

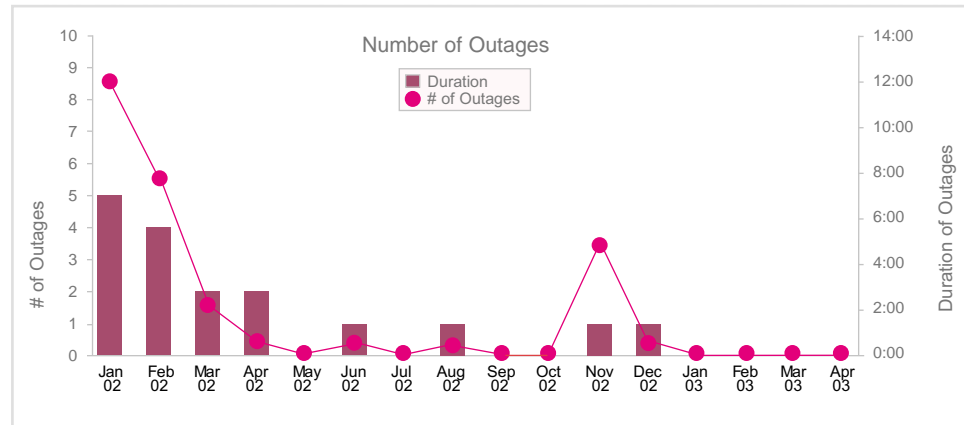
Network Optimization

Developing a robust manufacturing and supply distribution network requires a large capital investment. Manufacturing managers monitor machine utilization rates, capacity versus demand, and load versus defect rates to optimize production lines. In communications networks, information technology managers continuously monitor switches, channels and the overall network to determine usage rates, balance load and plan capacity investments. Metrics often tracked include infrastructure availability, up-time and utilization. Predictive analysis is used to determine future infrastructure requirements and "what-if" analysis shows the tradeoffs of different configuration and load scenarios.

Key Performance Indicators

- % of Capacity
- Utilization Rate
- Top 10 Assets Serviced the Most? The Least?
- Trend in Maintenance Costs
- Predicted Network Downtime
- Variance to Standard
- Network Capacity
- Top 5 Production Bottlenecks

Sample Report: Network Performance and Downtime



This report demonstrates the trend in the number and duration of plant/network outages over a 16-month window. The positive trend can be the result of a number of factors including a completed modernization effort, increased training or more proactive maintenance. By viewing this report, an operations, information systems, or production analyst can see the amount of time lost due to outages and drill into the months where there were anomalies. Typical follow on analysis includes comparing ROI of upgrade/training/maintenance (costs versus increased product sales or productivity measures), drilling into the cause and location of outages, or implementing a proactive notification process whenever there is downtime.

COMMON BUSINESS QUESTIONS

- What is the network utilization versus downtime?
- What percent of capacity is this location operating at on average?
- What is the trend in volume over the past year?
- How much downtime do we experience per month?
- What is the maximum traffic our network can handle?
- What machines require maintenance today? This week? This month?
- What machines are nearing the end of their productive life?
- What will our required network investments be next year?