An Integrated Platform for AI Based, Automated Mobile Network Management

P.I. Works Listed in Gartner’s "Hype Cycle for Communications Service Provider Operations, 2019"

Turkcell and P.I. Works Won the "Leading Contribution to SON" Award at 2017 Self Organizing Networks World

Turk Telekom and P.I. Works Recognized for Excellence at Global Telecom Awards
Unlocking the Full Potential of Your Mobile Network

uSON is the integrated platform for mobile network planning, management and optimization. The capabilities of the platform span the radio access, transmission and core network domains. The platform uses an in-house ETL framework to process big data. uSON uses AI algorithms to drive network quality and efficiency across 2G, 3G, 4G and 5G.

With AI-powered algorithms, uSON correlates Crowdsourced, Geolocated Call Trace, RF Propagation and Customer Experience Management (CEM) data as well as Network KPIs and KQIs. By using the correlated data, uSON determines the best set of improvement actions, giving the operators the power to improve and maintain mobile user experience while driving operational efficiency.

uSON®

Unified

6 products with 50+ modules running on the uSON platform are all integrated. uSON delivers a complete user experience and supports a shared technology vision.

Intelligent

uSON leverages machine learning algorithms and real time automation capabilities, centrally coordinated to manage complex heterogeneous networks.

Impactful

uSON delivers the best possible customer experience and improves usage of network resources autonomously, leading up to 50% reduction in network management costs.
Values Spanning the Entire Network

**Multi-Vendor & Technology Support**
- Vendor-independent off-the-shelf features
- Full functionality across 2G, 3G, 4G, 5G and WiFi
- End-to-end network management including RAN, Core, Transport, IT, IN, VAS

**Intelligent, Automated Platform**
- Real-time, 24/7 actions with field proven modules
- Adaptive algorithms built on Machine Learning techniques
- Proactive alarms for anomaly and worst element detection

**Agile, Faster Implementation**
- Less than 1-month integration time
- Agile development (3 months release cycle)
- Out of the box modules, reports, alarms, dashboards
- Highly scalable platform with micro-service architecture

**Het-Net & Shared Network Compliant**
- Zero-Touch site categorization and policy implementation
- Unified modules with multi-policy support for HetNet management
- Secure data segregation for shared network management

**Flexible & Fully Customizable**
- Fully customizable action parameters and policies
- Open-loop and closed-loop mode of operations
- Open API
- Centralized elastic role management

**Integration with Third Party Data Sources**
- Planning tools
- Fault management systems
- CEM and CRM systems
- Geolocation systems
- Crowdsourced data
- Fixed network data resources
- Operator’s in-house systems
Preparing Your Network for 5G, Delivering Premium Customer Experience

Unlike conventional network management solutions, the uSON platform moves beyond the radio access network. It provides fully-automated centralized SON functionality as a single, integrated solution that combines advanced network optimization, tuning and troubleshooting, Het-Net planning, geolocation and real-time network status monitoring functions.

**uSON®, The Next Generation Network Management Platform**

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P.I. Works Centralized SON is the industry-leading and widely-deployed automated multi-vendor, multi-technology network optimization solution. cSON ensures the best customer experience and service quality, while significantly minimizing the network management costs. cSON delivers these benefits with its integrated and AI based automation engine that correlates network performance data with the 3rd party data sources like CEM, CRM and Crowdsourced systems.
Real-time Network Performance Analytics and Service Quality Assurance

Our next generation and best-in-class network performance monitoring product, Performance Management offers cost-effective and highly-scalable network and service quality monitoring capabilities for the leading mobile operators and telecom authorities. With its easy-to-use interactive dashboards, AI based data forecasting, reporting and alarm functionalities, PM provides an integrated view of the entire network. Business intelligence reports can be created even by the non-technical users as the process doesn’t require any SQL or coding skills.
AI Powered Capacity Planning and Smart Network Design

P.I. Works Smart Network Planning (SNP) is instrumental in driving your network expansion strategy. SNP gives you the ability to develop the most accurate capacity expansion plan and helps you find the optimum number of required sites. SNP uses machine learning algorithms and combines multiple data feeds from Customer Experience Management (CEM), geolocation systems, crowdsourced data, radio access network and backhaul network. The network traffic prediction capability of the SNP increases the accuracy of the solution and helps operators make well-informed investment decisions.
Advanced Analytics for Customer Experience Management

Geolocated Customer Data Analytics helps mobile operators to increase overall NPS with its visualization capabilities for network quality metrics and customer experience on a map. Geolocated data can be visualized as a heatmap with existing network equipment or the product can also precisely estimate the location of network events through smart locating algorithms. Pinpointed improvement areas can be sent to P.I. Works Centralized SON to take customer centric optimization actions.
In-depth Examination and Optimization of the Radio Access Network

RAN Tuning and Troubleshooting product is an advanced, easy-to-use tool for in-depth examination of the radio network with root-cause analysis functions and open-loop optimization, letting you visualize and manage the network effectively. The product leverages the performance management metrics and checks the configuration conflicts for managing the handover actions of the troubleshooting module. Advanced Map features provide faster root cause analysis with thematic coloring, filtering, neighbor visualization, timing advance visualization, kml import, street view, and site survey data browsing capabilities.
Configuration Management

Automated Configuration Health Check and Service Quality Assurance

Configuration Management (CM) maintains the integrity of the network parameter settings. CM automatically checks all network parameter inconsistencies and fix them automatically based on the operators’ policies and golden settings. It also offers cross-technology and cross-vendor configuration parameter analysis functions including interactive dashboards, report scheduling, historical change detection, configuration audits, golden parameter compliancy checks. uSON CM reduces OpEx by eliminating the need for resource intensive troubleshooting activities such as drive testing and cell base optimization.
About P.I. Works

P.I. Works is a leading provider of AI-driven mobile network planning, management and optimization solutions. P.I. Works combines field-proven expertise with a commercially available product portfolio and services. These solutions enable Mobile Network Operators to accelerate 5G transformation and improve network quality. P.I. Works has deployed its solutions at more than 40 mobile network operators in 36 countries.

For more information, please visit http://www.piworks.net/products or send e-mail to sales@piworks.net

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… unlocking the full potential of mobile and redefining the mobile experience worldwide

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