

WITHOUT ANY BOUNDARIES

dataminer



THE GLOBAL LEADER IN END-TO-END MULTI-VENDOR
NETWORK MANAGEMENT SOFTWARE



INTERFACE

MONITOR

CONTROL

PERFORMANCE

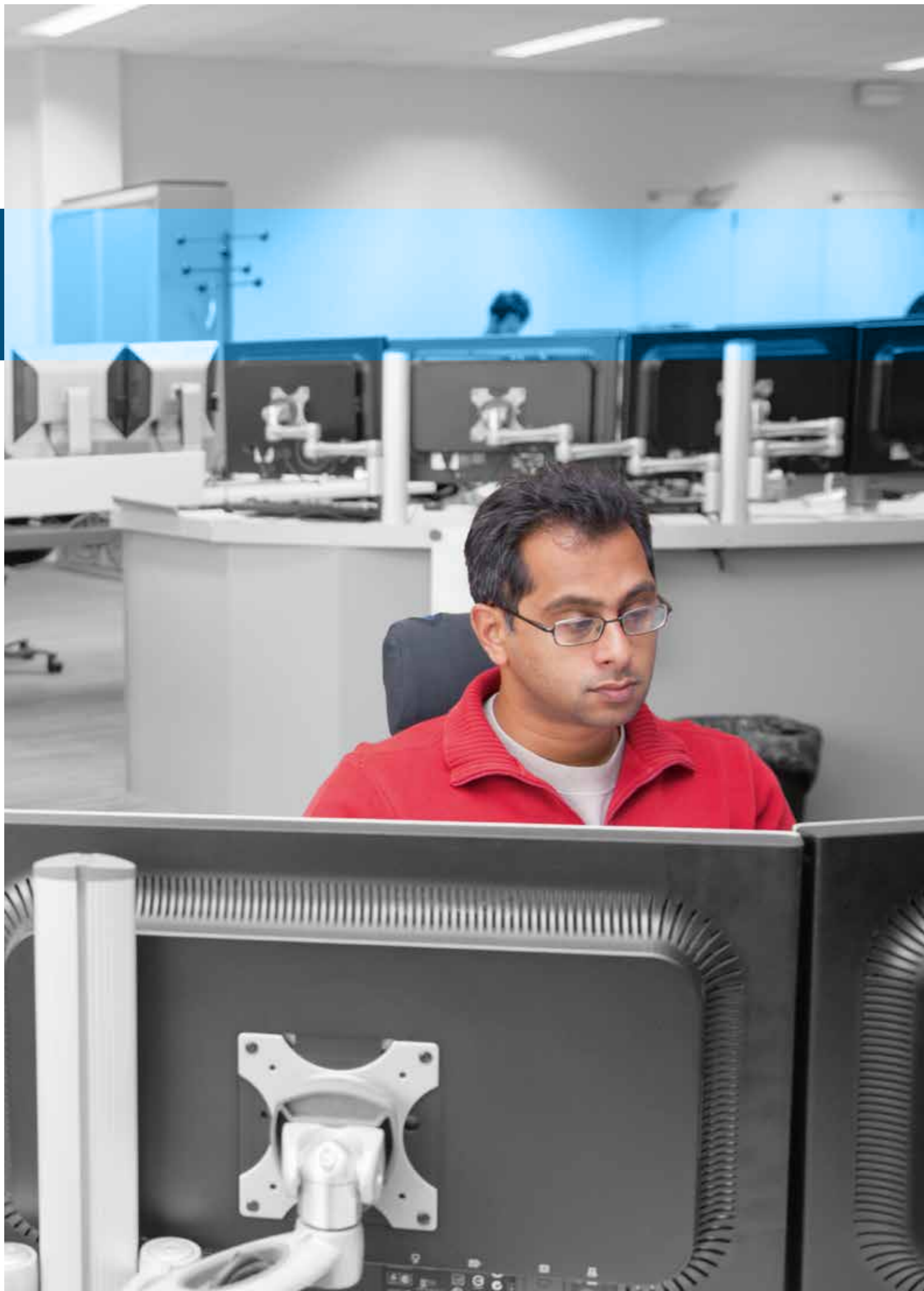
REPORT

CORRELATE

AUTOMATE

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ABOUT DATAMINER

THE LEADING END-TO-END MULTI-VENDOR
NETWORK MANAGEMENT SOLUTION



DataMiner is the most advanced end-to-end multi-vendor network management software platform available for the IPTV, satellite, HFC broadband and broadcast industry. One interface to manage your entire operational ecosystem, across any vendor and technology boundaries, results in a significant reduction of operational expenses and increased quality of service.

INTEGRATION OF ANY DEVICE OR SYSTEM FROM ANY VENDOR

The core of the system is a cutting-edge multi-vendor protocol engine, enabling integration of any device or system from any vendor, regardless of its interface or protocol. DataMiner is already integrated with over 3500 devices and systems from more than 400 key industry suppliers, which represents by far the largest third party integration deployment available in the industry. Whatever products you have today, or whatever you will be deploying in the future, you can rest assured that DataMiner will manage all of it more efficiently than ever before from one consolidated platform.

While DataMiner is a proven and widely deployed standard-off-the-shelf platform, it features a highly pronounced open architecture. That is exactly the unrivaled signature of DataMiner: the unique combination of an off-the-shelf solution, that offers you the full freedom to get it tightly integrated with your own operational ecosystem. Anything Skyline does to integrate this platform into a specific environment can be done by the user himself or any third party system integrator. This includes, for example, designing new drivers to make the standard off-the-shelf platform communicate with new products from any vendor, or creating new graphical user interfaces.

MANAGE YOUR ECOSYSTEM MORE EFFICIENTLY AND INTELLIGENTLY THAN EVER BEFORE

Once you have integrated your entire operational ecosystem, DataMiner offers you a complete professional environment to manage that ecosystem more efficiently and intelligently than ever before. DataMiner offers a wealth of functionality including unlimited remote web access, fault management, email and SMS notification, performance management, professional reporting, advanced automation, intelligent correlation and root cause analysis, service management, real-time SLA monitoring, user-definable KPI dashboards, spectrum monitoring, mobile access for any smart phone or tablet, powerful CPE management, inventory and asset management and much more.

QUICK FACTS

NUMBER ONE SOLUTION

DataMiner is the leading and fastest growing network management solution for the satellite, HFC broadband, broadcast and IPTV industry.

VENDOR-INDEPENDENT

DataMiner is developed by the vendor-independent network management expert Skyline Communications.

WIDELY RECOMMENDED AND SUPPORTED

DataMiner is recommended and supported by leading DSP certified vendors and system integrators (DataMiner Strategic Partners).

STANDARD OFF-THE-SHELF SOLUTION

DataMiner is a standard off-the-shelf solution that incorporates decades of experience.

DEPLOYED BY LEADING OPERATORS

DataMiner is proven technology, deployed on a large scale by leading operators across different market segments and continents.

OPEN ARCHITECTURE

DataMiner has a pronounced open architecture and industry standard interfaces.

POWERFUL CONVERSION

DataMiner features powerful conversion into standard interfaces, including SNMP, for seamless interfacing with third party north bound OSS components (e.g. trouble ticket platform).

BENEFIT FROM VAST EXPERIENCE

DataMiner is supported by a wide range of professional services, supplied by seasoned SMEs (Subject Matter Experts) enabling you to benefit from vast experience.

OPEN DRIVERS

DataMiner has open drivers, enabling any third party to create new drivers or to modify existing drivers.

ANY DEVICE FROM ANY VENDOR

DataMiner is multi-vendor and guaranteed to interface with any device or system from any vendor, proprietary or standard.

INDUSTRY STANDARD HARDWARE

DataMiner features industry standard hardware resulting in lower total cost of ownership.

INTUITIVE USER-FRIENDLY UI

DataMiner has an intuitive and user-friendly UI that spans across your entire operational environment and is packed with unique features and capabilities.

SCALABLE

DataMiner is scalable from small systems to corporate wide deployments.

OVERALL MANAGEMENT

DataMiner manages your operational environment from a device, service and business perspective.

DATAMINER CONSOLIDATES
YOUR ENTIRE OPERATION
INTO ONE USER-FRIENDLY INTERFACE





OUR THREE KEY LAYERS

ONE MULTI-VENDOR NETWORK MANAGEMENT
PLATFORM SHOWING YOU YOUR ENTIRE
OPERATION, END-TO-END



DataMiner, as a single consolidated end-to-end network management platform, provides unprecedented visibility on your operation from a device, service and business perspective. The device management foundation layer enables you to fully monitor and control any device from any vendor, irrespective of the interface or protocol required. The highly sophisticated dynamic service management layer subsequently traces any services, right across any vendor and technology boundaries, offering end-to-end service monitoring and provisioning. And the business intelligence layer enables you to keep track of all your service availabilities and SLAs in real-time.



THE DEVICE LAYER

THE SERVICE LAYER

THE BUSINESS LAYER

DataMiner integrates your entire operational ecosystem in one single platform - across all vendor boundaries, and across all possible domains. This includes, but is not limited to, satellite backhaul, earth stations, regional and master headends, analogue infrastructure and digital platforms, play-out centers, master control rooms, server farms, data centers, analogue and digital transmitter sites, TCP/IP switches and routers, TCP/IP network connectivity, electrical infrastructure, air-conditioning, security platforms, back-office, set top box environment, etc.

DEVICE > SERVICE > BUSINESS

1 DEVICE LAYER

> KEY FEATURES

guaranteed to unconditionally integrate with any device from any vendor

already integrated with more than 3500 products from more than 400 different vendors

open driver architecture that enables anyone to make and deploy new integrations

provides real-time remote access and control of any device from any vendor

allows unlimited web-based access from the office, your home or any other place

provides personalized notifications via email triggered by user-defined events

includes professional security that supports domain integration, role-based configuration, resource access management and real-time audit trailing

offers intelligent alarming that features hysteresis, absolute and relative thresholds, user-defined color coding and more

includes alarm management via a user-centric alarm console features sorting, smart filtering, masking & acknowledging, user customization, exporting, etc.

a user-definable, bubble-up and drill down tree structure for intuitive navigation in your operational environment, including a smart search tool

a hierarchical dynamic bubble-up and drill down topological mimic display compatible with MS Visio®

features short and long term intelligent trending, with powerful analysis UI that features export, automatic statistical analysis, and more

integrated document management with numerous advanced features

allows north bound interfacing for third party SNMP Managers, trouble ticket applications, back-office applications, and more

and much more



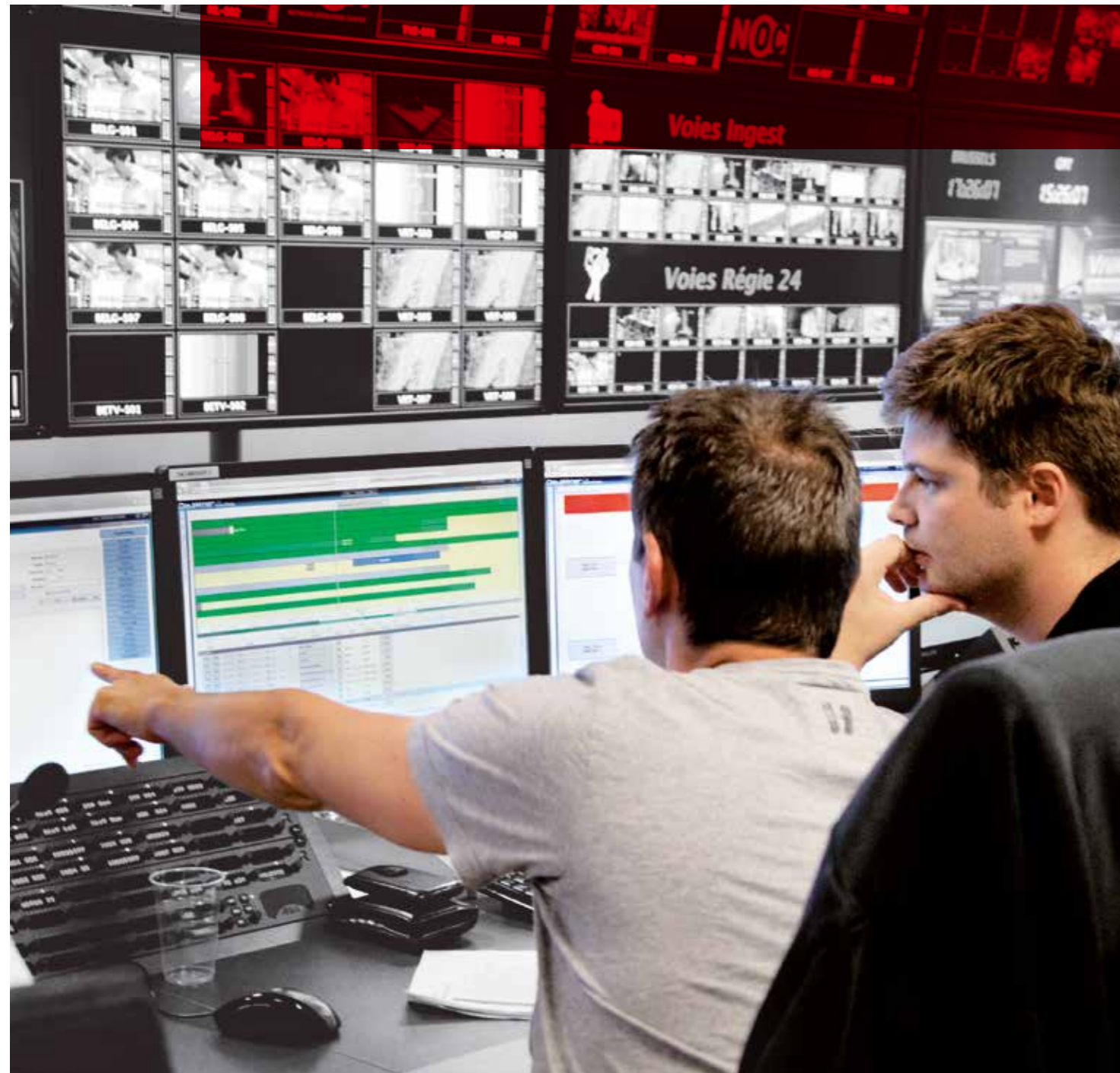
DATAMINER, INTEGRATED WITH OVER 3500 DEVICES AND SYSTEMS, IS THE MOST EFFICIENT AND COMPREHENSIVE SOLUTION AVAILABLE

DataMiner Service Management enables operators to design a dynamic service layer on top of the multi-vendor device management layer in DataMiner, resulting in a unique real-time and historical service perspective on the most complex operation. In an ever more complex and less transparent technological environment, it becomes increasingly more

difficult to interpret raw device messages and to judge their impact on the operation. With DataMiner Service Management, services can be modeled. During run-time, DataMiner traces the path of services and provides the operator with instant valuable service impact information. This significantly reduces the response time and the time-to-restore-services.

In addition to that, DataMiner maintains a clear service history, which results in a unique long-term perspective on the actual performance of individual services. Based on historical service performance and availability data, operators can now make well-founded investment decisions, and optimize their return on investment.

PRIORITIZE ALARMS INSTANTLY AND ENSURE CONTINUOUS SERVICE AVAILABILITY WITH REAL-TIME SERVICE IMPACT ANALYSIS



SERVICE LAYER



DEVICE > SERVICE > BUSINESS

> KEY FEATURES

integrates with any test and measurement solution, thereby providing for accurate service availability and quality assessment

powerful service provisioning tools to model the most complex architectures and support run-time conditional behavior

real-time service impact analysis that enables operators to prioritize alarms instantly with service availability in mind

automatically tags device alarms with a service impact weighting factor

dynamically groups device and system alarms per service

allows secure publishing of service data into third-party web environments, such as intranet or Internet websites

allows north bound interfacing via SNMP or custom TCP sockets to forward service alarms to third party software applications

supports monitoring of incoming, outgoing and internal services

360° perspective by intuitive navigation between device and service layer

integrated with Visual Overview, resulting in service-oriented system schematics

sends sms, email and twitter notifications based on user-defined service impact definitions

provides long term statistical service analysis via intuitive web-based graphical reports

creates professional user-defined email reports, triggered by a time schedule or events in the operational environment

features real-time updated and user-defined dashboards

hierarchical service structure for efficient configuration and maintenance

REAL-TIME BUSINESS INTELLIGENCE ALLOWS YOU TO MAKE TRULY INFORMED DECISIONS

DataMiner Business Intelligence (DMS-BI) is a cutting-edge solution that enables IPTV, satellite, cable and broadcast operators to manage their entire content-to-customer chain from a value-added business perspective.

With DMS-BI, DataMiner tracks Service Level Agreement (SLA) compliance in real-time. System events are automatically presented in their historical performance context, so operators can reallocate human and system resources with the business stakes in mind. DMS-BI allows operators to manage the SLA for both incoming and outgoing services, as well as Operating Level Agreements (OLAs) for the various internal interdependent segments of the corporation.

SEAMLESS INTEGRATION

The solution features seamless integration with the existing DataMiner environment (including reporting, dashboards, notification, correlation, mobile access, etc.), which enables users to leverage their existing investments. DMS-BI also features a pronounced open architecture, with open XML SLA definitions, user-definable alarm thresholds and interfaces for north bound applications such as trouble ticket platforms.

3 BUSINESS LAYER

DEVICE > SERVICE > BUSINESS

REDUCE OPERATIONAL EXPENSES

With DMS-BI in place you can significantly reduce operational expenses and ensure that your business stakes are always taken into account. Receiving notifications when you are eligible for penalty payments, pro-actively relocating resources to high-profile services in jeopardy, automatically reallocating back-up resources during severe outages to services with the highest potential business impact, identifying regions where perceived service quality is at risk, and much more... it is all available to you with one single solution, that spans across your entire operational environment.



> KEY FEATURES

leverages DataMiner Service Management, and optimizes resource utilization in real-time

calculates and presents SLA information in real-time, as events occur

has open XML format for definition of SLA metrics, and supports any SLA scheme

allows for updates of SLA definitions at run-time with no interruption of the operational environment

allows management of both internal and external services, as well as incoming and outgoing services

tracks key SLA metrics such as total violation time, number of violations and duration of individual violation events

has ability to cater for delay times, and to suspend SLA tracking on services

features user-predicted compliance for proactive corrections

features real-time display of metrics and user-definable alarm thresholds

allows forwarding of SLA related events and alarms to north bound applications

has extensive web based SLA compliance reporting

permits to easy sharing of select SLA information with third parties

provides access to all SLA related information via mobile devices

DataMiner Cube is the cutting-edge user interface for the DataMiner end-to-end multi-vendor network management platform. DataMiner Cube, conceived as a state-of-the-art user-centric application, has redefined the way operators can manage the most complex environments.

This innovative web-based application provides smooth and intuitive navigation through your entire operation. A powerful MS Visio compatible graphical display, comprehensive alarm and performance management tools, user collaboration capabilities, and much more - everything is transparently available at your fingertips across all your devices and systems, from all vendors.

DataMiner Cube offers comprehensive LDAP-integrated security, enabling you to define exactly who can access your managed systems, what parts of the system they can see and what kind of actions they are authorized to perform. The detailed audit trailing then allows you to track system utilization, and to make sure that users are held accountable.

- + MANAGE COMPLEX AND VAST OPERATIONAL SYSTEMS
- + EFFICIENT INTERACTION WITH OPERATIONAL SYSTEMS
- + A QUICKER LOCATION AND RESOLUTION OF ISSUES
- + REDUCES MARGIN FOR HUMAN ERROR
- + REDUCES TRAINING REQUIREMENTS



DATAMINER CUBE

SEE YOUR OPERATION IN AN ENTIRELY NEW WAY
WITH THE USER-CENTRIC DATAMINER INTERFACE



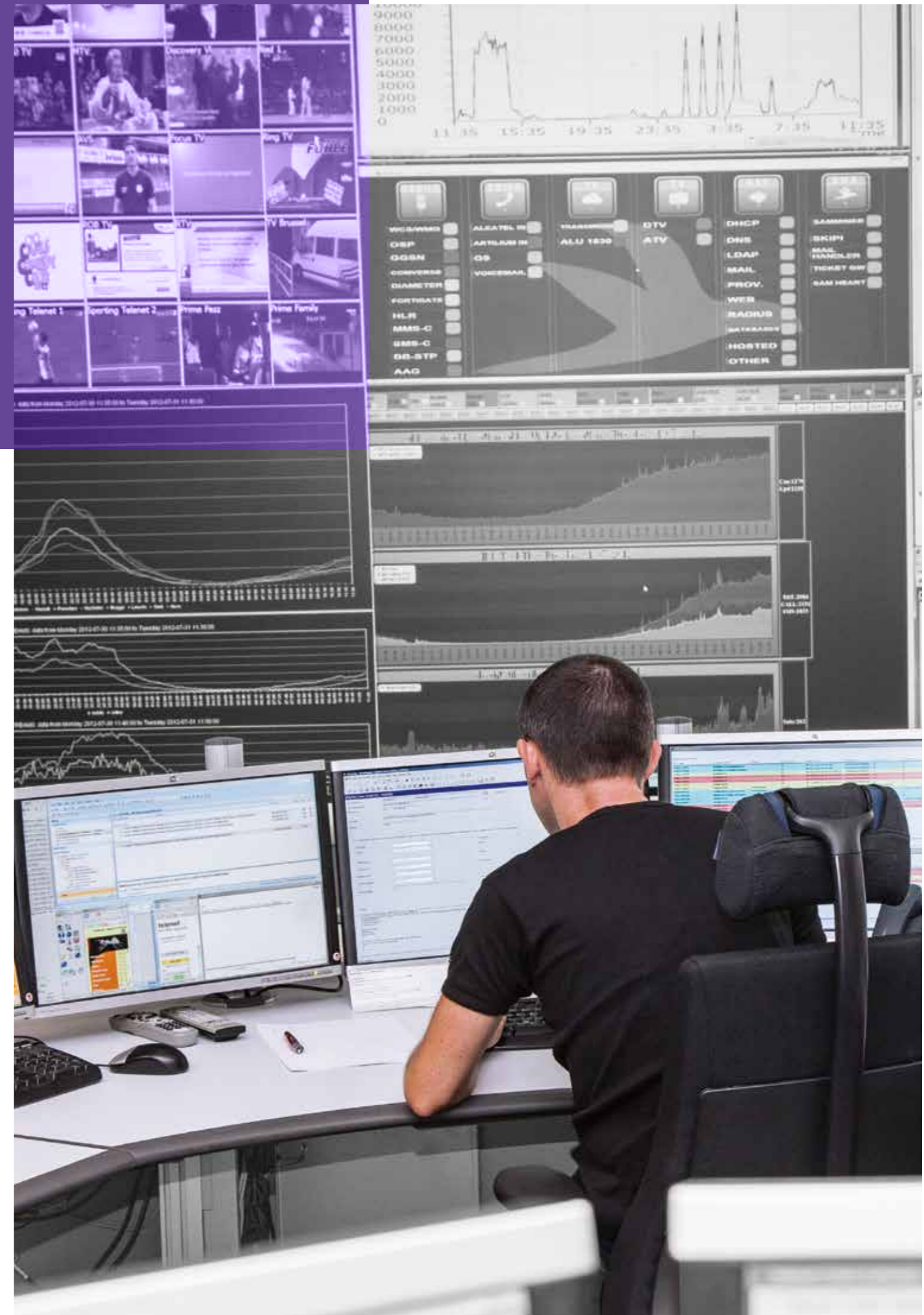
FEATURES AND CAPABILITIES

ALL THE FUNCTIONALITY YOU WILL EVER NEED, AVAILABLE IN ONE SINGLE CONSOLIDATED PLATFORM

DataMiner (DMS) is the most comprehensive multi-vendor network management solution available in the industry, which enables you to address all your functional requirements within a single platform, and save significantly on operational costs.

In addition to the wealth of standard remote control, fault and performance management capabilities, DataMiner offers advanced add-on solutions for:

- > **DMS DASHBOARDS & REPORTER**
consolidation of Key Performance Indicators in real-time updated user-definable web UIs, flexible email reporting and creating web portals for third party access
- > **DMS CORRELATION ENGINE**
intelligent processing of alarms, based on a powerful correlation engine and user-definable knowledge base, resulting in automated root-cause analysis
- > **DMS AUTOMATION ENGINE**
automation of the most complex operational procedures across all vendor and system boundaries
- > **DMS MOBILE GATEWAY**
for notification and interactive text messaging, as well as access for full remote monitoring and control via any mobile phone or tablet
- > **DMS SPECTRUM ANALYSIS**
interactive remote spectrum analysis and automated RF performance monitoring (supporting ingress return path monitoring and satellite carrier monitoring)
- > **DMS CUSTOMER PREMISES EQUIPMENT MANAGER**
powerful data collection on large volumes of customer premises equipment (such as set top boxes and modems), and intelligent correlation to pinpoint issues wherever they are in the service delivery chain
- > **DMS INVENTORY & ASSET MANAGEMENT**
open architecture inventory management, supporting any relationship model, bi-directionally interfaced with your operational ecosystem



GET THE RIGHT DATA
AT THE RIGHT TIME
TO THE RIGHT PEOPLE

DASHBOARDS & REPORTER

> DATAMINER DASHBOARDS

DataMiner Dashboards (DMS-DB) is a comprehensive web application enabling operators to efficiently tap into the vast amount of valuable real-time and historical information available in the DataMiner multi-vendor network management environment.

DMS-DB allows operators to create highly interactive, visually appealing, real-time-updated dashboards that consolidate all essential information and Key Performance Indicators (KPI) from the managed devices, locations, services and business SLAs.

This application significantly reduces the time to respond to system issues, and enables users at all levels of the corporation to get a better understanding of the operation. With one click operators can now visualize and track a selection of key performance indicators in affected system segments, while managers can view comprehensive real-time and historical SLA information.

> DATAMINER REPORTER

DataMiner Reporter (DMS-REP) provides operators with the key-functionality to better understand how their systems behave in user-defined time-spans. Through DMS Reporter operators have a wealth of statistics and operational metrics available, allowing them to pinpoint the weakest points in their system, and to make well-founded investment decisions. DMS Reporter comes as an out-of-the-box web-based environment offering powerful statistics based on active alarms, historical alarms, trend data, real-time data, etc.

With a single click of a button operators can get an overview of the top-ten devices generating the majority of alarm messages, detailed information about the duration of alarm events, distribution of alarms across time, and much more.

In addition DMS Reporter provides any of the available statistical graphs in any existing third party web environment for publishing. This allows operators to publish targeted network management information on intranet web

pages or on-line web portals, without the need to provide those users with access to the actual network management environment.

DMS Reporter also features a comprehensive report builder allowing operators to create custom report templates. These templates can then be used to automatically distribute professional email reports to different stakeholders. Email reports can be triggered by a time schedule or by events occurring in the operational system.



To further increase the efficiency of the end-to-end network management operation, DataMiner offers a professional alarm and system correlation solution, referred to as the DMS Correlation Engine. This fully integrated module is a valuable asset for operators who wish to reduce the time-to-repair by means of automated root-cause-analysis, and who wish to move towards a pro-active operation.

INTELLIGENT ROOT CAUSE ANALYSIS INSTANTLY PINPOINTS THE SOURCE OF PROBLEMS

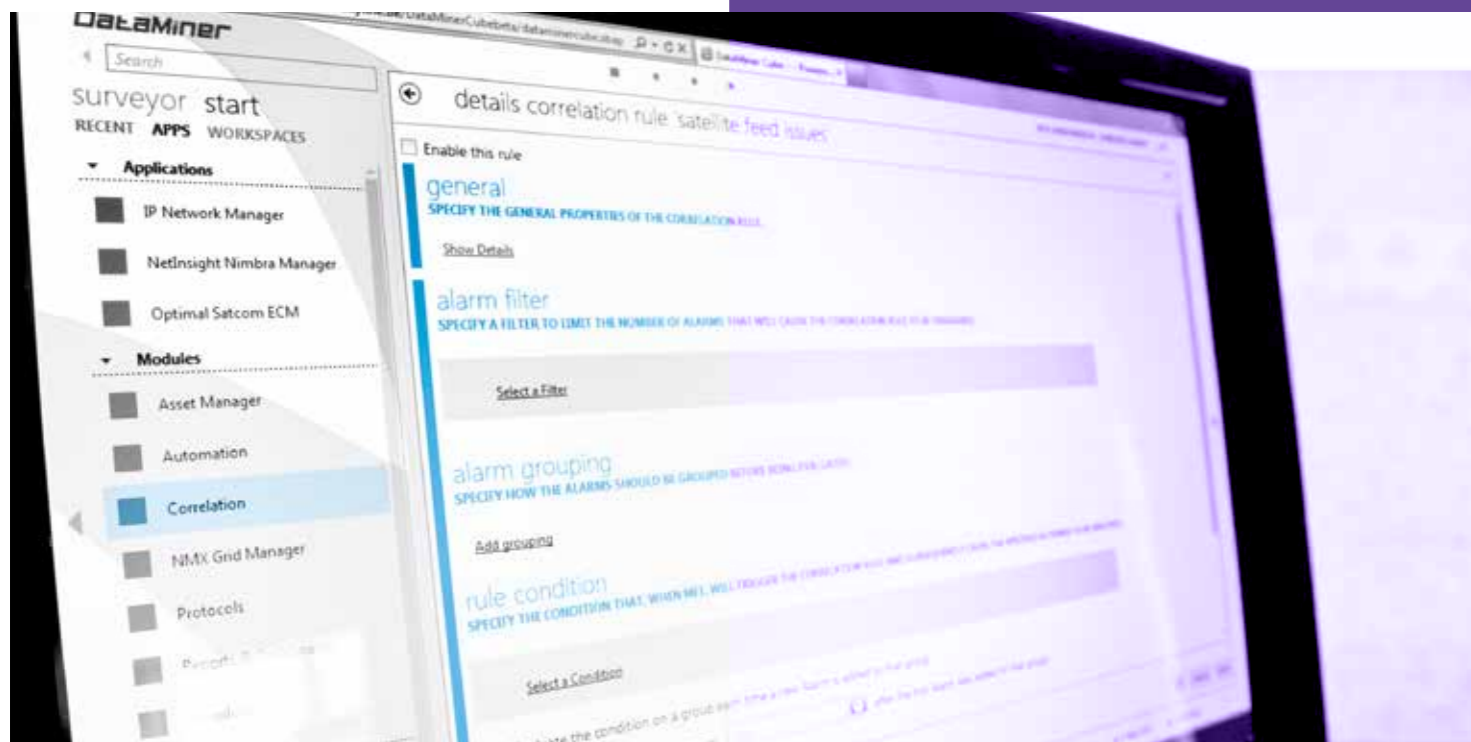
DMS Correlation Engine is capable of automatically processing and analyzing the raw alarm information, in real-time as events occur. It is based on a user-defined knowledge base, which can be edited at runtime, and enables operators to tune its behavior to the specifics of their own operational environment.

DMS Correlation Engine identifies the most complex system behaviors, based on real-time, trend and alarm data fed by the DataMiner System, and acts upon those with specific algorithms. The solution includes powerful rules-based correlation, relationship-based root cause analysis and multi-dimensional data aggregation.



CORRELATION ENGINE

AUTOMATION ENGINE



DMS Automation Engine allows operators to fully automate operational and business procedures, thereby drastically reducing operational expenses. Scripts can be designed with an intuitive graphical user interface in the DataMiner web interface, providing extensive capabilities to cover any action that an operator would execute manually and much more.

AUTOMATION SCRIPTS

Automation scripts can be created for a wealth of applications including intelligent back-up and service-healing routines, guided troubleshooting for operators, automatic configuration and provisioning of services, and much more. Once scripts are created, they can be triggered in a variety of ways, ranging from manual operator initiation, to event-based or scheduled execution.

MANAGE THE MOST COMPLEX OPERATIONAL PROCEDURES WITH THE AUTOMATION ENGINE

Today the DMS Automation Engine is used throughout different industries, for countless different applications, all targeted at reducing time-to-react, increasing service quality and availability, enforcing corporate operational procedures and ensuring managed operation.

DMS Mobile Gateway is a valuable and innovative plug-in for the DataMiner System, which links the network management system environment with the world of mobile devices, including smart phones and tablets. With DMS Mobile Gateway, your entire operational ecosystem is instantly available at your fingertips, wherever you are.

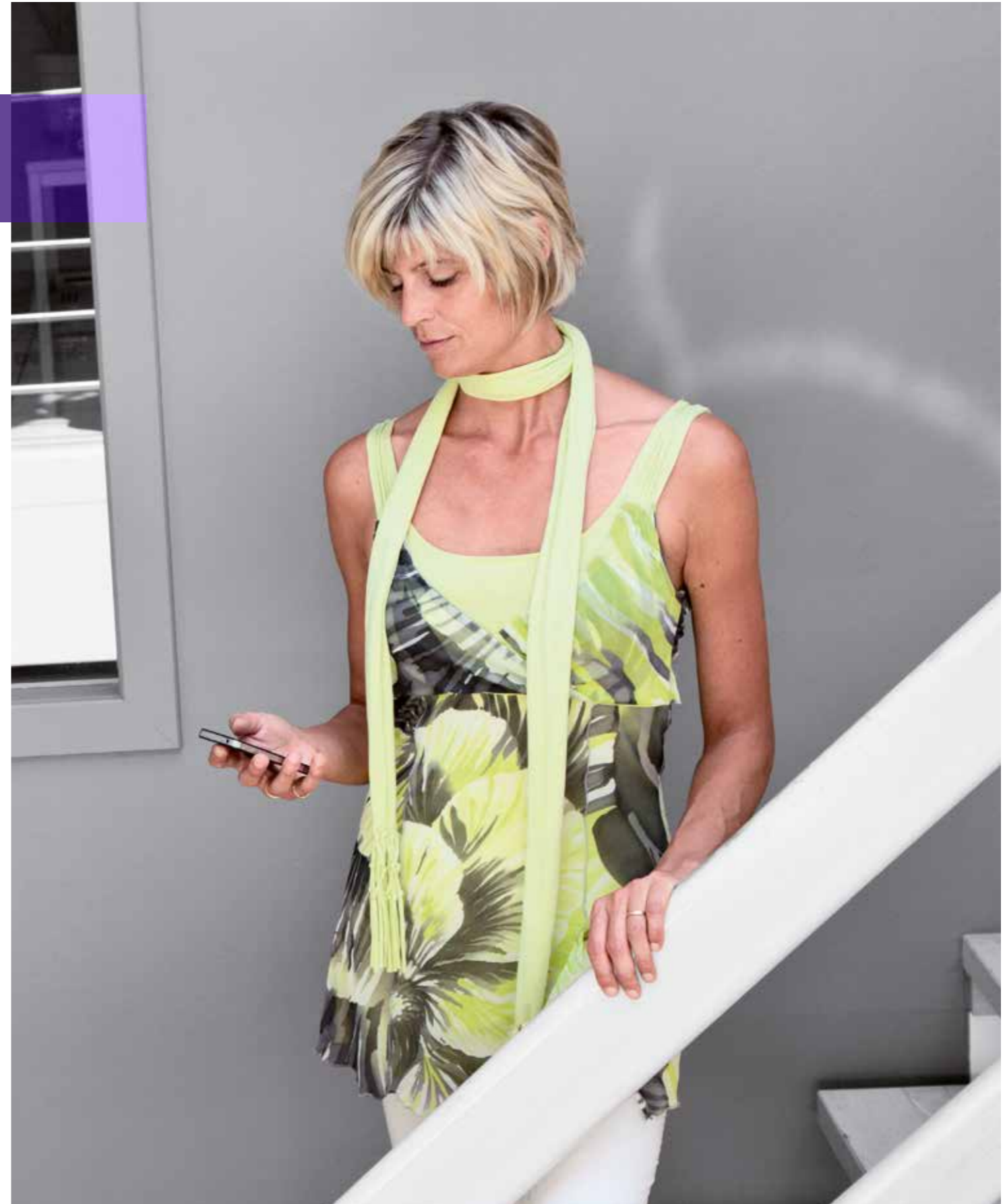
With DMS Mobile Gateway you can automatically forward SMS text messages to notify different users instantly of any key events occurring in your operational systems. DMS Mobile Gateway also accepts incoming text messages from registered users, enabling them to request a reading of any of the managed devices, and to control these devices and their settings.

DMS Mobile Gateway also provides state-of-the-art client applications for Apple's iPhone and iPad, Windows Phones, as well as Android and Blackberry phones and tablets. These powerful mobile applications allow the user to instantly browse alarm events, access devices and view any of their readings and control any of their settings.

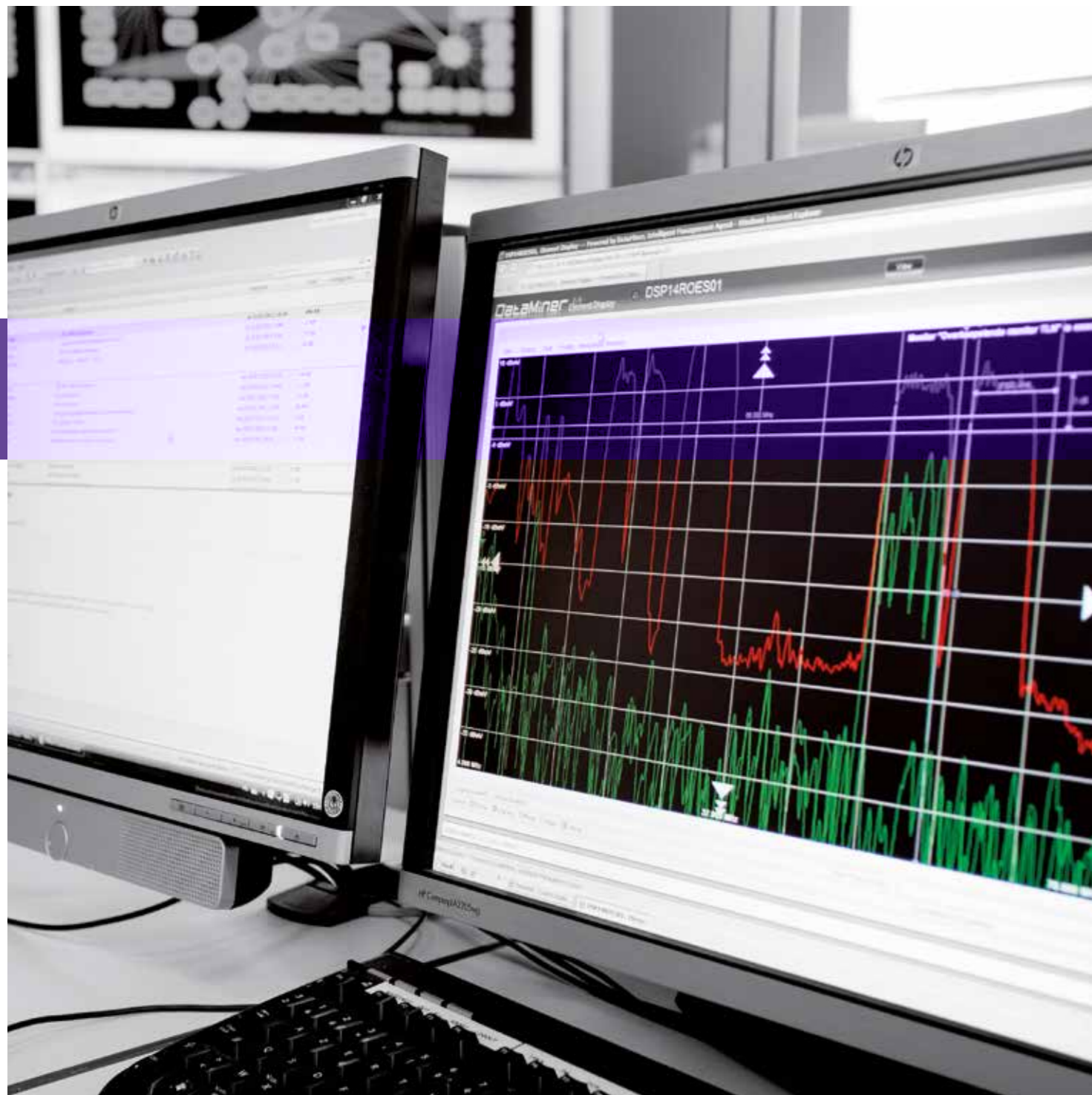
DMS Mobile Gateway fully extends the DataMiner experience to the world of mobile devices, and allows users to act swiftly in case of emergencies and reduce the mean-time-to-repair significantly. With DMS Mobile Gateway you can now leverage the power of your end-to-end network management platform irrespective of where your users are.

MOBILE GATEWAY

IMAGINE YOUR ENTIRE NETWORK
AT YOUR FINGERTIPS WHEREVER YOU ARE



FULLY AUTOMATED 24/7 RF SIGNAL MONITORING AND REMOTE REAL-TIME INTERACTION WITH ANY SPECTRUM ANALYZER DEVICES



SPECTRUM ANALYSIS

DMS Spectrum Analysis is one of the most comprehensive solutions for RF performance monitoring. The solution allows operators to integrate any spectrum analyzer from any vendor, and to deploy it for around-the-clock RF performance monitoring. The DMS Spectrum Analysis solution can be deployed in a wide variety of applications, including forward and return path monitoring in HFC broadband networks, RF performance monitoring in broadcast systems, RF carrier monitoring of satellite uplink and downlinks, etc.

Because DataMiner unconditionally integrates any spectrum analyzer, operators can leverage on existing analyzers, and expand further with equipment that suits their application

and their specific requirements in terms of technical features and cost. Any spectrum analyzer can also be combined with any third party RF switch, such that a single analyzer can be deployed for performance monitoring on various test points in the operational system.

REAL-TIME REMOTE INTERFACING

DMS Spectrum Analysis provides real-time remote interfacing via its web UI. Not only can operators now perform RF measurements remotely, but a single spectrum analyzer can also be shared by multiple concurrent users, each individually with his settings and preferences without any constraints or conflicts. This feature of DMS Spectrum Analysis significantly improves the ROI on measurement equipment by optimizing its use throughout the corporation. The real-time spectrum analysis UI is uniform across any spectrum analyzer from any vendor, and offers a plethora of features for the operator.

PERFORMANCE MONITORING

DMS Spectrum Analysis offers also around-the-clock performance monitoring. With extensive but highly intuitive scripting capabilities, operators can automate just about every measurement. With these automated RF performance measurements, operators can track any vital RF parameters (such as Eb/No, carrier levels, C/N, carrier power, average power, etc.) and generate alarms whenever one of those goes out of range. Operators can also perform long-term trend analysis on those parameters to identify emerging RF problems before they affect services.

DataMiner Customer Premises Equipment Manager (DMS CPE) is a professional software platform, specifically designed for advanced management of very high volumes of CPE devices in cable, telco, terrestrial and satellite environments. This includes CPE devices such as cable modems (CM), xDSL modems, FTTH modems, satellite terminals, multimedia terminal adapters (eMTAs), set top boxes (STB), etc.

OPTIMIZE SERVICE QUALITY AND AVAILABILITY

The platform enables operators to collect valuable operational data from any CPE object in their ecosystem, thereby optimizing the service quality and availability, while at the same time reducing operational expenses. DMS CPE Manager can be deployed as a standalone platform, with north bound interfaces for integration with

your OSS/ BSS, but can also be used as a fully integrated component of the DataMiner System. The latter makes DataMiner the very first platform in the industry, which is capable of managing the entire operational environment end-to-end, across all vendor and technology boundaries, from content acquisition to content delivery.

CPE MANAGER



COLLECT VAST AMOUNTS OF VALUABLE CPE DATA, AND REDEFINE HOW YOU MANAGE YOUR OPERATION



> KEY FEATURES

continuously collects detailed KPIs from your entire CPE ecosystem

statistically process across any user-defined system level

allows initiation of ad-hoc sessions with individual CPEs for troubleshooting

is scalable distributed architecture

has flexible licensing, for both small and large corporate deployments

features open XML drivers for interfacing with any CPE

has automated provisioning

is fully integrated with the existing DataMiner platform

provides unlimited web access from any location

runs on industry standard hardware, resulting in lower TCO



THE ARCHITECTURE

DISTRIBUTED INTELLIGENCE RESULTS IN THE ULTIMATE SCALABILITY AND AVAILABILITY

DataMiner features a unique and very powerful distributed intelligence architecture, resulting in ultimate scalability and optimal availability. A typical DataMiner System consists of one or more so-called DataMiner Agents (DMA), which intelligently and transparently interact with one another to behave like a single entity without the need to deploy a central server.

Every DataMiner Agent contains all the functionality of a complete DataMiner System. Operators can scale their system when needed, simply by adding new DataMiner Agents into the existing cluster. Depending on the operator's requirements and preferences, DataMiner can be deployed in a centralized, regionalized or distributed architecture. Optionally, operators can also deploy hot-redundant DMAs for high-availability and mission-critical applications.

DataMiner runs on top-of-the-line industry-standard high-availability hardware. This results in a significantly lower cost of ownership and gives operators the freedom to choose the dimensions of the hardware to meet their needs.



-  BROADCAST INDUSTRY
-  SATELLITE ENVIRONMENT
-  IPTV OPERATORS
-  TERRESTRIAL NETWORKS
-  HFC BROADBAND

+400 CUSTOMERS +85 COUNTRIES

DATAMINER ENABLES END-TO-END
INTEGRATION OF THE MOST COMPLEX
TECHNICAL ECOSYSTEMS
AND HAS BEEN DEPLOYED BY
LEADING OPERATORS AROUND THE WORLD

eliminate recurring CAPEX for various isolated EMS containers

significantly reduce training expenses for different stake holders in the company

reduce OPEX by significantly increasing operating efficiency

improve QoS and QoE to increase customer satisfaction

reduce MTTR by several magnitudes and improve service levels

allocate available human and system resources more efficiently

benefit from a proven, mature technology

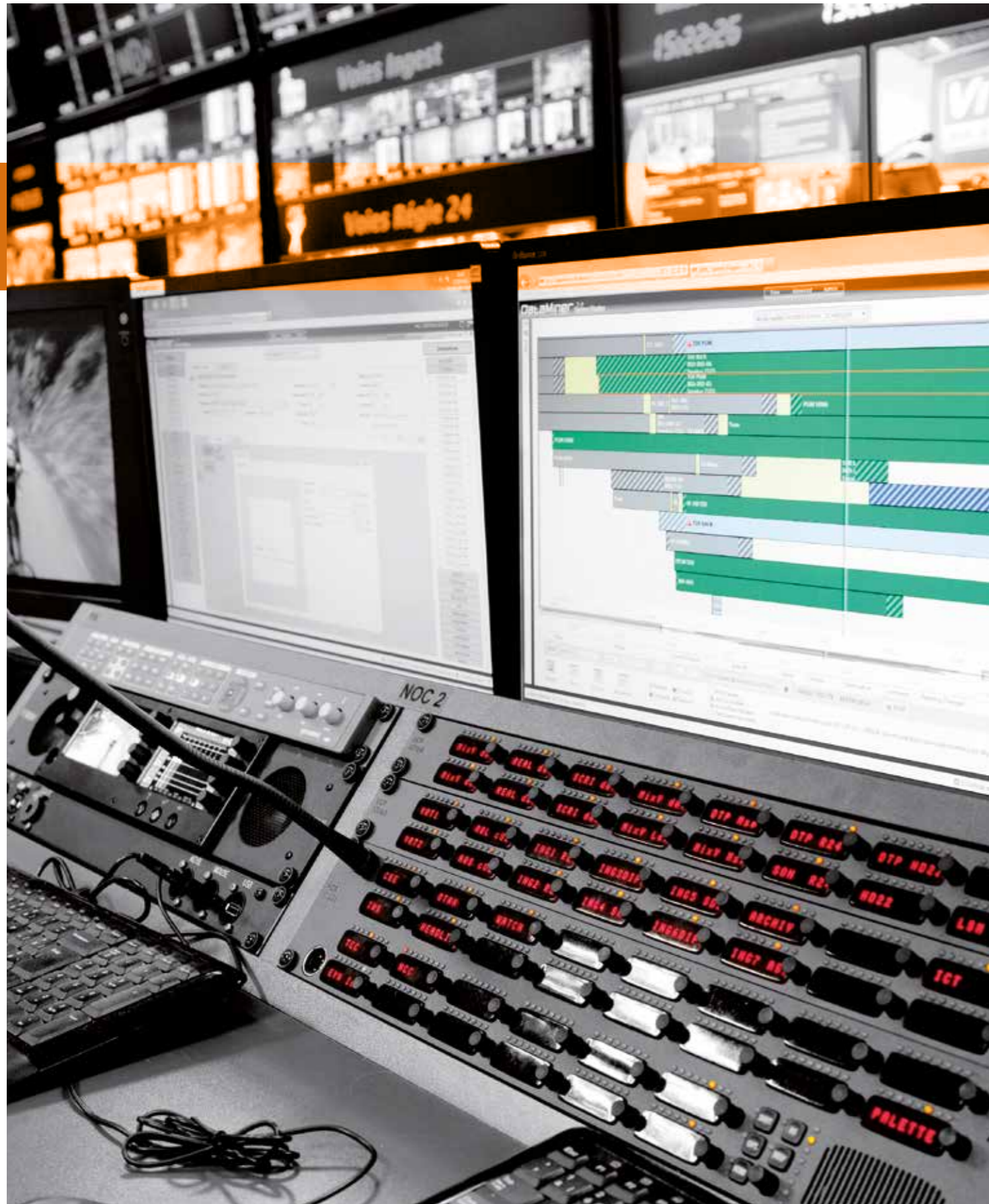
benefit from powerful standardized software features across the entire environment

unlock expensive dormant capacity and system resources

select and deploy new technologies faster and at lower cost

create added value on any third party device and reduce its ROI

seize new business opportunities, by using innovative and efficient technology



BROADCAST

FULLY AUTOMATE YOUR BROADCAST OPERATION END-TO-END ACROSS ANY DEVICE

With its proven multi-vendor technology, DataMiner enables broadcasters to view and manage their entire operational chain via a single, intuitive and user-definable UI, irrespective of the equipment they deploy today or will ever deploy in the future.

DataMiner delivers an open and standardized platform with all the functionality that you can wish for, including: multi-user web access, role-based security, alarming, remote control, trending, reporting, correlation, notification, mobile interaction and much more.

POWERFUL AUTOMATION

In addition, DataMiner provides a powerful open automation environment, designed to control the operational environment through pre-defined managed procedures. DMS Automation features an intuitive, graphical user interface, and doesn't require any programming knowledge. Automation scripts can easily be triggered manually, through a user-defined time schedule or by system events. This technology, combined with the MS Visio® compatible operator UI, enables operators to manage the environment without being confronted with underlying system complexity. DMS Automation interfaces easily with any third party information sources such as scheduling and booking applications.

> KEY FEATURES

view your entire broadcast chain from one consolidated UI across all vendor boundaries

enable operators to manage their environment without underlying complexity

optimize the use of available system resources

save time and expenses by automating system reconfigurations

eliminate outages and service quality degradations

keep a close eye on the actual business performance with real-time SLA monitoring

MANAGE EVERY SINGLE COMPONENT OF YOUR SATELLITE OPERATION WITH ONE USER INTERFACE



SATELLITE

> KEY FEATURES

Leading satellite operators and satellite service providers rely on DataMiner for end-to-end management of their operation, including earth stations, back haul systems, occasional use systems, digital platforms, IT infrastructure, VSATs, IP trunks, etc. Satellite environments are comprised of a plethora of devices from different vendors, which can be easily consolidated by DataMiner into a single user interface resulting in significant operational savings. In addition, DMS Spectrum Analysis provides satellite operators with the ultimate solution for monitoring of the RF carriers in uplinks and downlinks

integrate your entire satellite operation environment into a single platform, include both standard and legacy proprietary systems, irrespective of vendor and technology boundaries

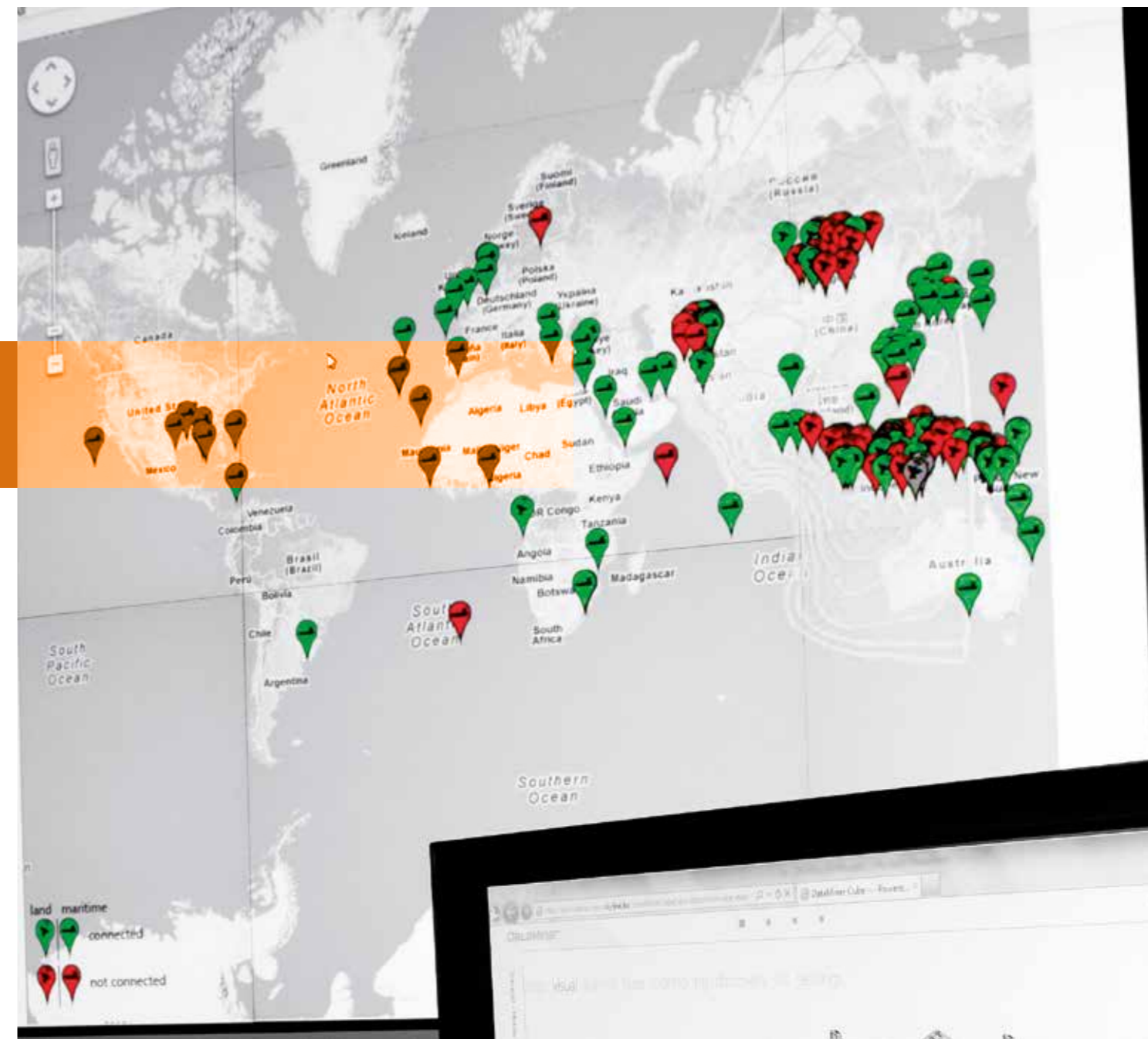
see your entire operation in an intuitive bubble-up & drill-down display, that is compatible with MS Visio®, and dynamically adapts to the status in the real world

enjoy benefits from advanced multi-user remote monitoring and control on any of your devices via an intuitive uniform web based UI

use continuous tracking, logging and reporting of user-defined key performance indicators like C/N, BER, Eb/No, etc

improve and secure your operation through advanced automation applications including automatic uplink power control, site switching, redundancy switching, tracking correction, automated line-up, etc.

Benefit from intelligent cross correlation of all events across your entire operational environment



> YOUR BENEFITS

use any spectrum analyzer from any vendor for remote interactive multi-user spectrum analysis via intuitive web UI, and continuous around-the-clock RF performance monitoring

integrate any test and measurement solutions from any vendor to enable around-the-clock automated verification and tracking of your service availability and performance

receive advanced user-defined reports via a web portal, or via event and time triggered email reports

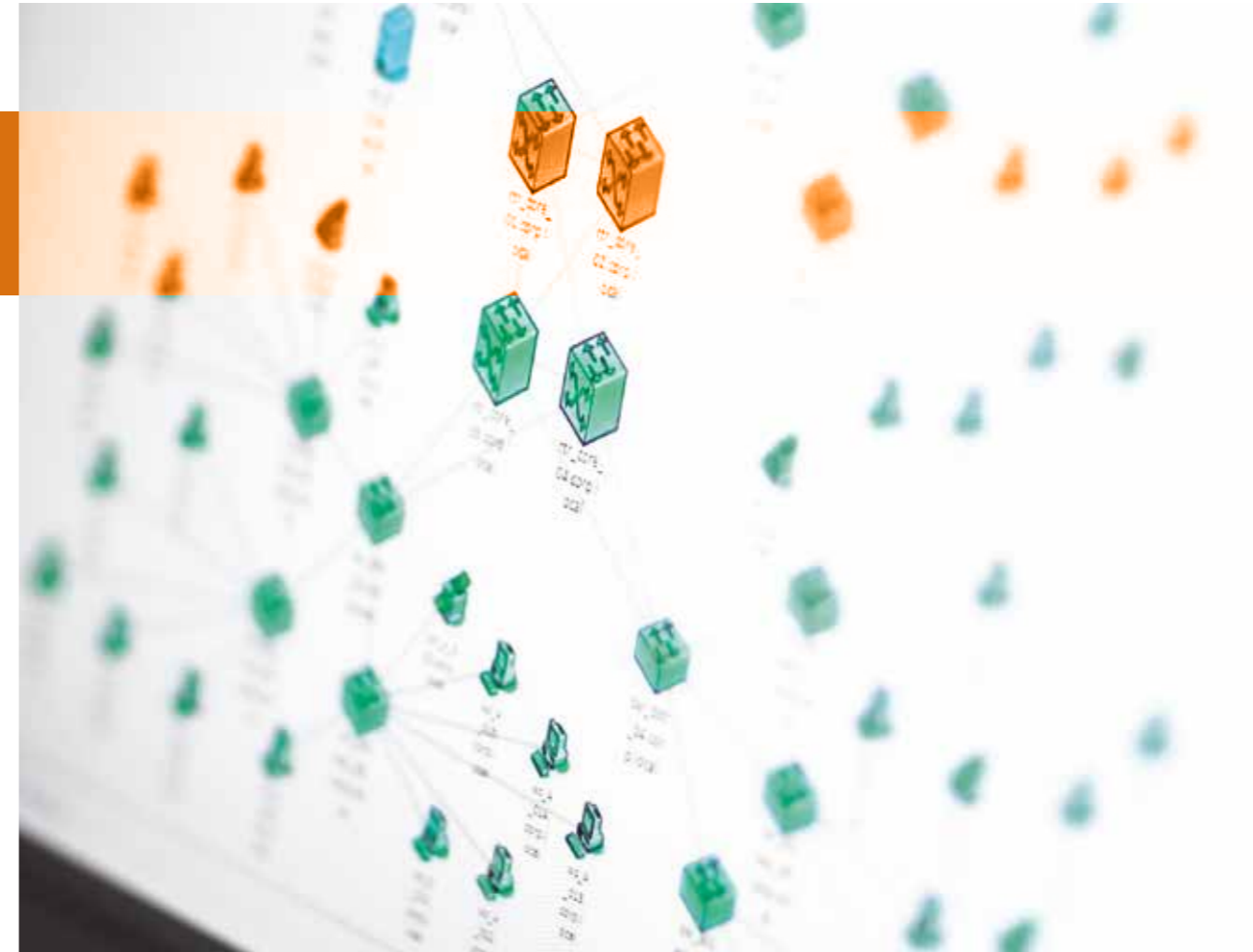
create your own real-time dashboards with all key performance indicators, creating a unique end-to-end perspective for MCR operators

extend your reach to remote sites via interactive SMS text messages on standard mobile devices or via professional applications on the latest generation of mobile devices

and much more

IPTV

With its unique distributed architecture, and its broadband and satellite legacy, DataMiner offers IPTV operators a unique opportunity to deploy the ultimate platform to manage their technical infrastructure from content acquisition to content delivery. DataMiner enables you to manage any device or system in your operational environment, irrespective the vendor or interface, and to create a true end-to-end perspective. DataMiner also enables integration of any test and measurement solutions. This results in automated registration and management of the service quality and availability, and creates a true customer experience.



> KEY FEATURES

manage your entire IPTV ecosystem end-to-end, including signal acquisition, master headend, backbone, regional distribution, etc

integrate any test and measurement probes for continuous around the clock performance monitoring and QoS assessment

enjoy a single consolidated, powerful UI with end-to-end visibility on your entire operation, which is accessible from any location

benefit from state-of-the-art software to enhance the operation with automated and managed procedures (e.g. fail-over, disaster recovery, restore, test & check procedures, etc.) across all vendor and domain boundaries

take advantage of a wealth of features for alarming, trending, reporting, correlation, notification, etc.

use standard interfacing with third party north bound OSS components

> YOUR BENEFITS

improve the reliability & up-time

improve QoS and QoE

reduce operational cost

reduce mean-time-to repair

reduce customer churn

optimize the use of human resources

increase Subject Matter Expert usage

re-activate dormant system resources

enforce operational procedures

eliminate recurring software CAPEX

reduce the need for training

deploy faster

and much more

MANAGE YOUR
IPTV OPERATION
END-TO-END
FROM CONTENT
ACQUISITION
TO CONTENT
DELIVERY

MANAGE NATIONWIDE TERRESTRIAL TRANSMISSION NETWORKS END-TO-END



Because of the high degree of geographical distribution of network assets, a solid and professional network management solution is indispensable for operators of a terrestrial network. This is especially true when considering the high stakes involved with a digital switch over. A selection of the right solution can significantly reduce the operational expenses. DataMiner provides all the features you need to manage the largest terrestrial transmission infrastructures, without any compromises. Because of its unique distributed architecture, DataMiner offers terrestrial network operators the much needed scalability combined with maximum availability. As each site can be fitted with an intelligent agent that features all the functionality of a DataMiner System, each site can operate fully autonomously, including high-end intelligent applications such automation and correlation (e.g. to manage redundancy).

ONSITE INTERVENTIONS REDUCED TO A STRICT MINIMUM

At the same time, a central operator can get an intuitive, consolidated overview of the entire network, via the MS Visio® compatible bubble-up & drill-down topological UI. As DataMiner runs on industry standard hardware that includes high availability proven embedded platforms. You can rest assured that expensive onsite interventions are reduced to a strict minimum. In addition, DataMiner provides various standardized remote interfacing capabilities, enabling field engineers to also benefit to the maximum extent from this investment. This includes two-way interaction between engineers and the system using standard SMS text messages on regular cell phones, and special tailored mobile applications for mobile phones and tablets. Aside from that, DataMiner features a wealth of other features such as comprehensive statistical reporting via web and email, intelligent alarm correlation, real-time SLA management, and much more.

TERRESTRIAL

> KEY FEATURES

view your entire broadcast chain from one consolidated UI across all vendor boundaries

optimize the use of available system resources
save time and expenses by automating system reconfigurations

enable operators to manage their environment without being confronted with the underlying complexity

eliminate outages and service quality degradations

keep a close eye on the actual business performance with real-time SLA monitoring

MANAGE YOUR ENTIRE HFC OPERATION FROM DIGITAL HEADEND, ACROSS THE OUTDOOR NETWORK, TO THE SUBSCRIBER'S HOME

> HFC OUTDOOR PLANT

Remote monitoring and controlling amplifiers, optical nodes and uninterruptible power supplies (UPS) via any legacy proprietary transponders, HMS compliant transponders and (Euro)DOCSIS / CM transponders, it is all covered by DataMiner. This results in major operational savings and keeps your options open for the future. Whatever technology you deployed in the past and wish to deploy in the future, it will all seamlessly come together in a single DataMiner user interface.

> INTERACTIVE DIGITAL TELEVISION HEADENDS

Signal acquisition, backhaul, encoding, multiplexing, CAS - you name it and its covered. DataMiner manages the most complex digital headends end-to-end, and offers powerful applications, including service management featuring real-time dynamic tracking of the service path. In addition, third party test and measurement solutions, such as transport stream analyzers and recorders, can be integrated to implement true confidence monitoring.

> TRANSPORT BACKBONE

No matter what backbone you use, irrespective of the supplier or technology, it can be managed with DataMiner, and presented with intuitive graphical drawings. Sophisticated DataMiner applications, such as DMS IP Network Manager, DMS Correlation and DMS Automation, allow you to further enhance the operational backbone system with automated backup routines, for example.

> RETURN PATH MONITORING

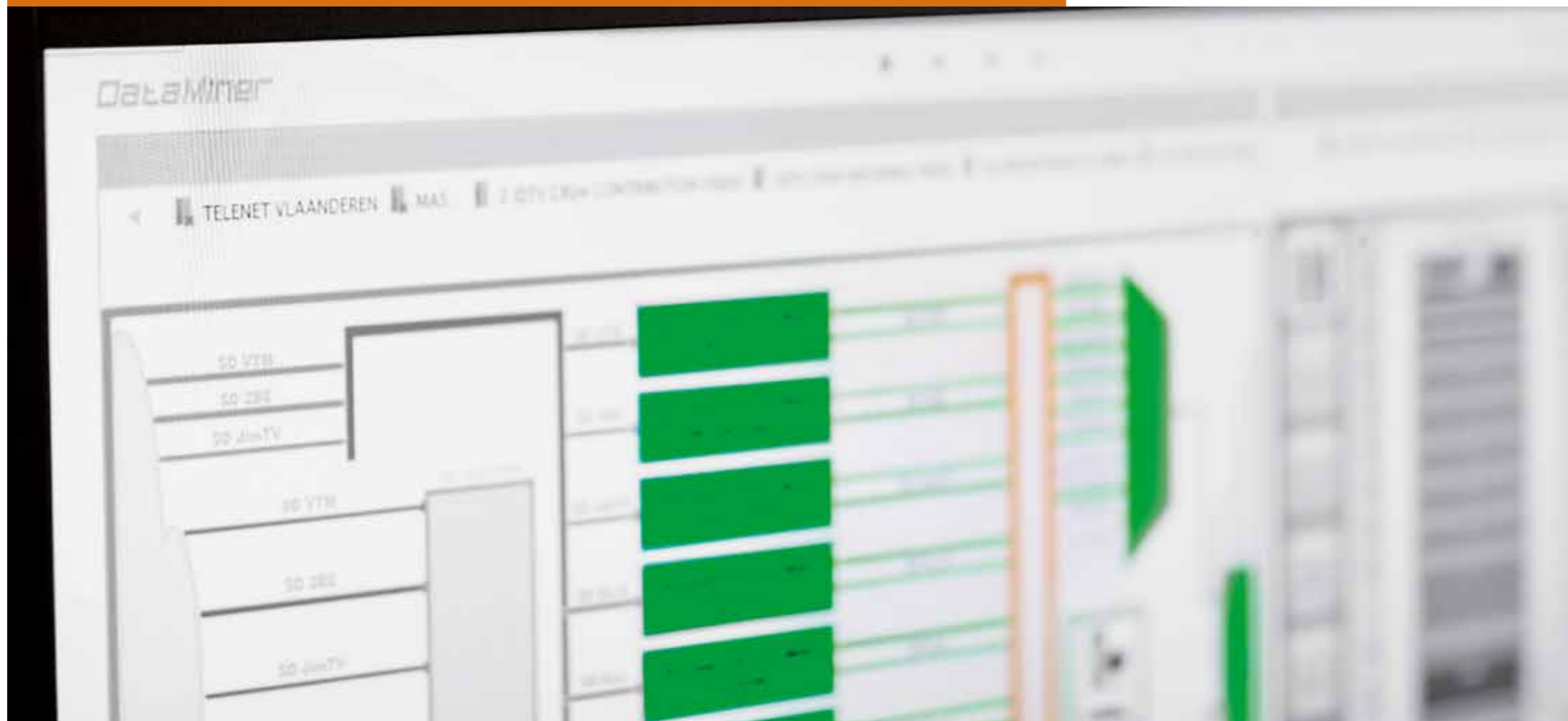
With DataMiner you can integrate any third party return path monitoring solution. Alternatively, you can opt to deploy DMS Spectrum Analysis and integrate any spectrum analyzer from any vendor. The latter offering remote multi-user real-time interaction as well as continuous performance monitoring based on powerful user-defined measurement scripts.

> HFC REGIONAL HEADENDS

Any device in your headend, from any vendor, irrespective of its interface can be managed by DataMiner, including modulators, edge QAM devices, CMTS', backup power, RF switches, IRD's, etc. In addition, DataMiner allows you to integrate any test and measurement solution from any vendor to further increase the visibility on the service availability and quality.



HFC BROADBAND



Skyline Communications is the global leading supplier of multi-vendor network management solutions for the HFC broadband, satellite, IPTV and broadcast industry. Our flagship DataMiner network management platform, which received various prestigious awards, enables end-to-end integration of the most complex technical ecosystems and has been deployed by leading operators around the world.

At Skyline Communications everything revolves around innovation. The company continuously invests in software research and development, striving to make more intelligent software applications, to assist its customers in driving down their operational cost, while increasing the quality of its services.

Skyline Communications is a fully independent corporation with no potential conflicting activities. Our new low energy HQ respects the environment and reflects our vision on sustainable responsible business.

ABOUT SKYLINE

- + 100+ EMPLOYEES
- + 400+ CUSTOMERS WORLD-WIDE
- + 85+ DIFFERENT COUNTRIES
- + 3500+ DRIVERS FOR INTERFACING WITH DEVICES AND SYSTEMS FROM MORE THAN 400 DIFFERENT VENDORS
- + 1000+ SYSTEMS DEPLOYED
- + AWARDS:
TOP 50 BELGIAN ENTREPRENEURS
BEST NETWORK MANAGEMENT SOLUTION
BEST TELEPORT TECHNOLOGY
EXPORT LION FLANDERS
MOST PROMISING ENTERPRISE FLANDERS

DataMiner turnkey solutions enable you to benefit from the experience of subject matter experts to deploy your systems faster and more efficiently. Skyline Communications offers you all the professional services that you need to guarantee that you will meet your objectives. Our services include: consultancy services, project management, engineering services, maintenance and tech support and training programs.

OUR TURNKEY SOLUTIONS

> CONSULTANCY SERVICES

Functional design and roll-out of an OSS solution is more than selecting the right technology. Our professional consultancy services are your guarantee that all stakeholders within your corporation are identified, risks are properly analyzed and mitigated, operational procedures are designed and brought in place on time. We ensure that your project is a success from day one.

> ENGINEERING SERVICES

Developing drivers or provisioning your entire DataMiner OSS environment to deliver a ready-to-use environment - it's all available for you today via our engineering services. This includes the design and implementation of intelligent system behavior via DMS Automation, Correlation and Reporter to deliver the exact system behavior that you are looking for.

> PROJECT MANAGEMENT

OSS projects in high-tech multi-vendor environments can be complex in nature. With our project management services you can rest assured that your project is going to be delivered on time and within the projected scope. Our project management services rely on proven methods for this type of application and take care of acceptance test procedures, change procedure management, risk assessment, system and procedure documentation, logistical chain management and much more. All tasks are managed via an intuitive project management web portal dedicated to your project.

> MAINTENANCE AND TECH SUPPORT

Maintenance and Tech Support is available for continuous support during business hours or around the clock, seven days a week. All software upgrades are provided at no additional charge, all year around. Enjoy carefree operation with proactive maintenance and support services that effectively identify issues before they affect your operation!



TRAINING & CERTIFICATION

GET THE MAXIMUM OUT OF YOUR INVESTMENT



Making sure that you get the maximum out of your investment has never been easier with the DataMiner Training and Certification Program services. We offer you a complete, tailored professional training and certification program for all stakeholders in your corporation.

The DataMiner Training Program has been highly rated by renowned corporations, and are praised for its superior quality and high added value. These services are delivered by seasoned Subject Matter Experts in the field of corporate network management and DataMiner technology. Services include theoretical presentations, demonstrations and hands-on lab exercises. DataMiner training programs are available both on-site and at our corporate headquarters, and range between 2 and 10 days depending on the training selected.

- + UNDERSTAND, PLAN, IMPLEMENT, CUSTOMIZE AND MAINTAIN DATAMINER
- + DEPLOY YOUR SYSTEM FASTER AND MORE EFFICIENTLY
- + GET THE MAXIMUM OUT OF YOUR INVESTMENT
- + EXPLOIT ALL AVAILABLE FEATURES AND CAPABILITIES TO THE MAXIMUM EXTENT
- + INCREASE STAFF MOTIVATION AND QUALITY OF WORK

GET IN TOUCH FOR MORE INFORMATION



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INTERFACE

MONITOR

CONTROL

PERFORMANCE

REPORT

CORRELATE

AUTOMATE