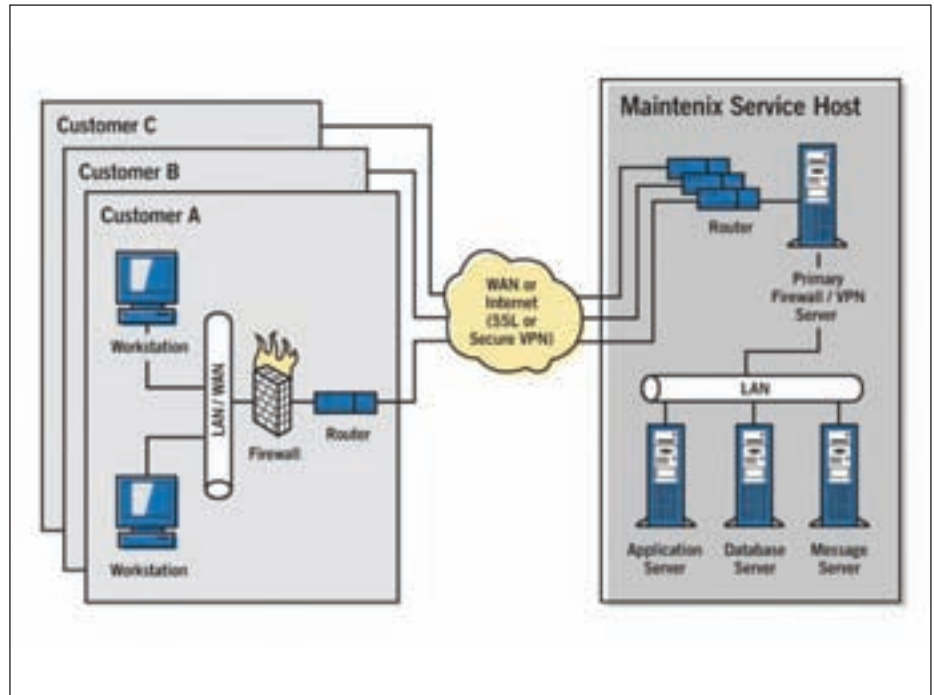


# Maintenance IT the ASP way

The idea of accessing maintenance, engineering and inventory software over the a secure internet connection rather than from an in-house server has become a commercial reality only recently and is yet to make a major impression on the market. But its proponents are adamant that it is the way of the future, writes *Bernard Fitzsimons*.



*Maintenix architecture simplified.*

It is hard to argue with the proposition that organisations should concentrate on their core business and outsource any peripheral activity that can be provided more cost-effectively by a specialist service provider. Yet the application service provider (ASP) approach has taken longer to catch on in airlines than many other businesses, and is only just starting to penetrate the maintenance and engineering side of the business.

## *ASP attractions*

Mxi's Matt Tobin provides a succinct summary of the benefits of the ASP model. It constitutes a scalable solution, he explains, one which lowers the total cost of ownership and whose shorter implementation cycle offers a quicker return on investment. The reduced requirement for up-front expenditure also enables operators to conserve capital while providing more flexible use of IT staff and data centre and enables customers to focus on core competencies.

Mxi's own MRO software product, Maintenix, is naturally suited to ASP hosting because of its web-based "n

tier" architecture, Tobin says: "Over an extended period, one of our customers accessed Maintenix via ASP and we were able to prove the reliability and responsiveness of the system."

By the third quarter of 2005 Mxi had one active ASP engagement. Hawaiian Airlines selected Maintenix earlier this year as part of a larger contract with Sabre Airline Solutions. Sabre had selected Maintenix last year to replace its previous maintenance, engineering and inventory software offering, Maxi-Merlin, saying it intended to integrate it into the Sabre AirOps Control suite as well as making it available through eMergo.

Tobin says Mxi's ability to offer ASP delivery has also provided a way to support pilot projects and transitional approaches to delivery: "In the case of KLM, we initially provided Maintenix across the Atlantic through an ASP arrangement, which allowed the airline to begin using the system and deriving benefits very quickly." The system was later transitioned to self-hosting by KLM.

And while most of the new airline business that Mxi has won in the last

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— Matt Tobin, Mxi.

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year has been in the form of traditional deliveries, the company has several ASP negotiations under way and expects this to be a growing part of its business over the coming years.

There are both business and technical explanations for the slow adoption of ASP for aviation MRO so far, Tobin considers: "The business arguments are an extension of the long-standing debate about the merits of 'vertical integration' or self-sufficiency. A storied example of an extreme view of vertical integration is carmaker Henry Ford who built his own steel mills and grew his own rubber trees in Brazil."

The so-called legacy carriers were likewise characterised by self-sufficiency in areas spanning engineering, maintenance — line, engine, component and airframe — operations, IT development and IT management. As Tobin says, there seems little doubt as to which business model is succeeding today: "The

airlines that have embraced outsourcing, be it in maintenance or IT, are the ones returning shareholder value."

On the technical side, Tobin points out, ASP-capable products for MRO IT have become available only recently and only a few have been proven in service.

Another technical aspect to the comparison of ASP and self-hosted services is what Tobin regards as a hidden benefit. Customers following the traditional approach often expect the software to be customised rather than adapting their own terminology or work flow patterns. But for the ASP model to work the application must remain standardised: "One of the basic ideas behind ASP is the one to many relationship, which requires that the same core software be used as-is by multiple users. So there is an inherent change in the expectation."

The result is what Tobin considers a more healthy attitude among users, who



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are starting to recognise the attractions of software that "meets 90 per cent of their needs out of the box, is available at a great price, does not carry the risk of delays during customisation and will not involve subsequent payments to cover customisations of future releases." And the low-cost carriers, who have embraced outsourcing most readily, are less interested in customising maintenance programmes anyway

*Early adopters*

Mark Ogren, vice president, commercial sales and marketing, with La Jolla, California-based Miro Technologies, says most users of the company's AuRA solution license the software in the traditional manner. Meanwhile, customers for the ASP option which Miro has offered for the last couple of years in partnership with MainTrack Services and T-Systems, fall into two main categories. One of them, as might be expected, comprises

regional airlines and start-ups such as Seattle-based Cargo 360.

"From a business perspective, the MainTrack ASP model just makes sense," comments BJ Smith, Cargo 360's SVP operations. "You get access to world-class IT systems like AuRA without the cash flow burden associated with software licenses, servers or internal IT infrastructure costs. MainTrack takes care of IT integration complexities for us, and that allows us to concentrate on our core business functions."

The other market for the ASP option, Ogren says, has turned out to be OEMs, exemplified in Miro's case by Embraer. Last year the Brazilian airframer selected MainTrack's managed service delivery of AuRA to support its remote maintenance optimised tracking (ReMOT) service. ReMOT in turn helps operators of Embraer Legacy business jets and corporate shuttles support the maintenance and engineering

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Last year the Brazilian airframer selected MainTrack's managed service delivery of AuRA to support its remote maintenance optimised tracking (ReMOT) service.

management of their aircraft. The secure web-based access enables both Embraer staff and customers to share and access information.

Luciano Castro, leader of Embraer's optimised maintenance solutions team, said at the time that flexibility had been a key requirement: "The ASP programme packaged by Miro and MainTrack gives us that. We support small, dispersed operators world-wide and need to be able to set up facilities any time and anywhere with absolutely no IT infrastructure other than a telephone line and a PC."

Embraer is now recommending that regional airlines also take advantage of the AuRA ASP service, Ogren says. But the determining factor as to whether an airline should opt for the ASP model or implement the maintenance solution using its own resources is not so much fleet size as the operator's existing IT competence.

"If you have a significant IT department, a lot of experienced personnel and a lot of infrastructure, probably the traditional licensing approach would be a better fit," he considers. "But if you don't have a

strong IT infrastructure and a significant IT organisation, an ASP option can solve a lot of problems for you. It can get you up and running quickly, lower your project risks, lower your up-front costs and give you access rather quickly to some very significant benefits."

The airline industry tends to lag other verticals in picking up on new IT concepts and the ASP model has been adopted more quickly in other industries, Ogren adds: "But the market has shown some interest in it and I think it will continue to grow. I think there is more awareness now of the benefits of the ASP option."

Miro supports customers implementing the software via ASP in the same way as if they license it directly: "We'd have the same responsibility in terms of conducting the implementation, the training, the data conversion and so on," he explains. But the responsibility for ensuring the managed solution is properly hosted and always available is assumed by Miro's ASP partners.

### *MainTrack model*

MainTrack's Geoff Hughes agrees that the airlines are lagging other industries in exploiting the possibilities of service provision. But he predicts that it is only a matter of time before there is a wholesale switch: "I think once it gets enough critical mass moving in the right direction, then it will become self-propelling and virtually everyone will go outside to an ASP."

MainTrack itself was formed in 2003 with the goal of making software solutions available to airlines in an affordable way. It also aims to avoid what Hughes describes as the classical problem of buying software systems for individual applications, only to discover that they do not communicate with one another. So, Hughes says, the MainTrack offering includes all the IT an airline might need: "We're offering a complete suite right from reservations, a check-in system and self-service kiosks right through to maintenance, engineering and all the back office stuff. And each of the solutions is hand-picked from the marketplace to make sure it's high quality, it's open and it's

got a future, it's backed by a company that's going to be in business for a while."

Having selected software partners, including Miro for engineering and maintenance, the founders addressed the problem of how to provide them on the internet in a flexible way to users without big IT departments. The answer was Deutsche Telekom subsidiary T-Systems, one of the world's biggest hosting providers.

"We could have bought a couple of big servers and offered our own services out of our own facilities," Hughes comments. "But we felt that to offer a world-class service that people would pay for and believe in we'd have to get a professional service provider."

Offering its services through a partner host provider is a big differentiator for MainTrack, he says: "It was one of the attractions for Miro to come on board with AuRA, for instance, because now their ASP is offered as a highly professional service, with an 80-page service level agreement contract detailing up times, how long it's going to take to recover with different categories of failure rates and that kind of thing. It's a highly organised, highly professional service."

There is another difference, he says: "We've gone out and selected a world class software provider and a world class service provider and we're offering it at a rate that's comparable with any of the smaller systems available. So clients are getting really good value for money if they go with a hosted system." It is not all or nothing though, and ASP services can be integrated with existing in-house systems: "We spent a lot of time thinking about the architecture and the blueprint."

MainTrack's pricing is based on a single monthly fee, Hughes says: "That takes care of everybody, there are no future hidden costs of hardware or software upgrades, Oracle database licenses or hiring extra people." The ability to plan without risk makes it popular with finance departments, he adds.

The fee is based on a charge per user per month, and operates on a sliding

scale to reflect ups and downs in the activity. If an operation grows to the point where the cost-per-user model stops being cost-effective, a different charging model can be negotiated based on tail counts or average transactions.

The biggest market so far has been start-ups and regionals, for whom cost is crucial. But cost is not the only reason, Hughes says. Bigger, longer-established operators commonly have their own IT departments, which naturally tend to resist outsourcing in favour of maintaining an in-house capability. "But if the IT department is not strong and the business people are taking the decision, nine times out of 10 it's not an issue."

In any case, he predicts, over time and where it makes sense, the larger airlines, too, will turn to outsourcing: "IT is a commodity, really, there's no competitive advantage to be gained from running a maintenance system in house. The competitive advantage for an airline comes from channels to market, marketing, positioning strategy. Why spend all this time and effort supporting a commodity within the organisation called IT? It really doesn't make any sense."

Hughes has ready answers to other possible objections. The fear that data no longer being inside an organisation's own four walls means it is "outside my control", for example: "For small or medium size airlines my argument is always 'it's safer outside your organisation with a professional IT provider like T-Systems than inside your smaller organisation which may not back up the data in a separate building outside your four walls, and may not have a fall-over capability that can bring it back up on line within three minutes'."

Worries about security receive similarly short shrift: "What's the most sensitive system an airline has? It's its reservation, booking and revenue management system. All of those are now hosted. There is no in-house revenue management system literally in the world, those are on an ASP by default, so there's no issue."

### *Third-party potential*

Airlines outsourcing their MRO information technology provision are

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— Geoff Hughes, MainTrack.

likely to outsourcing the work it manages, too. But the carrier is still legally responsible for the airworthiness and regulatory compliance of its fleet, and in this context Hughes sees another ASP advantage: "You still need to exercise control. Even if you outsource every piece of work you still need to track, control and report on the maintenance activity, and the flexibility of the ASP can support that that trend toward outsourcing work to a maintenance provider.

"You can open up a session on your maintenance system so the maintenance provider can log on over the internet from his facility and say, 'OK, I've just done your C check, here's the discrepancies, here's the findings and here's the bill.' That could be entered very quickly either manually by someone from the airline on site at the maintenance provider, or the maintenance provider themselves as

part of the contract, or by an interface from the maintenance provider's IT system into the ASP system. Because we're following open standards and making sure our solution can feed off multiple sources, that is easy to do."

Mxi's Matt Tobin supports the notion with another variation: "Say you're an airline customer, you've made a deal with Mxi and you're going to buy our software, and suppose you outsource all your airframe maintenance. One possibility is to make a deal such that you ask your heavy maintenance provider to use your ASP system — obviously it's web-based, anyone can access it given the right passwords and so on — as part of your contractual negotiation. That way you trivialise the capture of data and you avoid the unfortunate issue of having to move monstrous amounts of data between one company and another at the end of the transaction or at the end of an activity." ●



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