



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)



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Topics for further discussion (on mailing list?)

Network Management

Application Architecture (Protocol stacks) and
Profiles of existing profiles

Guidelines for gateways

CoRE, COAP discussions

How to ensure innovation in these
architectures?