

Welch Allyn Connex[®] Network installation

Cisco best practices addendum



Advancing Frontline Care™

© 2014 Welch Allyn. All rights are reserved. To support the intended use of the product described in this publication, the purchaser of the product is permitted to copy this publication, for internal distribution only, from the media provided by Welch Allyn. No other use, reproduction, or distribution of this publication, or any part of it, is permitted without written permission from Welch Allyn

Welch Allyn assumes no responsibility for any injury to anyone, or for any illegal or improper use of the product, that may result from failure to use this product in accordance with the instructions, cautions, warnings, or statement of intended use published in this manual.

For patent information, please visit www.welchallyn.com/patents.

For information about any Welch Allyn product, or to contact your nearest Welch Allyn representative, go to www.welchallyn.com/about/company/locations.htm.

Manual DIR 80018297 Ver C



Welch Allyn, Inc.
4341 State Street Road
Skaneateles Falls, NY 13153 USA

www.welchallyn.com



WelchAllyn®

Contents

1 - Introduction	1
About this document	1
Systems overview	1
2 - Best practices.	3
Required network settings and configurations	3
Recommended network best practices	4

1

Introduction

About this document

This document lists required, recommended, and basic settings and configurations for Cisco networks using Welch Allyn medical devices and systems.

The best practices described in this document extend or amend the general best practices described in Welch Allyn Connex®, VitalsLink by Cerner, and Connex CSK Network installation. To view that document, go to <http://www.welchallyn.com/en/other/network-installation-best-practices.html>, and click on the “Welch Allyn Connex Network Installation Best Practices Overview” link.

2

Best practices

Required network settings and configurations

These configurations and settings are required to establish a durable connection between Welch Allyn devices and the wireless network. Failure to comply with these requirements will result in a failure to connect to the network, repeated disconnects or extended loss of telemetry data.

Best practice	Affected types	Without best practice
SSID/WLAN settings Advanced: <ul style="list-style-type: none">• Enable Session Timeout = Disabled	Wireless	Loss of connection and data, patient monitor will repeatedly disconnect.
Load Balancing and Band Select: <ul style="list-style-type: none">• Client Load Balancing = Disabled• Client Band Select = Disabled	Wireless	Both Load Balancing and Band Select will set limits on the number of clients allowed on a AP. If this limit is exceeded, the AP will refuse new association requests or will proactively deauthorize clients in an attempt to steer them to a different AP or radio band. In both cases loss of connection and patient data can occur.

Recommended network best practices

The best practices and configuration settings listed in the following table are specific to this vendor, and are recommended for the best performance. Increased data packet loss or occasional disconnects are likely if these recommendations are not followed.

Best practice	Affected types	Without best practice
Controller Controller (CLI) <ul style="list-style-type: none"> EAPOL Key timeout: change default 1000 to 3000 by using the following command: <code>config advanced eap eapol-key-timeout 3000</code> 	Wireless	Loss of connection and data.
Firmware version Use Welch-Allyn validated versions of the Cisco Operating System: <ul style="list-style-type: none"> 6.0.202.0 7.0.116.0 7.0.220.0 7.2.110.0 7.4.110.0 8.0.100.0 	Wireless	Using non-validated firmware may cause data loss.
Hardware supported Controllers <ul style="list-style-type: none"> WiSM1 and 4400 series WiSM2 and 5500 series APs <ul style="list-style-type: none"> 1230ag 1131ag 1240ag 1142n 1252n 2602 3502 3602 3702 	Wired, wireless	Using non-validated hardware may cause data loss.
Radio Resource Manager (RRM) Settings Enabled (default) <ul style="list-style-type: none"> Customers should ensure AP transmit power and channelization is optimized on VLANs used by Welch Allyn. Cisco recommends enabling RRM. Optimal range should be 11 – 17 dBm. 	Wired, wireless	Increased data loss for patient data.
SSID/WLAN settings Quality of Service (QoS) <ul style="list-style-type: none"> Platinum (voice) Off Channel Scanning Defer: <ul style="list-style-type: none"> Scan Defer Priority = Enable only 6 and 7 Scan Defer Time (msecs) = 2500 	Wireless	Loss of connection and data.