

Automated On-Line IAQ Management and Reporting System

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The Challenge

- There are lots of instruments to measure the components of air
- All of these IAQ components can be easily and accurately measured
- The ***real challenge*** is analyzing, interpreting and presenting the results in a concise, consistent understandable report
- The automated on-line IAQ system provides the solution by ***automated analysis and reporting*** of appropriate air measurements

Background

- We investigated proven IAQ measuring & analysis techniques and systems
- We analyzed the IAQ systems to see what could be automated
- A leading IAQ consulting firm partnered with a leading internet software firm and developed the

IAQ Software System

Design Criteria

- Measurements and observations to be maintained in a database
- Fast on-line report generation on demand
- Historical measurement/observation permanently stored for comparison
- Integration with other building and energy management programs
- Access to data and reports via the Internet

The Automated IAQ System

- Measurements and observations are made
- The information is uploaded and stored in a *database*
- An **inference engine** is supplied with the appropriate “*rule set*” comprising the system heart
- The information from the database is analyzed by the “*engine*”
- A report is generated

The “Rule Set”

- The Heart of the system
- The “rules” are continually updated
 - New regulations
 - Scientific – industry reports
 - Conclusions
 - Techniques
- Regional differences
- Indoor/outdoor variances
- Report styles



Measurements &
observations taken



Measurements &
observations taken



Data sent to central
server database



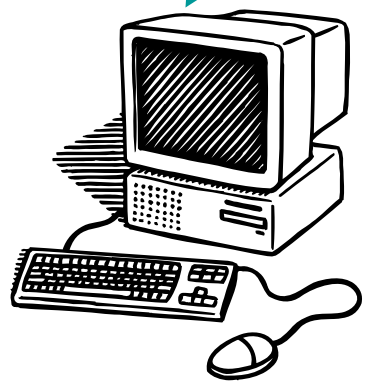


Measurements & observations taken

Data sent to central server database



Data extracted for the building





Measurements & observations taken

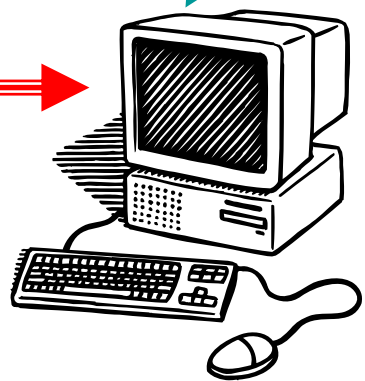
Data sent to central server database



Data extracted for the building



The "rule set" Applied for the building





Measurements & observations taken

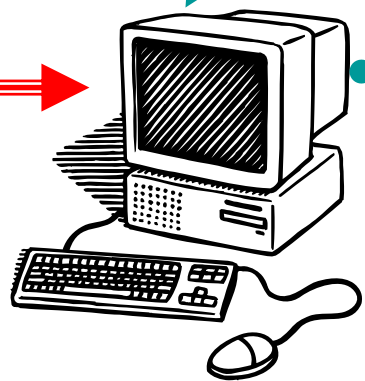
Data sent to central server database



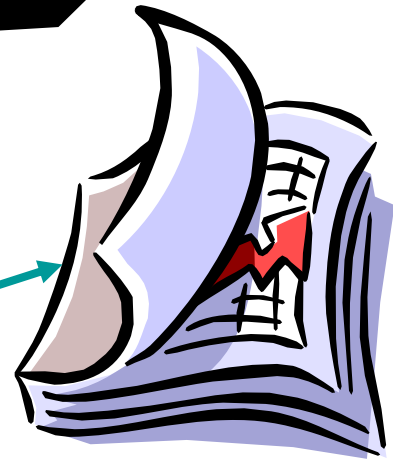
Data extracted for the building



The "rule set" Applied for the building

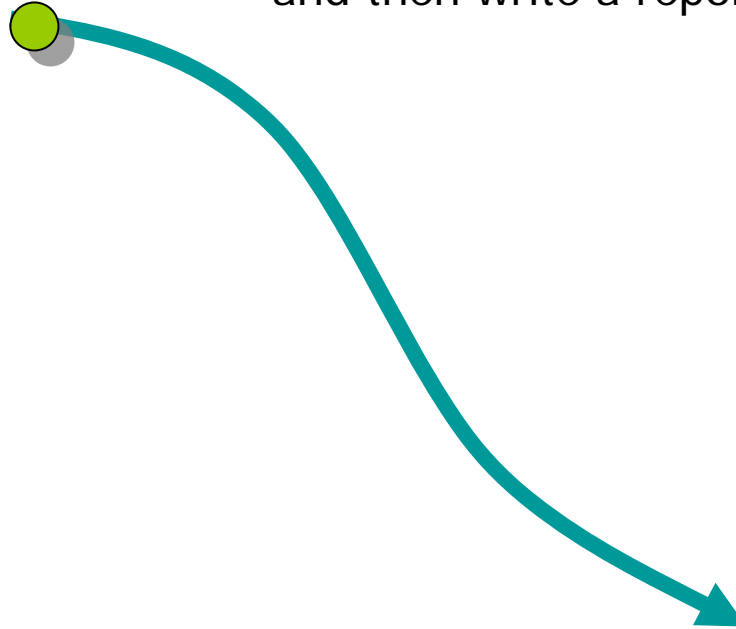


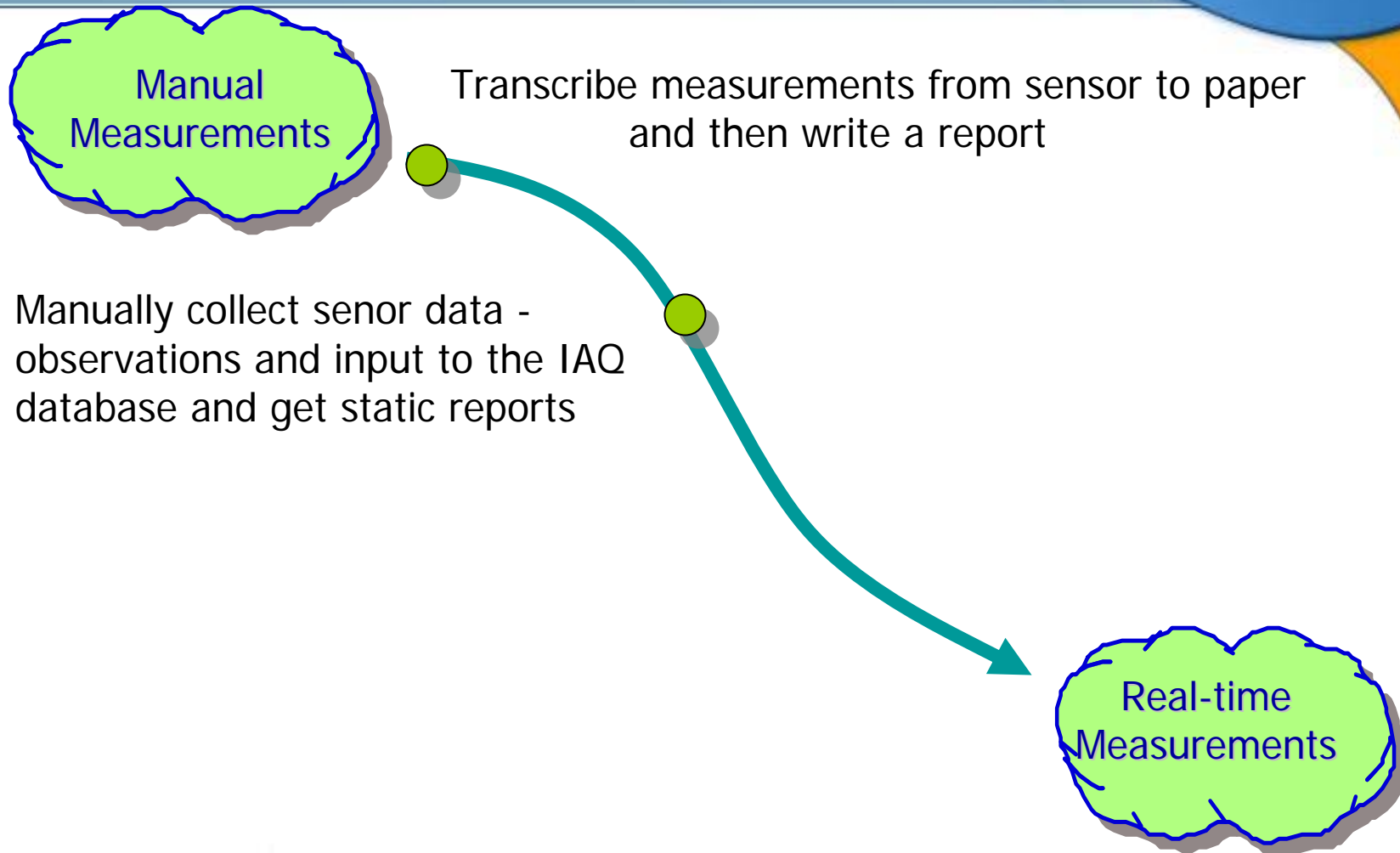
The reports are generated

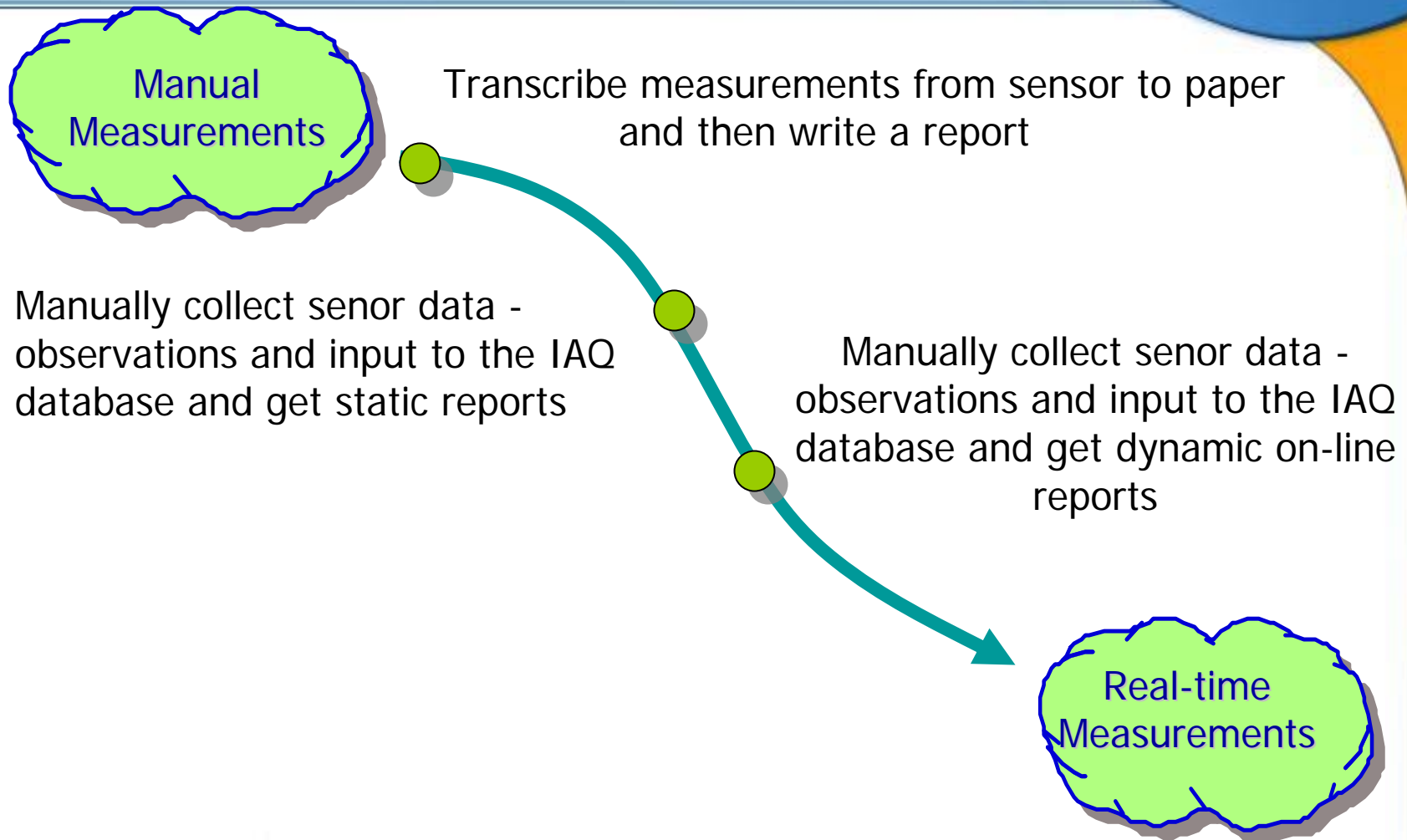


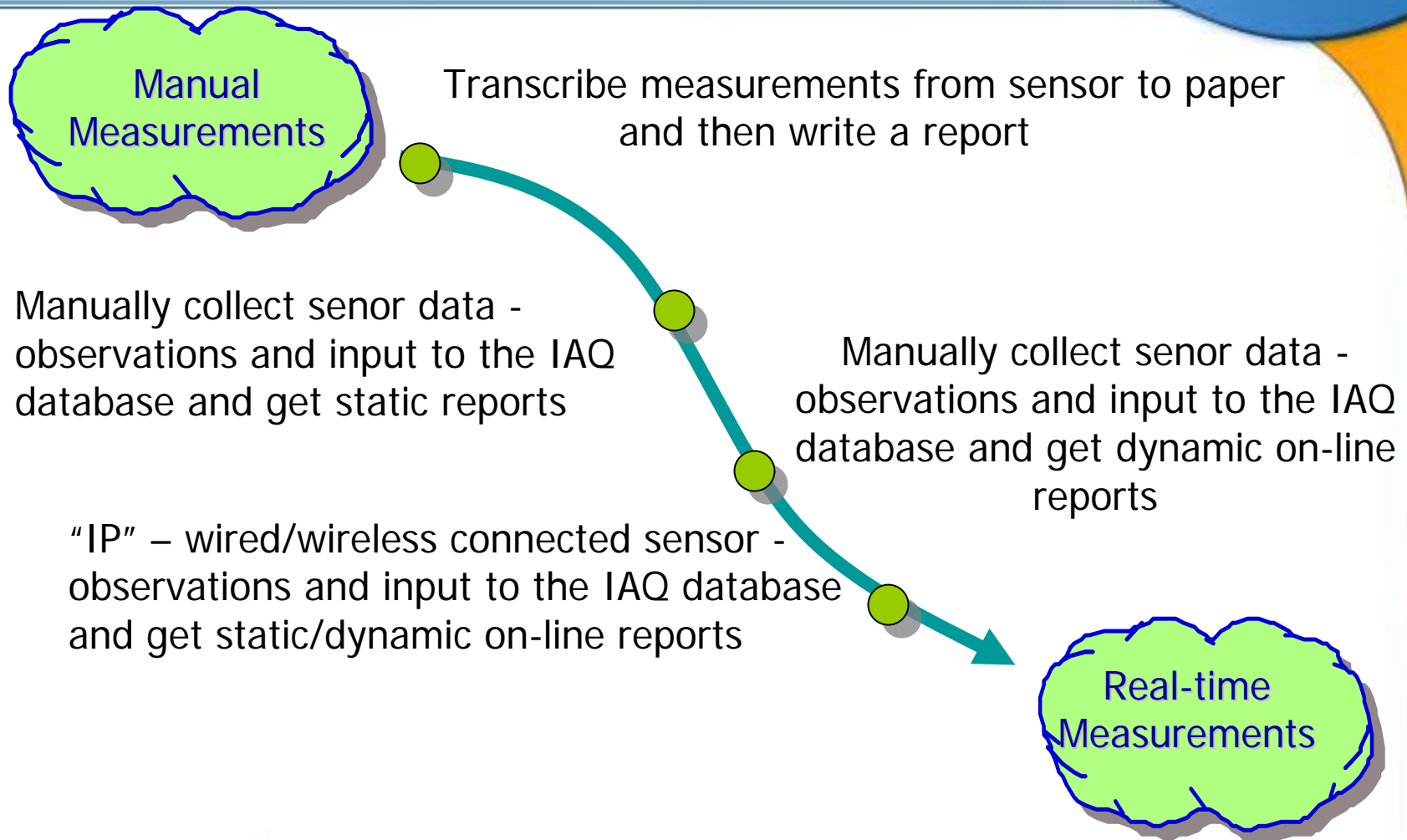


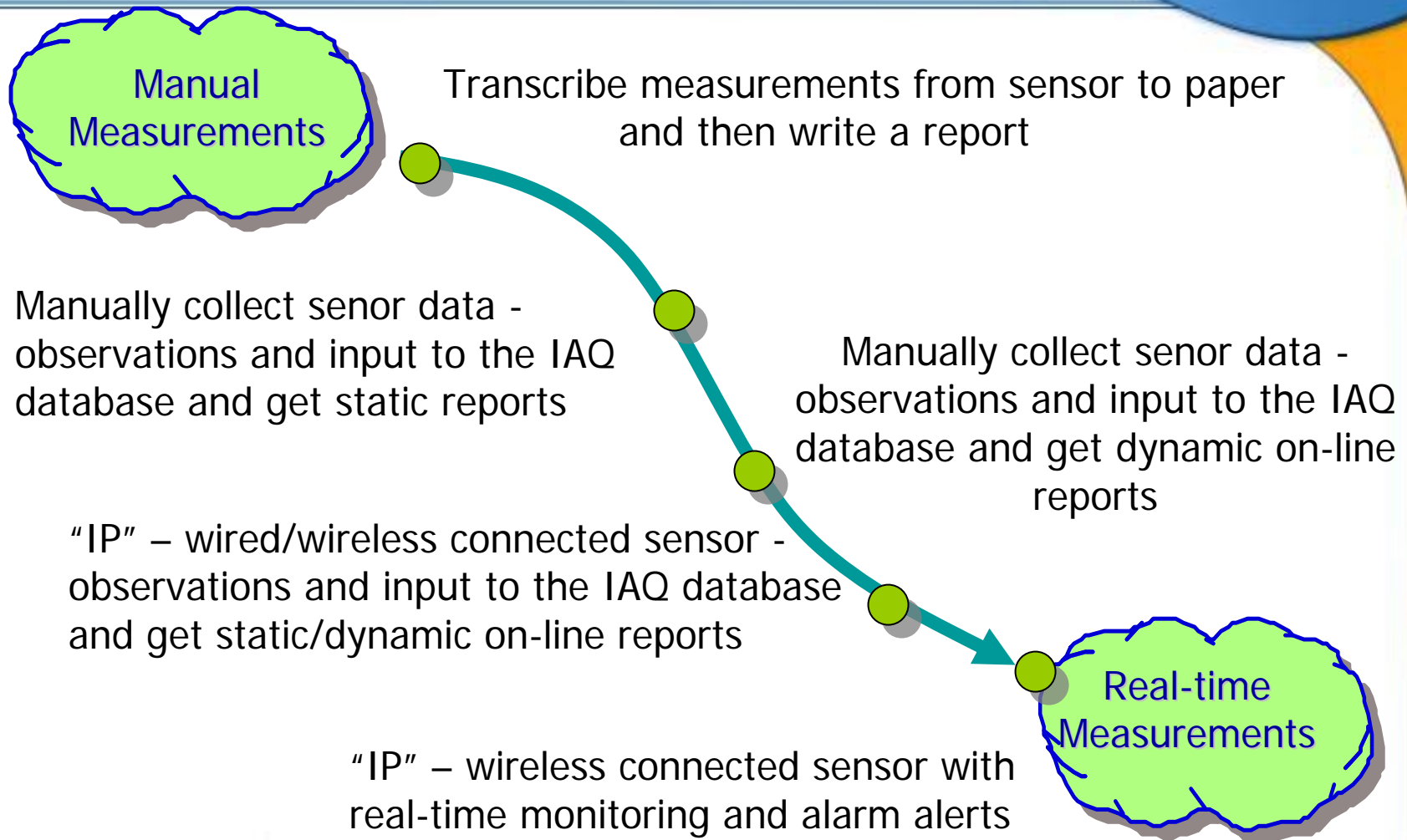
Transcribe measurements from sensor to paper
and then write a report











Thank You