Like it or not, data tokenization technologies are taking information classification and categorization to the next level. While information governance and regulatory compliance have been bedfellows for quite a while, the loss of sensitive information (e.g., cardholder data: CHD) due to a spat of multiple data breaches has led to renewed attention on this subject. One relatively new technical solution out there to combat this challenge is called stateless tokenization.

Stateless tokenization incorporates measures to classify information regardless of its state (e.g., in use, at rest). These measures include a token in the means of an alphanumeric sequence that refers to a 'tag' or 'label' for that data object. By tagging or labeling that data an organization can then apply protection mechanisms at policy decision points (PDP) and policy enforcement points (PEP). Examples of use cases for stateless tokenization and their use within PDP and PEP protection schemes include:

- by applying disposition requests on intellectual property (IP) applications after N number of years
- by protecting electronic protected health information (ePHI) according to the health insurance portability and accountability act / health information technology for economic and clinical health act (HIPAA / HITECH) requirements
- by maintaining the privacy of personally identifiable information (PII) of the residents within a specific jurisdiction
- by protecting CDH according to the payment card industry data security standard (PCI DSS) requirements

While currently being used via commercial deployments for CHD protection, this technology has immense potential throughout the enterprise for other types of information and through multiple end-points (e.g., cloud, mobile, Big Data). Furthermore, it should be noted that tokenization has been around for a while now via stateful mechanisms for application single sign-on (SSO) use cases (e.g., SAML, OpenID, OAuth). It should also be noted that stateless technologies are nothing new either with the hypertext markup language (HTML) and stateless firewall solutions taking the charge in leveraging the stateless paradigm. With that said, Stateless tokenization is not a silver bullet.

To properly implement and use stateless tokenization the organization has to agree on a classification / categorization scheme, as well as on a retention schedule, and then execute on said decisions. This can be extremely difficult to do. However, once completed, solutions like stateless tokenization can lead the way from there. This new technology paradigm is upon us and can assist organizations with an all too common challenge of classifying and categorizing data.