Protocols should go forward that are required by non IP based protocols

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This memo is based on what I've thought through several conversation with non IP people recently. But it might include some my misunderstanding.

As the growth of the Internet technology, IP is becoming to use in the area that isn't used IP based protocols. Especially, IP would be the primary protocol when a new protocol is designed.

On the other hand, there are already a lot of non-IP based protocols are defined and operated very well in areas such like home network, building facility management network and closed networks in factories.

Some of them are already adapted to use IP, but, in most cases, IP is used just as a transport to convey their protocols. Though such non IP based protocol designers try to fit their protocol to use IP more naturally, it couldn't be realized sometime since IETF protocols don't satisfy their requirements.

What parts should go ahead for them ?
One of them is manageability of devices. IETF has already a lot of good node management protocols if they are registered in the server in advance. Though, IoT devices legacy protocols assume may be located in places hard to access often like in ceiling or wall. And the number of such devices must be larger than current PC or mobile node based nodes. To make it work in such environment, the legacy protocols uses broadcast based protocols that might not go together with IP.

Therefore, IETF should take protocols following requirements for IoT.
- light weight device discovery
IETF has already discovery protocols like mDNS. But they don't satisfy non-IP based protocols designers yet. In addition, the current link local broadcast/multicast based protocol wouldn't scale beyond subnets. Further, not only devices but its capability discovery would be also required.
- easy management
If the above device discovery works well, existing management protocol could be used as is. But it might need more consideration.

Such required technology may be solved in IETF already. But the view point of IoT or upgrading existing non IP protocols, all technology / protocols should be revisited. When it realized, it will attract non IP protocol people to adapt their protocol to IP.