Honeywell

VoiceConsole

SaaS Deployment 6.2

Product Description

Disclaimer

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Patents

For patent information, please refer to hsmpats.com

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OVERVIEW

Honeywell's VoiceConsole® is a web-based tool for managing voice-enabled devices, operators, configuration and system diagnostics.

This document introduces VoiceConsole SaaS deployment. This new deployment of VoiceConsole is a Software as a Service (SaaS) application maintained by Honeywell.

The previous versions were commonly referred to as VoiceConsole On Prem deployment. In this deployment, the customer installed and maintained VoiceConsole on a server with a Microsoft Windows or Linux operating system. The customer could installed VoiceConsole in a cloud environment, but that is still considered a VoiceConsole On Prem deployment. VoiceConsole On Prem deployment is still supported, but not covered in this document.

This document focuses mainly on information about VoiceConsole SaaS deployment as well as the differences from VoiceConsole On Prem deployment.

Benefits of VoiceConsole SaaS Deployment

What are the benefits of moving to VoiceConsole SaaS deployment? This release is a Software as a Service (SaaS) implementation of VoiceConsole using the familiar VoiceConsole interface.

This means:

- Reduced hardware burden - No need to deploy servers and database machines. Less IT burden.
- Faster ramp up - With the SaaS implementation, only the Honeywell Voice devices need configured. There is no VoiceConsole software for the customer to install and maintain on premises.
- Honeywell maintains the most current version released for VoiceConsole, so that the customer does not need to worry about installing updates. The customer's license includes any VoiceConsole upgrades during the license term.
- Expansion doesn't mean importing new license files as licensing is handled in the cloud.
- Up front cost is reduced for quicker return on investment.
- Honeywell SSO integration for seamless integration with other Honeywell SaaS products, with Honeywell Operational Intelligence and Forge Performance+.
- Easier license management as device licensing is handled in the cloud

- VoiceConsole now handles Enterprise Voice functionality, supporting both A700x and Android devices.

Device Support

VoiceConsole SaaS deployment supports the A700x and Android devices supported by Guided Work. See www.help.honeywellaidc.com/AndroidDevices.html.

VoiceConsole Android Support

DevKit-based applications run on Android and A700x devices. Android support for VoiceConsole deployments requires a mobile application built from Honeywell DevKit 1.15 or later. Customers must review specific application documentation for compatibility. Refer to your DevKit Release Notes for more details.

Concerns

There may be concerns about using VoiceConsole SaaS deployment. These topics are addressed in the next sections of this document.

- Is VoiceConsole SaaS deployment reliable?
- Can VoiceConsole SaaS deployment handle large deployments?
- Is the data secure?

Communication

While Honeywell communicates important information via the VoiceConsole SaaS deployment interface, it is important that Honeywell have updated contact information in order to provide notices of system maintenance, planned upgrades, etc.

Please ensure that contact information is updated and that any VoiceConsole SaaS deployment email messages are not getting caught in your spam filter.

Getting Started

To get started with VoiceConsole SaaS deployment, contact your Honeywell representative and complete an intake form. You need information such as:

- Contact information
- Number of devices

Be sure to discuss any bandwidth concerns during the intake process.

When VoiceConsole SaaS deployment is ready, you are assigned a unique link to your specific VoiceConsole SaaS deployment instance.

The Import/Export Data and migrate devices features can be used to transition to VoiceConsole SaaS deployment from an existing VoiceConsole On Prem deployment installation:

You can use the Export Data function from your existing VoiceConsole On Prem deployment implementation then use the Import Data function from VoiceConsole SaaS deployment. To expedite the export/import process:

- The export files can be quite large. Contact Honeywell Technical Support for assistance exporting data from an existing VoiceConsole deployment. Technical Support also assists with importing this data into the VoiceConsole SaaS deployment.

- Plan to create device profiles to connect to the new VoiceConsole SaaS deployment instance and upload device firmware into VoiceConsole SaaS deployment.

- If you have questions, contact Honeywell or your partner for assistance during the export process.

For more information please see:

- Import Data

- Export Data

Customer Support

Find most Honeywell Voice technical documentation at www.help.honeywellaidc.com.

If you need assistance installing or troubleshooting your device, please contact us by using one of the methods below:

Honeywell Voice Reseller Services

If you purchased equipment or services through a Honeywell Voice reseller, please contact your reseller first for support or to purchase a support plan.

Honeywell Voice Technical Support

To report Voice system support incidents or related technical issues, contact the Honeywell Technical Support Center at:

Technical Support Email: voicetechnicalsupport@honeywell.com
Technical Support Phone (US): +1 866 862 7877
Technical Support Phone (Rest of the World): +1 412 376 9384
Technical Support Phone (EMEA): +44 (0) 1344 65 6123

For assistance on all other matters, contact your Honeywell Certified Reseller or Honeywell directly at automation.honeywell.com.

SYSTEM ARCHITECTURE

The traditional VoiceConsole On Prem deployment system architecture (for a single site) looked like this. Honeywell Voice devices connect to a server which is connected to a database.

VoiceConsole On Prem Deployment Single Site Architecture

Additional options include multiple sites, clustered servers or clustered databases. The customer could also elect to install their instance of VoiceConsole in a cloud environment.

In all these use cases the customer is responsible for all hardware and software that is part of the VoiceConsole implementation.

With VoiceConsole SaaS deployment the Honeywell Voice devices interact with the Honeywell manages cloud deployment of VoiceConsole.

VoiceConsole

Honeywell Responsibility   Customer Responsibility
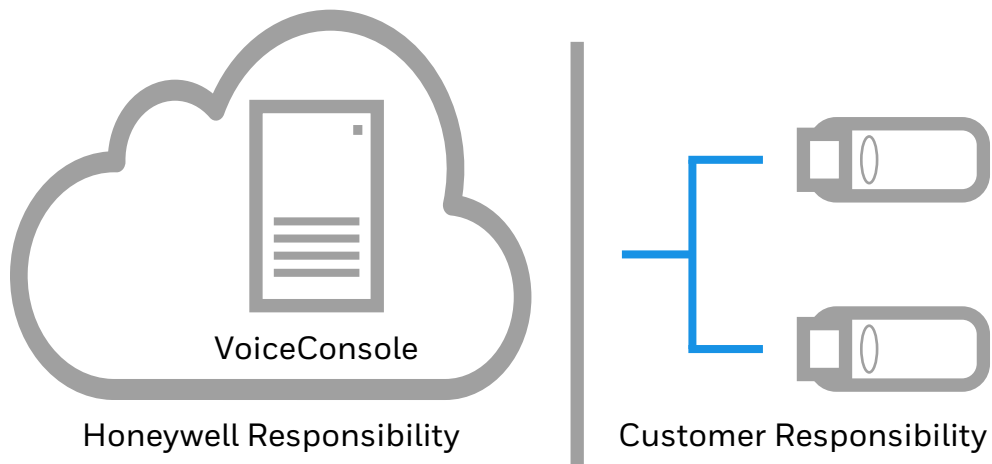
VoiceConsole SaaS Deployment System Architecture

Honeywell maintains the cloud portion of the implementation which includes the server and database as well as the VoiceConsole software. The customer maintains the Talkman devices and software installed on them. The customer is also responsible for the Wi-Fi network and Internet connection.

System Capacity

VoiceConsole SaaS deployment is scalable based on the number of licensed devices. Refer to the latest Release Notes for recommended installation size. VoiceConsole SaaS deployment is deployed in multiple regions to provide system redundancy.

Honeywell Technical Support is trained to assist with diagnosing communication issues and slow downs throughout the implementation:

- Wi-Fi
- Internet
- Web server
- Database

Honeywell provides a list of best practices to improve system performance. The bandwidth requirement information below should be considered when onboarding with VoiceConsole SaaS deployment. Your Honeywell representative can assist in determining bandwidth needs. Honeywell recommends evaluating your Wi-Fi and Internet connections and their ability to handle peak bandwidth. This bandwidth availability is especially important at shift change or other peak profile load times. Honeywell works with these same bandwidth requirements for the cloud components (web server and database).

Scalability

Honeywell ensures the resources available within a deployment of VoiceConsole SaaS deployment meet or exceed the published server requirements. The resources allocated are adjusted as necessary when a customer upgrades their number of licensed devices.

Bandwidth

Total # of Devices Being Managed	Operator Load	Task Package Load	Minimum Recommended Bandwidth
100	0.41 MBps	0.51 MBps	1 MBps
300	1.23 MBps	1.53 MBps	3 MBps

Total # of Devices Being Managed	Operator Load	Task Package Load	Minimum Recommended Bandwidth
500	2.05 MBps	2.56 MBps	5 MBps
2500	10.25 MBps	12.8 MBps	24 MBps

Minimum Per Device Bandwidth Requirements

Consider the following for the A700x and VoiceConsole SaaS deployment.

Scenario	Total Data Transfer	Typical Elapsed Time	Bandwidth Required
Start of Shift	0.416 MBps	90 seconds	50 KBps
Profile Load	300 MBps	5 minutes	1 MBps

See minimum required site bandwidth tables below.

File transfers, such as loading a VoiceClient into VoiceConsole or loading a profile onto a device may take longer in a cloud environment than they may take in a local installation.

Minimum Recommended Bandwidth per Site (Start of Shift)

Number of Active Devices	Bandwidth (MBps)
10	1
20	3
30+	5
200	10
300	15

A700x Minimum Recommended Bandwidth per Site (Profile Load)

Number of Active Devices	Bandwidth (MBps)
10	10
20	20
30+	30

Network Bandwidth Calculations

Assumptions and Comments

- Application and/or operator loading is completed within a 5-minute window. This is a highly conservative assumption. In real-world conditions, operator loads are typically staggered over a longer period of time.

- The bandwidth requirements specified are based on the assumption that only 1/5 of the total number of devices in the entire system concurrently download operators within a five-minute window.

- Application loads are only required when the device application is updated. Operator loads occur at every shift change.

- The network bandwidth requirements are calculated values based on the following assumptions for typical operator and Task Package loads:
  - Typical Operator Load Transfer = 232 KB (1856 Kb) of data per device
  - Typical Task Package Load Transfer = 288 KB (2304 Kb) of data per device

- The Site Bandwidth requirements (SBWR) based on these assumptions can be determined using the following calculation:
  - SBWR Operator Load = (Devices per Site x 1856 Kb) / 300 sec
  - SBWR Application Load = (Devices per Site x 2304 Kb) / 300 sec

- The Central Site Bandwidth Requirements (CSBWR) based on these assumptions can be determined using the following calculation:
  - CSBWR Operator Load = 1/5 x SBWR Operator Load x Number of Sites
  - CSBWR Application Load = 1/5 x SBWR Application Load x Number of Sites

Additional Information

Honeywell's best practices for VoiceConsole should still be followed when using VoiceConsole SaaS deployment to reduce possible Wi-Fi or Internet congestion. These links provide additional information:

- Best Practices for Loading Device Profiles

- Wireless Network Settings

- Use Schedules to Manage Device Profile Loads

UPDATES

Honeywell follows an established procedure for VoiceConsole SaaS deployment updates. This section details the expectations for planned and emergency upgrades.

Version Convention

Honeywell updates VoiceConsole SaaS deployment using the following versioning convention:
- First digit: Major release number. Incrementing indicates significant changes or new features
- Second digit: Minor release number. Incrementing indicates minor feature additions or changes.
- Patch digit: Patch release number. Incrementing indicates bug fixes (this number is often omitted when it is 0)

Planned Releases

Honeywell plans upgrade deployments during periods of lower customer activity. Downtime is not expected during the upgrades but it is possible that service may slow during the upgrade time.

Before Release

Honeywell conducts internal testing of the upgrades before making the upgrade available to end users. In the unlikely event an upgrade fails, the customer is rolled back to the current version.

VoiceConsole SaaS Deployment Upgrade

> **IMPORTANT**
> When VoiceConsole 6.2 is first accessed it is necessary to visit the Configure License page and select a license option. After a license option is selected, the appropriate license actions are displayed.

Upgrade Waves

In an SaaS deployment, users can determine their upgrade wave.

- Early Adopter: This wave is provided access to the new version as soon as it is available. Partners with demo / test environments are automatically included in this wave since these non-production environments should always be using the latest version available.

- Standard: This wave is provided access to the new version approximately 60 days after the Early Adopter wave. This is the default wave for most users unless the customer requests to join a different wave.

- Risk Averse: Approximately two weeks after the Standard wave upgrade, this wave is upgraded to the n-1 version.

User Acceptance Testing (UAT)

> **NOTE**
> UAT is not provided to customers with demo/ test environments.

When a customer receives a notice for an upcoming release, the notification includes details on their UAT environment unless the customer has opted out of UAT. The UAT environment allows the customer to test features and changes in a controlled environment that does not impact their production instance.

The user is provided details on accessing the UAT environment:

- The same admin credentials are used for UAT as in production.

- A new URL is provided for the UAT environment.

- Customers can access the UAT environment for two weeks and provide feedback. A reminder email is sent if feedback is not provided before UAT end

Upgrade Notifications

Customers should ensure they are reviewing all Honeywell communications. The timing of release notifications can vary depending on the upgrade wave the user has selected.

In general, the upgrade process communications include:

- Notification of User Acceptance Testing (UAT) availability.

- Scheduled date for upgrade depending on upgrade wave selected.

- Maintenance window duration.

- Service availability expectation during maintenance window.

UAT Timeline

Honeywell announces a new version has passed internal testing and is available for UAT. UAT is available only for customers with a production environment. Non-production environments are upgraded to the latest version at this time, but this is not considered UAT.

For customers who have purchased additional test environments or partner demo environments, these are scheduled for upgrade during the Early Adopter wave without UAT.

1. UAT users have 2 weeks to validate the UAT release and provide approval or feedback.

2. Honeywell sends a reminder if no feedback is received.

3. The UAT period can be extended another two weeks by request.

4. Issues reported to Honeywell during the UAT period are investigated before the general release.

Upgrade Timeline

A release that is a new major or minor version of VoiceConsole follows this time line, subject to change.

1. The new version is released to the **Early Adopter** wave.

   a. Honeywell provides a two week notice of upcoming release to Early Adopter production users before the release is deployed.

   b. The production release is deployed to these customers unless an exemption is approved.

2. Approximately 60 days later, the new version is released to the **Standard** wave.

   a. Honeywell provides a two week notice of upcoming release to Standard users and any Early Adopter users that are still pending an upgrade.

   b. The production release is deployed to these customers unless an exemption is approved.

3. After the Standard wave is complete, notification is sent to the **Risk Averse** wave.

   a. A two week notice is provided for all users on the n-2 or earlier versions.

   b. These users are upgraded to the n-1 version.

Patch Timeline

Patch Releases follow a different process.

- Patch releases are mandatory.
- No UAT environment is provided.

RELIABILITY, PRIVACY, AND SECURITY

Reliability

VoiceConsole SaaS deployment is deployed on Microsoft Azure infrastructure, including:

- Multiple regions
- Redundancy
- Disaster recovery

Honeywell typically aims to provide an uptime target of 99.99%[1] for VoiceConsole SaaS deployment.

Honeywell maintains the VoiceConsole SaaS deployment and provides advance notice of maintenance activity including minor patches and major upgrades. Rollback plans are created should an issue occur with any VoiceConsole SaaS deployment maintenance activity.

We make every effort to achieve as much uptime as is reasonably possible in order to keep the solution running. We target 99.99%, but recognize that there are various factors outside of our control that can impact overall availability. See Service Disclaimer below for details.

Storage Account Backup and Recovery

VoiceConsole SaaS deployment uses Zone Redundant Storage (ZRS) to maintain high availability. Data is replicated across the available zones with ZRS. If a zone becomes unavailable for any reason, there is no delay to remount Azure file shares for any connected client.

Data backups of file shares occur regularly. A full backup occurs once per day and that backup is maintained for ten days.

Database Backup and Recovery

VoiceConsole SaaS deployment uses Azure SQL Platform as a service. This is configured as a Business Critical tier (99.995% uptime) and uses ZRS (see above). This tier model uses a cluster

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[1]Subject to the Service Disclaimer

of database engine processes so that there are always available database engine nodes even during maintenance activities.

High availability is achieved by the replication of data between nodes, with each node using an attached SSD for data storage. Failover is set up in another region if a failure should occur in one region.

Database backup includes a short term and long term policy. The short term policy retains a backup every 12 hours and those backups are retained for seven days. Long term backup occur weekly (retained for 12 weeks) and monthly (retained for 3 months).

Monitoring

VoiceConsole SaaS deployment monitoring is powered by Elastic Observability.

At the application level:
- Each customer instance is monitored via custom health API's exposed by VoiceConsole SaaS deployment
- Elastic APM (Application Performance Monitoring) is integrated for in-depth application level monitoring and alerting

At the infrastructure level:

SLOs (Service Level Objectives) are defined to monitor critical infrastructure and provide appropriate alerts for.
- AKS (Azure Kubernetes Service) clusters
- Storage account
- Database servers

Report Problems

If Honeywell detects an issue, an investigation is performed and customers are notified. Updates, including resolution notifications, are provided during the process.

If a customer reports an issue, Honeywell investigates and escalates as needed. Any necessary improvements are implemented.

> **TIP**
> Make sure that Honeywell has the correct contact information including emails. Also make sure you whitelist VoiceConsole SaaS deployment email notices so they are not caught in spam/junk filters

Renewals

Honeywell provides a series of notices to the customer before the subscription expires. The notices include renewal quotes for various contract lengths.

Once renewed, Honeywell implements the new license for VoiceConsole SaaS deployment. For timely renewals there is no interruption in service.

Service Disclaimer

Honeywell is not responsible or liable for any issues, problems, unavailability, delay or security incidents arising from or related to: (i) conditions or events reasonably outside of Honeywell's control; (ii) cyberattack; (iii) the public internet and communications networks; (iv) data, software, hardware, services, telecommunications, infrastructure or networking equipment not provided by Honeywell or acts or omissions of third parties that Customer retains; (v) Customer and its Users negligence or failure to use the latest version or follow published documentation; (vi) modifications or alterations not made by Honeywell; (v) loss or corruption of data; (vi) unauthorized access via Customer's credentials; or (vii) Customer's failure to use commercially reasonable administrative, physical and technical safeguards to protect Customer's systems or data or follow industry-standard security practices.

The uptime target stated herein excludes any unplanned maintenance or other matters outside of Provider reasonable control or any reasonably scheduled and planned downtime.

"Planned Downtime" is a period of time, scheduled at least two weeks in advance with written notice to the customer, during which the Hosted Service is unavailable for normal use in order for Provider to improve, enhance or repair the Hosted Service. In no event shall Planned Downtime: (i) constitute any time between the hours of 8:00 am Eastern Time (U.S.) and 9:00 pm Eastern Time (U.S.), Monday through Friday; or (ii) exceed an aggregate of three (3) hours in any calendar month

Data Centers (Hosting)

Data centers are currently located in the United States (US) and European Union (EU). Based on country laws we are storing your data in either US or EU region and some countries are blocked or restricted because of legality. The following restrictions apply:

- By default data is hosted in the US unless the order is from an EU country. Customers must notify Honeywell when enrolling for a VoiceConsoleSaaS deployment if they have sites or plan to have sites within the EU

- Customers in an EU country must use EU hosting. EU data centers are located in the Netherlands and Ireland.

- A customer deployment with multiple site locations must use EU hosting if any site locations are in the EU.

- Data cannot be transferred from the EU data center to the US data center.

Data Privacy

No VoiceConsole SaaS deployment customer has access to any other customer's data. VoiceConsole SaaS deployment is a hybrid-tenant implementation. Each customer's database is

single tenant but some integrated services are multi-tenant.

Honeywell's privacy policy can be found at: https://www.honeywell.com/us/en/privacy-statement.

Submit a privacy request: https://honeywellhub.secure.force.com/PrivacyInformationRequestForm.

Data Collection, Privacy and Use

Honeywell's products, including software may collect information about how, and under what conditions, the Honeywell product/software is used and functions. This information may include, but is not limited to, information regarding user input (such as touch panel, keyboard, and trigger use), power and power management (such as battery level and status and recharge time) docking events, system up and down time, backlighting use, voice/audio capture, information from any sensors (such as location, motion, temperature, and ambient lighting), and use with peripherals. In addition, upon the customer's request and consent, Honeywell may collect recordings depicting speech from Honeywell products. Any such information collected shall be converted to a digitized or a mathematical form, and is collected, in a manner that does not verify the identity of any person, solely for the purpose of performing troubleshooting activities or for improving performance of Honeywell products.

General Data Protection Regulation (GDPR)

VoiceConsole SaaS deployment is designed with the capability of GDPR compliance. Customers can make use of this capability and are ultimately responsible for ensuring their systems and storage are fully compliant with GDPR laws beyond the VoiceConsole SaaS deployment solution.

Security

> **IMPORTANT**
> Honeywell provides a secure environment for VoiceConsole SaaS deployment.
>
> Honeywell strongly recommends using the Audit feature built into all versions of VoiceConsole to monitor for unauthorized access whether using VoiceConsole SaaS deployment or VoiceConsole On Prem deployment.

Disclaimer

This is an overview of cybersecurity and data privacy measures that have been put in place as part of the Honeywell VoiceConsole SaaS deployment offering and is not a legally binding cybersecurity or data privacy agreement. Honeywell may update this overview from time to time, with or without notice. Customers are encouraged to frequently check help.honeywellaidc.com for the latest version of this user guide.

Encrypted Transmission

VoiceConsole SaaS deployment devices communicate with the platform using only encrypted protocols with industry-leading ciphers for encryption. The secured channel ensures that data is protected and cannot be accessed by unauthorized entities as it travels from the devices to the cloud.

Management Console

Each customer is provided a secure link and login information for their instance of VoiceConsole SaaS deployment., which is secured using a defense-indepth methodology. This means using multiple layers of defense from active monitoring, encryption using the highest levels of ciphers for data in-motion, in processing, as well as data-at-rest. This ensures a secure channel for data exchange between the Honeywell cloud and the user's device. As Honeywell VoiceConsole SaaS deployment segregates tenant data logically, each customer can view and interact with only their own data and reports. In other words, dashboards and reports are private to every customer.

Honeywell has a documented security incident response plan, a summary of which can be provided upon request (subject to confidentiality requirements).

Cloud Provider

Honeywell VoiceConsole SaaS deployment leverages the world's leading cloud infrastructures, such as Microsoft Azure, that provide best-in-class physical and cyber security services. Honeywell continuously endeavors to not only comply with the best cybersecurity practices recommended by our providers but to meet or exceed those industry-leading practices by incorporating cybersecurity measures in the very design of the solution and keeping those measures current with changes in the cybersecurity landscape throughout the offering life cycle. The entire VoiceConsole SaaS deployment platform including customer-owned data is hosted within the United States (for United States and Canadian customers) or the EU (for European customers), and we will comply with any additional local regulatory requirements during the term of our contractual commitments.

All stored data is encrypted at the tenant level using keys that are unique to each organization. All encryption keys are securely stored in a vault solution separate from encrypted data. All customer data is segmented from the Honeywell network and kept in its own production instance. There is no interaction with development systems or infrastructure, which are also kept separate.

Considerations for Devices Connecting to VoiceConsole SaaS Deployment

One of the common weaknesses of system management as reported by Open Web Application Security Project (OWASP) is "not keeping software up to date." It is critical to install the latest

patches and software versions on all operating systems that support or connect to components of Honeywell VoiceConsole SaaS deployment.

Note that Honeywell VoiceConsole SaaS deployment may require specific versions and/or updates of software. Refer to documentation and release notes.

Honeywell recommends that you establish a level of privilege for all external accounts and enforce a strong password policy.

APPENDIX

A

ADDITIONAL REFERENCES

Honeywell Data Privacy Trust Center

www.honeywell.com/us/en/company/data-privacy

Honeywell Forge Trust Center

www.honeywellforge.ai/us/en/trust-center

Honeywell Privacy Statement

www.honeywell.com/us/en/privacy-statement

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