



## Challenge: reliable network operations

- Enterprise networks are business critical
- Performance issues impact productivity
- Visibility of network state and traffic flows is mandatory

### Visibility with proactive monitoring

- Passive measurement of traffic characteristics
- Active measurements between network locations
- Tracking of component behavior

### Technical challenges

- Data collection and processing geographically distributed
- Up to 1 Million flow records per second and location
- More than 10 Billion records per day
- Record and data collection are vendor-specific

## Today: Monitoring with manual interaction

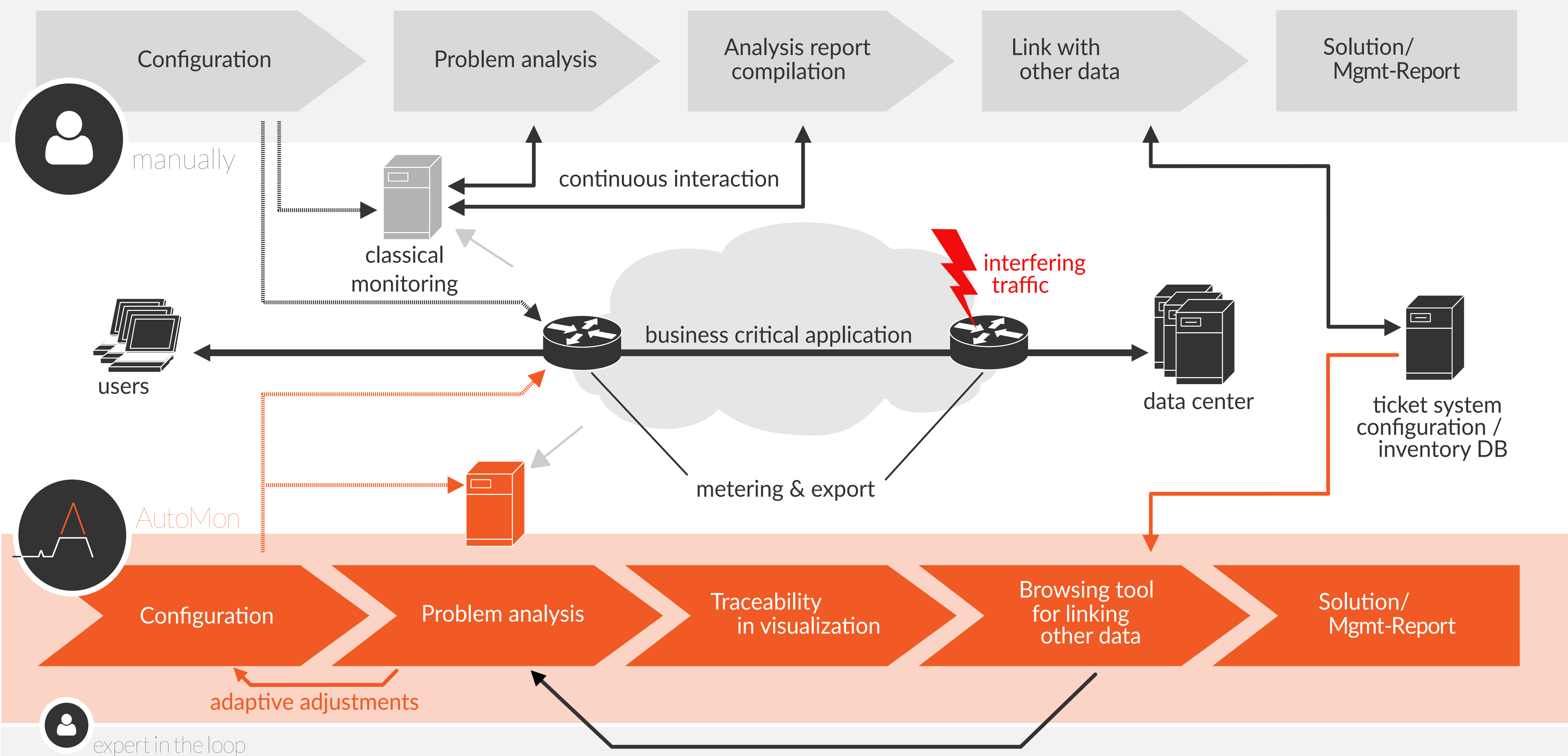
Manual parameter settings for collection and processing  
→ Effort for adjusting measurements

Alignment of measurements with current requirements hard to achieve  
→ Available data often not suitable

Step-by-step interactive analysis using the network monitoring system  
→ Waiting time

Manual compilation of traceable analysis results  
→ Effort

Correlation with external data sources  
→ Requires experts from every domain



## AutoMon Approach

- Application of semantically evaluable data formats (IPFIX, Yang)
- Usage of flexible configuration mechanisms (NetConf, RestConf, SDN controllers)
- Rule-based algorithms and machine learning
- Topology-based root-cause analysis
- Adaptive data visualization
- Business Intelligency analysis with external data sources

## Advantages

Early detection and classification of network issues  
→ Minimize impact of network issues

Automatic closed loop control of configuration  
→ Find optimal assignment of measurement and processing resources

Automatic configuration of measurement and flexible processing approach  
→ Low configuration effort

Enrichment of reports due to Business Intelligency functionality  
→ Well-founded information for investment decisions