

Federated IoT



Introduction

IT services are created using complex collections of *things*: devices, operating systems, networking, server, virtualisation, management, security systems, etc. This complexity results in solutions which currently evolve within an ecosystem of one and where control is centralised and details hidden within service software.

However there is a growing need to create services the operate across cooperating organisations, providing the security and privacy requirements can be expressed and enforced. Doing so will enable a degree of Digital Transformation that cannot be conceived of currently. In other words, the world of IT services is rapidly becoming more *federated*.

Executive Summary

With recent changes in technology, such as cloud computing, big data and the dramatic drop in the cost of data gathering and actuating "things", there is a growing desire to build resilient services and systems that by their definition cross the boundaries of ownership and responsibility. This boundary-crossing is inherent in smart cities and simial environments.

Availablity and low cost of 5G/LORA networks will enable new business strategies based on situationally aware collaboration between organisations, creating oppurtunity to optimise existing cost bases and grow new revenue streams. Configured Things mission is to develop technologies that will make these types of federated systems easier to understand, implement and trust.

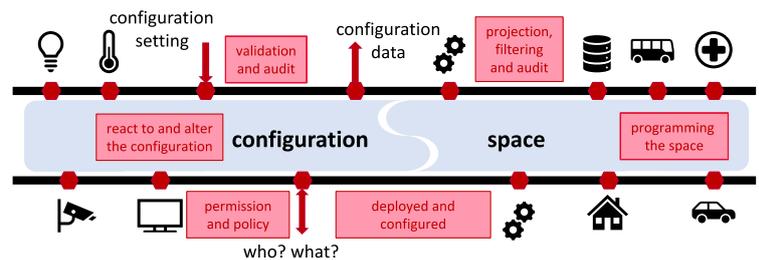
The Configured Things vision and approach

The Roadmap

Configured Things, through its configuration management framework provides total lifecycle support of these managed 'things'. This is being developed using a toatlly revamped SmartFrog framework designed from the ground up with federation and disaggregation at its core.

As it matures it will eventually cover the configuration of all kinds of things, of data collection from them and of the privacy-aware data analysis capabilities on that data. This will exploit the highly dynamic nature of Configured Things to provide systems that can be stood up and torn down with ease to provide system-level cyber resilience.

In addition to a range of libraries for configuring aspects of smart spaces, Configured Things affords the control of the display 'things' (TVs, tablets, phones, etc.) and the content shown upon them via our WebWindows technology.



What's new?

Configured Things sets itself against the incumbnent configuration management solutions, collectively they have similar limitations;

1. An assumption of homogeneity in the systems they manage and the tasks they execute, where systems are increasingly diverse e.g. 5G, IoT etc.
2. A centralised approach where co-operation is the new agenda e.g. Smart Cities.
3. No allowances for the co-operation between services themselves – in fact the existing tools only consider applications in terms of their demands on the platforms that support them, not the actual purpose of the service.

