2024 Planning Guide for CRM and Customer Experience

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Initiatives: Digital Workplace and CRM for Technical Professionals

To satisfy customer expectations, application technical professionals must ensure a solid technical foundation and apply principles of modularity and automation across a multiplatform architecture. Plan customer engagement initiatives using data capabilities along with platform and custom services.

Overview

Key Findings

- Organizations that fail to implement flexible, adaptable technical architectures for customer engagement and experience risk falling behind their competitors and hindering business initiatives.
- Points of interaction, business logic and data-related capabilities, and the integrations between these capabilities enable the full customer experience (CX) pipeline or stack.
- To implement conversational AI platforms (CAIPs) and reap the benefits of selfservice and automation, organizations are breaking down human tasks and processes into manageable steps that can be delivered through chatbots or virtual assistants.

Recommendations

In 2024, application technical professionals responsible for CRM and customer experience must:

Increase CX agility by adopting proven patterns of modularity and service independence within the user interface (UI) and business logic layers of their architecture. Ensure CX consistency by implementing data and platform services that interoperate with the UI and logic layers and components.

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- Design technical architectures using a balance of vendor-provided services for baseline business and platform capabilities. Customize technical components and implementation approaches to deliver unique business capability or purpose-built CX components.
- Realign the organization's internal processes so staff can effectively work with Al technology. Organizations that leverage bots for repeatable tasks will be freed up to use higher-value resources for higher-value tasks.

CRM and Customer Experience Trends

In 2024, customer engagement and experience technologies will continue to become more connected and cohesive. This is true not only for customer-facing systems, but also for internal associates and agents. Customer engagement and experience is a broad concept based on an entity (i.e., customer) that engages with an organization through different channels of interactions. Customers will not adapt their lives to fit your capabilities; they expect you to provide experiences that find them on the devices, channels and modalities they prefer and that align with their daily preferences. Technical solutions must adapt to remain part of the modern customer engagement technical landscape and capability set.

Delivering holistic and seamless customer interactions across all interaction channels and aspects of the business is a trend that spans multiple industries and technology domains.

Customer engagement architectures are built by integrating business applications, data sources and disparate processes. The technical planning for this effort is very similar to the technical challenges in modern software engineering:

- Composable and modular services
- Distributed versus platform architectures
- Automation expansion

To assist in your planning, we have defined three technical planning trends and three planning considerations for each trend. Figure 1 provides the overall view of these trends and considerations.

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Figure 1: 2024 Key Trends for CRM and Customer Experience

2024 Key Trends for CRM and Customer Experience

GenAI Use Case Alignment/Data Enrichment Will Drive CX and EX Improvement

- Enhance commercial GenAl capabilities with enterprise data in a secure and sustainable way.
- Improve conversational AI and chatbot capabilities through GenAI integrations and extensions.
- Increase staff productivity with GenAl task augmentation.



Modern CX Will Require Agile Architecture Supported by Cohesive Data

- Focus your CX architecture on enabling flexibility and agility.
- Modernize the customer engagement technology life cycle using service architecture.
- Implement shared data services to create cohesive customer engagement experiences.

Outside-In Customer Engagement Will Require Both Platform and Custom Software

- Adopt an end-user perspective to define customer journeys from interaction to supporting services.
- Apply modularity and share platform services to enable technical agility.
- Separate chat capabilities from other channels to enable modularity.

Source: Gartner 799585_C

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You should balance the necessity of practical and achievable solutions for your organization against the desire to adopt modern concepts and capabilities that may be risky.

The major trends in CRM and customer engagement for 2024 are:

- Generative Al Will Drive CX and EX Improvement Through Proper Use Case
 Alignment and Enterprise Data Enrichment
- Modern CX Will Require Agile Architecture Supported by Cohesive Data
- Outside-In Customer Engagement Will Require Both Platforms and Custom Software

Generative Al Will Drive CX and EX Improvement Through Proper Use-Case Alignment and Enterprise Data Enrichment

Generative AI (GenAI) technology has rocketed to prominence and it could have a lasting impact on virtually all aspects of IT. However, tools incorporating GenAI capabilities are still in early-stage development, while organizations themselves are still only coming to terms with when and how to use GenAI appropriately. Over the coming 12 months, we expect to see the hype regarding GenAI reduce — leaving organizations to focus on achievable use cases — and the GenAI capabilities of enterprise applications to mature.

Plan to disrupt your existing CX technical architecture through the automation improvements that GenAl offers. Customer engagement improvements will be found on both the customer-facing edge and through data modeling. Organizations must identify the interactions, workflows and data artifacts that define the most relevant use cases to prioritize. However, they must also balance those efforts against the hype and realities of a promising, but immature and rapidly changing, technology. GenAl offers the chance to harness massive amounts of data for previously unrealistic expectations. Look for ways to leverage GenAl in your CX use cases, but execute with rigor and routine to limit your risk.

To prepare for these changes, familiarize yourself with what GenAl can and cannot do, and how large language models (LLMs) can be enhanced with enterprise data to make them relevant to your business. Also identify areas where increased chatbot capabilities or GenAl features can solve business problems in ways that offer opportunities to improve productivity, quality or customer and employee experience (EX). Our three planning considerations for this trend are:

- Enhance commercial GenAl capabilities with enterprise data in a secure and sustainable way.
- Improve conversational AI and chatbot capabilities through GenAI integrations and extensions.
- Increase staff productivity with GenAl task augmentation.

Planning Considerations

Enhance Commercial GenAl Capabilities With Enterprise Data in a Secure and Sustainable Way

The answers that LLMs, such as OpenAl's GPT-4, can provide and the data they can access is limited to information contained within their training set. If you want to use GenAl technology to enhance your customer or employee experiences, you will need to give the model access to your enterprise information. There are three main ways of accomplishing this:

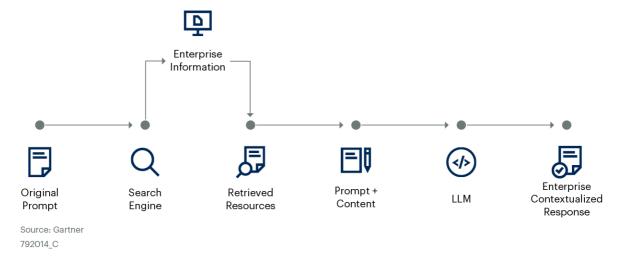
- 1. Training Create a new model by training with large amounts of enterprise data. This method has significant time and cost implications and typically requires a level of LLM experience that most organizations do not have. For these reasons, it is not a good starting point for organizations new to Al. Additionally, training a new model will not allow you to work with real-time data such as customer order details.
- 2. **Fine tuning** By changing the dimensions of a pretrained model you can adjust how it behaves. While this approach can be useful to help a model understand your business terminology or industry, it does not allow you to work with real-time information. It also does not expand the information that is available to the model.
- 3. **Prompt engineering** Prompt engineering involves modifying the prompts used to query a model to provide additional information. By injecting organizational data into the prompt, you can give the LLM the information it needs to assist with many common organizational tasks.

For most organizations, prompt engineering approaches are the best way to improve an LLM so that it can work with your enterprise data. Prompt engineering also enables you to monitor and filter the inputs and outputs of the model, to ensure that they stay compliant with your policies, and in-line with your intent for how the model should be used.

A common prompt engineering approach is retrieval augmented generation (RAG) in which the original prompt is used to generate a query against a knowledge base; the result of the query is then provided to the LLM which summarizes it to provide the answer. Microsoft 365 Copilot is an example of a RAG approach. In this case, the Microsoft Graph is used as the organizational knowledge base, which Copilot can use to access organizational information that the user has access to and send it to the LLM. RAG is illustrated in Figure 2.

Figure 2: Retrieval Augmented Generation

Retrieval Augmented Generation



Using RAG and other prompt engineering approaches requires that you:

- Curate a set of high-quality enterprise information and encode it in a way that can be easily searched (e.g., creating an embeddings store with a vector database).
- Define a set of system prompts that set standards for response tone, define boundaries for the type of queries the LLM is allowed to answer, and remove any specific unwanted behaviors that you encounter.
- Build services that sit in front of the LLM and provide a way to submit the initial request, orchestrate the calls to the LLM and other data sources, and return the response.

For further information on this topic see:

- Prompt Engineering With Enterprise Information for LLMs and GenAl
- Getting Started With Generative Al in Your Application Architecture

Improve Conversational AI and Chatbot Capabilities Through GenAI Integrations and Extensions

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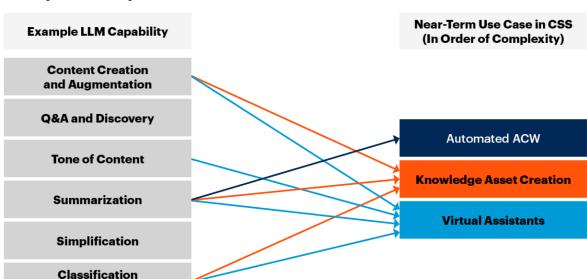
The rapid evolution of AI technologies, specifically conversational AI and GenAI, is changing the way humans interact with technology. Chatbots stand to see the most significant improvement from combining conversational AI and GenAI capabilities. This means using multiple AI technologies together to uncover new high values and capabilities. These two technologies naturally align to enhance customer support use cases. Augmenting conversational AI solutions, such as chatbots and virtual assistants with GenAI capabilities, will improve the experiences you can offer to your employees and customers. Customers will have better options for conversation-driven interactions while internal agents will benefit from the automated help of LLM backed capabilities like "agent assist."

CAIP vendors have already begun to incorporate GenAl capabilities into their offerings, Figure 3 shows the potential enhancements to CAIP through GenAl, which include:

- Content creation and augmentation through Al-assisted dialogue generation.
- Q&A chatbots and data discovery answering client questions from unstructured data/documents.
- Summarization of conversation before it is handed over to an agent.
- Classification of content through utterance training suggestions"

Similarly, CRM vendors are also augmenting their chatbot capabilities with LLM integrations and GenAl services (see Figure 3). To benefit from these technology improvements, target low-risk well-defined use cases — such as existing FAQ chatbots — as initial candidates to be augmented with these improved capabilities. Remember that GenAl tools are prone to hallucinations which cause them to provide wrong answers or answers that are completely out of line with the questions being asked. Ensure you have robust validation processes in place to mitigate this and aim to reduce risk by conducting targeted pilots.

Figure 3: Example LLM Capabilities and Near-Term Use Cases in CSS



Example LLM Capabilities and Near-Term Use Cases in CSS

Source: Gartner

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LLM = Large Language Model; CSS = Customer Service and Support ; ACW = After-Call Work 799585 C

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To deliver better CXs, explore the possibility of combining conversational AI and GenAI by improving conversational interfaces and augmenting your internal customer agents. To provide high-quality and personalized interactions to your clients, integrate GenAI capabilities with customer profile and data services by leveraging one of the three approaches discussed in the Enhance Commercial GenAI Capabilities With Enterprise Data in a Secure and Sustainable Way section.

Increase Staff Productivity With GenAl Task Augmentation

Organizations should continue to break down job roles into tasks and determine which of these tasks can be automated or Al-augmented. This shift will also require organizations to realign their internal processes so staff can effectively work with Al technology. Organizations that leverage bots for repeatable tasks will be freed up to use higher-value resources for higher-valued tasks.

For example, the combination of conversational AI and GenAI lends extremely well to the booking of an appointment. Not only can AI-enabled chatbots handle massive volumes of interactions, they can also do it in a way that the end user has little to no idea that they are communicating with a machine and not a live agent. When working together, conversational AI keeps the interaction on task and addresses any questions that are company-specific, like hours of operation or office locations. GenAI provides flexibility to the customer interaction that conversational AI is not able to handle. GenAI compliments conversational AI by being able to answer and address a much broader base of inquiries, along with making the interaction more human-like.

While GenAl capabilities have been greatly promised to improve customer services, there are risks associated with their usage that should be addressed. A major concern is the creation of deceptive content that can be used maliciously to spread fraudulent information. Depending on the dataset that the LLMs are trained on, there is also the risk of GenAl perpetuating biases. Responsible usage and training are vital to mitigate the risks and ensure that GenAl is beneficial to society.

Modern CX Will Require Agile Architecture Supported by Cohesive Data Back to top

Organizations must be able to engage with customers across multiple mediums and with technical capabilities that allow the business users to adapt and optimize their solutions. CXs are multichannel, and customer expectations — and corresponding business demand — change quickly. To support this, organizations need a customer engagement architecture that spans multiple channels and mediums.

This architecture must allow business users to quickly adapt and optimize their solutions in pursuit of maximum customer satisfaction. For example, you should include life cycle automation as part of your customer engagement architecture and solution approaches. DevOps capabilities, automation of builds, deployments and testing efforts are the core concepts that allow modern technical architectures to be rapidly and constantly changed.

Customer engagement technologies, vendors and platforms are increasingly providing support for these sorts of technical processes. Evaluate them so you can leverage them going forward. Additionally, the capabilities these technologies provide are evolving rapidly, and your architecture must be adaptable to evolve at the same pace. Monitor emerging trends, but be critical and seek to understand the core benefits they bring.

The foundation of customer engagement architecture is customer data. Without it, an organization cannot create customized experiences; and without the ability to capture, retain and share data, customer engagement solutions are siloed. Customer data is one of, if not the most, valuable assets an organization has. Modular technical architectures result in multiple data sources that use customer data to execute their business logic and services. Without customer data services that span these data sources and business capabilities, there cannot be cohesive CXs.

Our three planning considerations to address the trend described above are:

- Focus your customer experience architecture on enabling flexibility and agility.
- Modernize the customer engagement technology life cycle using service architecture.
- Implement shared data services to create cohesive customer engagement experiences.

Planning Considerations

Focus Your Customer Experience Architecture on Enabling Flexibility and Agility

Customer engagement architectures require a balance between solid foundational capabilities and specialized technology required to satisfy specific customer or business requirements. When applying modern concepts such as composability, CX CORE and hyperautomation, focus on the aspects each provides to improve agility and flexibility. From each concept, focus on two areas, as shown in Figure 4.

Figure 4: Modern Concepts for Agility and Flexibility

Modern Concepts for Agility and Flexibility

Composability CX CORE Hyperautomation Modularity Customer First Workflow Connected Engagements Engagement Source: Gartner 7/3694 C

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How to apply these three concepts as you design, architect and implement customer engagement and experience architectures is detailed below.

Composability will require architecting solutions for modularity and interoperability. Within the customer or CRM technical landscape you will find multiple choices to deploy such capabilities. For example, conversational AI, or chatbots, have become a fairly widespread technology in the customer or CRM space, and there are many options for you to choose from. Design your customer engagement architecture to enable these capabilities to be exposed as interoperable components of a modular architecture. Strive to deliver architecture that provides technical flexibility while balancing the use of modular capabilities against domain-specific services.

CX CORE brings the concept of the outside-in view of the customer journey to your 2024 planning efforts. Align your technical architecture with the steps your customer or end users take as they interact with your organization. What channels are they using to interact? What is shared across applications? What seams will the customer see? Architect for connected digital experiences that follow the workflows your customers take. Consider the technical impact or technical gap this exposes as part of your architecture plans.

Hyperautomation is the pervasive use of automation. From a customer engagement planning perspective this means the usage of multiple automation approaches and patterns. Focus on technical automation capabilities that improve your customers' experiences and enhance the capabilities and efficiency of internal users and employees. Automation and interoperability go hand in hand in successful customer engagement architectures. Plan to expand your automation usage through technical means at the UI, application, business process, data and operational levels to fine-tune your current customer engagement architecture.

Apply the core aspects and value of these three modern concepts to improve customer engagement architecture's agility and flexibility. Gartner expands on the concepts above in the following related research:

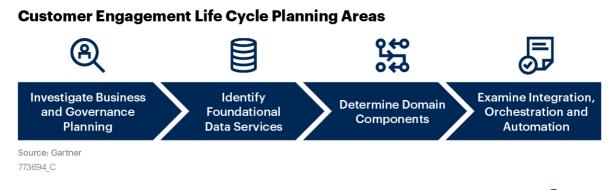
- A Technical Guide to Composable Application Architecture
- Break Out of the Customer Management Industrial Complex With Gartner's CX CORE Model
- Research Connection: Automating the Delivery Value Stream

Modernize the Customer Engagement Technology Life Cycle Using Service Architecture

Your customer engagement technical architecture must be flexible enough to support a rapid pace of business- and customer-driven change. As your customer architecture continues to shift toward a service-driven solution, so must your technical life cycle capabilities. Life cycle capabilities enable change control, change execution and change management, and must be aligned to customer engagement needs. For example, within a customer engagement architecture, life cycle technology and processes provide foundational aspects such as change management, data auditability, componentry reuse and integration management.

Figure 5 provides a path for evaluating your customer engagement life cycle capabilities.

Figure 5: Customer Engagement Life Cycle Planning Areas



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Life cycle capabilities in a customer engagement service-based architecture must provide reliability and interoperability between the various platform- and purpose-built layers and components. Identify areas of improvement or possible automation expansion as you move toward a more distributed customer engagement technical architecture.

The following are four example areas of life cycle improvement opportunity:

 Investigate business and governance planning — Identify business processes, such as requirement prioritization, that lack tangible product or customer data. Rectify the gap through process modification that drives communication between business and IT.

- 2. **Identify foundational data services** Provide foundational data services or customer-platform-type services for consistency in the technical stack. Identifying data silos and replacing them with data services that provide consistent customer data, such as a unified profile, enables concepts such as omnichannel experiences.
- 3. **Determine domain services** Enable point of interaction specialization, such as a custom UI web app or chat-based experience by supporting modular service integrations. By doing so, you are providing a customer engagement platform that a modular UI service can integrate with for workflow and data consistency purposes.
- 4. **Examine integration, orchestration and automation** Ensure your integration technology enables interoperability and the operation of your internal- and external-facing APIs. The orchestration and expanding automation layer of your customer engagement stack connects the components. Continue to provide broad, flexible, but manageable, integration processes and technologies.

Improving life cycle capabilities and underlying processes drives improved efficiency and interoperability across all layers of your customer engagement stack. Gartner provides further insights into service architecture and integration concepts in the following related research:

- Using MASA to Deliver Agile Enterprise Application Architecture
- How to Manage and Govern Modern Integration Delivery and Platforms

Implement Shared Data Services to Create Cohesive Customer Engagement Experiences

Enable cohesive connected CXs using consistent customer data that is integrated with your CRM and customer engagement components. In the customer engagement space, multiple technologies are used to deliver and maintain consistent customer data. Exposing all the underlying technology and services to each customer engagement application or data source will not be a scalable approach. Aim to deliver shared data services that provide customer data consistency "up the stack."

Where you lack the capability, build these types of data services based on underlying technology such as:

- Master data management (MDM)
- Customer data platform (CDP)

- Customer identity and access management (CIAM)
- Consent and preference management (CPM) solutions

Delivering these data-driven capabilities as a shared service across technical and organizational boundaries enables a consistent cohesive CX. For more information, see Guidance Framework for Building Customer Data Mastering Services. Figure 6 provides an overview of the shared services model to master customer data.

Figure 6: Example Flow for Mastering Customer Data

Shared Services Model to Achieve Customer Data Mastering

Part 2: Customer Identity Mastering and Part 3: Customer Consent Mastering **Customer Identity and Consent and Preference Access Management** Management ₽≡ 回回 Authentication, Consent Sync With All Security and Authorization Fraud Collection Consent and Identity Protection and Tracking Repositories **Part 1: Customer Profile Mastering Master Data Management Customer Data Platform** Data Quality Profile and Profile and Insights and Sync With All and Segmentation Customer **Enterprise Apps** Governance for Marketing 360-Degree View **Prework: Technical Design Principles** High Availability Consistency Relevance and Compliance

Source: Gartner 754928_C

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Use an iterative approach, such as the one described in the framework above, to implement customer data shared services and align the implementation to your requirements. For example, requirements built around the ability to offer different customer engagement channels can leverage a shared CIAM solution for centralized authentication and authorization. Requirements that focus on the reduction of manual processes to combine and reconcile data need an MDM or CDP, depending on the data processing workflow and outputs. Finally, a CPM is required to effectively manage data processing purposes, including consent collection and synchronization of consent repositories.

Your customer data services provide consistency in data processing and sharing across your customer architecture. Build these data services using the appropriate underlying technology such as an MDM, a CIAM, a CDP or a CPM. Determine both the required performance and data attributes that are part of the workflow. Then use those outputs to identify the proper technical components and implementation pattern, always in an iterative model.

Gartner provides further research on customer data in:

- Supporting an Enterprisewide Customer Data Strategy
- Guidance Framework for Building Customer Data Mastering Services

Outside-In Customer Engagement Will Require Both Platforms and Custom Software

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Customer engagements happen across multiple channels and mediums. This has been true for years. What's new in 2024 is a shift in how organizations are adapting to the expansion of these engagements across departmental and technical boundaries. The outside-in view in customer engagement examines a journey from the perspective of the end user or customer in this case. Use an outside-in view to identify workflow steps that require specific capabilities, such as a new customer channel, while maintaining the necessary data consistency.

An outside-in view of a customer's journey is at the heart of Gartner's CX CORE strategy, which aims to improve overall customer engagement and experience. Even within well-defined customer approaches such as CX CORE, the technical aspects commonly come down to choosing a purpose-built component or relying on shared-platform-based capabilities. Major vendors in the customer and CRM space continue to build up their platforms to support these architectures. Salesforce and Microsoft Dynamics 365 are both platform-based customer engagement solutions extended with business- or departmental-specific solutions and customizations.

Vendors will continue to advance their customer and CRM platforms. You must balance their adoption with purpose-built components, especially at the customer point of interaction. Chat capabilities, such as live chat, chatbot or SMS-based messages, flourish in a modular architecture backed by support services and data. For example, a modular conversational AI platform (CAIP) can provide chatbot capabilities to multiple domains, if the necessary services are available. In that scenario, the CAIP provides a centralized control point for one type of customer interaction, but it has that capability consistently across domains.

Our three planning considerations aligned to the trend described above are:

- Adopt an end-user perspective to define customer journeys from interaction to supporting services.
- Apply modularity and shared platform services to enable technical agility.
- Separate chat capabilities from other channels to enable modularity.

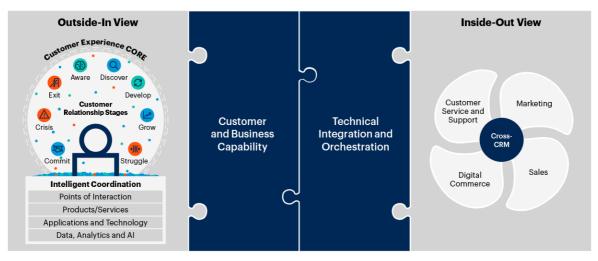
Planning Considerations

Adopt an End-User Perspective to Define Customer Journeys From Interaction to Supporting Services

Technical decisions are often made with an inside-out view. However, in the customer engagement space, incorporating an outside-in view improves your architectural decision-making process. Gartner recommends using a customer-centric or outside-in view to guide customer engagement efforts. CX CORE builds toward the goal of cohesive customer engagements by focusing on the phases of a customer relationship and the gaps between them. Figure 7 shows this general concept in the context of CX CORE and internal CRM and customer engagement capabilities.

Figure 7: Modern Customer Engagement Spans Internal and External View

Modern Customer Engagement Spans Internal and External View



Source: Gartner 773694_C

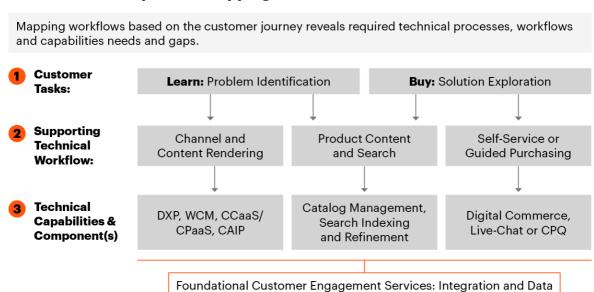
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Take an outside-in view by defining user journeys starting from the customer's perspective. Begin with the point of interaction, identifying workflow paths they follow and any required business logic, integrations, APIs or data feeds for each workflow. Figure 8 shows an example customer journey flow. Use this sort of workflow to identify the necessary technical components as well as the necessary supporting services, such as foundational data like a unified customer profile.

Source: Gartner 773694_C

Figure 8: Customer-Journey-Based Mapping

Customer-Journey-Based Mapping



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Use the outputs of your customer journey efforts to evaluate the capability of your customer engagement architecture. Gauge the difficulty of integrating front-end channels (e.g., websites, mobile apps, messaging channels) and your supporting business (e.g., CRM) applications. For example, CX CORE addresses the technical aspects with the concept of the customer technology platform (CTP), which is built around interoperability through the historical concept of "cross-CX or cross-CRM" (see Quick Answer: What Does a Technology Reference Model for Cross-Customer Experience Look Like?).

Plan for the connectivity among these broad areas, your customer front-end technology and your CRM applications, coupled with foundational customer data services to become the pattern of your overall architecture. Outside-in approaches such as CX CORE, CTP or cross-CX concepts are examples you can use as part of your 2024 customer engagement technical planning efforts.

Related research on this topic includes:

- Rethink Customer Experience for a Disrupted World With the CX CORE Model: A
 Gartner Trend Insight Report
- Essential Skills for Application Architecture

Apply Modularity and Shared Platform Services to Enable Technical Agility

While you might aspire to have a single shared platform to deliver your customer experience, this is rarely practical. You should expect to have multiple platforms supporting the wide set of capabilities required in customer engagements. Each platform will have its own architecture for modularity, and sharing modules across platforms will require additional custom efforts. Balance the use of platform services and modular purpose-built components to improve the technical agility of your architecture.

Figure 9 provides an example customer engagement architecture with both platform and modular components.

Figure 9: Customer Engagement Architecture With Platform and Modules

Web Mobile Chat Modular Scope Marketing Sales Commerce Support Platform Scope **Profile** Customer Customer Unification Segment **Analytics** Source: Gartner 773694 C

Customer Engagement Architecture With Platform and Modules

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Salesforce and Microsoft Dynamics 365 are examples of platforms that provide a wide range of customer engagement and CRM capabilities, and some CX features. Leveraging these sorts of CRM platforms and the interoperability between their own services is obvious, but you must focus more on interoperability across platform boundaries. Leading CRM and customer engagement platforms tend to operate well across their own platform borders. For example, well-formed API libraries for service integration are a requirement within the enterprise CX space.

Within customer engagement architectures, a single platform is rarely the case. Even Salesforce and Microsoft's CRM platforms are built on low-code applications platforms (LCAPs). Furthermore, due to the importance of data within the customer space, data platforms based on MDM, CDP or even custom-built cloud data services are the norm as well. Build modules within these platforms, but focus on the interoperability and the integration workflows to ensure technical agility and efficiency.

Drive your customer engagement architecture toward a hybrid of platform provided services, purpose-built services or components and the integration capabilities that tie them together. By building modules within a platform and building modules to work with a platform, you are improving the agility and flexibility of your overall technical architecture. Ensure your planning accounts for ownership over these platforms and the modules in and around them. For example, while a CRM vendor platform provides low-code capabilities and starting points for development, it is still your organization's responsibility to enforce the necessary ownership and maintenance processes.

Related research on this topic includes:

- Solution Comparison for Low-Code Application Platforms
- 30 Best Practices for Governing Microsoft Power Apps and Power Automate

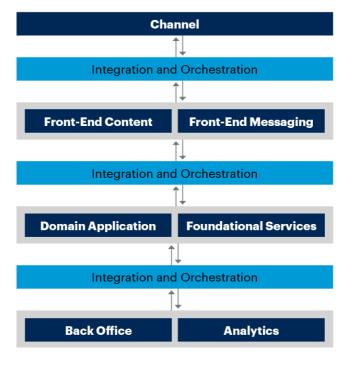
Separate Chat Capabilities From Other Channels to Enable Modularity

In customer engagement interactions, your customers are continually expanding the channels and mediums they use to interact with your organization. Digital customer engagement channels are broadly grouped into websites, web apps, mobile apps, text-chat-based or voice-chat-based. Identify the capabilities and technologies required to deliver each of these engagement channels and to span the seams between them.

Figure 10 provides a high-level example of a customer engagement technical stack.

Figure 10: Example Customer Engagement Technical Stack

Example Customer Engagement Technical Stack



Source: Gartner 773694_C

Gartner.

To enable modularity and agility, you need to separate the components required to deliver website or application experiences from those required to handle your chat-based experiences. Websites and applications can be built using digital experience platforms (DXPs), web content management (WCM), low-code application platforms (LCAPs) or custom code (which can call APIs from your enabled components). However, the technical components required for your chat-based flows require different capabilities such as natural language understanding (NLU), messaging channel integrations and conversation management tooling.

Contact center as a service (CCaaS), communications platform as a service (CPaaS), CRM customer engagement solutions or general conversational Al platforms provide the building blocks for creating live chat and automated chat (voice and text) experiences. Identifying which of these channels and capabilities your customer engagement architecture requires, and then using the proper technology to enable those capabilities, is core to your customer engagement planning efforts.

As you move "up the stack" in a customer engagement architecture, you are required to specialize to satisfy certain customer- and channel-specific capabilities. This specialization effort emphasizes the importance of integration flexibility as well. Whether it's a LCAP, DXP or CPaaS, you must implement intelligent orchestration and automation across these technical components. Planning for flexible integration middleware approaches that can be adapted to specialized front-end technology is a key consideration in your 2024 customer engagement planning efforts.

Gartner provides research on these technical concepts in:

- Harness the Disruptive Powers of Low-Code: A Gartner Trend Insight Report
- Essential Skills for Application and Software Developers

Document Revision History

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Recommended by the Authors

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How to Modernize a Customer Engagement Architecture

Prompt Engineering With Enterprise Information for LLMs and GenAl

Supporting an Enterprisewide Customer Data Strategy

Build Use Cases for Customer Data That Go Beyond Integration Project Goals

Using MASA to Deliver Agile Enterprise Application Architecture

Essential Design Patterns for Enterprise Application Automation and Extension

Accelerate Digital Transformation With an API-Centric Architecture for Enterprise Applications

Apply Customer Data Management Technologies to Create Better Customer Experiences

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Selecting Conversational Al Solutions for Chatbot and Virtual Assistant Initiatives

Data Modeling to Support End-to-End Data Architectures

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