

Mobile Data Collection Systems – A review of the current state of the field

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Research objectives:

1. Create a structure for analysis of Mobile Data Collection Systems currently available for use in humanitarian relief interventions.
2. Review these MDCS and categorize them by their features and appropriate applications.
3. Model a decision tree and build an online selection assistant to facilitate choosing among the tools.

Our Definition of a Mobile Data Collection System (MDCS):

A system of applications supporting the *two-way* gathering of *structured* information on portable devices. At a minimum, all MDCS include:

- Mobile interface
- Questionnaire designer
- Data collection and storage

Selecting the tools for review:

- Initial list based on the 2010 CartONG survey
- Systems added from MobileActive.org's [Mobile Data Collection Tools - Comparison Matrix](#)
- Web research and word of mouth

36 tools were identified for preliminary review

Selection Criteria

- Does the tool fit the definition of a MDCS?
- Is the tool currently available for download or purchase?
- Is there enough information from documentation, demos, and user experiences to accurately evaluate the tool?
- Has the tool been used on humanitarian or other NGO/UN projects? Or is it being targeted for this audience?

24 systems selected for inclusion



The Tool Matrix Google Spreadsheet

NOMAD MDC ongoing research ☆

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Parameter Category:										
	A	B	C	D	E	F	G	H	I	J
1	Parameter Category:	Form Features								
2										
3	Parameter: Legend: BLANK in Green or Blue = No Colors: Green=verified; Blue=from documentation; Yellow=not yet answered; Pink=unknown/contradictory	Subforms	Dropdown lists 1=select one (radio button); M=multiple selections (check boxes); Y=both	Skip patterns 1=one question at a time; Y=conditional subforms	Mandatory questions	Data range & type enforcement	Help (tool tips)	Pre-selected responses	Automated calculations (for data validation)	Default val
4	DCI: Data collection Interface									
5										
6	Acquee CSPro	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	CyberTracker		Y	Y	Y	Y		Y		Y

Some key findings:

- GIS data is not prioritized
- None of the tools integrated a comprehensive reporting component
- More variance among the back-end server setup and maintenance than between the form builders

Active development and user communities

Ongoing development with active support

No recent updates or development support

Inactive user support community

- [doForms](#)
- [EpiCollect](#)
- [EpiSurveyor](#)
- Global Relief Technologies RDMS
- Imogene
- IMSMA^{NG}
- [KoBo](#)
- [Majella Insight](#)
- [Mobenzi Researcher](#)
- Nokia Data Gathering
- [Pendragon Forms](#)
- [Souktel AidLink](#)
- [ViewWorld](#)
- [Voxiva Custom HealthConnect](#)

- [Acquee](#)
- [DevInfo EmergencyInfo](#)
- [GeoChat](#)
- OASIS Mobile

Active users supporting each other

- [CSPRO](#)
- [FrontlineSMS](#)
- Open Data Kit (ODK)
- [openXdata](#)
- [RapidSMS](#)

- [CyberTracker](#)

Technical complexity and ease of setup

Turnkey installations requiring no IT expertise	Complex installations requiring IT proficiency
<ul style="list-style-type: none"> • Acquee • CSPro • CyberTracker • DevInfo EmergencyInfo • doForms • EpiCollect • EpiSurveyor • GeoChat • KoBo • Majella Insight • Mobenzi Researcher • Souktel AidLink • ViewWorld 	<ul style="list-style-type: none"> • FrontlineSMS • Imogene • IMSMA^{NG} • Nokia Data Gathering • Open Data Kit (ODK) • openXdata • Pendragon Forms • RapidSMS

The 5 Phases of Assessments

Assessment Phases

The framework below describes the assessments phases and response planning for sudden-onset crisis. This phased approach to assessments has been developed by the IASC Needs Assessment Task Force.



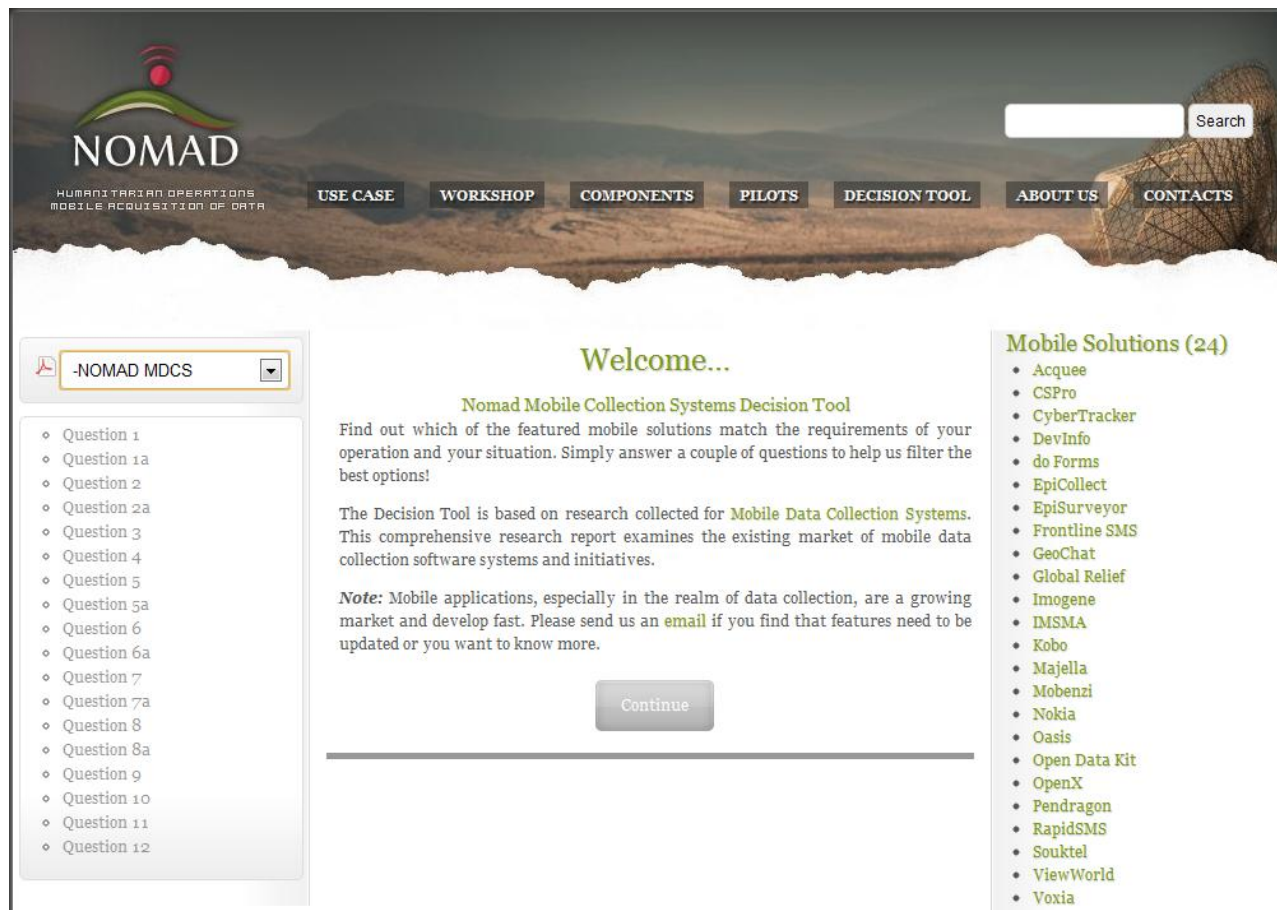


Appropriateness for Rapid Assessments

Rapidly deployable tools with support, suitable for phase 2	Tools with moderate set-up requirements or requiring internet, suitable for phase 3	Tools which should only be considered for phases 4 or 0
<ul style="list-style-type: none"> • <u>DevInfo EmergencyInfo</u> • <u>EpiSurveyor</u> • <u>GeoChat</u> • <u>Souktel AidLink</u> 	<ul style="list-style-type: none"> • <u>Acquee</u> • <u>CSPro</u> • <u>CyberTracker</u> • <u>doForms</u> • <u>EpiCollect</u> • <u>KoBo</u> • <u>Majella Insight</u> • <u>Mobenzi Researcher</u> • <u>Nokia Data Gathering</u> • <u>Open Data Kit (ODK)</u> • <u>ViewWorld</u> 	<ul style="list-style-type: none"> • <u>FrontlineSMS</u> • <u>Imogene</u> • <u>IMSMA^{NG}</u> • <u>openXdata</u> • <u>Pendragon Forms</u> • <u>RapidSMS</u> • <u>OASIS Mobile*</u> • <u>Voxiva HealthConnect*</u> • <u>Global Relief Technologies RDMS*</u>

* Preliminary finding since full information on the tool was not made available for this study.

The full PDF report is available on the NOMAD site as [“NOMAD MDCS”](#)



The screenshot shows the NOMAD website interface. At the top left is the NOMAD logo with the tagline 'HUMANITARIAN OPERATIONS MOBILE ACQUISITION OF DATA'. To the right is a search bar. Below the logo is a navigation menu with links: USE CASE, WORKSHOP, COMPONENTS, PILOTS, DECISION TOOL, ABOUT US, and CONTACTS. The main content area features a 'Welcome...' section with the title 'Nomad Mobile Collection Systems Decision Tool'. The text describes the tool's purpose: 'Find out which of the featured mobile solutions match the requirements of your operation and your situation. Simply answer a couple of questions to help us filter the best options!'. It also states: 'The Decision Tool is based on research collected for Mobile Data Collection Systems. This comprehensive research report examines the existing market of mobile data collection software systems and initiatives.' A note follows: 'Note: Mobile applications, especially in the realm of data collection, are a growing market and develop fast. Please send us an email if you find that features need to be updated or you want to know more.' A 'Continue' button is located below the text. On the left side of the main content area, there is a dropdown menu labeled '-NOMAD MDCS' and a list of questions: Question 1, Question 1a, Question 2, Question 2a, Question 3, Question 4, Question 5, Question 5a, Question 6, Question 6a, Question 7, Question 7a, Question 8, Question 8a, Question 9, Question 10, Question 11, and Question 12. On the right side, there is a 'Mobile Solutions (24)' section with a list of solutions: Acqee, CSPro, CyberTracker, DevInfo, do Forms, EpiCollect, EpiSurveyor, Frontline SMS, GeoChat, Global Relief, Imogene, IMSMA, Kobo, Majella, Mobenzi, Nokia, Oasis, Open Data Kit, OpenX, Pendragon, RapidSMS, Soukstel, ViewWorld, and Voxia.

Thank you!

Questions???