



Uptime available

MAN PrimeServ

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**PrimeServ Assist:
the development of secure
remote turbomachinery
monitoring**

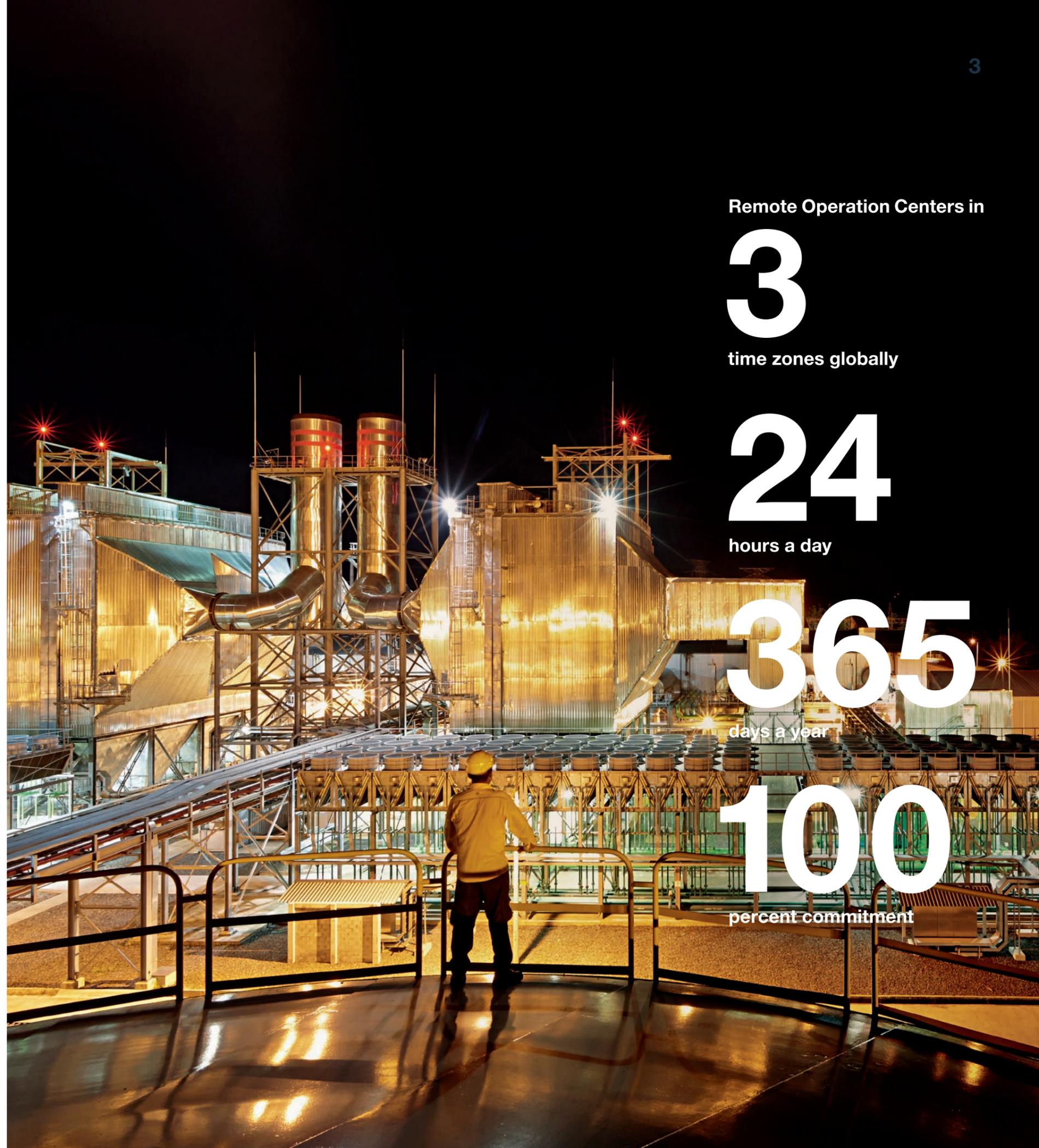
Let's look into your future

PrimeServ Assist

It all starts with a tiny anomaly. Something is off in the machine. Just a little bit. Not noticeable even to an experienced operator. But it's not just going to go away. Sooner or later, it will produce unwanted consequences: performance degradation, failure and downtime or even safety hazards.

What if you could look into the future? What if you could be aware of and understand that tiny anomaly and its potential consequences in real time? And then do something about it in time?

Now you can. Now there's PrimeServ Assist.



Remote Operation Centers in

3

time zones globally

24

hours a day

365

days a year

100

percent commitment

Algorithms that don't miss a thing

**And product experts
who know what to do**

20

years of remote service
experience

There are millions of dollars at stake. Every day of downtime is a huge bill and every hour of operation counts. Welcome to real-time machine monitoring with instant data analysis.

The earlier you know about a potential problem, the earlier you can take steps to prevent it altogether.

That's the heart of how PrimeServ Assist works: continuous, comprehensive and real-time machine monitoring and analysis with instant issue notifications.

Smart tech, skilled professionals

The live data from your machines reaches our Remote Operation Centers without delay via high-speed data transfer. Staffed around the clock with experts, this is where your data gets crunched by our proprietary algorithms, and our turbomachinery specialists evaluate the results.

When they see something that's not right, they not only tell your engineers on-site about it immediately but will also roll up their sleeves to help you work out a solution.

Let's call it proactive peace of mind.

Your benefits: speed and expertise

Our MAN experts will provide you with:

- Ad-hoc notifications for maximum safety and availability
- Pro-active maintenance advice
- Pro-active performance advice
- 24/7 technical support

Protect your bottom line. In real time



More than

300

precise points of measurement
per equipment

We don't stop evolving, so that you can keep evolving – profitably

As your solution provider we want to contribute to your competitive edge. That's what drives our development of solutions like PrimeServ Assist: higher efficiency plants improve the quality of your products while they cost less to operate.

This has many practical implications and benefits: with a few measures, you'll be able to sustainably improve the machine's efficiency and productivity.

PrimeServ Assist can significantly reduce your OPEX costs and prevent unexpected downtime and production losses.

More performance: always on

With PrimeServ Assist we can not only monitor what's going on and predict where that is going, but also how things could improve – parameter by parameter.

Reacting early enough with appropriate timely maintenance not only prevents defects, but also minimizes potential downtime.

That's good, but that's not all. By continuously monitoring and evaluating past and current performance data with PrimeServ Assist's machine learning algorithms, we can project how the machine will behave in the future.

Performance and economic benefits

- Output and efficiency gains
- Improved reliability
- Increased uptime/availability
- Extended machine life
- Longer time between overhauls
- Lower maintenance costs
- Longer equipment and component life

PrimeServ Assist: the uptime advantage

When you're going to take plant performance to the next level, you better start from a rock-solid foundation. We've been driving the development of turbomachinery remote diagnostics for over 20 years. Our experience is all yours.

Security: it's just you and us

We use the highest digital safety standards to protect your data from unauthorized access. Once you connect your machines to our MAN CEON computing environment, the entire data transmission process is SSL/TSL secured from end to end.

Your OPEX costs: reduced

With PrimeServ Assist you'll increase machine availability and take the guesswork out of your maintenance budget – plan your maintenance activities better and predict costs more accurately.

Your performance: unmatched

When you can improve your health, safety and environmental record while upping product quality and delivery performance, your business wins.

You've got options

Choose what's right for you

Premium¹⁾ ("Basic" functionalities included)

- Real-time monitoring and advise based on algorithms and trends
- 24/7 TechLine
- Dedicated machine expert
- Maintenance management, consulting, trouble shooting and spare parts management

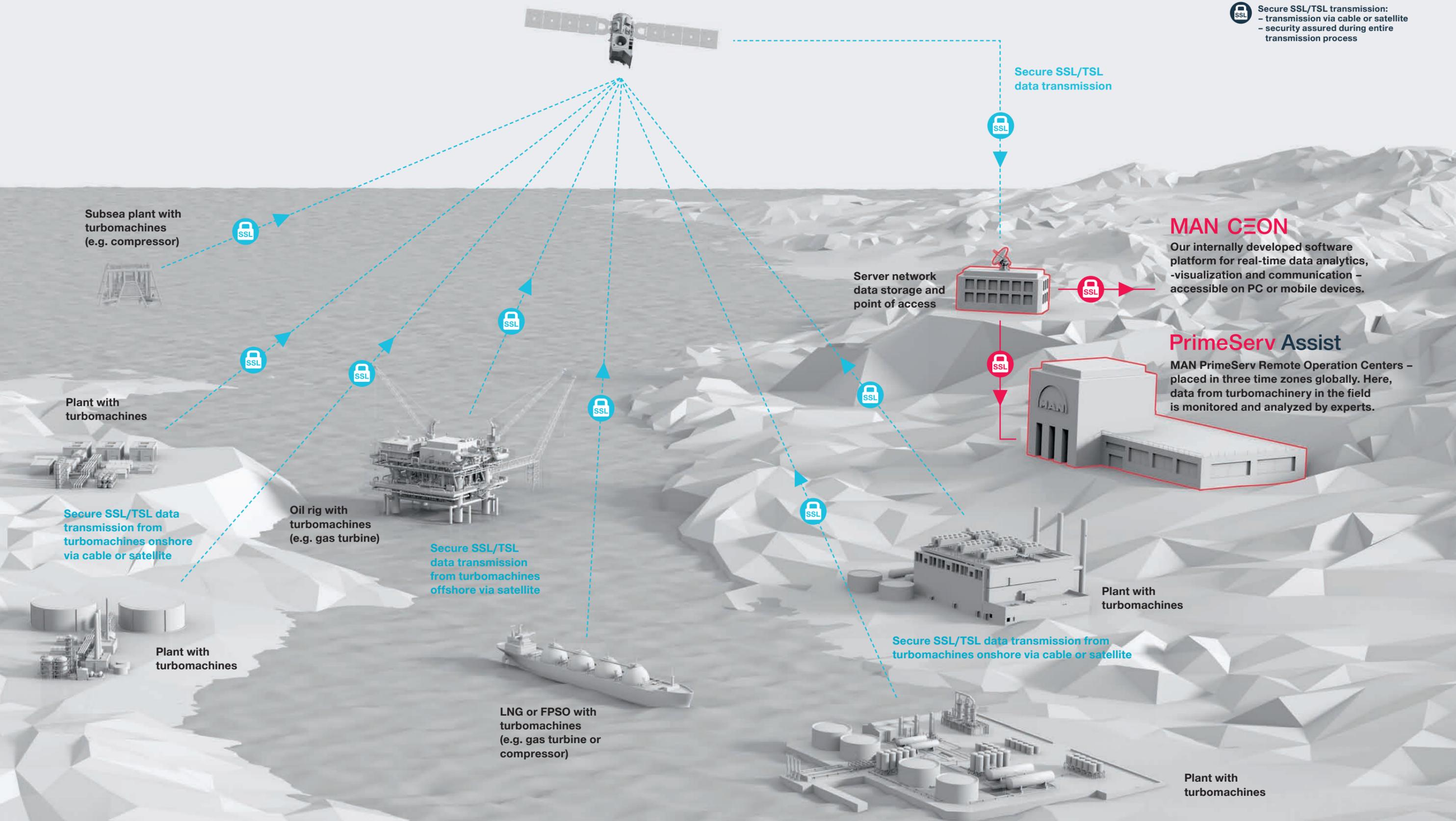
Basic

- Data visualization in MAN CEON app
- Hard- and software updates on regular basis
- Monthly analysis of data and recommendations
- EyeTech²⁾

¹⁾ On top: with Longterm Service Agreements (LTSA) based on "Premium" version an availability increase can be guaranteed.

²⁾ Head mounted live conference-device and -service

 **Secure SSL/TSL transmission:**
 - transmission via cable or satellite
 - security assured during entire transmission process



Subsea plant with turbomachines (e.g. compressor)

Plant with turbomachines

Secure SSL/TSL data transmission from turbomachines onshore via cable or satellite

Plant with turbomachines

Oil rig with turbomachines (e.g. gas turbine)

Secure SSL/TSL data transmission from turbomachines offshore via satellite

LNG or FPSO with turbomachines (e.g. gas turbine or compressor)

Server network data storage and point of access

Secure SSL/TSL data transmission

MAN CEON

Our internally developed software platform for real-time data analytics, -visualization and communication - accessible on PC or mobile devices.

PrimeServ Assist

MAN PrimeServ Remote Operation Centers - placed in three time zones globally. Here, data from turbomachinery in the field is monitored and analyzed by experts.

Plant with turbomachines

Secure SSL/TSL data transmission from turbomachines onshore via cable or satellite

Plant with turbomachines

Get connected now

Up your uptime and overall plant performance by monitoring your turbomachinery using our proprietary algorithms. You and your bottom line will benefit from advanced analytics, dynamic threshold control, anomaly detection, extensive reporting, and top-notch operational consulting services.

Anytime, everywhere insight

You can conveniently access the real-time turbomachinery data monitoring and analytics functionality of PrimeServ Assist via easy-to-use user interfaces on your PC or via our app on your mobile device.

Both deliver the essential insights you need in easy to read dashboard views, current and historic charts, status indicators and timely notifications for all aspects of the operational health of your equipment.

Have it your way

We want to make sure you get PrimeServ Assist in the specific configuration that's right for you.

Your MAN representative will help you determine which package best serves your needs, and which add-ons make sense for you.

For more general inquiries you can also send us a note via email to primeservassist@man-es.com

If you want to learn more right now, there's more information and an FAQ, product video, testimonials and use cases available online at: www.man-es.com/services/service-solutions/primeserv-assist

