



# Predictive Analytics

For Communications Service Providers (CSPs), improved customer experience, enhanced revenue generation and transformed operations are business priorities in the age of digital disruption. To retain, win and serve their customers, CSPs need to proactively gain visibility across the network layers and derive greater value from network data by analysing to improve network performance.

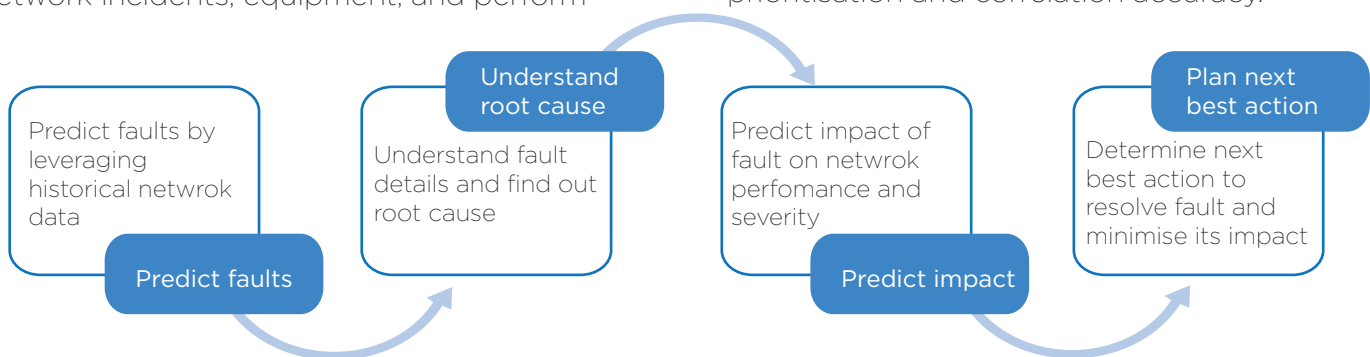
At present, multiple alarms and failure of network events trigger poor resource utilisation and increase network downtime. It is important to analyse and correlate data from various sources including, customers, geo-location, social media and network devices to gain actionable insight into the network data. Resolving network downtime and reducing false alarms are big concerns for CSPs to optimise network performance.

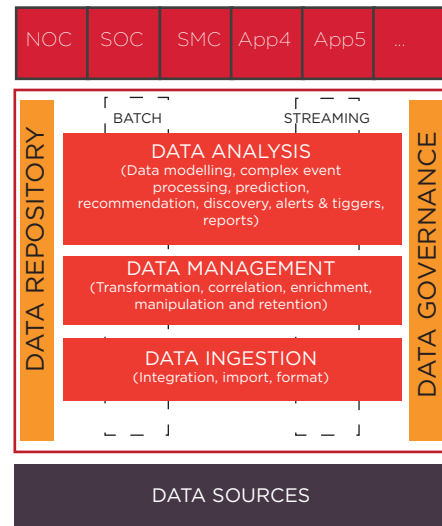
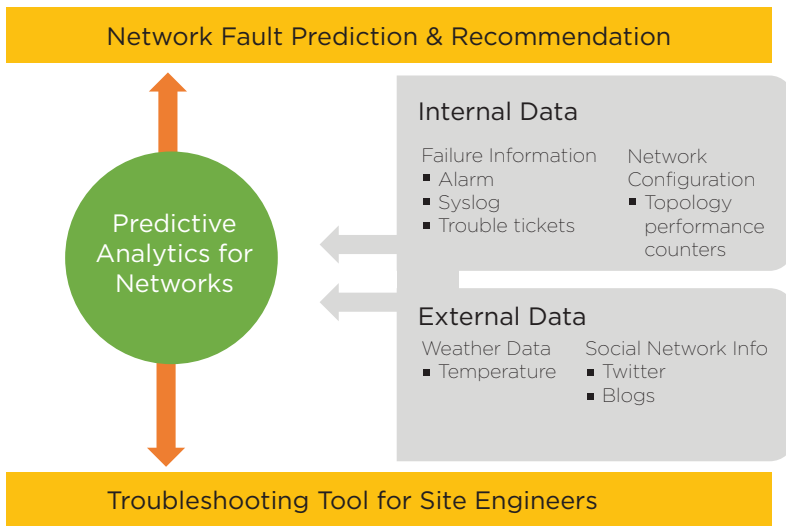
To help CSPs address these challenges, TCTS provides a predictive analytics for networks that proactively monitors telecom network and leverages historical data from diverse sources to analyse and predict future faults or alarms. The solution helps in predicting potential failures of network incidents, equipment, and perform

potential root cause analysis to recommend preventive steps. This reduces both dependency on people and number of faults in network components. Further using predictive analytics prevents network outages and deliver seamless customer experience.

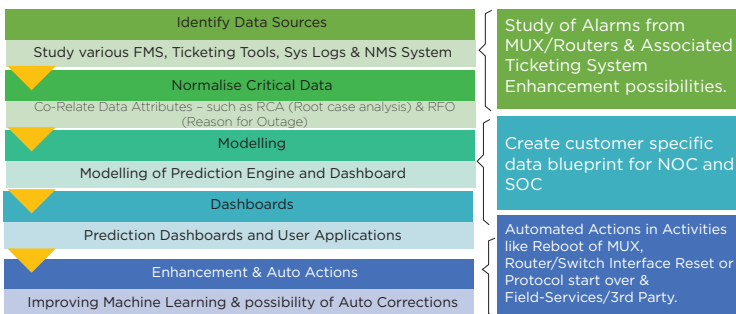
## TCTS Predictive Analytics as a Service

Using Predictive Analytics has simplified both unstructured and structured data processing to facilitate decision making and business growth. Our predictive analytics solution integrates and analyses data across the network layers to capture network performance trend and predict potential future alarms occurring in network. The built-in machine learning algorithms have the capability to predict faulty equipment and improves the level of accuracy for informed network decision. To expose information on causative trends and projections into the future, our solution delivers a dashboard that details about potential faulty network equipment, contextual understanding about network fallout events and their impact on overall network performance. The solution categorises and allocates alarms by defining performance indicators that can be attributed to alarm prioritisation and correlation accuracy.





**Offerings**



- Lost revenue prevention due to outage prediction & prevention, increased availability of network and churn reduction
- Optimised operations and reduction in operational expenditure

**Differentiators**

**Ease of use and customised rules library**

- Domain customised rules library for all fault types
- Automated fault correction wherever possible and highly accurate fault prediction with recommendations for resolution

**Service distinction with multi-technology, multi-vendor expertise**

- Multi-vendor management expertise providing state of the art technologies
- Strong relationships with key network equipment vendors for building current and future technical capabilities

**Rich telecom industry expertise with tried and tested solutions**

- Proven skills in seamless service delivery across multiple geographies and telecom operators
- Recognised processes and automation solutions in network transformation services, continuously increasing value proposition derived from the product
- Large pool of best in class technical experts to develop futuristic solutions in network management services
- Practical and tried & tested solutions, making us superior in understanding and identifying pain points and continuously improvising them to deliver enhanced customer experience

**Customer first approach**

- Customised solution design meeting customer business objectives
- End to end customer support and user training as part of solution deployment

**Key Features**

**Fault prediction** – Predicts faults or alarms by running complex data analytics algorithms. The historical network data is retrieved from network management system to find patterns and trends in data. The fault prediction ranges from 8 hours to 1 week before occurrence.

**Information dashboards** – Built-in dashboards to give detail explanation about potential faulty network devices, fault criticality display in terms of impact on entire network and fault occurrence probability calculation.

**System based alarm allocation** – Alarms are categorised into fault tickets automatically by finding correlation among them, resolution steps based on alarm category can be stored and referred by field personnel.

**Potential Benefits**

- Deeper network performance insights driving business growth
- Improved Mean Time to Resolve (MTTR) by > 70%
- Reduce fault tickets or alarms by 40% with > 85% accuracy
- 10 to 20% increase in coverage of sites per engineer due to productivity improvement from mobile app features, effort reduction in RCA and fault clearance

