

# Customer Support Service Using Dynamics 365

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## ABSTRACT

It is a ticketing system management tool that processes and catalogs customer service requests. Tickets, also known as cases or issues, need to be properly stored alongside relevant user information. The ticketing system is user-friendly for customer service representative managers and administrators. A ticketing tool will be created with the help of using Customer Service Module in the Dynamics 365 where it creates and route cases, it describes knowledge management capabilities. It also handles case management in Dynamics 365 Customer Service.

## 1. INTRODUCTION

It is an Adaptive and innovative method with a hyper connected business—it gives everyone the insights and freedom to thrive by connecting your data, processes, and teams with intelligent business applications. It Exceeds customer expectations. Dynamics 365 revolutionizes CRM (Customer Relationship Management) and ERP (Enterprise Resource Planning) by applying intelligence to all forms of data. It enables organizations to evolve from reactive business decisions to proactive insights that allow your employees to accelerate business results. It delivers positive customer experiences faster. Optimize resources and help technicians be more

efficient. Reduce operational costs. Bringing the business together as a cohesive unit by connecting people, processes, and data across many applications, including Microsoft Dynamics 365, Office 365, LinkedIn, and Azure. Making smarter decisions with built-in AI, analytics, and guided action suggestions. AI-powered classification and routing automatically triage issues to the available agent best equipped to handle the issue. Smart Views can be customized to segment issues based on tags and agent assignment and provides prioritized support to urgent issues and high-value customers.

## 2. LITERATURE SURVEY

The customer's complaints are often not documented because the customer services record all complaint manually one by one and the amount of complaint increase day by day. The specific purposes of this study are the Design of an online helpdesk system that can be used easily both from the representatives and customers It is Effective and efficient in solving problems requested by the customer.

The utilization of helpdesk system can reduce task, problem, and improve the customer satisfaction rather than waiting for the customer service to solve the problem. The benefit of this online helpdesk system for this service company will reduce complexity of customer complaints and needs using one system, and

for the impact, it will increase customer satisfaction [3].

The popularity of cloud computing applications, authentication and security issues of cloud computing have become important research topics. Considering the benefits of implementing a service system in the cloud environment and the convenience of the integration of different ticket-sale systems, we propose a novel and secure diverse ticket-sale system (DTS) in hybrid cloud using smart cards. This is a semi-electronic system that integrates and sells many kinds of physical service tickets, such as concert tickets, hotel reservations, exhibition tickets and train tickets.

The DTS allows service providers to delegate the sale of service tickets to the integrated server and customers to purchase service tickets from the cloud storefront of the integrated server. On the other hand, all computations in the customer-side are performed by the customer's smart card. It is convenient to customers such that they do not need to learn complicated techniques or remember unfriendly parameters. Since the DTS is performed on the Internet and with smart cards, customers can browse and purchase service tickets anywhere with network access without being confined by a physical storefront [4].

Service Oriented Architecture (SOA) and Software Product Line (SPL) have individually proven to be Software Engineering concepts, which are creating values for developing software systems. While SOA is being used for developing applications from an orchestration of web services, SPL has ability to prepare core sets of assets and manage with variable components. The combination of SOA and SPL has highlighted the term of Service Oriented Product Line (SOPL), which is setting up the application to manage common parts and reuse them without developing from scratch.

It helps to manage service component bundles dynamically according to identified commonalities

and variabilities. In this paper, we present our implementation approach of SOPL and manage Service Level Agreements (SLAs) in such environments by monitoring Quality of Service (QoS) attributes in bundles of web service components. It has become advantageous architecture for productivity and flexible reusability. Though current research objective has already been reached at this stage, in future we are going to enhance our approach with better user experience; this will support the developers who are representing service provision end and willing to manage service components accurately. Then they can easily identify the deviation results of pre-defined and actual quality metrics in service components [1].

Efficient analysis of customers data, leads enterprise with new way of approach to develop their business process to meet customer requirements. In recent advanced technology, it is possible to analyze the customer's data and converts them into useful form for business. CRM is a business tool widely used by many firms to improve their business process in order to become successful. CRM refers to strategies, practices and tool that is used to manage and analyze customer's data and interactions, with the aim of improving relationship with customers.

CRM is expanded as customer relationship management, which helps to analyze, manage customer history with an enterprise, and use the knowledge to increase the business. CRM do not limit to marketing department. It involves analyse of data collected from customer through their interactions. CRM manage relationship between customer and enterprise. The relationship involves bidirectional and continuous communication. The relationship involves, share, attract, convert, retain and grow. Further use of big data technologies in CRM can be addressed and use of different data mining techniques can be applied in customer data [5].

An interactive and analytical platform become an urgent need for them to conduct quick investigations on

what if scenarios. In this paper, we introduce a visual tool with the user-friendly interface for ticket monitoring and management, aiming to help administrators get a clear overview of issues occurring in IT service and detect possible root causes for problems with advanced algorithms. The growing complexity of IT service environments unexpected problems happen daily and, in consequence, huge volumes of incident tickets are raised which become heavy workloads for administrators in IT service maintenance. It aims to help administrators get a clear overview of issues occurring in IT service and detect possible root causes for problems with advanced algorithms. Our visual tool provides a set of visualization mechanisms, with the aid of unsupervised learning techniques, trying to identify the priority of resolving a ticket and thus improving the efficiency in IT support and root cause analysis. The visual tool consists of three main components in which data visualization and clustering techniques are leveraged and integrated to facilitate the system administration in IT service management. The information accumulated in the ticket is used by the System Administrators (sysadmin) for problem determination and resolution. The efficiency of these transient resources is critical for the provisioning of the services. To more efficiently resolve issues occurred in IT service environment with growing complexity, we try to identify and solve the representative one in each type of tickets. In this paper, we present a visual tool for ticket monitoring and management, which aims to facilitate the daily work of administrators in IT service maintenance. Different clustering algorithms and configurations can produce different clustering results. After getting clustering results, it's necessary to evaluate how persuasive the clustering results could be. Our visual tool provides a set of visualization mechanisms, with the aid of unsupervised learning techniques, trying to identify the priority of resolving a ticket and thus improving the efficiency in IT support and root cause analysis. In future work, we might explore techniques in text

summarization and implement them in our visual tool so that administrators can get a more reliable and efficient visual tool for investigation and problem detection. Work is also in progress to expand this visual tool to other scenarios or use cases such as disaster management and social media summaries. [13].

### 3. EXISTING SYSTEM

The major issue of On-premise or internal ticketing systems which requires storage, electricity, maintenance, cooling system and security which results in huge costing to the organization. On premise ERP, systems can be accessed remotely but often requires third-party support to access the solution and a mobile device. This increases the risk of security and communication failures. Requiring several security measures need to be in place if employees to access files on personal devices. As a con for on premise services is the data is secured with in the Organization in short, there is a Data privacy.

#### 3.1 Disadvantages of the existing system

- Costly — On-premise solutions have higher entry costs and higher operational costs than their SaaS counterparts do. You own the infrastructure and software and thus must spend the money to maintain it. Pressure on internal IT is constantly rising, so think about that.
- More maintenance — an organization owns it and so must also maintain it. It is the organization's responsibility to maintain, upgrade, and scale the solutions when needed. This is often not a trivial task.
- Need More People/Resources – On premise solutions requires more resources maintaining both backend and frontend solutions, meaning you need resources with both backend and frontend

knowledge and infrastructure to support this. You need people just to keep the lights on.

## 4. PROPOSED SYSTEM

**Design Phase:** Dynamics 365 Customer Service offers a suite of capabilities to ensure that the business can deliver the best customer service experience possible to the customers. We believe that knowing the customers enables to personalize each experience and optimizes the agents' productivity so that one can earn customers for life.

The system offers several app experiences to choose from, depending on the support of the organization's needs.

Use Dynamics 365 Customer Service to:

- Track customer issues through cases
- Record all interactions related to a case
- Share information in the knowledge base
- Use unified routing to efficiently route work items
- Manage conversations across channels, including voice
- Use AI-driven embedded insights and analytics to improve customer satisfaction
- Collaborate with experts in Microsoft Teams
- Create and track service levels through service-level agreements (SLAs)
- Define service terms through entitlements
- Manage performance and productivity through representative sorts and dashboards
- Create and schedule services
- Participate in chats

A ticketing system works by first creating a document, or "ticket," that records the interactions on a support or service case. The ticket is shared between both the representatives and the customer and logs their communication to one continuous

thread. Both parties can refer back to the thread at any point in time. Once the ticket is created, representatives can then work on the issue on their end. When they have updates or a resolution, they can alert the customer via the ticket. If the customer has any questions in the meantime, they too can use the ticket to communicate with the customer service representatives. The ticketing system then alerts the representatives that there has been a response logged on the ticket, and the representatives can address it immediately.

When the issue has finally been resolved, either the representatives or the customer can close the ticket. Tickets can be reopened though if either party has any additional follow-up questions or requests. Instead of having to create a brand-new ticket with a different representatives, the customer has access to the same person that they worked with before and can continue where they left off. Some ticketing systems even include built-in customer feedback tools like NPS, which can collect customer reviews every time a ticket is closed. In computing, encryption is the method by which plaintext or any other type of data is converted from a readable form to an encoded version that can only be decoded by another entity if they have access to a decryption key. Encryption is one of the most important methods for providing data security, especially for end-to-end protection of data transmitted across networks.

This gives the customer a sense of empowerment as they feel they have a direct line to their customer service representatives, rather than a generic support inbox. The accessibility factor also benefits the representatives because it puts less pressure on them to quickly resolve cases.

Since customers do not have access to their personal email addresses, representatives can work at their own pace without being loaded by messages from impatient customers. Representatives can also set communication expectations when creating the ticket so that customers know what to expect moving

forward. This gives some power to the customer service team because it allows representatives to dictate the pace of communication on their support tickets.

Providing that type of transparency to the customer creates a more trustworthy experience and improves customer satisfaction. Now that you know what a ticketing system is as well as how it can improve the customer experience, you may be eager to explore potential options.

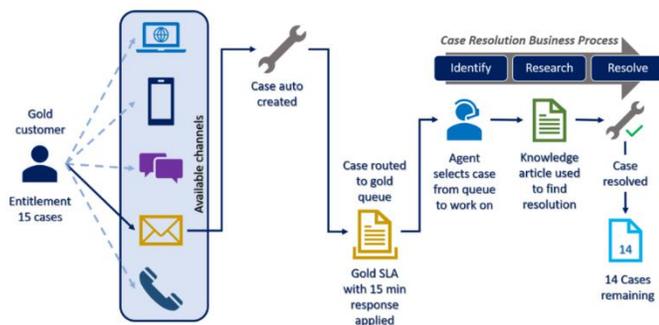


Fig 4.1 Business Process Flow

Business process flows provide a guide for people to get work done. They provide a streamlined user experience that leads people through the processes their organization has defined for interactions that need to be advanced to a conclusion of some kind. This user experience can be tailored so that people with different security roles can have an experience that best suits the work they do.

Use business process flows to define a set of steps for people to follow to take them to a desired outcome. These steps provide a visual indicator that tells people where they are in the business process. Business process flows reduce the need for training because new users don't have to focus on which entity they should be using. They can let the process guide them. You can configure business process flows to support common sales methodologies that can help the sales groups achieve better results. For service groups, business process flows can help new staff get up-to-

speed more quickly and avoid mistakes that could result in unsatisfied customers.

## 5. CONCLUSION

To conclude, Dynamics 365 Customer Service is an all-in-one SaaS solution built on the Microsoft Cloud, which allows you to leverage numerous cloud benefits. For one, the solution is available anywhere, on any device. This means the service team can work remotely when required or on the go with full capabilities on their desktop, tablet, or mobile. Cloud solutions, in general, are also easier to scale, more cost-effective, and offer more robust data security protections than their on-premises counterparts. Dynamics 365-service module help the organization to collect and store information of the Cases on cloud while paying the service charge for the subscription/ license. The future scope of the project can have many more attributes:

- We can add and create a Dashboard with integration of Power-BI solution for attractive dashboards.
- Creating SLA for Low and medium case raised.
- Integrating other Communication methods like Social media, direct helpdesk portal for end users and toll free number.
- Integrating IOT alerts on case creation.

## 6. ACKNOWLEDGEMENT

I should convey my real tendency and obligation to Dr M N Nachappa and Dr. J. Bhuvana undertaking facilitators for their effective steering and consistent inspirations all through my assessment work. Their ideal bearing, absolute co-action and second discernment have made my work gainful.

## 7. REFERENCES

- [1]. A. Garusinghe, I. Perera and D. Meedeniya, "Managing Service Level Agreements in Service Oriented Product Lines," 2016 Sixteenth International Conference on Advances in ICT for Emerging Regions (ICTer), 2016, pp. 274-280, doi: 10.1109/ICTER.2016.7829931.
- [2]. A. Hanif and W. Khalid, "Customer service- A tool to improve Quality of Experience (QoE)," 2012 IEEE Conference on Technology and Society in Asia (T&SA), 2012, pp. 1-6, doi: 10.1109/TSAAsia.2012.6397983.
- [3]. C. Cassandra, S. Hartono and M. Karsen, "Online Helpdesk Support System for Handling Complaints and Service," 2019 International Conference on Information Management and Technology (ICIMTech), 2019, pp. 314-319, doi: 10.1109/ICIMTech.2019.8843726.
- [4]. C. Chang and T. Cheng, "A Secure Diverse Ticket-Sale System in a Distributed Cloud Environment," in *The Computer Journal*, vol. 57, no. 10, pp. 1441-1459, Oct. 2014, doi: 10.1093/comjnl/bxt061
- [5]. D. Prabha and R. S. Subramanian, "A survey on customer relationship management," 2017 4th International Conference on Advanced Computing and Communication Systems (ICACCS), 2017, pp. 1-5, doi: 10.1109/ICACCS.2017.8014601.
- [6]. E. Prayitno and N. A. Astuty, "Positive impact of Customer Relationship Management (CRM) implementation to improving the services of animal polyclinics customers," 2017 International Conference on Sustainable Information Engineering and Technology (SIET), 2017, pp. 246-250, doi: 10.1109/SIET.2017.8304143.
- [7]. Femina Bahari T, Sudheep" Elayidom M, An Efficient CRM-Data Mining Framework for the Prediction of Customer Behavior", *Procedia computer science* 46(2015)725-731
- [8]. M. Miao, Y. -z. Jiang and W. -d. Chun, "How do service employee's attitudes influence customer perception of service quality?," 2009 6th International Conference on Service Systems and Service Management, 2009, pp. 815-820, doi: 10.1109/ICSSSM.2009.5174993.
- [9]. R.S. Hassan, A. Nawaz, M.N. Lashari, & F. Zafar, "Effect of Customer Relationship Management on Customer Satisfaction", *Procedia Economics and Finance* 23 (2015) 563 - 567.
- [10]. Sheng, J. Being. "Active in Online Communications: Firm Responsiveness and Customer Engagement Behaviour". *Journal of Interactive Marketing*, 46 (2016), 40-51. 2019
- [11]. Serbest, S., Goksen, Y., Dogan, O., Tokdemir, A. "Design and Implementation of Help Desk System on the Effective Focus of Information System". *Procedia Economics and Finance*. 2015, pp. 461 - 467
- [12]. W. Zhou, L. Tang, T. Li, L. Shwartz, and G. Y. Grabarnik, "Resolution recommendation for event tickets in service management," in 2015 IFIP/IEEE International Symposium on Integrated Network Management (IM). IEEE, May 2015, pp. 287-295.
- [13]. X. Zhu, W. Zhou and T. Li, "A visual tool for ticket monitoring and management," 2017 12th International Conference on Intelligent Systems and Knowledge Engineering (ISKE), 2017, pp. 1-7, doi: 10.1109/ISKE.2017.8258805.