SMART Room Systems™ with Skype® for Business

usage reporting & proactive monitoring: Quality status details

GUIDE

FOR SMART ROOM SYSTEMS™ WITH SKYPE® FOR BUSINESS

NOTE

This documentation has been updated to support Microsoft's transition from Lync® to Skype® for Business software. Most references to Lync have been removed and replaced with Skype for Business, however the following information is still applicable to SMART room systems running Lync software.

Product registration

If you register your SMART product, we'll notify you of new features and software upgrades.

Register online at smarttech.com/registration.

Introduction to SMART View quality status
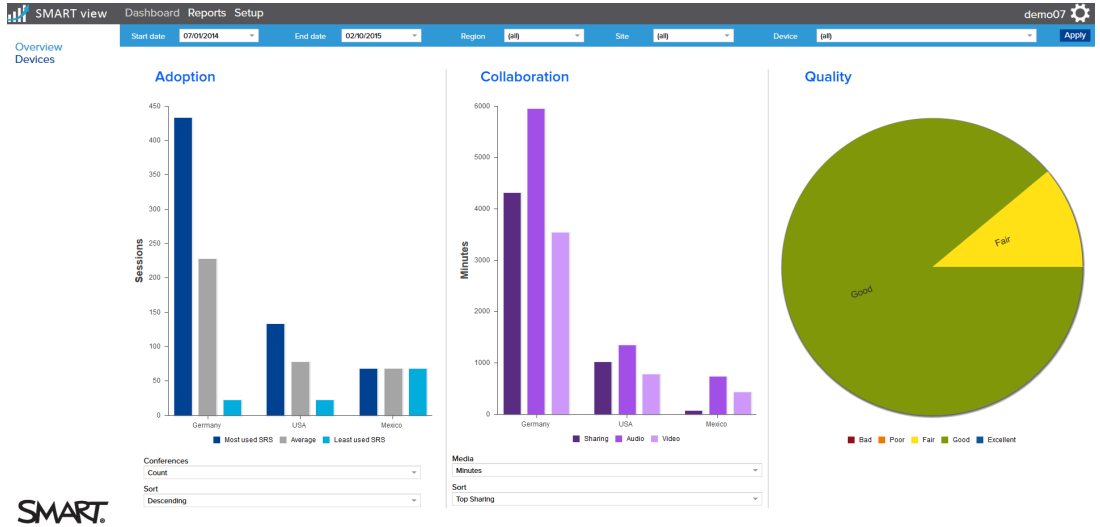
SMART View is a portal that presents the information captured by SMART Usage Reporting and Proactive Monitoring services to ensure reliable collaboration. The portal provides information about the status of the audio, video and sharing streams. This document describes the metrics used to measure the quality of those streams.

Quality Chart

Quality

■ Bad   ■ Poor   ■ Fair   ■ Good   ■ Excellent
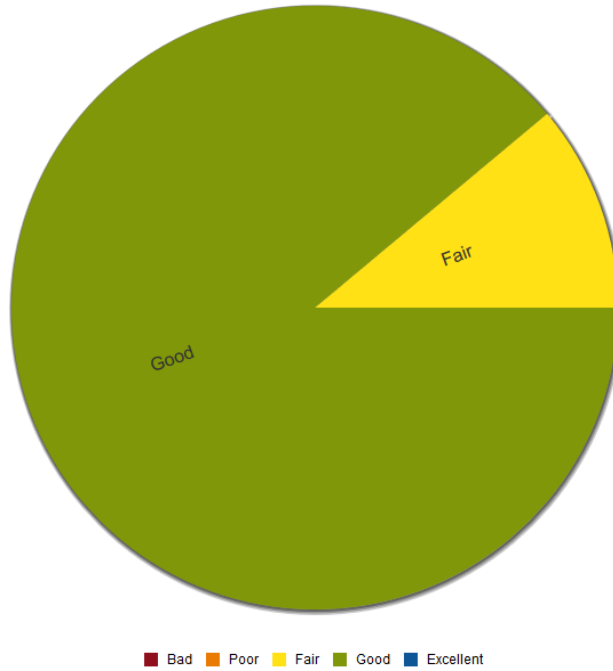
The Quality chart shows the overall quality status of the SMART Room System™ with Skype® for Business calls. This chart is based on the audio stream's Mean Opinion Score (MOS) value.

The colors in the Quality chart indicate the following qualities and MOS values:

Color	Quality	MOS value
Gray	Missing information	n/a
Red	Bad	≤ 1
Orange	Poor	1–2
Yellow	Fair	2–3
Green	Good	3–4
Blue	Excellent	4–5

Device dashboard

SMART Room's last Sessions Status

SRS Status:	● Good	● Poor	● No Data

NMOS:	● Excellent	● Good	● Fair	● Poor	● Bad	● No Data

SRS	SRS Status	Audio	Video	Sharing	Last Session Time	NMOS
Munich SRS	●	●	●	●	01/29/2015 10:40 am	●
Cologne SRS	●	●	●	●	01/28/2015 2:53 pm	●
Mexico SRS	●	●	●	●	01/27/2015 10:53 pm	●
Irvine SRS	●	●	●	●	01/26/2015 8:14 pm	●
Seattle SRS	●	●	●	●	11/06/2014 10:51 am	●
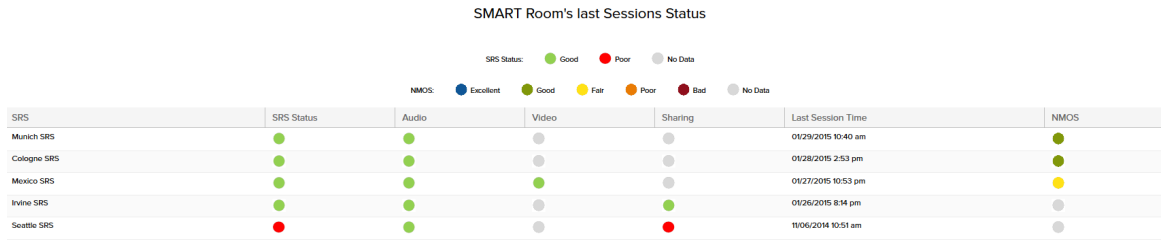
The Device Dashboard shows the status of the most recent session for each SMART Room System (SRS). The *SRS Status*, *Audio*, *Video*, and *Sharing* columns represent the dedicated SRS streams from one media endpoint to another. The *NMOS* column shows the overall conversational quality.

SRS Status

The SRS Status is based on the following Skype for Business monitoring database values:

Skype for Business database	Description	Condition
PacketLossRate	The average packet loss rate during the call.	> 0.1
DegradationAvg	The Network Mean Opinion Score (NMOS) degradation for the whole call. Range is from 0.0 to 5.0. This metric shows the reduction of the NMOS was reduced due to jitter and packet loss. For acceptable quality, the degradation average should be less than 0.5.	> 1.0
RoundTrip	The round-trip time (in milliseconds) from Real Time Control Protocol (RTCP) statistics. For acceptable quality, this should be less than 100ms.	> 500
JitterInterArrival	The average network jitter from RTCP statistics.	> 30
RatioConcealedSamplesAvg	The average ratio of concealed samples generated by audio healing to typical samples.	> 0.07

The SRS status colors represent the following qualities and database values:

Color	Quality	Value
Gray	Missing information	n/a
Red	Bad	One or more of the conditions have been met
Green	Good	No conditions met

Audio

The Audio status is based on the following Skype for Business monitoring database values:

Skype for Business database	Description	Condition
DegradationAvg	The NMOS Degradation for the whole call. This metric shows the reduction of the NMOS due to jitter and packet loss.	> 1.0
RoundTrip	Round-trip time (in milliseconds) from RCTP statistics. For acceptable quality, this should be less than 100ms.	> 500
PacketLossRate	The average packet loss rate during the call.	> 0.1
JitterInterArrival	The average network jitter during the call.	> 30
RatioConcealedSamplesAvg	The average ratio of concealed samples generated by audio healing to typical samples.	> 0.07

The Audio status colors represent the following qualities and values:

Color	Quality	Value
Gray	Missing information	n/a
Red	Bad	One or more of the conditions have been met
Green	Good	No conditions met

Video

The Video status is based on the following Skype for Business monitoring database values:

Skype for Business database	Description	Condition
VideoPostFECPLR	The packet loss rate after the application of forward error correction.	> 0.1
VideoLocalFrameLossPercentageAvg	The percentage of total video frames that are lost.	> 10
RecvFrameRateAverage	The average video frame rate used by the receiver.	< 7
LowFrameRateCallPercent	The percentage of the call below the low frame rate threshold.	> 10
VideoPacketLossRate	The video packet loss rate.	> 0.1

Skype for Business database	Description	Condition
InboundVideoFrameRateAvg	The average video frame rate received during the call.	< 7
OutboundVideoFrameRateAvg	The average video frame rate sent during the call.	< 7
DynamicCapabilityPercent	The percentage of the call in which the client experienced high Central Processing Unit (CPU) load during video processing.	> 10

The Video status colors represent the following qualities and values:

Color	Quality	Value
Gray	Missing information	n/a
Red	Bad	One or more of the conditions have been met
Green	Good	No conditions met

Sharing

The Sharing status is based on the following Skype for Business monitoring database values:

Skype for Business database	Description	Condition
SpoiledTilePercentTotal	The percentage of the shared content that did not reach the audience. Content may be discarded (or spoiled) when the sharer discards tiles from the graphics source or when the ASMCU tiles discards tiles from sharer.	> 36
RDPTileProcessingLatencyAverage	The acceptable value of the average Remote Desktop Protocol (RDP) tile processing latency in the AS Conferencing Server over the duration of the viewing session.	> 400
RelativeOneWayAverage	The optimal value for the relative one-way delay between the two media endpoints involved in the application sharing. This is a single-hop latency measure.	> 1.75

The Sharing status colors represent the following qualities and values:

Color	Quality	Value
Gray	Missing information	n/a

Color	Quality	Value
Red	Bad	One or more of the conditions have been met
Green	Good	No conditions met

Network Mean Opinion Score (NMOS)

The NMOS shows the overall conversational Network MOS value which includes all the participants in a session.

Color	Quality	MOS value
Gray	Missing information	n/a
Red	Bad	≤ 1
Orange	Poor	1–2
Yellow	Fair	2–3
Green	Good	3–4
Blue	Excellent	≥ 4