Control system to go
System 800xA now also available on mobile terminal devices

Nuremberg, November 22, 2016 – earlier this year ABB’s Control Systems division was presenting a new solution for the use of mobile terminal devices which guarantee the operating personnel and other plant personnel secure access to all of the data of a control system away from central control rooms.

Nowadays the use of mobile terminal devices is widespread and accepted even in production plants because it delivers huge benefits in day-to-day use. Based on standard technologies, a sophisticated network design and plenty of industrial experience, ABB is now offering access for mobile terminal devices to the 800xA control system via a secure wireless network connection. The aim is to provide the operating personnel or maintenance personnel with access to real-time information from the production plant at any time.

The prerequisite for this is a robust and secure implementation based, among other things, on best-practice installations, along with the varied range of experience with secure and/or wireless networks that ABB has amassed over many years.

The customisable “800xA iPad Operator Workplace” is the starting point for the development of a fully-fledged control system operator workplace on the comparatively small screen of a tablet computer. The iPad operator workplace is an integral part of the 800xA libraries and can be imported seamlessly into the 800xA environment. It has objects which are specifically predefined for the tablet computer, which means that the operator can operate the screen intuitively.

In order to be equipped to repel cyberattacks and create a reliable system, the latest security strategies should be applied. This starts with the deployment of active firewalls for the “Remote Desktop Session Host Server” (RDSHS) and the respective mobile clients. At least one “Network Policy Server” (NPS) should be installed to enable the authorised users to log in securely. It ensures secure access in accordance with the RFC2865 standard by means of a “Remote Authentication Dial-In User Service” (RADIUS).

The wireless access points are secured by means of one or more RDSHS, which also used to be known as terminal servers. They take care of the login process for the remote desktop connections. A secure connection is guaranteed by means of WPA encryption via a specific authentication certificate. In addition, RADIUS ensures authentication in which the user defines additional authorisations and must enter them in order to establish the connection. This process ensures that, in the event that the tablet is lost or if the user is refused access for a different reason, the connection can be terminated centrally by withdrawing the certificate.

The use of further security features by deploying restrictions on access for particular users or groups of users is almost a matter of course now. The 800xA mobility solution is specifically designed for the deployment of mobile terminal devices within the production plant and is intended to enable operators or maintenance personnel to display and illustrate the process wherever they are. All modern techniques for the secure operation of the clients and the communication networks are employed. The terminal devices should be set up so that they can only ever be used inside the production plant and not outside. SIM cards must not be inserted into the terminal devices under
any circumstances. The communication capabilities of the tablet computers must also be restricted to the company’s operational network.

Due to the high security requirements, ABB recommends the use of special industrial WLAN hardware and software and planning and installation by trained specialists.

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The product mentioned in this news release extends the offering of ABB in this area.

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All data in accordance with US-GAAP regulations.

Caption:

The "800xA iPad Operator Workplace" represents a fully-fledged control system operator workplace on the comparatively small screen of a tablet computer.

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