



Clever Devices
designs and develops
breakthrough solutions
for transit systems
that are proven to
increase efficiency and
reduce operation costs
while improving the
passenger experience.

In the wrong hands, a bus can be stolen for a reckless joyride, leveraged as a retaliation tool by a disgruntled ex-employee or worse, used as a weapon of destruction. **Secure Bus Access** leverages your existing Intelligent Transportation System to prevent unauthorized movement of your buses.

Prohibits Unauthorized Vehicle Operation

Secure Bus Access is an authentication solution that can be enabled as part of your Intelligent Vehicle Network - IVN® - to restrict bus operations only to trained operator personnel through driver pin validation.

Onboard Driver Pin Validation

Drivers are provided with a secure PIN as they report for work. This PIN can be generated by dispatch using CleverWorks® and is generally correlated to the employee badge number. Upon starting the bus, the driver is prompted to enter their badge number and secure PIN on the transit control head. CleverWorks® authenticates the driver and sends a notification through IVN® to the vehicle multiplex system that allows the bus to be moved out of neutral.

Seat Vacancy Switch Prevents Unauthorized Use Mid-Route

Secure Bus Access can also be tied into the seat vacancy switch. When the operator leaves their seat for any reason for a predetermined period of time, a full or soft log off is triggered. This time threshold is configurable and once it has been breached, the transmission is locked and can only be unlocked after the secure PIN is re-entered by the driver.

Locate Vehicle Through CleverCAD®

In the event of an emergency, dispatch or authorized safety personnel can use CleverCAD® to locate the vehicle.



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Communication Technology

With a single point of log-on for operators, the **Transit Control Head (TCH)** provides real-time access to schedule, route and traffic information, on-time performance data, and messages to and from dispatch. This communication technology backbone – via the mobile data terminal (MDT) allows each active vehicle to maintain constant communication with the operator's command center.



Transit Control Head (TCH)

Visit www.cleverdevices.com to learn more about other related products

IVN® Intelligent Vehicle Network



A smart transit system begins with the Clever Devices Intelligent Vehicle Network (IVN). Our advanced technology provides powerful onboard computing and supports the full range of Clever Devices Intelligent Transportation Systems (ITS) solutions

SmartYard® Advanced Depot Management



SmartYard® is an interactive, userfriendly real-time display of the depot and the location of the vehicles within the depot, providing an easy, intuitive view of each individual vehicle and its operational status.

CleverCAD® Computer-Aided Dispatch



CleverCAD (Computer-Aided Dispatch) is a sophisticated technology solution that delivers greater efficiency and security to transit operations by providing dispatchers and supervisors with a clear, real-time picture of the location and status of every in-service vehicle.