Tech Fractals: Technology Trends and Integration

Lori MacVittie, 2013-16-09

#IDAM #Cloud #SSO Patterns repeat. Anything else is irrational.

First, the paragraph that spawned this post:

> The increasing use of cloud-based services is driving the need for better and more interactive single sign-on (SSO) and federated identity management (FIM) services. It is building relationship dependencies between businesses, their partners and suppliers, and customers.
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> -- Ovum Research, "Cloud: Transforming the IAM Industry"

First, I beg to differ on the conclusion that cloud is "transforming" the IAM industry. It's pretty much the same as it's ever been. Single-sign on (SSO) is still about protocol transitioning; it's just the case that protocols have been abstracted into APIs. Federated Identity Management (FIM) is SAML wrapped up in a nice name. This is not transformational. Organizations have been integrating authentication and authorization across the Internet since after the dot com bust. XML gateways, anyone? WS-SEC? Seriously, this is not transformational. At best it's evolutionary.

Now, if you know anything about fractals, you know that they're fascinating mathematical constructs because they are patterns from micro-versions of the same pattern.

If you look closely at one of my favorites, you can see the small "dragon" is repeated to form the larger "dragon" in increasingly sized replicas of the same pattern. Fractals are fairly easily created using well-understood algorithms (okay, they're easy if you're a student of computer science and aren't afraid of math) and they are also found (and given cool names) in nature.
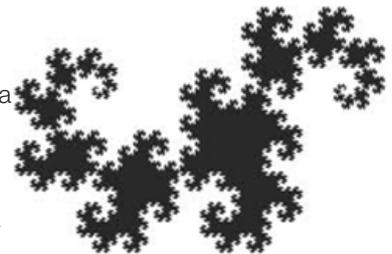
DRAGON FRACTAL

Turns out they're also found in technology trend cycles. Every single new technology trend seems to go through the same set of technologies through the maturation process.

It's kind of the Hype Cycle, only it's not focused on the maturity and value of the technology, but rather the realization that a certain technology is suddenly applicable or necessary to take the next step toward maturation of the trending technology.

Single-sign on and identity federation are two similar technologies that appear in every technology trend cycle. Once adoption reaches about the half-way point (often considered mainstream) attention turns to enterprise-focused concerns about integration with corporate identity stores and how to include the distribution and supply-chain channels in the buy and sell-side process.

It's a pattern. It happened with Web-based applications. Remember Passport? The Liberty Alliance? It happened when SOA was the trend du jour. There were literally hundreds of WS-* standards created by OASIS, most of them emerging at about the same point in the technology trend cycle as they did with the Web.

And today the technology du jour is cloud. It should be no surprise that SSO and IDAM are rising to the fore. It's about time, after all. Adoption of cloud is well-established and organizations are beginning to turn to more corporatey, business concerns like how do I control who is using my services and how do I integrate my channel into the process.

As SDN rises in ascendancy, we're going to see the same concerns in likely the same order raised. We're already started to see peppered here and there the inevitable "security" concerns that initially plagued and inhibited cloud adoption rise with respect to SDN. And soon after that we'll see interoperability with legacy networks rise to the fore as folks realize a hybrid approach (either transitory or by design) is necessary.

Patterns. They happen on almost a predictable timetable when it comes to technology trends. Cloud and SDN are no different in that respect. The emergence of these concerns are not because of cloud, they're because it's a natural progression that stems from the greater implementation and adoption process.

If you want to know what the next big thing is going to be for any given technology trend, just examine the last trend we left lying on the side of the information superhighway.