

# Remote diagnostic services Drive systems

# Support – whenever you need it

## Remote diagnostic services

**In an ideal world, the best way to ensure maximum production uptime is for all system experts to be on site around the clock. This is neither practical nor possible. To help maintain equipment optimally ABB has developed state-of-the-art remote diagnostic services that ensure the experts you need are never far away.**

### Immediate global assistance

ABB's remote diagnostic services (RDS) combine security, remote connectivity, advanced monitoring and analysis tools together with global technical support – whatever application you have installed: gearless mill drive, high pressure grinding rolls or ring-geared mill drives. RDS provide unparalleled protection and back-up maintenance.

RDS are available under a customized service agreement of at least one year or in combination with other ABB service products under a three-year long-term service agreement (LTSA). An LTSA combines one or more service products in an agreement that is tailored to your site-specific requirements.

### Secure remote access platform

The RDS utilize a remote access platform (RAP) that ensures remote connection security and compliance with existing computing and security environments. Security is designed into every layer of the RAP, eliminating the need for virtual private networks or changes to IT security procedures.

RAP allows highly secure, real-time central monitoring and control of devices located at customer sites. It also provides audit and security features, including audit logs to track user and application access.

RAP consists of:

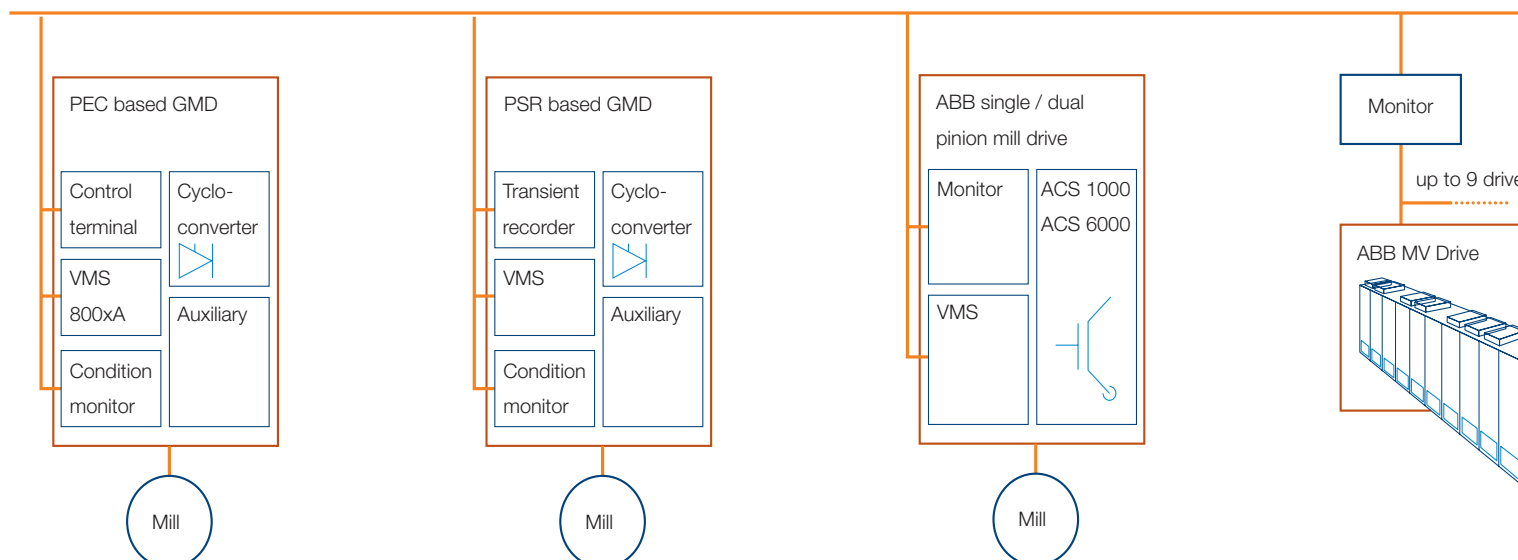
- A virtual support engineer (VSE) – located at your facility, which monitors supported devices and systems.
- A service center – which is the core of the system, acting as a knowledge repository, control center and communication hub
- A communication server that provides secure, encrypted and authenticated communications.

### Rapid response

If a problem occurs, immediate help is needed. Since every downtime of your drive system costs a substantial amount of money. RDS facilitate speedy and correct decision making on condition maintenance tasks and help to reduce the number of unplanned corrective and planned preventive maintenance actions. Thanks to this sophisticated technical concept, RDS can help reduce your overall maintenance costs significantly.

### Benefits

- Maximizing plant availability by minimizing unintentional interruptions and optimizing planned maintenance
- Optimizing the overall equipment effectiveness (OEE) over an extended life time of ABB drive systems
- Provide immediate access to ABB's engineering expertise
- Provide remote access to customer's engineers when off-site



# Utilize your entire potential

## Enhanced maintenance levels

### RDS can benefit each stage of a scheduled maintenance program.

#### Our immediate support – corrective maintenance

Corrective maintenance is required to bring equipment that has failed back to working order. Thanks to our sophisticated remote solutions we help you at maximum speed to get your production running again.

As corrective maintenance is often unscheduled, the use of ABB SupportLine in combination with RDS troubleshooting techniques, allow ABB's engineers to immediately access your drive systems in order to identify the cause of failure and correct it with minimum delay.

#### Our focus on your equipment – preventive maintenance

Preventive maintenance is carried out routinely and is designed to prevent the need for more costly repairs in order to retain the system at a specified level of performance. With ABB's state-of-the-art remote solutions there is no need for our engineers to check your drive system on site. We check it from anywhere in the world.

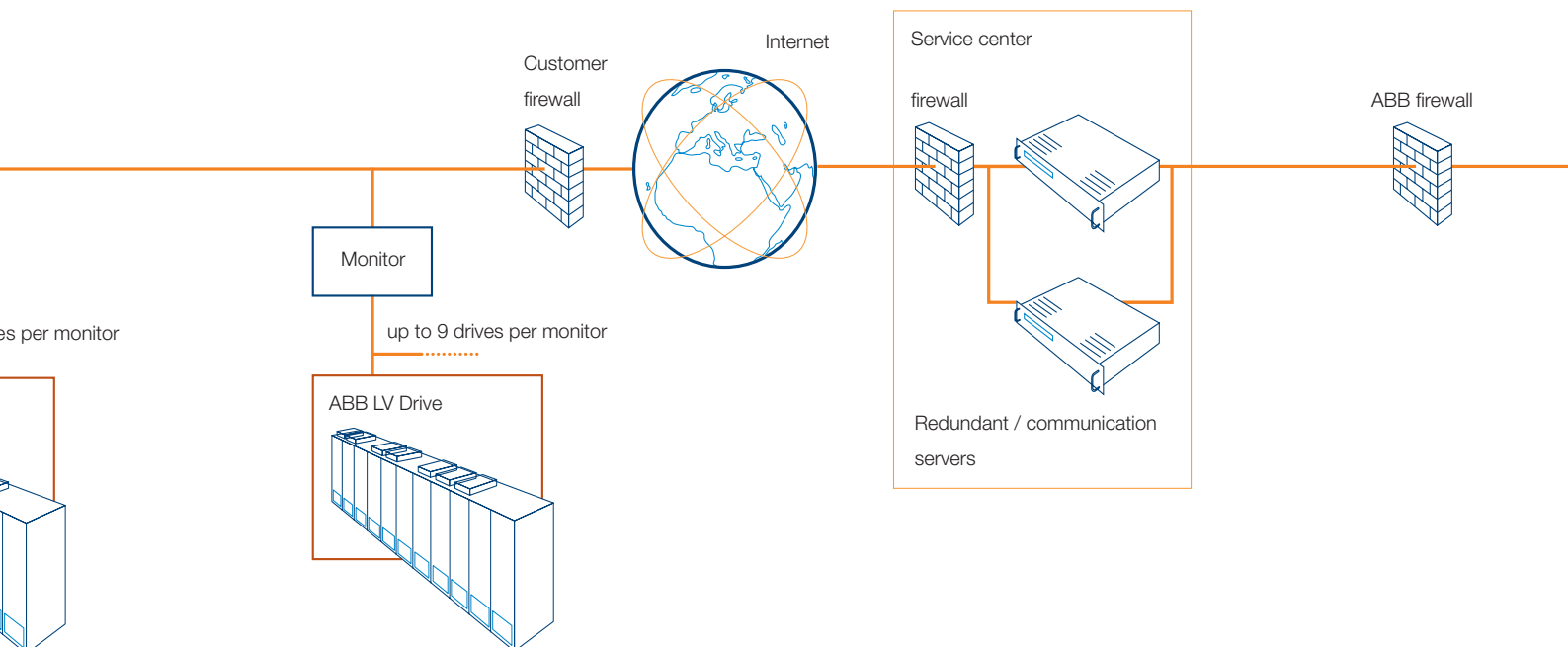
RDS periodic maintenance reports provide scheduled analysis, audits of system recordings and logs. Carried out by ABB engineers, these health checks minimize planned downtime and reduce your overall maintenance costs. The required data are automatically retrieved by the RDS system for remote analysis, thereby ensuring that you receive the information while it is relevant.

#### Our plan for your equipment – predictive maintenance

Predictive maintenance techniques help determine the condition of in-service equipment in order to predict when maintenance should be performed. Efficient ABB maintenance tools help you keep your equipment in best condition. As they let you know, when your drive system needs maintenance or improvement.

RDS condition monitoring system performs online, real-time analysis and modeling of a system to predict future failure modes. This approach offers cost savings over routine-based maintenance, because tasks are performed only when warranted. The result: Unscheduled downtime is reduced, as failures are fixed before they occur.

RDS improve the availability of equipment at a fraction of the associated production losses.



# We are never far away

## SupportLine and troubleshooting

**RDS in combination with SupportLine – ABB's telephone access to its technical support engineers – enable ABB experts to immediately interact with your drive system to perform corrective maintenance in emergencies.**

### **If a problem occurs – ABB SupportLine**

ABB SupportLine helps you maintain ongoing production and performance of your equipment at a high level.

#### **Benefits**

- Quick response and fast resolution SupportLine calls
- Access to experts via e-mail or fax during office hours and/or 24 hours/day, 365 days/year by phone
- Real-time access and support
- Reduced overall maintenance costs
- Immediate assistance via a SupportLine call by directly looking into your system

### **Support, when needed the most – RDS troubleshooting**

Thanks to our remote solution there is no need to go on-site to perform our services. Our experts access your drive system through a secure remote connection and give you immediate support – without delay, without travel time to site.

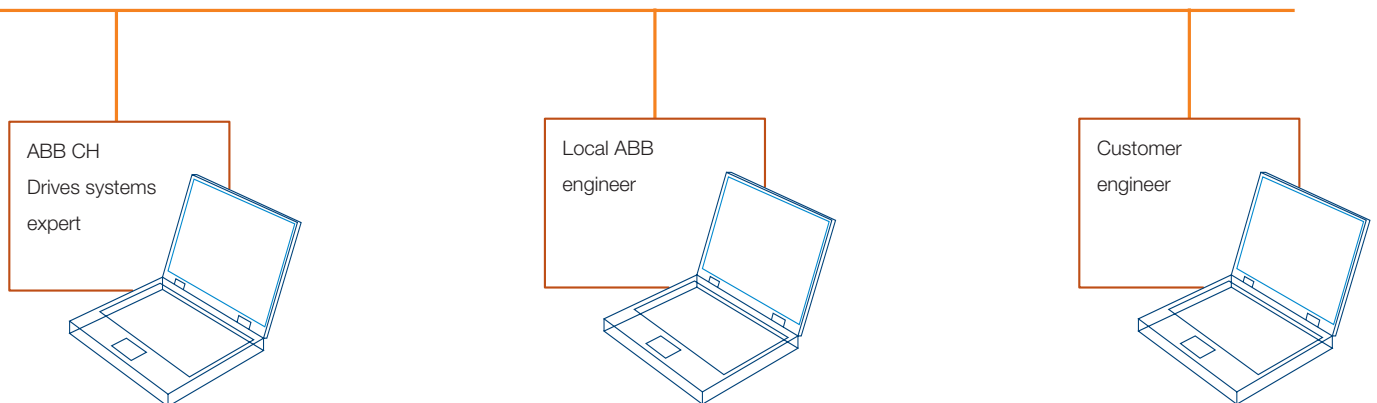
#### **Features**

- Troubleshooting: on-demand connection to solve a specific problem
- Standard solution across ABB's entire installed base
- Remote access and support by ABB engineers worldwide
- Remote access to the system for your support engineers

#### **Benefits**

- Fast, easy and prioritized access to ABB's extensive worldwide support network
- Assigned support engineer assumes complete responsibility for problem resolution
- Documented problem escalation process ensures rapid involvement and contribution of worldwide experts and product developers if needed
- Monitored case status ensures appropriate resolution

ABB Intranet



# For optimal conditions

## Periodic maintenance report, condition monitoring and RAP security

**RDS periodic maintenance reports are asset health checks, performed by ABB engineers at regularly planned intervals, which provide valuable inputs as part of a preventive maintenance routine. RDS condition monitoring provides predictive maintenance by continuously analyzing your system for the early detection of potential failures. To ensure you that your IT environment and your plant system is always safe, ABB employs state-of-the-art security solutions.**

### **For routine check-ups – RDS periodic maintenance reports**

To keep your production running, we monitor your drive system continuously: Our system performs scheduled asset audits and evaluation against established benchmarks. As a result you receive a detailed general maintenance report, which includes a summary of findings and recommendations.

#### **Features**

- Periodic maintenance: scheduled remote asset audits for periodic inspection with a report and recommendations
- Quarterly health check and system audit by ABB experts
- Recommendations for preventive maintenance actions
- Tracking of maintenance related key performance indicators (KPIs)

#### **Benefits**

- Fast and automated information retrieval
- Reduced overall maintenance costs
- Optimized asset performance
- Information for more efficient operation
- System condition reporting: periodic maintenance report

### **Your drive system under supervision – RDS condition monitoring**

With our condition monitoring we address both preventive and predictive maintenance by concentrating all available data sources in one place and transforming the data into valuable information relating to the health and operational status of the drive system. RDS condition monitoring is based on proven ABB technology and runs automatically in the background, without interfering with existing hardware and software.

#### **Features**

- Online condition monitoring in real time
- Advanced system and decision making models continuously report on the health of the system
- Easy to use graphical user interface and remote access
- Monitoring of entire drive system

#### **Benefits**

- Single page summary of the health of the system
- Fault prediction and recommendations for required maintenance actions
- Advanced trending and visualization capabilities
- Real-time reporting of operation efficiency
- Optimized asset performance

### **Remote connection security**

RDS use a secure socket layer (SSL)-encrypted communications tunnel between your system on-site and the ABB expert's RDS workplace. The design of RDS is quite distinct from other solutions in terms of functionality and security. Unlike point-to-point based solutions, RDS do not open a "back door" to your IT environment but instead is integrated into your existing IT security design. Compared with standard virtual private network (VPN) no external networks are connected to each other at the IP level (Open Systems Interconnection (OSI) level 3). Rather, the connection is established between applications.

#### **Benefits**

- No ports need to be opened in your firewall
- Communication is encrypted and highly secure
- Communication will not tie-up/slowdown your network
- No performance penalty on the system being monitored

# Contact us

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Service for mining and mineral  
processing industries



Service for grinding applications