



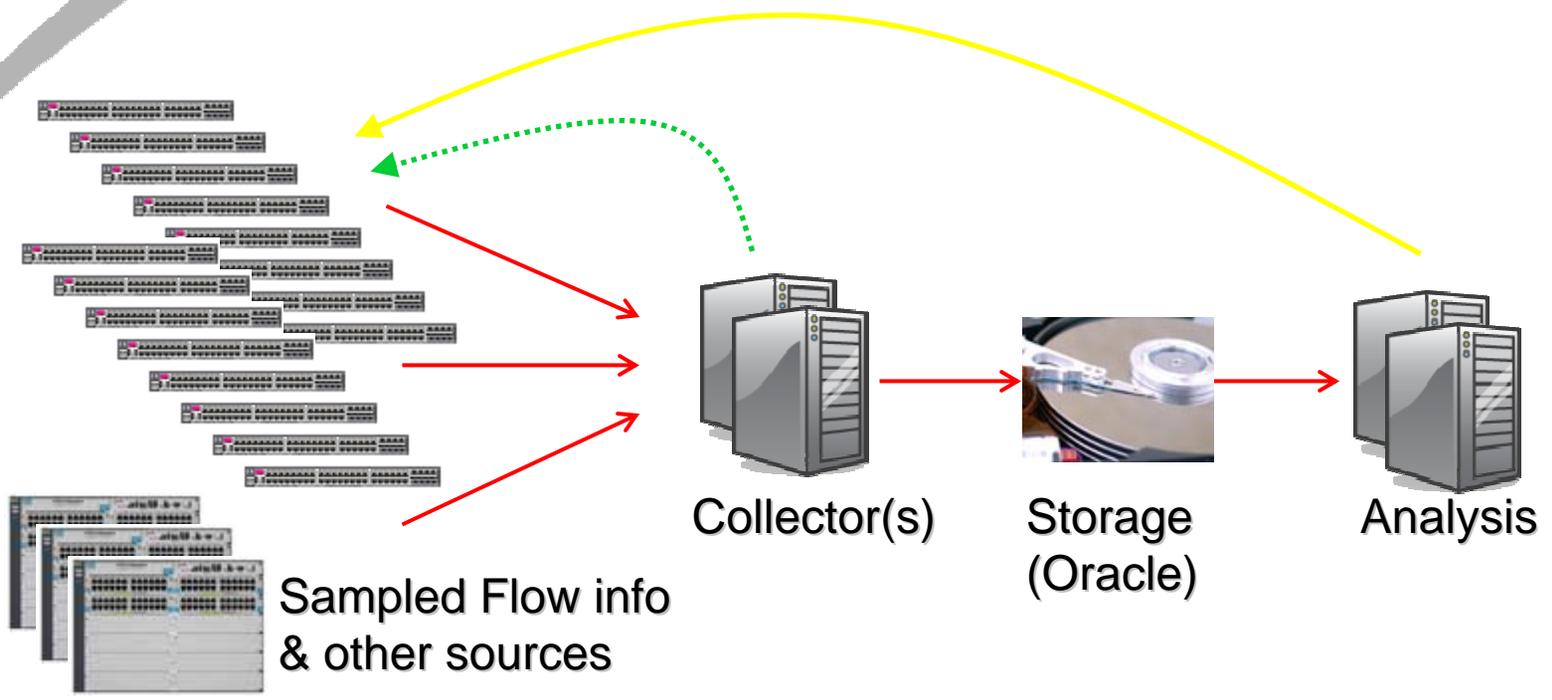
# Initial plans for the HP Procurve Project

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- CERN has signed a contract with HP/Procurve
  - Delivery of High performance Network Switches for Campus and Farms
- CERN owns a very large network infrastructure
  - Thousands of switches/routers/etc, all centrally managed
  - Very demanding users, open environment
- Very early discussions on large network infrastructure management
  - Similar vision and solutions

- “ The project goal is to understand the behaviour of large computer networks (10'000+ nodes) in High Performance Computing or large Campus installations to be able to:*
- *Detect traffic anomalies in the system*
  - *Be able to perform trend analysis*
  - *Automatically take counter measures*
  - *Provide post-mortem analysis facilities “*



- Research project
- Must also provide innovative solutions for Procurve and CERN
- 2 FTE (1 staff, 1 fellow) over three years
- Common Procurve/CERN supervision
  - Bring the teams together to share experience and knowledge
  - Benefit from different cultures (development, methodologies, etc)
- Reliance on the CERN infrastructure
  - Use the CERN infrastructure as a polymorphic data generator (desktops, physicists, farms, industrial controls, internet, etc)
  - Benefit from CERN data analysis know-how

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- ✓ December 2006: formal agreement
  - ➔ January-March 07: recruitment
  - May 07: start of the project
  - August 07: First roadmap defined
  - ...
  - May 08: first project review
  - ...

- Challenging research activity
- Must address large scale issues
  - Collection of large quantity of data
  - Storage & post mortem
  - Analysis
- Requires initial understanding of precise definitions and heuristics
  - Anomalies?
  - Trends?
  - Counter measures...