

You Call it Legacy. I Call it Production.

The IT world is moving fast according to the pundits. You may read the latest round of articles that tell you about microservices and cloud-first, or cloud-only organizations who are using development strategies to embrace DevOps and the inevitable shift towards next-generation platforms.

Containers, clouds, microservices, DevOps, Serverless...and Legacy!

Tired of buzzword bingo? You're not alone. One of the most common themes that we see among many of those who are pushing us toward the next platforms is that we keep hearing about "legacy IT". The word legacy is thrown around as if we are supposed to feel bad that it is still here. The reality is that what most leading edge pundits call legacy, is what 90+% of organizations call production.

As a firm believer in leaning forward, I may even be accused of being a little too far over my skis as some like to say. What I make a point of doing is keeping a foot firmly planted in today's infrastructure at the same time that I have the other foot on the path to something new and unknown. It's an important tactic that we all need to embrace IMHO.

The Path to Tomorrow Starts with Understanding Yesterday

I'm not trying to be all philosophical with saying that you can't understand tomorrow without understanding yesterday, but that is a very real issue that people can overlook. This comes in other ways that I like to phrase it:

- you can't automate what you don't understand
- process improvement implies you understand the process
- don't buy technology that is a "solution looking for a problem"

Don't even get me started on bimodal. Ok, I'll get started myself.

Welcome to Septimodal IT

Much of the punditry in our industry has landed on this concept of bimodal IT. What's frightening to me is that it's being treated as if it is new and that because it was given a name, that a consulting company is needed to help you understand it and get through it. We've been bimodal since the 1970s.

This is my picture of most IT shops in enterprise organizations:

1. Paper - don't knock it. More of your business is run here than you realize
2. Mainframe - centralized computing model with lots and lots of data
3. AS/400 and mid-tier computing - bridging the mainframe and the distributed platforms
4. Client/Server applications - common distributed systems architecture
5. Desktop-based - yes, MS Excel is keeping your finance department systems alive
6. Cloud-Native architectures - on-premises and cloud-hosted, but cloud-native architecture and design
7. SaaS-based - web and mobile access to SaaS platforms

When we roll one off of the bottom, it will inevitably be replaced by one at the top. Technically, there

are six forms of real IT-based content in the list, but I would rather not call it Sexamodal because that just sounds creepy.

Embrace Legacy and Nurture it's Evolution

The more that we try to move forward, the more we tend to create abstractions to reduce the friction of interacting with the previous generations of IT systems. This is a great enabler for us to be able to keep the data and systems where they excel. Why should you move all of your data out of a distributed system into a web-based, cloud-native architecture when the cost to do so would far exceed the value gotten from the refactoring.

Make sure that you understand the real business requirements of the current systems before we race to replace them. Any decision around technology that is not made in the context of a business requirement will lead to costs and frustration. Plus, before we go around tagging everything as legacy as if it is a bad thing, remember that it is keeping your business alive.

We are Entering a Future of Bipartisan IT

Yes, that is bipartisan, not bimodal. For some reason I have always been torn on the term bimodal IT. Gartner has been using this term heavily in the last 12-18 months, and we can see that it has obviously been resonating.

Bimodal IT is defined as follows: (source: screenshot from Google.com search)

Bimodal IT is the practice of managing two separate, coherent modes of IT delivery, one focused on stability and the other on agility. Mode 1 is traditional and sequential, emphasizing safety and accuracy. Mode 2 is exploratory and nonlinear, emphasizing agility and speed.

Bimodal IT - Gartner IT Glossary
www.gartner.com/it-glossary/bimodal

I fought the term for a long time because it felt like it didn't capture the real essence of the challenge that is happening inside IT organizations. The phrase was bothersome for some reason because, to me, it felt like it was too much of a generalization. I've had my issues with gross generalizations made by analysts because they tend to be like horoscopes such as "you will find that someone says something to you today that is meaningful", and of course, you take something that happens and apply to the horoscope as if the horoscope was the true predictor. I have lots of friends at analyst firms, so I'll end my rant there to not sound jaded.

Bimodal anything is the necessity. You can't suddenly swing from one methodology to the other. There is always a state of transition, so the phrase bimodal seemed about as visionary as when people say "at the end of the day".

So, how is bimodal IT going?

Bipartisan IT. The Truth of the Transition

When I say bipartisan IT, I mean it in the sense of US politics. We see two wildly different extremes of the political spectrum with growing divide the more each particular side gets some more press. Bipartisan IT is easy to find. If you want to see it in action, just tweet one of the following statements:

“legacy computing needs to go away. It’s time we realize that public cloud is the future”

or

“Anyone who believes public cloud is the inevitable future has no idea of the risks that biz can’t to take to get there. Private cloud is the only option for most.”

They may seem polarizing, and believe me that if you post one of those, you will very quickly see which of your Twitter followers land on which side of the public cloud versus private cloud argument.

We saw the same resistance as we moved from centralized computing on the mainframe and distributed computing came along. At first, it was seen as a fad. Once it began to take hold, it was recognized that it will coexist with the traditional mainframe model. Distributed computing advocates began predicting the end of the mainframe era. Mainframe advocates held onto the opinion that the data was in the mainframe, and thus was immovable. The tug-o-war continued and today we see that many large organizations still fully embrace both types of computing platforms.

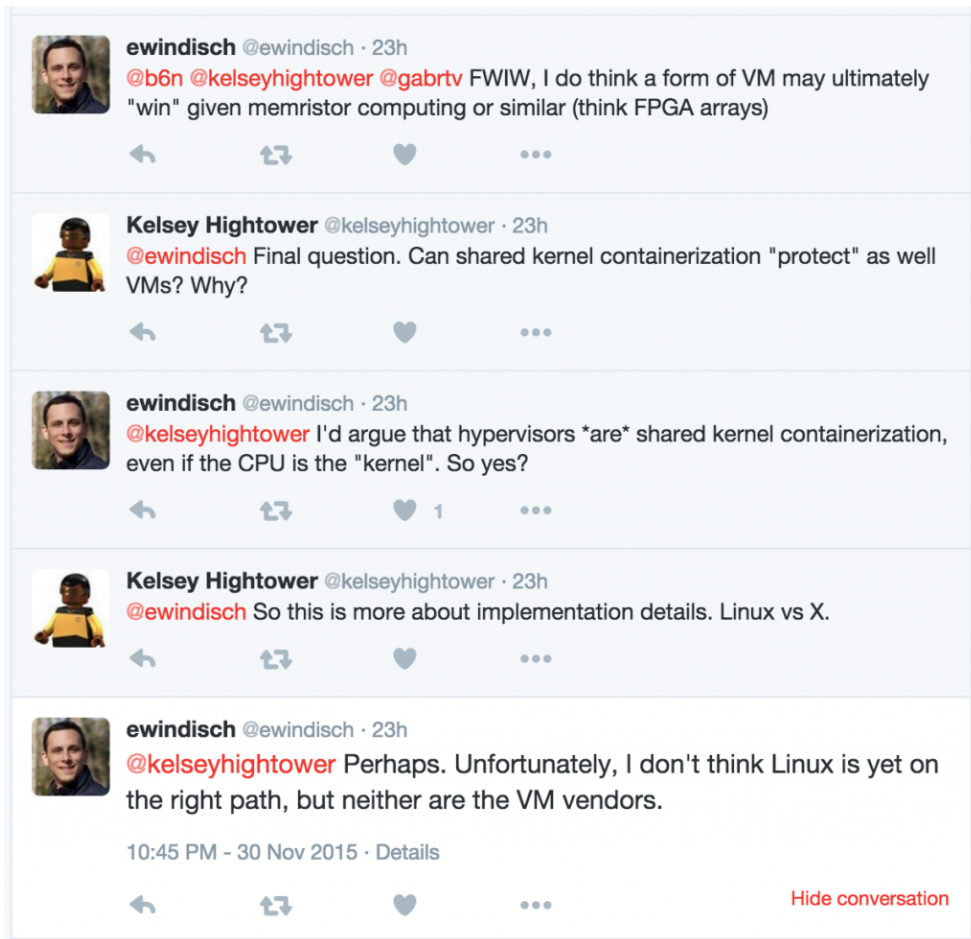
To be honest, mainframe versus distributed was probably the first of the bimodal IT examples. Predicting that bimodal IT is the future is effectively like predicting that evolution is the future. It’s a given, not a visionary statement.

Containers on VMs: A Surprisingly Partisan Discussion

I pride myself on seeing both sides of every argument. It’s important as an architect to understand both the “Why?” and “Why not?” of every architectural and technology decision we make. Business relies on understanding how it will win, and how it may lose as it undertakes any strategy. I’m not saying that I’m right, but I do see both sides which each think that they are right.

Recently I have seen a lot of activity around whether containers on VMs is a direction that should be embraced. It has it’s pros and cons, and [I wrote about some of my thoughts on it here](#). Another classic challenge we have with technology discussions is that we often latch onto facts that can expire. You may recall the famous Bill Gates quote “640K ought to be enough for anyone”, which was actually not a direct quote, and was also a statement that was correct in its time.

Then the questions showed up on Twitter, with much more of a visceral reaction from either side of the discussion.



There were so many tweets that I couldn't even find the originating one...

When I say things like containers on VMs is good for now because of challenges with container security, it isn't that containers can't be secured. It just means that in today's IT practices, most organizations have stronger security practices (if any) wrapped around virtual machines. This gives a potential logical boundary to apply policy in the absence of strong, secure, development practices on containers.

Bipartisan IT May Split us Before it Unites us

In the same way that political rhetoric is divisive, yet actual political practice doesn't actually make sudden wild shifts, IT is going through the same challenge. While the pundits (me included) are talking about what's coming down the road, we are still seeing organizations who are just beginning to fully embrace virtualization.

AWS versus Azure. Rocket versus Docker. Containers versus VMs. Java versus Ruby. You name the subject, and there is a vocal group who will outwardly question your decisions to adopt whatever it is that you are choosing to adopt.

The end result is that we will be running these technologies in small bits, and before we know it we will have adopted them despite are resistance in either direction.

Stop calling it Shadow IT. It is just IT. Bimodal is already true, and it will remain a partisan position challenge for years to come. Buckle up and enjoy the ride.