

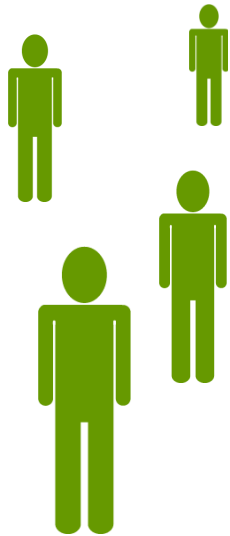
G/OnTM 5



Secure Virtual Access Solution
from Giritech A/S

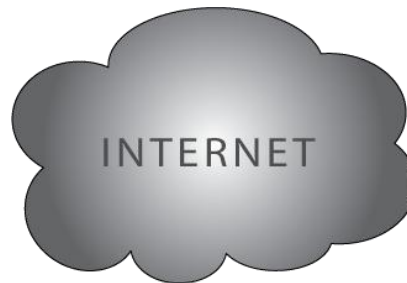
”The problem is making it simple”

for different people



Employees
Telecommuters
Customers
Partners
External Contractors
...

using different devices
in different locations



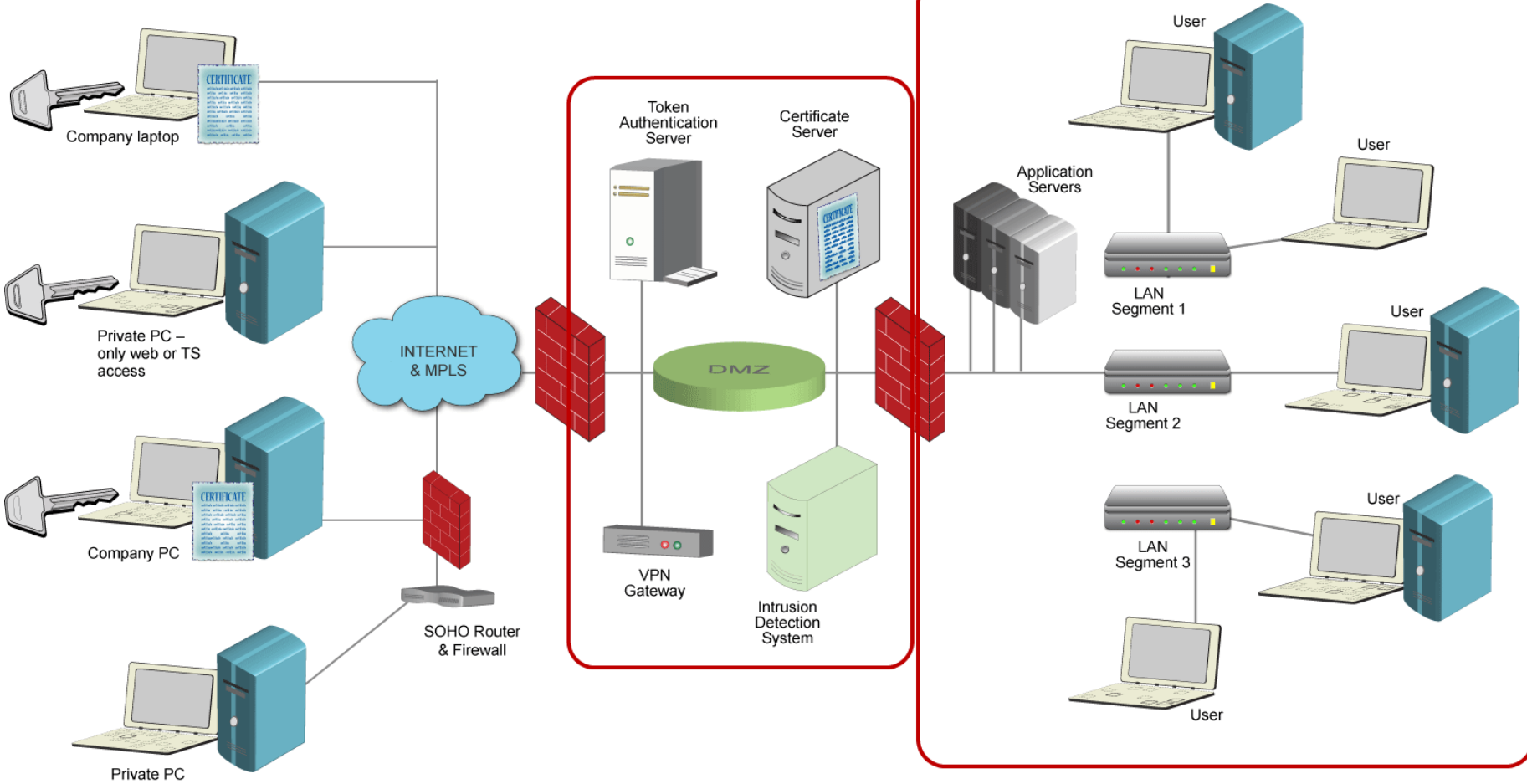
Home PCs
Branch Offices
Partner Offices
Customer Offices
...

to quickly and
securely access
your corporate
applications



My PC Desktop
Terminal Server/Citrix
E-mail
Specific Applications
Intranet
File Shares
...

The VPN IT fortress



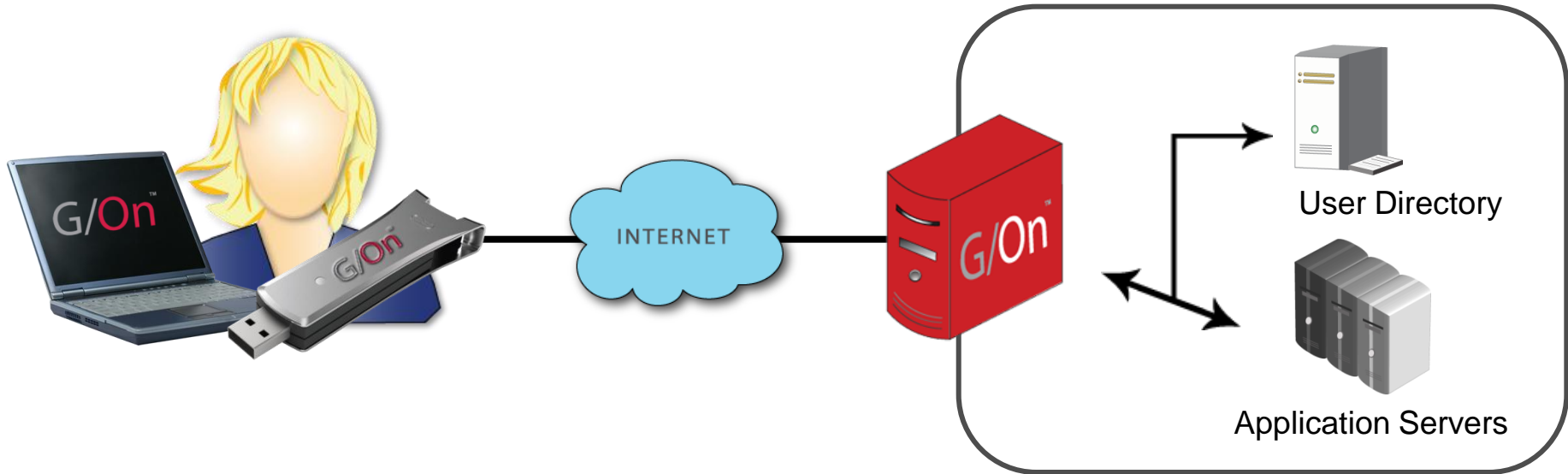
G/On is...

SIMPLICITY!

G/On Secure Virtual Access:

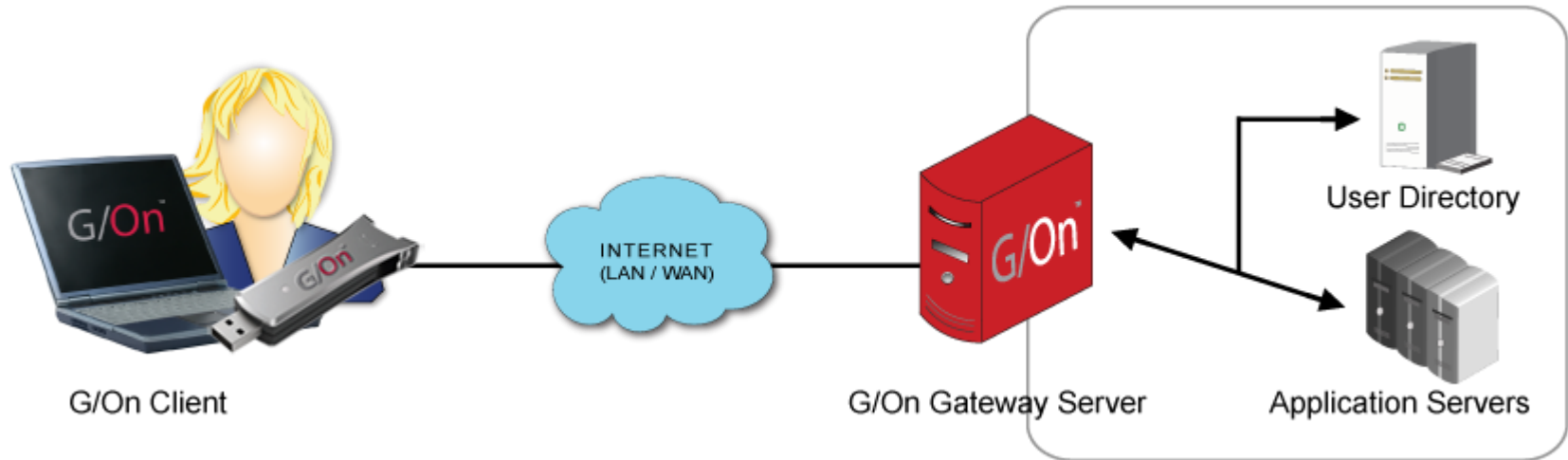
In one
integrated solution
G/On gives
the **right access**
for the **right people**
to the **right applications**
under the **right circumstances**

The G/On Model



- The **G/On Gateway Server** is the only way to access the application servers
- The **G/On Client** provides easy access to the applications

Advantage, Owner Lower Cost



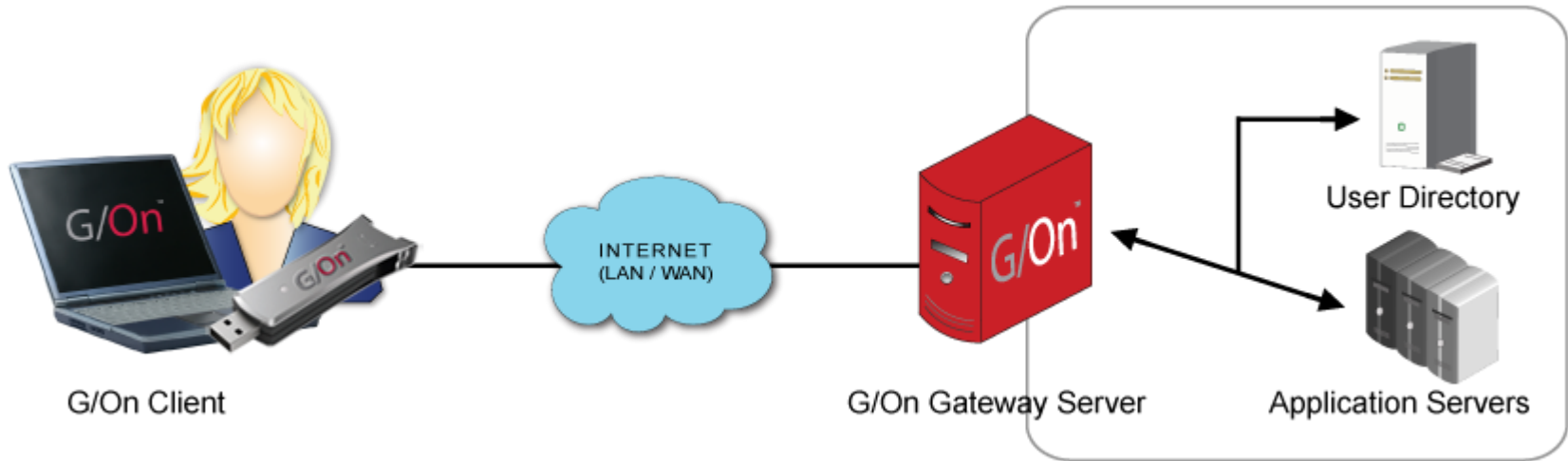
There is no need for:

- Laptops for all users
- End Point Security Management
- Token Security
- Certificate Management
- VPN client
- DMZ (and extra Servers)
- Extra Firewalls
- Intrusion Detection/Prevention
- Time & resources for above



Advantage, User

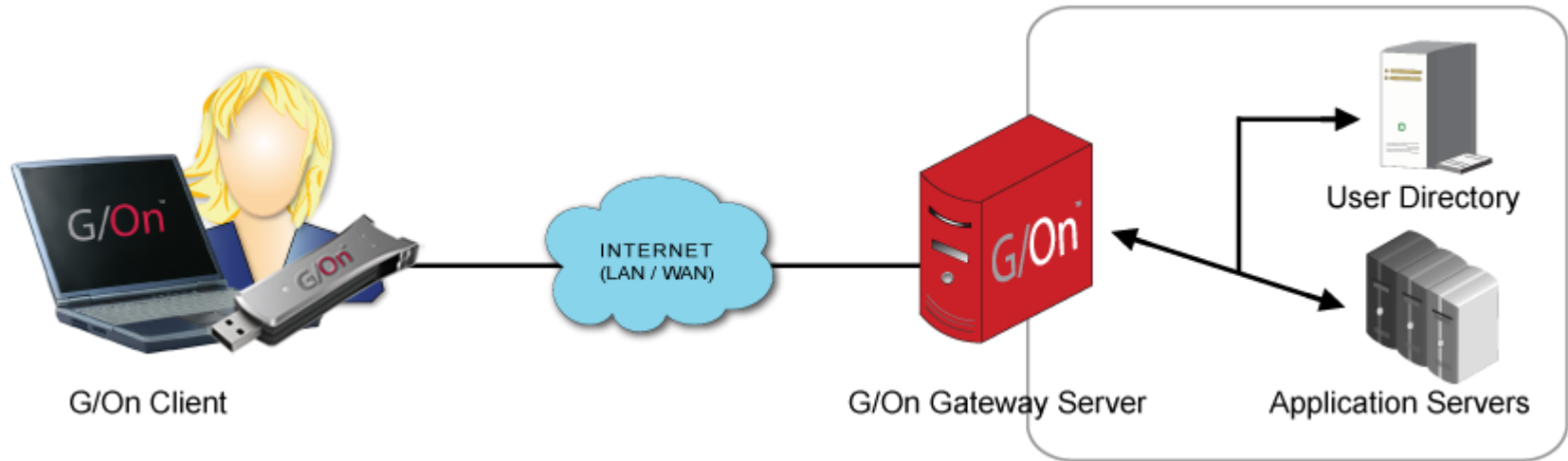
One way to access all applications



- E-Mail
- E-Mail (OWA)
- E-Mail (Local Outlook)
- Internet Explorer - AKO
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- MS Access Business Application
- Full Desktop
- My PC
- About G/On
- Exit

Advantage, Administrator

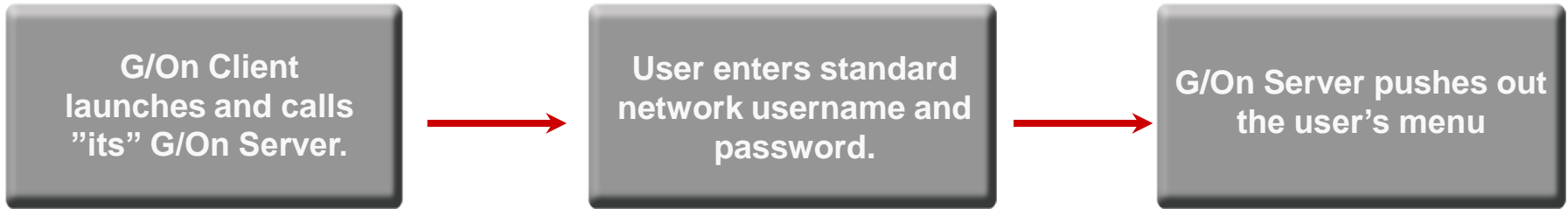
One way to control access to all applications



E-Mail
E-Mail (OWA)
E-Mail (Local Outlook)
Internet Explorer - AKO
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Microsoft Excel
Microsoft PowerPoint
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Exit

- Office PCs/Virtual Desktops
- Server-based computing
 - Citrix/MS TS/VMWare
- FTP File transfer
- Client/Server apps
 - SAP, Dynamics, etc
- Web apps
 - Intranet, Xtranet
 - Doc management
 - Specific apps
- Mail & Collaboration
 - Exchange
 - Notes
- Database Applications

G/On in Action



Just an example.

- E-Mail
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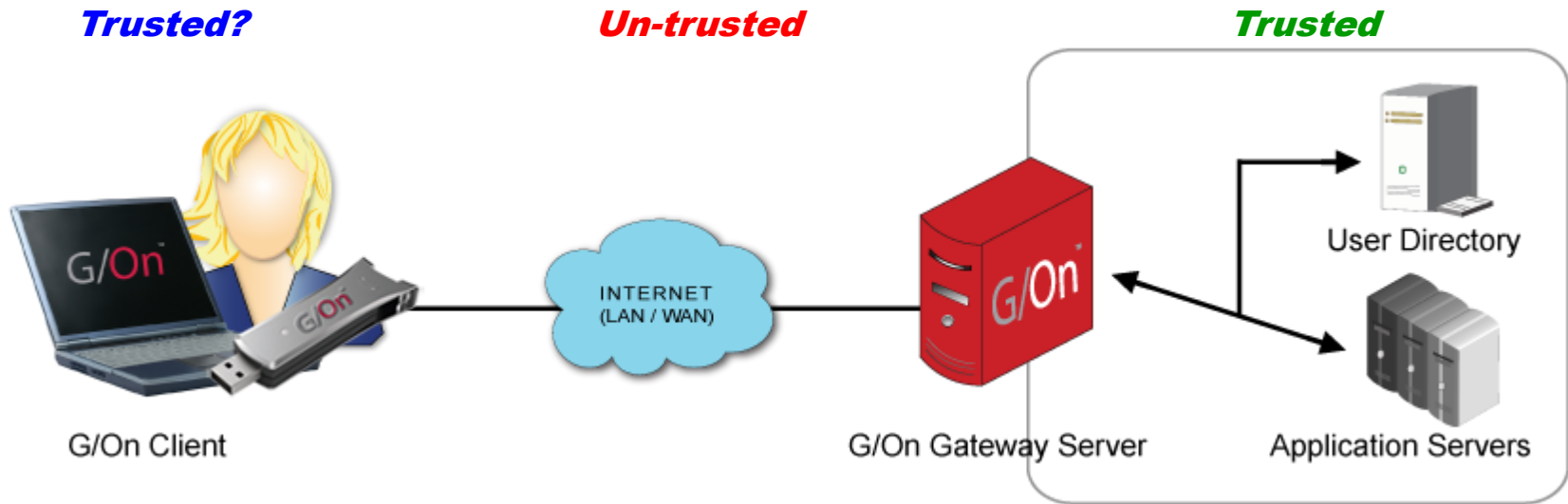
G/On Menu Icon

Contrary to VPNs,
G/On does not make the remote PC part of the
company network.

G/On creates
virtual connections
between users and applications

Advantage, Security

Clear, strong security model



G/On's role:

- Verify id of server
- Provide proofs of user identity
- Forward users request for access
- Use the access granted

Possibility for booting a hardened Linux OS from the USB token

Encrypted communication using state of the art technologies and industry standard methods.

No users on this LAN!

The G/On server is an application level proxy between users and application servers

The G/On Server checks multiple authentication factors to validate user

The G/On Server forwards user's traffic to the right application services – it does *not* connect the PC to the server network.

G/On is *the* single point of management for *all* general policies regarding access to application services.

G/On Authentication Tokens

Method of Authentication



Secure authentication

Challenge/Response protocol

- Industry standard method
- Using public/private key cryptography (RSA keys), like certificates, but without the complexity of X.509 and without the need for Public Key Infrastructure (PKI).
- See http://en.wikipedia.org/wiki/Public-key_cryptography

Types of authentication Tokens:

- **Hardware tokens with smart card**
 - Maximum Strength Authentication
 - Private key generated, stored and kept secret inside hardware
 - Software inside hardware token implements the challenge/response protocol
 - *G/On smart card tokens: No installations, no drivers*
- **Hardware tokens without smart card**
 - Private key generated by user PC and **linked/locked** to PC or device
 - Software on the user PC implements the challenge/response protocol
- **Software tokens**
 - Private key generated by user PC and stored on PC or device
 - Software on the user PC implements the challenge/response protocol

Hardware tokens with smart card

G/On 5 integrates two-factor, mutual authentication

- Smart-card based authentication tokens
- Includes 1GB storage for the G/On Client
- For Windows, Mac, Linux
- No special drivers required



G/On MicroSmart

Available
October
2009



G/On USB MicroSmart



G/On USB SafeSmart

Available
Fall 2010

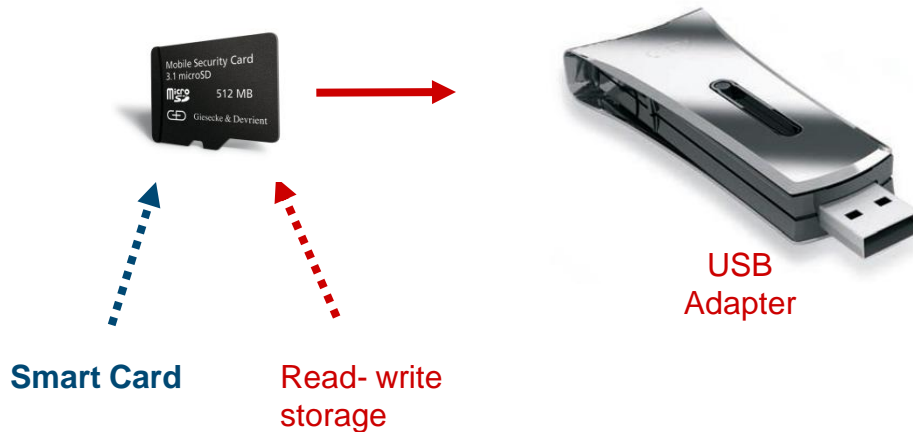


G/On USB MultiSmart

The G/On MicroSmart Token

The **ultra versatile** solution with 2-factor Smart Card Authentication for Windows, Mac and Linux users

This MicroSD with integrated Smart Card for authentication and G/On Client for connectivity provides the most versatile and flexible secure remote access solution in the world!



Hardware tokens without smart card

The G/On USB H3 Token

Token for Windows users with the convenience of a CD drive

Integrated CD-ROM for auto-launch and read-only protection of the G/On software.



Read-only partition



Read-write partition



Hidden storage



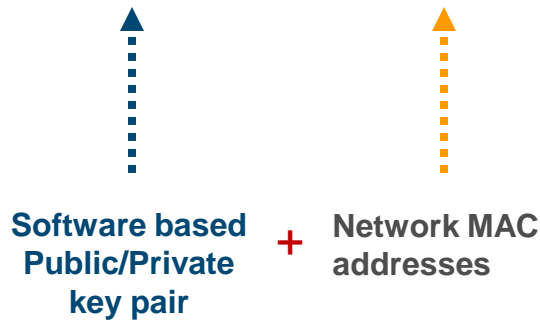
Authentication based on Private key stored in hidden memory and linked to unique ID.

An affordable token for Windows users with the convenience of auto-launch and the read-only protection of the G/On client software.

Availability: March 2010

The G/On Computer User Token

**The convenient solution for users
with personal computers**



**The PC becomes a
hardware authentication
token**



Authentication based on Private key stored in registry combined with network MAC-addresses.

The G/On client, the token and application clients are installed directly on the PC under the user account.

Support for different security policies:

- **Launch of G/On Client from user's USB token**

User plugs in the G/On USB Token and launches the G/On client. CD partition provides auto-launch.

- **Launch of G/On Client installed on user's PC**

User's PC is enrolled as authentication token

- **Boot of PC from user's USB token**

Users can boot a locked down Linux operating system from the G/On USB and **achieve a managed and known environment on an unknown PC**

Boot of PC from G/On USB Token

G/On Secure Desktop

- A new option with G/On 5 (licensing required)
- Turns an unknown PC into a **known** and **managed** device
- Boots from the G/On USB Smart Token
- Loads a G/On specific, hardened Linux operating system
- Can only connect to the corresponding G/On Server
- Provides a Linux desktop
 - Configuration of network connections (Cable/Wireless/Mobile Broadband)
 - Browser (Firefox)
 - Rdesktop for Remote Desktop Access through G/On
 - Citrix ICA client for Citrix access through G/On
 - Filezilla for FTP file upload and download via G/On
 - Access to a minimum set of standard Linux tools
- An ideal, cost effective option for many organizations:
 - With a policy for access from managed devices only
 - Looking for the ultimate secure solution
 - For instance: Military, Police, Banks, Law firms, Accountants, ...

NEW!



...NOW ALSO FOR LINUX

Client Side Features

Help the user behave responsibly, and lower the risk of accidental misuse:

- Support for AD/LDAP password change during G/On login
- Automatic disconnect after period of inactivity
- Closing of connections and programs, when the token is removed
- Closing of connections that are not to be used anymore, when a user closes the application
- Lock-2-Process between application clients and their connections though G/On

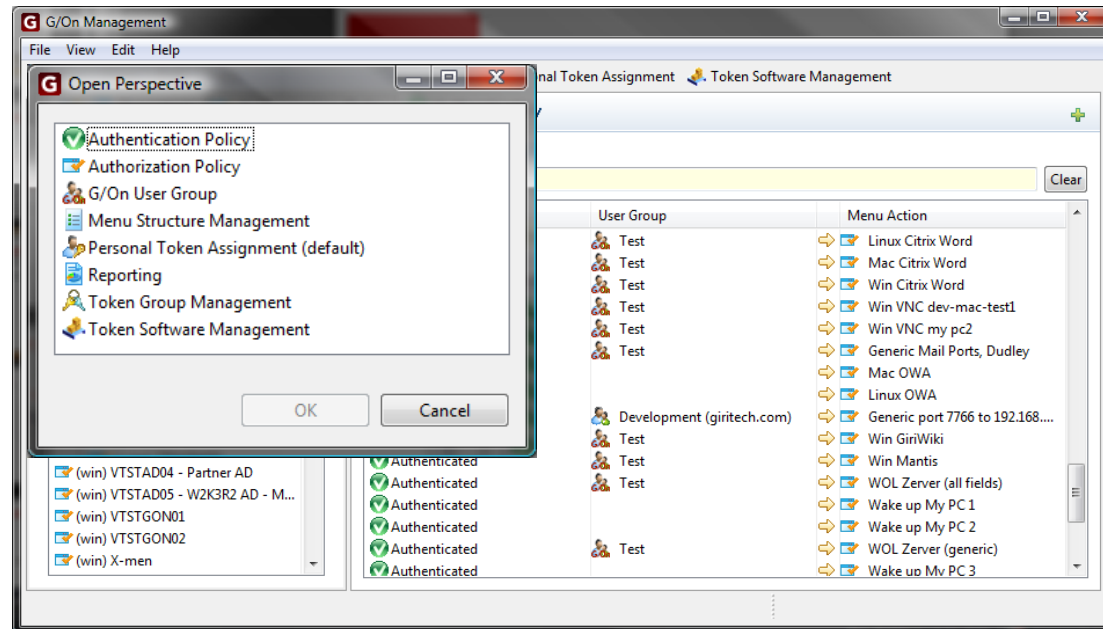
G/On Single Point of Management

A G/On Server consists of

- One or more G/On Gateway Servers
- One G/On Management Server

The G/On Management Server is the central point of management

- Users (based on the User Directory)
- Groups (based on the User Directory)
- G/On Groups
- G/On Tokens
- Authentication Policies
 - Identify users
- Authorization Policies
 - Allowed applications
- Applications
 - Menu Action Templates



The G/On 5 Server knows

- The user, the authentication token, the application and activity

Detailed logging is made available for reporting

- Tools like BIRT (Business Intelligence Reporting Tool)
- Standard reports are available, but new can be added by customer/partner

Standard Reports for

- Activity
- Online status
- Usage
- Errors

The screenshot displays the G/On Management Reporting interface. The window title is 'G/On Management'. The menu bar includes 'File', 'View', and 'Help'. The main menu contains 'Reporting', 'Authorization Policy', 'Authentication Policy', 'Personal Token Assignment', and 'Token Software Management'. The 'Reporting' section is active, showing a 'Report selection' pane on the left with options: 'Amount of Usage', 'Current User Activ...', 'Latest User Activity', and 'Usage Error Log'. The main content area displays the 'Report: Latest User' with the title 'Latest User Activity Report'. The report shows user activity details, including IP addresses, hostnames, and usernames. The first entry is 'Last online 26. oktober 2009 13:48:59 CET' with IP '192.168.45.50:9100', hostname 'oki-c9600.giritech.com:9100', and username '%(user.my_pc_1):3389'. The second entry is 'Online' with IP '192.168.45.50:9100', hostname 'oki-c9600.giritech.com:9100', and username 'dudley.giritech.com:80'. The third entry is '127.0.0.1:1080' with IP '127.0.0.1:1080' and hostname '127.0.0.1:1080'. The interface also includes an 'Export' button in the top right corner.

G/On Solution Scenarios



G/On 5 Solutions (1 of 3)

Working from home

- Using "my home PC" to get to the desktop of "my office PC"
 - And/or get access to virtual desktops, Citrix, Terminal Server, client/server apps
- G/On 5 offers Wake-on-LAN so your office PC can "go-to-sleep"

Continuity of Operations

- G/On scales easily and cost effectively to all employees
- You need to give employees a G/On USB only – not a PC
- All employees will achieve the flexibility and freedom they are looking for

Secure access for external contractors

- External users can use their own PC to connect to specific applications
- Give them a G/On USB and they have access within minutes rather than months
- Reduce complexity and cost significantly

G/On Travel Solutions:

- 1. When you travel without a laptop - use a PC with an Internet connection**
 - In the offices of your customers/vendors/partners
 - In other trusted environments

- 2. When you travel – bring along a small netbook or thin client laptop**
 - Leave the PC "clean" – don't take company data on the road
 - Preferably with a built in 3G modem for a convenient "Internet everywhere"
 - Always use G/On to connect securely to your desktop or other applications
 - Never leave data on the netbook – data may end up in the wrong places
 - If you lose the netbook or the thin client laptop – just get a new one from a local store

- 3. When you travel with your own laptop**
 - Use any Internet connection, or
 - Use built in 3G modem, or
 - Bring your data modem or use your mobile phone as modem
 - You may use G/On MicroSmart in your USB modem or directly in your laptop
 - Synchronize mail with your local Outlook/Notes



G/On 5 Solutions (3 of 3)

Companies requiring known and managed PCs can avoid the cost of laptops

- G/On Secure Desktop is a known and managed Linux operating system
- Provides a "PC on a USB" including G/On secure connectivity
- Cost savings are significant compared to a laptop for all employees

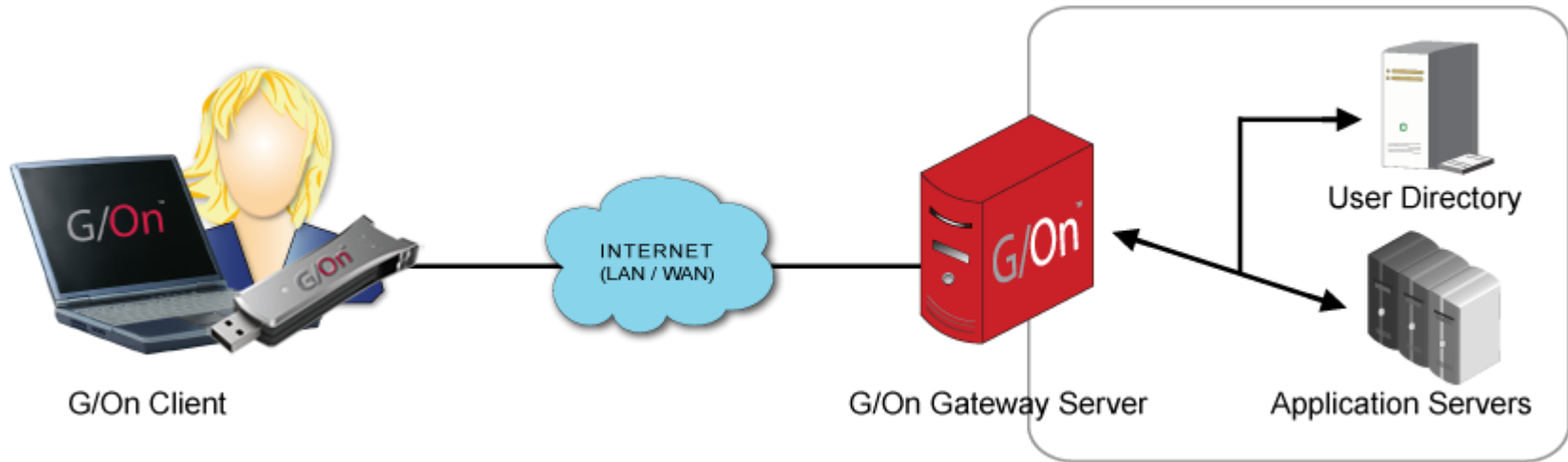
Companies can use G/On to secure the wireless network on their premises

- All connections go through G/On. Only known users will get access
- Users can get access to company applications via the G/On remote access

Students can bring their own PC to school and connect to a wireless network

- All connections go through G/On. Only known users will get access
- Connect students to the Internet through G/On – and let G/On do the logging
- Use G/On to give students access to specific resources on the school network
- Students can bring Windows PCs, Macs and Linux PCs.

G/On Minimum Requirements



- 1) G/On
- 2) Windows Server 2003/2008
- 3) Fixed external IP or DNS name
- 4) One open port in firewall
- 5) Office PC's

The G/On benefits

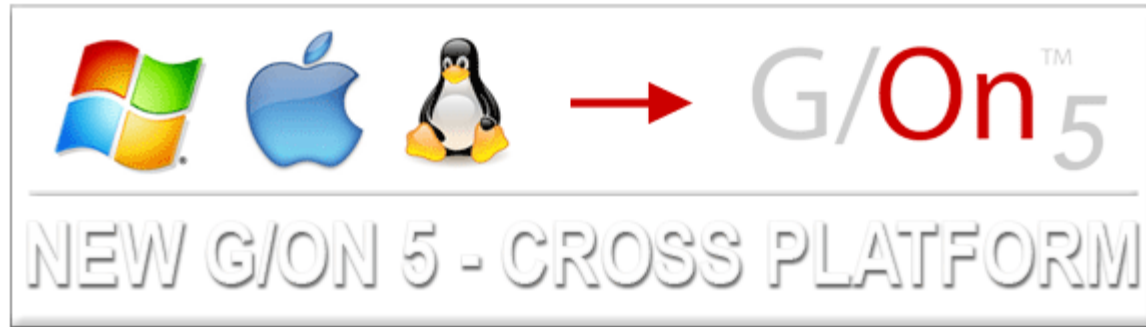
G/On helps our customers improve their business:

- Increase productivity
- Enhance employee satisfaction
- Reduce IT costs
- Improve overall security

For instance:

”Rather than being an expensive VIP offering for the few, our customers extend remote access to *everybody* and experience significant increase in employee productivity, employee satisfaction and enforcement of company security policies”

Thank You



Secure Remote Access

- for Everybody
- for Everything