

Briefing: Infrastructure & the Internet of Things

Why should I be interested?

Infrastructure developments – in particular the advent of “smart homes” and “smart devices” is moving beyond the world of the enterprise to that of the home and the consumer.

Consumers already used to sophisticated communications devices such as smart phones and tablets will be comfortable with a similar level of functionality provided by other consumer electronic items until the first widespread security breaches attacking the “smart home” takes place.

Identity, not only of the users, but of all the individual devices will play a key role in addressing both security and usability concerns, as networks connect people, homes and devices in an increasingly sophisticated ecosystem that demands interconnection irrespective of physical location or network-level security.

First-generation consumer products based on “the internet of things” include cameras, e-readers and hand-held gaming devices. Looking ahead, tomorrow's “connected home” will also allow the householder to monitor domestic energy use, as well as remotely access and control appliances, video recorders (PVR's), thermostats and house security systems. Tomorrow's connected world will likely include wearable technology including health monitoring as well as the ability to “close the loop” with implants varying drug delivery or pacemakers being fine tuned.

Potentially this is good news for the consumer as they will be able to improve energy usage, lead healthier lives, interact better with their surroundings and potentially make their lives easier.

Clearly, for this level of access into personal lives; security and thus the identity of all the critical components in these interactions are crucial, with the need for all these entities¹ to have identity and attributes that can be integrated into, and placed under the agency (control) of the appropriate people and/or other entities.

Why should I get involved?

The Global Identity Foundation is a non-for-profit, vendor neutral organisation combining the identity requirements of numerous sectors of industry, as well as other interested parties, to define a consistent set of use cases for identity and from that a single set of requirements.

Building on the work of the Jericho Forum and many others, our aim is to further prove and expand the current draft identity ecosystem to a viable solution set of capabilities that would be implementable by anyone, anywhere, as an open-standard.



1 The five entity types are: People, Devices, Organisations, Code & Agents

In this way, vendors can implement their piece of the identity puzzle, being able to rely on others to play their part, saving both money and time, with users able to bring their own single global identity (BYOiD) to all aspects of their digital lives; while users can be assured that using this single standard all the components will interact correctly while protecting their privacy and leaving them in control.

What does a future with global identity look like?

As more devices and capability are added to our everyday lives, so the requirement to interact with those devices from wherever you happen to be increases, as well as the need for those devices to interact with other third-party services.

Imagine being able to acquire a new device which simply and easily integrates into the ecosystem of devices that you already use; defining a simple set of rules by which this new device can interact with other devices, agents and third-parties; without needing to purchase all devices from one vendor, or needing to have a plethora of control interfaces (or vendor web-sites) unique to each device.



Imagine the ability to simply define the rules by which various individuals can interact with the infrastructure around them. Starting with defining a family “organization” and giving the ability for family members to enrol and thus be able to assert family membership. This then allows simple “entitlement” rules for that family to be defined, whether for controlling the IP-enabled lights, or for watching the latest movie on the family account.

Imagine being able to integrate web-based agents under your control to learn and manage aspects of your life that you define, from ordering food, to programming heating and lighting based on location and the diary movements of the household members.

Imagine those agents, devices, and family members being able to assert not only their own identity, but asserting relationships (“I am authorised to use this Credit Card on behalf of...” or “I am part of the Smith family that lives at...”) allowing those entities to authorise interactions with third-parties on your behalf.

What can I contribute, and what do I get back in return?

As a member of the Global Identity Foundation you have access to all aspects of the process, from the scenario workshops being held globally which will define the generic use cases; the distillation of those use cases into a set of identity ecosystem design requirements; all based around the concept of a user being able to have a single global identity (and identifier).

We envisage organizations will want their experts in the areas relevant to them to be actively involved, both to submit their requirements and influence the design, as well as to have advanced knowledge of how their products may want to evolve in the future or understand new products or offerings that they could develop.

About the Global Identity Foundation

The Global Identity Foundation is a not-for profit foundation constituted to first oversee the development and then maintain the core technology for the solution developed, together with its ongoing evolution.