
Cyber security regulation

Continuing the previous article, in which we focused on the aspects of the Directive to be considered by online businesses, in this second article we look at how the European Union and, by extension, its Member States face a number of challenges, which are outlined below.

In 2013, the Commission put forward a proposal for a Directive on measures to ensure a high common level of network and information security across the Union. Two years later, the Parliament and Council agreed on the text of the Network and Information Security (NIS) Directive.

Main challenges posed by NIS

The European Union and therefore the Member States, after several years of debate and public consultation, face a series of challenges, which are outlined below.

It is very likely that the transposition of the NIS Directive by each Member State could lead to different cybersecurity plans with different required cybersecurity measures in the different countries of the European Union. Today, there are varying degrees of cybersecurity maturity among the Member States and, as a result, the national transposition could lead to further fragmentation of the cybersecurity plan in each country. It is probable that some countries will apply a stricter interpretation than others, as occurred with the European Data Protection Directive (95/46/EC). This diversity of interpretation could lead to an unlevel playing field in the protection of consumers and businesses, depending on the requirements applied by each Member State, and it could be a barrier to companies that wish to operate in several European countries simultaneously. It is therefore important that there be one single NIS plan to cover the entire European Union and that there is a minimum baseline of identical requirements for all countries.

The small and medium enterprises that are not required to comply with the Directive will become the weakest link in the chain. It is also expected that software and hardware manufacturers will not be affected by the Directive, which is surprising since it would seem that they should be the first to meet the basic security and privacy requirements in the design of their products and services. The fact that all these companies are not subject to compliance with minimum security measures or the reporting of incidents could potentially create a scenario in which they could become a target of cybercrime. We should not forget that small and medium companies form the biggest percentage of companies using the NIS infrastructure. The European Union should perhaps impose a minimum mandatory set of requirements and even some kind of voluntary certification that would allow for differing cybersecurity maturity levels.

Some economic challenges need to be assessed according to the degree of maturity of each Member State, as there are already some countries with cybersecurity plans and even various national CSIRTs. It will also be important for ENISA to be provided with sufficient funds to coordinate the various national CSIRTs.

It is not currently known what the specific powers of a National Competent Authority (NCA) and National Computer Security Incident Response Team (CSIRT) will be. There is also no guidance on the overlapping reporting obligations under the various regulations, such as NIS and the future General Data Protection Regulation (GDPR). Similarly, no account has been taken of the possibility that some critical operators could be subject to simultaneous notification to various national and international regulators. For example, in the case of a Spanish bank, a personal data breach in a significant cyber incident must be simultaneously notified to the national data protection regulator, the competent critical infrastructure regulatory authority, the Ministry of the Interior and the European Central Bank. These challenges highlight the large number of...
regulators that can be demanding the same responsibilities, creating regulatory duplication and, therefore, adding more complexity and costs for businesses and governments. A single notification mechanism in the style of a "one-stop-shop" could improve the effectiveness of notifications and reduce costs and complexity.

It is also a challenge to identify the most effective way to report incidents between entities and the standards to use, as well as to establish the same requirements in all Member States, thereby avoiding different implementations and obtaining a more effective sharing of incidents with public and private entities. It would also be desirable to contemplate a legal way to share incidents involving personal data, such as, for example, the IP addresses of malware-infected computers involved in phishing campaigns targeting public or private entities. In this way, the entities could be more proactive and obtain a significant reduction in cyber-attacks through effective collaboration between public and private companies.

Although the technical and organizational measures imposed on the companies affected by the NIS Directive initially do not require a product or service to be designed, developed or manufactured in any particular way, some countries might be tempted to impose a registration, approval or certification process for products and services. If the objective of such a provision was to foster a minimum degree of maturity in businesses, it would be essential for all Member States to reach an agreement, so as to prevent fragmentation. Possibly, a good choice would be to create voluntary but incentivised certification with varying levels of maturity, based on internationally recognized standards, such as the European Telecommunications Standards Institute (ETSI) or the IEEE-SA standards.

**Conclusion**

If necessary, the authorities with the power to transpose the NIS Directive could investigate and sanction cases of non-compliance. They must therefore have the power to make assessments of the level of cybersecurity and the measures required of company information systems. They could also require cybersecurity audits to be performed by third parties. In the absence of more information, there are concerns about what the requirements will be regarding minimum safety measures, whether they will be based on internationally recognized standards or audits, such as ISO 27001, NIST or SSAE16, or whether new standards will be created. It is also not known whether these standards and audits will be common throughout the European Union or if each country will adopt its own, leading to further fragmentation.

While the NIS Directive is certainly a major step forward in improving cybersecurity in Europe, we will have to wait and evaluate how the European Commission and ENISA will solve these challenges by enacting laws and guidelines, which are expected to provide greater detail regarding the implementation of strategic cooperation plans or the specifications and standards that may be used for NIS.

It is expected that in the coming months the Parliament and the Council of the European Union will formally approve the Directive, after which it will be published in the Official Journal of the European Union. Member States will have twenty-one months to transpose the NIS Directive into national law and an additional six months to identify the essential service operators.
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