· A1 15

OPUS System
Operator-User Performance Support

THE OPUS GROUP

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THE PROBLEM DOMAIN

- **DISTRIBUTED ARCHITECTURE**
  - **Plant Operations are diverse and multi-faceted**
  - **Events can happen anywhere**
  - **The plant is ENGINEERED**
    - **. Decomposition**
    - **. Functional Abstraction**
    - **. Temporal Abstraction**
    - **. Procedural**
    - **. Pre-enumerated**

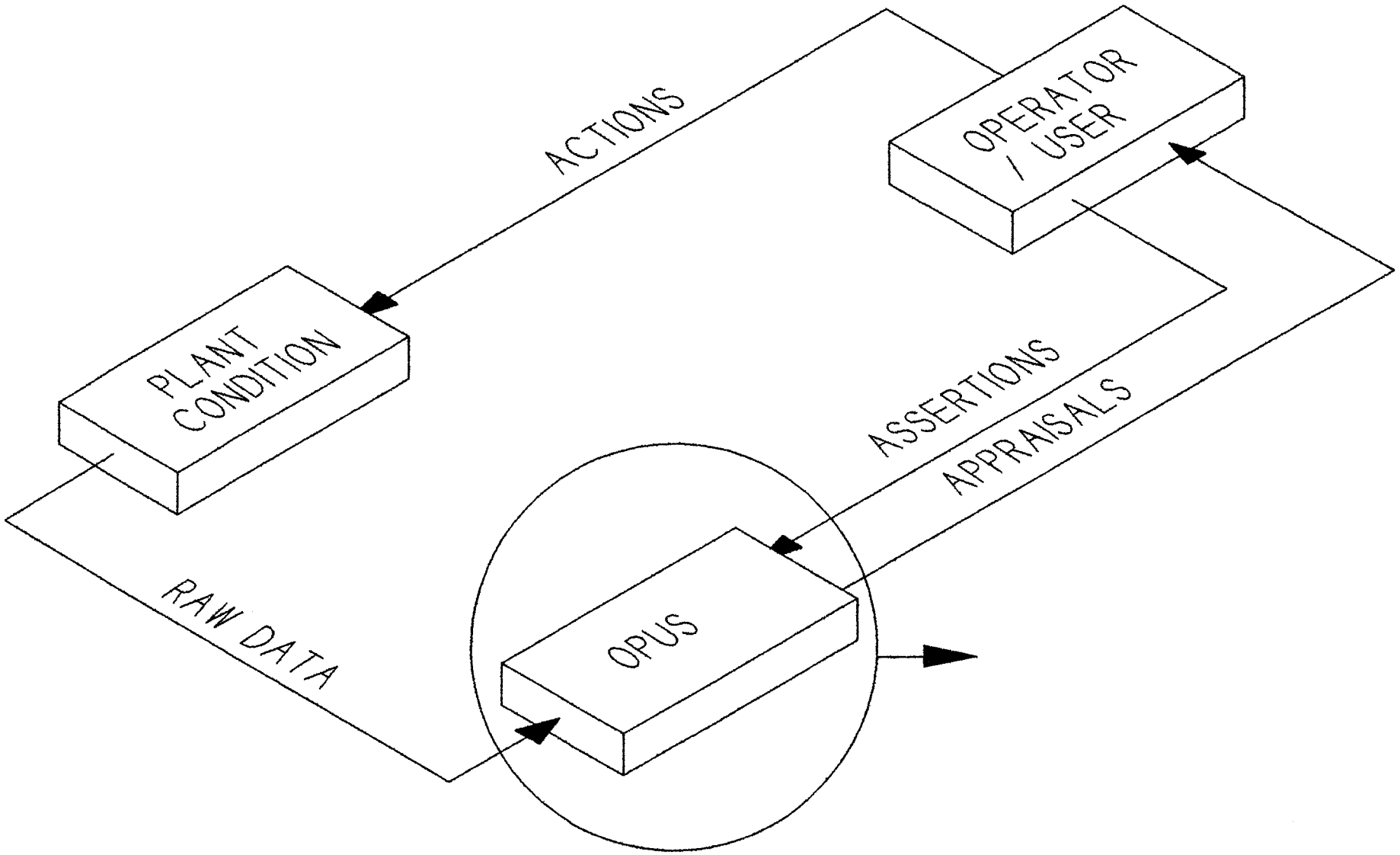
- **Asychronous behaviour**

- **Higher level reasoning via human-centred control strategy**

- **Real time operation**

- **Disparate knowledge bases**

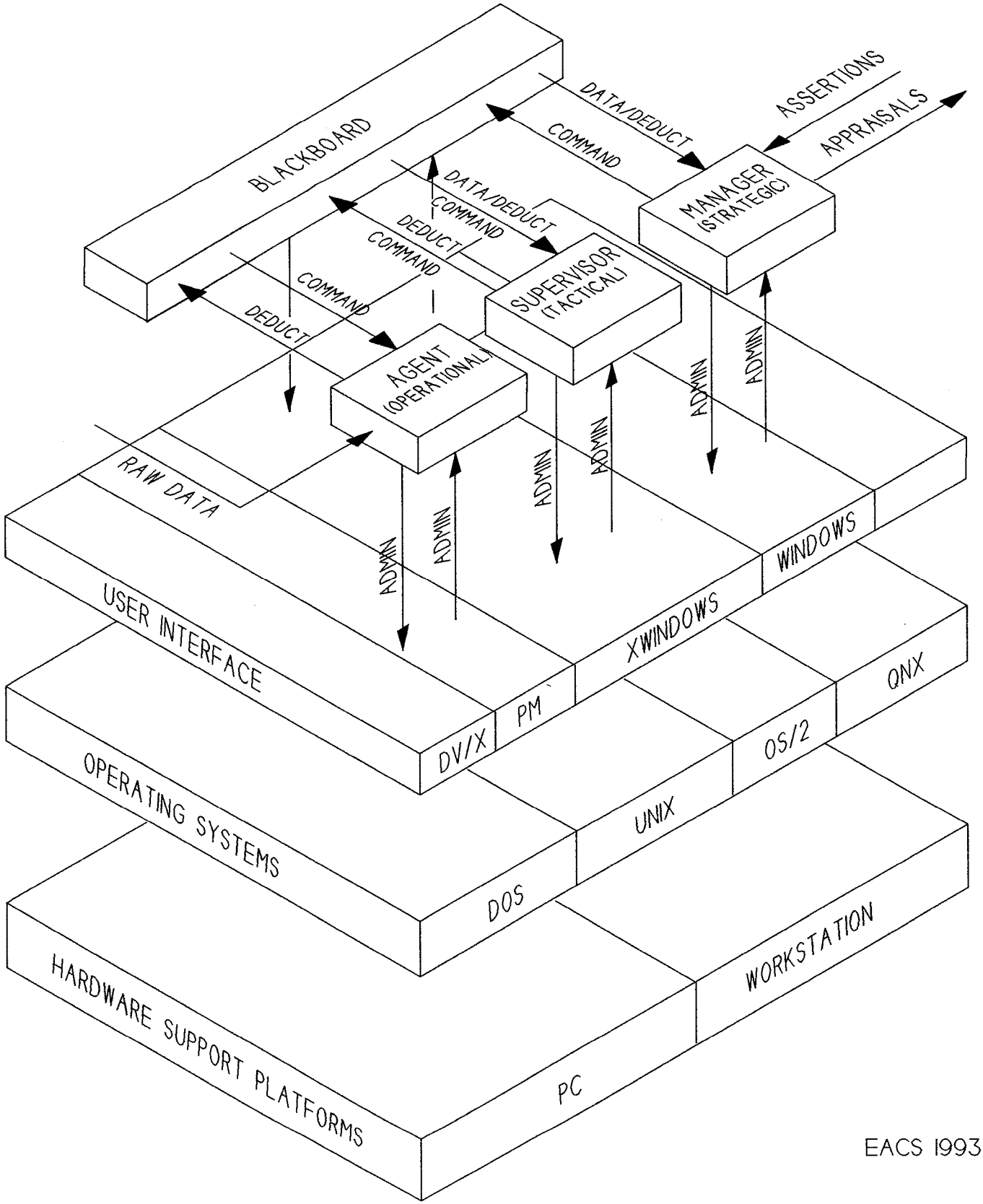
- **Multi-disciplinary**


ACTIONS
OPERATOR / USER
PLANT CONDITION
ASSERTIONS
APPRAISALS
RAW DATA
OPUS

OPUS System
Operator-User Performance Support

SOLUTION STRATEGY

- **PERFORMANCE SUPPORT**
- **OPERATOR CONTROL**
- **MODULAR SYSTEM**



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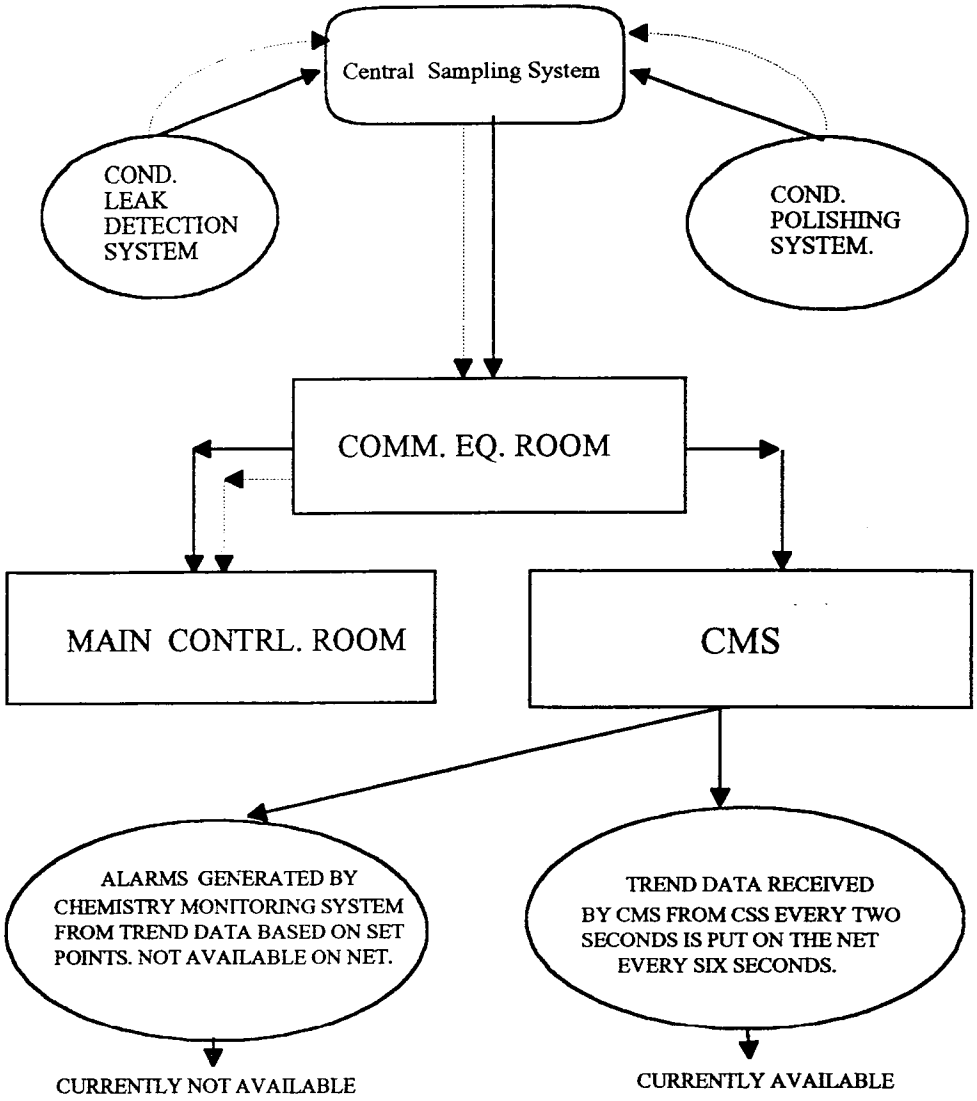
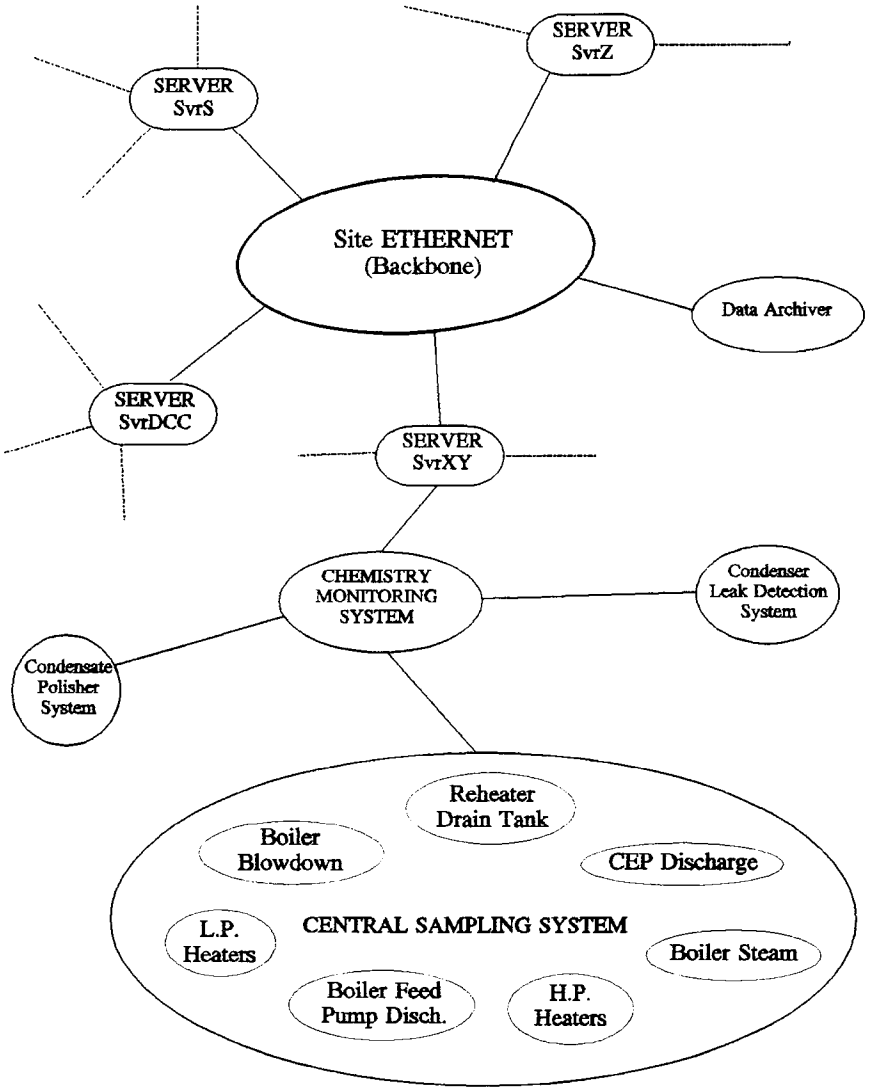


FIGURE: SHOWING FLOW OF TREND AND ALARM DATA.

LEGEND: ALARM DATA .....▶

TREND DATA ——▶


SERVER
SvrS
SERVER
SvrZ
Site ETHERNET
(Backbone)
Data Archiver
SERVER
SvrDCC
SERVER
SvrXY
CHEMISTRY
MONITORING
SYSTEM
Condenser
Leak Detection
System
Condensate
Polisher
System
Reheater
Drain Tank
Boiler
Blowdown
CEP Discharge
CENTRAL SAMPLING SYSTEM
L.P.
Heaters
Boiler Steam
Boiler Feed
Pump Disch.
H.P.
Heaters

SAMPLE MODULE CODE

```
int main()
{
  while(!quit)
    {
      my_obj = obj_read();

      switch(my_obj)
        {
          case hMail:
            ProcessMailEvent();
          break;

          case hTimer:
            ProcessTimerEvent();
          break;

          case hKeyboard:
            ProcessKeyboardEvent();
          break;
        }

    }

    DoHouskeeping();
    return(0);
}
```