Cut through complexity:

restoring innovation to your business systems

Can you rely on your business systems? **Don't be so sure.** The complexity of today's systems could be **threatening your capacity** to innovate – and that's something no organization can afford in a rapidly moving digital marketplace. It's time to think **configurability, simplification and automation.**

"Business systems have become so complicated that they can no longer properly support the innovation that companies need"

I ONCE ATTENDED a billing conference where one of the speakers began by saying that nobody ever likes their billing system. While I smiled at the joke as much as the next person, it also sparked a nagging question: why do we accept that billing – and, for that matter, most if not all business systems – are disliked, and sometimes even hated, by those who depend on them?

The following (imaginary) dialog might give you a good idea why:

THE SETTING: A packed boardroom filled with business and technology executives.
THE MOOD: The business executives are very excited about their new idea and the great things it can do for the business.
THE CONVERSATION SHORTLY AFTER THE LAST SLIDE:
Business executive: So can we do it? (with a great deal of excitement)
Technology head: No, because...
(being completely open and honest)
Business executive: What do you mean?
(interrupting)
Technology head: It is not that simple
(slightly defensive due to being interrupted)
Business executive: What do you mean?
(puzzled and slightly irritated)
Technology head: It cannot be done as quickly as you want (calm and honest)
Business executive: So it can be done?
(still puzzled but hopeful)
Technology head: Yes, anything is possible (calm and confident)
Business executive: So when can we have it?
(very excited again)
Technology head: I do not know. That is like asking for the length of a piece of string
(open and honest)
Business executive: What do you mean?
(back to irritated)
Technology head: We need to study your requirement and see what systems will be impacted (open and honest)
Business executive: How long will the study take?
(getting irritated)
Technology head: Three months
(calm and confident)
Business executive: But today you cannot even give me an idea? (angry)
Technology head: No, and we do not know what it will cost either (slightly annoyed)
Business executive: What? (angry)
Technology head: Once we have done the study, then we can estimate the cost (annoyed)
Business executive: Estimate? (angry)
Technology head: Yes, the systems are very complicated (defensive)
Business executive: Whatever – just get it done
(no energy left in the room).


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THE MILLION-DOLLAR QUESTION

There is not a single executive in the world that likes being told "no" when trying to be creative and introduce a new offering or enhance a current one. Quite understandably, they want to be able to innovate in order to stay ahead of the market – and in a digital marketplace that brings new competitors every day, speed and fresh thinking have never been more important.

But as the dialog above shows, business systems have become so complicated that they can no longer properly support the innovation that companies need. The ICT industry has often promised change in this respect, but it has rarely been delivered. Seen in this light, the unpopularity of business systems is hardly surprising. This is why most business executives see these systems as a necessary evil.

It doesn't take long to realize that there is no point blaming the technology itself. So now comes the million-dollar question: why are today's business systems so complicated?

The answer has several dimensions, since one must consider the different contributors to the problem. But one thing is clear: nobody is entirely innocent here, although some may be guiltier than others.

First let's take a look at the business system landscape:

▶ **Enterprises that use the systems**

For the past 10 to 20 years, enterprises have been following a best-of-breed buying practice. In other words, they buy the best system in each functional area and put them together.

▶ **Suppliers of business systems**

The suppliers have always built systems that they can sell easily, so they build what the market wants to buy.

▶ **Integrators of business systems:**

The integrators advise both the enterprises and the suppliers on making the right choices. The integrators are also the ones that put it all together in the end.

You may think there is nothing wrong with this set-up. But consider that best-of-breed systems are made to be completely independent of the other systems that may be used in an enterprise. They are designed as systems that should always grow in functionality and responsibility, which means they are designed to compete with everything around them. Putting ten best-of-breed systems together gives an enterprise a lot of functionality, but much of it exists in multiple systems and some of it only in certain systems – remember, they are designed to be stand-alone.

Now here come the guys with the answers, the systems integrators, who put all these designed-to-compete systems together into one business system that is supposed to give the enterprise the ability to maximize the unique capabilities of each individual sub-system. But when systems are designed to be independent and compete with everything around them, they need to be customized to fit together. While this sounds innocent enough, it is in fact one of the root causes of the problem.

Customizations can be equated to rubber bands, sticky tape or bubblegum in that they hold the components of larger systems together. This would be fine if the needs of the enterprise were fixed, but, in fact, the needs of an enterprise are ever-changing as markets, technology, regulation and

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competition evolve. Putting things together with customizations is never going to fully support the needs of the enterprise in the long run. Nor will it ensure the minimal complexity that enables an enterprise to be agile – you actually get quite the opposite effect, namely overwhelming complexity.

WHAT CAN WE DO ABOUT IT?

Now for the really big issue. Once this level of complexity exists, it starts to take on a life of its own, since it requires so many people on the supplier, integrator and user sides to try and manage it. The complexity ends up overshadowing the core purpose of the ecosystem, and the actual needs of the business almost become afterthoughts.

So while most people active in the business systems market probably know what the problem is, very few are actively addressing it, since that complexity has become the reason why many of these people have a job in the first place.

But the need to overcome complexity is becoming urgent, because the gap between the needs of the business and the pace at which today's business systems can fulfill them keeps growing. It's time to ask: what can we do about it?

In the last five years, many enterprises have started to consolidate their business system suppliers and partners in order to minimize the number of providers needed to get something done. While this improves things somewhat, it does not take the problem away.

Enterprises have also started to look at the architecture of their business systems in order to optimize the way things fit together and to be clearer about what gets done where. The problem here is that the same people who created the complexity are being charged with simplifying things. In their world, these are state-of-the-art systems, and some even believe the systems cannot be improved upon. The net effect is that the architectures remain complex and rigid, and fall short of being able to support innovation properly.

STACK IS THE NEW BLACK

Instead of buying pieces and trying to glue them together with an integrator, enterprises should start looking to suppliers capable of providing complete, well-integrated business systems – call them full-stacks.

However, not all full-stacks can live up to their marketing story, as several enterprises that have started a business-system transformation have found out the hard way – with a big hole in their wallet. A truly future-proof full-stack is always designed with three customer needs in mind:

- **Customer first:**
the enterprise should be able to delight its customers in every interaction
- **Innovation:**
the enterprise should be able to evolve as its market evolves
- **Cost-efficiency:**
the enterprise should be able to scale its business without an equivalent increase in cost.

These needs can only be satisfied by a full-stack business system that is designed for:

- **Simplicity**
with respect to information model and architecture. Business functions and business data should not be duplicated
- **Configurability**
that enables the systems to be in a constant state of change without the need for customization. Configurability is equal to being an enabler for business agility
- **Automation**
to enable the enterprise to scale without an equivalent increase in cost.

To achieve these three differentiating and disruptive characteristics:

- **Business data and business applications must be separated.** This removes the need for distributing, duplicating and synchronizing business data, which creates a great deal of today's complexity. The resulting architecture is one in which all business applications work on one version of the data. This is much simpler than being forced to adapt the same piece of data to potentially hundreds of different business applications.
- **Business process definition must be configurable and defined configurations must execute automatically.** Automation enables many things to be done in parallel without using more resources. Business systems often use people as the integration points between systems and the holders and executors of business processes. Relieving these people from such time-consuming and mundane tasks frees them up to innovate.

There's one more piece of the puzzle to consider. Looking forward, most enterprises will move business systems into cloud infrastructure. Once on cloud infrastructure, the natural next step is to switch to buying business applications as a service. Enterprise information will need to be handled with care in order not to fragment it among different service providers and create even more rigidity and complexity than we already have.

CUT THROUGH COMPLEXITY

The complexity has gone far enough. When it begins to compromise the ability of a business to innovate, the time has come to act. To bring the innovation back, business systems must be simplified, configurable and automated. This will relieve more people to be creative instead of reactive, and empower enterprises to take control of their future and build business – no matter where the market goes next. And who knows, maybe business systems could one day even be popular? ●

ABOUT THE AUTHOR

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