Data Locations in the Nokia N900
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Abstract
The Nokia N900 is a very powerful smartphone and offers great utility to users. As smartphones contain a wealth of information about the user, including information about the user's contacts, communications, and activities, investigators must have at their disposal the best possible methods for extracting important data from smartphones. Unlike with other smartphones, knowledge of forensic acquisition from the N900 is extremely limited. Extractions of data from the N900 are categorized into limited triage extractions and full physical extractions. The imaging process of the phone has been explained as is necessary for a full investigation of the phone. The types of data as called for in a limited data extraction have been identified, and the locations of these files on the N900 were detailed. Also, a script was created which can be utilized for a limited data extraction from a Nokia N900.

Nokia N900
Very powerful smartphone
32 gigabytes onboard storage
Up to 16 gigabytes microSD storage
5 megapixel camera

Maemo
Linux based operating system
Designed for mobile devices
Built for web applications
Includes Unix functionality

Method
Used a Nokia N900 for a week as a personal phone
Used for calls, texts, contact management, calendar, web browsing, took pictures and videos
Logged as much activity as possible
Created physical image of operating system partition and examined for data

Results
Found locations of
Address Book  SMS / MMS  Web History, including typed URLs  Pictures
Call History  Calendar  Cookies  Videos

Most data was stored in SQLite database files
Excerpts of SMS and calendar entries from files on the phone, stored in SQLite database files

Deliverables
Created a script to extract all important data
Typed URLs  SMS / MMS
Web browsing history  Contact list
Cookies  Calendar
Web sign-ons  Multimedia Files
Call history  E-mail artifacts

All files are copied to the microSD card
Explained in detail how to create a full image of the phone
Image is created using onboard dd utility
Phone is connected to host computer via USB, configured as network connection
Image is passed over USB cable using SSH