

Parasitic Computing

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Abstract: *Communication on the Internet is guaranteed by a standard set of protocols, used by all computers. Here we show that these protocols can be exploited to compute with the communication infrastructure, transforming the Internet into a distributed computer in which servers unwittingly perform computation on behalf of a remote node. In this model, which we call 'parasitic computing', one machine forces target computers to solve a piece of a complex computational problem merely by engaging them in standard communication. Consequently, the target computers are unaware that they have performed computation for the benefit of a commanding node. As experimental evidence of the principle of parasitic computing, we harness the power of several web servers across the globe, which-unknown to them-work together to solve an NP complete problem.*

Keywords: Plastic Computing

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