What is Remote Access Link (RAL)?
Remote Access Link is a service that provides a customer’s control system with a remote connection to ABB system and process experts. There are two options to enable connectivity:
- ABB’s secure Remote Access Platform (RAP)
- Customer provided SECURE VPN solution, secured through virtualization with “snap-back” software

Are there any problems associated with a customer provided UNSECURE VPN?
There are several, serious risks to security:
- The verification procedure of users accessing the connection may not be determined, controlled, or maintained by the customer
- If the control system servers or the Field Service Engineer’s (FSE) laptop do not have the current operating system security patches and/or antivirus definitions installed, there may be a risk of virus infection
- This solution doesn’t include virtualization with “snap-back” software to help prevent the spread of viruses across networks.

How does ABB help secure a customer provided VPN solution?
- Ensuring a single secure point of connection into the customers system
- Multi-level authentication
- Manage customer requests
- Snap-back software used to reduce the spread of viruses
- Ensure that the single point of contact is up to the latest software and virus scanner.

How does ABB RAP compare to a customer provided SECURE VPN solution?
<table>
<thead>
<tr>
<th>ABB RAP</th>
<th>SECURE VPN</th>
</tr>
</thead>
<tbody>
<tr>
<td>System operator can control and disable connection instantly</td>
<td>Controlling/disabling connection requires network IT support</td>
</tr>
<tr>
<td>Connection health monitored by ABB</td>
<td>Connection health monitored by customer</td>
</tr>
<tr>
<td>Provides granular access to customer network</td>
<td>Typically provides full access to customer network</td>
</tr>
<tr>
<td>Audit trail logged in Virtual Support Engineer (VSE)</td>
<td>Audit trail potentially unavailable</td>
</tr>
<tr>
<td>Low cost</td>
<td>High cost</td>
</tr>
<tr>
<td>Fast connection speed due to direct connection</td>
<td>Speed determined by multiple networks and hops</td>
</tr>
</tbody>
</table>

How can the customer control security of the ABB RAP software?
With the ABB RAP solution, the VSE is installed on the client machine in the customer network, where security can be controlled by the customer. The customer may configure the VSE to approve or deny remote access, and to log an audit trail.

How are users granted or restricted access to customer’s connection through ABB RAP?
ABB RAP customers specify the individuals on their side who are authorized to grant access to their site. The customer can also decide which ABB Engineers/Groups are allowed to use the remote connection.
How many users can remotely connect through one ABB RAP tunnel to the customer's site?
A total of 3 ABB users can remotely connect through RAP and work independently. Using Virtual Network Computing (VNC), up to 5 users can access a site for demo purposes; however, they must share the mouse and keyboard. Using Microsoft Remote Desktop (RDP), 2 additional ABB experts can connect but must have different user accounts.

What firewall changes does the customer's IT department need to make for ABB RAP to work properly?
The customer network firewall needs to have port 443 open "outbound" to two predefined IP addresses to allow for connection to the ABB communications server. This is a widely accepted method of secure communication.

What are the layers of authentication for ABB RAP?
- Layer 1: Application and database servers residing in DB DMZ
- Layer 2: Communication server residing in Web DMZ (accessible from Internet)
- Layer 3: VSE residing at client's facility (behind firewalls)
- Layer 4: Logical devices monitored by VSE

Is the information secure, when being transferred between customer's system and ABB?
Yes. All communications utilize the Secure Socket Layer (SSL) protocol, a global standard in security protocols, and a widely accepted method of secure communication.

What are the minimum system requirements for RAP?
- CPU: Pentium III+
- Memory: At least 1 GB
- Connectivity: Internet Access or port 443 open through firewall
- Hardware: No additional hardware is required, software can be installed on existing machine