

# Aruba UXI 智能网络传感器

亢郁

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aruba

a Hewlett Packard  
Enterprise company



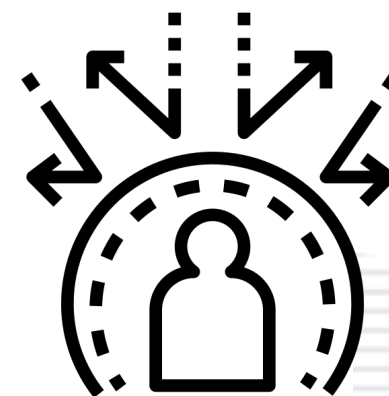
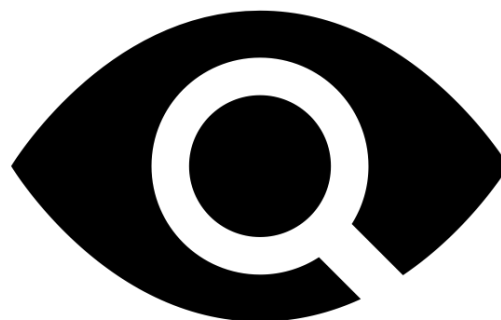
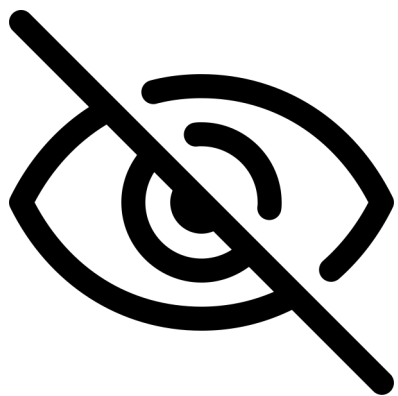
## 主要挑战

典型的IT解决方案并不关注移动性、SaaS或用户体验

直到最终用户抱怨，许多问题才被发现

许多问题都是短暂的、听说的、或者难以复制

现有的工具可能是无效的，并且缺乏终端用户的意识



# 问题会发生的关键原因

典型的IT解决方案并不关注移动性、SaaS或用户体验



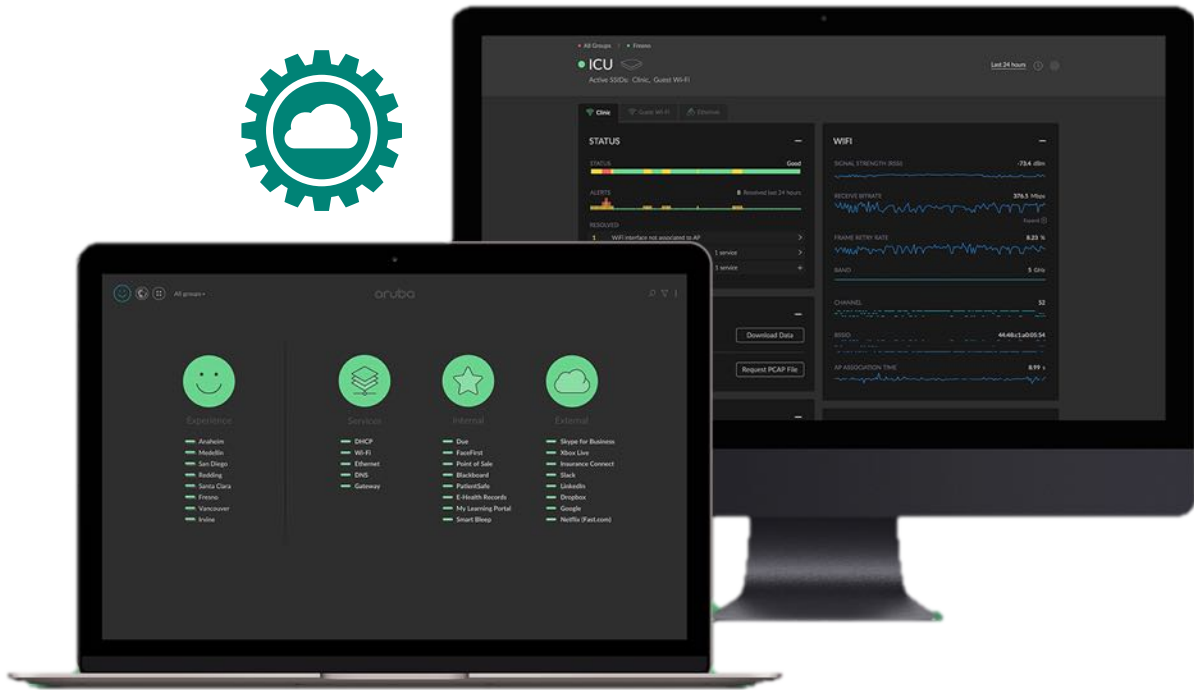
不断增加的用户、设备、应用、漫游、转向SaaS

资源和带宽是扁平的，不能按需求伸缩

支持无线和SaaS需要新的能力

# Aruba User Experience Insight 介绍

## Cloud-Based UI



用户和应用程序保证  
通过模仿用户的行为和动作，从用户的角度了解网络 and 应用程序的性能

故障诊断的AI警报  
使用机器学习和综合测试主动验证网络运行状况

易于管理和部署  
直观的用户界面的管理，实时监控，和零接触配置

WLAN、LAN和应用程序保证  
从APs、交换机、内部服务和基于云的应用程序收集数据

# 集成在一个盒子中的IT助理

- ✓ 持续自动化测试和故障排除
- ✓ 一目了然的状态
- ✓ 可执行的洞察力



- ✓ 远程修复和验证
- ✓ Peace of Mind Everything is OK
- ✓ 节约时间和金钱





# 可操作的洞察力使用户体验保持一致

用户视角的**洞察**，以其他解决方案无法提供的方式检测和排除问题，无需到客户现场。

## 唯一

- 唯一进行模拟客户端测试的供应商
- 提供一个由外向内的网络视角
- 与供应商无关，支持任何Wi-Fi SSID或有线端口

## 强大

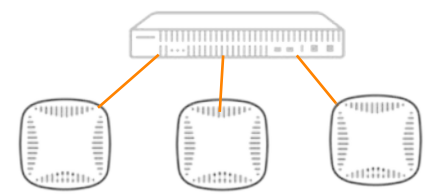
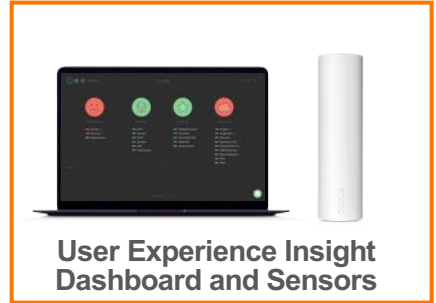
- 提供实时性能状态
- 支持前瞻性的问题解决
- 测试从边缘到数据/应用程序/服务的完整路径
- 诊断功能加上抓包历史和分析方便故障排除

## 简单

- 简单的价值支撑
- 可以在任何网络下工作，包括非Aruba的和多厂商的混合环境
- 易于演示
- 直观的用户界面
- 零接触配置
- 最小化管理



# 端到端视角



Aruba Central Cloud Management for WLAN, LAN, VPN and SD-WAN

**User Experience Insight**

**Use:**  
Continuous testing and validation with automated troubleshooting and AI Alerts to understand user experience

**Leverages Data from:**  
Purpose-Built UXI Sensors and integrates with Aruba Central

**Aruba Central**

**Use:**  
AI/ML-based Wi-Fi Optimization

**Leverages Data from:**  
Aruba UXI, WLAN, LAN, and SD-WAN



# User Experience Insight

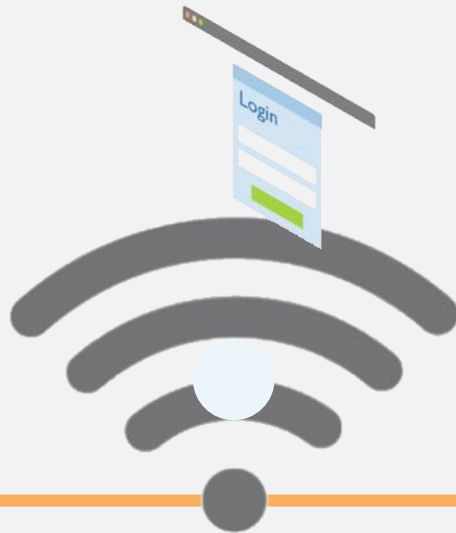
功能和用户界面



# 数据优化用户体验

防火墙内部

防火墙外部



SSID 可视化  
关联AP  
射频环境  
Captive Portal

认证  
DNS, DHCP, ...  
网速  
可靠性

吞吐量  
延迟  
抖动  
丢包



# 测试套件

## 对您的网络进行全面测试

### Wi-Fi

- Scan
- Association
- Packet capture
- Measure KPIs (RSSI, Util, etc.)

### 网络

- Authentication
- Captive Portal
- Gateway
- DNS
- DHCP
- Iperf3
- Ping/Hping
- HTTPGet / Curl
- Telnet

### App库:

- Test any Web Application (easy recording/script)
- Office 365, Gmail, AWS (w customer login)
- Dropbox (w customer login)
- Slack (w customer login)
- Skype for Business, Blue jeans and other VoIP services
- Netflix
- YouTube



# 零接触部署就像1,2,3一样简单

在办公室，分支，或远程站点



UXI G-Series  
Sensor



UXI F-Series  
Sensor

1

## Place or mount

1 sensor for every 5-10 Aps  
*at end-user locations*

2

## Connect to power

AC adapter or PoE

3

## Login to dashboard

View real-time status



# UXI Sensor Portfolio

## 分析和测试网络的模拟客户端设备



**UXI G-Series  
Sensor**



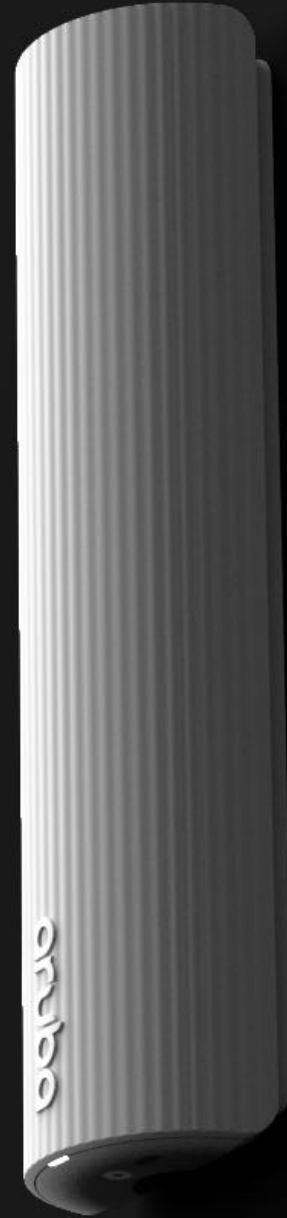
**UXI F-Series  
Sensor**

G-Series	F-Series
2.4/5GHz 2x2 Wi-Fi 5	
10/100/1000 GE	
Bluetooth 5	N/A
Optimized for wall mount	
1, 3, 5-year cloud or LTE license	
Optional Mobile app onboarding via BLE	N/A
Kensington lock	N/A
1-year limited warranty	90-day limited warranty

- Ship to any country and plug into power and it will self-configure. No technical person needed on site.
- Supports out of band connectivity



# G-Series Sensor











2J006

Med Room



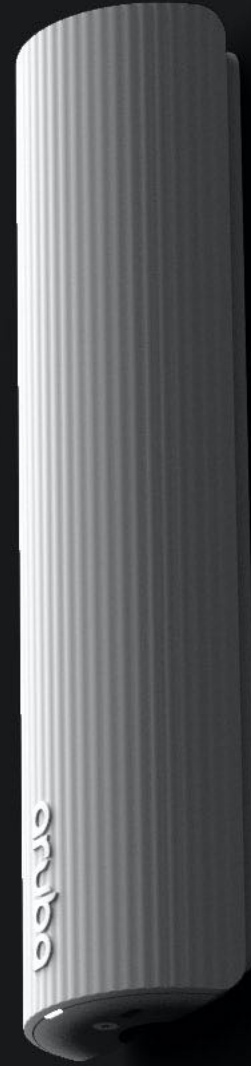
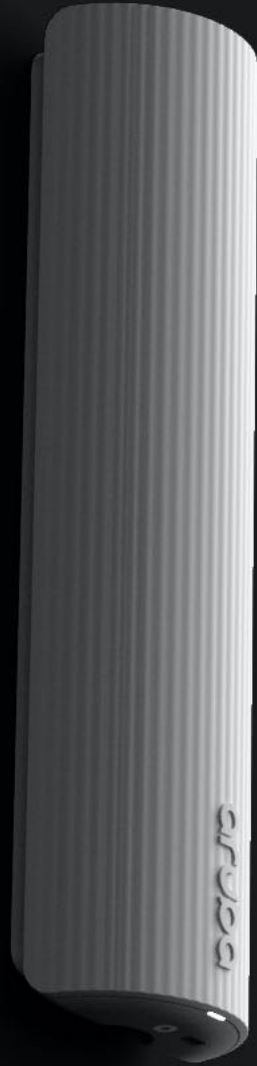






## UX-G5E

Wi-Fi + Ethernet



## UX-G5C

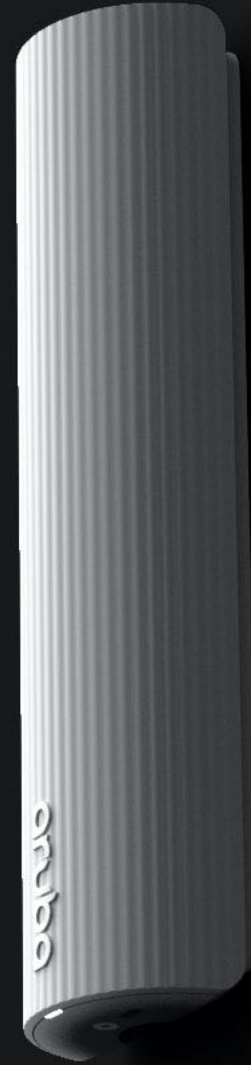
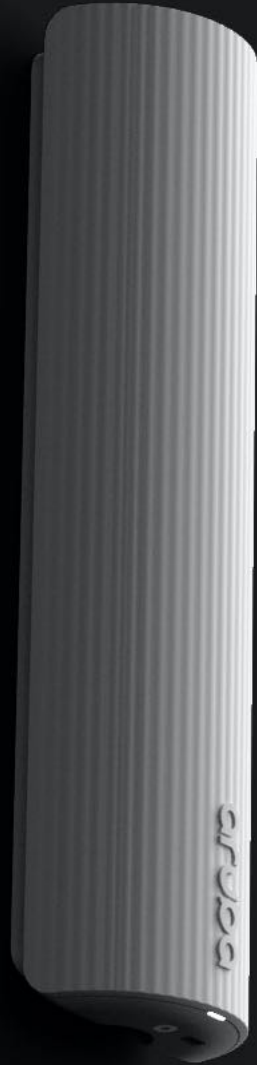
Wi-Fi + Ethernet  
+ Cellular

## UX-G5E

Wi-Fi + Ethernet

Perfect for  
**Greenfield deployment**  
**Campuses**

Ethernet connectivity recommended  
Universal AC Power Supply optional



## UX-G5C

Wi-Fi + Ethernet  
+ Cellular

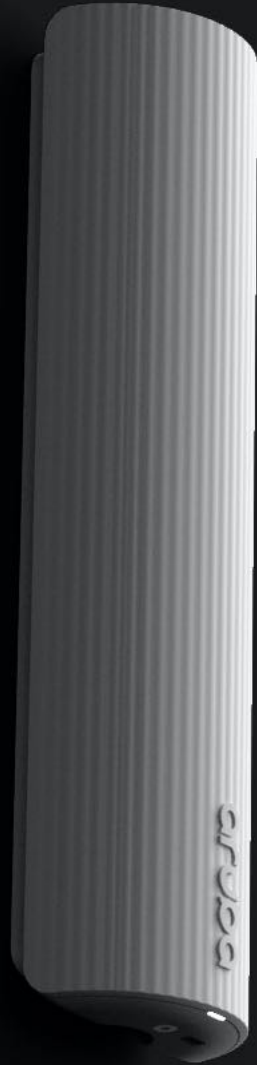


## UX-G5E

Wi-Fi + Ethernet

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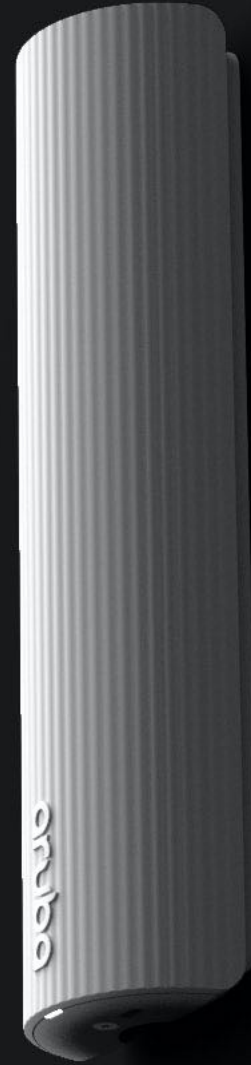


## UX-G5C

Wi-Fi + Ethernet  
+ Cellular

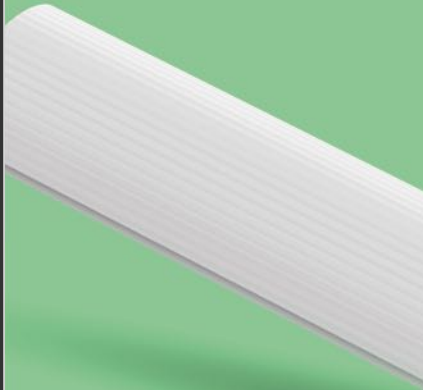
Perfect for  
**Rapid, flexible deployment**  
**Branches**

Ethernet connectivity optional  
Universal AC Power Supply included  
Last gasp power included



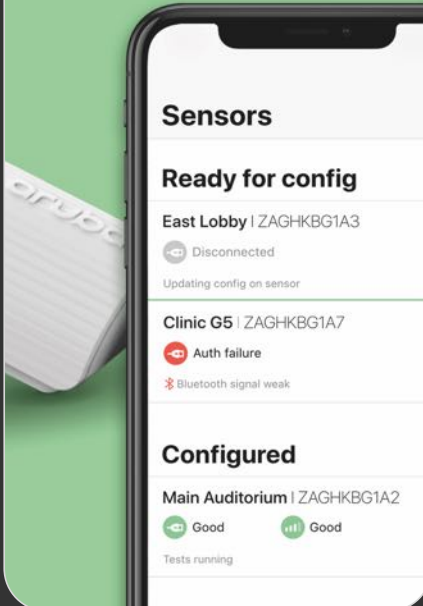
# UXI App for G-Series Sensor

aruba  
User Experience  
Insight



Install & Troubleshoot  
UX-G5E, UX-G5C

Find nearby  
sensors



**Sensors**

**Ready for config**

- East Lobby | ZAGHKBG1A3  
Disconnected  
Updating config on sensor
- Clinic G5 | ZAGHKBG1A7  
Auth failure  
Bluetooth signal weak

**Configured**

- Main Auditorium | ZAGHKBG1A2  
Good Good  
Tests running


Troubleshoot  
sensor connectivity



Auto-configure  
via Bluetooth



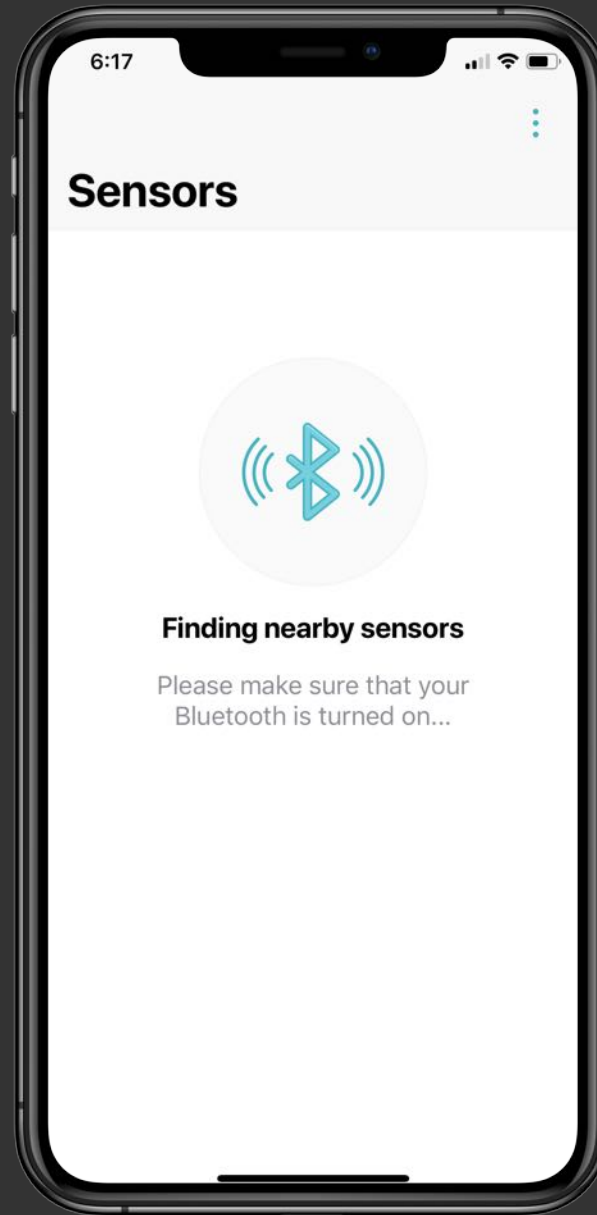
Identify via  
LED color



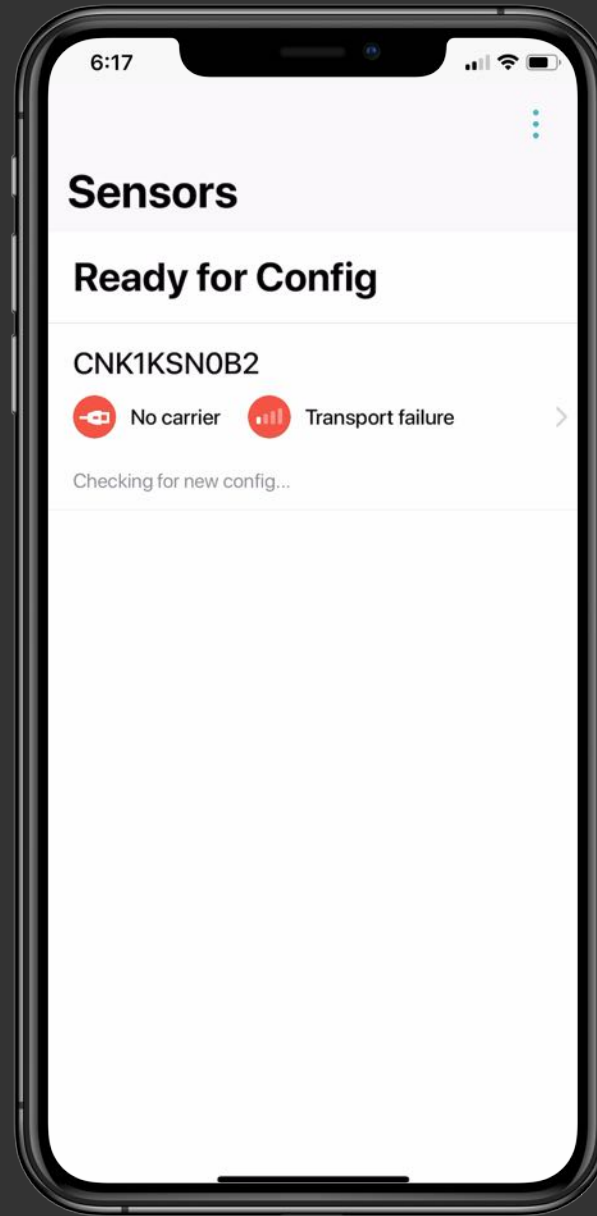
iOS at launch; Android to follow



# UXI App demo

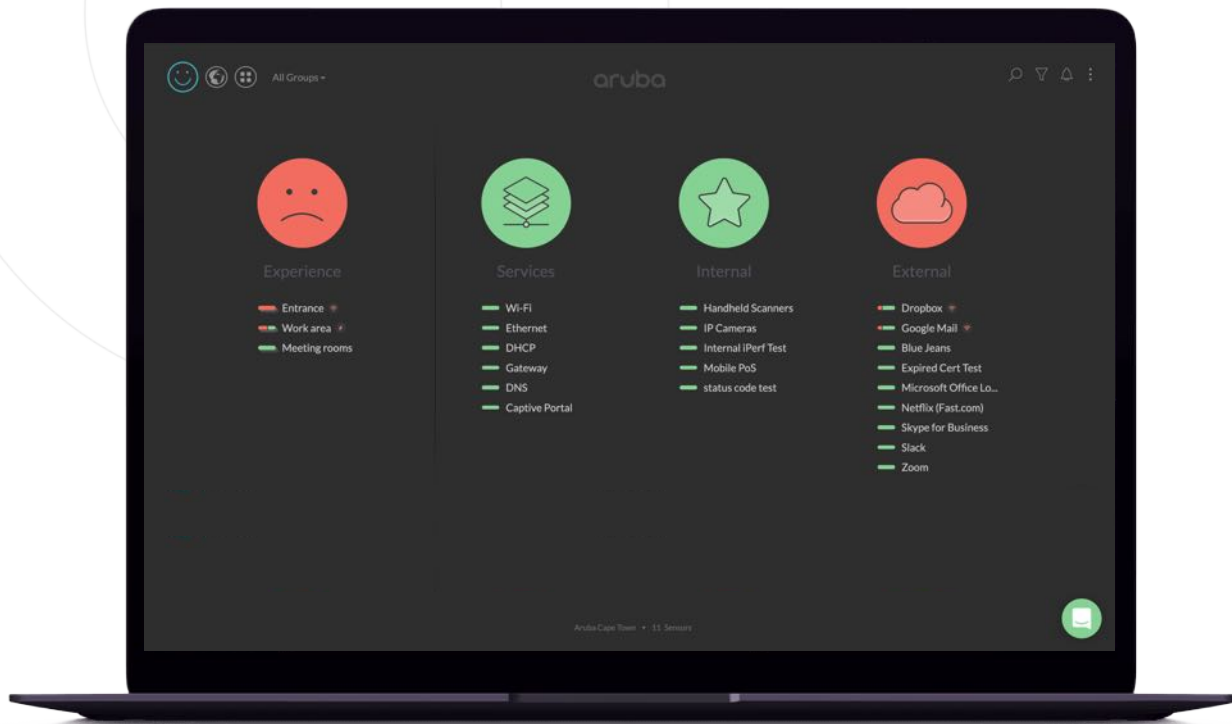


# UXI App demo





# 一目了然的状态

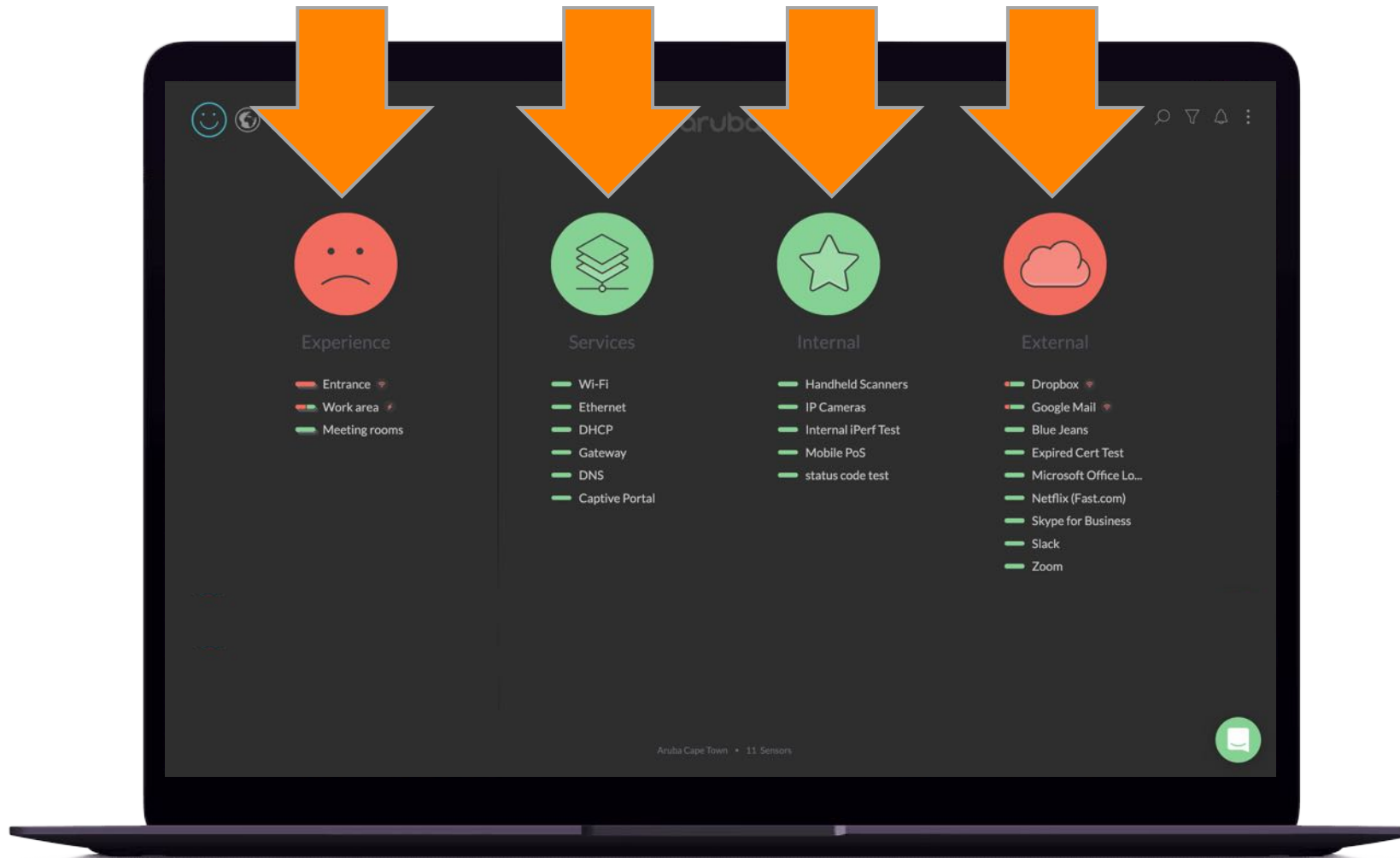


Performance is OK



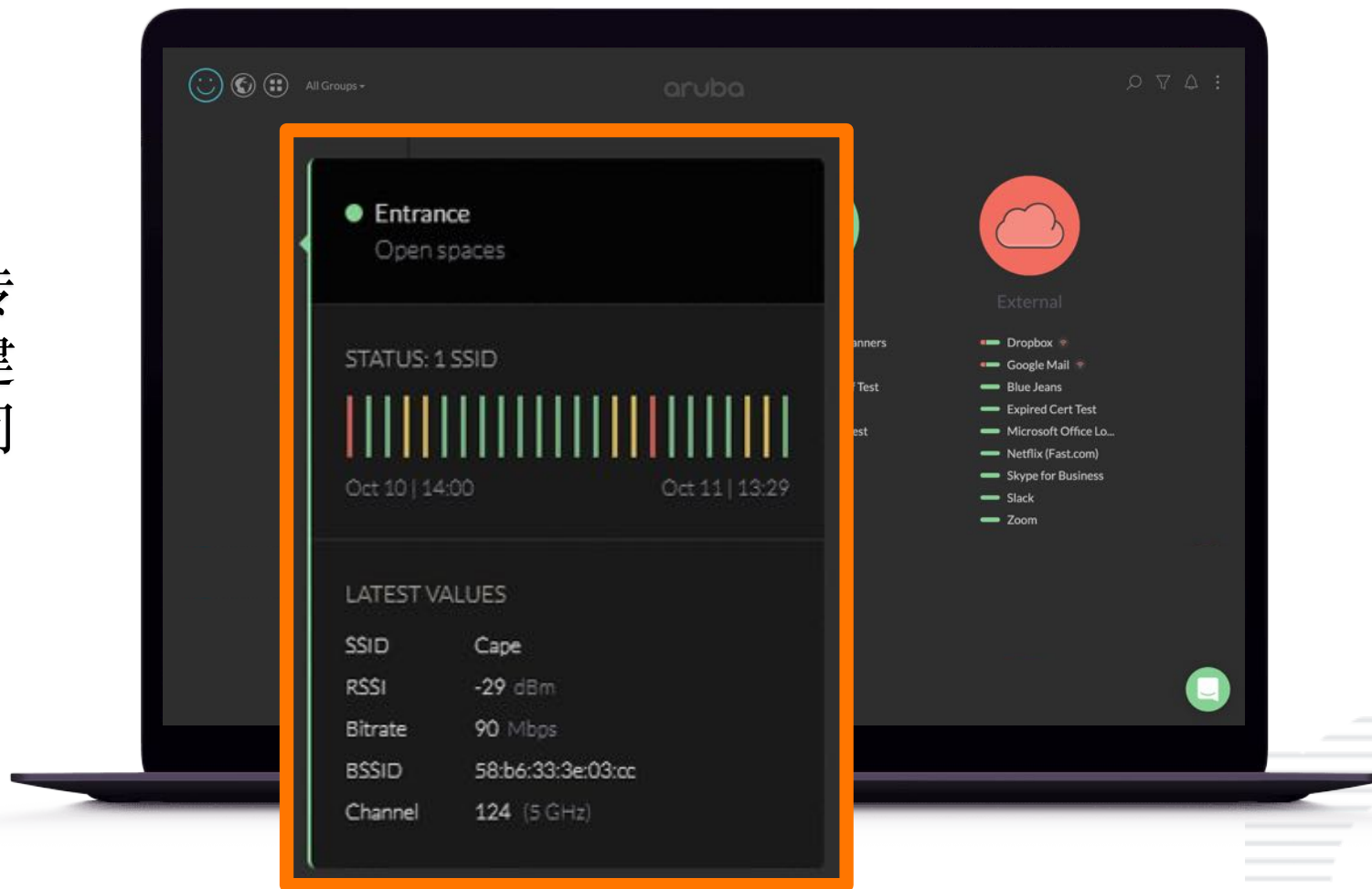
There's an issue

# 直观的实时状态



# 为任何位置带来洞察力

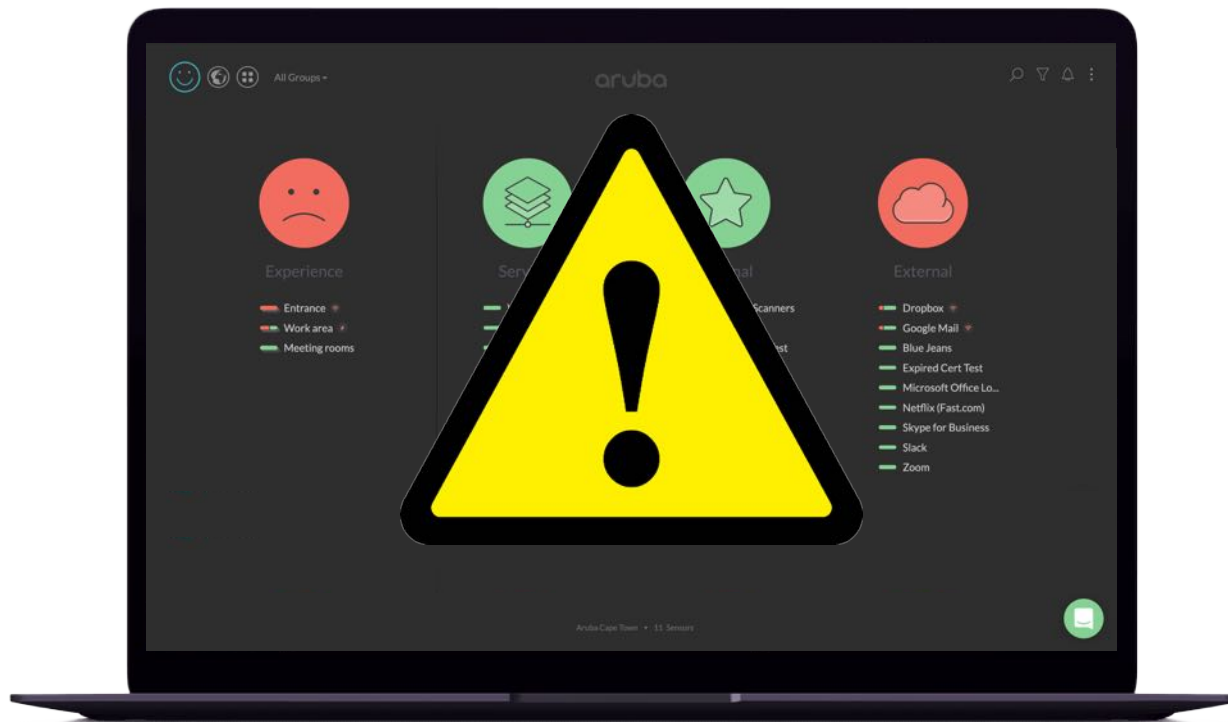
通过在您最需要的地方安装传感器，快速识别每个站点、建筑、楼层或通道的位置特定问题



# AI 告警

利用机器学习解决需要立即关注的关键问题。

警报可以触发事件到ServiceNow和Slack



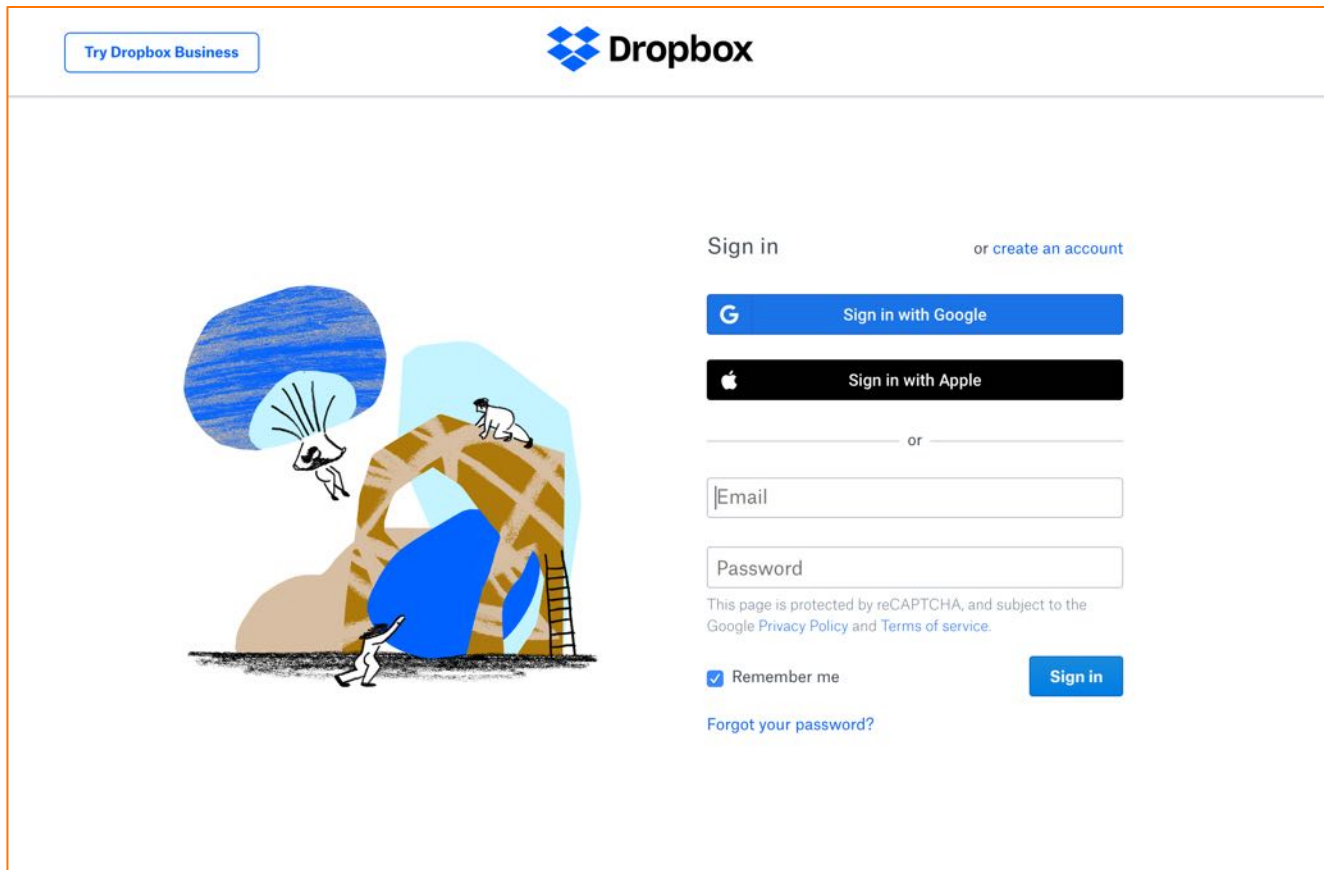
# 增强的应用测试

## Web应用测试:

使用网络中的每个站点的传感器记录和执行自定义的web应用程序测试

## Dropbox 个性化测试:

使用API自动登录到Dropbox，并测试服务的上传和下载运行状况

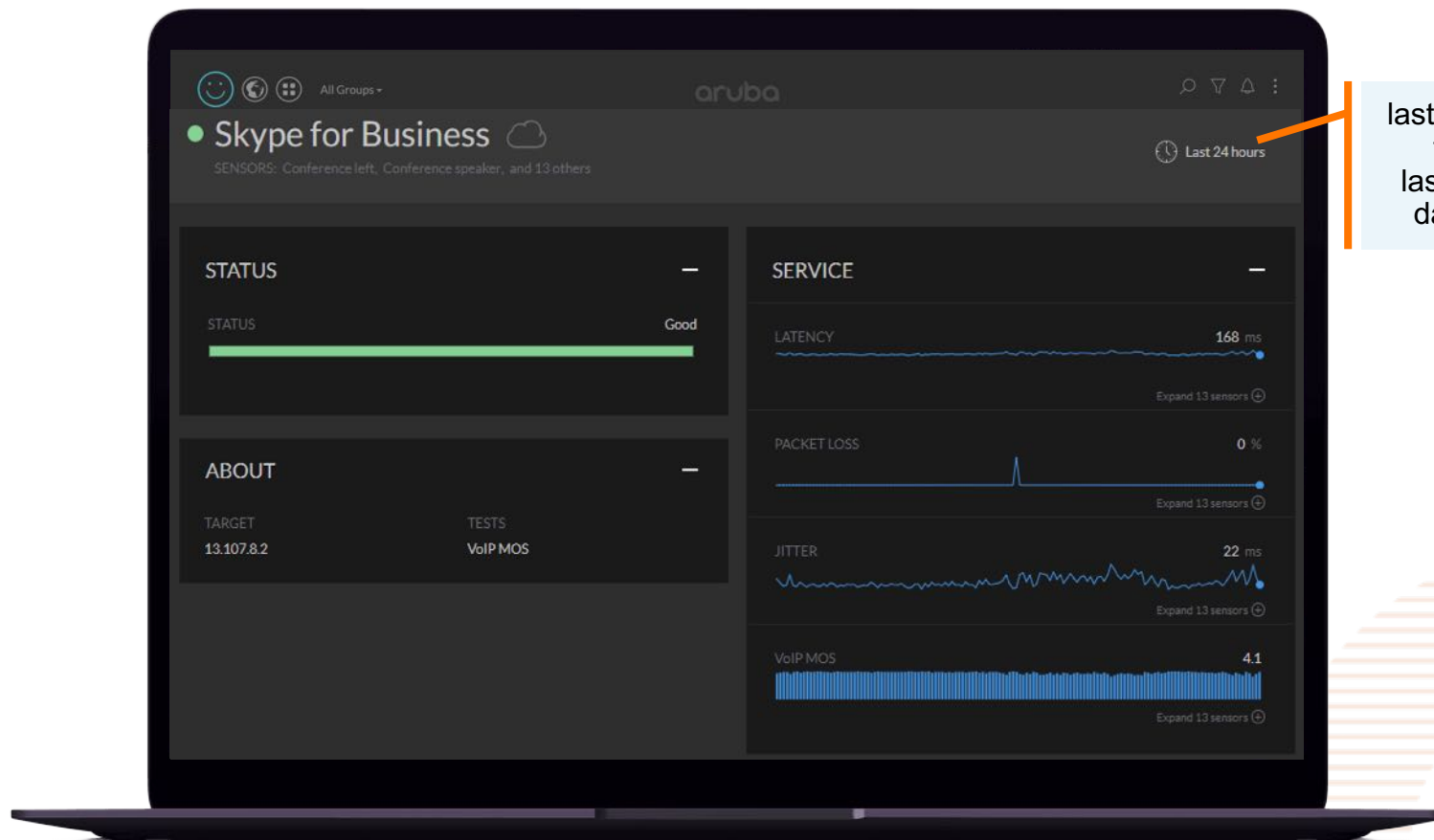




# 服务质量洞察力

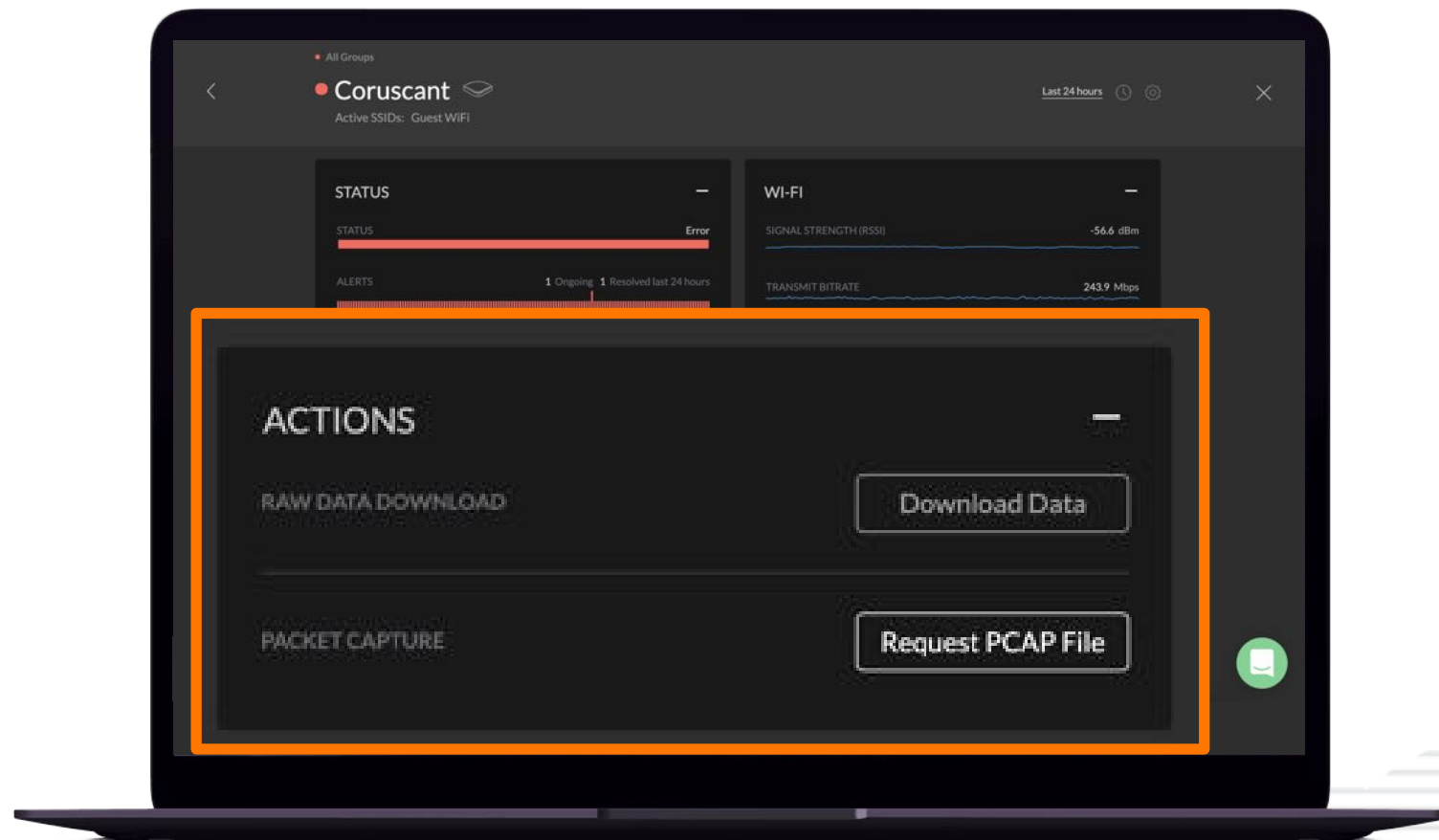
使用以下方法及时解决或验证云计算和UCC服务的性能问题:

- 可下载的根本原因分析
- 动态抓包



# 动态抓包(DPCAP)

当检测到问题时，数据包捕获被动态上传—或者按需运行



# 自动故障排错

通过丰富的诊断信息快速远程排错

Internal service is unavailable

**Resolved** 04:04 to 04:04 (a few seconds)  
SSID: Guest WiFi 5GH  
SENSOR: Desks 1 - window

**Test** Host: chrome.google.com  
Port: 80  
Type: ServiceAvailability

**Analysis**

INTERFACE	SECONDS	STATUS	MESSAGE	TASK	TARGET	
WiFi	0.0	✓	WiFi is associated	WiFi association		
	0.2	ⓘ	Detailed DHCP lease information	DHCP lease		+
	0.2	✓	Gateway is reachable	Gateway	10.12.6.1	+
	2.3	✓	Nameserver is operating normally	Service on default DNS		+
	3.7	✓	Successfully connected to an external host	External connectivity		
	3.7	⚠	No response from host	Host, ICMP Ping	chrome.google.com	+
	7.1	✓	Host is responding to pings	Host, TCP Ping port 80	chrome.google.com	+
	9.4	⚠	Service is unavailable	Test errors		
Ethernet	9.4	✓	Ethernet is connected and up	Interface status		+
	9.5	ⓘ	Detailed DHCP lease information	DHCP lease		+
	9.5	✓	Gateway is reachable	Gateway	10.12.4.1	+
	11.6	✓	Nameserver is operating normally	Service on default DNS		+
	13.2	✓	Successfully connected to an external host	External connectivity		
	13.2	✗	High packet loss to host	Host, ICMP Ping	chrome.google.com	+
	16.6	✓	Host is responding to pings	Host, TCP Ping port 80	chrome.google.com	+

ROOT CAUSE: ⚠ GOOD: ✓ ERROR: ✗ INFO: ⓘ WARNING: ⚠

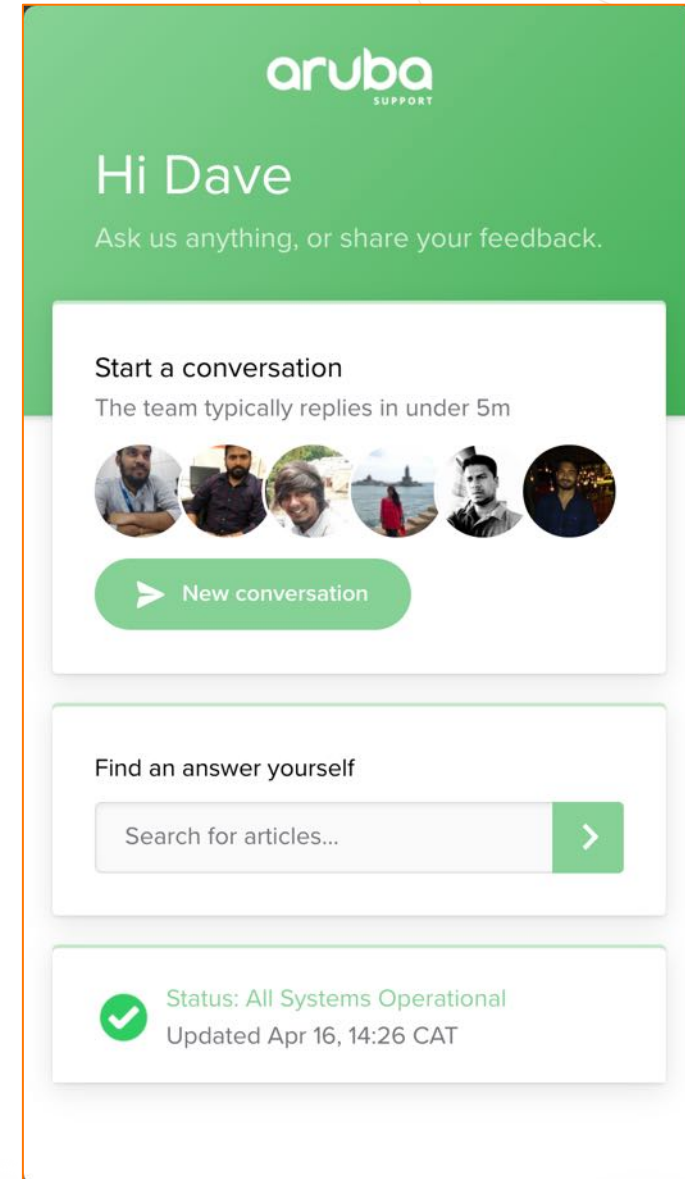
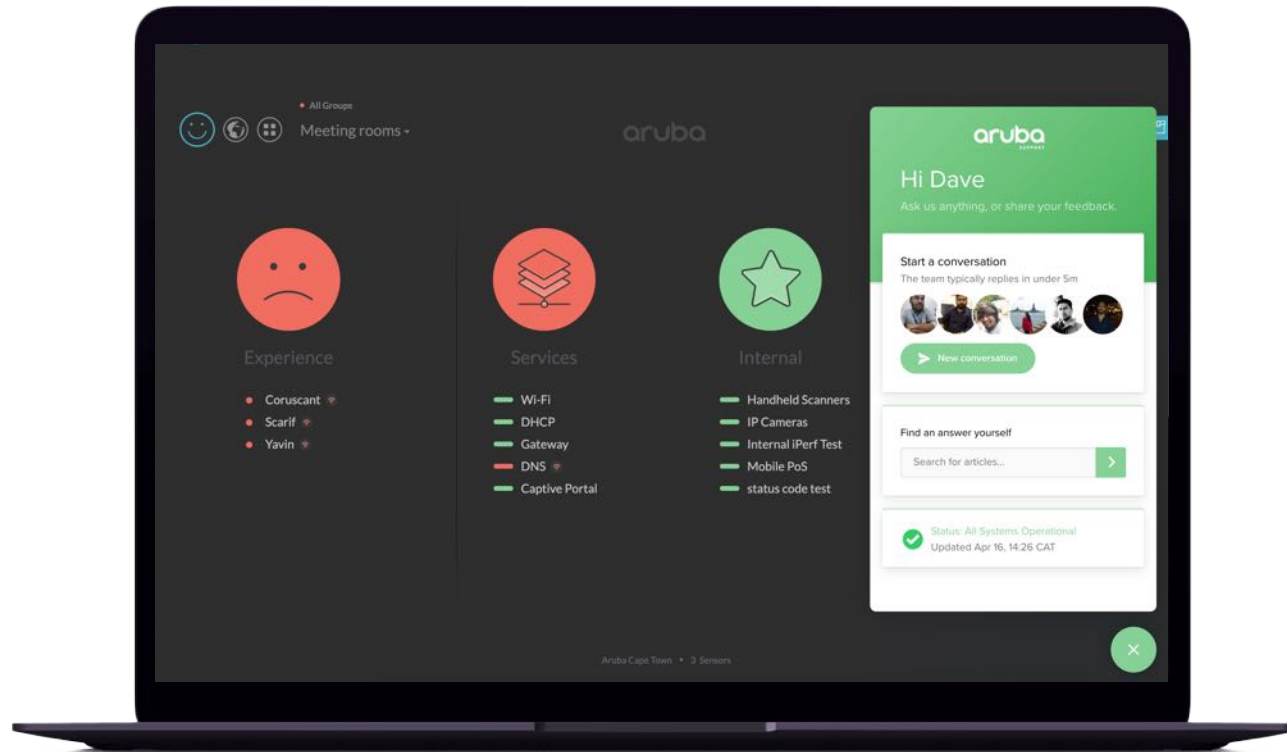
容易地识别出根本原因



# 24/7 Live Chat

## Need help?

Aruba support is available on your dashboard





# User Experience Insight

成功案例



# 确保在任何环境下的用户体验



智能数字工作场所

零售商店

大型公共场所

居家办公

制造业

教育



# 成功案例：保障多供应商网络



目标:在多供应商网络中确保良好的连接体验

- 实时比赛信息，排行榜
- Facilitate event app with a new *fan-cam* feature
- 访问电子邮件、社交媒体、流媒体等。

结果:

1. 通过持续运行专用门户测试来识别和解决配置不当的ap。
2. 解决了网站页面加载缓慢的问题。
3. 启用了变通方法，以避免由于不正确配置的短保护间隔率和DNS延迟导致的性能下降。
4. 帮助调试由于Cisco bug导致的停止DHCP的AP



# 总结

- 通过持续测试和主动报警，改善网络上的用户和应用程序体验
- 减少解决问题的时间，提高业务效率，节省时间和金钱
- 简化IT团队的工作，增加可信性(平均解决问题时间)和工作满意度
  - 非常适合验证应用程序、基础结构、配置更改
  - **自动故障排除和根本原因分析**
    - 最大限度地减少现场排错
  - **供应商和基础设施中立**
  - **简单**: 立即取得成效; 低日常管理





# User Experience Insight

Web应用测试demo

The Aruba logo consists of the word "aruba" in a lowercase, orange, sans-serif font. The letters are closely spaced and have a modern, clean appearance.

a Hewlett Packard  
Enterprise company

# Thank you

[www.arubanetworks.com](http://www.arubanetworks.com)