementation and real time processing.

- Import Test Tickets
- Classified Requests
- Unclassified requests

Welcome To Tactix

TACTiX is an AI service layer which is Platform agnostic and provides Actionable Intelligence with the following benefits:

- Reduce adverse impact of prevalent failure types by classifying incident failure types
- Reduce Mean time for Diagnosis and Repair
- Reduce SLA violations
- AI Integration with Service fulfillment, Production Support or other Platforms
- Can be integrated with your existing systems
Thank You

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