School of informatics

Wireless and Mobile group

the stix project

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Stix is a novel management system designed for Broadband Wireless Access networks, from local community deployments to large WISPs.

Goal-oriented management

A network administrator shouldn't be a programmer in disguise.
Stix introduces *StixL*, a visual paradigm that enables the operator to specify from a higher perspective how the network should perform. *StixL* is a simplified version of well established event-based workflow notations. It is straight-forward to learn but yet powerful and effective.

Infrastructureless, limitless.

Stix moves the intelligence from the datacenter out to the field. It requires minimal IT infrastructure: a tiny low-power "dongle" is deployed at each remote site, such as on transmission towers. The architecture reduce reliance on always-on central servers and can scale up to nationwide networks. It means that community networks do not need a NOC to operate, while WISPs are relieved from having yet another appliance server running.

In-network storage

Stix agents interconnect to create a storage overlay that allow management information to be replicated over the network. A flexible wiki-like interface enables realtime reporting.

Total hardware control

No matter how far or inaccessible a device is, the operator needs "eyes and hands" access to it. **Stix** provide energy monitoring and power control (e.g., reboot, poweroff).

Technology independence

The **Stix** architecture is free from technology-dependent assumptions, and can operate on virtually any network topology and communication protocol (e.g., Wifi, WiMax, 3G, 4G/LTE, etc).

Vendor independence

Networks need freedom to grow.
Freedom is to be able to decide for the most appropriate hardware and avoid being locked in a single technology or a on single vendor.
Stix features a built-in hardware abstraction layer that allows the support of virtually any 'manageable' hardware: communication equipment, switches, routers, firewalls, UPS, etc...

Free as in freedom

Stix is an open project, documentation and source code are available at:
http://www.wimo.inf.ed.ac.uk/stix
Contact email:
stixproject@googlegroups.com