Anritsu envision:ensure

Site Over Remote Access (SORA)
MX109020A
Measuring Instrument Remote Control Solution

Network Master Pro
MT1000A/MT1040A

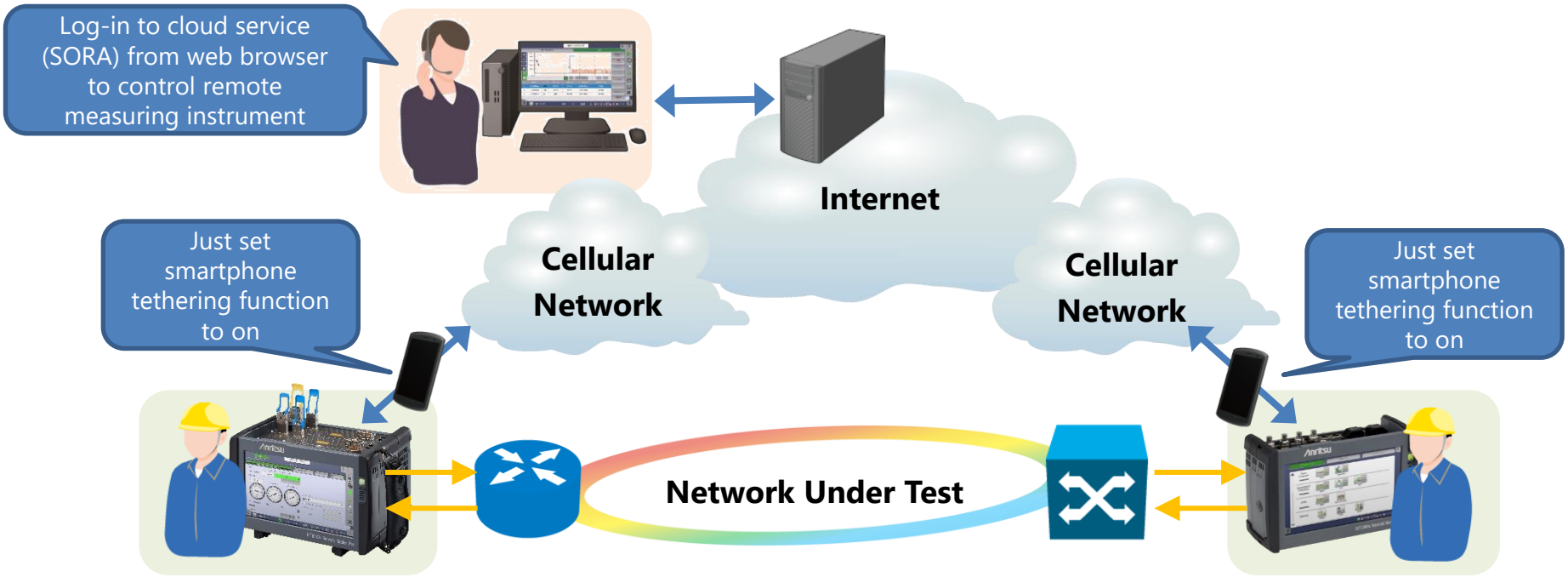
- **Introduction to Site Over Remote Access (SORA)**
- From SORA Product Purchase to Usage
- Q&A

Introduction to Site Over Remote Access (SORA)

Easy Connections Anywhere Using SORA

Using the MX109020A Site Over Remote Access (SORA hereafter) software measuring instruments can be remotely controlled easily anywhere.

The SORA cloud-based service allows office users to log-in to an Internet webpage to control the measuring instrument from the office via a smartphone.



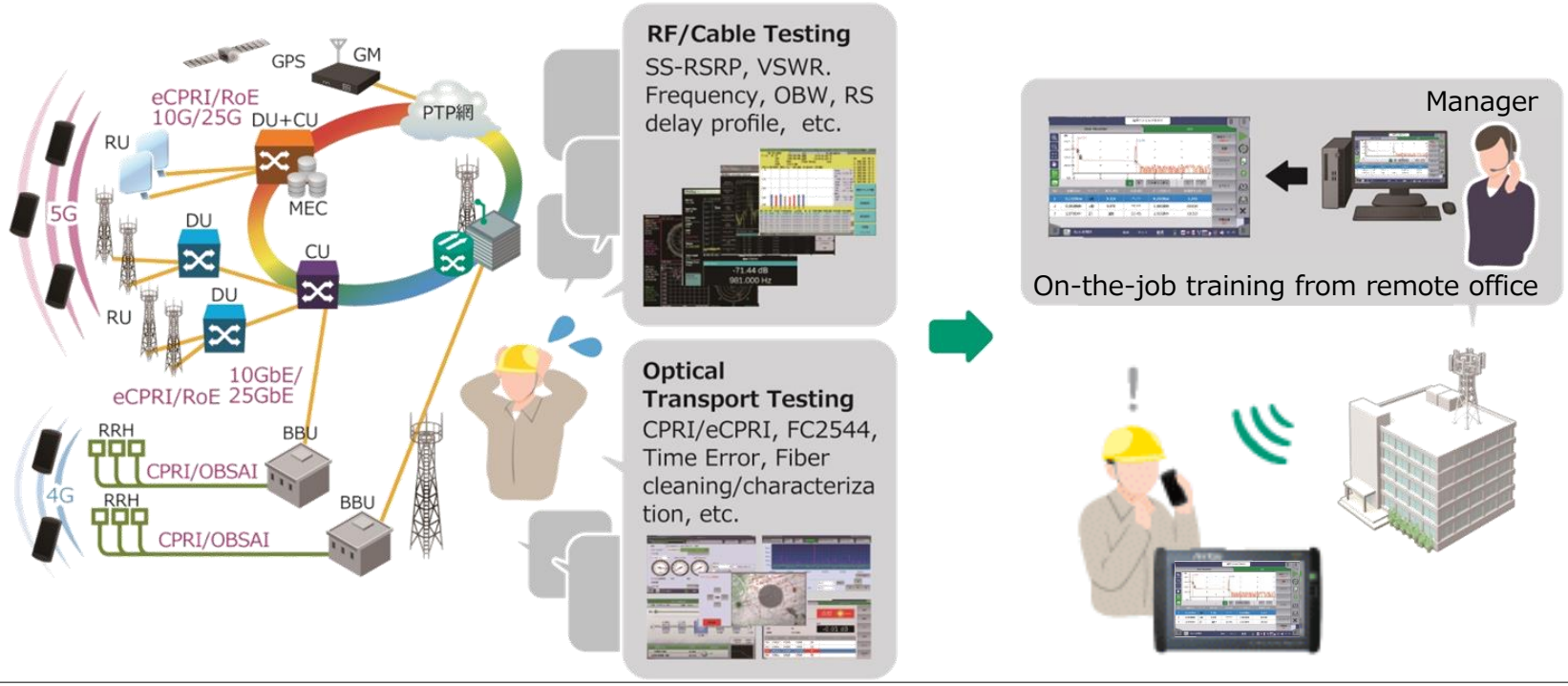
*SORA is supported by the MT1000A and MT1040A (Ver. 10.02 or later).

Necessity for Remote Operation (1/3)

On-site Training for Diversified Testing

Base-station on-site work is becoming more complex with the spread of 5G services. More fiber runs, conversion to fronthaul Ethernet, and adoption of PTP supporting small-cell installations and CRAN, require new measurements, such as time synchronization.

On-the-job training by remote operation is an effective method for training experienced RF testing technicians in how to perform optical transport tests.

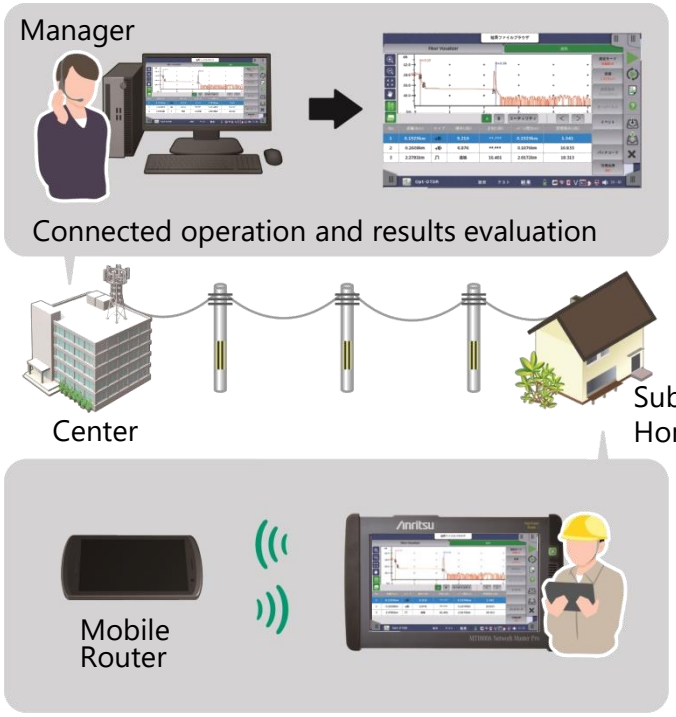


Necessity for Remote Operation (2/3)

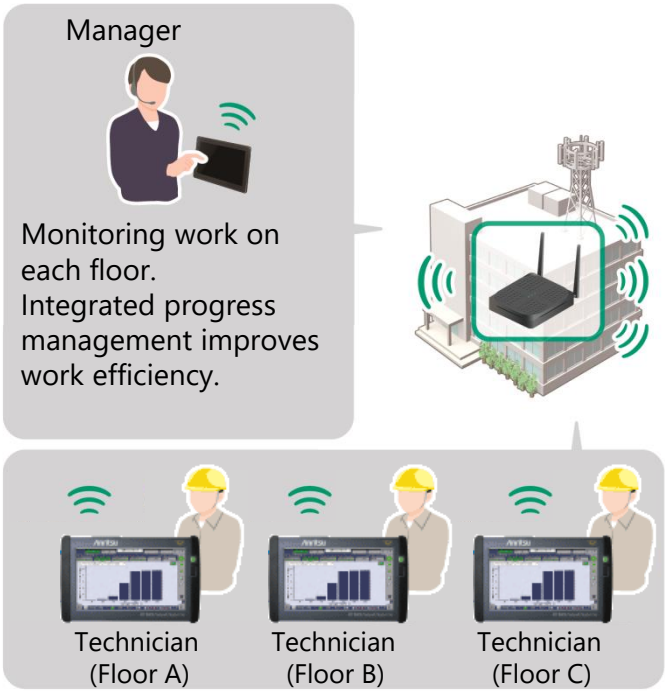
Efficient Network Installation and Troubleshooting

When inexperienced technicians are testing and troubleshooting using measuring instruments, sometimes on-site expert support is required. In these cases, remote operation allows an expert to remain in the office while operating the remote measuring instrument and viewing the screens to offer advice to the operator while also cutting maintenance costs.

<Onsite>



<In Office>



Necessity for Remote Operation (3/3)

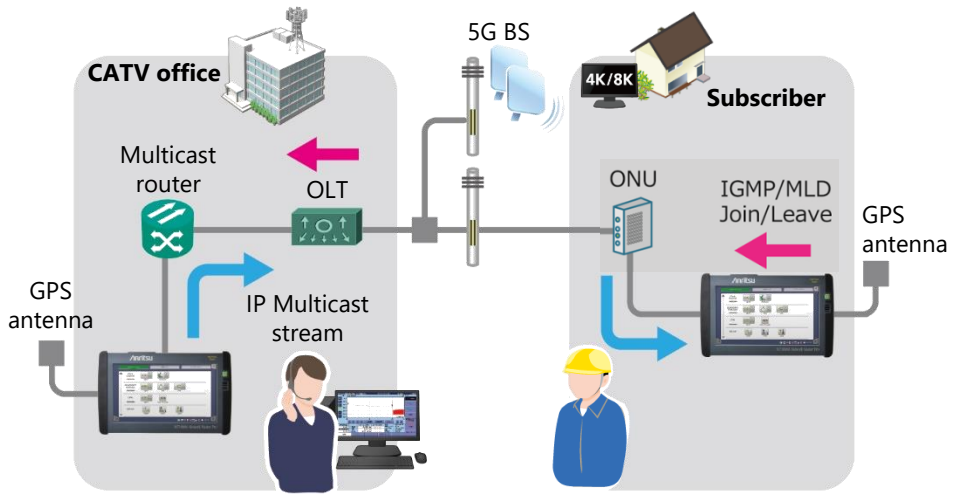
End-to-End Service Tests

Network-based services, such as IoT, remote medicine, self-driving vehicles, 4K/8K broadcasts using IP streams, factory automation via local 5G networks, etc., are all expanding. Ensuring the necessary quality for the services not only requires better reliability and lower latency but also demands assured service quality from the end application viewpoint.

Efficient measurement of circuit quality, such as packet loss, throughput, and latency, under near-to-live conditions is best achieved by remote control of several instruments.

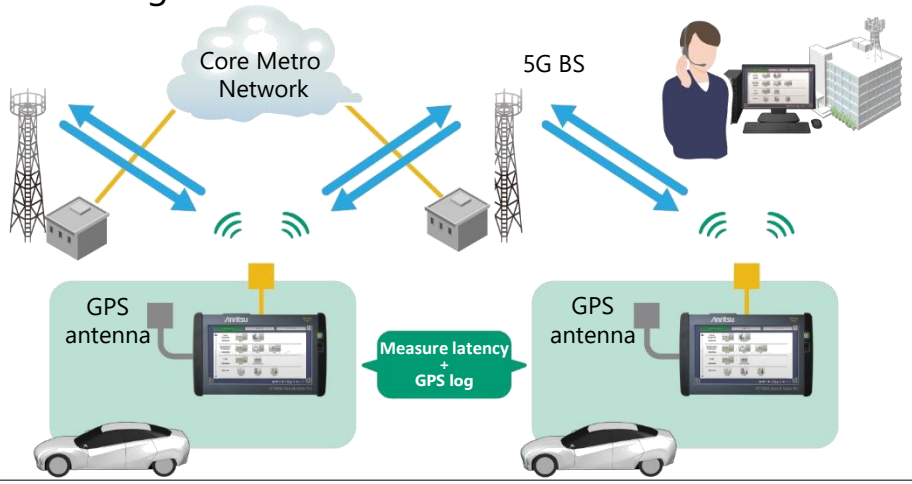
CATV Broadcast Quality Tests

Measure one-way latency from CATV office using instrument at subscriber's premises



V2N2V Communications Quality Tests

Measure V2V one-way communications latency from center by controlling two instruments in running vehicles



SORA Features

No Dedicated Application Install

The web-based service can easily be used from a general web browser.

Recommended browsers: Chrome, Firefox

Easy Use via Smartphone

The measuring instrument can be connected to the Internet using smartphone tethering. Both iPhones and android smartphones are supported, eliminating the need for dedicated communications infrastructure.

High Security

Communications between the remote measuring instrument and office PC use high-security protocols. Measurement results can be transferred to files created by customers and these files are not resident in the cloud system of SORA.

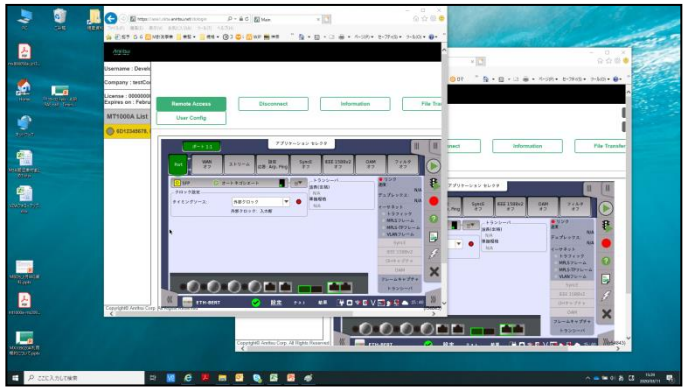
File Transfer

Files in the measuring instrument can be accessed while in the office. Settings files can be transferred to the measurement site and measurement reports saved in the instrument can be edited. As an option, measurement reports can be uploaded to the user's cloud storage account.

SORA Functions (1/3)

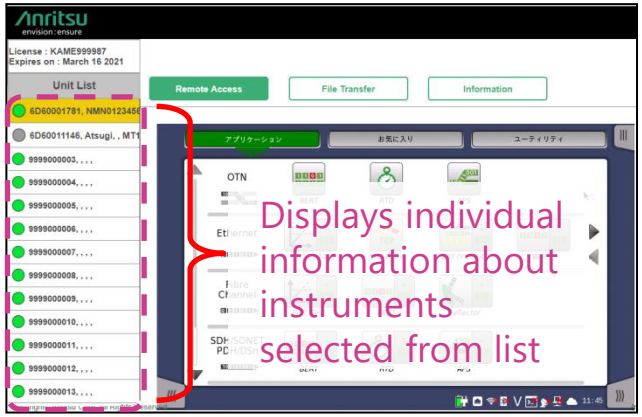
Remote Operation Function

Measuring-instrument screens are displayed as is by the web browser. The PC keyboard and mouse are used to perform instrument operations. PC operations are displayed on the remote instrument screen. Up to 100 measuring instruments can be operated on one PC desktop.



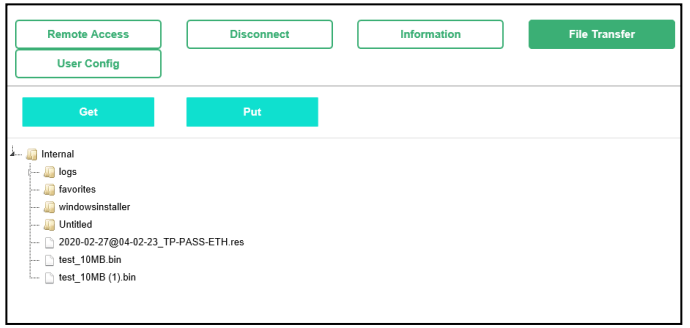
Administration Functions

The serial number, firmware version, and available options of measuring instruments at each site can be listed on the PC screen.



File Transfer Function

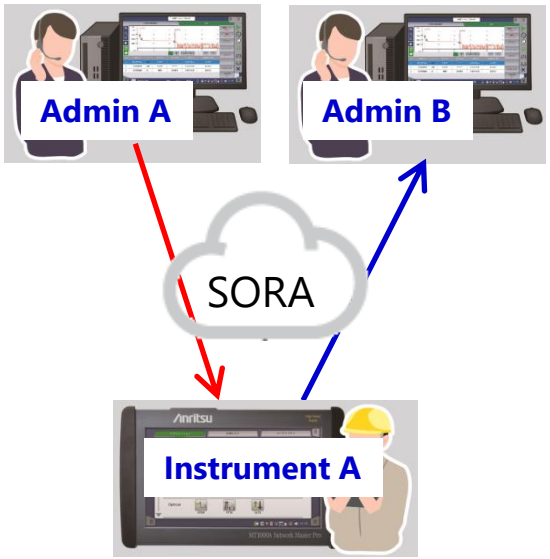
Measurement results, etc., saved in the instrument internal storage can be transferred as a file to the office PC (GET), and files on the PC can be copied to the measuring instrument (PUT).



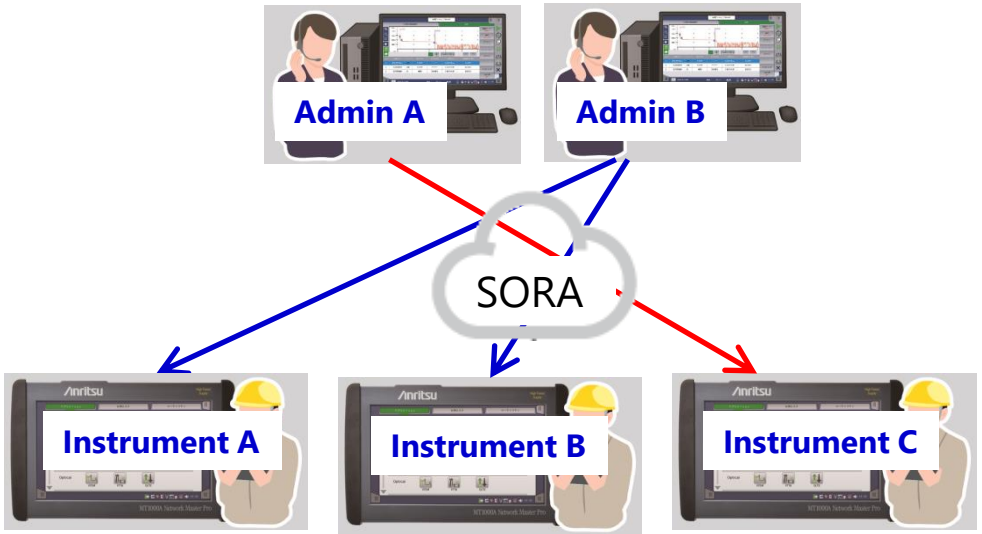
SORA Functions (2/3)

Remote Operation of Multiple Instruments by Multiple Administrators

Up to eight admins can log-in simultaneously to SORA. Although there is no upper limit to the number of measuring instruments that can connect to SORA, the maximum number that be can be controlled simultaneously is two. It is necessary to add a purchase option to remotely control more instruments.



Operations by Administrator A are shared on the screens of the Instrument A operator and Administrator B

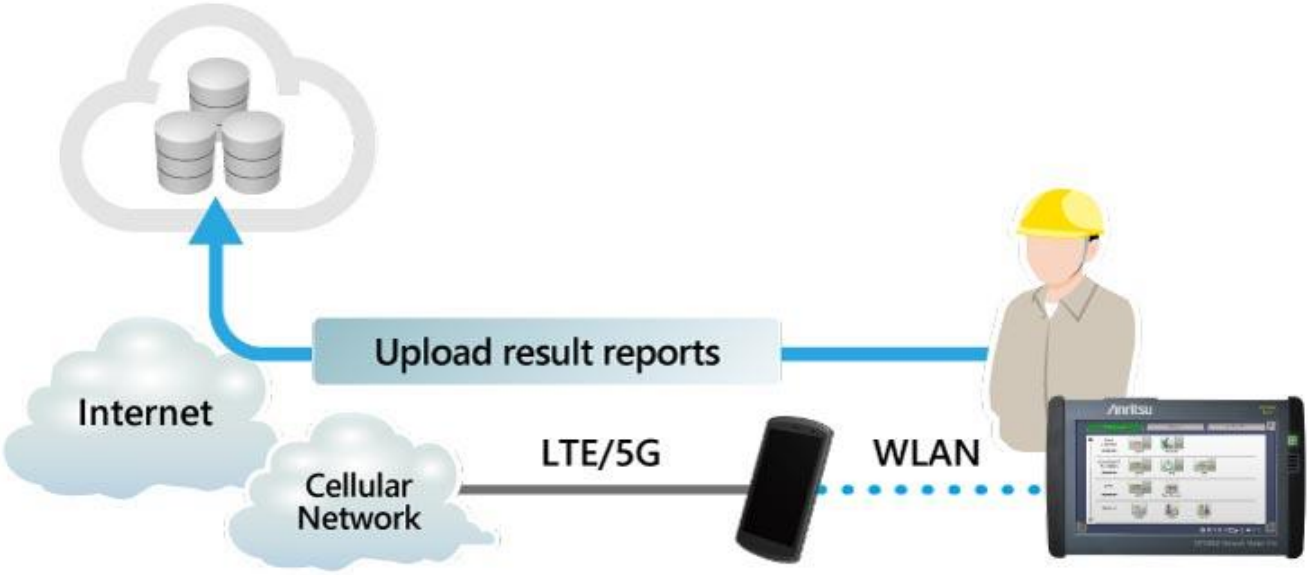


Administrator A remotely controls Instrument C while Administrator B remotely controls Instruments A and B. In this case, an additional option is required to remotely control the three instruments simultaneously.

SORA Functions (3/3)

Uploading Measurement Reports to Cloud Storage

Measurement report files can be uploaded automatically to cloud storage either immediately after completing measurement or as an all-in-one upload on returning to the office when work is finished.



The user's cloud service account is pre-registered in SORA as the upload destination, which may be any of the Google Drive, Dropbox, and Amazon S3 services.

*Uploading to cloud storage requires the MX109020A-003 option as well as the MT1000A/MT1040A Ver. 11.08 or later firmware.

- Introduction to Site Over Remote Access (SORA)
- **From SORA Product Purchase to Usage**
- Q&A

Ordering Information

The following products are required to use the SORA server.

Model / Order No.	Name
MX109020A	Site Over Remote Access Basic License
MX109020A-TL001	Site Over Remote Access 1 Year License
MX109020A-001	Site Over Remote Access 8 Units
MX109020A-002	Site Over Remote Access Unlimited Units
MX109020A-003	Centralized Data Management

- ✓ Purchasing a 1-year license in addition to the basic license is mandatory.
- ✓ When extending the usage period, purchase another 1-year license.
- ✓ Up to two measuring instruments can be remotely controlled simultaneously with the basic license. This number can be increased to up to 8 units by purchasing the MX109020A-001 option, and up to 100 units by purchasing the MX109020A-002 option.

Use of SORA requires the following two products for the measuring instrument.
(Refer to the separate catalog for the configuration of each measuring instrument.)

Model / Order No.	Name
MT1000A-011	Site Over Remote Access Connect
MT1000A-003	Connectivity for WLAN/Bluetooth
MT1040A-011	Site Over Remote Access Connect
MT1040A-003	Connectivity for WLAN/Bluetooth

- ✓ The MT1000A-011/MT1040A-001 validity period is unlimited. The MX109020A can be used within the license validity period.
- ✓ Use of WLAN/Bluetooth options is subject to national and regional certification. →MT1000A Certified List , MT1040A Certified List

Required Equipment Configuration

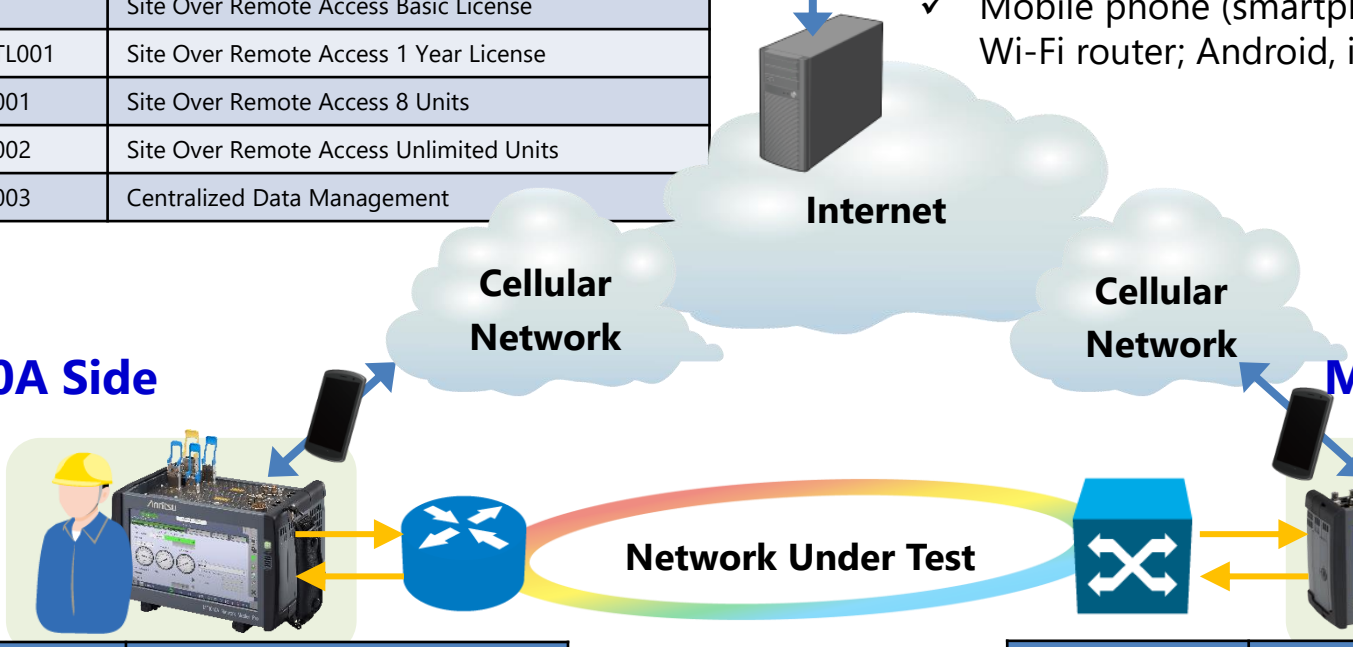
Office Side

Supported Browser: Chrome, Firefox

Model / Order No.	Name
MX109020A	Site Over Remote Access Basic License
MX109020A-TL001	Site Over Remote Access 1 Year License
MX109020A-001	Site Over Remote Access 8 Units
MX109020A-002	Site Over Remote Access Unlimited Units
MX109020A-003	Centralized Data Management

Provided by Customer

- ✓ Internet connection from office (1 Mbps or faster speed)
- ✓ Mobile telephone line (384 kbps or better)
- ✓ Mobile phone (smartphone/tablet/Mobile Wi-Fi router; Android, iOS, or Windows)



MT1040A Side

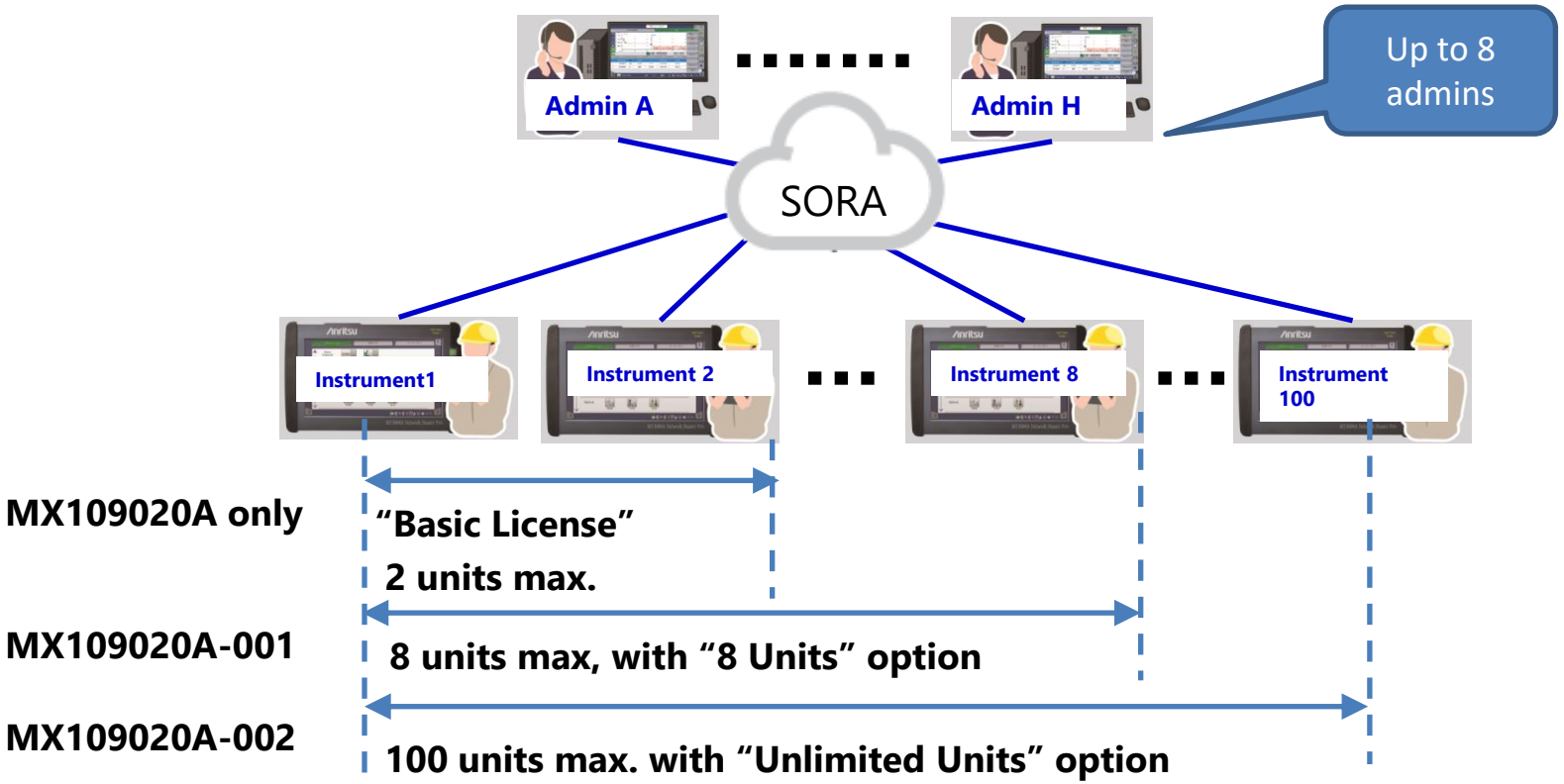
Model / Order No.	Name
MT1040A-011	Site Over Remote Access Connect
MT1040A-003	Connectivity for WLAN/Bluetooth

MT1000A Side

Model / Order No.	Name
MT1000A-011	Site Over Remote Access Connect
MT1000A-003	Connectivity for WLAN/Bluetooth

Simultaneous Multiple Control Option

Although there is no upper limit on the number of measuring instruments that can be connected to SORA, the number that can be remotely controlled simultaneously from a PC differs according to the purchased license option



- ✓ The purchased option can be upgraded retroactively.
- ✓ The annual license fee is the same whichever option is used.
- ✓ The MT1000A and MT1040A can be in a mixed configuration and is counted as one unit, whichever is used.

Required Purchase Configurations (SORA License)

Example 1:

When controlling total of two MT1000A/MT1040A units simultaneously

Model/Order No.	Name	First Year	Second and Later Years
MX109020A	Site Over Remote Access Basic License	✓	Not required
MX109020A-TL001	Site Over Remote Access 1 Year License	✓	✓
MX109020A-001	Site Over Remote Access 8 Units		
MX109020A-002	Site Over Remote Access Unlimited Units		
MX109020A-003	Centralized Data Management		

Example 2:

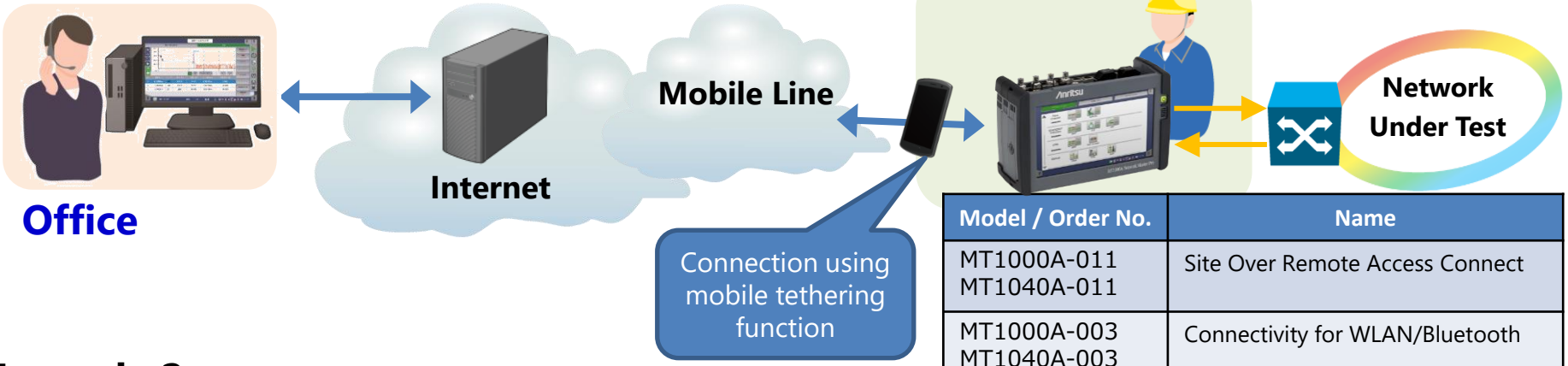
When controlling total of 100 MT1000A/MT1040A units simultaneously and uploading to cloud storage

Model/Order No.	Name	Year 1	Second and Later Years
MX109020A	Site Over Remote Access Basic License	✓	Unnecessary
MX109020A-TL001	Site Over Remote Access 1 Year License	✓	✓
MX109020A-001	Site Over Remote Access 8 Units		
MX109020A-002	Site Over Remote Access Unlimited Units	✓	Unnecessary
MX109020A-003	Centralized Data Management	✓	Unnecessary

Required Purchase Configurations (Measuring Instruments)

Example 1:

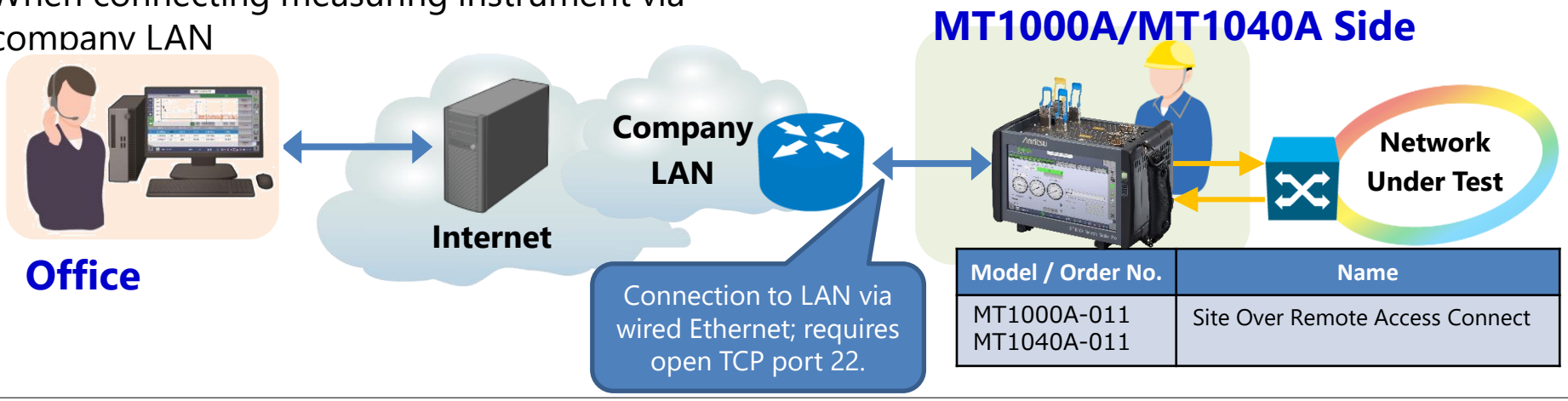
When connecting measuring instrument via mobile phone line



Model / Order No.	Name
MT1000A-011 MT1040A-011	Site Over Remote Access Connect
MT1000A-003 MT1040A-003	Connectivity for WLAN/Bluetooth

Example 2:

When connecting measuring instrument via company LAN



Model / Order No.	Name
MT1000A-011 MT1040A-011	Site Over Remote Access Connect

From SORA Product Purchase to Usage

The steps from SORA purchase to usage are shown below.

Delivery

- Dispatch of license proof of purchase from Anritsu
- License proof of purchase provided for both MX109020A and MT1000A-011/MT1040A-011

Validation

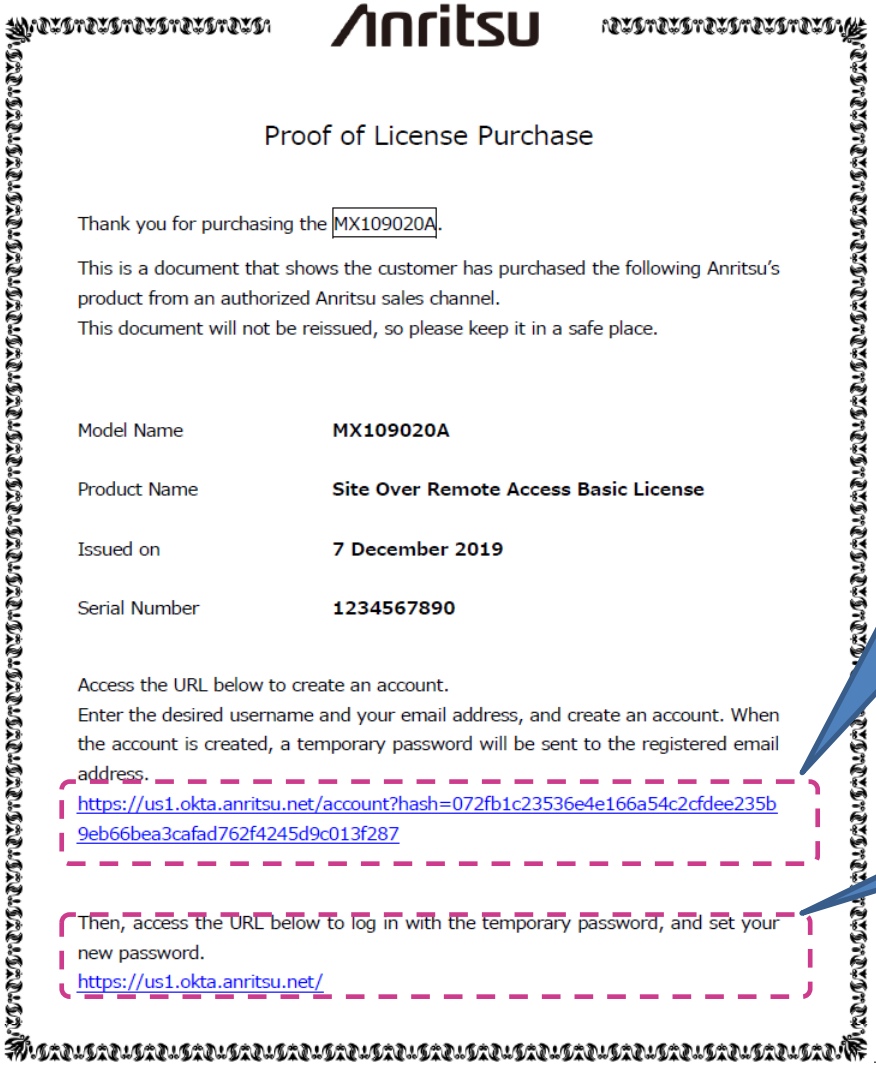
- Creation of SORA login account according to MX109020A license proof of purchase procedure

Registration

- Log-in to SORA and registration of remotely operated MT1000A/MT1040A
- Password for registration appended to license proof of purchase appended to MT1000A-011 /MT1040A-011

Sample Proof of License Purchase

The following shows a sample of the license proof of purchase provided on delivery of the purchased MX109020A.



Anritsu

Proof of License Purchase

Thank you for purchasing the MX109020A.

This is a document that shows the customer has purchased the following Anritsu's product from an authorized Anritsu sales channel.
This document will not be reissued, so please keep it in a safe place.

Model Name	**MX109020A**
Product Name	**Site Over Remote Access Basic License**
Issued on	**7 December 2019**
Serial Number	**1234567890**

Access the URL below to create an account.
Enter the desired username and your email address, and create an account. When the account is created, a temporary password will be sent to the registered email address.
https://us1.okta.anritsu.net/account?hash=072fb1c23536e4e166a54c2cfdee235b9eb66bea3cafad762f4245d9c013f287

Then, access the URL below to log in with the temporary password, and set your new password.
https://us1.okta.anritsu.net/

Access the URL described here and create an account. This must be completed within 1 year from purchase.

After creating the account, access this URL to use SORA.

Sample Proof of License Purchase

The following shows a sample of the proof of purchase provided on delivery of the purchased MT1000A-011/MT1040A-011.

Anritsu

Proof of License Purchase

Thank you for purchasing the MT1000A-011.

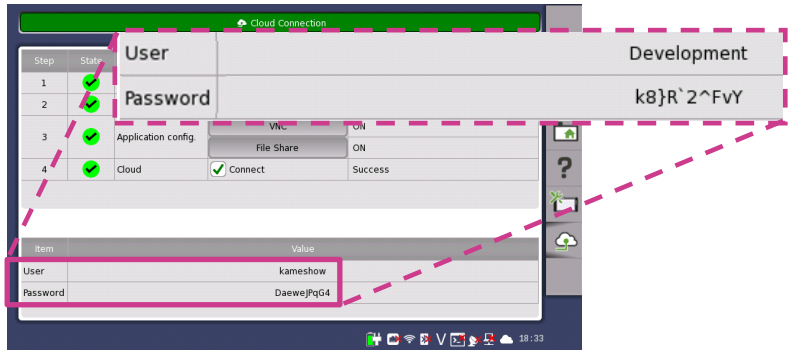
This is a document that shows the customer has purchased the following Anritsu's product from an authorized Anritsu sales channel.
This document will not be reissued, so please keep it in a safe place.

Model Name	**MT1000A-011**
Product Name	**Site Over Remote Access Connect**
Issued on	**9 March 2020**
MT1000A Serial Number	**6D12345678**
Registration Password	**bDj3k4jkor**

ANRITSU CORPORATION 5-1-1 Onna, Atsugi-shi, Kanagawa 243-8555, Japan

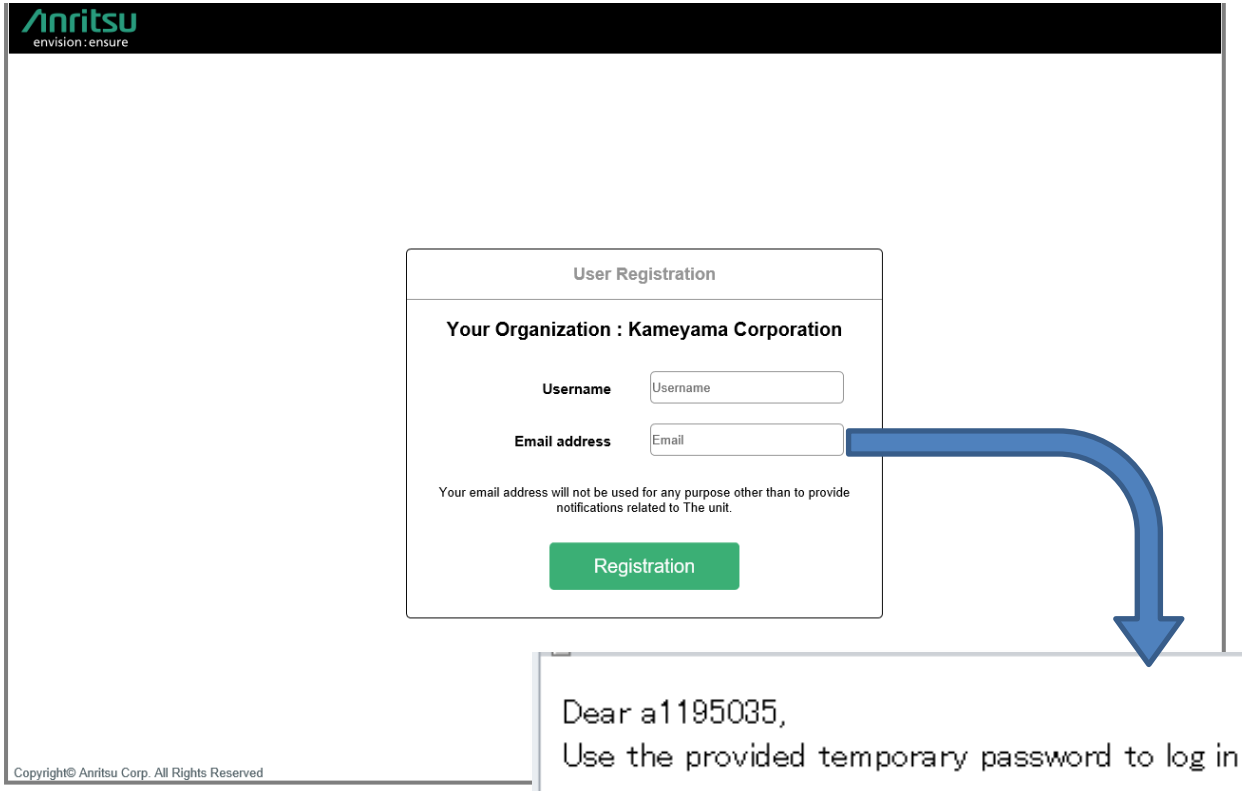
Use the serial number and password described here when registering the MT1000A/MT1040A for use with SORA. Only the registered MT1000A/ MT1040A can be remotely controlled.

The password and serial number can be confirmed at the MT1000A/MT1040A screen, too.

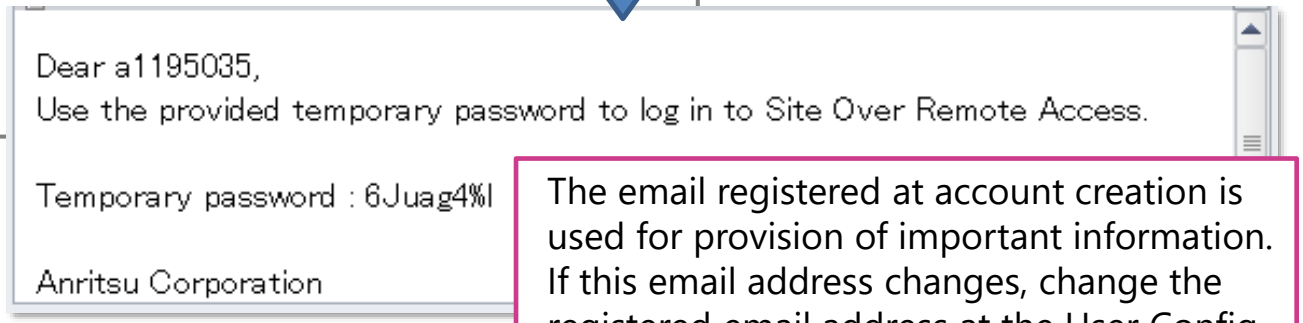


Account Creation Procedure (1/2)

The following screen is displayed when accessing the URL described in the MX109020A proof of purchase license. Register the username and email address at this screen.



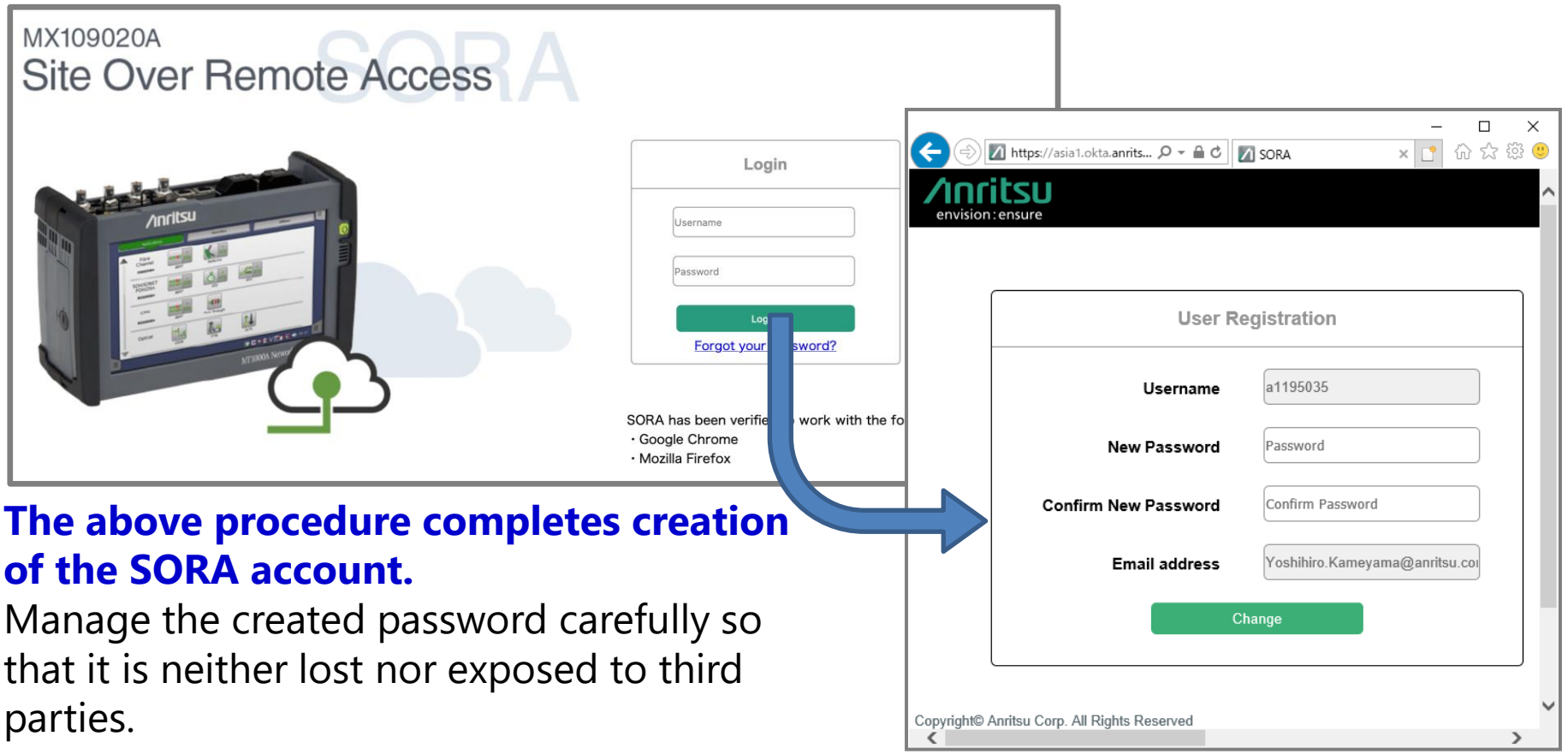
A temporary password is sent to the registered email address.



The email registered at account creation is used for provision of important information. If this email address changes, change the registered email address at the User Config screen displayed after SORA log-in.

Account Creation Procedure (2/2)

The password can be changed after log-in using the temporary password. Set a password containing at least one lowercase and uppercase alphabetic character, one numeric character and one symbol from the following list (^$*.[]{}()?-"!#%&/¥,<>';|_~`).



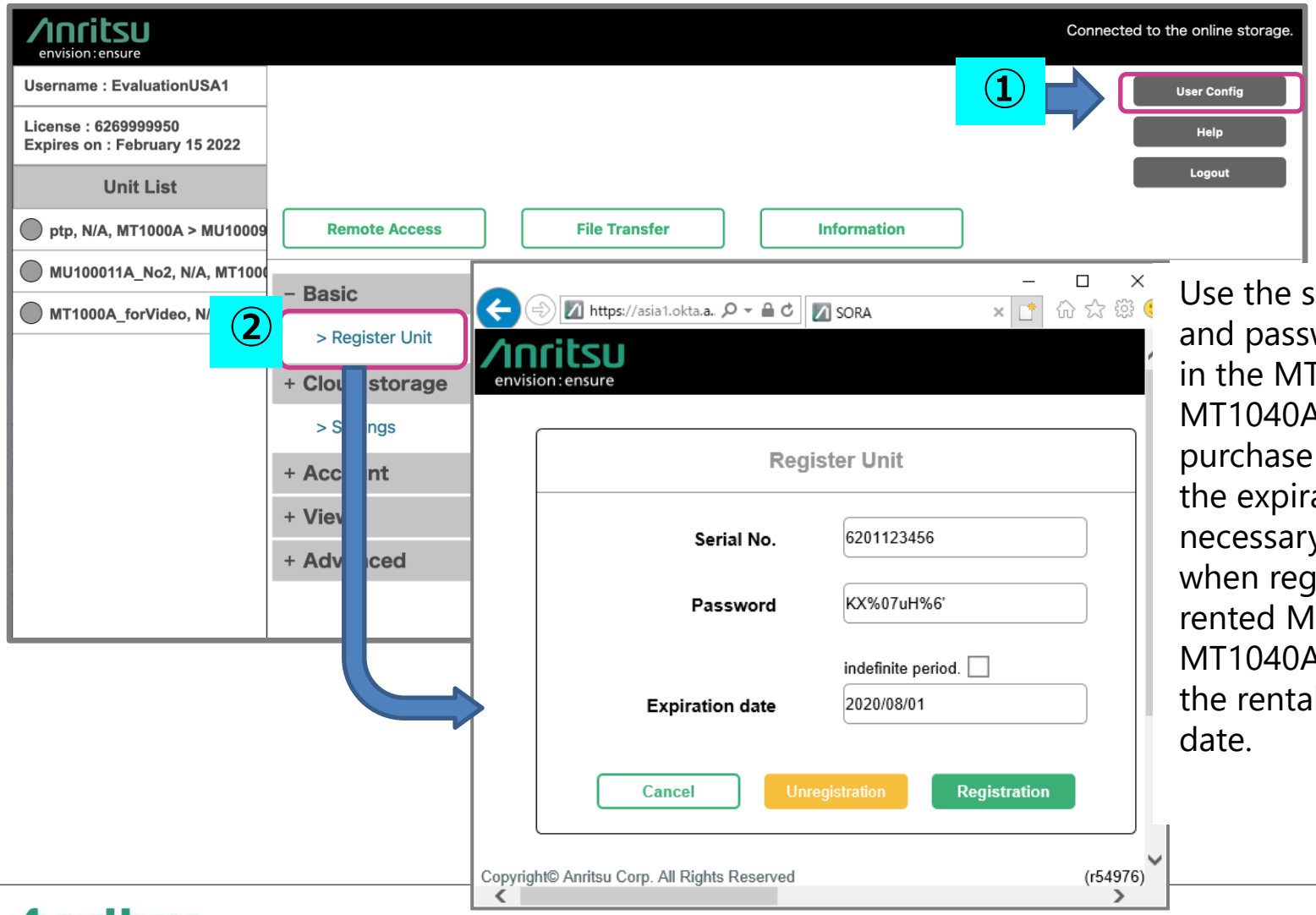
The above procedure completes creation of the SORA account.

Manage the created password carefully so that it is neither lost nor exposed to third parties.

Next, register the measuring instrument.

Measuring Instrument Registration Procedure

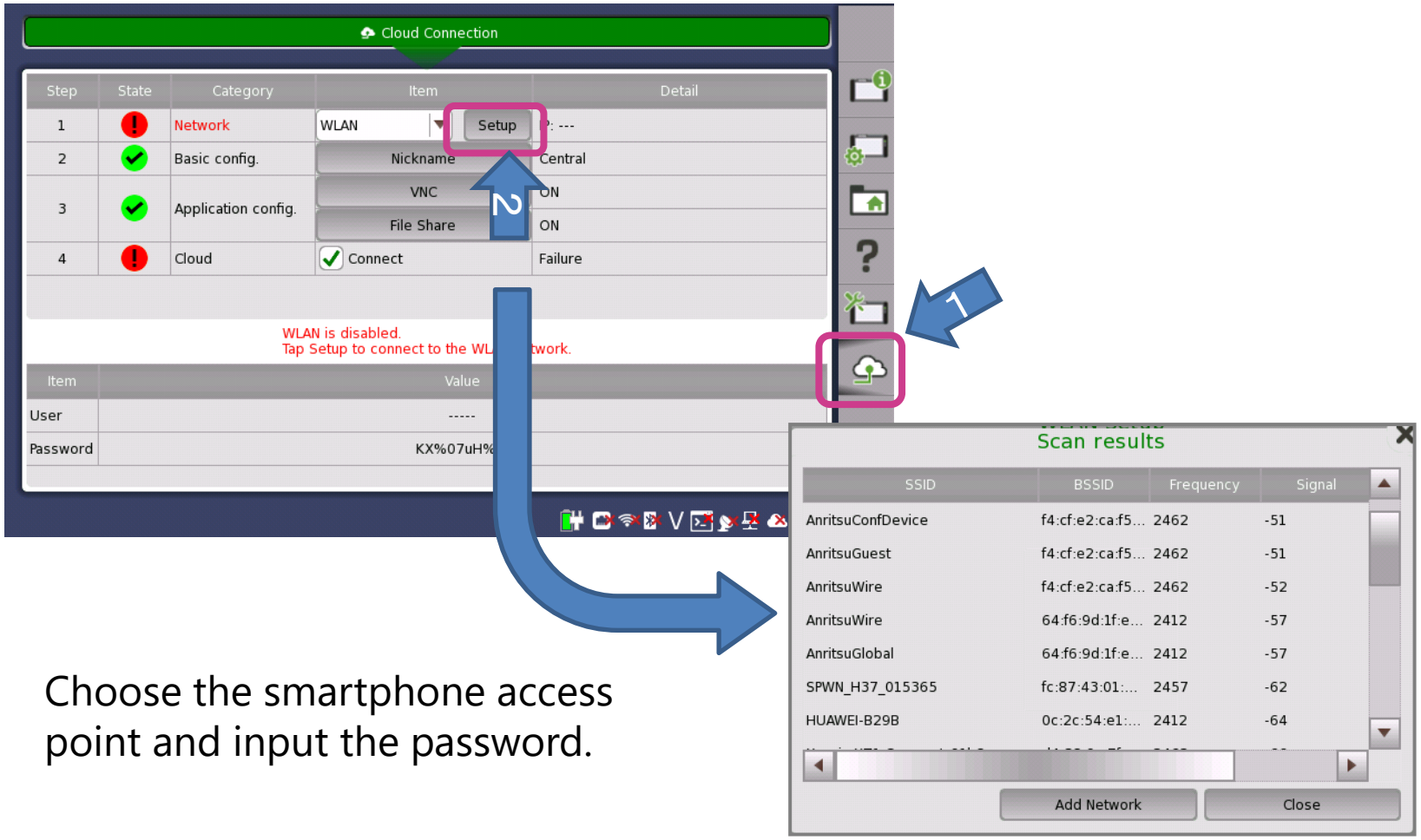
At log-in to SORA, press [User Config.] → [Register Unit] to display the measuring instrument product registration screen.



Use the serial number and password described in the MT1000A-011/ MT1040A-011 proof of purchase certificate. Set the expiration date if necessary. For example, when registering a rented MT1000A/ MT1040A unit, specify the rental termination date.

MT1000A/MT1040A Connection Procedure (1/2)

Clicking the icon at the right side of the screen displays the server connection screen. Clicking [Setup] on the screen scans for WLAN access points.



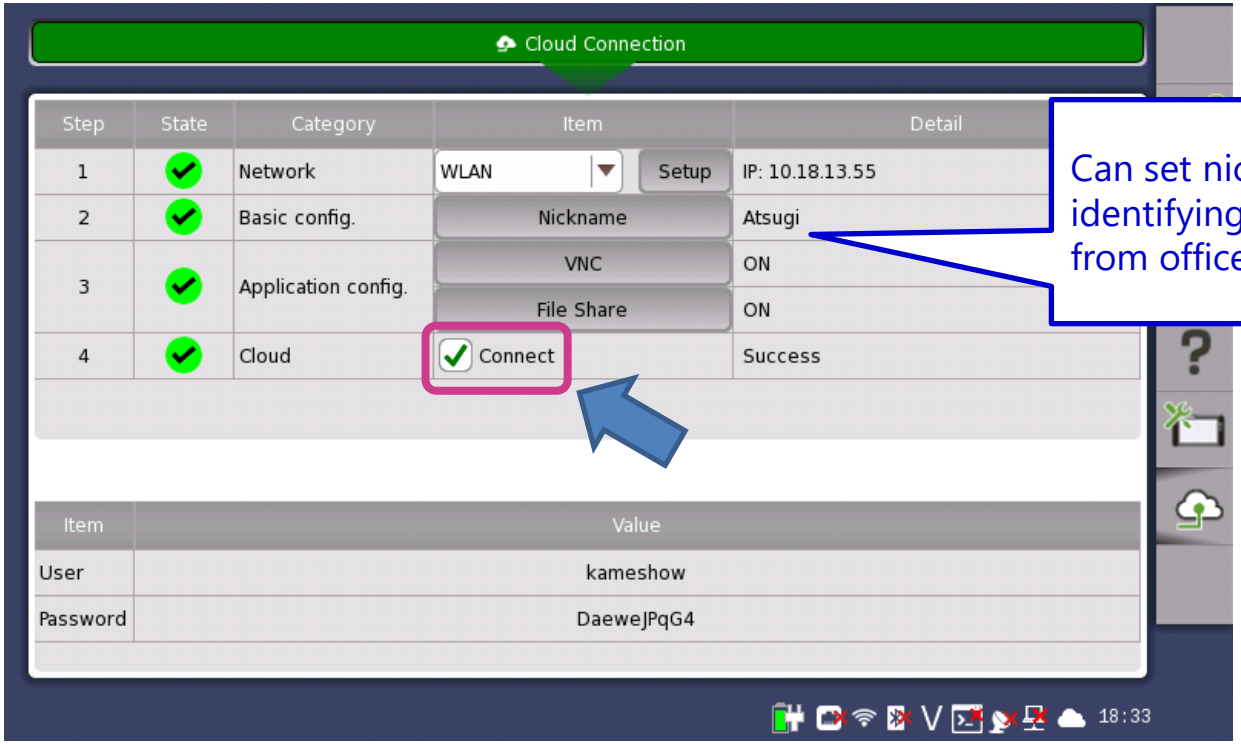
Choose the smartphone access point and input the password.

MT1000A/MT1040A Connection Procedure (2/2)

When a checkmark is input at [Connect], the MT1000A/MT1040A tests the connection to the server; it is not necessary to input the server IP address or URL.

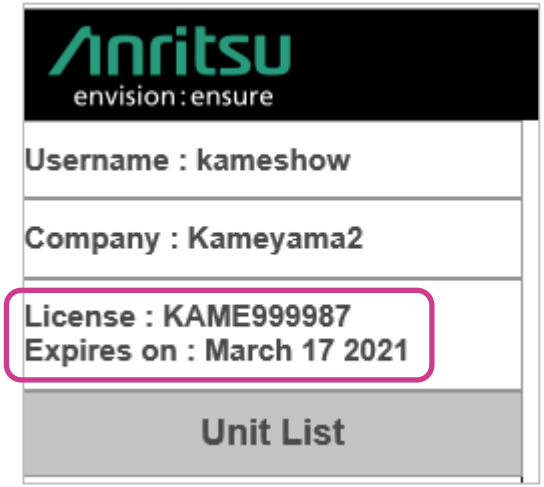
After the connection to the server has been successful once, the MT1000A/ MT1040A will reconnect automatically to the same server at the next power-on.

(If a different smartphone is used, it will be necessary to repeat the same setting operation over again.)

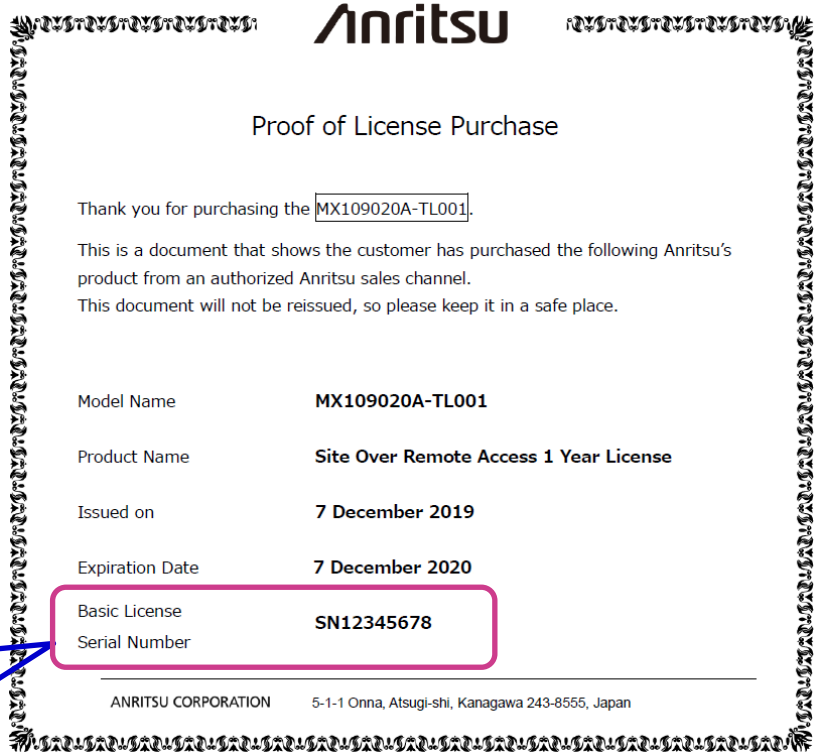


License Extension Method

To extend the SORA license period, order the MX109020A-TL001 option. After the order has been received, Anritsu processes the license extension. In addition to changing the expiry date at the SORA log-in screen, Anritsu will also issue a new proof of license purchase certificate showing the extension period.



When ordering MX109020A-TL001, requires record of MX109020A serial number.



Applications to extend the license period must be received after the remaining days becomes 90 or less. Anritsu will notify you by email as the expiration date approaches.

- Introduction to Site Over Remote Access (SORA)
- From SORA Product Purchase to Usage
- **Q&A**

Q&A

Q1. How do we confirm the license expiry?

The license expiry date is always displayed at the log-in screen. Additionally, as the expiry date approaches we will send a notification email automatically to the registered email address.

Q2. Can an expired license be revalidated?

Yes. A license consists of the basic license and the valid-period license. Even when the latter license expires, the basic license is still active and all information of registered instrument are held, and continues even when the MX109020A-LT001 extension is purchased. However, if more than 180 days have passed after the license expiry, the registered measuring instrument data is deleted and must be re-registered again.

Q3. How do we continue a license without a break?

A 1-year license extension can be purchased provided the existing license has less than 90 days remaining before expiry. This should support the needs of people wishing to extend within the current budget.

Q4. Can we increase the number of simultaneously controlled measuring instruments?

There is an option to increase the number of simultaneously controlled instruments by purchasing either the MX109020A-001 or MX109020A-002. The number of days remaining before the expiry date does not change after purchasing these options. The extension provided by this option takes over after extension of the expiry date.

Q5. Can rented MT1000A/MT1040A units also be remote controlled?

Yes. Confirm with the rental company that the MT1000A-011/MT1040A-011 option is installed. The measuring instrument serial number and password are required to register the MT1000A/MT1040A with the SORA service. The password is described in the proof of license purchase shipped from Anritsu with the MT1000A-011/MT1040A-011.

Q&A

Q6. Is it possible to extend the license period to 3 years by purchasing three 1-year licenses?

No. Licenses cannot be extended when more than 90 days remains on the license validity period.

Q7. Does purchasing multiple 1-year extension licenses allow application of the second or later license 1 year later?

No. When a customer orders an extension license, Anritsu extends the license validity period within 5 business days after receiving the order.

Q8. Are there any cloud security issues to worry about?

SORA is a connection service, doesn't include a cloud storage service. Confidential data such as measurement results are not stored on Anritsu's administration server. SORA establishes a secure connection and mediates the communications. The communications contents cannot be leaked to third parties.

Q9. What is the required communications bandwidth when using a smartphone?

384 kbps or more is recommended.

Q10. Can I remote-control a measuring instrument connected to the company LAN?

Yes. However, the concealed communications protocol used by SORA might sometimes be blocked by the company's security policy. Confirm with the user's IT section whether TCP port 22 is open to outside the company. If it is not open, connect to the server using a smartphone.

Conclusion

Remote instrument control helps in various scenarios

- ✓ Remotely located specialist can support measurement work
- ✓ Online training
- ✓ End-to-end communications service tests

Remote control without additional facilities

Technicians only require smartphone with no need for additional equipment or dedicated software installation

Fixed-period license costs remain constant even with more measuring instruments

Easy operation

After setting tethering once, automatic connection and control are implemented at subsequent instrument power-up

Check the service usage contract conditions prior to purchase.
The service terms can be accessed at the following URL:

https://www.anritsu.com/en-us/test-measurement/support/downloads/manuals/dwl20059

Anritsu

envision : ensure

公知 2021-3 MJM No. MX109020A-E-L-1-(3.00)