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Use of Construction Apps Increases - Despite A Continued Lack of Integration

The average number of apps a construction worker uses on the job is growing.

As the number of apps that workers use on the job increases, smartphones remain the most utilized mobile device on construction sites. A continuing problem, however, is a lack of integration and data sharing between those apps, according to a new study.

The 2020 JBKnowledge ConTech Report — a survey of contractors and construction workers focused on the state of construction technology — found that 92% of respondents use their smartphone every day at work.

However, the report found that 27% of respondents have no applications on their phones that integrate data between apps. Despite the respondents needing integrations, only 5% said all of their apps integrated, while 34% reported three or less of their apps integrated. The report found the same issue last year.

Most-used mobile devices on construction sites

For the fifth consecutive year, smartphones were the most-utilized devices for work purposes on a daily basis.

Smartphone — 92%
Laptop — 83%
Tablet — 65%
Smartwatch — 12%
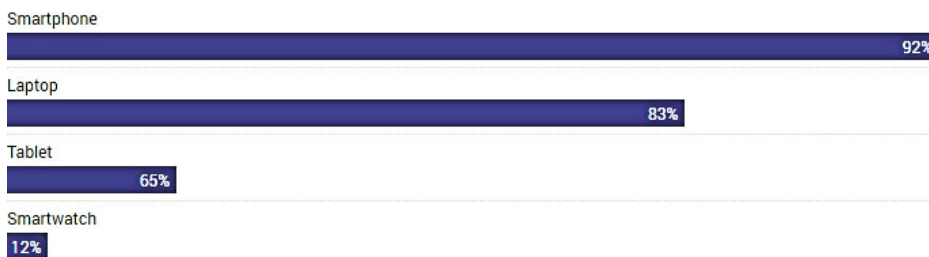
Growth of Application

More construction-based smartphone apps became commonplace with contractors last year. In 2019, 21.7% of respondents reported using three construction-based apps, while in 2020, that same percentage of respondents said they used six or more construction-based apps.

Procore was the most popular app for daily reporting (42% of respondents said they used the app), as well as capturing and managing photos and videos (38%), safety management (34%) and time management (12%). Bluebeam (Revu) was the most frequently used app for viewing BIM files (58%) and managing plans (58%). ToolWatch (26%) was the most frequently used app for tool tracking.

Nevertheless, the lack of integration creates more work for construction professionals. Here is how respondents integrate data when apps can't do it for them (13% said they simply do not transfer data):

- Manually: 49%
- Spreadsheets: 44%

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- Comma separated value (CSV) files: 37%
- Custom-built integration: 29%
- Email: 16%

Manually integrating data between apps has been the most common practice for each of the last five years, according to the report, highlighting the need for a solution, especially since the usage of mobile devices isn't going away.

The most common uses for mobile devices in the field included viewing project documents (78%), and service dispatch and billing (74%).

Other uses for mobile devices in the field included:

- Entering time for payroll: 71%
- Creating project documentation: 71%
- Viewing BIM models: 65%
- Installation drawings: 63%

BIM
Despite the fact that BIM is one of the most discussed tech solutions, the 2020 ConTech report marks the fifth consecutive year that BIM has not gained any further traction. For the last four years, the top response to the question "What is your company's approach to BIM?" has been "We do not bid on projects involving BIM" (29%).

Besides this group of respondents that don't deal with BIM at all, 27% of respondents said they have one or two employees who handle all BIM, and 27% have a full BIM department, while 25% reported outsourcing their BIM partially or entirely.

Contractors are mostly using BIM for clash detection (61%) and visualization (53%), and 46% of the time, the BIM leader on the project is the general contractor.

In addition to the conclusion that BIM has reached a critical "tipping point," the study noted that most of the challenges brought to the industry in 2020 from the coronavirus pandemic were mitigated by technology.

"For a few months in 2020, the entire world seemed to be propped up by technology, this was a great moment to prove tech adoption is always possible if we are diligent," the report's authors wrote. "Perhaps 2021 will push construction toward implementing digital workflows."