

Android NDN auto-configuration

- Motivation and problem statement
 - Autoconfigure NDN on Android devices to enable it fully work with NDN testbed
 - Configuring NDN manually on Android devices is a pain point
 - There have been some partial solutions for other platforms (Linux) or applications (NDNFit)
- Contribution to NDN
 - Can be used by other NDN Android application developers
 - Can simplify NDN Android application developers' operational tasks.
- Tasks
 - Learn how “nfdc” command line tool is used in NFD-Android; Use the same way to build “ndn-autoconfig” and “Automatic Prefix Propagation” into NFD-Android.
 - Learn how ndncert/openmhealth cert website and android-identity-manager work; integrate android-identitymanager functions into NFD-Android.

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- Required knowledge for participants
 - Be familiar with (1) JAVA and android development; (2) NFD.
 - Being familiar with NFD autoconfig and ndn trust management is a plus.
- Expected outcome
 - The above four tasks can be automatically done by NFD-Android.
- Useful resources
 - ``ndn-autoconfig`` (<http://named-data.net/doc/NFD/current/manpages/ndn-autoconfig.html>) for connecting local NFD to an edge NFD of NDN testbed and registerign prefixes on the edge NFD
 - ``Automatic Prefix Propagation`` (<https://named-data.net/wp-content/uploads/2016/10/ndn-0021-7-nfd-developer-guide.pdf> and <https://yoursunny.com/t/2016/nfd-prefix/>) for propagating local prefix to the testbed;
 - ``ndncert/openmhealth cert`` (<https://ndncert.named-data.net/> and <https://github.com/zhehaowang/openmhealth-cert> and <https://github.com/zhehaowang/android-identity-manager>) for requeusting and installing certification on Android devices.