Wireshark Developer and User Conference

Using Wireshark with the CloudShark Plug-in

Monday June 25th 2012

Joe McEachern
CEO and Founder | CloudShark

Zach Chadwick
Lead Developer | CloudShark

WARNING: This presentation may be interactive! Start packet surfing right from your seat!

@cloudshark

https://surf.cloudshark.org
User: **sharkfest**
Password: **sharkfest**

SHARKFEST '12
UC Berkeley
June 24-27, 2012

Act One: The Evolution of CloudShark

"We're going to need a bigger boat!"
-- Jaws, 1975

In the Beginning …

It all started at QA Cafe in Portsmouth, New Hampshire, USA …

qa | cafe
ip test solutions

… We develop CDRouter for testing CPE devices (aka gateways, routers, edge devices).

CDRouter

… Our test software has probably been used to test the router in your home.

… Lots of packets, lots of Wireshark

Act One: The CloudShark Story

The CloudShark TimeLine

2010	2011	2012
• QA Cafe developed technology to view packets in the web • We called it "inline packet decode" Sexy! • We wanted to make this capability available to a wider audience • Launched free CloudShark.org	• What about security in the cloud? • "Pushing packets to the cloud is a dumb idea!" • Okay, here is the CloudShark appliance. Deploy it in your own network!	• Still using Wireshark to create captures. • Let's make it easier to send your capture files from Wireshark to CloudShark • Released a GPL Wireshark plug-in that makes it easier to send captures to CloudShark

Act Two: Quick Tour of CloudShark

"You got any better suggestions"
-- Jaws, 1975

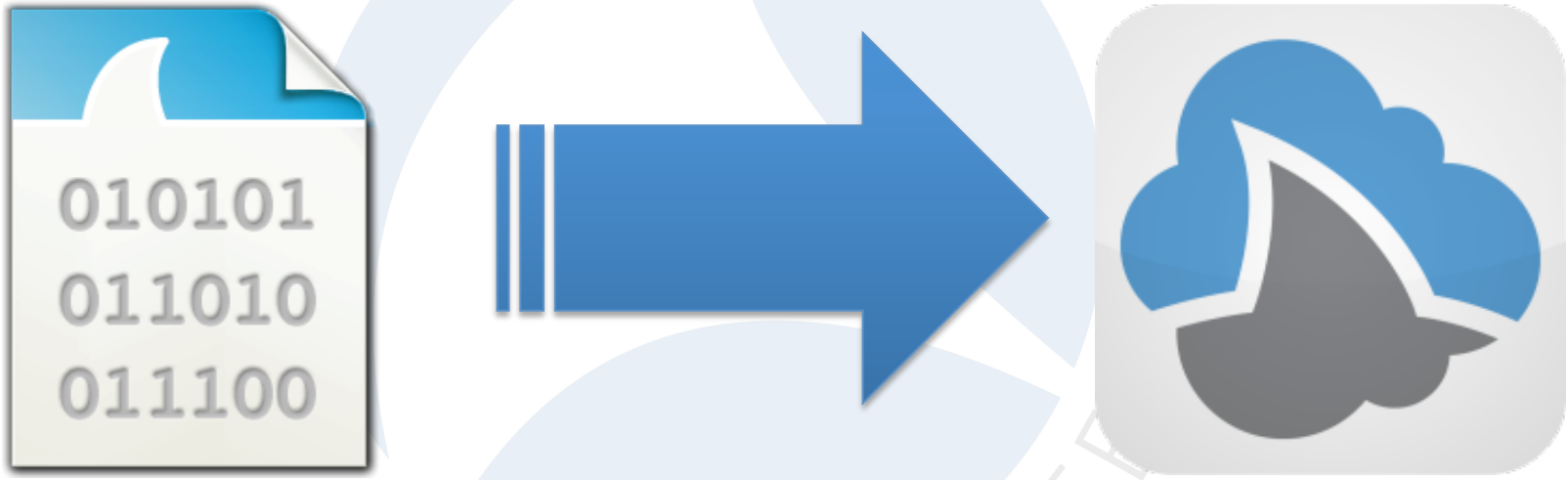
Why CloudShark?

- How things were done B.C.
- “Before CloudShark”

Why CloudShark?

- “Hey can you look at something?”
- Sticky Fingers
- BLT not TCP
- SneakerNet

Why CloudShark?

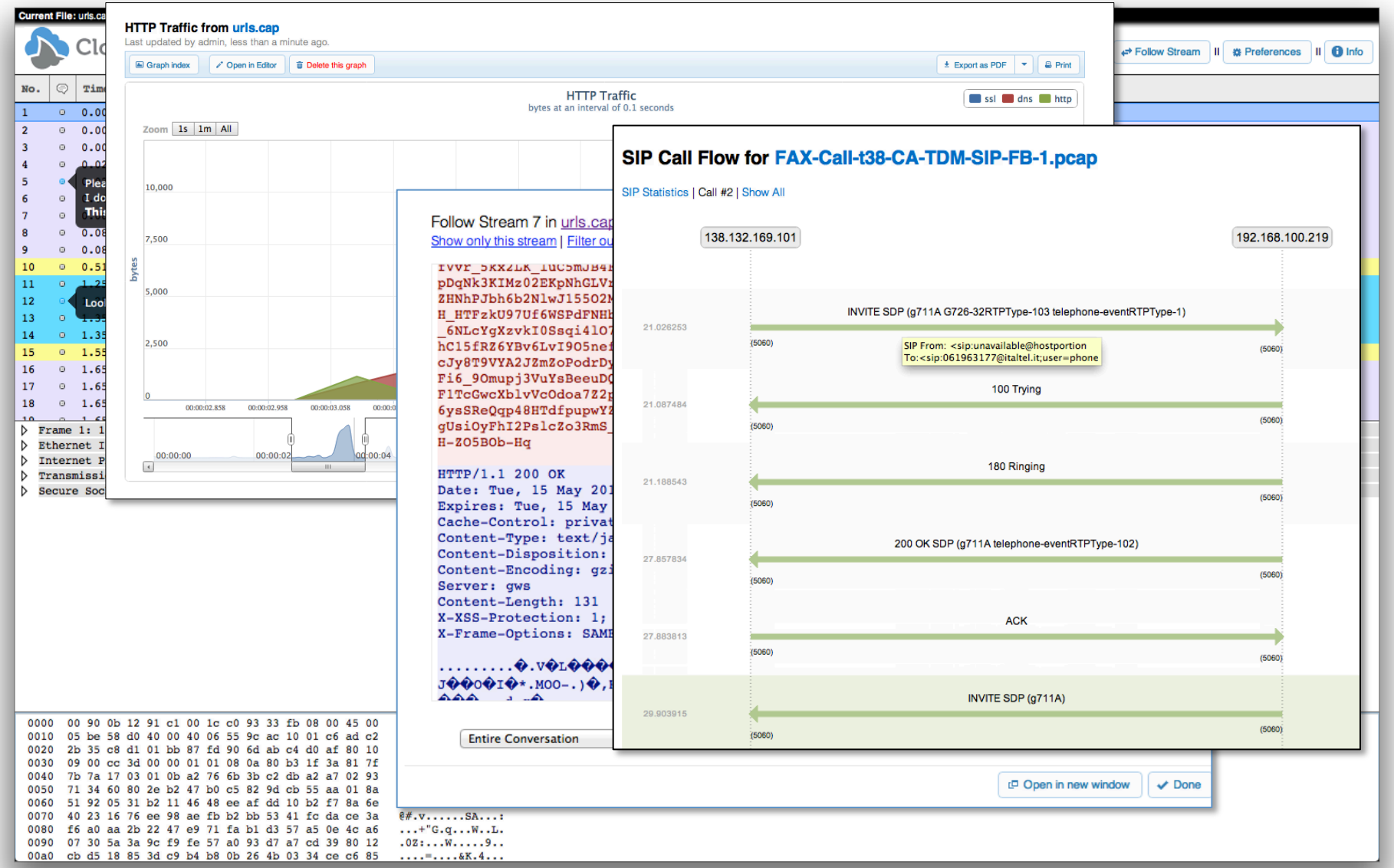


https://www.cloudshark.org/captures/f62e1db77ba0

Why CloudShark?

- Store
- View
- Analyze
- Annotate
- Share

Why CloudShark?

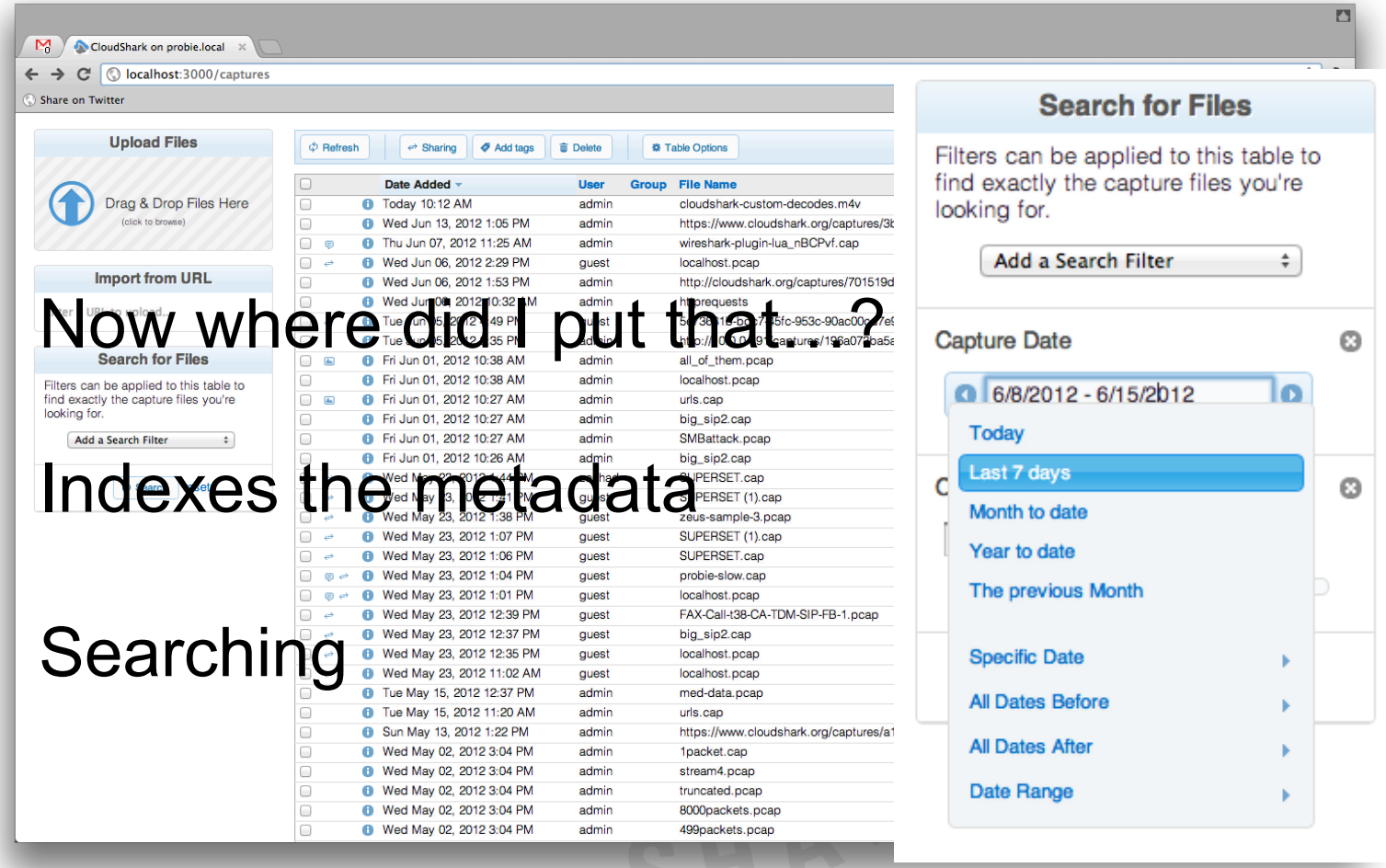


Why CloudShark?

- Centralized storage

Why CloudShark?

- Now where did I put that…?
- Indexes the metadata
- Searching



Quick Demo

Start packet surfing right from your seat!


@cloudshark


https://surf.cloudshark.org
User: **sharkfest**
Password: **sharkfest**

Why CloudShark?

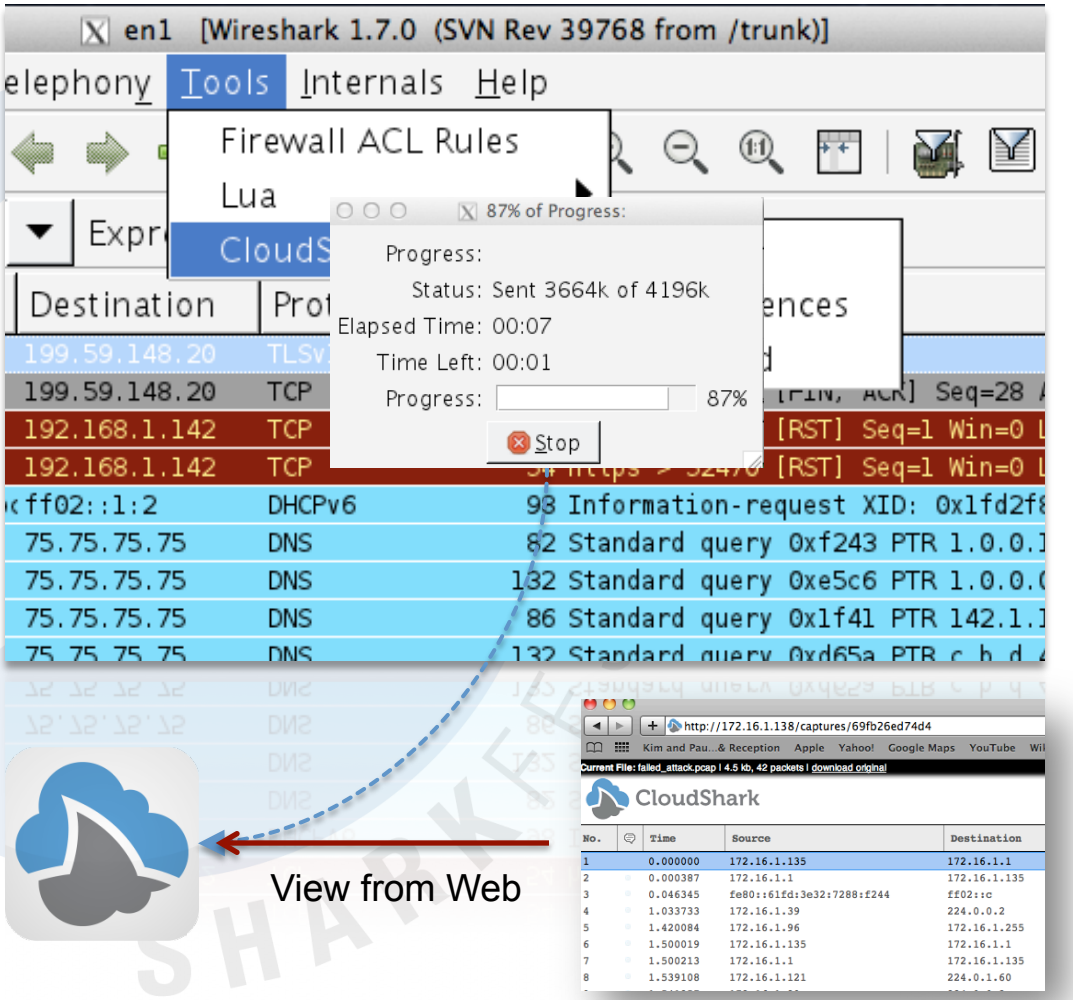
- How do we make this even easier?
- It's plugin time!

Act Three: Getting Started with the Plugin

"That's some bad hat Harry"
-- Jaws, 1975

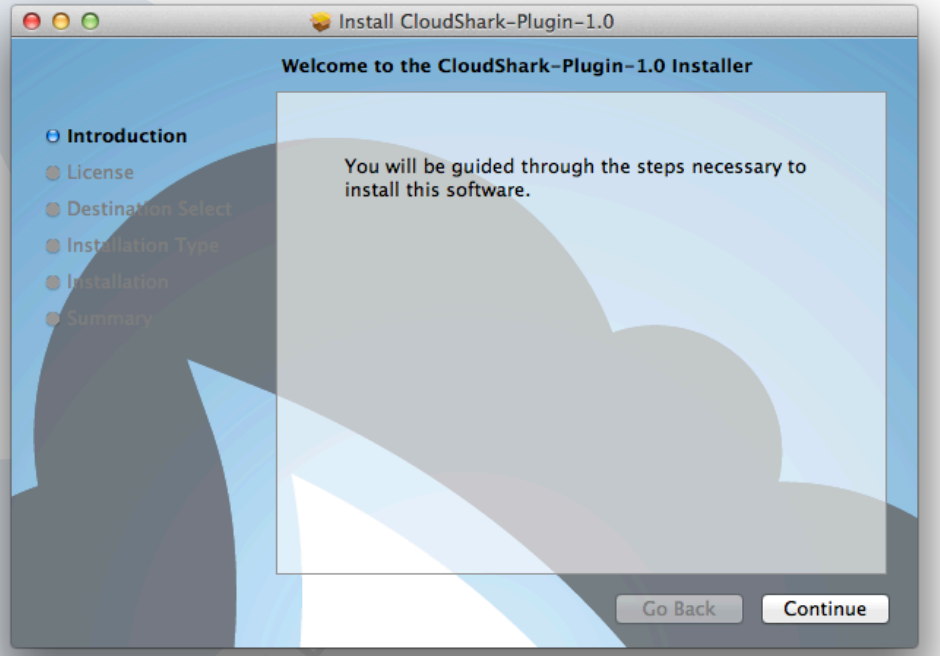
Wireshark Plug-in

- The plug-in uses Wireshark's Lua plug-in interface.
- Once installed, the Tools menu is extended with a new CloudShark option.
- Use the Upload option to push the current capture file to CloudShark.
- Wireshark opens the default browser with a CloudShark session URL.



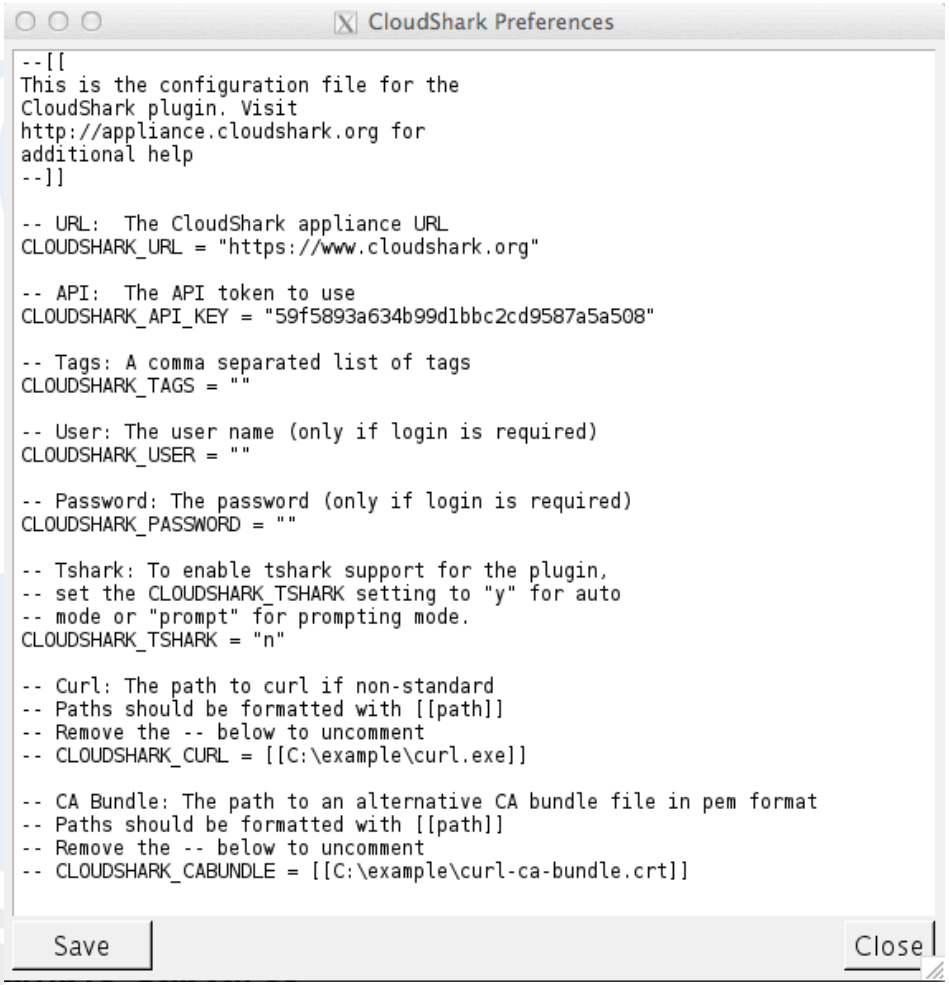
Installation

- Download free installer from cloudshark.org. Latest version is 1.0.1.
- Installers available for Windows, OSX, and generic unix (*.tgz).
- Installed under user's Wireshark plugins directory (platform specific).
- Simply restart Wireshark and plug-in is detected automatically.



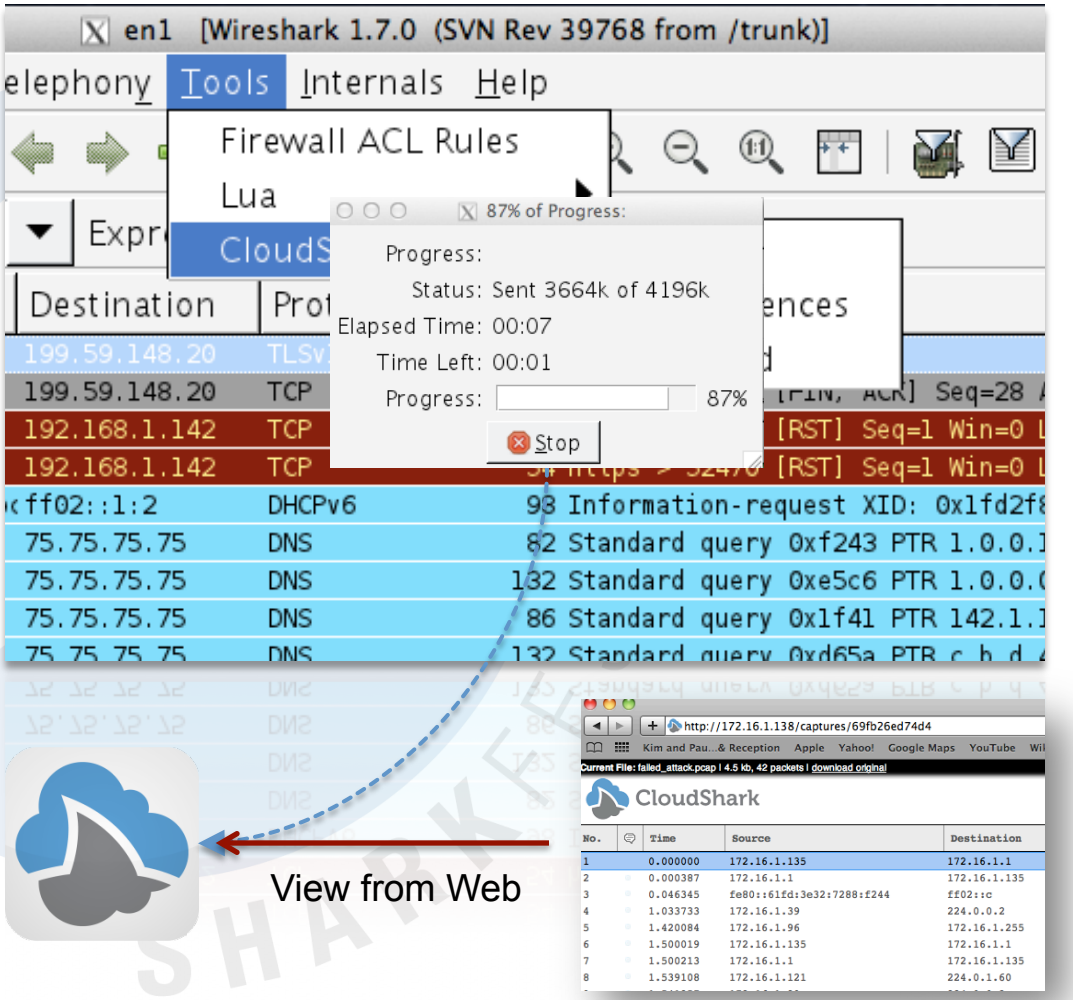
Configuration

- Text based configuration available from CloudShark menu
- Configure CloudShark URL to CloudShark.org or your own appliance
- Setup API key, user, password
- Setup additional tags
- Certificate configuration for curl



Wireshark Plug-in

- Works with live capture or stopped/ loaded capture.
- Upload sends capture to CloudShark web API using https POST.
- Plug-in checks response and determines CloudShark session URL.



Live Plug-in Examples

Start surfing now. Sample captures will be uploaded to surf.cloudshark.org.


@cloudshark

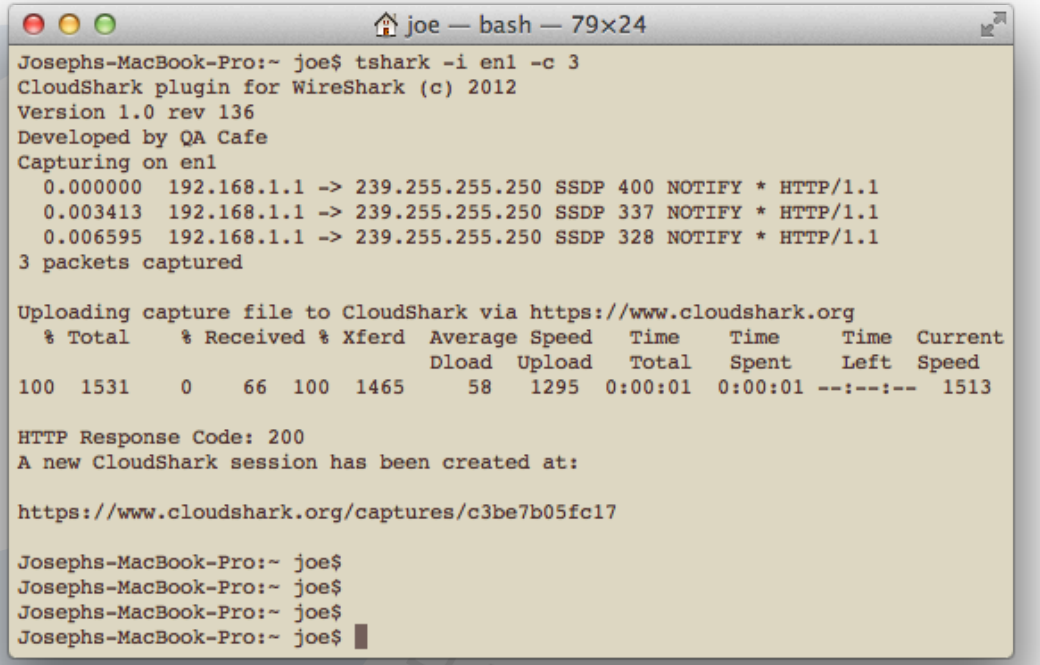

https://surf.cloudshark.org
User: sharkfest
Password: sharkfest

Act Four: Using the Plug-in with tshark

"This was no boat accident"
-- Jaws, 1975

Using the Plug-In with tshark

- User interface challenge
- Off by default
- Can enable automatic uploads or prompting through Cloudshark preferences file
- Great for scripting and automation tools
- CloudShark session URL displayed in tshark output



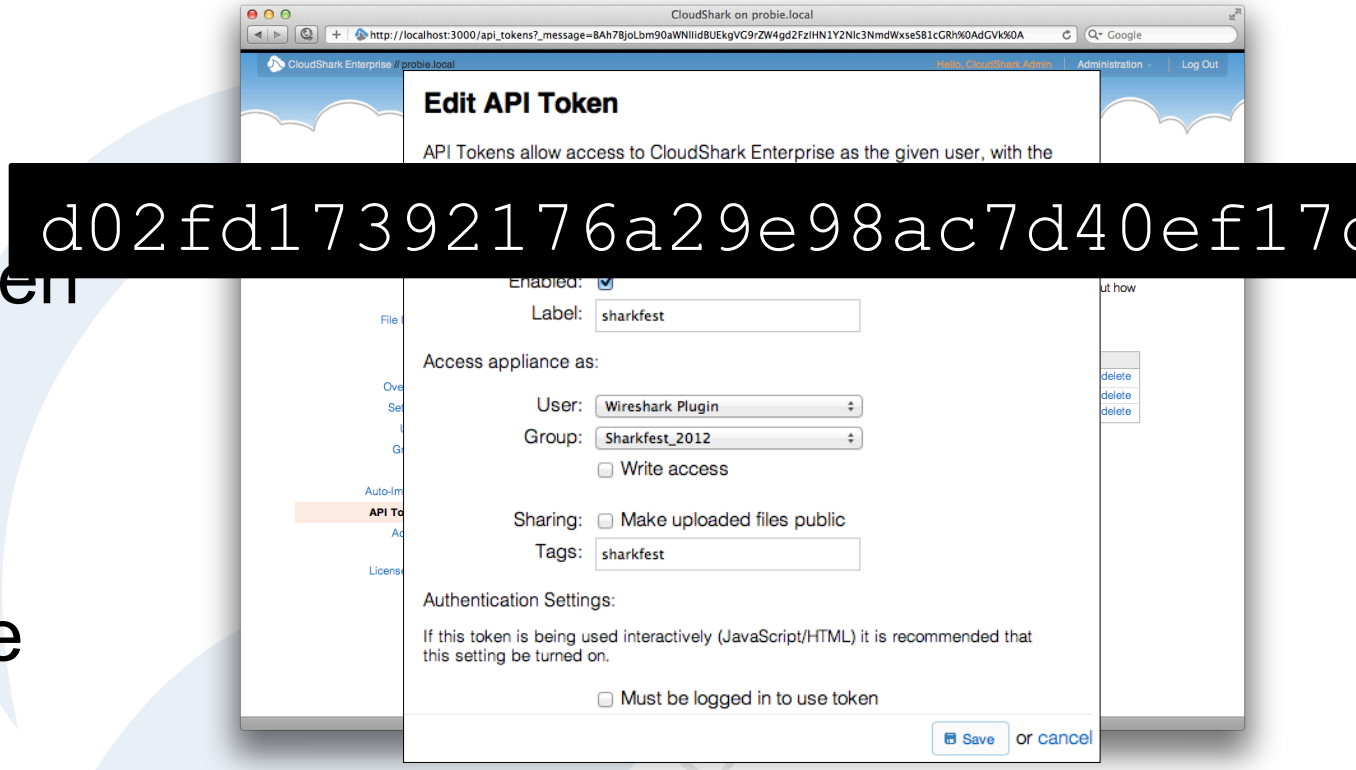
Live Tshark Examples

Act Five: Setting up for the Plug-in

"Come on into the water."
-- Jaws, 1975

Setting up for the Plugin

1. Create Token
2. Settings
3. Copy/Paste

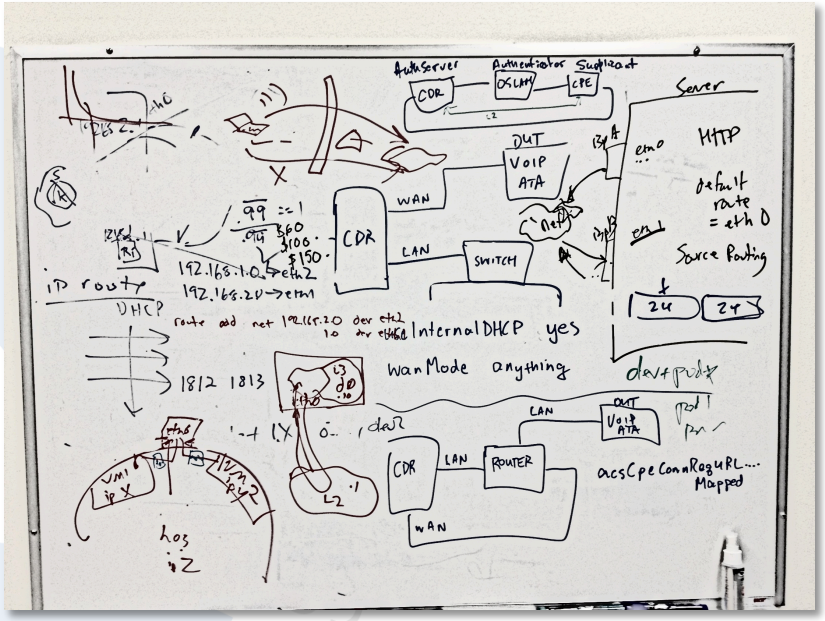


Act Six: A quick look under the hood

This shark, swallow you whole.
-- Jaws, 1975

A Look Under the Hood

- Lua provides cross platform support
- How do you get Wireshark to speak web? Use combination of Curl and Lua JSON library.
- Not many Wireshark GUI controls available through Lua – but enough!
- Support tshark by detecting GUI.
- Go deeper in Wednesday's Sharkfest session.



Act Seven: Lessons Learned

What we have here is a eating machine.
-- Jaws, 1975

Lessons Learned: Uploads

- No signups
- No logins
- No limit to imagination

  of uploads!

Lessons Learned: Uploads

- MP3
- MPEG
- JPEG
- Historical reasons for support?

Lessons Learned: Uploads

- Exploits
- Denial Of Serivce
- Sandbox

Lessons Learned: Mobile

- “Out of the office”

*standard data and messaging rates may apply

Lessons Learned: Data Size

- Bandwidth issues
- Too much data
- Information without all the data
- Caching

Lessons Learned: Community

- Great community
- PacketLife.org
- ask.wireshark.org
- SharkFest!

Act Eight: Wrapping up

Any special questions?
-- Jaws, 1975

Wrapping up

- Learn to packet surf today! Download the plugin now from cloudshark.org
- Login to https://surf.cloudshark.org

  `user:sharkfest`

  `password:sharkfest`
- Try out our capture challenge for Sharkfest attendees!

  http://bit.ly/sharkfest-2012
- Come back for Wednesday's 11:00 session

  "Using Lua to implement the Wireshark Plug-in"

Have a great Sharkfest!