USING WEB SYNDICATION FOR FLEXIBLE REMOTE MONITORING

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Alexander N. Kurepin [1] [3], **Mateusz Lechman** [1], **Peter Rosinský** [1],
on behalf of the ALICE Collaboration
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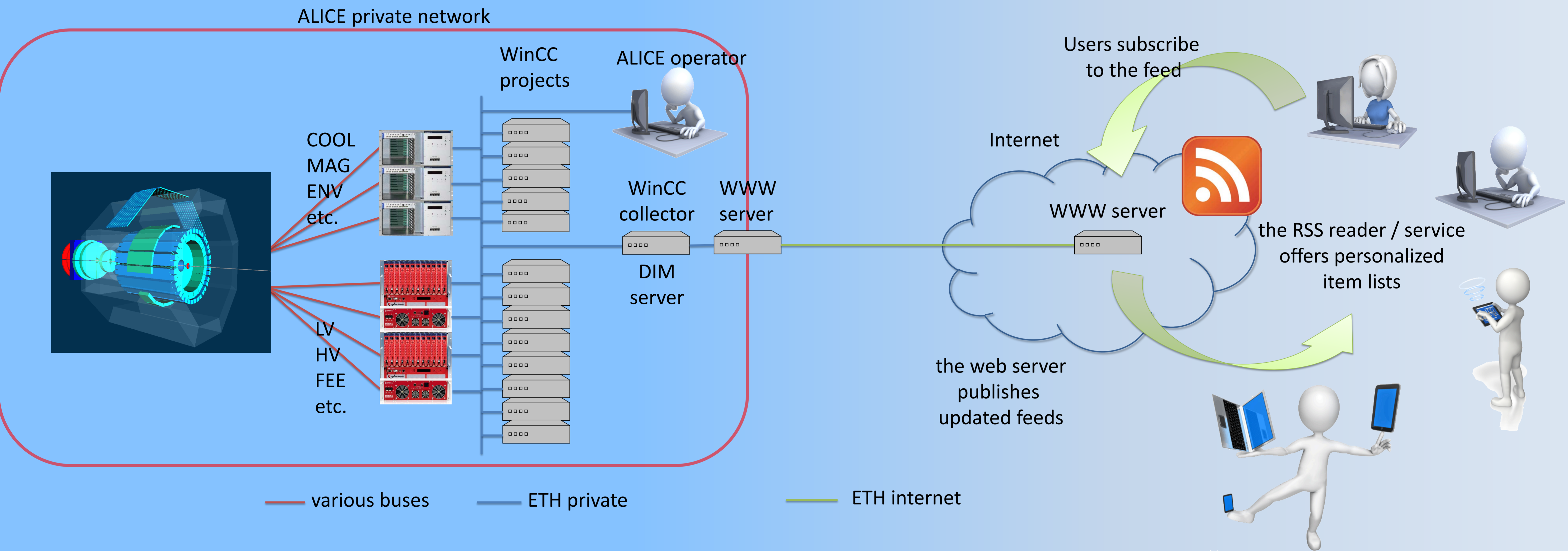
ALICE DCS is developing a flexible, web based software structure to provide its users a further way to stay updated on their experiment.

Exploiting standardized web syndication and RSS it is possible to distribute up-to-date web content from one web site to thousands of other web sites around the world.
Subscribed readers can access the content in their most convenient manner, profiting from their preferred device, which could be a web browser running on a smartphone or a computer, a dedicated app for their iPhone or Android tablet, etc.

Remote systems wishing to provide data and screenshots to the collector run a specific process (a WinCC CTRL manager) based on a custom library (AliceRSS) implemented in WinCC. The library reworks data to build the RSS array and send it to the collector using the DIM client-server software.

The collector is running a web and a DIM server and generates the XML item list, as well as the HTML file containing the extended description. Every time a new post is received, a new XML file containing all items is assembled and published on the official web site, reachable from the Internet.

The information to be published comes from several sources connected to different private networks: sensors installed in the experimental site, sub-detectors' online projects, alert systems and operation logbook. Data is represented as graphs or tables; screenshots are displayed as images, periodic reports are filled to summarize the operations performed and the status of the experiment. Information tagging allows readers to subscribe to the web content according to their needs.

Nowadays several free web aggregators and services are available on smartphones, tablets and computers.
This publication technique is offered as a complement to more traditional ways of accessing the control system, like logging into gateways and accessing the SCADA systems directly. It's a lightweight and secure way to deliver customizable information and facilitates a personal experience to interested users.

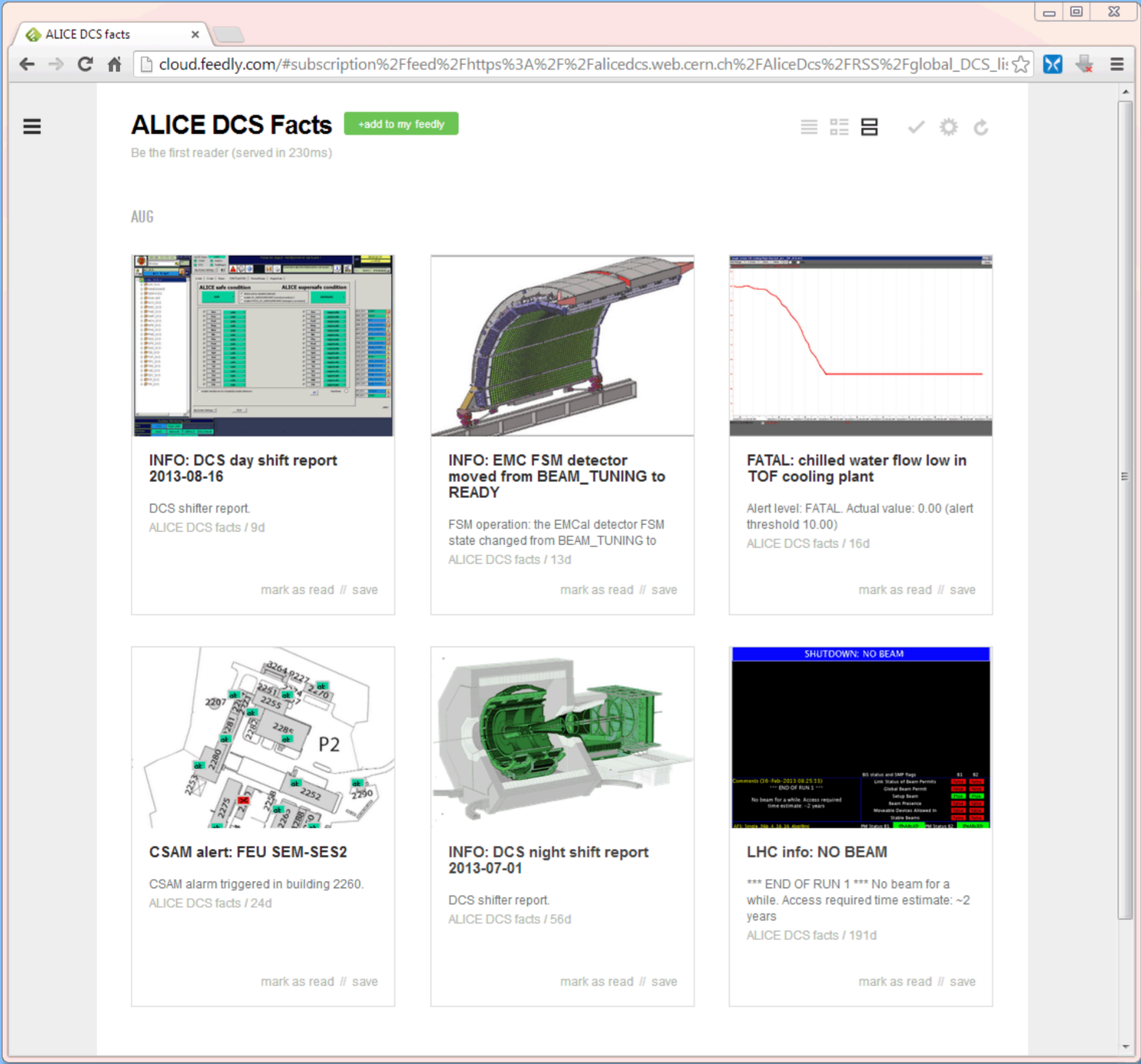Figure 1: resulting page, read with a web based plugin from Chrome

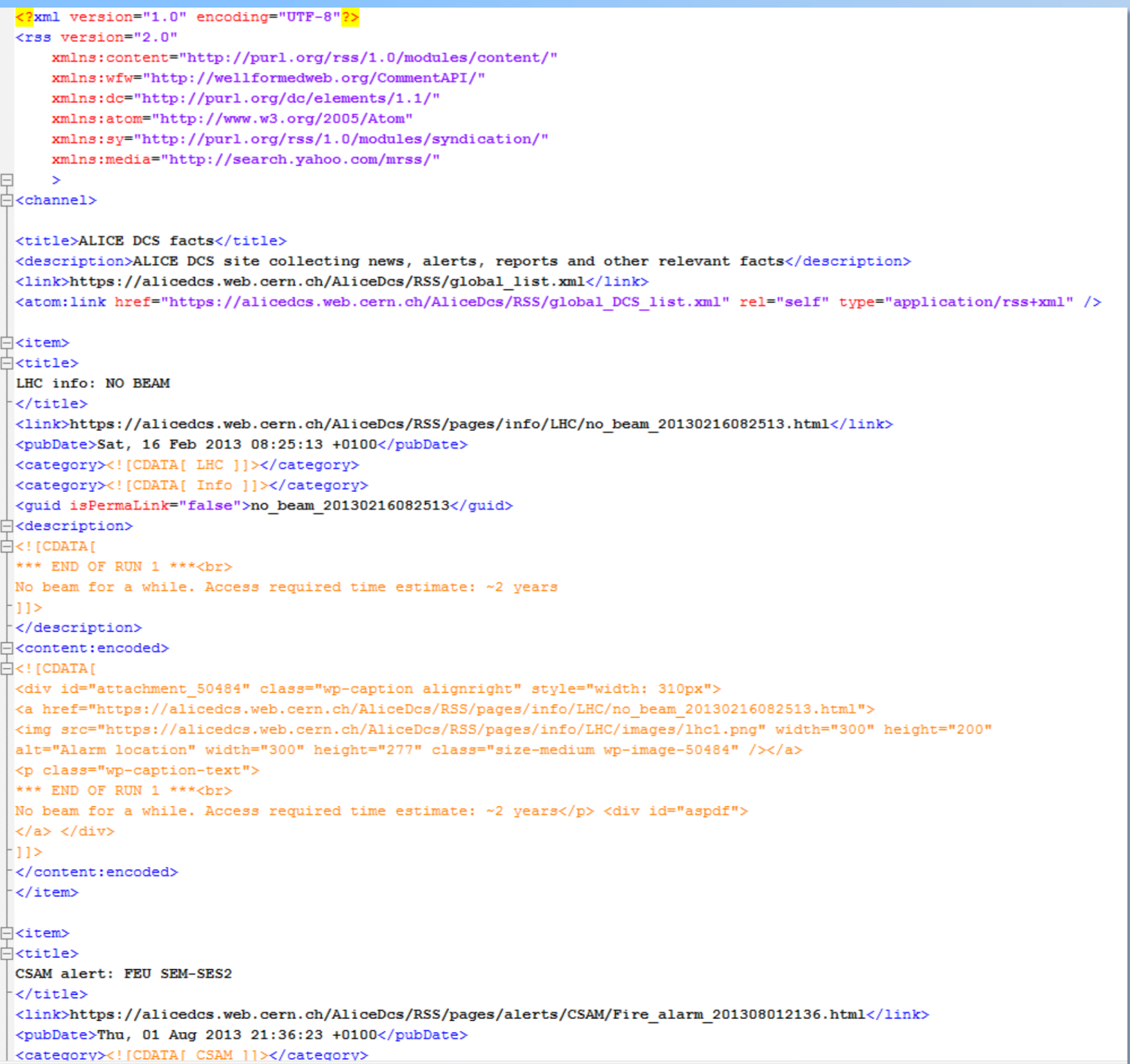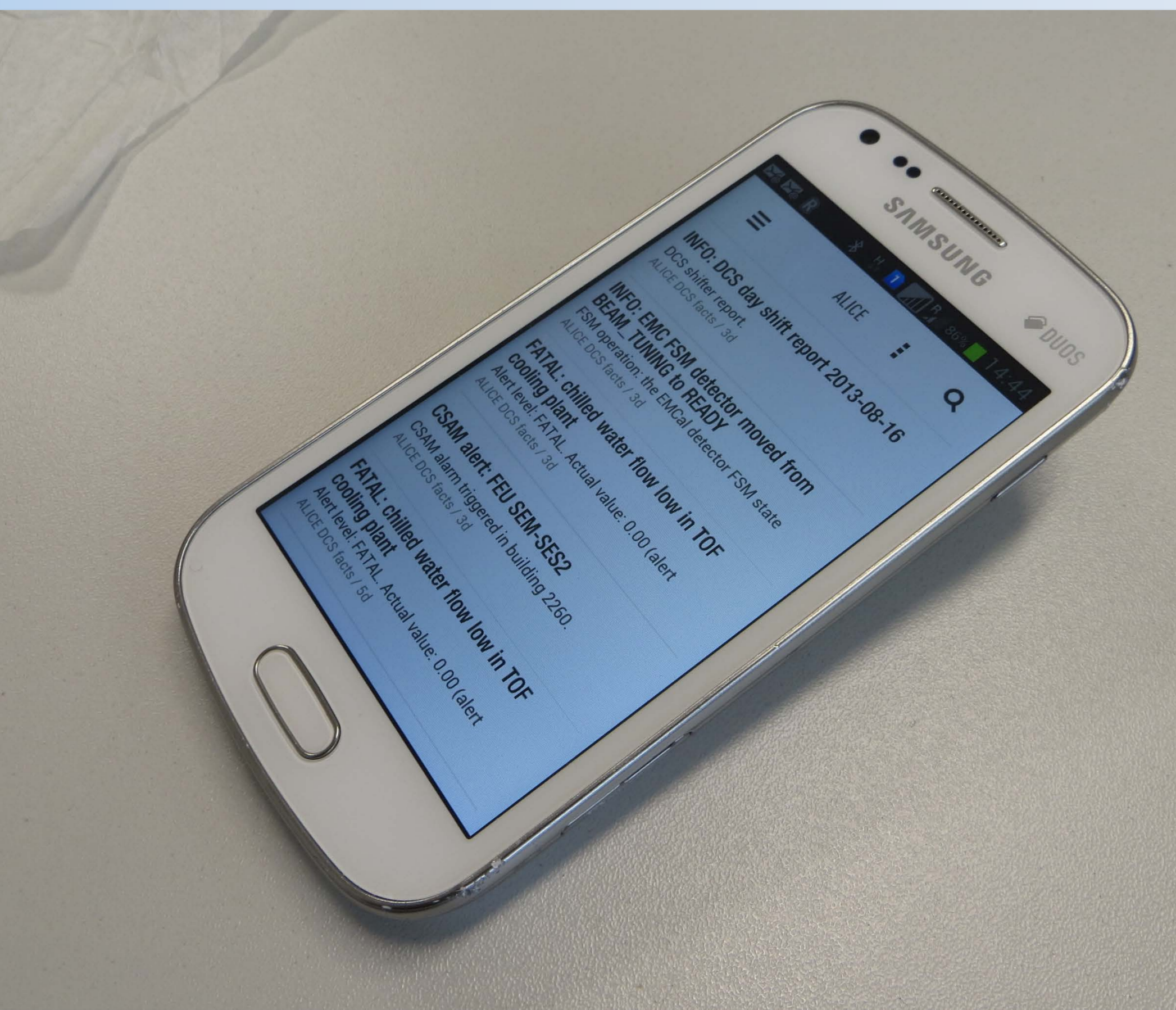Figure 2: an excerpt from the AliDcs.rss feeds list

Figure 3: the RSS Feedly app, running on an Android smartphone

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