

Events that Took Place...

- Exposure to interesting applications and their requirements (buildings, fountains, theatre, ...)
- Discussion about radically different architectures and their issues (information centric networking)
- Looking at existing technology from a new angle (sleep nodes, energy consumption)
- Focusing on some details of the protocol stack (ND, routing)
- Exposure to implementation experience

Possible Conclusions



- Plan for the case where all the different applications live in the same network
- Implementation constraints relax over time
- One Internet is important! (Profiles? Gateways?)
- It is useful to build abstractions where data and names are in a central role (with middleware or NDN IP)
- We still don't know how to build deployable security, but we know we need it
- Prefer router over instead of mesh under (and one-hop over multi-hop)
- ... add more here ...

Possible IETF Actions



- Light-weight implementations
 (e.g. security protocols) => LWIG
- Data models (energy, pricing, ...) Encoding, protocol/interface, data model itself
- Networking beyond subnet boundaries
 - Discovery, mDNS extensions
 - Backbone routing by default "son of homegate"
- Support for sleeping nodes
 - Example proposals: ND, ICMP host responding slowly
 - Energy Design Considerations (and "Always-On" assumption)

Possible IETF Actions



- Multilink subnets (Pascal) => 6MAN?
- Layer 3 VLANs (Pascal) => 6MAN?
- Routing Protocol Applicability Statement
- Review existing cryptographic algorithm/ciphersuite recommendations considering the requirements of constrained devices
- Architecture guideline for IETF IoT
 - What can be done with the protocols we have today?
 - How we envision it to work? Explained for the broader community.

Possible IRTF Actions

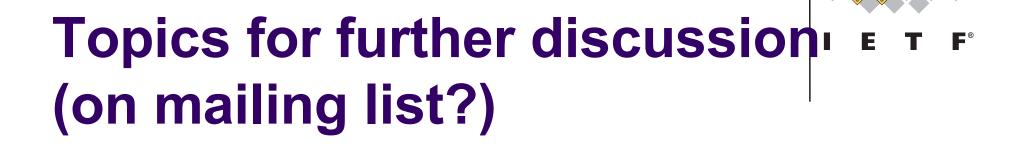


- Deployable security for smart objects
 - Credential management
 - Provisioning
 - Security architecture
- Information Centric Networking
- Overload protection/resource sharing
- Device identity/attribute discovery
- Address aggregation (reducing the memory requirements)

Possible IRTF Actions



- Investigate new cryptographic algorithms for constrained devices (CFRG), if needed.
- Distributed autonomic management (Pascal) => Network Management RG; new LCCN RG?
- Location (Bruce)



Network Management

Application Architecture (Protocol stacks) and Profiles of existing profiles

Guidelines for gateways

CoRE, COAP discussions

How to ensure innovation in these architectures?