Sheffield Solar System Architecture

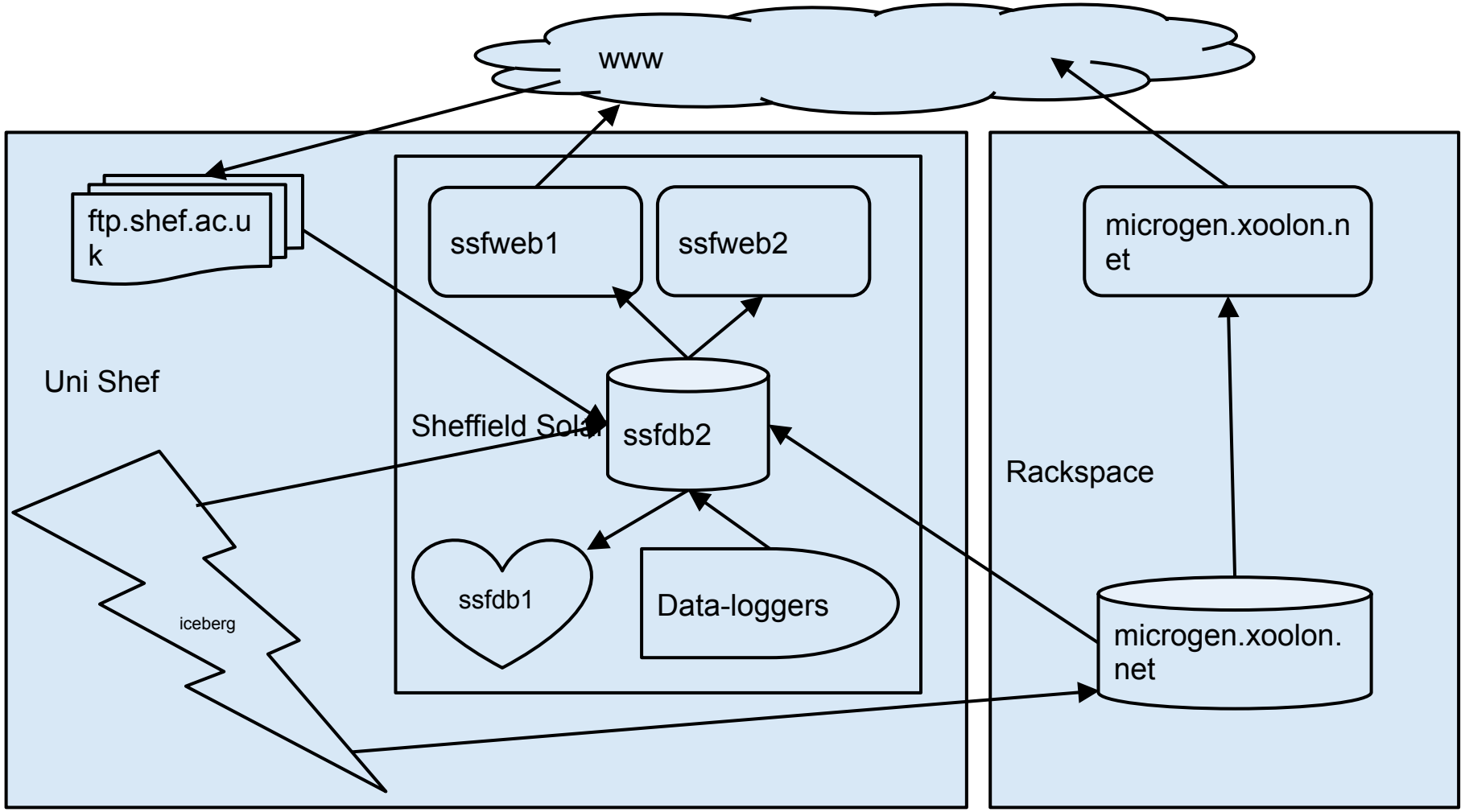
Services

- Public web-site: web-server + database
- Data analysis for web-site: compute server
- Research data analysis: compute server
- …

Sheffield Solar System Architecture

Requirements

- Data Security
  - Available: replication, snapshots
  - Private: secure server, password management
  - Tamper proof:
- Usability
- Performance
- Cost: use Uni Sheff: compute server and virtual hosts


www
ftp.shef.ac.uk
ssfweb1
ssfweb2
Uni Shef
Sheffield Sola
ssfdb2
ssfdb1
Data-loggers
iceberg
Rackspace
microgen.xoolon.net
microgen.xoolon.net

Sheffield Solar System Architecture

PV Reading Upload

1.www.microgen…
2.microgen db: verify
3.ssfdb2 db: backup and analysis

Data-loggers

1.PVs -> NI data-logger -> ftp-server -> inserter(Python, ssfdb2) -> database
2.Nedap Inverter -> inserter(Java, ssfrpi0) -> db on ssfdb2

Microgen Website Migration

Web fast moving

WebGUI (Perl) -> Django (Python)

- Front-end
  - Django views: functionality
  - CSS: look and feel
- Back-end: “business logic”
- Database: MySQL tables
- Data: WebGUI tables -> Python tables