



Solution Deployment Guide for

Crave E-Menu

Document Version 1.2

PURPOSE

This document is intended to provide an understanding of the 3rd party solutions including the guidelines and requirements for its deployment.

INTENDED AUDIENCE

- Hotel Technology Solutions Field Team
- Support Agents
- Process Improvement Analysts
- Global Deployment & Change Management Team

VERSION TRACKING

Change Date	Document Version	Changed By	Notes
14 Dec 2021	1.0	K Duffee	Document Creation
20 Dec 2021	1.1	K Duffee	Added Dedicated SSID reference, updated third party linking policies
23 Dec 2021	1.2	K Duffee	Vendor Updates

NAVIGATION

SOLUTION AT-A-GLANCE.....	5
Introduction	5
GENERAL INFORMATION.....	6
Master Services Agreement [MSA].....	6
Pricing	6
RACI Matrix.....	6
Solution Procurement.....	7
Hardware Procurement Information.....	7
Hardware Requirements.....	7
Software Requirements.....	7
Bundles for Managed Properties	7
Product Support	7
GDPR Information.....	8
CONFIGURATION STANDARDS	9
PAYMENT INFORMATION.....	10
INSTALLATION & CHANGE MANAGEMENT.....	11
Professional Services	11
Responsibility	11
Role of Property Expert	13
System Readiness by Country	13
System Readiness by PMS	15
“Hilton Way” Implementation Process.....	15
Property-level maintenance	15
User Accounts.....	16
Application Update Process	17
Remote Connection Solution	17
Project Planning Checklist.....	18
On Site Installation	18
NETWORK AND FIREWALL REQUIREMENTS	21
Network and Port Requirements.....	21
TCP/UDP Port Requirements	21
LAN / WAN Network Diagrams.....	22
Managed & Franchise – Hosted.....	22



Bandwidth Requirements 23

Mobile Device Connectivity 23

SECURITY 25

 Data Handling 25

 Data Backup..... 25

 Security Applications for Managed hotels..... 25

 Application User Account Controls 25

 OS Level User Accounts 26

INVENTORY AND RECORD KEEPING 27

 Inventory (Managed Hotels Only)..... 27

INTERFACE INFORMATION..... 28

 PMS & POS Integrations..... 28

 Linking to approved 3rd Party Mobile Ordering Platforms..... 28

SOLUTION AT-A-GLANCE

Application Information

Solution Name:	Crave E-Menu
Approved Version(s):	Emenu 2021xxx OS: 20211014x
Solution Type:	In-Room Tablet



Deployment Information

Deployment Type:	Hosted
Approved for:	All Properties
Global Regions:	Global

Interface Information

Interface Type:	No Interface
Interfaced Systems/Versions:	N/A
Payment Gateway:	Payments are currently not approved for deployment

Vendor Contact Information

Support:	USA, Mexico, Caribbean: +1 877-778-7621 United Kingdom: +44 (0) 330 403 0148 Email: support@crave-emenu.com Support is available 24/7
Sales:	sales@craveinteractive.com
Other Products Available:	Crave has a few different modules they offer; however, not all have been reviewed and approved for deployment. <div>  <p>Approved for deployment</p> <ul style="list-style-type: none"> - In-Room Tablets with Crave CMS </div> <div>  <p>Not approved for deployment</p> <ul style="list-style-type: none"> - AppLess Web Application - Food & Beverage Ordering - Payments - PMS/POS Integration - Direct integrations with 3rd Party Systems </div>

Introduction

The Crave E-Menu system is an in-room tablet that is meant to replace the hotel compendium. The dockable tablet will digitally display hotel information, menus, channel information, and surrounding attractions and allow for a more interactive guest experience. Additionally, if a hotel has a web based mobile ordering system, a web link to that system can be placed on the tablet itself, directing guests to the mobile ordering web page. The tablet displays can be updated as needed by the hotel team members and are branded to match the look and feel of the hotel. The tablets can utilize the existing guest WiFi to access the internet.

GENERAL INFORMATION

Master Services Agreement [MSA]

The Master Services Agreement (MSA) will provide a property participation agreement that extends the general terms and conditions of the MSA down to the property level. This will extend negotiated pricing, Support SLAs and other considerations to each property regardless of their ownership model (Owned and Managed versus Franchisees).

The Payments, POS and Operations Systems team will take initial responsibility to negotiate business terms with the vendor, Hilton Supply Management (HSM) and Legal teams. A part of the MSA document includes a Property Participation Agreement. The Property Participation Agreement will be executed directly between each property and the vendor while providing the individual property with the general terms and conditions outlined in the MSA.

Pricing

Pricing has been negotiated with the vendor for hardware, software, support and professional services. For additional information, please contact Hilton Supply Management at: hsmx@hilton.com or visit the [HSM Lobby page](#).

RACI Matrix

A responsibility matrix, also known as RACI matrix, has been created for this solution to clarify and define roles and responsibilities for each entity during the onboarding journey.

Product Management RACI: Crave E-Menu									
Business Owner:			Technology Product Owner: PPOPS@Hilton.com						
Product Task	Hilton Technology Product Owner	Hilton Business Owner	Hilton Deployment Communications Team	Hilton Global Deployment & Change Management Team	Vendor Deployment Team	Hilton Field Technology / Franchise IT	Hilton Hotel Management	Vendor Support	Hilton Network Engineering
Update and maintain this chart; communicate tasks to, and obtain acknowledgement of responsibility from, each responsible team. <small>[Required Product Task - do not delete]</small>	RA		I	I	C	I		C	I
Confirm that the deployment model, hardware, software, and communication adhere to brand standards. <small>[Required Product Task - do not delete]</small>	RA								
Develop, review, and validate network architecture(s) for the product with applicable teams; maintain documentation throughout the product's lifecycle	RA	I		I	C	CI	I	I	C
Network Architecture Approval and Firewall Template Creation	CI		I	I		I			RA
Product Intake/Revalidation Entry	RA				C	I			
Database Maintenance/Controls	I				A	RA	A	I	
Hardware Acquisition through third party					RC	CI	A		
Define application patch schedule					RA	I			



Click the image above to open a copy of the RACI Matrix.

Solution Procurement

The purchase of this solution will be a contractual relationship entered into directly between the individual property and the vendor.

All financial transactions will be the responsibility of each property as Hilton Corporate will not be making purchase decisions on behalf of the hotel. Additionally, Hilton corporate will not be managing any enterprise-level rollout of this solution.

Hardware Procurement Information

All hardware for Crave E-Menu is procured from the vendor. No Hilton supplied hardware is required.

Hardware Requirements

Tablets

In-room tablets are required for the Crave E-Menu system to function as Hilton has approved it. These tablets are specific to the Crave system and must be purchased from the vendor themselves. There are two different tablet options depending on the size the hotel chooses to utilize.

- Crave T3 8" Tablet
- Crave T3 10" Tablet

Software Requirements

The software required for the Crave E-Menu solution is already built into the Crave tablets. This software is called CraveOS and no other software is needed for the solution to function as designed. Licensing for this software is built into the ongoing licensing and support fees.

Bundles for Managed Properties

There is no Hilton supplied hardware and, therefore, no bundles.

Product Support

Crave offers support via phone or email 24 hours a day, 7 days a week. Hotels will be asked to provide a list of approved service requestors. Any support ticket involving content changes will be checked against this list of approved requestors. If a person not authorized submits a ticket, authorization will be requested from an authorized contact. Support tickets related to hardware or software troubles will be worked on regardless of who opens the ticket.

Once a support ticket is opened a ticket reference is sent to the hotel to confirm the request has been received. Crave will then allocate a customer support representative to provide support based on the ticket content.

**Crave Technology Support**

Phone: +1 (877) 778-7621 (USA, Mexico, & Canada)
+44 (0) 330 403 0148 (United Kingdom)
Email: support@crave-emenu.com
Hours: 24/7/365
Languages: English | Spanish

If a hotel needs to contact support by phone, they should reach out to the number closest to their location (if not located in one of the designated countries). Regardless of phone number, calls are routed to the appropriate call center based on time of day.

Technical support, standard content manipulation, solutions training and access to the Crave knowledge base is included as standard in the monthly license and support fees. Specialist technical development, onsite engineering support, content redesign and/or extensive content changes may incur additional fees and charged at an hourly rate.

Crave Responsibility:

- Troubleshooting hardware issues including warranty and non-warranty repair support for the T3 tablets
- Software updates and releases
- Content creation and management services
- Solution training for self-service content activities and general operations within the hotel.

Hotel Responsibility:

- Ensuring quality Wi-Fi connectivity in every guest room and back office locations where staff consoles may be required.
- Maintaining knowledgeable Property Experts
- Ongoing internal training to new team members
- Providing content for update activities
- Performing troubleshooting steps on the tablet within the hotel during hardware diagnosis if required

Hotel Wi-Fi:

If tablets are experiencing Wi-Fi connectivity issues, those troubleshooting requests should go through the hotel's Wi-Fi provider before involving Crave support. In some cases, it may make sense that all three parties (the hotel, Wi-Fi provider, and Crave) work together to solve more challenging connectivity issues.

GDPR Information

This system holds no guest information based on the approved deployment model.

CONFIGURATION STANDARDS

There are no Hilton specific configuration requirements for this solution.

PAYMENT INFORMATION

Payment functionality has not been reviewed and should not be deployed at this time.

INSTALLATION & CHANGE MANAGEMENT

Professional Services

Professional Services are the cost that are associated with installing and configuring the solution and can be a considerable part of the entire cost of the project. These costs for Crave can include the following:

- Project Management
- Remote configuration of content
- Custom development
- Content reviews with the hotel
- Remote testing
- Remote training
- Crave system access for authorized users
- Installation support

The level of effort that is required would involve many variables including the size of the hotel, Crave resources required, and the overall scope of the project. This information will be used to help the vendor determine the best course of action for configuration and installation requirements. Additionally, if a hotel requests on-site support, an additional project management hourly rate plus associated travel costs would be incurred.

Responsibility

Project Management

A project manager will be assigned by the vendor. This project manager will communicate with the property on a regular basis to drive all needed activities which will be required to be completed prior to the first vendor resource arriving onsite.

For this process to be effective, the property will be asked to immediately identify one team member who will serve in the role of “Project Champion”. This individual will not be expected to do all the work necessary to prepare for the installation. Rather, the role of the Champion is to ensure that all the correct property level resources from all relevant hotel departments are included in calls, meetings, and other project activities. Additionally, this individual will be responsible to ensure that all project tasks assigned to the hotel are completed thoroughly and on time.



It is critically important that the hotel immediately identify a single person to be the Project Champion for this deployment. Without a single channel into the hotel to drive progress forward, timelines can quickly become delayed.

Vendor Responsibility

The vendor will supply all system related pricing and services for the following:

- Defining project scope to formulate a detailed project plan based on operational requirements and timelines to include the definition of key tasks, resources, responsibilities, and milestones.
- Work with the Hotel Champion to ensure the project progresses in line with the project plan and agree on any steps to mitigate delays.
- Liaising with Brand/Marketing team in relation to UI elements of the solution to ensure on-brand and that the advertising and revenue potential of the solution is maximized based on best practices
- Work with Hotel Champion and team to gain the hotel information and assets to develop the content to meet operational requirements.
- Allocation and shipment of Crave hardware to the property in line with the signed sales contract and receipt of the hardware payment.
- Support with remote configuration tasks (unpacking, assigning room numbers etc).
- Remote training for hotel operations teams on the guest experience and operational use of the solution in the hotel, including IT hardware troubleshooting
- Remote support during the installation process
- Monitoring hardware connectivity during deployment and ensuring initial operations function as intended
- Create user accounts for authorized team members to required Crave systems
- Working with the hotel to make any changes to the configuration resulting from go-live feedback

Hotel Responsibility

The hotel will be responsible for the following as it relates to the installation process:

- Providing one point of contact referred to as the “Project Champion” (*Detailed in the Project Management section above*).
- Maintain communication with the Crave project manager
- Advise of any internal delays that may impact the project delivery based on the project plan.
- Liaise with 3rd Party Wi-Fi provider to ensure hotel Wi-Fi meets Crave configuration requirements e.g., broadcast throughout the hotel, MAC address authentication etc.
- Overseeing internal review of content with operations team and Marketing to ensure that it is in line with requirements and signed off accordingly.
- Formulate an installation plan with hotel resources to unpack, configure and install the hardware in the guest bedrooms in consultation with Crave.
- Formulate a remote training plan for hotel operations and marketing to allow the team to attend key training sessions.
- Ensure team attendance to scheduled pre-installation calls, training sessions, and onsite meetings as needed and appropriate

Role of Property Expert

At the start of each installation project, the hotel is asked to identify team members who will be designated as Crave E-Menu Property Experts. These individuals will undergo additional training so that they can gain the skills necessary to become self-sufficient in maintaining those aspects of the database that properties are permitted to maintain.

Our recommendation is that the property identify a minimum of three team members to serve in the role of Property Expert. If the hotel elects to have more than three in this role, that is fine. It is important for the property to understand that when a Property Expert leaves the hotel's employ, that individual will need to be replaced and trained. Should no Property Expert remain at the property, the hotel will need to turn to the vendor to administer the database – which will be done as a billable engagement to the hotel.

System Readiness by Country

The vendor has stated they have active installation or specific importation experience in the following countries below. Based on the vendors current certification and global import license, they may be able to deploy in countries not listed below. Please reach out to Crave if a specific country is not listed to determine if deployment is possible.

European Union

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxemburg
Malta
Netherlands
Poland

European Union

Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
United Kingdom

Middle East & Africa

Dubai

North America

US
Canada

CALA Region

Bahamas
Colombia
Costa Rica
Curacao
Dominican Republic
Jamaica
Mexico
Panama
St. Lucia
St. Martin

Asia Pacific Region

Australia
Indonesia
Japan
Philippines
Thailand
Vietnam

System Readiness by PMS

Hilton has not approved any PMS integration at this time.

“Hilton Way” Implementation Process

The Payments, POS and Operations Systems team has worked with the vendor to define and implement a repeatable installation process for all deployed projects, also referred to as “The Hilton Way” of installations.

The process will commence with a “Kick Off” or welcome call with the property. The project manager will explain the 10-week planning process, explain roles and responsibilities of the vendor and of the hotel. A sample of the 10-week planning process checklist is provided below.

There is nothing “magical” about this process that dictates the duration of all planning activities MUST consume a 10 -week period. If a property is able to successfully complete all of the necessary tasks in less time, then there is nothing to state the project planning phase cannot be accelerated to something less than 10 weeks. Experience, however, has proven that most projects will need the full 10-week period to complete all of these steps. The vendor project manager and the hotel Champion will drive the project schedule and mutually agree on all project milestone dates.

Some of the more involved tasks on the project planning checklist include items that are usually measured in weeks and not hours or days. Examples may be the completion of database configuration documents requiring a complete listing of all items, settings, and general configuration. Additionally, any changes needed to the hotel LAN or network environment will also be the responsibility of the property – with these changes taking upwards of six weeks on average to complete.

Property-level maintenance

One of the roles defined in an application implementation is that of the “Property Expert”. It is intended for each hotel to identify a select group of team members who will maintain those areas of the application database which they are permitted to maintain. It is recommended for each property to identify a minimum of three team members to serve in the “Property Expert” role. They may elect to have more than three team members to serve this function.

The Property Expert is trained during the initial installation project to administer those areas of the Crave E-Menu application which are defined at the property level. These areas include:

- **Content via Crave Content Management System (CMS)**

Content training is geared towards allowing the Property Experts to take control of their own content. Training includes the ability for the Property Expert to:

- Update images, prices and of descriptions of hotel services/guest directory content as appropriate
- Hide or make visible existing content e.g. seasonal content
 - Add advertising messages in the form of imagery or widgets within the tablet

- Create and schedule marketing or operations push messaging (to advise of property maintenance or encourage spend with hotel promotions)
- Update 3rd part booking links
- **Device Management via Mobile Management System (MMT)**
The Crave MMT allows authorized hotel members to control content via their personal devices e.g. computer or phone. Training will be provided as to how to use the MMT to include:
 - How to use the MMT to access Crave Knowledge base articles to troubleshoot hardware or content issues
 - To view installed tablet connectivity status and view tablet WiFi strengthTo change the estimated wait time for delivery of F&B orders placed via approved Hilton F&B ordering solutions (optional)

There are areas of the system in which the hotel will be unable to maintain themselves. These include user access management, UI theme branding, and software updates. Requests can be made to make changes to these three areas as follows:

- **User Access Management:** Property Experts can complete a user access form to request new access rights or amend existing ones via support@crave-emenu.com.
- **UI Theme/Branding changes:** Property Experts or authorized brand teams can request a change via support@crave-emenu.com. Additional charges will apply.
- **Software Updates:** Hotels do not request updates to software as this is managed completely by Crave support.

Over time, the property may decide their named Property Experts could benefit from additional training. Hotels which desire additional training will work directly with the vendor to contract for either onsite or remote training services at the Hilton-negotiated Professional Services rates for that country.

User Accounts

User accounts are needed to access the back end of the Crave E-Menu system. These user accounts consist of a username and password and can be configured to have access, or denied access, to specific features and functions within the Crave environment.

User accounts will be created during the initial installation for authorized users. Property Experts will be trained on the specific process for authorized subsequent users in the system. Additionally, password resets will be handled by the Crave customer support teams in the event a user forgets their credentials.

To best protect our guest data and intellectual property, unique usernames and passwords must be created for everyone accessing the system. Generic IDs and passwords should not be used. Password requirements for Crave will mimic Hilton's enterprise password policy and require the following:

- Password must be at least 7 characters
- Must contain 1 Uppercase letter
- Must contain 1 Lowercase letter
- Must contain 1 Special Character (!, @, #, \$, %, ^)

- Must contain 1 number

The Crave tablets have their own passcodes to change settings or access the main operating system of the device. Post installation, these default passcodes must be changed and kept secure.

- An 8-digit pin is required to be set to change Wi-Fi and Room information
- A 12-digit alphanumeric code is required to be set to access the Crave OS

Application Update Process

Crave is a completely hosted system; however, periodic updates to the tablet devices will be required. These updates are preformed remotely via scheduled command tasks that will deploy the new version of the application silently during non-peak times of tablet use – usually during the middle of the night while guests are asleep. Hotels will be notified in advance of any update and the scheduled time the update will occur. Benefits that come with a scheduled update will also be communicated at that time. Should a hotel need to postpone a scheduled update, Crave will work with the hotel to reschedule when appropriate.

Crave will utilize its own Mobile Device Management system to deploy updates to the tablets. This software comes standard on the Crave tablet hardware to facilitate these updates. Downtime is usually not required, however, if any downtime is expected the hotel will be made aware of the update and any systems that will be impacted and for how long. Care is taken to minimize impact by performing updates during non-peak times. All updates are fully tested prior to deployment; however, in the event of failure a rollback can be performed if another resolution cannot be quickly found.

Remote Connection Solution

Remote access will be required to the Crave T3 line of tablets. This access is performed utilizing Crave's proprietary MDM (Mobile Device Management) tool that is pre-installed on the tablet devices.

Remote access is initiated via the Crave CMS (Content Management System) by authorized users with their own unique log on credentials. On entering the CMS a specific device can be located via MAC address or room number, and a link will appear to initiate access to the tablet. When the remote connection is established the guest tablet screen turns black so any changes made are not visible by the hotel guest, maintaining some privacy of the user.

This is typically used on a rare ad-hoc basis to troubleshoot some tablet issues such as the device has not been assigned a room number or to verify a property reported content issue. In many scenarios the device has already been removed from the room by IT.

Project Planning Checklist

PROJECT PLANNING CHECKLIST

Hilton

PROJECT CONTACT INFORMATION			
Role	Name	Phone	Email
Project Manager (PM)			
Project Champion			
General Manager			
Hotel IT Rep			

✓	Task	Responsible Party	EST. Due Date	Due Date	Date Completed
Checklist					
	Return signed contract to Crave.	General Manager	10 weeks		
	Crave Finance to issue on order invoice.	Crave Finance	10 weeks		
	Assign Hilton Project Champion & Department Experts for the project.	General Manager	10 weeks		
	Send property contact information to Crave's VP Customer Success	Hilton Project Champion	10 weeks		
	Crave's VP Customer Success to appoint Crave PM and provide details to Hilton Project Champion.	Crave VP Customer Success	10 weeks		
	Process payment of on order invoice relating	General	8 weeks		



Click the image above to open a copy of the Project Planning Checklist.

On Site Installation

Typically, an on-site installation is not required for the Crave tablets. No technical skills are needed to deploy and or configure the Crave hardware within the hotel. Crave will instead do all configuration remotely and provide the hotel with a training video as well as a session to discuss best practices.

In the event a hotel wishes to have someone brought on-site, additional costs will be incurred. Most configuration will have been done remotely prior to the installer arriving about three days prior to go-live. The responsibilities of the installer will be:

- Hardware preparation and installation advice has been given to the hotel
- Verify that all applicable hardware has arrived
- Conduct system testing
- User Training
- Install needed in-room hardware
- Provide system access to authorized users

During any on-site phase of the deployment of Crave, the hotel can expect a significant amount of involvement and work. The hotel's project champion will be tasked with the following:

- Ensure the Crave installer has a room
- Ensure that a hardware prep area with Wi-Fi access is setup
- Resources have been allocated to prepare and install hardware
- Ensure training attendance

Even if the hotel does not opt for on-site training, the hotel champion can expect a significant amount of work as it relates to training, hardware setup, and testing. Coordination between various departments will be critical.

Property Signoffs

A component of the "Hilton Way" installation process requires the property to sign off on key milestone activities. Each milestone is seen as a gate, or a "Go, no-go" moment in the onsite installation process in order to move forward into the next set of tasks. If a milestone is not completed and property signoff is not obtained, the vendor should not be moving forward with other tasks that rely upon the missing signoff as a pre-requisite.

The five critical signoffs required for each project are defined below. Once signoff has been obtained, the vendor project manager is to retain the original signed document and include it in a project repository maintained by the vendor in their corporate offices. From time to time, these documents may need to be referenced and will be requested by the Payments, POS and Operations Systems team.

Database Build Complete

The Project Champion and/or a property designee will sign off on each component of database configuration. They will attest the database is complete and matches the information provided to the vendor previously. Items to validate include:

- **UI design** – Ensure that design is in-line with brand requirements.
- **Content** – Hotel confirmation that all aspects of the tablet content accurately reflect the hotel offering and pricing, at the point of deployment.
- **IT/Wi-Fi** – Hotel confirmation that tablets are deployed and that there are no connectivity issues
- **System Access** – Hotel confirmation that the list of authorized users is correct for hotel IT, Marketing and operational teams.

Training Complete

The Project Champion and/or a property designee will sign off on the completion of all training activities. They will attest the training sessions have been conducted and completed to their satisfaction. Items to validate include:

- **Hardware Troubleshooting** – Property level hardware monitoring via the CMS and troubleshooting for IT.
- **Hardware Care** – Housekeeping tablet maintenance in a room including cleaning and visual checks

- **Self-Service Content Management** – How to make content changes by Property Experts or other authorized users.
- **Support** – In-house versus Crave support procedures including the Crave Mobile Management Tool (MMT) and Crave Content Management System (CMS) self-service tools, how to raise a hardware repair request, and Crave support contacts.

Support Handoff

At the end of the onsite implementation process, the vendor lead installer, Property Champion, and vendor Support Help Desk representative are to gather on a call to conduct a formal handoff. The intention of this call is to document any outstanding issues which have not been resolved by the installation team, to introduce the vendor support organization, and to ensure the property knows how to contact the vendor help desk on a 24/7 basis moving forward. The hotel will be instructed to no longer call their onsite installers for assistance.

Each open item will require the project team to open a separate support incident so that the problem can be individually tracked and resolved.

NETWORK AND FIREWALL REQUIREMENTS

Network and Port Requirements

It is the hotel's responsibility to ensure their property meets the current Hilton LAN standards as defined by the Hilton IT Infrastructure and Architecture team.

The Payments, POS and Operations Systems team has worked with the vendor to develop all network requirements for the proposed solution. Port information for each component of the solution, along with an accounting of each type of hardware needed for the solution to work, is included in network architecture drawings which are a part of the Risk Assessment process. These drawings will define both LAN and WAN requirements for the solution and indicate how the solution will work within the existing LAN standards as defined.

For both Hilton managed and Hilton franchised properties this hosted solution consists only of in-room, guest facing tablets and sits completely on the Guest Wi-Fi network utilizing a dedicated SSID. At no time should Crave tablets be connected to a Hilton Admin network. Additionally, the only web addresses that should be accessible for these devices are listed below; all other URLs should be blocked.

TCP/UDP Port Requirements

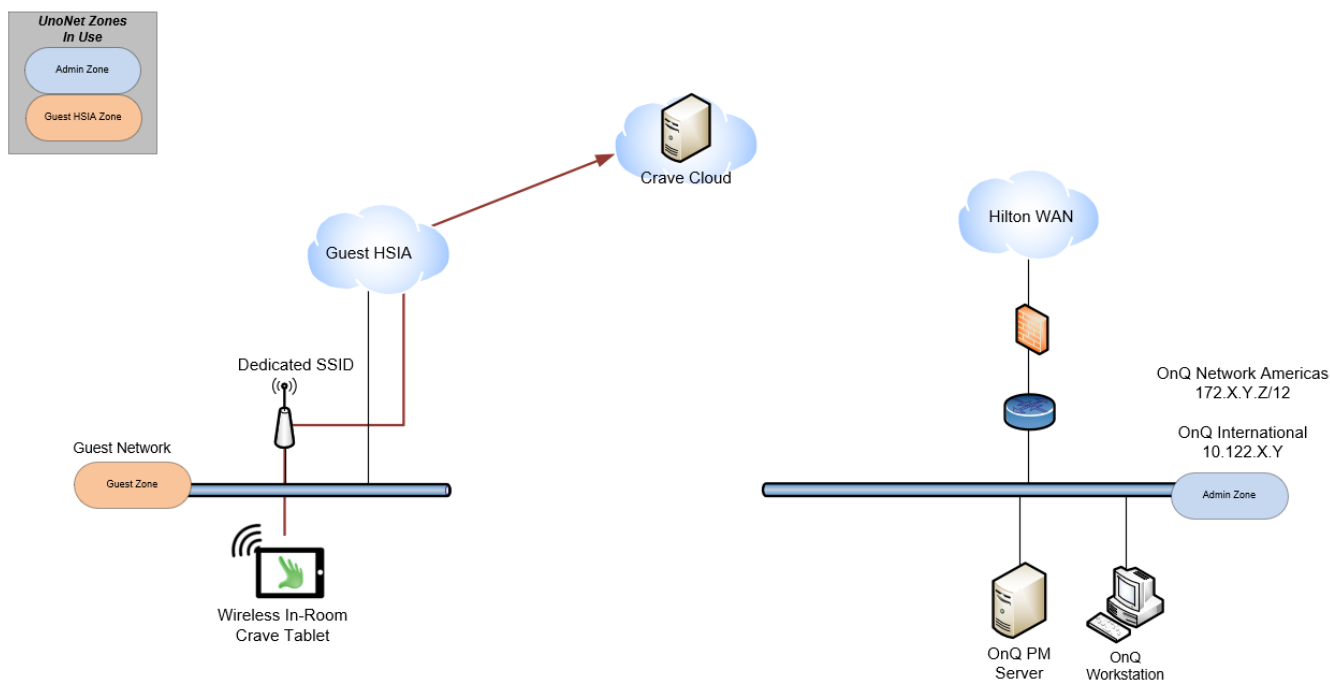
WAN Connectivity Requirements				
DESCRIPTION	PORT	FROM	TO	ENCRYPTION
App Operations	TCP 443	Crave In-Room Tablet	Crave Cloud <u>URL:</u> https://api.crave-emenu.com https://app.crave-emenu.com https://api.craveinteractive.net https://app.craveinteractive.net https://api.cravecloud.com https://messaging.cravecloud.com https://api.cravecloud.net https://messaging.cravecloud.net https://cravefiles.blob.core.windows.net https://s3-eu-west-1.amazonaws.com/cravecloud-prod	HTTPS TLS 1.2

LAN / WAN Network Diagrams

Managed & Franchise – Hosted LAN System Requirements

No LAN Connections

WAN System Requirements



WAN Conversation Visual



Notes:

1. Crave uses AWS & Microsoft for their cloud services.

Bandwidth Requirements

Optimal bandwidth requirements will vary by property and are largely dependent on the size of the operation and the number of device deployed.

It's important to note that this system rides on the guest network. Bandwidth needs will need to be taken into consideration as to not impact guest experience when using their own devices. Additionally, as hotels create the content that is displayed on these tablets some items may consume more data than others. For example, if any content configuration utilizes streaming video this will have an impact on bandwidth needs and utilization.

Minimum & Optimum Bandwidth Requirements

Minimum and Optimum bandwidth requirements have been provided by the vendor to facilitate continued system up-time. The connection needs to be able to sustain the minimum bandwidth requirements listed below. Low speed DSL and Dial-up connections are not supported.

Optimum Bandwidth (entire solution)

Upload: ▲ 3 Mbps
Download: ▼ 12 Mbps

Minimum Bandwidth (entire solution)

Upload: ▲ 2 Mbps
Download: ▼ 8 Mbps

Consequences of Network Latency or Outages

Overall site bandwidth usage is heavily influenced the number of users and devices operating on the network at any given time; the more devices utilizing system resources the more bandwidth is required.

In the event of network latency or outages, guest experience while using the tablet devices may be impacted when accessing certain content. The system overall will still display as most content is cached and stored locally on the tablet.

Mobile Device Connectivity

The Crave E-Menu system utilizes proprietary tablets made for and sold by Crave Interactive. These tablets are in-room, guest facing screens with docking stations. These tablets come pre-loaded with proprietary Crave software including Crave OS, E-Menu, Launcher, Agent, and Support tools.

Functionality

The Crave tablet devices are made to perform a variety of guest related tasks including:

- Host the E-Menu software
- Enable guests to view hotel information and content (Hotel Compendium)
- Link to other approved third party, online booking engines available at the hotel (Spa, F&B, etc.)
- Control the TV or other IR controlled solutions
- Explore the local area
- Act as a bedside alarm clock.

Connectivity

The Crave tablet devices will reside in each guest room and connect to the standard guest wireless network. A dedicated SSID is needed. The hotel will need to work with their Wi-Fi provider to set this SSID and have all tablet MAC address whitelisted to allow open access to the internet and bypass the typical splash screens. **At no time should these tablet devices be connected to the Hilton Admin network.**

Additionally, Crave utilizes their own MDM (Mobile Device Management) solution to manage the fleet of tablets and roll out updates. Updates are rolled out over the air via this MDM and are usually performed during the night. See the "Application Update" section for more detailed information.

SECURITY

Data Handling

The Crave platform is hosted globally and managed / deployed by Crave. Data is managed through the Crave management software and only a small subset of the Crave team has direct access to the datastores.

Data Backup

As the Crave system is completely hosted, data backups remain the responsibility of the vendor. An encrypted backup of the Crave database is created every 15 minutes and uploaded to another cloud provider. Restoring data from a backup is tested at least once a month. For AWS hosted datastores, Crave follows the AWS principles for backup and recovery.

Security Applications for Managed hotels

There are no Hilton managed security applications applicable for this system.

Application User Account Controls

All users accounts are managed by the hotel, as such, it is the responsibility of the property to perform all local user administration including:

- Coordinate with hotel management to gain approval for requests for access before creating new user accounts.
- Ensure each user will have a unique account. Shared generic access and anonymous access is prohibited.
- Perform a periodic audit (monthly/quarterly/yearly – property to establish their internal policies) to ensure that only valid users have access.
- Change user role / permissions as needed when a team member's job responsibilities change.
- Immediately disable terminated or furloughed team members.
- Perform routine database inspections to disable any inactive users within 60 days.
- Identify, configure and maintain proper permissions for group/role based access.
- Immediately disable any administrator level users that no longer require access. This will either be done via another local administrator level account or via a support ticket entered with the vendor to disable access.
- Ensure smart cards, security tokens, and user certificates will not be shared between multiple accounts.
- All vendor default passwords are immediately changed after installation of any hardware or software.

As of the Cyber Risk Assessment review completed on **December 2021**, this application has been reviewed to determine whether it satisfies Hilton's password strength and complexity requirements as defined in Global Information Security Policy document HLT.SEC.24 and has been rated as:

User Account Controls

Meets Hilton Policy 

OS Level User Accounts

There is no on-site hardware besides the Crave tablets; therefore, no OS level user accounts are required.

INVENTORY AND RECORD KEEPING

Inventory (Managed Hotels Only)

It will be the responsibility of the local IT Field Services team to maintain an accurate listing of application versions and devices in the Hilton-approved centralized record keeping repository. Presently, a SharePoint site, the Hilton Asset Database (HAD) is maintained on The Lobby for the tracking of technology assets and can be accessed by users with proper credentials.

As systems are upgraded or replaced, it will remain the responsibility of the local IT Field Services team to keep these records current.

INTERFACE INFORMATION

PMS & POS Integrations

There are no direct PMS or POS integrations that have been reviewed at this time.

Linking to approved 3rd Party Mobile Ordering Platforms

The Crave tablets do have the ability to add in links to the tablets; however, no outside links, iframes, or embedded widgets should be used. Hotels can utilize QR code images that guests can utilize their own mobile devices to scan and navigate to mobile ordering/booking tools.

Essentially the guest should not have the ability or option to input any personal data or credit card information into the Crave tablet devices.