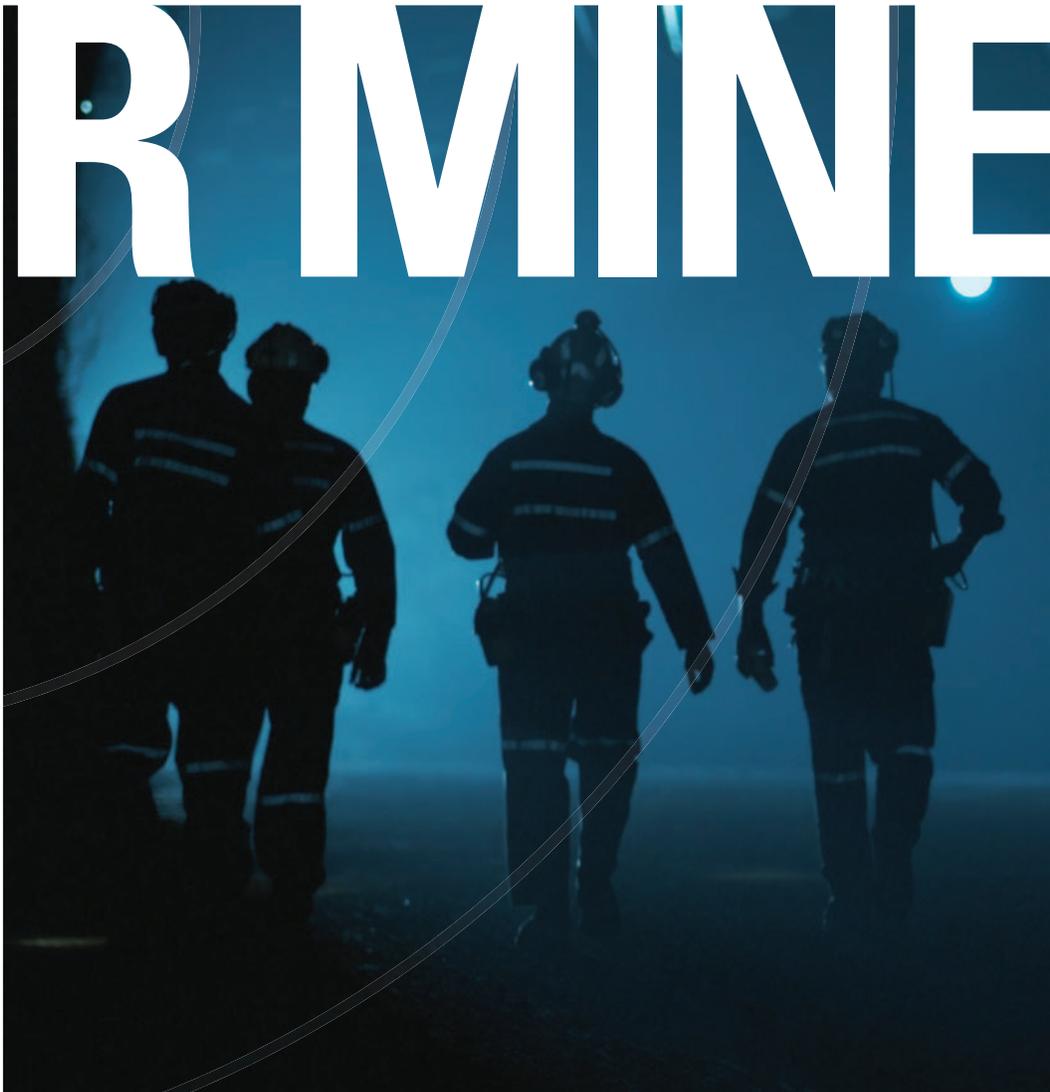


# DEFINE YOUR MINE



CAT® MINESTAR™ SYSTEM



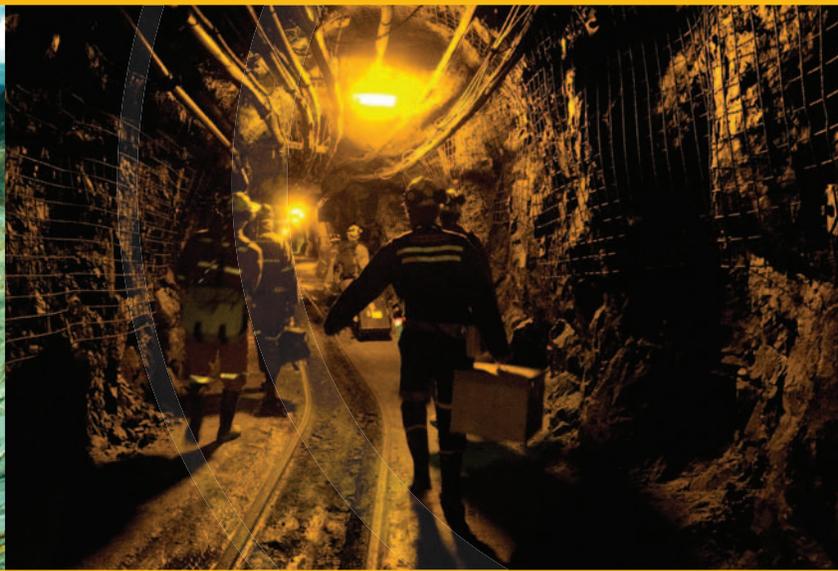


## CAT<sup>®</sup> MINESTAR<sup>™</sup> SYSTEM

Cat<sup>®</sup> MineStar<sup>™</sup> System is the industry's broadest, most comprehensively-integrated mine operations and mobile equipment management system. Configurable to suit any mine operation, it consists of a number of capability sets—including Fleet, Terrain, Detect, Health and Command.

Expanded capabilities covering surface and underground operations make Cat MineStar System the right choice for your operation, whether you are assigning a fleet of trucks or monitoring the health of your longwall equipment.

With a range of advanced features and flexible scalability, Cat MineStar System enables you to define the size and scope of your management system based on the needs of your mining operation, while integrating products, processes and people like never before.



## KNOW MORE. DO MORE. USE LESS.

The more you know about the interactions of all of the assets on your mine site, the better you'll be able to:

- Make informed, fact-based management decisions
- Enhance safety
- Boost productivity
- Improve fleet utilization and uptime
- Maximize equipment and manpower resources

Completely-scalable, Cat MineStar System gives you the in-depth, integrated information you need, when you need it, to help you make the most of every facet of your mining operations.

## DEFINE YOUR CAT MINESTAR SYSTEM

Cat MineStar System is configurable to fit the unique needs of each mine site, allowing you to use one piece or multiple capability sets. You only license the capabilities you need.

Just need to assign a truck fleet? Fleet can do it.

Want to add a high precision drill or dozer system? You can with Terrain.

Looking to add completely autonomous drilling or hauling systems? Command gives you the comprehensive tools you need to make them work.

Need real-time updates on the status of your longwall system? Health delivers them.

No matter what your goals, Cat MineStar System provides scalable solutions to meet all of your needs.

# NEXT GENERATION MINING

## TRACK. MONITOR. MANAGE. EVERYTHING.

Cat MineStar System encompasses a wide range of capabilities, including autonomous, semi-autonomous and remote control equipment systems, proximity detection and more. Now available on a range of new equipment in the Caterpillar product line, it spans numerous mine site assets for surface and underground operations.

All of these technologies are integrated into a seamless system that allows you to see your whole operation at a glance, then drill down to the individual asset level as required.

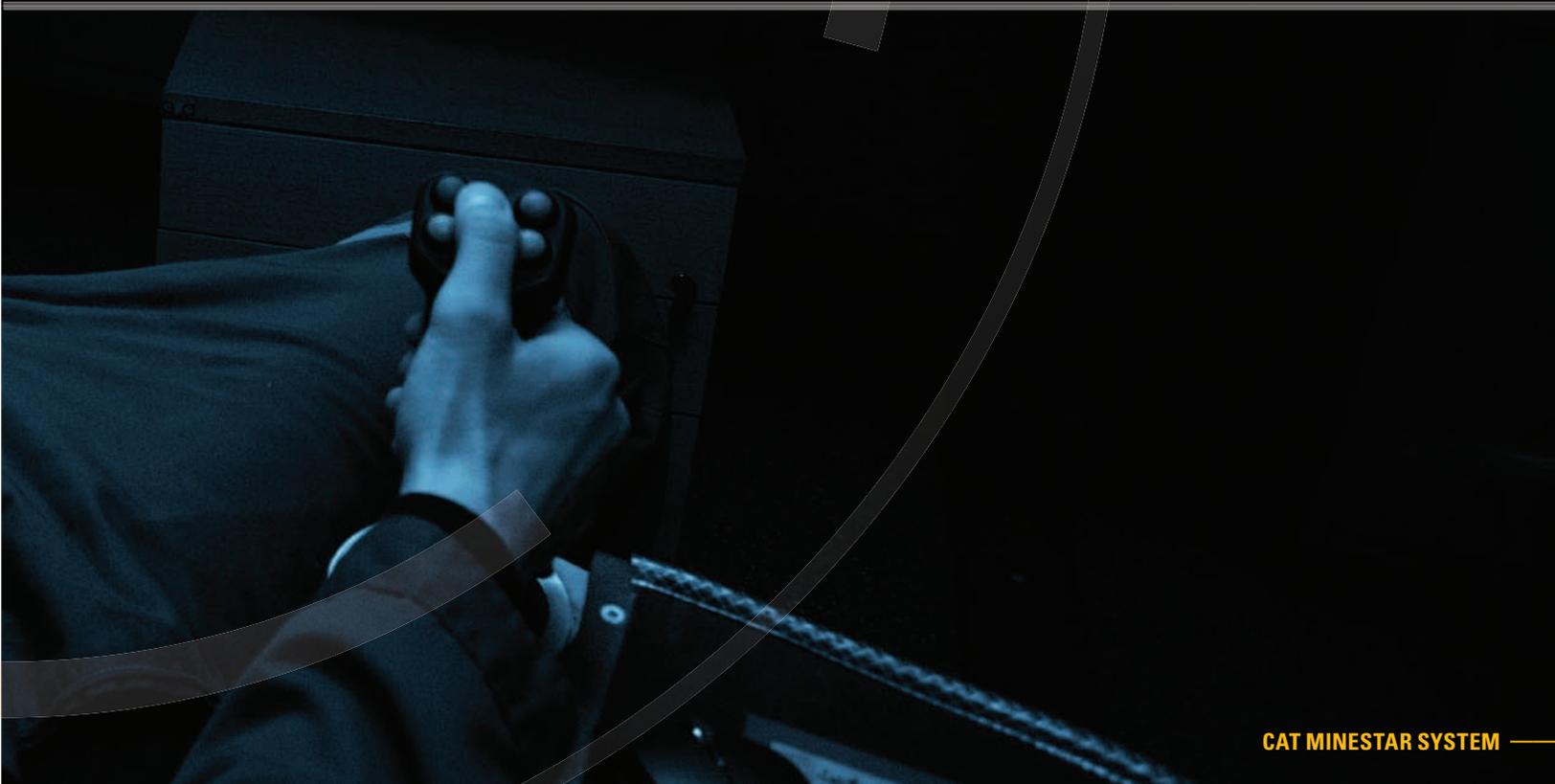
## DEEPER INTEGRATION FOR MORE EFFICIENCY

Cat MineStar System enables you to control your entire mining operation by tracking and monitoring assets at any level and sharing data seamlessly between capability sets.

For example, if Health discovers that a haul truck is down due to a mechanical problem, it can share that alert with the Fleet Assignment & Optimization package.

Or, if Terrain reads that a loader is moving into a new material type, it can share that data with the Fleet and Command systems to facilitate routing that material to the appropriate dump point.

This deep integration gives Cat MineStar System unparalleled flexibility and both broader and deeper capabilities than other mine management systems available today.



# CAT MINESTAR SYSTEM

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## FLEET

Fleet provides real-time machine tracking, assignment and productivity management, giving you a comprehensive overview of all asset operations from anywhere in the world.

Enhance management of grading, loading, hauling and auxiliary equipment operations across one mine site or multiple sites.



## TERRAIN

Terrain enables high-precision management of drilling, dragline, grading and loading operations through the use of guidance technology. It increases machine productivity and provides you real-time feedback for improved efficiency.

Terrain allows mines to make management information available across their mining operations, aiding in everything from drill planning and blasting to ore control and site planning.



# CAPABILITY SETS



## DETECT

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Detect helps increase operator awareness, enhancing safety at your operation. It includes a range of capabilities designed to assist with areas of limited visibility around fixed and mobile equipment.

Detect works on most types of equipment, including off-highway trucks, longwall mining and room and pillar equipment, wheel loaders, motor graders, wheel dozers, shovels, light duty vehicles and equipment from other manufacturers.



## HEALTH

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Health delivers critical event-based machine condition and operating data for your entire fleet. It includes comprehensive equipment health and asset monitoring capabilities, with a wide range of diagnostic, analytic and reporting tools.

Health works with virtually any mine site equipment assets, including equipment from other manufacturers.



## COMMAND

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By integrating the capabilities of Fleet, Terrain, Detect and Health, Command delivers dramatic improvements in safety, productivity and availability at your operation. It provides remote control, semi-autonomous and autonomous systems for both surface and underground mining equipment.

Command is currently available on select Cat underground load haul dump machines, off highway trucks and track-type tractors. It is also under development for longwall systems and blast hole drills.

# NEXT GENERATION MINING FOR ANY OPERATION

Big or small, surface or underground, today's Cat MineStar System lets you define a comprehensive, fully-integrated mine management system based on the needs of your operation.

Cat MineStar System opens the door to the next generation of mining technology, helping you work more safely, more efficiently and more profitably than ever before.

**WHEREVER THERE'S MINING, WE'RE THERE.**

