

Ubuntu jumps into Internet of Things with Acer, GE, and Microsoft

By Steven J. Vaughan-Nichols

Old enemies are becoming new allies as technology shifts from the PC/desktop model to first mobile computing and now the Internet of Things (IoT). Canonical, Ubuntu Linux's parent company, is partnering with Acer, DataArt, and Microsoft.



Snappy Ubuntu is showing well in the Internet of ThingsThat wasn't a typo. Canonical and Microsoft, which were already working together on bringingCanonical's Juju DevOps tools to Windows and bringing Windows Server to OpenStack, are working with DataArt on an IoT industrial predictive maintenance solution. It will combine the three companies' IoT, cloud, big data, machine learning, and Docker efforts. To integrate all of this they'll be using "Snappy" Ubuntu apps, DeviceHive, and Juju Charms. Microsoft will also use an Azure service to manage and

capture machine data. "With devices becoming smarter, smaller, and cost points dropping with increasing scale and demand, we are seeing exciting innovation in the IoT market," said Anko Duizer, Microsoft EMEA's Director Technical Evangelism & Development. "Smart industrial systems need secure information flow from and to millions of devices and systems to gain and act on data driven insights. DataArt, with their development of the DeviceHive platform, combines specialized technology and vertical expertise that can now be easily consumed via the Microsoft Azure Marketplace."

This will work by "Snappy" Ubuntu working as the IoT device operating system. It will then use DataArt's implementation of DeviceHive machine-to-machine communications to send the data to an Ubuntu-based OpenStack cloud where Juju charms manage the devices. Finally, the DeviceHive JuJu charms on Azure will be used to connect smart devices to a big data back-end.

Canonical will also be showing off other IoT products and services built on "Snappy" Ubuntu Core at IoT World in San Francisco on May 12 and 13.

With GE, Canonical will be demoing the first commercially available IoT-enabled fridge freezer, ChillHub. This smart refrigerator runs Snappy Ubuntu Core. Besides keeping your beer cold, ChillHub is an open development platform designed for makers, hackers, tinkerers and developers. Through rapid design iteration by 3D printing on MakerBot and other 3D printers, community members collaborate on products and features to customize and create new uses for their refrigerators. ChillHub, an 18-cubic foot Top Freezer Refrigerator, will list for \$999 and can be ordered through FirstBuild.com. Limited pre-orders will be available at an early-bird price of \$799.

More GE/Canonical products will be coming. One, a prize winner from Canonical and GE's FirstBuild "Hack the Home" hackathon, may be he Crockwatch, a smart crockpot.

Jason Chodyniecki, a GE Appliances and Lighting Wi-Fi Connected Appliances Architect, said in a statement, "I think that Snappy is going to solve problems that are just now becoming apparent with the Internet of Things. It was good to get a hands-on with the product, and I am excited to see what our friends at Firstbuild will do with the platform as it evolves. I envision a world with home appliances that are controlled very differently than they are today, and I believe Snappy could help get us to that point."

Acer and Canonical are still at the technology demonstration stage. Acer Build Your Own Cloud (BYOC) and Canonical are showing off a prototype of Acer's aBeing One cross-platform smart center. The two companies will demonstrate how this cross-platform smart center can help consumers have full control of their IoT devices. For developers, the aBeing series provides security, privacy, and minimizes costs for cloud service and product research. This shows how a wider developer ecosystem can market solutions, and provide an opportunity to see IoT designs brought to life and be commercialized.

Mark Yang, Acer's Director of IoT Solution of BYOC Business Unit, said, "We're collaborating when IoT projects are becoming commercial realities. Our aim is to accelerate time to market for all those who are investing time, energy and creativity in IoT projects. Working together we can combine clever technology like Snappy with go-to-market experience, incentivizing the developer community to design more and more innovative Snappy apps to run on Acer hardware."

"Snappy" Ubuntu Core, which is the smallest and most secure edition of Ubuntu, is designed not just for cloud and container operations, such as CoreOS and Red Hat's Red Hat Enterprise Linux Atomic Host (RHELAH), but it's also meant to powers drones, robots, network switches, mobile base stations, industrial gateways, home appliances and IoT home hubs. "Snappy is an amazing platform for the new generation of cloud and device developers," said Maarten Ectors, Canonical's VP of IoT, in a statement. "The combination of an open platform with an app store that works across devices, from tiny embedded boards to high end switches and routers, has stimulated creativity in the maker and entrepreneur communities. The next phase is to demonstrate how IoT can be made commercially viable -- we've taken an important step towards this goal here with GE, Acer, Microsoft and DataArt."

The first generally available version of "Snappy" Ubuntu Core is now available as part of Ubuntu 15.04. This release supports 64-bit Intel-based architectures and ARM HF. It provides a common platform for device development that supports a wide range of production hardware.

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