EdgeX Tech Talk
Getting started with Snaps

June 2022
Agenda

What are you learning today?
- What are snaps
- What is Ubuntu Core
- Why EdgeX as snaps on Ubuntu Core
- Getting started with EdgeX as snaps

What are we learning today?
- Q&A + Feedback

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Why is it so hard to have a successful IoT and Edge device?
Where is the Edge?

<table>
<thead>
<tr>
<th>Things</th>
<th>Far Edge</th>
<th>Near Edge</th>
<th>Cloud</th>
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<tbody>
<tr>
<td>Low-touch &amp; unattended</td>
<td>On-prem rack</td>
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Developers and manufacturers just want to focus on their application.

Trusting a reliable and secure underlying framework.

For the whole (long) life of their devices on the field.
Key challenges in IoT and Edge

- **Time To Market & Development Cost**: 85% of IoT initiatives not launched after a year of development
- **Technology Talent Shortage**: 45% of IoT initiatives are struggling to meet requirements
- **Unattended & reliable hardware**: Unplanned OpEx ruin 40% of the IoT projects
- **Meeting Security Requirements**: 77% of companies say IoT has created huge security gaps
More challenges to create edge devices

“Things” integration

Edge intelligence

Cloud agnostic

High Performance

Low Latency

Modularity

Scalability

Developer Friendly
What is EdgeX Foundry?
EdgeX Foundry is a highly flexible, scalable and vendor-neutral Open Source **software framework** that facilitates **interoperability** between **devices and applications** at the **IoT Edge**.
What is Ubuntu Core?
Ubuntu Core is... optimised for embedded devices

- Lean Ubuntu
- Out-of-the-box security
- Bullet-proof updates
- Fully containerised
- Large ecosystem of applications
- Certified
Snaps
Fully contained, immutable packages for OS and apps

Base snap (core22, core20, ..)

Kernel snap
As easy as Ubuntu Desktop

Develop and test your applications (snaps) with Ubuntu Desktop

Deploy your applications on Ubuntu Core

Publish your applications to the Store
Why EdgeX as snaps on Ubuntu Core?
EdgeX + Ubuntu Core

Develop easily high performance, modular, vendor-neutral edge applications

Focus on your edge application ⇒ Accelerate TTM

Security and reliability

Reduce operations & maintenance costs

Long Term support
A technical intro to EdgeX as snaps
Walkthrough: EdgeX for Ambient Sensing

1. Setting up the platform
2. Setting up a device service to collect sensor data
3. Interacting with the APIs, visualizing sensors data
4. Creating an OS image preloaded with the above stack

Source code and instructions: [https://github.com/canonical/edgex-demos](https://github.com/canonical/edgex-demos)
Wrap
Recap

What Ubuntu Core and snaps are

Why EdgeX as snaps on Ubuntu Core

How to get started with EdgeX as snaps on Ubuntu Core
Coming soon

INTEL AND CANONICAL DEVELOPER WORKSHOP

Building enterprise-grade solutions with EdgeX on Ubuntu Core

September 22
9-4pm
Thank you. Questions?
Further reading

EdgeX Foundry upstream documentation
- EdgeX Foundry web page
- Why EdgeX?
- Case studies
- Platform description
- Getting started with EdgeX Snaps

Other content
- Webinar: Running enterprise-grade edge applications with EdgeX on Ubuntu Core
- Canonical video in Adopter's Series