Cisco Finesse Desktop Software: A Customer-Centered Approach to Building an Agent Desktop

This white paper, intended for business decision makers, describes the approach Cisco has taken to design the Cisco Finesse™ desktop software, a new contact center application. The Cisco Finesse application streamlines the work of contact center agents and supervisors, making the tools they need to handle customer concerns easily accessible in the desktop software application. The Cisco Finesse interface was created through a user-centered design process to help ensure that the right features - and only the necessary features - were included in the design. This white paper describes:

- The challenge facing Cisco to deliver a next-generation agent desktop
- The approach Cisco and our partner, InContext, took to design an industry-leading system
- Critical elements of the design solution that helped ensure its success
- Customer reactions to the new system

The Challenge

When Cisco sought to update our contact center agent desktop application, we knew that it would be a challenge to differentiate our offering from competitive offerings. Contact centers represent a mature market with tight linkages between technology, people, and processes that make it difficult for contact centers to adopt innovative solutions.

So Cisco set out to create a new contact center solution that would outshine the competition and reduce the cost of ownership, all while integrating well with the other applications that agents and supervisors use. Specifically, the project focused on understanding:

- What functions are needed by agents and supervisors for an out-of-the-box contact center application?
- What other applications do agents use to support their work, and how are they used in conjunction with the contact center application?
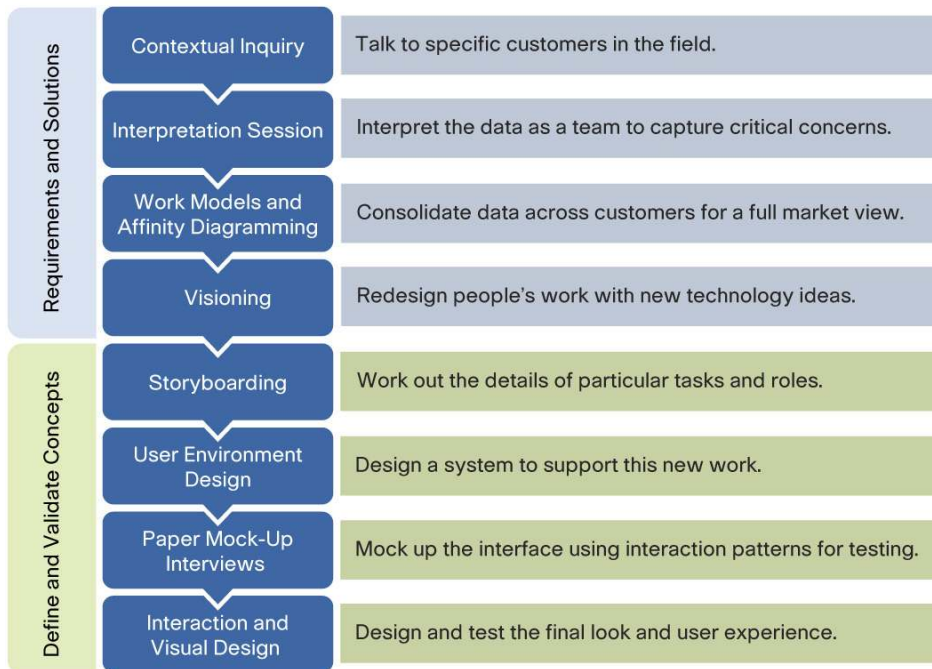
The Process

To invent an exciting new design, Cisco wanted a fresh look at the problem and a deep understanding of the day-to-day work of contact centers. So Cisco teamed with InContext to create a user-centered design. The Contextual Design process (Figure 1) is a user-centered research, concept, and design process that uses field research to ground new design in existing work practice and problems, and then uses a visioning process to invent high-level solutions. Finally, low-fidelity paper mockups are used to test, iterate, and work out the detailed behavior of the new design (Figure 2). Using this process, the team conducted 12 field interviews with agents and supervisors, traveling to users' offices to see them in action. In the interviews, the team focused on:

- Identifying the tasks agents and supervisors perform and the information they need.
- Exploring communication and collaboration between agents, supervisors, and other employees.

- Understanding how supervisors use data to manage their agents and queues.
- Finding the extra steps existing tools impose on the workflow.

Figure 1.   Contextual Design Process

Requirements and Solutions	Contextual Inquiry	Talk to specific customers in the field.
	Interpretation Session	Interpret the data as a team to capture critical concerns.
	Work Models and Affinity Diagramming	Consolidate data across customers for a full market view.
	Visioning	Redesign people's work with new technology ideas.
Define and Validate Concepts	Storyboarding	Work out the details of particular tasks and roles.
	User Environment Design	Design a system to support this new work.
	Paper Mock-Up Interviews	Mock up the interface using interaction patterns for testing.
	Interaction and Visual Design	Design and test the final look and user experience.

The team followed these steps of the Contextual Design process:

- Contextual inquiries: The team conducted field interviews in the users' workplaces, observing, listening in on calls, and discussing them with the agents between calls.
- Interpretation sessions: The whole team conducted internal debriefs of each interview, identifying and recording critical findings and insights.
- Sequence models: The team created representations of the tasks done by users, showing how each task was actually done - including interruptions and deviations from policy.
- Affinity diagram: The team organized the important interview findings to show common concerns and approaches to the work across all users interviewed. Figure 3 shows a portion of the team's affinity.
- Visioning: The team reinvented call center support using a brainstorming process that responds to critical user data while accounting for technology possibilities and business limitations.
- Storyboarding: The team retold the stories of how specific tasks will be done in the new system, using pictures and text to illustrate the users' new work practice.
- Paper prototyping: The team created mockups of the new system on paper and tested and discussed them with users in their workplaces, using examples from their own situations. Paper prototypes were tested with eight agents and supervisors.

Figure 2. Cisco Finesse Desktop Application Paper Mock Up

Important Findings

Getting close to customers brought home important insights into contact center work and suggested possible design changes:
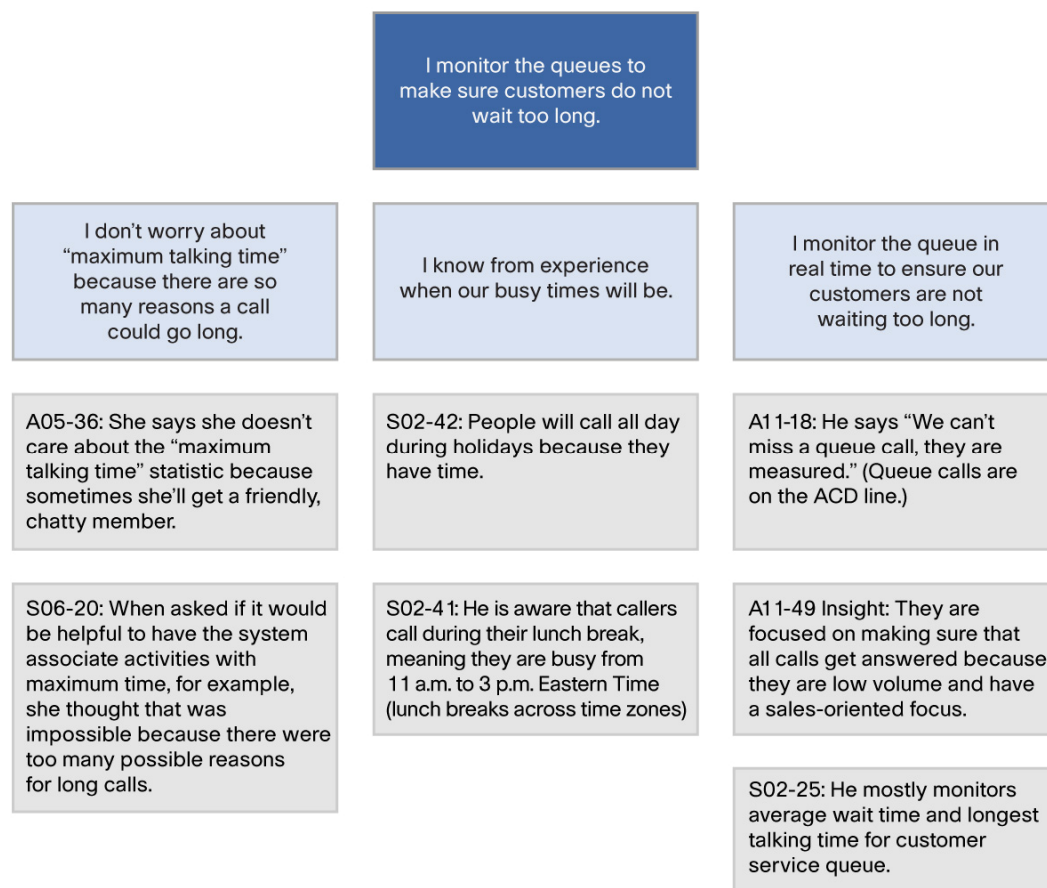
- Most agent work is not done in the contact center application itself. Instead, agents spend time in ticketing systems, information systems, and other systems related to the content of calls, email, and chat. The most important thing for the contact center application to do is to streamline contact handling and providing quick access to agent tools buried in the application.
- People who become contact center agents tend to enjoy helping people - yet contact center tools focus more on monitoring agents than on helping them serve customers.

- Companies change products and services often, and agents must support the new products. Getting new and updated information into agents' hands and making it available for quick reference makes a company more nimble.

These findings helped set a clear design direction for the new product - and the detailed information collected in field visits guided the design of individual features.

Figure 3.   A Portion of the Affinity Diagram for the Cisco Finesse Project (The gray notes capture specific data from individual users. The light blue notes group the individual data to reveal common concerns across multiple users. Dark blue notes collect light blue groups and [not shown] green notes organize the dark blue groups, so that a large amount of data can be understood easily. The affinity is just one of several techniques for making sense of data used in Contextual Design.)

I monitor the queues to make sure customers do not wait too long.

I don't worry about "maximum talking time" because there are so many reasons a call could go long.

I know from experience when our busy times will be.

I monitor the queue in real time to ensure our customers are not waiting too long.

A05-36: She says she doesn't care about the "maximum talking time" statistic because sometimes she'll get a friendly, chatty member.

S02-42: People will call all day during holidays because they have time.

A11-18: He says "We can't miss a queue call, they are measured." (Queue calls are on the ACD line.)

S06-20: When asked if it would be helpful to have the system associate activities with maximum time, for example, she thought that was impossible because there were too many possible reasons for long calls.

S02-41: He is aware that callers call during their lunch break, meaning they are busy from 11 a.m. to 3 p.m. Eastern Time (lunch breaks across time zones)

A11-49 Insight: They are focused on making sure that all calls get answered because they are low volume and have a sales-oriented focus.

S02-25: He mostly monitors average wait time and longest talking time for customer service queue.

Delivering Results

The Cisco Finesse application design gives the agent's desktop back to the agent. It provides simple, direct controls for handling any type of contact, while providing organized access to the specific unique tools agents need in their own organizations (Figure 4).

Figure 4.   Cisco Finesse Desktop Application Screen Shot
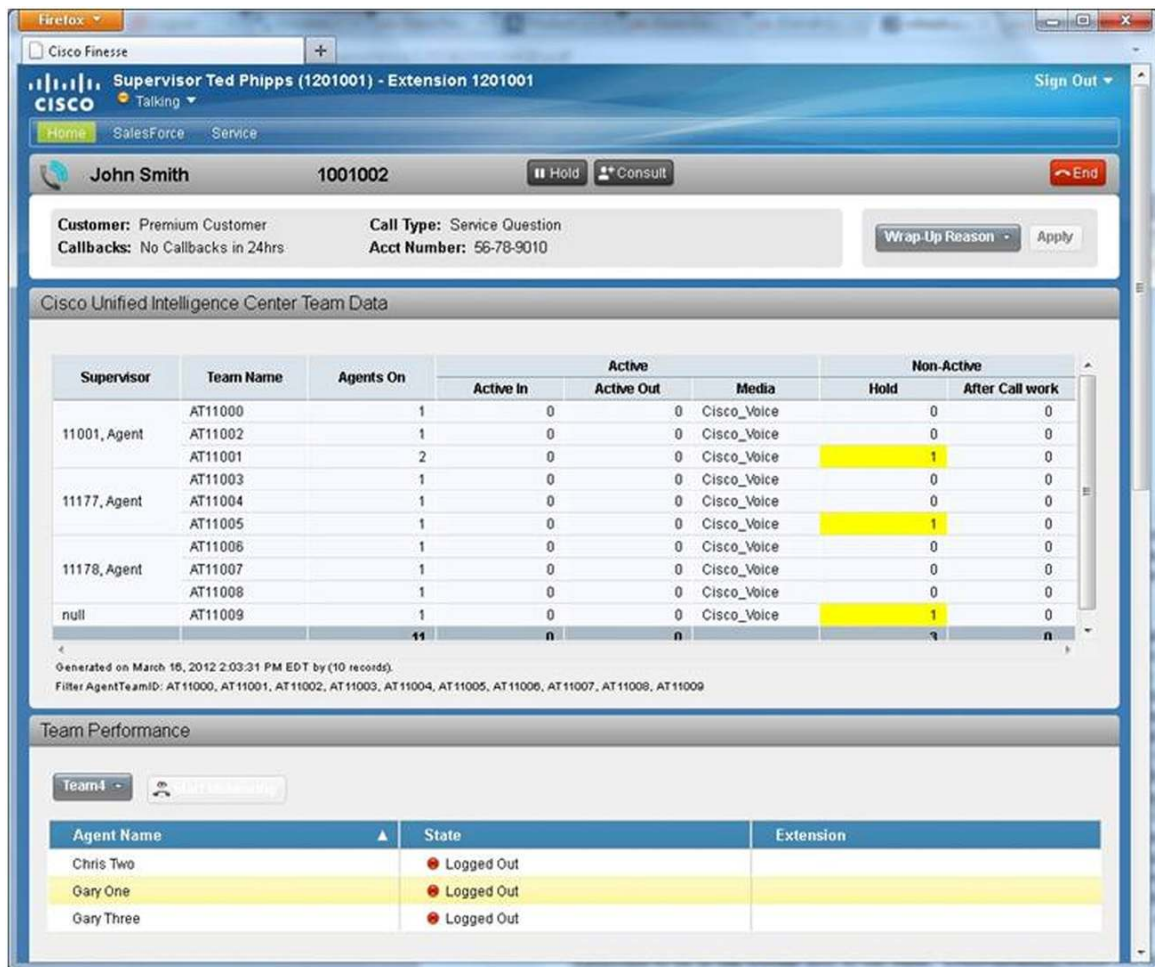
Design decisions were honed through iterative testing with users. The team took low-fidelity paper mockups to the users' workplaces to see how the design worked in real situations. Agents and supervisors provided feedback based on their own work situations, and that feedback was used to refine the design. The resulting design is very robust: at one company, an agent approached the designers with complaints about how calls were handled in the current system. Though they had no plans to interview this agent, the designers sat down with her at an empty desk. "Look at this," they said, showing the paper mock-up. The new design handled her situation perfectly.

Having customer data also made it easier for Cisco to pursue this new design direction, confident that the market would welcome the new ideas. It was easier to justify significant changes because they were supported by real user data and anecdotes from multiple users. The team understood their users and could explain their work process and their problems clearly. The resulting confidence in the design made the usual internal discussions easier and much more constructive.

Supporting Agile Development

Cisco has been moving its development practice to Scrum, one of the most popular approaches to Agile development. Agile development starts with writing user stories to describe the value users will get from the system, prioritizing them so that real user value is delivered quickly. Contextual Design kick-started Agile development by providing a clear picture of what the users needed and what the solution should look like. With this knowledge it was easy to write user stories capturing the concept and to plan development sprints to deliver tangible user value as quickly as possible. Because the implications of each user story were known in advance - both its effect on users and how it related to the rest of the design - release planning and sprint planning meetings were simplified and streamlined.

Conclusion

By following a user-centered design process, Cisco was able to create a new, innovative approach to a primary contact center support application. Rather than treat the contact center system as the center of the design, the Cisco Finesse application recognizes that contact center agents do most of their work in other systems. The Cisco Finesse application organizes and presents the work from those systems in an intuitive manner so that agents can work quickly and efficiently. The work that Cisco Finesse software supports directly - putting customers in contact with agents - is streamlined and efficient, making it easy to switch from contact to contact and to bring in additional resources to help resolve problems.

The Cisco Finesse application design was developed through a deep understanding of contact center agents and how they work, rather than by following the example of previous Cisco solutions or other products in the market. The design has been tested and refined with users, helping ensure that not only is the overall concept correct, but also that the detailed behavior of the application supports the day-to-day work of its users. The user-centric design at the center of the Contextual Design process, along with Cisco's expertise and experience in contact centers, has resulted in a superior approach to contact center management.

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