



## Benefits of Automated Procurement and AP Systems at Caltech

**Vertical**  
Higher Education

**Featured Product Families**

- JAGGAER One Platform
- eProcurement
- Invoicing

**Location**  
California, USA

**Size**  
1,000 Undergrad Students  
1,250 Graduate Students  
300 Faculty

**About Caltech**  
The California Institute of Technology (Caltech) is a prestigious private university and one of the world’s premier research institutions. It has 3,900 staff and 50 research groups and institutes located in Pasadena, CA. Caltech-affiliated scientists have received 44 Nobel Prizes, and seven Nobel laureates are currently in residence. Caltech manages the Jet Propulsion Laboratory (JPL) for NASA and owns and operates several research facilities such as the Seismological Laboratory and a global network of astronomical observatories. It has a low student-to-faculty ratio, with 300 faculty supporting 1,000 undergraduate and 1,250 graduate students.

**Automating Procurement**  
Procurement Services at Caltech currently has four sub-groups: Purchasing, Payment Services, Support Services and a Business Analyst. Its digital transformation journey started in 2005 when it needed to replace paper-based processes generated from its Oracle EBS system and implemented JAGGAER eProcurement. “The adoption of online shopping by consumers in the late nineties changed people’s expectations about how easy it should be to navigate an online transaction,” said Cynthia Rowand, Senior Procurement Services Analyst, who has been with Caltech for eight years. “This was hugely transformative to the purchasing process and continues to serve us very well, 16 years on,” Rowand said.

Using JAGGAER eProcurement, Caltech created “TechMart,” its private eMarketplace for electronic ordering. The entire campus community was given access

to a wider range of suppliers and to easier, more cost-effective purchases. Students and staff saw benefits. Biology shopkeeper, Jose Gonzalez, said, “TechMart has drastically reduced the number of hard copies needed to process a transaction. End users simply create a requisition in TechMart and submit it electronically. In most cases, accounts payable does not have to send out a hard copy of the invoice because all the information needed to pay it is already in the Caltech accounting system. It saves time because the need to call many of the most commonly used suppliers has been eliminated with punch-outs and hosted catalogs.”

**Why JAGGAER**  
JAGGAER One is an intelligent source-to-pay and supplier collaboration platform, and the catalyst for enhancing human decision-making to accelerate business outcomes. Caltech leveraged JAGGAER’s Invoicing that enables end-to-end AP automation, eliminating AP bottlenecks and manual errors, and ensuring global invoicing compliance and accurate tax calculations. Additionally, Caltech leveraged eProcurement, a fully integrated, end-to-end comprehensive and configurable procurement marketplace ensures adoption, to improve governance and eliminate maverick spending.

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Jose Gonzalez, Biology Shopkeeper, California Institute of Technology



The most important benefit Caltech realized through its procurement transformation has been cost reductions without compromising quality. Visibility into spend has enabled the procurement department to aggregate and leverage institute-wide purchasing volume, negotiate better contracts and manage contract compliance. End users also gained better pricing by using catalog suppliers, which in turn resulted in increased contract compliance. In addition, due to efficient order processing, Caltech has not had to add staff to meet increases in the level of oversight and need for compliance that have been caused by continuous changes and additions in federal policy, increasingly complicated state and local tax laws and incessant activity by internal and external audit agencies.

### Automating Accounts Payable

In 2017, Caltech Procurement Services realized that the document management system (DMS) it had been using up until then was not adequately meeting its needs. “Although we were digitizing our invoices it wasn’t a transparent process and there was a lot of email back-and-forth,” Rowand said. “We had to change the system, or we ran the risk of negatively impacting research operations. It became clear that adding JAGGAER’s Invoicing module was the right solution for us, which we did in 2018,” she added. In 2020 it was then relatively simple to add JAGGAER Digital Mailroom, which enabled Procurement Services to support remote working after the Covid-19 pandemic broke. “This would have been really difficult prior to implementing JAGGAER Invoicing,” Rowand recalled.

“The old DMS meant we were seriously backlogged so when we turned on JAGGAER Invoicing we saw immediate benefits. Just through implementing cXML invoicing, we

reduced manual input by 45 percent. But when we implemented JAGGAER Digital Mailroom as well, we got out of the business of paper invoicing altogether,” Rowand said. There were other benefits, too, such as the ability to confirm, electronically, that the goods and services invoiced had actually been delivered and the ability to change the payment terms to incentivize suppliers to join a new 15-day ePayables program that increased Caltech’s rebates.

Lilly Mendez, Accounts Payable Manager at Caltech, said that before JAGGAER Invoicing was implemented, 84 percent of invoices were received by mail or email, and the other 16 percent were still only semi-automated. “This not only meant a lot of duplicated effort, but also a lack of visibility and control, inability to meet payment terms resulting in credit holds, and under-utilization of employee talent. AP was always in a reactive mode,” she said.

By end 2020 the situation had been turned around almost completely. Just 3 percent of invoices were still being processed manually. 43 percent were received electronically in TechMart via cXML. “These accounted for a mere three percent of spend volume yet had absorbed a disproportionate amount of staff time before automation,” said Mendez. A further 38 percent came through JAGGAER Digital Mailroom. Today everything is now 100 percent paper-free.

Invoice cycle times have fallen from an average 7.43 days in 2018 to 2.56 days in 2020, with 56.7 percent of invoices processed in one day. One of the key factors in this improvement is that in TechMart, thresholds can be set for each buying department and invoices below that threshold are paid without any further approval process being necessary.

Over the same period, the percentage of touchless invoices has increased from 15 to 30 percent. “This is significant progress as we are only at an early stage of optimization, but our goal is to reach 50 percent,” Mendez said. She acknowledges that there is still some way to go. Caltech is looking to onboard more suppliers of catalog items that can provide invoices via cXML and at ways to reduce the need for exception handling of invoices received through JAGGAER Digital Mailroom. Not least, it wants to increase the number of suppliers, and the volume of spend, on the ePayables program.

Caltech Procurement Services is now better able to focus resources on exception handling and identifying fraudulent invoices. “Fraud is an increasing threat, and I cannot imagine that we would have been able to manage it with the old manual processes,” she added. She has been able to shift some colleagues into more useful and professionally satisfying analytical roles. “JAGGAER Invoicing restored the credibility of Procurement Services across the organization. But the greatest benefit of all was to get the new system in place in the nick of time before the Covid-19 crisis, seamlessly and without any downtime,” Mendez concluded.

### Bottom Line Results

- Increased spend under management
- Cost reduction without quality compromise
- 98 percent user adoption and satisfaction with eProcurement system
- Increased contract compliance
- Only 1 percent of purchase requisitions still made manually
- Average invoice cycle times slashed from 7.43 days to 2.56 days
- 100 percent digital invoicing
- Reallocation of procurement talent from routine to analytical tasks
- Ability to identify and eliminate fraud

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Lilly Mendez, Accounts Payable Manager