

Arm your leasing platform with enterprise architecture

Driven by growth ambitions and facing the accelerating pace of market consolidation, lessors with well-implemented enterprise architectures benefit from both cost- and differentiation-based competitive advantages over their rivals.

Yearly surveys routinely indicate a need for enterprise architecture (EA). Chief information officers across all industries, including aviation finance, often list implementing or improving an EA initiative as a top priority.

“The good news is that every lessor already has an enterprise architecture. When it comes to evaluating its effectiveness and economics, the key question is: ‘Do we have the right one?’,” asks John McCartney, Zeevo Group principal.

“The need for EA is rooted in two of its main objectives: (1) aligning the business and its operations with information technology (IT); and (2) bridging the gap between the company’s current state and its desired future state, especially when in a rapid growth mode,” he adds.

In its simplest sense, an aircraft lessor’s EA is a collection of tools it uses to manage the storage and flow of the

platform’s fleet and financial data. Often, one of those key tools is Microsoft Excel.

“We constantly see poorly implemented EA frameworks among lessors, which rely heavily upon the use of unfit tools that render their systems random, ad hoc, and inefficient. These characteristics are ill-suited to a capital-intensive, competitive and constantly changing global industry like aircraft leasing,” notes McCartney.

Lessors with well-executed EA frameworks benefit from both cost- and differentiation-based competitive advantages over their rivals, as their frameworks are nimble enough to adapt effectively to the increasing demands of their growth and withstand the impending effects of market consolidation they may face. Well-integrated, coherent and often proactively designed EA frameworks mean the difference between an aircraft leasing platform’s survival or going to the wall.

Competitive advantage rooted in effective EA

Today, aircraft leasing is a highly competitive industry, which has seen an unprecedented number of new entrants over the past decade. Sector consolidation is also continuing apace, with recent landmark acquisitions such as AWAS by DAE, Avolon by Bohai and ILFC by AerCap, to name just a few.

In a capital-intensive industry, there are a number of ways potentially to create a competitive advantage. Optimising working capital, creating a low-cost position by taking advantage of geographic variances, strategic merger and acquisitions, and maximising returns around services offerings are some of the ways that have been identified. Being able to measure and improve the returns around these activities requires the collection, transmission and storage of the data associated with relevant metrics.

Each firm has an easy path to follow as far as satisfying its IT requirements. IT can quickly and easily solve the problems of a low-volume, high-value transaction industry with off-the-shelf tools – often with consumer-based products – and the most basic of system security protocols.

For the initial period of growth, tracking assets is easy, and a low number of staff is required to run the firm. A skeleton IT staff may be sufficient to keep the laptops patched and manage the increasing collection of mobile devices and local office WiFi challenges. The balance of the firm's staff profile and operational tasks are tilted strongly towards market analysis and deal-making value activities. Little, if any, thought is usually assigned to the impending informational challenges of successful growth.

However, as a leasing platform accelerates the pace of its expansion, the significant information demands from investors, the need to support the commercial team and the increasing fiduciary responsibilities will eventually necessitate the lessor to establish new formal procedures.

The service demands of clients also become increasingly multigeographical, placing language, time-zone and travel demands on key staff. When travelling, the need for information to be available remotely and instantly to close deals becomes exposed. Setting up regional offices solves some of those problems but creates others. Related information may now be split across multiple jurisdictions, in various currencies, and tailored to different local regulatory requirements. Global financial management reporting and treasury function demands also increase. As an enterprise grows, it acquires numerous pieces of software to manage today's problems quickly and effectively.

To illustrate, one of the critical value activities of every aircraft lessor is fleet management.

"In our experience, once the lessor's fleet size hits around 70 to 100 aircraft, an unplanned enterprise architecture begins to break down," says McCartney. "At this growth limit, manual procedures in information tracking, operations, billing and other processes begin to introduce and accumulate potentially significant errors and omissions."

Different individuals may have managed the details associated with maintenance events, reserves transactions, return conditions and important lease provisions in poorly controlled spreadsheets and documents, and this makes it difficult for the teams properly to value and package the assets. More time is spent finding the correct version of the information – often stuck in someone's mailbox or on a local laptop.

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Forecasting efforts are a real struggle because the right feed of data needed for the sophisticated algorithms to show their power is not available. Data starts to age, CRMs become cluttered with old leads and return-on-investment calculations on campaigns become slow and painful to do because the CRM is not integrated with the financial software. In short, all the operational efficiencies in your poorly implemented enterprise architecture are exposed.

"Ultimately, deals can be lost, and tremendous amounts of energy are consumed trying to sort out internal issues rather than creating or exercising your competitive advantages in the market," says McCartney.

Key organisational components EA supports

As noted at the beginning of this article, every lessor already has an enterprise architecture. Managing stock of assets and the sales and marketing endeavours are likely to be two of the most important value creators. Ensuring an effective transfer of information between these value activities is one of the key objectives of enterprise architecture.

However, being able to secure and funnel all the relevant data quickly and accurately to the various decision-makers of an organisation is not a trivial task; scenario planning is only as good as the data plugged into it, and it will be difficult to leverage information as a competitive advantage if employees cannot access it.

Lessors may even be underequipped to deal with any active or passive cybersecurity threat that is targeting their firm and their data. Compliance issues, eg, GDPR and email list management, can consume large amounts of internal resources trying to funnel the right data at the right time.

From an enterprise architecture perspective, there are a number of organisational components within a firm that must be supported:

1. The *business* architecture (what the firm does);

2. The *data* domain (the data managed by the firm);
3. The *applications* domain (the software used);
4. The *infrastructure* (the networks, and physical devices used);
5. The *security* of the firm's enterprise architecture; and
6. The *compliance* requirements of the firm (eg, GDPR).

Each of these domains overlaps, and the challenge of enterprise architecture (or specifically an enterprise architect) is to:

- create descriptions of today's enterprise architecture and tomorrow's future version, which must be aligned to the firm's strategic goals;
- quantify the gap between the two states;
- plan a migration from today to tomorrow; and
- govern the implementation of the transition.

How to create valuable enterprise architecture

Even if the C-suite has not thought much about it until now, it is not too late to start designing an enterprise architecture that promotes business growth rather than continuing to tolerate one that is likely already getting in a lessor's way. Making the decision to take enterprise architecture seriously is one thing. Implementing a decision is quite another.

As with so many of today's complex problems, working with the right people is a fundamental success factor in solving technology challenges successfully. Given the typical staff balance in leasing companies, it is unlikely that an existing IT team would have the required knowledge to carry out the duties of an enterprise architect. Equally, enterprise architects are typically responsible for the design of a solution and not for the actual implementation (not unlike traditional architects who pass requirements to contractors and builders to build their designs).

Consequently, enterprise architects can be difficult people to recruit and retain over the required timescale.

It would seem to make sense instead to partner with an external adviser that knows the industry well and has the necessary skills to architect and implement the changes a lessor requires to create a competitive advantage with the information and market positioning. At the very least, a lessor needs to be sure that the firm is operating as efficiently as competitors. Benchmarking the platform against industry-leading practices provides just the right amount of visibility to make an informed decision about where the C-suite should go with their enterprise architecture – and the business.

Current and future trends

Of course, no conversation about IT is complete without mentioning IT change. The rate of technology advancement over the past two decades has been staggering, and many firms have failed to recognise the required shift from physical processing capability to information processing capability.

There are four specific trends that are gaining quite a lot of attention. Buzzwords such as Big Data, Blockchain, Artificial Intelligence (AI) and The Internet of Things (IoT) are a few that have made some of the biggest waves in recent years. As with all revolutionary technologies, it is impossible to say exactly how and when any sort of true competitive advantage can be created through their implementation:

- *Big Data* (or even just good business intelligence) can revolutionise a lessor's understanding of fleet economics;
- *Blockchain* could speed up sales by creating greater trust in maintenance records that are independently and instantly verifiable as true, complete and correct;

- *IOT* could create entirely new ways of tracking engine or fuselage wear and tear – helping to optimise maintenance schedules and even pre-empting technical failures that occur outside the manufacturer's expected tolerances; and
- *Artificial Intelligence* could find ways to optimise a lessor by being able to provide multilingual, instantaneous translations of texts and phone calls 24/7 to your entire global client base; perhaps an AI presence on every asset you own could help to ensure that aircraft are being managed properly between maintenance checks or even in-flight.

An enterprise architecture is not a silver-bullet defence against these coming revolutions, in which every lessor, one way or another, is likely already investing. McCartney says that at a minimum, "having a fit-for-purpose enterprise architecture should at least position your platform to be able to react when something material hits the technology stack in aircraft leasing. If you can't even conduct a reliable scenario modelling exercise without effort – you're

almost certain to be left behind when your rivals turn on their new afterburners; perhaps too far behind to even catch up when you finally get your own firm upgraded".

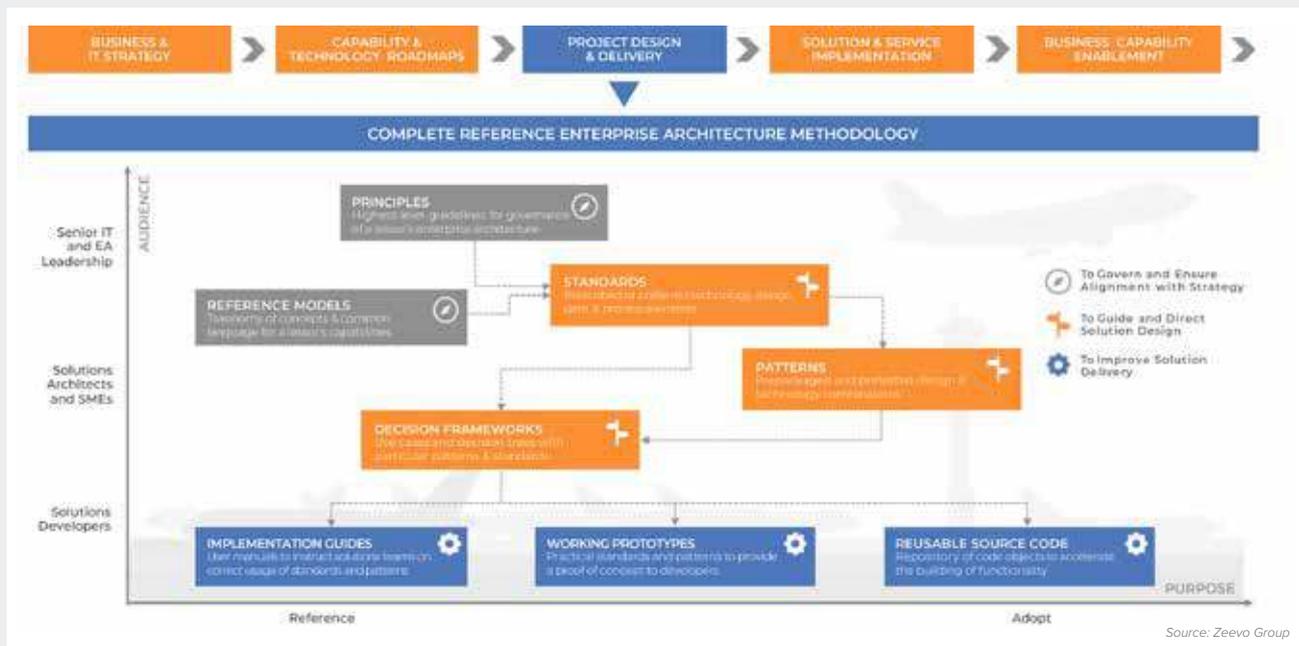
So what is next?

As your leasing platform grows, it will develop an enterprise architecture – often in an unstructured and ad-hoc manner. Taking the time to design an effective EA framework can help to eliminate operational bottlenecks and pave the way to creating cost- or differentiation-based competitive advantages.

While you may not have the skills and expertise in-house to create and maintain an effective enterprise architecture, partnering with a knowledgeable expert, such as Zeevo Group, can equip your platform with the required know-how.

The Zeevo Group team has developed a complete reference enterprise architecture methodology tailored to the needs of aircraft lessors, based on best practices and extensive experience in assisting solutions delivery teams with making effective design and technology choices. [▲](#)

Complete reference enterprise architecture methodology



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"Zeevo Group knows the ins and outs of aligning technology initiatives with corporate strategy and business objectives. Our clients realise significant gains in productivity and operational efficiency through assessing opportunities, auditing capabilities, evaluating alternatives and defining requirements

that guide design, implementation and management of sustainable IT solutions and enterprise architecture frameworks," concludes John McCartney, Zeevo Group principal.

The Zeevo Group team will avail your business. Learn more about Zeevo Group's EA services at zeevogroup.com.



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Forward-thinking strategy and effective enterprise architecture ("EA") can arm your business with both cost- and differentiation-based competitive advantages, realizing significant gains in productivity and operational efficiency.

The Zeevo team's market-leading expertise and experience will deliver an EA framework that will enable your leasing platform to react quicker, scale easier, and capitalize on emerging opportunities to grow.

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