Streamlining the Inspection Process: A Productivity Toolkit

by Sanjay Kamani

Sanjay Kamani has more than 24 years of elevator industry experience with a specialty in value analysis of processes for service and manufacturing companies. Kamani is the cofounder of TessT, LLC, a Virginia-based Technology startup that specializes in compliance workflow management for elevator service companies and third-party testing and witness companies in New York City. TessT, LLC markets its products under the UpVate Brand. Prior to TessT, Kamani was a principal at Ascent Service and Technology, a New York-based elevator consulting firm, and was the Global Productivity Director for Stanley Tools based in New Britain, Connecticut. Kamani began his career at Otis as a systems engineer and has been awarded more than 12 U.S. Patents. Kamani has an MBA from The University of Connecticut, a masters in Electrical Engineering from Rensellaer Polytechnic Institute and a bachelor's in Electrical Engineering from The University of Connecticut. He also has a QEI license.

Imagine this scenario: An elevator inspector completes a job, and the report in on the building owner's desk the next day. A one-day turnaround? That may sound far-fetched, but it is not entirely beyond reach. To show how the industry could approach that kind of goal, this article first reviews the current inspection and reporting process, then points to publicly available tools that can address today's inefficiencies, and indicates how additional tools could further reduce drag, boost productivity and even lead to the creation of new best-in-class standards.

Current Process

The elevator-inspection process follows a standard pattern. Property owners contract with inspectors or third parties for the purposes of regulatory compliance or improving general operations. An individual assigned to conduct that inspection then arrives at a designated facility. Once onsite, the inspector goes through the building, taking pictures and notes. The inspector may take measurements, such as door times, elevator speeds, and ambient light and noise levels. At some point after capturing these and other performance metrics, the inspector begins compiling a report or hands the information over to someone responsible for doing so. The report is typically reviewed internally and, finally, delivered to the client, the property owner.

That is the traditional process. It appears straightforward, but lurking behind the scenes are obstacles such as:

- Difficulties in accessing a facility
- Inefficient measurement tools
- Disorganized or confusing data
- Limited time for report writing
- Backlogs in report writing

The industry may be accustomed to delays, but they are not trivial. As noted, a building owner could be under a regulatory mandate. Certifications have deadlines, with penalties imposed for lateness. Liability could be linked to outstanding repairs, thus exposing a client to heightened risk as days pass. Delays could also negatively impact the satisfaction of building tenants. The bottom line – it is desirable for a client to receive a timely report.

Tools and Improvements

In terms of efficiency, two questions arise: "How productive are inspectors when onsite?" and "How productive are inspectors in building the finalized report?" To address these points, let's review the inspection and report-writing process in light of productivity tools that could smooth the way for quicker deliverables.

Schedules

Due to the number of people involved (building owner, facilities manager, contracted company, individual inspector, etc.), synchronizing schedules should be a high priority. Yet, how many inspection companies take advantage of a shared electronic medium to perform all scheduling tasks? Despite the availability of such tools as Google Calendar, the industry tends to default into slow and unsure solutions, such as printing the e-mail confirmation of an appointment, then passing it on to an inspector.

Arrival

When communication tools are ineffective, an inspector's onsite arrival could be hit with delays at the outset. On the other hand, a common platform with integrated reminders could reduce confusion surrounding the arrival of an inspector. A facilities manager would be better positioned

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to receive the inspector without delays, know the scope of the inspector's work and perform any related setup tasks.

Onsite Tools

The core of an inspection is measurements. Ideally, inspectors would have an application-friendly tool that allows them to collect data of various types, including timed metrics, photos and audio recordings, very quickly. Yet many inspectors still rely on pens and pencils and have only just begun to tap the capabilities of laptops or tablets. Meanwhile, voice-to-text applications and headsets, tools widely used in other industries that encourage hands-free communication, are conspicuous here by their absence.

Data Validity

Performance measurements should be accurate, reliable and standardized. To that end, an ideal measurement platform would provide guidelines on how best to take measurements, then automatically capture multiple instances. What typically prevails today, instead, is manual capture of a single instance. That process not only maps poorly against a multivariate problem, but also makes it difficult to replicate and validate what an inspector may have found.

Data Management

Because every site and inspection is different, one design criterion for improving today's largely manual and paperbound process would be allowing inspectors to organize their information in the order in which they collect it. To that end, a flexible organizational tool that adapts from instance to instance, such as Evernote, would be desirable. Used by more than 34 million individuals to sort, tag, annotate and archive photographs, audio and any sort of formatted text, Evernote is the kind of platform that could be customized to serve this industry.

Data Transfer

Handling papers, faxing forms, reentering data, leaving a jobsite and even e-mailing attachments are all aspects of the inefficient status quo. In a wireless and application-driven world, however, there is no reason why data should not be transferred automatically onto a cloud-based platform, such as Google Drive, and be accessible to the inspector and whomever is responsible for completing the report. This could also be the mechanism for delivering the report to the client.

Integrated System

The preceding section mentions a number of public tools, such as computer tablets, Google Calendar and Drive, and Evernote, all of which could help expedite the current elevator inspection and reporting process. But, increasing the number of inspections per day significantly and approaching the goal of a one-day turnaround require more than independent tools. They call for a fully integrated system.

An inspection reporting system would feature a range of functions, such as scheduling; data collection, organization and transfer; and report generation. At its heart would be functionality that enables inspectors to not only capture performance metrics, but also attach them to contextual information. The system would convert raw data to data plus metadata.

For instance, with a digital camera (perhaps even integrated within a tablet), an inspector can create a list of files that then have to be moved manually – clicked and dragged – into a report. By contrast, a new system should be able to automatically timestamp, label by activity and place all pictures on a single site. When preparing the report, the inspector could then simply check which photos to include and which to delete or archive.

The key to this kind of solution would be a flexible user interface (UI). One of the design challenges to this solution is that too much structure can stifle the inspector. Each inspection is different. Onsite, an inspector may deviate from a standard process of data recording for any number of reasons. A good UI could provide less fixed structure but more organizational capability.

Metadata would help enable that kind of flexibility and ultimately facilitate automated report generation up to the point of delivery. An enhanced version of this platform could enable electronically inclined clients to obtain the report or even particular data on demand, eliminating the need for the inspection organization to produce and send a document. It could also give the client a way to track completion of open items.

As a final potential benefit, once an inspector has collected sufficient data, it becomes possible to start running benchmarks. Metadata would enable an inspection entity to slice and dice its data according to employee productivity and outcomes and to buildings, types of equipment and location. Thus, an employee tasked with inspecting an elevator in an office park in a certain suburb, versus another inspecting another brand in a high rise in a metro area. This important capability gives clients additional insight into whether the report they receive is good or bad, given variables not necessarily defined by national standards.

Conclusion

Clients would like to see faster report creation and delivery. It is, therefore, time to embrace publicly available tools and build upon them in ways that add productivity to the inspection process and advance the goal of a one-day turnaround.

These benefits are both valuable in themselves, and cumulative. Once a large amount of data has been collected, it becomes possible to begin talking about best-in-class performances according to buildings, types of equipment, regions and so forth. The analysis of related metadata will allow the industry to create new standards of excellence in the marketplace.