



Case Study: NCR Scheduling

NCR, a global technology leader in commerce solutions, struggled with an outdated manual process for scheduling, tracking and managing their resource staff working on client installations. MCF Technology Solutions developed an innovative scheduling system as an extension to NCR’s QuickBase database, to automate work requests, schedule resources, and provide tracking and management reporting.

Customer Profile:

NCR was a pioneer in the field of data processing. Founded in 1884 as the National Cash Register Company, they originally manufactured and sold mechanical cash registers. The company went public in 1926 and by the mid-20th century the company’s focus shifted to electronic data processing. They released their first device utilizing magnetic strip technology in the 1950’s, commercialized bar code scanners in the 1970’s, and were granted a patent in 2003 for their signature capture technology. Today, with over 21,000 employees, NCR Corporation has revolutionized digital technology with their leading edge consumer-focused data processing equipment. Their products include self-service check-in kiosks; ATM’s and financial terminals; payment and imaging software; point-of-sale terminals, scanners, software and e-commerce solutions. NCR services such diverse industries as entertainment, financial, healthcare, hospitality and travel, public sector, retail, telecom and technology. For more information visit their website at www.ncr.com

The Problem:

NCR needed a better method for managing their field resource staff; one that could improve both the speed and visibility of their scheduling process. The current process relied on spreadsheets, an Access database, and a team of coordinators who spent an inordinate amount of time confirming resource availability and trying to match that data with customer work requests. The system was slow, very labor intensive and prone to errors.

The Solution:

MCF staff identified NCR’s current technology systems and mapped the scheduling process to determine all the criteria involved. The scheduling process for NCR is a very complex model that relies on comparing and matching work request parameters with resource geographical territories, skill sets, time constraints, activity types, resource types and overall availability.

MCF devised a QuickBase Scheduler application with an advanced algorithm containing logic for each possible scheduling scenario. A Pervasive DataCloud integration application — hourly or on command — pulls a file of work requests from NCR’s system, compares parameters identified in the work requests to a set of scheduling rules and then automatically schedules the resources.

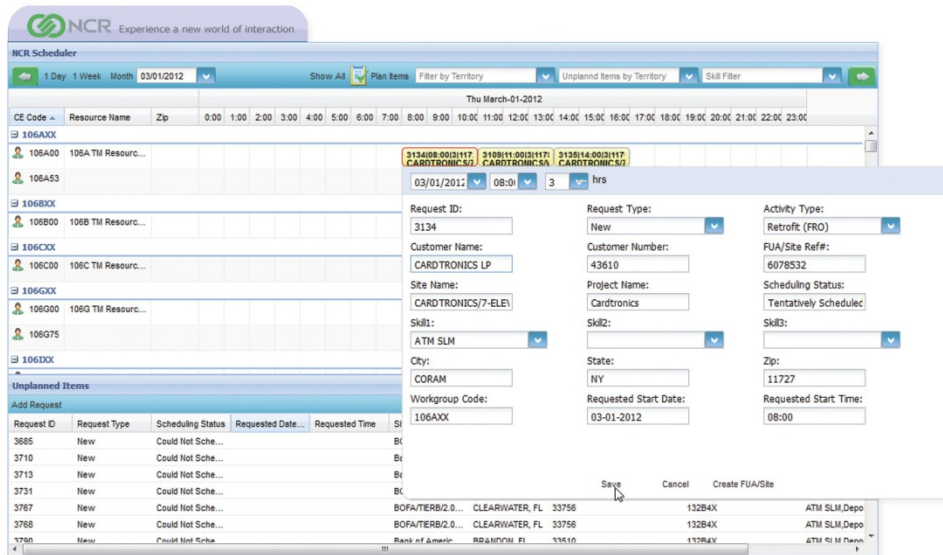
The screenshot shows the NCR Scheduler application interface. At the top, there's a header with the NCR logo and the text "Experience a new world of interaction". Below that, there are navigation tabs for "1 Day", "1 Week", and "1 Month". The main area is a grid showing resource availability for various CE Codes (e.g., 10640X, 10643, 10680X, 10683X, 10690X, 106975, 10699X, 10699X) across a time period from 0:00 to 23:00. A table below the grid lists requests with columns for Request ID, Request Type, Scheduling Status, Requested Date, Requested Time, Site Name, City/ST, Zip, CE Code, Workgroup Code, and Skills Required.

Request ID	Request Type	Scheduling Status	Requested Date	Requested Time	Site Name	City/ST	Zip	CE Code	Workgroup Code	Skills Required
3685	New	Could Not Sche...			BOFA/TERBI/2.0...	CLEARWATER, FL	33758	13284X		ATM SLIM,Depo...
3710	New	Could Not Sche...			Bank of Americ...	TAMPA, FL	33607	13284X		ATM SLIM,Depo...
3715	New	Could Not Sche...			Bank of Americ...	BRANDON, FL	33511	13284X		ATM SLIM,Depo...
3731	New	Could Not Sche...			BOFA/TERBI/2.0...	WASHINGTON, NC	27880	132A31		ATM SLIM,Depo...
3767	New	Could Not Sche...			BOFA/TERBI/2.0...	CLEARWATER, FL	33758	13284X		ATM SLIM,Depo...
3768	New	Could Not Sche...			BOFA/TERBI/2.0...	CLEARWATER, FL	33758	13284X		ATM SLIM,Depo...
4790	New	Could Not Sche...			Bank of Americ...	BRANDON, FL	33511	13284X		ATM SLIM,Depo...

The Solution:

This fully-customized application includes roles and permissions based on user role with full reporting capabilities. The application stores a multitude of information and gives the client flexibility in making changes. The solution includes customized dashboards based on user role which are dynamically updated in real-time, pulling data contained within the application. Request statuses are assigned as unscheduled, scheduled, unable to schedule, or cancelled. Exception reports allow resource coordinators to quickly identify and resolve any unscheduled requests.

A rich web page provides an interface where users can manually schedule items or run the algorithm to automatically schedule resources at the simple click of a button. The system allows schedulers to get instant feedback on resource availability and to easily make changes. MCF also developed an importing tool which allows NCR users to manage their work request information in Excel format and upload the data to the application using a customized, simplified interface.



Development and Training:

MCF employs Agile methodology which allows the client to test and provide feedback concurrently with development. End-users were part of many discussions throughout the project to ensure their feedback was accounted for. Since NCR's resource coordinators were already using QuickBase with their customers, utilizing the existing database for the scheduling solution minimized training time. MCF offers user training and documentation; however, for NCR, training was primarily handled by their internal project manager at their own preference.

The Benefits:

NCR now has a custom scheduling application with interfaces for importing work requests, scheduling resources, and Pervasive client integration. The new QuickBase Scheduler application significantly reduces the employee hours needed for the scheduling process. Resource scheduling is now automated, with much greater visibility in regard to resource allocation and forecasting, and including robust reporting capabilities. With this solution NCR now enjoys the same ease-of-use and immediate access to data in their own scheduling process that they provide to customers using NCR's self-service equipment.

MCF Technology Solutions

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Publication Date: March 2012