

The impact of COVID-19 on global supply chains and the Critical Infrastructures: the case of Sweden

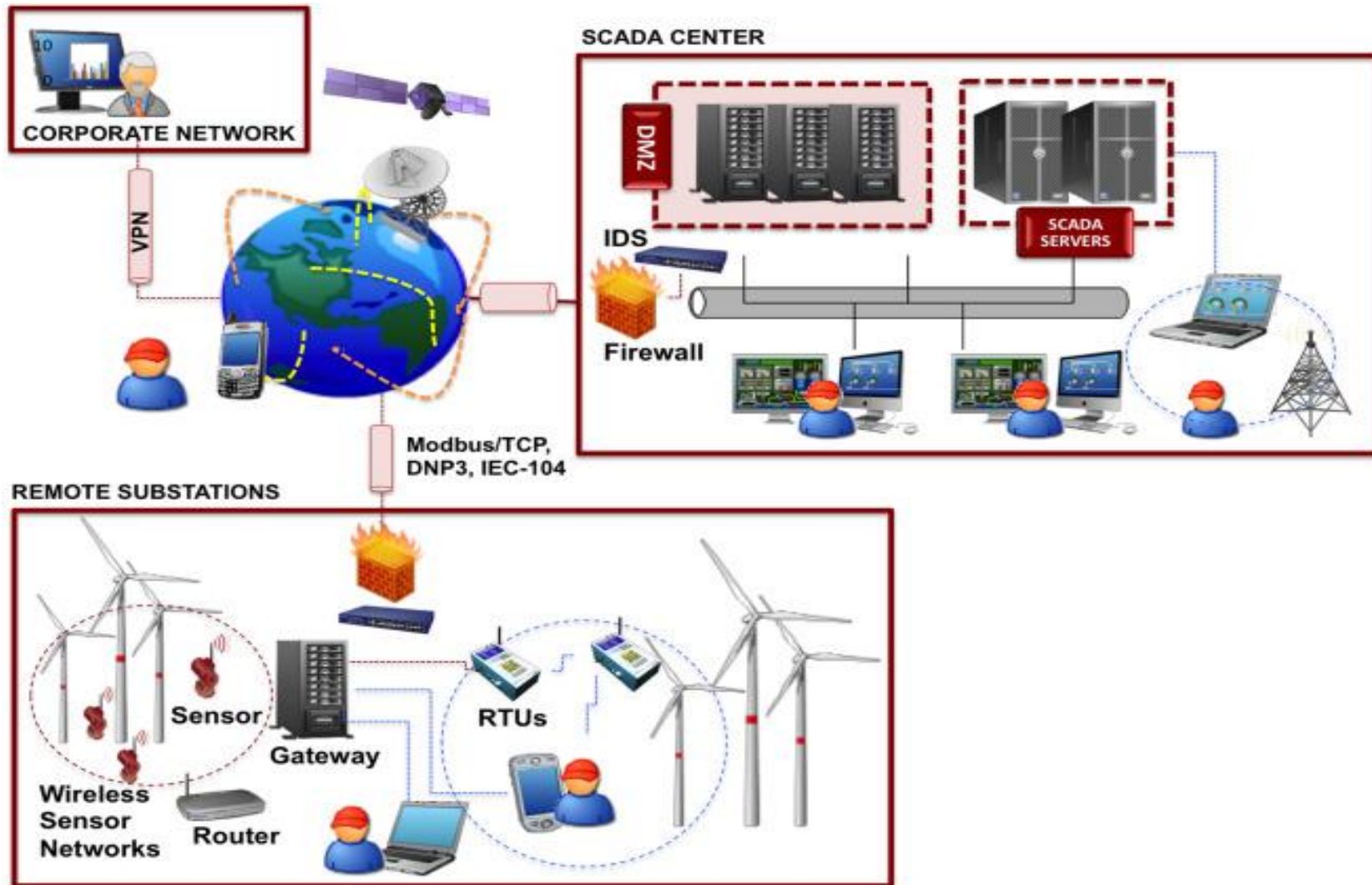
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Critical Infrastructures (CI)



“A critical Infrastructure (CI) comprises systems and assets, whether physical or virtual, that are so essential to a nation that any disruption of their services could have a serious impact on national security, economic well-being, public health or safety, or any combination thereof.”

Swedish preparedness in the wake of the Covid-19!

- We suggest that the current Covid-19 crisis will have multiple and interdependent effects and would best be handled by one system set up to handle all hazards (Cornall, 2005)
- The critical infrastructures in many countries are challenged by the current pandemic raising the question of how to achieve better preparedness
- The response of Sweden has received some considerable attention, and it is relevant to look at the critical infrastructures of the Swedish system in general
- This presentation is part of a comprehensive examination on the Swedish emergency preparedness (Kaneberg, 2018)

Swedish challenges in preparedness in general

- In Sweden, any supply chain network is always dependent on other vital areas such as public transport, healthcare, water, roads, power, fuel, IT and communication infrastructure in counties and municipalities.
- The supply chain networks of today are complex and international in nature, but are critical to maintain basic functions
- In terms of response, the actors' roles in critical infrastructures are not always clear nor coordinated
- The functioning of any network is a combination of tangible (physical infrastructure) and intangible (services, culture etc.) structures
 - For example: [...] different but interrelated CIs, like healthcare, food, and transportation, are highly strategic and part of several networks applied to increase the emergency preparedness and response efficiency and emphasizing the strategic value of the supply chain network (Kaneberg, 2018).

Swedish challenges in response operations

- The Swedish response operations remain difficult to oversee and coordinate and, key actors have no guidance to solve uncoordinated responses
- Municipalities and county councils, social boards, public health agencies, food agencies, medical transportation suppliers, among others, are seeking reformed policies that provide guidance
 - For example, “[in] socially vital activities of civil defence, the MSB* could bring guidance and common policy for involving commercial suppliers in planning. Today, it remain few commercial players in the preparedness system, some adaptations may need to occur in the overall planning of medical preparedness at the National Board of Health and Welfare”

*) MSB: [Swedish Civil Contingencies Agency](#)

Further steps

- We suggest that to understand more about the current crisis, and how the CIs are set up before the crisis response, it is useful to focus on three sectors of the Swedish system, that is:
 - Health
 - Food
 - Transportation
- These three interlinked sectors represent some of the most vulnerable parts of the economy in the current crisis, and they comprise a mix of public, private, commercial and voluntary actors.
- By addressing these sectors, we create some initial understanding for new ways of coordination across them, thus serving the need for a cross sectoral view that policy-makers and experts have identified.
- In our follow-ups we will address these three sectors in more detail

Selected literature

- Alcaraz, C., & Zeadally, S. (2015). Critical infrastructure protection: Requirements and challenges for the 21st century. *International Journal of Critical Infrastructure Protection*, 8, 53-66
- *Clemente, Dave (2013): Cyber security and global interdependence: **What is critical?***
- Cornall, R. (2005). New levels of government responsiveness for 'all-hazards': The management of natural disasters and emergencies *Australian Journal of Public Administration*, Vol. 64 No. 2, pp. 27-30.
- *European Commission (2019). Evaluation of Council Directive 2008/114 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection*
- Kaneberg, E. (2018). *Emergency preparedness management and civil defence in Sweden: An all-hazards approach for developed countries' supply chains* (Doctoral dissertation, Jönköping University, Jönköping International Business School).