

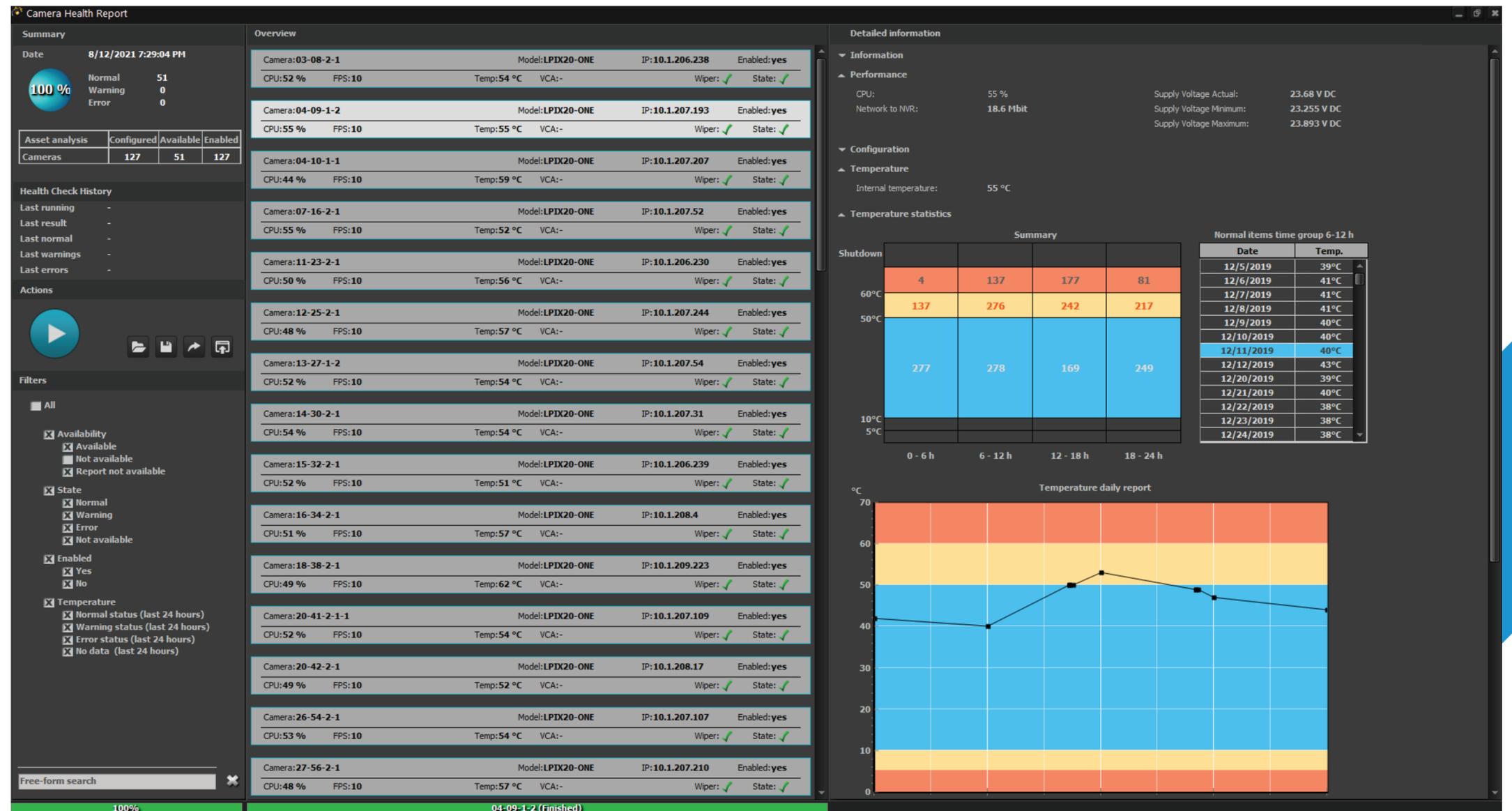
TECHNICAL MONITORING, CONTROL AND MAINTENANCE SYSTEM (TMCMS)

INTRODUCTION

Effective system health monitoring can reduce maintenance costs and also prolong system life-span. Logipix developed a complete remote maintenance system that helps both preventive and corrective maintenance by comprehensively monitoring the statuses of the system components and report them through various modules.

BENEFITS OF USING REMOTE MAINTENANCE MODULES

- Reduce the cost and time of maintenance
- Automatic installation check
- Fast and easy troubleshooting
- Get early alert of device overheating
- Help investigate the cause of data loss or latency
- Detect bandwidth issues
- Monitor storage performance
- Run hardware self test on demand



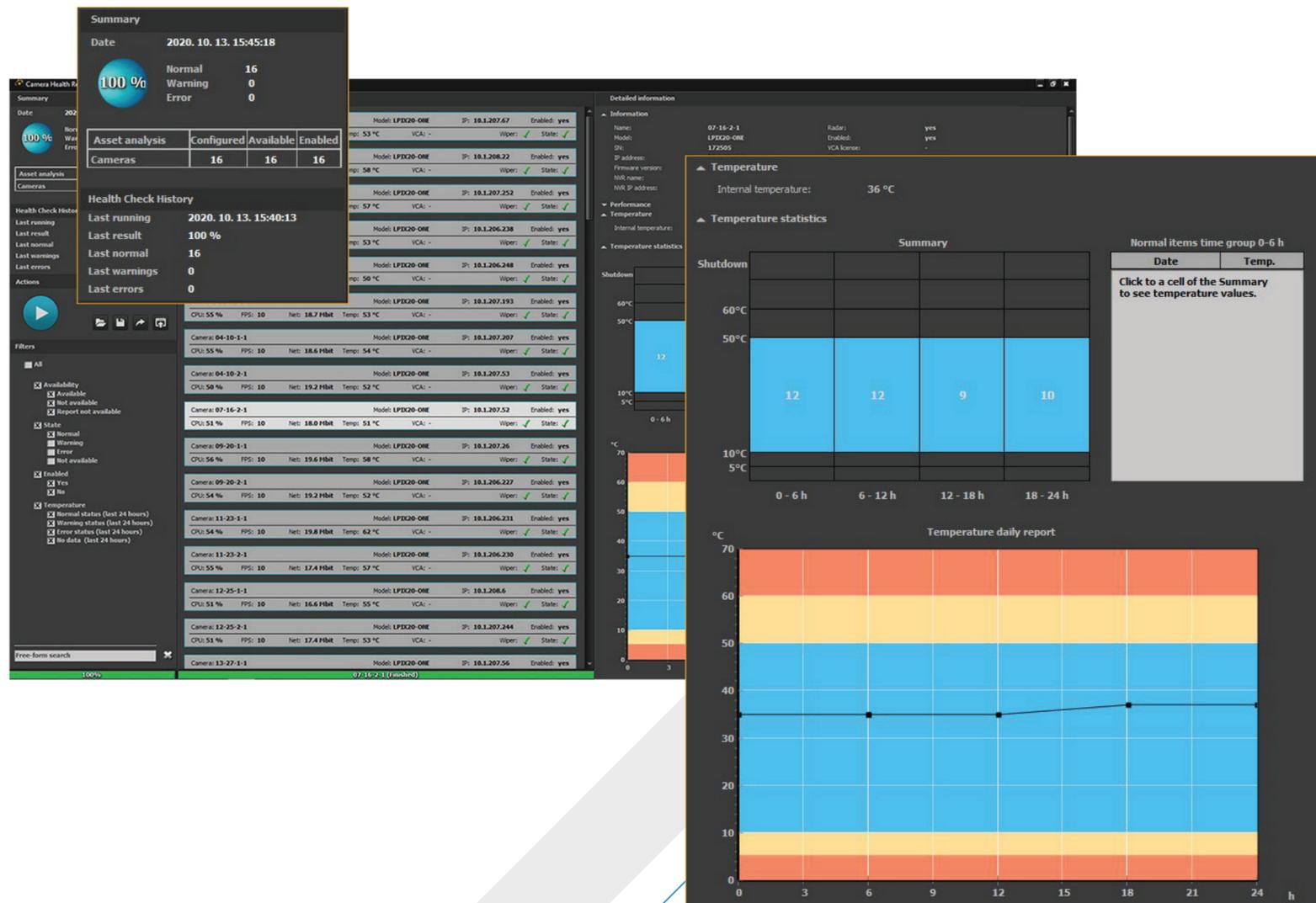
HEALTH REPORT

Health Report is an important tool for checking the system. It is a query-based report that delivers details on the condition of the system components. It reports about potential risks and malfunctions, which helps sort out problems before they generate unexpected down-times in the system.

The report can be queried for different type of components separately. Users get a general system health calculated in percentage, a quick overview listing all

devices with primary condition information and also specific reports on selected components covering every detail regarding their operation.

The module helps realize a more efficient preventive system maintenance. Devices can report normal, warning or error statuses of themselves. In case of warning or error indicators, users can explore the device failure remotely in details and take the appropriate measures to eliminate the problem. Knowing the exact issue with the device helps perform a targeted local maintenance if necessary.



NOTIFICATION CENTER

The Notification Center is an online maintenance module that provides feedback on system and device statuses. Notifications appear real-time during monitoring and the module also logs the statuses and is able to send them to specific email addresses on a regular basis.

At the time of live monitoring a status indicator signs normal or warning system statuses for users. In case of any warning a detailed notification can be displayed immediately that details the device statuses and also contains notes and recommendations to identify the problem.

Using the Notification Center users get early warnings of any device malfunction or operation anomaly, which helps them take effective responses.

The screenshot shows the Notification Log interface. It displays a table of notifications with the following columns: Date, Time, Device, and Message. The data is as follows:

Date	Time	Device	Message
2021.07.22	17:56:04	East_side_pano1	Washer tank is empty. Self-cleaning disabled.
2021.07.22	20:11:17	LNVR15	The NVR is running on UPS.
2021.07.22	20:30:38	North_side_pano1	Washer low on fluid
2021.07.22	23:24:10	LNVR15	Lost connection

SNMP TRAP

The Logipix system components support SNMP Traps. They are able to send alert information through an SNMP server module to external devices real-time when an issue occurs. These traps report the problem immediately for users, who can further investigate the event using the Notification Center or the Health Report.