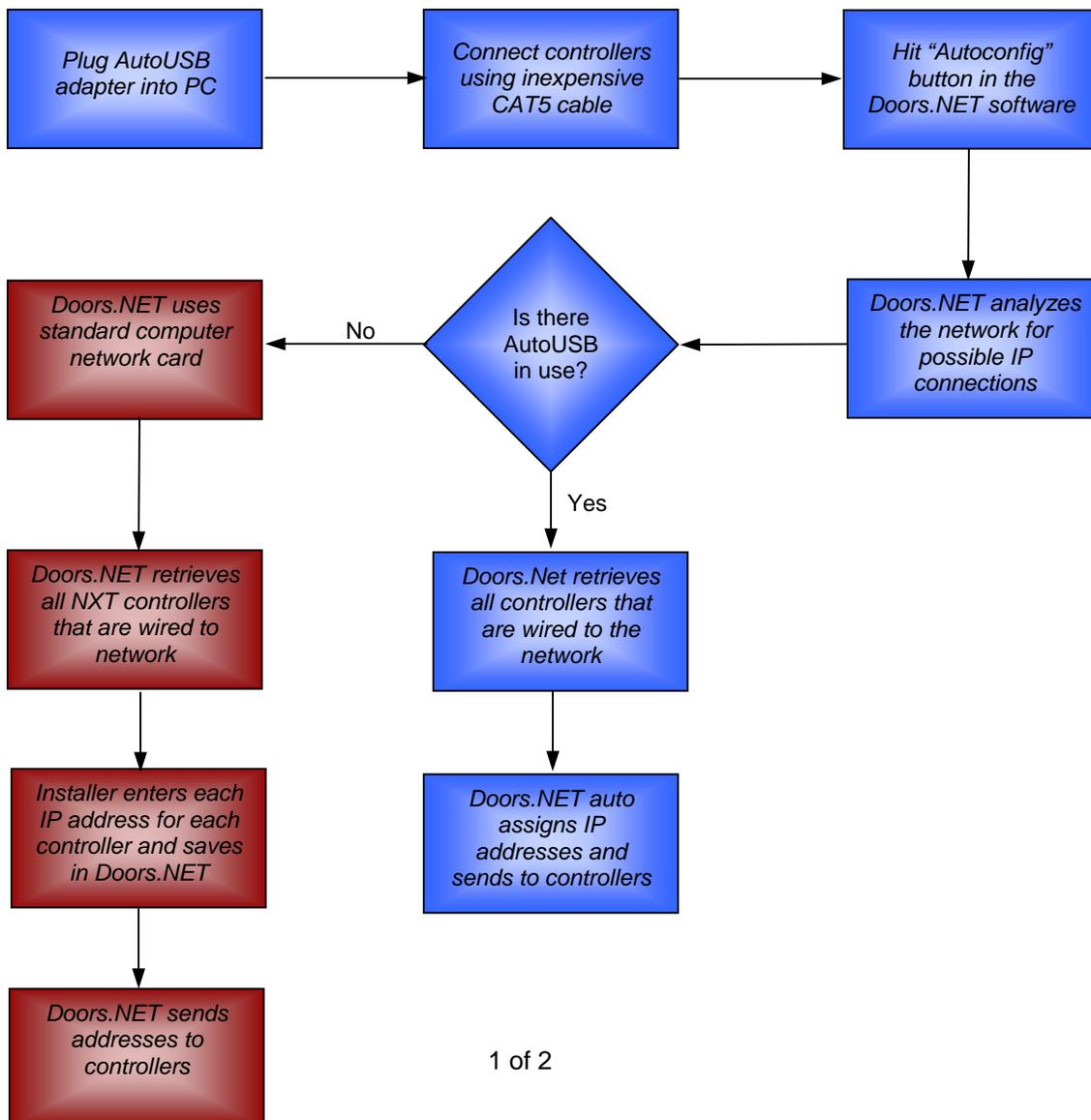## Solutions White Paper – Access Control System Deployed on a TCP/IP Network with Little Installer IT Knowledge and/or Difficult Customer IT Departments

Problem
In 2010, only 20% of security installers consider themselves Ethernet savvy. However, the least expensive cabling costs, fastest systems and most modern and powerful integrations now are designed with IT-based products. Additionally, customer IT departments are involved in more than 50% of the decisions regarding security systems. Many of these same IT departments throw up barriers to installing a security system on a corporate network because of network reliability, security and bandwidth concerns.

Solution
Even though Keri's TCP/IP-based NXT Controller hardware and Doors.NET software is relatively easy to install and commission, Keri has created the AutoUSB Simplified Networking Solution to allow security installers with little knowledge of IT technology to capitalize on the growing trend towards IP security solutions. Utilizing Keri's AutoUSB adapter, the installer plugs into any USB port on the computer. Then utilizing standard CAT5 cable and inexpensive off-the-shelf IP plug-in routers creates a network for the system. The Doors.NET software senses the USB adapter and instead of using the PC's network card, it utilizes the AutoUSB adapter and then auto assigns and saves IP addresses to any of the controllers attached to the newly created network. The system is now operational with no IT information required by the technician or permission from the IT department – truly plug-and-play and network issue-free.

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ Plug AutoUSB    │─────▶│ Connect         │─────▶│ Hit "Autoconfig"│
│ adapter into PC │      │ controllers     │      │ button in the   │
│                 │      │ using inexpensive│      │ Doors.NET       │
│                 │      │ CAT5 cable      │      │ software        │
└─────────────────┘      └─────────────────┘      └─────────────────┘
                                                           │
                                                           ▼
┌─────────────────┐          ◇              ┌─────────────────┐
│ Doors.NET uses  │◀── No ──◇ Is there ◇◀───│ Doors.NET       │
│ standard computer│        ◇ AutoUSB  ◇    │ analyzes the    │
│ network card    │         ◇ in use? ◇     │ network for     │
└─────────────────┘          ◇              │ possible IP     │
         │                   │ Yes          │ connections     │
         │                   ▼              └─────────────────┘
         ▼              ┌─────────────────┐
┌─────────────────┐     │ Doors.Net       │
│ Doors.NET       │     │ retrieves all   │
│ retrieves all   │     │ controllers that│
│ NXT controllers │     │ are wired to the│
│ that are wired  │     │ network         │
│ to network      │     └─────────────────┘
└─────────────────┘              │
         │                       ▼
         ▼              ┌─────────────────┐
┌─────────────────┐     │ Doors.NET auto  │
│ Installer enters│     │ assigns IP      │
│ each IP address │     │ addresses and   │
│ for each        │     │ sends to        │
│ controller and  │     │ controllers     │
│ saves in        │     └─────────────────┘
│ Doors.NET       │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│ Doors.NET sends │
│ addresses to    │
│ controllers     │
└─────────────────┘
```

It's also important to note that even in its most active state, the Keri Doors.NET and NXT hardware use less than 2% of a 100megabit network, which should alleviate any bandwidth concerns of the corporate, IT staff.

Summary
By utilizing standard USB plug-and-play concepts that virtually all installers are familiar with, Keri has removed the biggest hurdle that faces installers who wish to move to the latest generation of products - the knowledge of how to install and configure embedded IP based systems. Installing a powerful, "next generation" access control system is now as simple as plugging in the network cable and hitting an auto-configuration button. No other IP hardware setup or knowledge is required.

Needed Equipment
1) Keri - Doors.NET - Access Control Software
2) Keri – USBA – AutoUSB adapter kit
3) Off-the-shelf IP router (if using more than one controller) and CAT5 cables
4) NXT hardware as needed for Installation