5G for Industrial Communication
LS number # 5G-ACIA-LS- 2018- 001

Title:	5G for Industrial Communication
Source:	5G-ACIA (“5G Alliance for Connected Industries and Automation”)
To:	3GPP TSG SA WG1 and WG2
CC:	3GPP TSG SA, TSG RAN, TSG SA WG3, TSG SA WG5
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About 5G-ACIA

The "5G Alliance for Connected Industries and Automation" (5G-ACIA) strives to establish 5G in the industrial domain and to make 5G for industry a success story. 5G-ACIA was formally established in Frankfurt/Main, Germany on April 3rd, 2018 and publicly announced during Hannover Messe on April 24th, 2018.

This initiative brings together leading players from both traditional automation and manufacturing industries, as well as the ICT domain. The current 26 members are: Beckhoff, Bosch, Deutsche Telekom, German Research Centre for Artificial Intelligence (DFKI), Endress+Hauser, Ericsson, Festo, Fraunhofer Gesellschaft, Harting, Hirschmann Automation & Control, Huawei, Infineon, Institute for Industrial Information Technology (inIT), Institute for Automation and Communication (ifak), Intel, Mitsubishi, Nokia, NXP, Pepperl+Fuchs, Phoenix Contact, R3 - Reliable Realtime Radio Communications, Siemens, Trumpf, Vodafone, Weidmüller, and Yokogawa. It is expected that the number of member organisations will further increase during the coming weeks and months.

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5G ACIA
5G Alliance for Connected Industries and Automation

Importance of 5G for industrial communications services

5G as defined in 3GPP Release 15 already provides enablers for industrial-grade communications services, such as resource virtualisation via network slicing and low-latency radio transmission. With Release 16, we envisage that many more industrial use cases and applications will be fully supported by 5G systems. Such use cases include distributed control applications, which have very demanding requirements.

Based on the analysis of 5G-ACIA use cases and requirements, as well as the evaluation of 3GPP specifications and technology, 5G-ACIA endorses the 3GPP 5G standards as a key building block for future industrial connectivity infrastructures. 5G-based industrial communication solutions are envisaged to guarantee, among others, superior robustness, predictability, and availability when compared to the communication performance of existing wireless networks.

We want to point out that including the network deployments needed for automation and manufacturing in the 3GPP 5G standards is paramount for realising industrial communication solutions.

Furthermore, to ensure adequate and timely inclusion of industrial requirements in 3GPP 5G standards, 5G-ACIA kindly requests the recipients of this liaison statement to actively support the finalisation of the related work in Release 16. In this context, three SA1 study / work items play a vital role, since down-stream activities hinge on their conclusion for R16, Stage 1: FS_BMNS (TR 22.830), FS_CAV (TR 22.804), and the follow-up work item cyberCAV (normative requirements based on FS_CAV and FS_5GLAN; to be re-presented at SA1#82 in 2018-05).

References

Website: www.5g-acia.org
Whitepaper “5G for Connected Industries and Automation”: https://www.5g-acia.org/publications/5g-for-connected-industries-and-automation-white-paper