

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

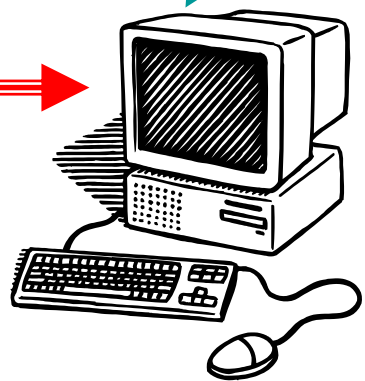
Data sent to central server database

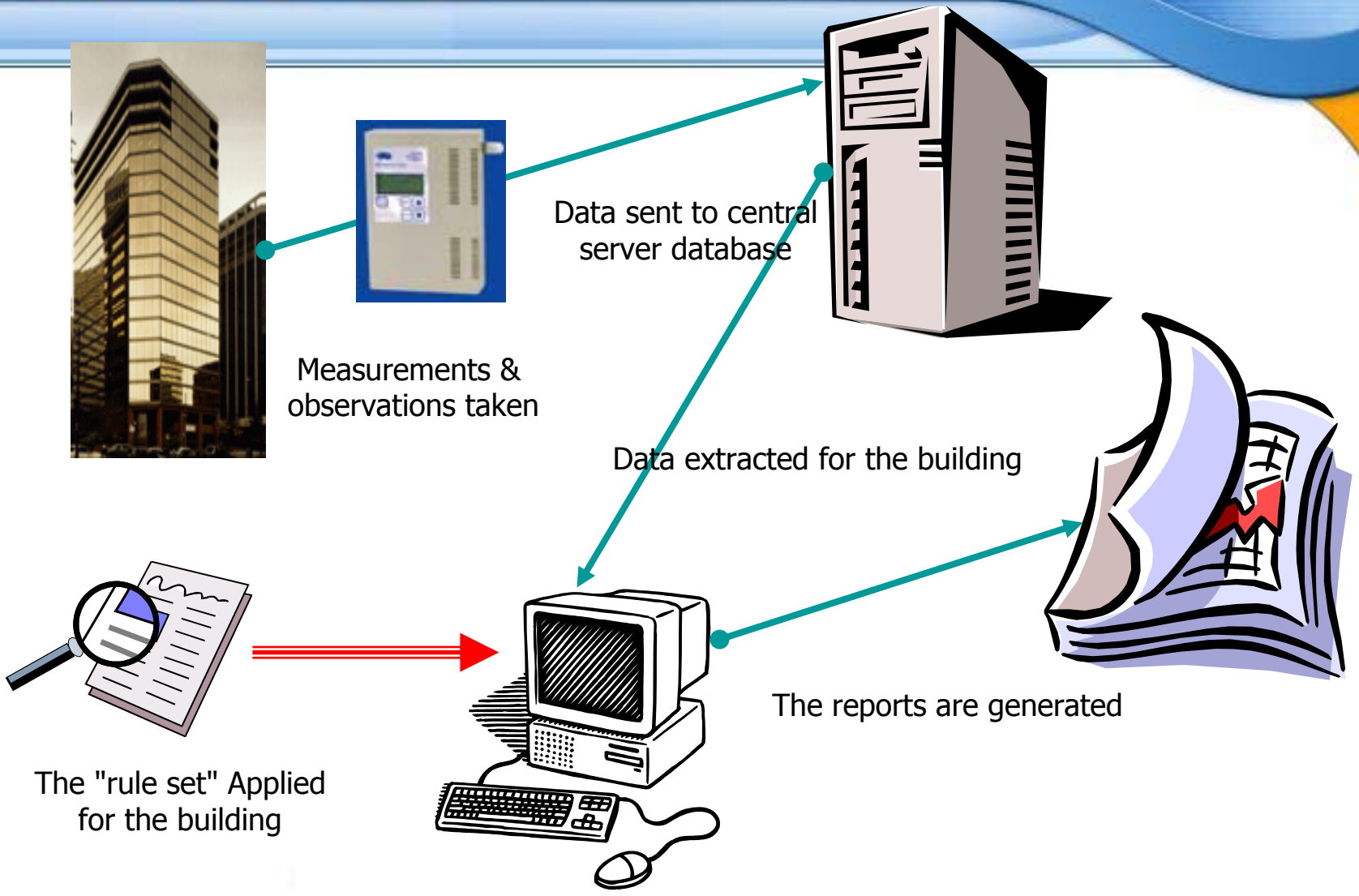


Data extracted for the building



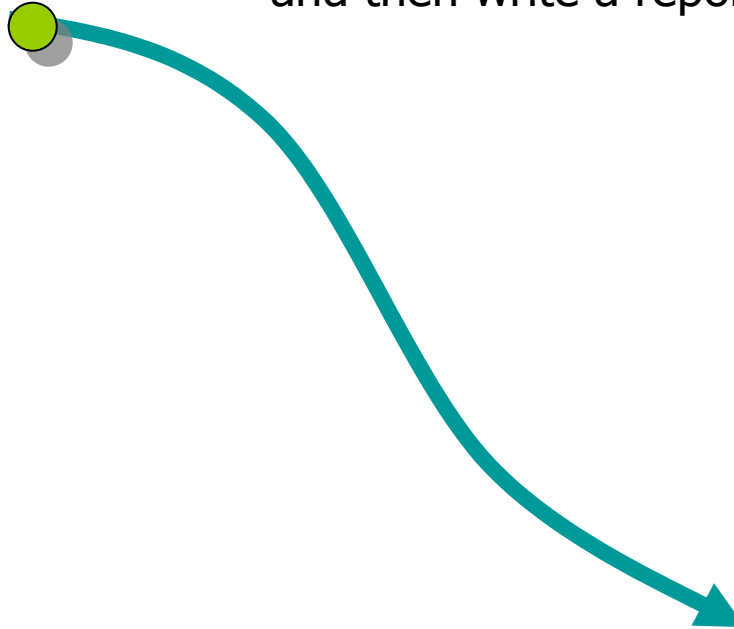
The "rule set" Applied for the building

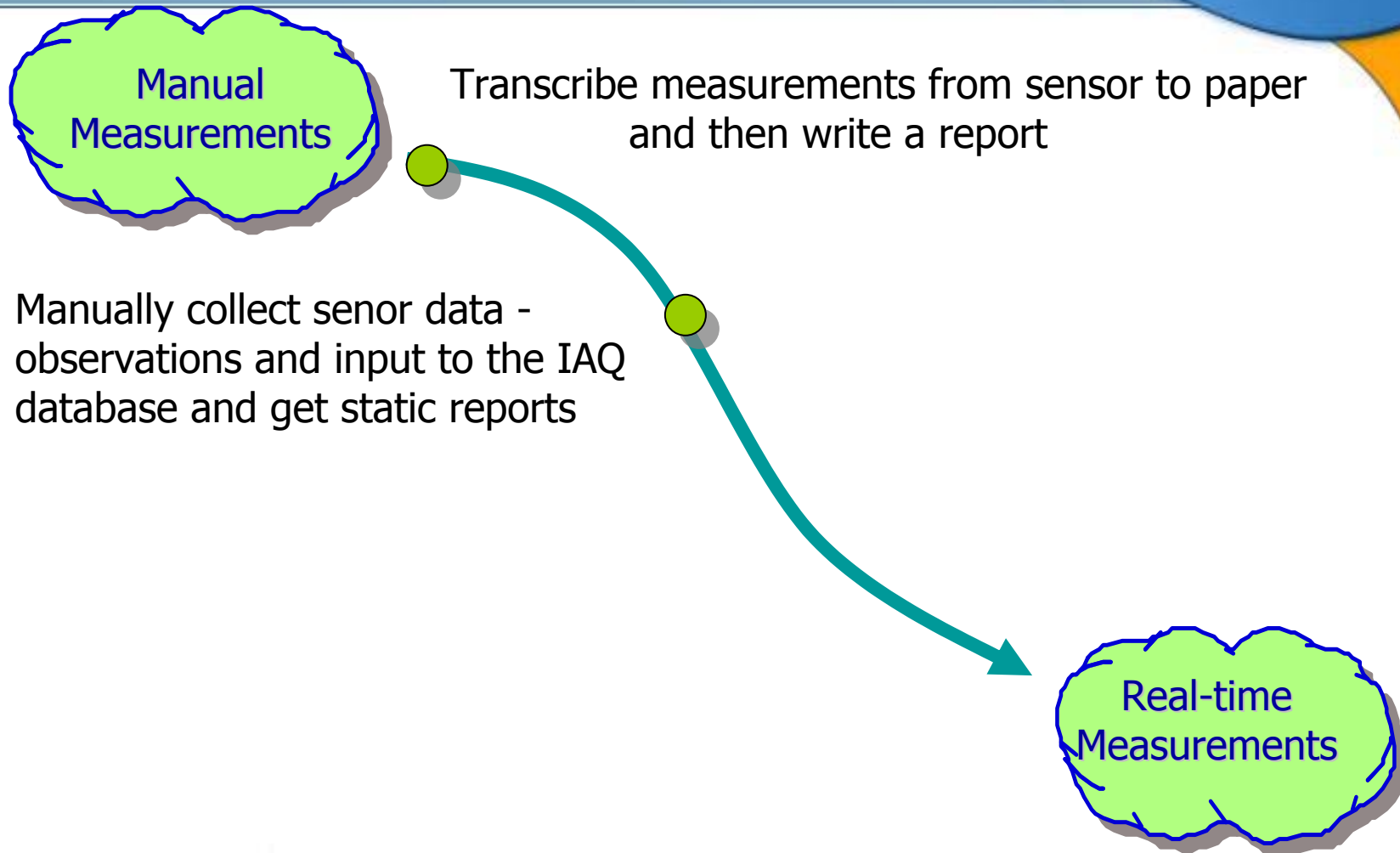


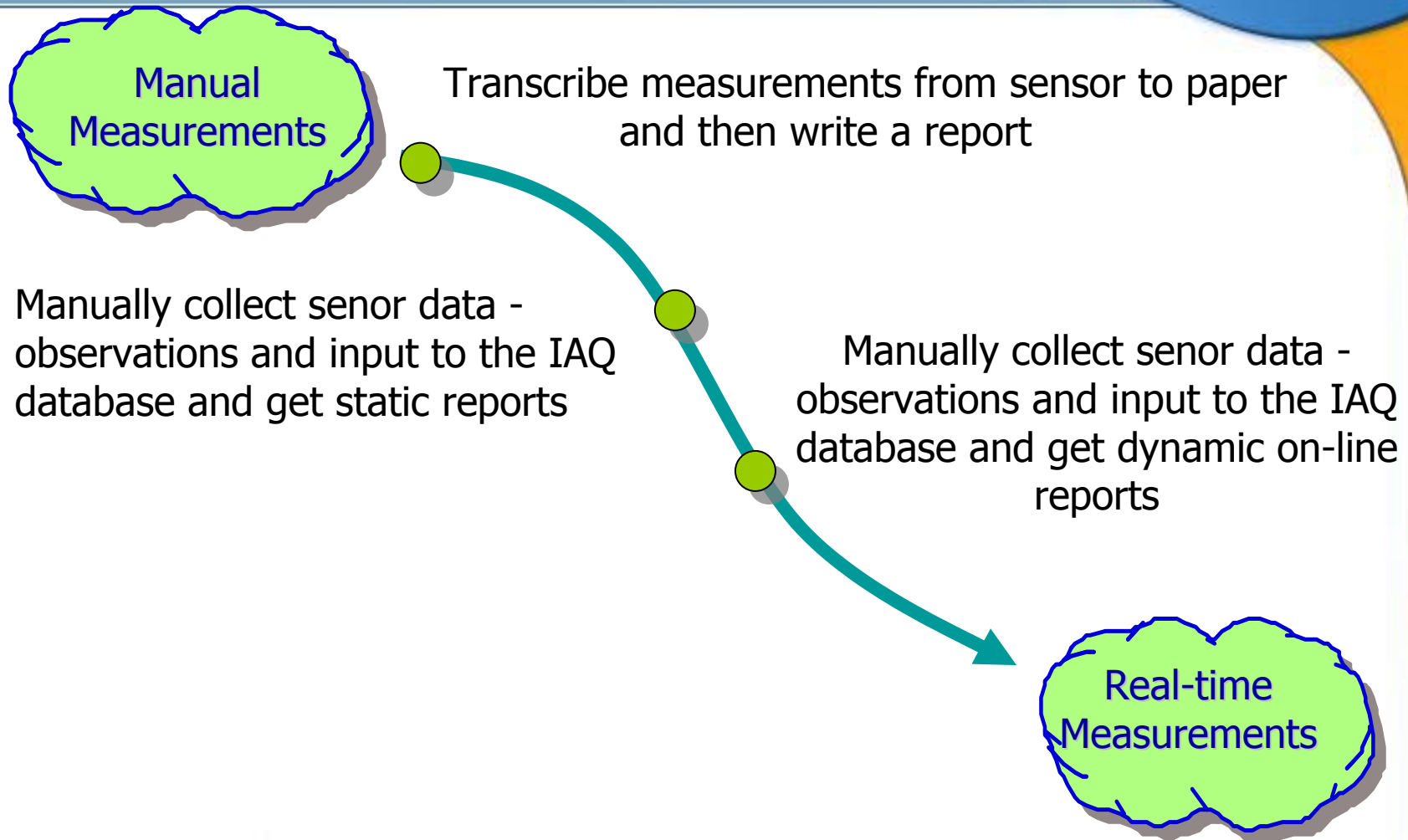


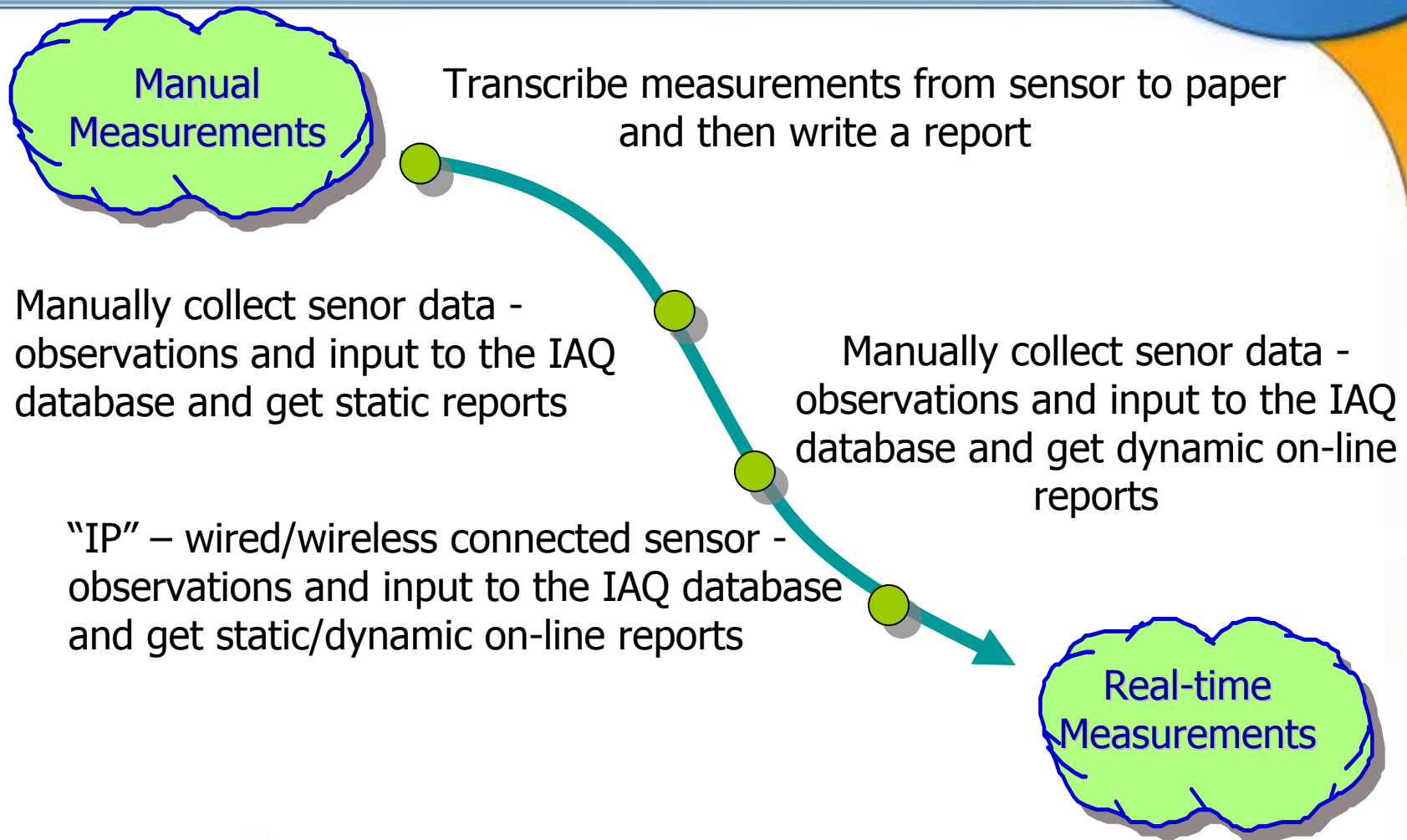


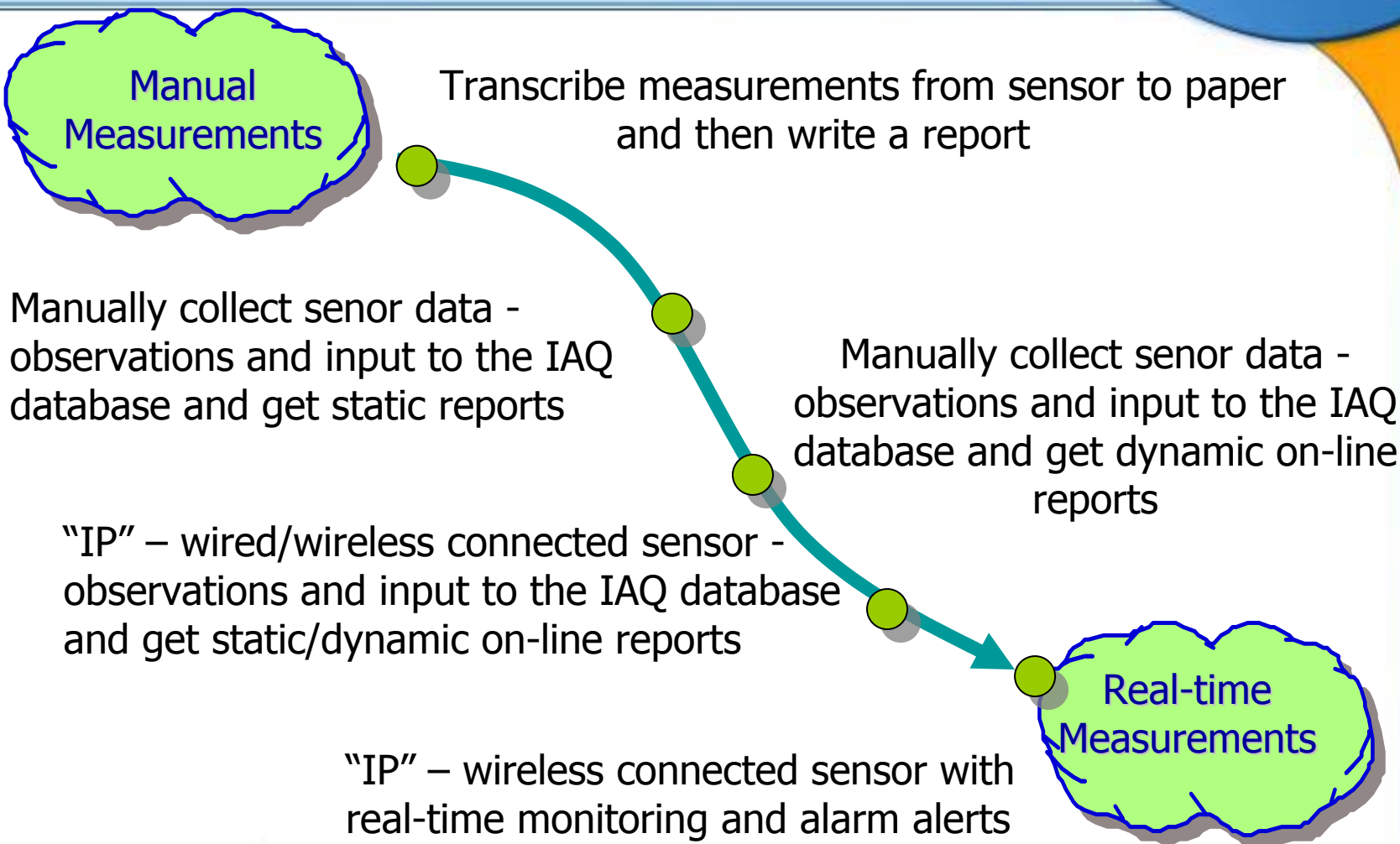
Transcribe measurements from sensor to paper
and then write a report











Thank You