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Application Maintenance and Support Service

Created By: Shinetech Software Inc.

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Should you have any further questions about the guide or our Support and Maintenance service, please feel free to reach out.

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Who is Shinetech?

- Shinetech has been in the dedicated software development business since 2001, and we are committed to long-term cooperation with customers looking for premium software development services.

- We abide by Agile principles in our work, and we believe it is the most optimal way of developing custom software. Our approach has helped us complete more than 1500 projects, collaborate with clients from over 25 countries, and consistently deliver the best-in-class software solutions.

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Maintenance and Support Service Summary

Software support and maintenance is an essential part of an app's or a system's life span. It is a practice of consistently upgrading the system against user needs to keep it relevant, stable, secure, functional, and contemporary.

If you're just coming in contact with maintenance and support service, this guide should help you thoroughly understand it. Or, if you already implemented some kind of support and maintenance process, you can check out how we do it and have something similar.

Since support and maintenance can get complex fast, we wanted to provide a guide to discuss what it is, why it's useful for organizations, how you can evaluate good practices, and what the experience looks like. The purpose of this guide is to illustrate software support and maintenance service, and to help you determine if you should implement these processes within your organization.

However, please keep in mind that our support and maintenance service is highly customizable. That is the most valuable aspect of our service – adjusting the processes to fit the client's business needs and objectives. Although the practices we cover here are standard practices, we don't follow the 'one size fits all' idea but customize each segment to respond perfectly to customer expectations.

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Application Maintenance and Support Service

At the very beginning, we arrange meetings to discuss business needs and objectives, learn what the software's purpose is, and strive to understand how to apply software maintenance and support principles and practices best. Since our service isn't the kind of 'one size fits all', it's essential to assess support requirements in order to provide those parts of the service the client will benefit from the most. This way, we cut costs, work hours, and relieve the teams of redundant work that is irrelevant in the long term.

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Application Maintenance and Support Service – We support

Custom Applications

Custom Apps built for corporate usage

Software Products

SaaS Apps built to be put on the market

Application Enhancement and Modernization

Help Desk

Production Support

Maintenance

Enhancement

Increase Business Values

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The Scope of Our Maintenance and Support Services

We focus on four main areas when we define the scope of our support and maintenance service. Each of these areas addresses the gaps that begin to form with software use.

- Corrective – correcting reported bugs in the code
- Preventive – combined with system monitoring, we anticipate potential defects and introduce fixes ahead of time
- Perfective – implementing new features through continuous iteration
- Adaptive – adjusting the source code to respond to changes in operations, hardware, legal practices, or business policies

The scope mainly depends on the client's business needs, objectives, and priorities. Usually, implementing all procedures is the best way forward, but there are cases where apps and systems don't need constant updates or performance improvements. Therefore, defining the scope is the first step to implementing maintenance and support services correctly.

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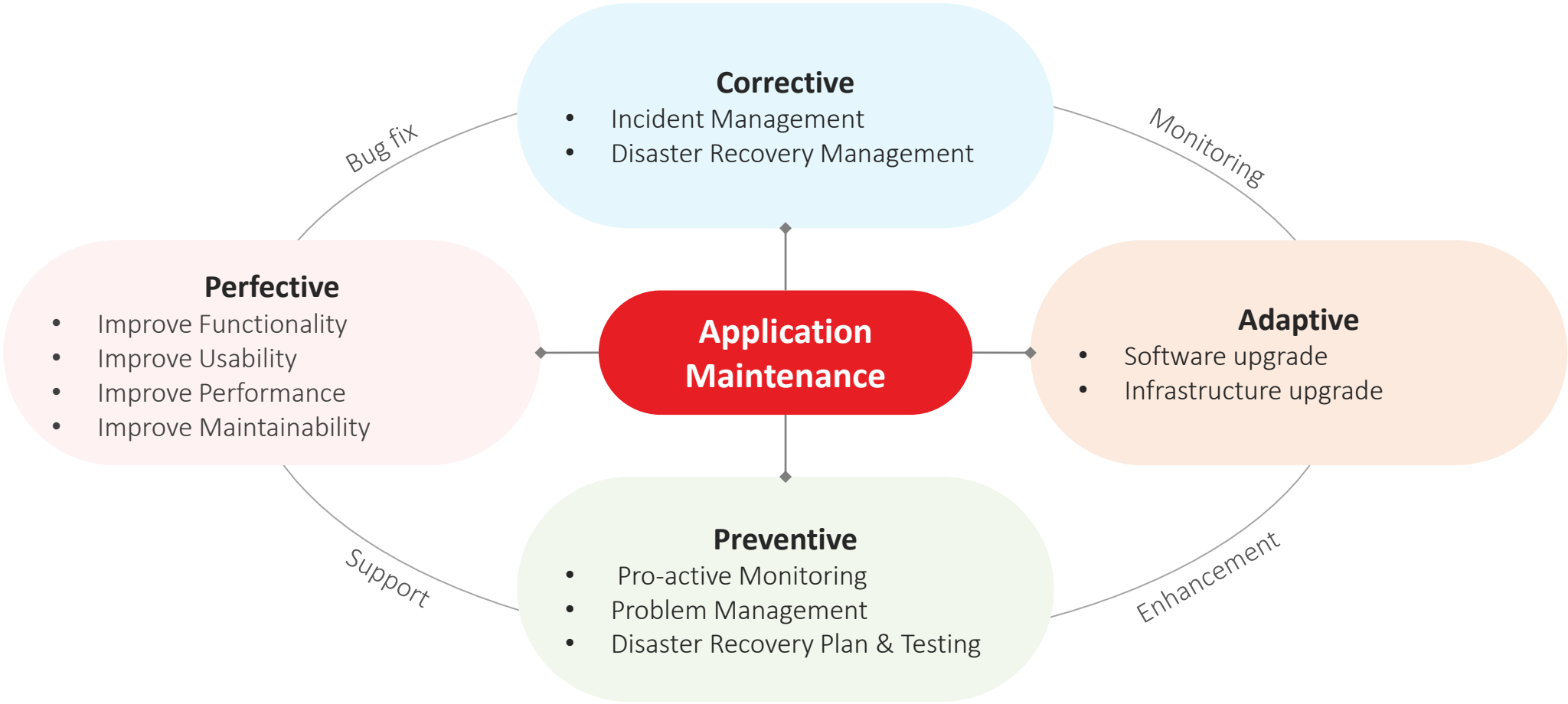
The Scope of Our Maintenance and Support Services



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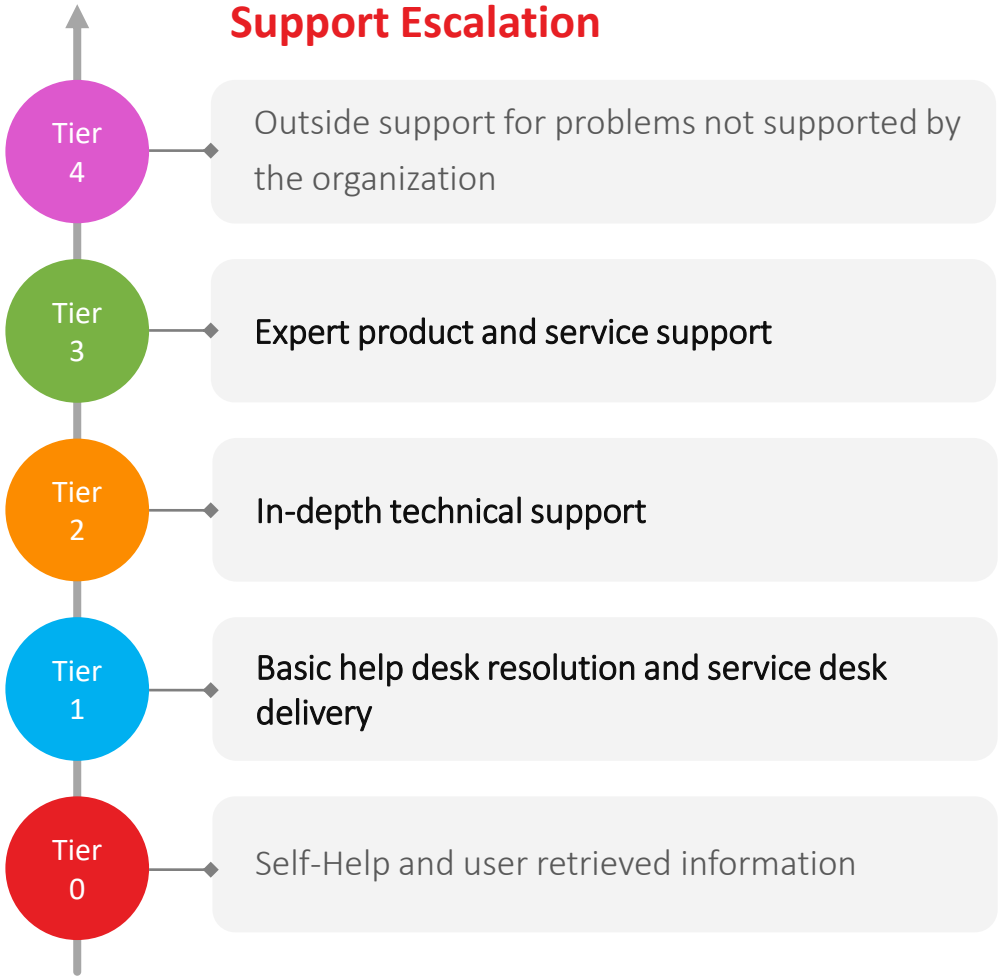
Our Support Teams & Levels

IT support level tiers have a crucial role in business operations. In order to collaborate the resources efficiently, these tiers should be well-defined. Each person working with support and maintenance should understand how they work and how to manage incident escalation properly.

We primarily focus on tiers 2 and 3, and through daily tasks, we create documentation that can be used in tiers 1 and 0. We can also work with outside support, as mentioned in tier 4, which includes contacting software publishers to solve issues out of our reach. Customizing the support tiers to best-fit a client's business goals, based on the requirements and aligned with the industry standards, is essential for the support and maintenance service to perform well.



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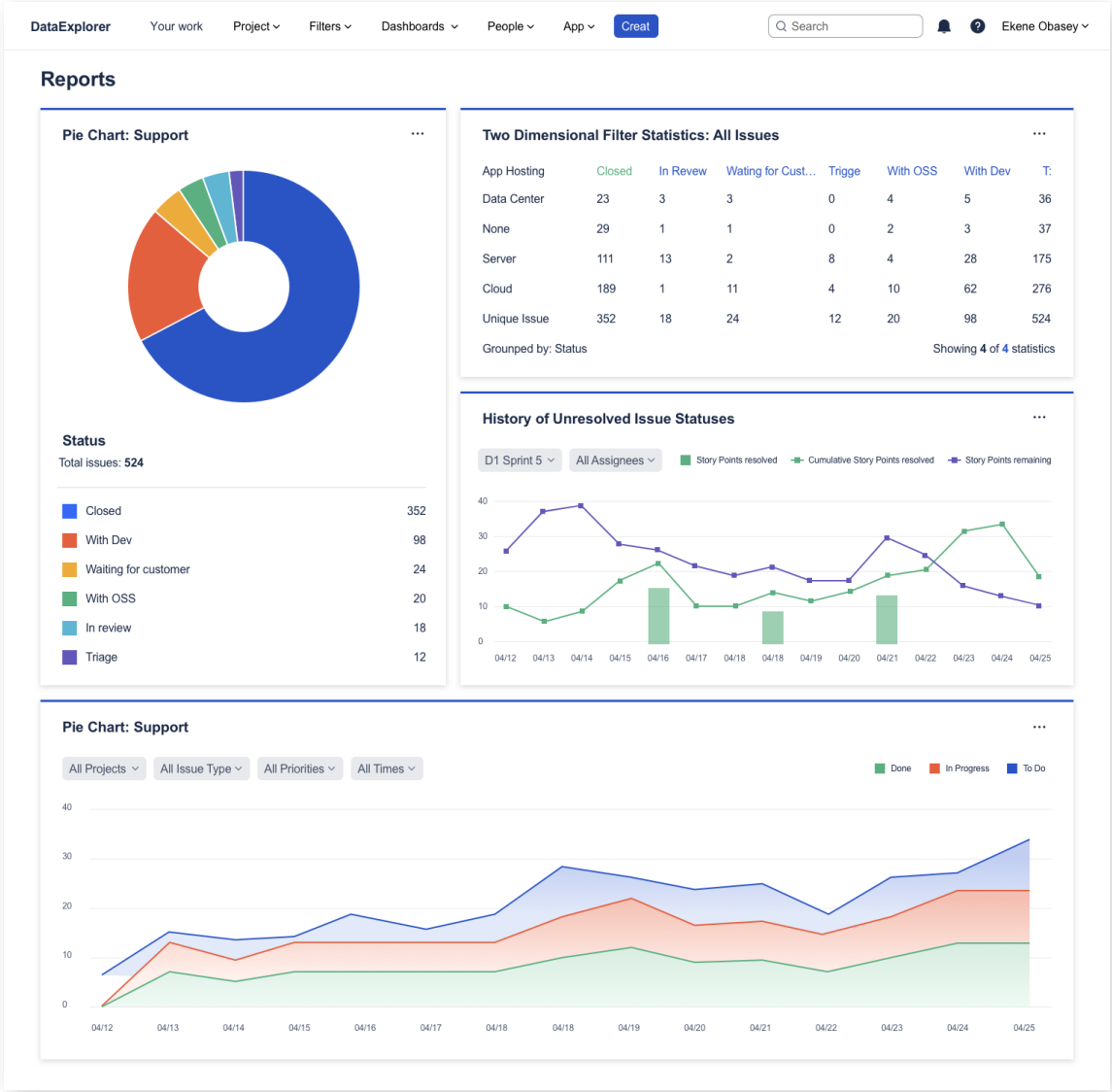
KPI-based Support Processes

Agreeing on key performance indicators is also important to think about when implementing support and maintenance services. When we track KPIs, we always generate reports so that everyone involved knows the software's status and can follow the efficiency of the support service. Some of the points we usually track are:

- Average resolution time
- Average initial response time
- Incident backlog
- SLA adherence rate
- Number of repeated incidents
- Incident Reopen rates
- Percentage of incidents by severity
- Cost per incident
- Incident Aging
- Customer satisfaction rating



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Monitoring

A monitoring system is vital to support work; it enables us to reveal risks and issues proactively. The support team should be able to discover the problems before users reporting them. It helps to increase productivity and decrease the expenses due to system failure. When we work with our clients, we almost exclusively implement a 24/7 monitoring service. It helps us to detect incidents before they occur, ensures minimal downtime, and maximizes productivity. We monitor application and overall system performance to ensure maximum uptime.

Our Services

- Business level monitoring
- Application infrastructure monitoring and management(CPU, Memory, HDD, Network and etc.) based on on-premise and cloud platforms.
- Application performance monitoring and management
- Application security monitoring and management
- Compliance monitoring and management
- Network monitoring and management
- Application error log, services and third party service monitoring

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Incident Management - Customize to Your Specific Needs

Our end-to-end and customized incident management services aim to restore the customers' interrupted services as quickly as possible through industry-standard processes.

Having an incident management practice implemented guarantees that any services that rely on the software return to their stable state as soon as possible. The business doesn't suffer from any negative impact because of its downtime. This is an 'all hands on deck' type of situation where we usually come up with a workaround while identifying the root cause, analyzing it, and resolving it. We also log the problem and our solutions, so should a similar issue occur again, the whole team will fix it quickly and efficiently.

The tables below provide a standard framework for incident management based on impact and urgency.

Incidents		Impact		
Urgency		High	Medium	Low
	High	1	2	3
	Medium	2	3	4
	Low	3	4	5

Priority Code	Description	Status Update Time	Target Resolution Time
1	Critical	30 Minutes	1 Hours
2	High	30 Minutes	8 Hours
3	Medium	2 Hours	24 Hours
4	Low	1 Day	48 Hours
5	Planning	Planned	Planned

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Problem Management

Problem management heavily relies on incident management, but it's an entirely different practice.
While incident management mainly revolves around finding out what caused the incident, problem management helps understand how the incident was caused and what conditions happened to create an incident. For example, rolling back a software feature might fix a compatibility incident but won't fix any underlying problem, nor will it reveal the underlying conditions that caused it.
That's why we usually intertwine incident management with problem management, as they complement each other and provide a much clearer picture of what is going on within software.
Here's what we usually pay attention to when performing tasks regarding problem management.

Identify issues and eliminate possible re-occurrence

- Record the symptoms and analyze the impact of problems to mitigate risk
- Provide workarounds to ensure the smooth running of the business
- Identify future incidents and minimize severity
- Proactively identify and fix issues before users experience any issues

Reduce incident volumes and service desk stress

- Make announcements on problems and avoid duplication of incident tickets.
- Maintain known error records and enable users to search for them in the self-service portal
- Publish effective knowledge base articles on resolved problems for future reference

Integrate other processes

- Work in tandem with other processes like incident, change, and asset management to ensure a high availability of your application
- Log problems from incidents and link similar incidents to the problem.

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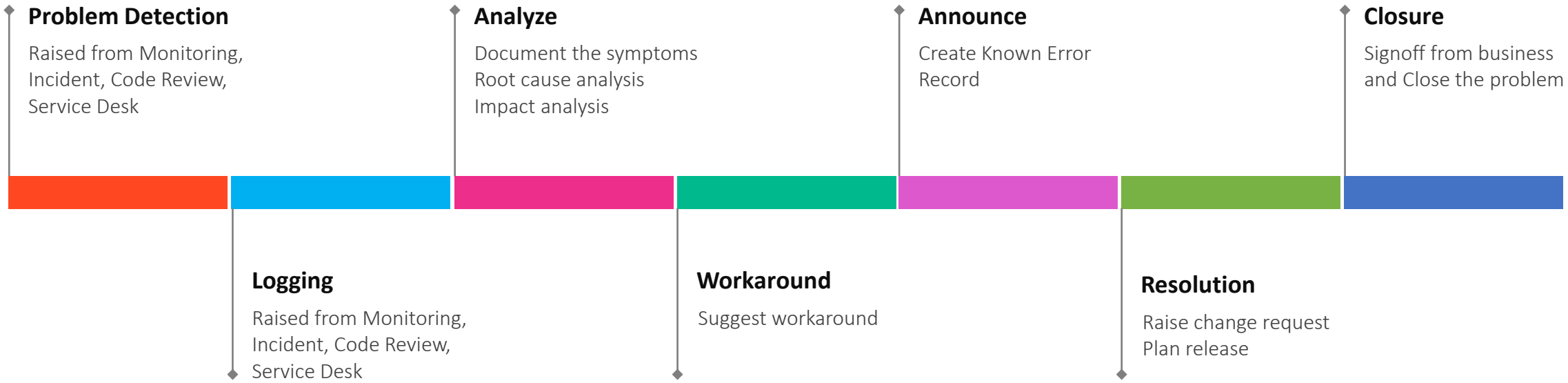
Problem Management Process Flow



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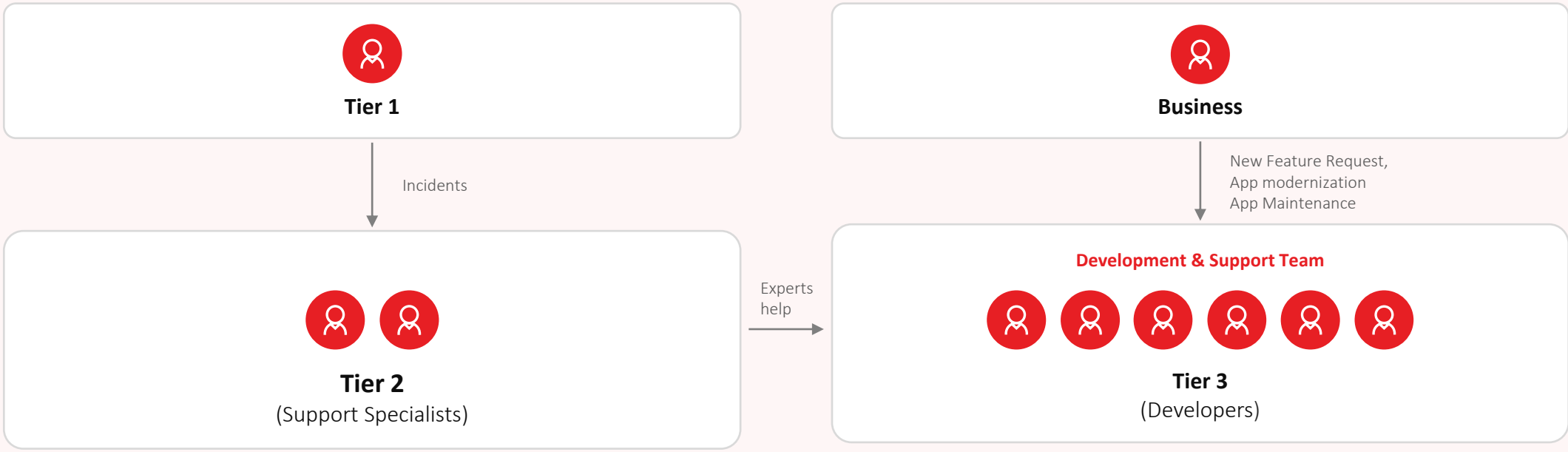
Development and Support Models

Once we agree with the client on the procedures and the requirements, we rally the team to fit their business objectives best. We engage our business analysts to propose the team structure and processes. Below are few models we propose based on the size and volume of support activities. We can also expand or reduce the team should such a need arise.

Model 1 : This model is perfect for larger applications with a high volume of incidents. This structure helps to address most incidents faster and quickly improves customer satisfaction.



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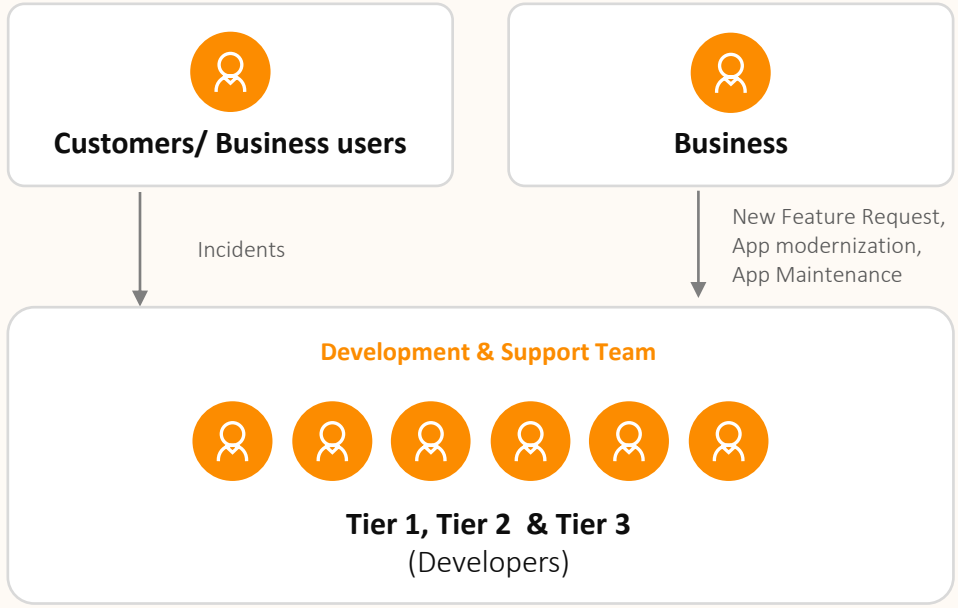
Development and Support Models

Model 2: This model is for medium and small applications which have fewer incidents. This team structure cost effective as there is no separate Tier 2 team.

Model 3: This model is an excellent fit for smaller applications having very few incidents. This kind of structure is the most cost effective one since the all development and support activities are handled by one team



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Technologies We use/You Can Use

ITSM System

Monitoring Tool

Infrastructure

ITSM System

Frontend and Backend Technologies

Databases

Communication

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With 500+ collaborative agile developers in 21 offices over 6 countries,
you can reach a consistent service partner by working with an office near you.

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