Case Study:
Maximizing SIP

Supermarket Chain migrates to centralized SIP Architecture
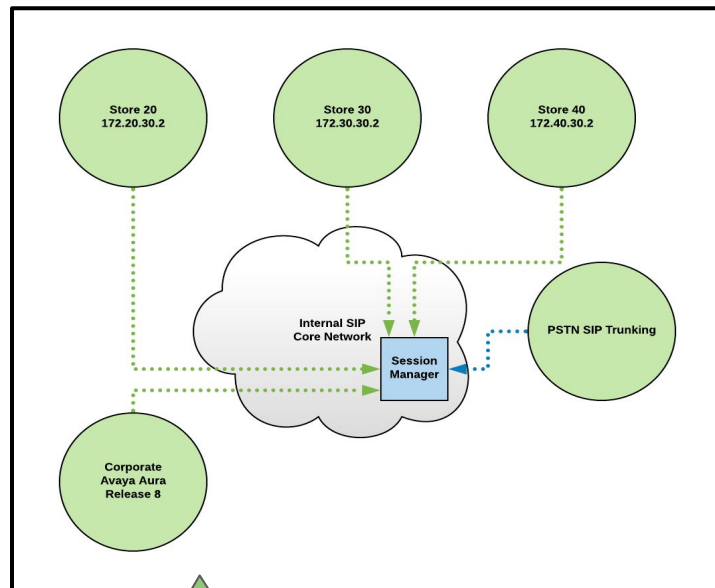

Store 20
172.20.30.2

Store 30
172.30.30.2

Store 40
172.40.30.2

Courtesy desk sees the outside calling number and can handle the call

Internal SIP Core Network

Session Manager

PSTN SIP Trunking

Inbound call
7745551050

Corporate Avaya Aura Release 8

Session manager converts our number and sends it to the courtesy desk
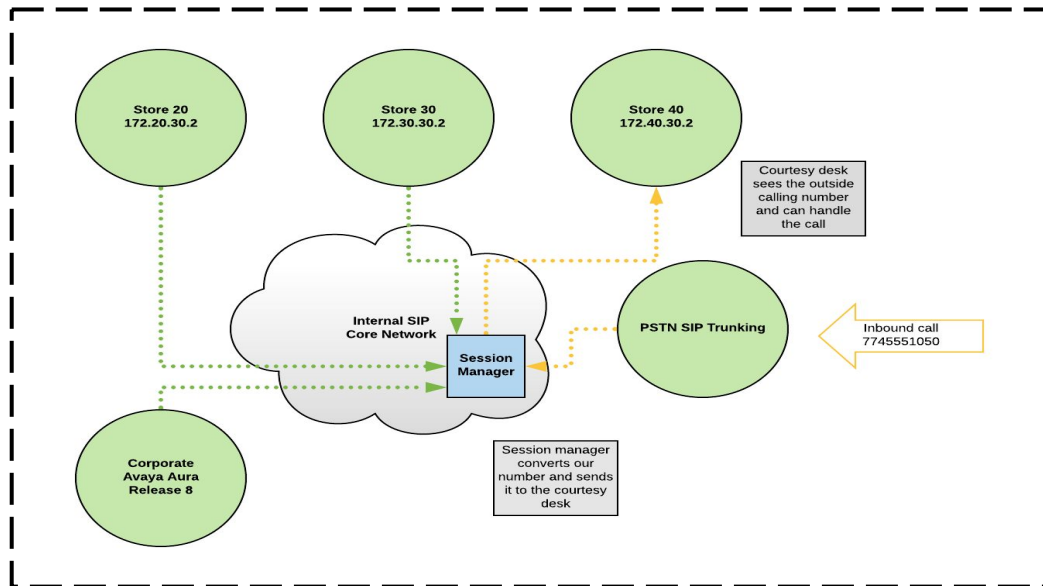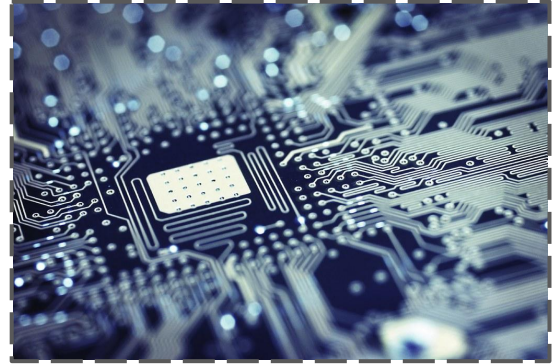
Lowering recurring costs, increasing resiliency and easing management

Power of Session Manager

A large retailer with over 80 stores wanted to unify their phone systems and enable communications between their stores and corporate headquarters. The customer approached intlx Solutions to design a SIP network that would accomplish the customers' goals.

Working with the customer, intlx Solutions was able to design a solution that reduced costs, expanded features and added failover options not available on the existing design.

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172.20.30.2

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Store 40
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Internal SIP
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Corporate
Avaya Aura
Release 8

The Technical Fix: Due to the cost of re-wiring each location, an all-IP solution was not possible. Avaya IP Office gateways were deployed and licensed to support SIP trunking back to their Aura Core. **However, through SIP, this architecture could work with any PBX system that supports SIP.**

ENGINEERS SOLVING YOUR TECHNOLOGY CHALLENGES

Complex
SIP Routing

A key feature that was critical to the business was a desire to move to a centralized dialing plan for all their stores; that is, the extension for reach department (manager, bakery, etc) was consistent. The big question was how could they separate the stores when dialing. Through the power of Aura Session Manager (ASM), a solution was possible.

Digit Conversion for Outgoing Calls from SM

Add   Remove

1 Item   Filter: Enable

☐	Matching Pattern	Min	Max	Phone Context	Delete Digits	Insert Digits	Address to modify	Adaptation Data	Notes
☐	* +1555123	* 12	* 12		* 8		destination ▾		Delete leading 8 digits

Select : All, None

How it Works: Session Manager has a feature called digit conversion (above). intlx proposed naming each store starting with 001 (to allow for future growth past 100 stores) as the prefix. When someone wants to call the store manager at Store 4, they would dial 004-XXX.

Through configurations in ASM, no matter what location that call was made from, ASM routed that call to the IP Office at Store 4. Once there, the IP Office rang extension XXX on its system, connecting the caller to the store manager. With this method, **the customer was able to standardize the dial pattern for all their stores.**

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SOLUTIONS, LLC

Centralized SIP Architecture

With Session Manager networking in place, intlx Solutions proposed porting the published phone numbers of the retail stores onto the current centralized SIP trunks at the corporate headquarters locations.

Savings:

Eliminate excess POTS: ~$150 per store, per month

Monthly Savings: ~**$12,000**
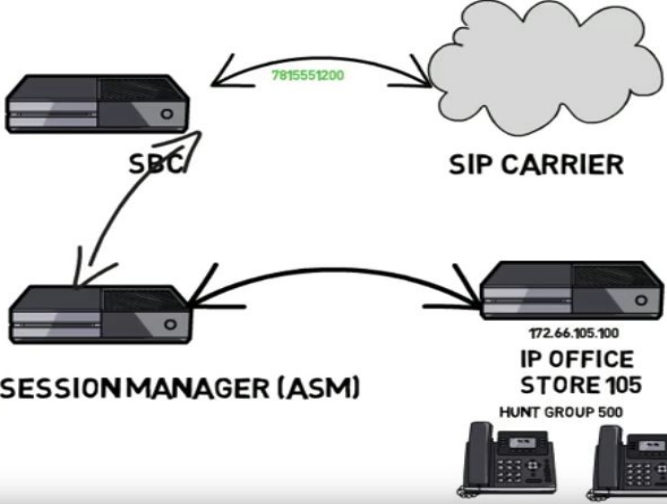Annual Savings: ~**$144,000**

```
11:44:29.713 |            |<--------Trying--------|            |           |
11:44:29.956 |            |<--------200 OK--------|            |           |
11:44:29.962 |            |--200 OK-->|            |           |
11:44:29.964 |            |<----ACK---|            |           |
11:44:29.967 |            |---------------ACK--------->|        |           |
11:44:30.406 |            |<----BYE---|            |           |
11:44:30.409 |            |----------BYE--------->|            |           |
11:44:30.431 |            |<--------200 OK--------|            |           |
11:44:30.433 |            |--200 OK-->|            |           |
11:44:30.909 |            |<---Session Progress---|            |           |
11:44:30.915 |            |--Session->|            |           |
11:44:31.141 |            |<--------200 OK--------|            |           |
11:44:31.147 |            |--200 OK-->|            |           |
11:44:31.148 |            |<----ACK---|            |           |
11:44:31.151 |            |----------ACK--------->|            |           |
11:44:35.450 |            |<--INVITE--|            |           |
11:44:35.452 |            |--Trying-->|            |           |
11:44:35,453 |            Remote host is trusted
11:44:35,454 |            Applied ingress Adaptation
11:44:35,454 |            Originating Location found
11:44:35,454 |            Try routing to determine if emergency call
11:44:35,454 |            Request Dial Pattern route
11:44:35,454 |            Dial Pattern route parameters
11:44:35,454 |            Dial Pattern route parameters
```

Via ASM, all incoming calls could be routed over the customers' intranet to the correct store and all outgoing caller IDs were manipulated for caller ID purposes (top right) when outbounds calls are made from each store. This eliminated the need for analog lines at each store.

ENGINEERS SOLVING YOUR TECHNOLOGY CHALLENGES

Watch a short [video] on how adaptations work in Session Manager

About intlx Solutions

Founded by engineers, intlx Solutions strives to provide only highly skilled engineers who truly understand the technology surrounding unified communications while specializing in the Avaya Aura product set. Our mission is to consult and guide customers by aligning business objectives with the right solution to maximize technology as a driving force within the business.