



CASE STUDY

LA Metro



Digital Transformation for the Last Mile

Public transit agencies across the country are exploring new technologies to improve all areas of operations, including the digitization of data and real-time asset monitoring. See how LA Metro achieved 20% labor efficiency gains, resulting in a projected 400 hours saved per day, and streamlined diagnostic capabilities using iMarq by Connixt.

Location

Los Angeles, California

Client

LA Metro

SUMMARY



Challenge

LA Metro carries over 1.3 million people daily on its fleet of 2,200 buses and over 400 rail cars. Fleet cars are assessed daily and must meet environmental compliance regulations. Buses and trains must be maintained in a State of Good Repair. LA Metro conducts a variety of inspections and maintenance work on its tracks, vehicles, facilities, and other equipment to ensure the maintenance, quality assurance, and environmental compliance work on all of its assets. Maintenance records interface with other database systems, such as material inventory and employee timesheets. As many as a dozen or more personnel come in contact with a single work order from inception to completion. This work requires a high degree of coordination, integration, accuracy, and standardization; thus, a reliable, effective, and robust process is necessary and vital. Since all of the inspections and maintenance work are conducted on-site, manually recording and entering it later into the system was repetitive and error-prone.



Solution

To provide the public with safe, clean, and reliable transit, Metro used Connixt iMarq™ to track and preserve its rolling stock and operational assets. All of the inspection and compliance forms were digitized and developed within the mobile app. Employees entering the information do so in a complete, standardized, and accurate way. The iMarq Mobile App was also integrated with other internal systems; as maintenance work orders are fulfilled, material inventory and employee timesheets are also updated. All the reports in the mobile app can be automatically saved as spreadsheets/pdfs or printed in order to support regulatory compliance requirements. Metro is now able to monitor its fleet and assets in real-time, use fewer labor hours, and increase workplace efficiency in a sustainable manner. Connixt iMarq reduces human error with its sustainable and robust data creation, storage, and management system and provides agency-wide data access to improve access and efficiency.



Impact

Connixt iMarq allowed inspections and assessments to be completed more efficiently and accurately. The employees at LA Metro using this app have experienced a reduction of 20% in labor hours. With 2,000 employees using this app, LA Metro expects to see around 400 hours of savings per day! LA Metro nominated Connixt for a State of CA award as well as the Metro Magazine 2019 Innovation award (which Connixt won).

HOW WE HELPED LA METRO DIGITIZE THEIR OPERATIONS

Maintaining the fleet of over 400 plus rail cars for LA County was primarily through paperwork, a lot of duplicative efforts in deciphering the paperwork from multiple people for scheduling, special assignments, maintenance, and inspections. Using Connixt, LA Metro migrated all their paperwork into the iMarq app. iMarq not only processes the data but centralizes it for efficiency and increased productivity across the entire organization.

With 1.4 million riders a day, LA Metro needed to be responsive to employee needs—like helping efficiency and productivity. LA Metro identified gaps in efficiencies, compliance, and safety protocols through an internal audit.

When iMarq from Connixt came on board, they enabled the entire organization to capture much-needed data via a smartphone or tablet. LA Metro could now connect to workers in the field in offline mode, and with timestamps and geotags, simultaneously eliminating the cumbersome paper process while providing accountability, much higher levels of efficiency, and archiving the data.

LA Metro has a simple goal: to lead the way for significantly higher levels of production throughout all areas of its business while maintaining a constant state of good repair in its fleets. An overall goal is to virtually eliminate paperwork and paper storage.

“The future is digital. We already bring our phones and tablets everywhere; it’s time to use those devices for business,” said Bob Spadafora, Senior Executive Officer, Rail Fleet Services, for LA Metro. “It’s just the way to go.”

Other transportation-related industries, such as airlines, are ahead of public transit in using digital technology and equipment for maintenance. “When you’re 30,000 feet in the air, you can’t have a mistake,” Spadafora said. “Digitizing data helps eliminate misunderstandings, and using digital and electronic methods of communication increases efficiencies.”



Bob Spadafora

Senior Executive Officer,
Rail Fleet Services,
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LA Metro's maintenance professionals have embraced vehicle or asset monitoring—also in real-time—which makes their jobs that much easier. This allows employees to flag any issue with the vehicle and send it to the maintenance yard as quickly as sending an email. The maintenance yard now has a list to check when the vehicle comes back. This practice leads to keeping an agency's records in good order.

It's for these reasons and more that Spadafora started looking for something that could provide the diagnostic and electronic capabilities he needed for LA Metro.

"I'm always looking for cutting-edge technology," he said. "I knew we needed something simple, fairly seamless, and adaptable—not only for operations but for my workers, the men, and women who have to enter data and create reports."

Spadafora added that maintenance workers especially have a lot of paper items to drag around—bulky user manuals, instructions, schematics—so having it all available electronically would be a total game changer.

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"It's not just the sheer number of manuals," he said, "we're also dealing with language." Writing in all the information for the day's reports is time-consuming and the notes ultimately have to be re-entered into the back-end maintenance system. "The amount of paperwork we produce and the paper storage requirements are massive," Spadafora said. Most public transit agencies will agree with this.

"Metro had been looking at ways to meet future demands for scalability, higher levels of efficiencies, and increased production for a while," he continued. "That's where iMarq from Connixt came in."

iMarq integrated with LA Metro's back-end systems and digitized agency forms so that workers could recognize them easily.

LA Metro and Connixt worked side by side in the implementation. "They listened to what we needed and were able to configure everything accordingly," Spadafora said. "We were integrated with our back-end system within two months—and we didn't lose any time or functionality during it."

LA Metro's workshop techs, supervisors, and managers simply had to download the iMarq app to their mobile device or tablet and open it. All the same forms were there, along with the workflows for supervisor approvals and signoffs.

Bringing the workers on board would prove more challenging. "People don't like change," Spadafora said. "However, eventually everyone saw that the new technology would make their jobs easier and they could be more productive."



1,800 person-hours
of savings within
months of go-live

Employees have seen a drastic reduction in paperwork since—over 400 person-hours per day on full roll-out. Spadafora said it will soon be eliminated altogether. “Every manual or schematic we have can now be viewed electronically via the tablet, which has made a huge difference in productivity and accountability,” he explained.

Spadafora said he used to see 100 daily inspections from a division and had to manage and file 100 pieces of paper. That issue doesn’t exist anymore. Information and data are being typed in rather than handwritten, so the process is much faster and much more reliable.

For example, any new information about a part or a change in instructions can be uploaded quickly into the tablet, so workers have the most updated information in minutes rather than days. The added bonus is that, with the huge reduction in paper consumption, the agency reduced its eco-footprint and can now run greener.

With the 2028 Olympics in Los Angeles, LA Metro is working on a few projects: 28 to be exact. The agency calls it “Twenty-Eight by ‘28”, referring to 28 projects in the pipeline scheduled to be completed by 2028. Among these projects is developing the West Santa Ana light rail branch to connect downtown Los Angeles with cities in southeastern Los Angeles.

LA Metro is also working on procurements for new railcars to replace old ones, railcar overhaul procurements, and expanding light rail lines with extensions to Los Angeles International Airport from Redondo Beach.

“I think it’s important to move forward with technology, especially since the new workforce is already acclimated to their cellphones and tablets and will, to some degree, be expected to work with them,” Spadafora noted.

“We did go step by step with the maintenance staff on the floor,” he said, “and while there was some pushback, there was not as much as I expected. We listened to their concerns about dropping the tablets, so we got them heavy-duty protection. Their feedback helped us fine-tune what the tablets needed even more.”



Twenty-Eight by '28

28 projects in the pipeline scheduled to be completed by the 2028 Olympics in Los Angeles

Spadafora said respecting the workers' concerns and requests was the key to success. "Everyone saw the new process was a better way to work, process inspections and work orders, and to stay productive."

As the L.A. Metro experience illustrates, with a fully digitized operation, transit agencies can move closer to a goal of virtually eliminating paperwork and paper storage—creating a greener, more coherent, and efficient agency. Most importantly, these steps towards digitization prepare agencies for the accelerating technological innovations, e.g., IoT, that are already finding their way into the transit industry.

The Connixt solution is a key to success for any transit agency committed to eliminating silos, improving efficiency, and, most importantly, keeping assets moving while saving money.


To learn how your company would benefit by going digital schedule a Connixt demo at www.connixt.com/request-demo




Connixt's cloud-based mobile suite is the fastest means for businesses to collaborate with their field employees, contractors, temp workers, suppliers and assets, download an app and connect! Your users already know this model from the social world and we decided that it had to be no different in the enterprise.

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 17777 Center Court Dr #600
Cerritos, CA 90703

 +1-877-CONNIXT

 info@connixt.com

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