Unsolicited bulk electronic communications (or spam) is the abuse of electronic messaging systems to send unsolicited bulk messages, which are generally undesired.

The meaning of the word "spam" depends on each national perception of privacy and what constitutes spam from the technological, economic, social and practical perspectives.

Although there is no globally agreed definition for spam, the term is commonly used to describe unsolicited electronic bulk communications over e-mail or mobile messaging for the purpose of marketing commercial products or services (ref. Recommendation ITU-T X.1240). However, its meaning evolves and broadens as technologies develop, providing novel opportunities for misuse of electronic communications. Spam is spreading to IP multimedia applications such as VoIP and instant messaging, Usenet newsgroup spam, Web search engine spam, spam in blogs and further to social networks recently.

Spamming is economically viable because advertisers have no operating costs beyond the management of mailing lists, and it is difficult to hold senders accountable for their mass mailings.

The costs, such as lost productivity and fraud, are borne by the public and by Internet service providers, which have been forced to add extra capacity to cope with the deluge. Spam is particularly problematic for developing countries which have thin pipe connectivity to the Internet backbone which becomes clogged with unwanted traffic. Spam is also the primary attack vector for delivery of viruses and forms of malware.

While a singular solution to combat spam has not been found yet, in practice, various complementary approaches to countering spam are necessary and have proven practical, such as:

• industrial action and technologies allowing to prevent sending spam, and to identity and filter spam effectively;  
• international cooperation is necessary, since telecommunication networks are borderless, and the generation and effect of spam are not domestic. International cooperation is also useful for information sharing about effective regulation adoption, anti-spam technology development, and education of service users and providers;  
• legislation/regulation which can help protect service users and ISPs from illegal spam;  
• standardization and best practices to identify best of breed countermeasures and rely on common methods and interfaces;  
• and education/awareness of service users and ISPs is important. The education is expected to help users take appropriate actions for spam, and ISPs to adopt anti-spam policies and technologies.

The World Conference on International Telecommunications (WCIT-12) in 2012 has added to the International Telecommunication Regulations a new Article 7 on the subject of unsolicited bulk electronic communications: “Member States should endeavor to take necessary measures to prevent the propagation of unsolicited bulk electronic communications and minimize its impact on international telecommunication services. Member States are encouraged to cooperate in that sense.”

ITU-T Study Group 17 has produced several ITU-T Recommendations on countering spam by technical means (ref. ITU-T X.1230/X.1240 series of Recommendations, and corresponding informative Supplements in the X-series of ITU-T Recommendations). On the technical side, a wide variety of often complementary technical measures is available to counter spam, among them technical countermeasures such as filtering based on sender and addressing identification, methods using authentication (cryptographically-based or human interactive), consideration of statistical information and indicators taken from log management records, validation of proper and accurate message formatting, bandwidth throttling in case of spam attacks, blacklists and whitelists, user feedback and spam rating, and others. It is understood that content-based filtering countermeasures which are just one of many other alternative technical anti-spam countermeasures, may not always be suitable or proper in every circumstance. Henceforth, all ITU-T anti-spam Recommendations can be implemented without relying on the specific content-based techniques.

Since January 31 2013, the ITU Council Working Group on international Internet-related public policy issues (CWG-Internet) is holding open consultations with all stakeholders and inviting them to provide input on international public policy issues related to effectively countering and combatting spam.  The output of the open consultation will be presented for consideration in deliberations of the Group which is tasked with identifying, studying and developing matters related to international Internet-related public policy.