Setting Up Remote Access to InTouch
Agenda: Setting up Remote Access To InTouch

• User Experience: InTouch AccessAnywhere Demo
• Review: InTouch & Remote Desktop Services
• Setting up InTouch AccessAnywhere
• Security Basics
• New! InTouch Web Client
**Demo: InTouch AccessAnywhere**

**InTouchAccessAnywhere.com**

**InTouch Access Anywhere** is used to extend access to **HMI applications** to **mobile**, **casual** and **non-traditional** users using a wide variety of devices enabled with an HTML5 compliant browser.

- Desktops
- Laptops
- Tablets
- Smart phones
- Smart TVs
- And more!

- Safari
- Google Chrome
- Internet Explorer
- Firefox
- Opera
- And more!
3 Ways a User can Login to a Remote Desktop Services (RDS) Server and Run InTouch

1. From a Windows Desktop: Remote Desktop Connection or RemoteApp

2. From iOS/Android: Remote Desktop “App” from the Apple/Google Store (ie. Microsoft RD Client)

3. From ANY Device! InTouch AccessAnywhere – using a web browser (no App needed)
What is Remote Desktop Services (RDS)?

RDS is a Role that can be installed on the Microsoft Server Operating System (ie. Server 2012/2016)

Allows Multiple Users to Log In to a Server simultaneously and run independent sessions

• Different than “desktop sharing apps” where users “fight over” control of the desktop and mouse and may require the use of a 3rd party service
• In the case of SCADA, multiple users can log in remotely to the same server and run independent sessions of InTouch (even different InTouch Applications)

How is RDS different than Remote Desktop Protocol (RDP) with a Workstation Operating System?

• Workstation Operating Systems (ie. Win7, Win8, Win10) only allow 1 user to be logged in at the same time
• Windows Server Operating Systems allows as many users as you have licenses and resources for (ie. RDS CALs, RAM)
What is Required for InTouch AccessAnywhere?

1. **InTouch & Supervisory Client v2017 Licensing includes ITAA**
   - InTouch v2012 R2 and newer supported, requires InTouch RDS Concurrent license

2. **Windows Server Operating System with RDS Role Installed**
   - Note: Server needs to be a Member of an Active Directory Domain to have RDS Role

3. **Microsoft RDS CALs (Client Access Licenses)**
   - Available as “Named Device” or “Named User”
Installing the RDS Role

Select installation type

Before You Begin
Installation Type
Deployment Type
Deployment Scenario
Role Services
RD Connection Broker
RD Web Access
RD Virtualization Host
Confirmation
Completion

Add Roles and Features Wizard

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

- Role-based or feature-based installation
  Configure a single server by adding roles, role services, and features.

- Remote Desktop Services installation
  Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.
Complete the Installation

NOTE: You are given 120 days to install and activate a Remote Desktop Server and install RDS CALs.

Remote Desktop licensing mode is not configured. Remote Desktop Services will stop working in 120 days. On the RD Connection Broker server, use Server Manager to specify the Remote Desktop licensing mode and the license server.

Restart the destination server automatically if required.
Specify RD Host & User Groups
Install InTouch AccessAnywhere

Wonderware System Platform 2017 Installation

Please select which features you would like installed, and specify the destination folder for the installed files.

The following products and/or components will be installed:

- InTouch Demos (800x600)
- InTouch Supplementary Components
- InTouch Recipe Manager
- InTouch SQL Access
- InTouch 16 PenTrend
- Symbol Factory
- Wonderware Operations Integration - Supervisory Gateway
- OIL GATEWAY
- InTouch Access Anywhere Server
- InTouch Access Anywhere Server
- InTouch Access Anywhere Secure Gateway
- Access Anywhere Secure Gateway
- Historian
- Historian Server
- IDAS
- Active Event
- Configuration Tools
- Historian Extensions
- Historian Server Documentation

InTouch Access Anywhere Server Components used to provide remote access to InTouch applications via a web browser. Includes InTouch Runtime.

Destination Folder

C:\Program Files (x86)

View Install Guide
Allow Windows Firewall Exception
Resolution choices: Fit to browser/Fit to Screen

**FIT TO BROWSER**
Launches a session that matches the viewport of your browser.

**FIT TO SCREEN**
Launches a session that matches the screen of the device, hiding browser menu bars, toolbars, etc.

*Note: InTouch Dynamic Resolution Conversion must be enabled in the node properties for every user at the InTouch Access Anywhere server node*
Dynamically Change Resolution

Node Properties

- Allow WindowViewer to dynamically change resolution
- Dynamic Resolution:
  - Use application resolution
  - Convert to screen video resolution
  - Custom resolution
    - Pixel width (X):
      - 1280
    - Pixel height (Y):
      - 1024

Display

- Acceleration / Quality:
  - Very Fast / Good Quality (Recommended)

- Screen resolution:
  - Fit to browser window

- Display options:
  - Fit to browser window

- Enable click animation
- Use client time zone
- Open browser links on client (URL redirection)
Demo: Using InTouch AccessAnywhere

1. RDP (Remote Desktop) into the Server and Start InTouch (only required once for the initial setup)

2. Disconnect RDP Session and then Browse to the ITAA Web Page from any HTML5 Browser
   Default Webpage: http://<servername>:8080

3. Select InTouch Application, Enter Username & Password, Click Connect
Remote Access Security Basics

- A **Virtual Private Network (VPN)** can provide a secure network connection (i.e. over the Internet) to connect remote users to their company’s private, internal network.

- A **Firewall** is a network security device that monitors incoming and outgoing network traffic and decides whether to allow or block traffic based on your security rules.

- **Many Firewalls can also act as a VPN termination device**.

- **When accessing a Secure Web Page**, HTTPS and an SSL Certificate can be used to encrypt HTTP traffic, to ensure traffic cannot be listened in on or changed, and to verify the identity of a remote server.
Security Basics: Firewall & Virtual Private Network (VPN)
Security
A. OS security is used to start a session. User provides his/her Windows Username and Password.
B. Communications between server and client take place using Web Sockets over HTTP or Secure HTTP (HTTPS).
C. By default, the client (browser) connects to the InTouch Access Anywhere Server using port 8080. This port is can be changed in the configuration.
D. InTouch Access Anywhere supports strong SSL encryption.
E. By default InTouch Access Anywhere uses the same security settings as Microsoft RDP. If Microsoft RDP is encrypted, then InTouch Access Anywhere will be encrypted.
F. When using the Secure Gateway, the connection between InTouch Access Anywhere browser client and the Secure Gateway is always secured.
ITAA Secure Gateway Example
# InTouch Web Client

<table>
<thead>
<tr>
<th>InTouch Access Anywhere</th>
<th>InTouch Web Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provides <strong>Full Access</strong> to InTouch Applications</td>
<td>• Provides <strong>Access to selected HMI graphics</strong> for awareness purposes</td>
</tr>
<tr>
<td>• HTML5</td>
<td>• HTML5</td>
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<tr>
<td>• RDS based</td>
<td>• Web server based</td>
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<tr>
<td>• Server Microsoft OS versions</td>
<td>• Server or Client Microsoft OS versions</td>
</tr>
<tr>
<td>• Read Write or Read Only</td>
<td>• <strong>Read Only</strong></td>
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*ASB/iData communications provides product convergence*
Summary: Setting Up Remote Access to InTouch

- InTouch AccessAnywhere is included with InTouch v2017, supported back to v2012 R2
- Provides Access to InTouch from ANY Device via HTML5 Web Browser
- Leverages Microsoft Remote Desktop Services (RDS)
- Use a Firewall/VPN to Secure Your Plant Network and Remote Access
Entry Level SCADA with InTouch Machine Edition

Maury Beck
Director – Wonderware California
InTouch Machine Edition Introduction

• Who is it for?

• Need to get started with SCADA, HMI and/or Operator Panels
• Need results fast
• Want an open platform not tied to a single hardware vendor
• Want local support you can call now
• Need the ability to grow when needed
• Worried about staying within your budget
Water/Wastewater Example Architecture

Control Room Workstation
InTouch Machine Edition
Development/Runtime
Data Logging
PLC Connectivity

Phones, Tablets & Laptops

Supervisor Desktops & Operator Workstations

Touch Panels

PLCs

RTUs
Manufacturing Example Architecture

Control Room Workstation

- InTouch Machine Edition
- Development/Runtime
- Data Logging
- PLC Connectivity

Phones, Tablets & Laptops

TV Dashboards

PLC

Supervisor Desktops & Operator Workstations

Touch Panels
Native Thin Client Solutions

Web Clients – HTML5
- Platforms: Agnostic
- Host: Web Browser agnostic
- Technology: HTML5

Desktop Thin Clients
- Platforms: Windows
- Host: Secure Viewer (executable)
- Technology: ActiveX
**Easy-to-configure** interface to Wonderware Historian & WW Online, or any SQL Relational Database: SQL Server, MySQL, MS Access, Excel, etc

Interface via **standard technologies**:
- ADO.NET, ADO, OLE-DB, and ODBC

Built In Data Logging – Works with Any Database

- **Redundancy** and **Store-and-forward** built-in features
- **Alarm** history, **Event** history, **Trend** history, **Process** data, **OEE** dashboards, and more.
Import PLC Tags from Allen Bradley, Modicon, Siemens & more

- Improves efficiency when designing and maintaining applications.

- Evolving list of data sources supported, including:
  - TwinCAT (Beckhoff)
  - CodeSys (3S)
  - RSLinx 5000 Family (Rockwell)
  - Allen-Bradley PLC5, SLC500 (Rockwell)
  - AutomationDirect Koyo (AD)
  - AutomationDirect PAC 3000 (AD)
  - Schneider Unity Modbus (Schneider-Electric)
  - Siemens S7-1500
Import Wizard for FactoryTalk™ ME/SE, PanelView & PanelMate
InTouch Machine Edition System Example

- **InTouch Machine Ed. Runtime 1k Tags**
  - Cost: $2,005
  - Part Number: ITMER-02-N-17

  Includes:
  - Full Runtime + 1 Concurrent Web/Thin Client
  - Connect to any PLC
  - Data Logging & Trending
  - Alarming & Email/Text Notification

- **Additional Concurrent Web Client**
  - Cost: $625
  - Part Number: ITMETC-02-N

- **Development**
  - Cost: $1,085
  - Part Number: ITMED-01-N-17U
Thank you!

Request Your Free Demo Today
Email: sales@california.wonderware.com